



NORTHERN NEW SOUTH WALES LOCAL HEALTH DISTRICT

# HEALTH CARE SERVICES PLAN

2013 – 2018

HEALTH SERVICES

VOLUME I

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# FORWARD

In January 2011, Local Health Networks were established as part of National Health Reform. The NSW health system as a whole was later restructured to reflect the policy changes of the NSW Government. The Local Health Networks became the Local Health Districts (LHDs) and the NSW Department of Health became the NSW Ministry of Health.

Northern NSW Local Health District (NNSW LHD) came into being in January 2012 with the first NNSW LHD Board being appointed. The NNSW LHD Board has now been tasked with completion of the first Health Care Services Plan for the LHD which is intended to enable NNSW LHD to align service delivery with needs analysis and State and Commonwealth Plans and Policies.

The Health Care Services Plan is a high level document which has a five year time frame. Development of a Health Care Services Plan for the LHD presents an opportunity to plan for services which meet the needs of a growing and ageing population. Additionally new and emerging models of care identified in the Plan will provide a platform for future service development.

The Plan emphasises partnerships with other healthcare providers with a strong focus on networking and the provision of patient centred care which supports the patient journey across the care continuum.

The Plan has been informed by key stakeholders, including Managers, Clinicians, non-government organisations and members of NNSW LHD Executive through a comprehensive consultation process. The consultation process included oversight by a steering committee Chaired by myself as a member of the NNSW LHD Board and co-chaired by Dr Ian Fielding, Executive Director Medical Services.

We would like to express our gratitude to the staff of NNSW LHD, staff from other organisations and Visiting Medical Officers (VMOs) who generously gave of their time to participate in the development of the Plan. We would also like to thank members of the Health Care Services Plan Steering Committee for their commitment to the planning process and to acknowledge the work of the Planning Team in facilitating and developing this document.



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Chair NNSW LHD

Health Care Services Plan Steering Committee



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# ACRONYMS

<b>AARCS</b>	Acute to Aged Related Care Service
<b>ABF</b>	Activity Based Funding
<b>ABS</b>	Australian Bureau of Statistics
<b>ACAT</b>	Aged Care Assessment Team
<b>ACCR</b>	Aged Care Client Record
<b>ACHS</b>	Australian Council on Healthcare Standards
<b>ACON</b>	Aids Council of New South Wales
<b>ACI</b>	Agency for Clinical Innovation
<b>ACSC</b>	Ambulatory Care Sensitive Condition
<b>ADHC</b>	Ageing, Disability and Home Care
<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>AHSSQA</b>	Australian Health Service Safety and Quality Accreditation Scheme
<b>AIHW</b>	Australian Institute of Health and Welfare
<b>aIM</b>	Acute Inpatient Modelling Tool
<b>ALOS</b>	Average Length of Stay
<b>AMIHP</b>	Aboriginal Maternal and Infant Health Program
<b>AMRS</b>	Aeromedical and Medical Retrieval services
<b>AMS</b>	Aboriginal Medical Service
<b>ASET</b>	Aged Services Emergency Team
<b>ATSI</b>	Aboriginal & Torres Strait Islander
<b>BBV</b>	Blood Borne Virus
<b>BIS</b>	BreastScreen Information System
<b>BIPAP</b>	Bi-Level Positive Air Pressure
<b>BHI</b>	Bureau of Health Information

<b>BMI</b>	Body Mass Index
<b>CACP</b>	Community Aged Care Packages
<b>CAIPU</b>	Child and Adolescent Inpatient Unit
<b>CAMHU</b>	Child and Adolescent Mental Health Unit
<b>CAPAC</b>	Community Acute/Post Acute Care
<b>CASPA</b>	Child and Adolescent Special Programs and Accommodation
<b>CBD</b>	Central Business District
<b>CCC ED</b>	Connecting Critical Care Emergency Department
<b>CCU</b>	Coronary Care Unit
<b>CDAT</b>	Community Drug Action Team
<b>CEC</b>	Clinical Excellence Commission
<b>CHEGS</b>	Community Health Education Groups
<b>CLAB</b>	Central Line Associated Bloodstream
<b>CMO</b>	Career Medical Officer
<b>COAG</b>	Council of Australian Governments
<b>ComPacks</b>	Community Packages
<b>COPD</b>	Chronic Obstructive Pulmonary Disease
<b>CPAP</b>	Continuous Positive Airway Pressure
<b>CRCC</b>	Commonwealth Respite and Carelink Centres
<b>CSSD</b>	Central Sterile Supply Department
<b>CT</b>	Computerised Tomography (CT scan)
<b>CVAD</b>	Central vascular access device
<b>CWTD</b>	Cost Weighted Separations- Discounted
<b>CWTU</b>	Cost Weighted Separations -Undiscounted
<b>DoH</b>	Department Of Health
<b>DOS</b>	Dementia Outreach Service
<b>DRG</b>	Diagnostic Related Group

<b>DVA</b>	Commonwealth Department Of Veterans Affairs
<b>EACH</b>	Extended Aged Care in the Home
<b>ECCC</b>	Express Community Care Centre
<b>EDT</b>	Estimated Driving Time
<b>ED</b>	Emergency Department
<b>EDIS</b>	Emergency Department Information System
<b>EDT</b>	Estimated Driving Time
<b>EMQ</b>	Emergency Management Queensland
<b>eMR</b>	electronic Medical Record
<b>EMU</b>	Emergency Medicine Unit
<b>EMET</b>	Emergency Medicine Education Training
<b>ENT</b>	Ear, Nose & Throat
<b>EQulP</b>	Evaluation and Quality Improvement Program
<b>ESRG</b>	Enhanced Service Related Groups
<b>FACEM</b>	Fellow of the Australasian College of Emergency Medicine
<b>FACS</b>	Family and Community Services
<b>FLEC</b>	First Line Emergency Care
<b>FLOWINFO</b>	NSW MoH Clinical Planning Tool
<b>FWLHD</b>	Far West Local Health District
<b>FTE</b>	Full Time Equivalent
<b>GEM</b>	Geriatric Evaluation Management
<b>GI</b>	Gastro-Intestinal
<b>GP</b>	General Practitioner
<b>HACC</b>	Home and Community Care
<b>HARP</b>	HIV and Related Programs
<b>HASI</b>	Housing and Accommodation Support Initiative
<b>HCV</b>	Hepatitis C Virus

<b>HCQC</b>	Health Care Quality Committee
<b>HDU</b>	High Dependency Unit
<b>HETI</b>	Health Education and Training Institute
<b>HEWRF</b>	Health Education Workforce Research Forum
<b>HHF</b>	Health and Hospitals Fund
<b>HIE</b>	Health Information Exchange
<b>HIV</b>	Human Immunodeficiency Virus
<b>HITH</b>	Hospital in the Home model
<b>HSG</b>	Health Service Group
<b>HSFAC</b>	Health Services Functional Area Coordinator
<b>HWAN</b>	Health Wide Area Networking
<b>ICCC</b>	Integrated Cancer Care Centre
<b>ICT</b>	Information Communication and Technology
<b>ICU</b>	Intensive Care Unit
<b>ICCMU</b>	Intensive Care Clinical Monitoring Unit
<b>IIMS</b>	Incident Information Management System
<b>IMT</b>	Information Management & Technology
<b>INR</b>	International Normalised Ratio
<b>IP</b>	Internet Protocol
<b>IPT</b>	Inpatient Transport
<b>IPTAAS</b>	Isolated Patients Travel, Accommodations & Assistance Scheme
<b>ISOH</b>	Information System for Oral Health
<b>IV</b>	Intravenous
<b>JMO</b>	Junior Medical Officer
<b>KPI</b>	Key Performance Indicator
<b>LAMHU</b>	Lismore Adult Mental Health Unit
<b>LBH</b>	Lismore Base Hospital

<b>LGA</b>	Local Government Area
<b>LHD</b>	Local Health District
<b>LINAC</b>	Linnear Accelerator
<b>LoS</b>	Length of Stay
<b>MAU</b>	Medical Assessment Unit
<b>MERIT</b>	Magistrates Early Referral Into Treatment Program
<b>MH-CCP</b>	Mental Health-Clinical Care & Prevention
<b>MHLCNC</b>	Mental Health Liaison Clinical Nurse Consultant
<b>MHEC</b>	Mental Health Emergency Care Worker
<b>MHA</b>	Mental Health Act
<b>MHOAT</b>	Mental Health Outcomes Assessment Tool
<b>MHSOP</b>	Mental Health Services for Older People
<b>MNC LHD</b>	Mid North Coast Local Health District
<b>MoH</b>	Ministry of Health
<b>MO</b>	Medical Officer
<b>MOU</b>	Memorandum Of Understanding
<b>MRO</b>	Intensive Care Clinical Monitoring Unit
<b>MPS</b>	Multipurpose Service
<b>MRI</b>	Magnetic Resonance Imaging
<b>MUMs</b>	Mothers Using Methadone and other substances
<b>MVT</b>	megavoltage treatment
<b>NAPOOS</b>	Non In-Patient Occasions of Service
<b>NCAHS</b>	North Coast Area Health Service
<b>NCCI</b>	North Coast Cancer Institute
<b>NDIS</b>	National Disability Insurance Scheme
<b>NEAT</b>	National Emergency Access Target
<b>NEHRT</b>	Non-Emergency Health Related Transport

<b>NEST</b>	National Elective Surgery Target
<b>NETS</b>	Neonatal and Paediatric Emergency Transport Service
<b>NGO</b>	Non Government Organisation
<b>NHRA</b>	National Health Reform Agreement
<b>NNSW LHD</b>	Northern NSW Local Health District
<b>NP</b>	Nurse Practitioner
<b>NSQHS</b>	National Safety and Quality Health Standards
<b>NSP</b>	Needle Syringe Program
<b>NSTEMI</b>	non ST elevation myocardial infarction
<b>NSW</b>	New South Wales
<b>NUM</b>	Nursing Unit Manager
<b>NWAU</b>	National Weighted Activity Unit
<b>OATSIH</b>	Office of Aboriginal and Torres Strait Islander Health
<b>OH&amp;S</b>	Occupation Health & Safety
<b>PAS</b>	Patient Administration System
<b>PACS</b>	Post-Acute Care Services
<b>PaLMS</b>	Pacific Laboratory Medicine Service
<b>PAS</b>	Patient Administration System
<b>PBS</b>	Pharmaceutical Benefits Scheme
<b>PCEHR</b>	Person Controlled Electronic Health Record
<b>PCI</b>	Percutaneous Coronary Intervention
<b>PEP</b>	Post Exposure Prophylaxis
<b>PEG</b>	Percutaneous Endoscopic Gastrostomy
<b>PET</b>	Positron Emission Tomography
<b>PHCO</b>	Primary Health Care Organisations
<b>PhD</b>	Doctor of Philosophy
<b>PHPP</b>	Population Health, Planning & Performance



<b>PIPs</b>	Practice Incentive Programs
<b>PICC</b>	PICC line
<b>PN-NNSW</b>	Pathology North-Northern NSW
<b>QLD</b>	Queensland
<b>RACF</b>	Residential Aged Care Facilities
<b>RCA</b>	Route Cause Analysis
<b>RDA</b>	Rural Doctors Agreement
<b>RIS</b>	Radiation Information System
<b>RRISK</b>	Reduce Risk Increase Student Knowledge
<b>SCDMP</b>	Severe Chronic Disease Management Program
<b>SCN</b>	Special Care Nursery
<b>SEIFA</b>	Socio-Economic Indexes for Areas
<b>SHAIDS</b>	Sexual Health and Aids Service
<b>SIAM</b>	Sub-acute Inpatient Modelling
<b>SLA</b>	Statistical Local Area
<b>SMHSOP</b>	Specialist Mental Health Service for Older People
<b>SRG</b>	Service Related Group
<b>SSA</b>	Site Specific Assessment
<b>STEMI</b>	ST elevation myocardial infarction
<b>StEPS</b>	Statewide Eyesight Preschoolers Screening
<b>STI</b>	Sexually Transmitted Infections
<b>SWIS</b>	State Wide Infrastructure Services
<b>SWISH</b>	State Wide Infant Screening - Hearing
<b>TACS</b>	Transitional Aged Care Service
<b>TFR</b>	Total Fertility Rate
<b>TOE</b>	Transoesophageal Echocardiograph
<b>TPN</b>	Total Parenteral Nutrition

<b>TIM</b>	Trauma Injury Management
<b>TTH</b>	The Tweed Hospital
<b>USB</b>	Universal Serial Bus
<b>VMO</b>	Visiting Medical Officer
<b>VoIP</b>	Voice Over Internet Protocol
<b>WHO</b>	World Health Organisation
<b>YTD</b>	Year to date

1

## EXECUTIVE SUMMARY

The NNSW LHD Health Care Services Plan 2013-2018 is the highest level clinical service planning document for the LHD. It outlines future directions for clinical service development and key priorities that need to be implemented over the next 5 years.

Development of the NNSW LHD Health Care Services Plan has involved a comprehensive needs analysis including the development of an epidemiological profile of the health needs of the population served by NNSW LHD, the review of activity data and projections of hospital activity to 2016/17 and 2021/22, an extensive consultation process with NNSW LHD clinicians, service providers and key stakeholders including NGOs, other government agencies, Aboriginal community controlled organisations and community representatives.

The comprehensive epidemiological profile of the NNSW LHD population is presented as a separate Volume Two of the NNSW LHD Health Care Services Plan. Volume One focuses on the health services provided by NNSW LHD. This volume describes the policy and planning context for the development of the NNSW LHD Health Care Services Plan, provides an overview of the current services in NNSW LHD and their current and projected activity levels. The description of NNSW LHD services covers the two Health Service Groups; Tweed Byron and Richmond Clarence, the various hospital facilities, LHD-wide clinical streams and networks, population health services and service enablers such as workforce, teaching and research and clinical governance structures.

The NNSW LHD Health Care Services Plan 2013-2018 is informed by, and sits below, the NSW State Plan and NNSW LHD Strategic Plan in articulating high level strategic directions for the NNSW LHD. In turn, the NNSW LHD Health Care Services Plan as the highest level clinical service planning document for the LHD, sits above, and is underpinned and informed by, a range of clinical service plans for hospitals and health services within NNSW LHD. Over the next 5 years the NNSW LHD Health Care Services Plan will inform the prospective development of clinical service plans for additional hospital and clinical streams and networks within the NNSW LHD.

The development of the Health Care Services Plan has been informed by an extensive consultation process. Between April and July 2013 over 50 consultation sessions have been held with approximately 450 participants. A broad range of clinicians and management have been engaged. Consultation schedules were prepared detailing consultation sessions and meetings to be held at each facility. Service Managers were engaged in preparing the schedules and flyers detailing consultation themes, target groups, venues and times. Key external stakeholders were also invited to participate to ensure full coverage of priority considerations and additional detail in related clinical services where required.

These consultations were conducted using a consistent approach that reflected and built upon the outcomes of the needs analysis and the review of hospital and health service activity data.

As the demand for health services continues to rapidly increase, the NSW public health system, including NNSW LHD, faces a number of key pressures and challenges which will impact on how services are provided in the future. These are presented as Key Issues in section 11 of the NNSW LHD Health Care Services Plan.

Northern NSW is one of the fastest growing regions of NSW and also has one of the oldest age profiles. Over the 10 years between 2011 and 2021, the overall population of NNSW LHD is projected to increase by 11.2% and by 40% for the population aged 65 years and over. At the same time as the population is ageing, there has also been a significant increase in the number of people with chronic

health conditions and a higher level of cognitive impairment requiring improvements in the way that services are organised and delivered to ensure coordinated care for patients. In particular, the Health Care Services Plan recognises the importance of oral health and the impact that this can have on overall health outcomes.

Using the epidemiological profile of NSW LHD residents the Health Care Services Plan has identified areas where local residents have comparatively poorer health outcomes and recommended action to address these.

There are groups within the community who have poorer health outcomes and who have fewer opportunities to achieve and maintain good health. The Health Care Services Plan identifies the need to improve access to services for these disadvantaged groups which include people with mental health conditions, co-morbid drug and alcohol issues, people subject to homelessness and Aboriginal people.

A specific challenge for NSW LHD is ensuring appropriate and timely access to services for people who live in proximity to the Queensland border and who require access to facilities in south eastern Queensland, whilst providing access to The Tweed Hospital for residents of south eastern Queensland living within the catchment of The Tweed Hospital.

In ensuring the supply of quality and effective health services in response to the ever-increasing population demand, the key challenges that need to be addressed by NSW LHD have been identified as:

- Utilising clinical networking to ensure that services are organised in an optimal fashion to make best use of the available clinical staff and infrastructure resources
- Working in partnership with other providers of health and community support services
- Managing the cost of providing health services to ensure the provision of quality and accessible services from within available resources
- Providing an effective response to the needs of the population with conditions that are amenable to ambulatory care
- Reducing the number of unplanned hospital admissions and readmissions
- Providing an effective response to the needs of older people across all health services and in particular providing for the needs of those with a cognitive impairment
- Introducing new models of care that utilise latest evidence and best practice in the delivery of healthcare
- Ensuring a sustainable health workforce
- Ensuring best use of information communication technology.

The NSW LHD Health Care Services Plan outlines a number of Key Priorities designed to address these key issues and challenges, as well as the range of issues that have arisen from the process of consulting hospitals and health services in the development of the Plan. These Key Priorities are presented in section 13 of the Health Care Services Plan according to whether they relate to the LHD in total, the two Health Service Groups, facilities or clinical streams and networks. Key Priorities are also presented in relation to clinical support services, service enablers and key partnerships.

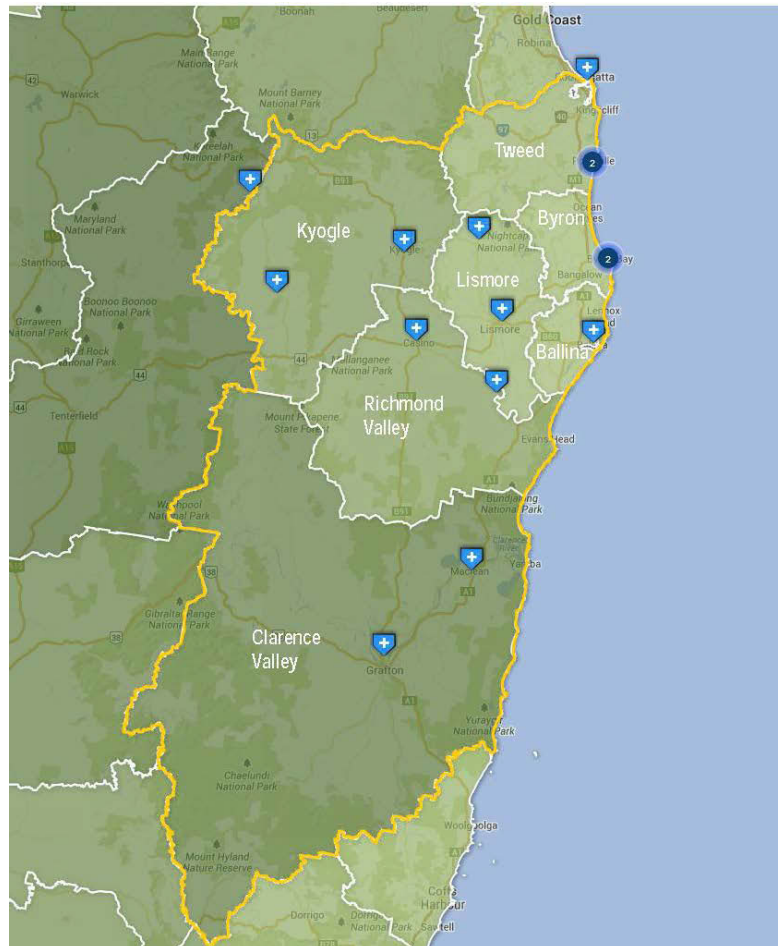
NSW LHD is committed to increasing opportunities for people to participate in the way the LHD makes decisions and have a say in the process of developing health services and this includes clinicians as well as the community. There is an ongoing need to work with the community in improving health literacy, improving access to health information and engaging a diverse range of stakeholders.

## 2 INTRODUCTION

### 2.1 NORTHERN NEW SOUTH WALES LOCAL HEALTH DISTRICT

The NNSW LHD comprises a total of 13 Statistical Local Areas (SLAs), 7 Local Government Areas (LGAs) and the Urbenville part of Tenterfield LGA. The District is divided into two Health Service Groups and in 2011 had an estimated population of 288,384<sup>1</sup>. It is also acknowledged Queensland residents access services in the Tweed Valley however, for the purposes of this document this population is not included in the Tweed Byron Health Service Group population. However when planning for specific services for the District, consideration is given to this population and its utilisation of services at Tweed Heads.

NNSW LHD covers an area of 20,732 square kilometres, extending from Clarence Valley LGA in the south to the Tweed LGA in the north. The western and southern borders of NNSW LHD join the Hunter New England LHD and Mid North Coast LHD.



### 2.2 SCOPE

The NNSW LHD Health Care Services Plan is our highest level clinical service planning document. It articulates priorities and future directions for clinical service development and delivery across the NNSW LHD over the next 5 years. This Plan also provides a broader guide to health service planning and strategic directions to 2022.

Development of the NNSW LHD Health Care Services Plan involves a comprehensive needs analysis process to inform future service development and investment across NNSW LHD based on sound evidence and locally identified need. It involves the gathering and analysing of a broad range of data, reports and information from service providers and the community to identify health and wellbeing priorities.

<sup>1</sup> Australian Bureau of Statistics – 3235.0 Population by Age and Sex, Regions of Australia Estimated Resident Population by Age, by Geographical Classification, - June 2011 Released at 11.30am (Canberra time) 31 August 2012

The Health Care Services Plan will provide future directions for LHD health services, from inpatient, ambulatory and outpatient services, population health, primary and community health services, clinical support services, teaching and research delivered through LHD-wide clinical services, clinical streams, geographic networks, inpatient facilities and community based services.

The Health Care Services Plan is intended to provide clear strategic directions and cascade down through the organisation to inform clinical planning processes including Clinical Service Plans, Clinical Programs and Implementation Plans.

It provides a framework for the development of health services to meet the needs of communities we serve over the next 5 years. It will inform future planning for building equitable and sustainable health service development that delivers safe and quality services within finite resources.

## 2.3 PLANNING PRINCIPLES

The following principles underpin the development of the NNSW LHD Health Care Services Plan:

- While the Health Care Services Plan provides broad strategic direction for health service development over the next 10 years, the focus is to provide clear strategic priorities and direction for the next 5 years
- Future health service planning in the NNSW LHD over the next 5 years aligns with the National and State Planning and Performance Environment
- Healthcare resources should be used to maximise the health and wellbeing of the community, and reduce inequities in health
- Planning decisions should be based on evidence of need, effectiveness and value for money, and be consistent with government policies and directions
- Services should be organised around the needs of the patient. This includes treating patients in the least acute setting possible whilst maintaining the highest quality of care
- Partnerships including those with the private sector should be encouraged and supported where this contributes to improved patient care and outcomes
- Establishing and maintaining a balance in the provision and use of resources for health protection, health promotion, health education and treatment services
- Our communities and clinicians should be informed and involved in the development, delivery, and evaluation of services
- Further development of clinical networking to improve access and achieve more effective and efficient use of resources, reduce duplication and inefficiencies
- New technological solutions to improve patient care
- Underpinned by ensuring value for money and service provision in available resources.



# 3

## PLANNING AND POLICY CONTEXT

### 3.1 COMMONWEALTH REFORMS AND PRIORITIES

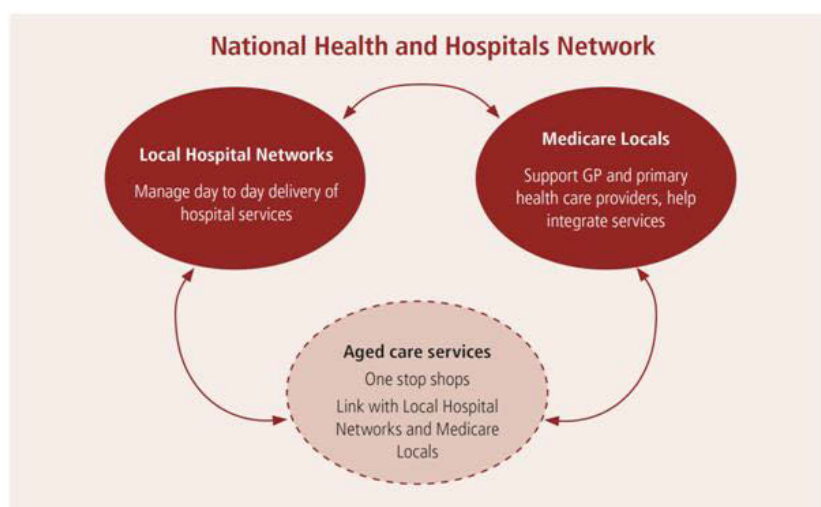
In March 2010 the Australian Government announced “A National Health and Hospitals Network for Australia’s Future”. This was the Commonwealth Government’s response to the Final Report of the National Health and Hospitals Reform Commission Report of June 2009. In April 2010 the second part of the Reform Plan was released “A National Health and Hospitals Network: Further Investment in Australia’s Future”.

In April 2010 the Commonwealth Government secured agreement with most Australian States through the National Health and Hospitals Network Agreement to implement a nationally unified and locally controlled health system which is universally accessible. There will be significant changes to the way health services are funded with the Commonwealth Government increasing its funding contribution for public hospitals and taking full responsibility for General Practice and some primary health care services including community health services such as community nursing, generalist counselling, integrated care, general practice and primary care coordination programs, including Indigenous and rural and remote primary health care services.

The Commonwealth will also take some responsibility for primary mental health care services which target the more common mild to moderate mental illnesses, primary and secondary prevention programs for early intervention and care and coordination programs that focus on the management of patients with chronic disease in the community.

In addition the Commonwealth Government will establish arrangements to better integrate aged care with other parts of the health system. The Commonwealth will also work with Primary Health Care Organisations (to be known as Medicare Locals) to improve access to GP and primary health care services. Arrangements will need to ensure that aged care services are coordinated with hospitals and primary health care services and that these services work together to provide integrated patient centred care.

**Figure 1: An Integrated National Health and Hospitals Network**



Source: A National Health and Hospital Network for Australia’s Future

The National Health Reform Agreement (NHRA) requires the NSW Government to establish a Service Agreement with each LHD and to implement a Performance Management and Accountability System including processes for remediation of poor performance.

LHDs are required to meet the applicable conditions of Council of Australian Governments (COAG) National Agreements and National Partnership Agreements between the NSW and Commonwealth Governments and commitments under any related Implementation Plans.

The performance of an LHD will be assessed in terms of whether it is meeting the performance targets for individual KPIs including Triage and access targets. This proposal will assist NNSW LHD to meet performance targets as described in the NNSW LHD Service Agreement 2010/11.

National Health Reforms include the introduction of **activity based funding (ABF)** with new contracting and performance arrangements to commence on 1 July 2012. This will focus the LHDs attention on managing the growing costs of healthcare and the efficient use of District resources. The LHD will need to develop a range of costing, budgeting and financial management skills across the organisation to maximise the opportunities arising from the funding and minimise any negative consequences.

The full implications of ABF are not yet clear. There will be a need for the LHD to be flexible and prepared to adapt as information becomes available. Some services may need to be reviewed and redesigned if the cost of the service is not supported by ABF. As the funding process is rolled out across acute, sub-acute and ambulatory care, the balance of investment across these care types will need to optimise the use of recurrent funding and capital infrastructure and provide services which are clinically excellent, efficient and sustainable.

Under these National Agreements, LHDs are also required to adhere to the Medicare principles outlined in the National Healthcare Agreement.

While the Agreement recognises that clinical practice and technology will change over time which will impact on models of service and methods of delivery, it requires NSW to provide health and emergency services through the public hospital system, based on the following Medicare Principles which apply to LHDs.

#### MEDICARE PRINCIPLES

- Eligible persons are to be given the choice to receive, free of charge as public patients, Emergency Department (ED), public hospital outpatient and public hospital inpatient services
- Access to such services by public patients free of charge is to be on the basis of clinical need and within a clinically appropriate period
- Arrangements are to be in place to ensure equitable access to such services for all eligible persons.

## 3.2 LOCAL HEALTH DISTRICTS

Under the National Health and Hospitals Network Agreement, the NSW Government has established LHDs comprised of small groups of public hospitals with a geographic and functional connection, large enough to operate efficiently and to provide a reasonable range of hospital services, and small enough to enable the LHDs to be effectively managed to deliver high quality services.

LHDs are the direct managers of public hospital services with a Governing Board and Chief Executive Officer responsible for delivering agreed services and performance standards, within an agreed budget, based on an annual strategic and operating plan, to give effect to the LHD Service

Agreement. Boards will comprise of members with an appropriate mix of skills and expertise to oversee and provide guidance to large and complex organisations.

Those functions which are the responsibility of LHDs include:

- Local planning and delivery of clinical services - hospital and community, Aboriginal health services in priority program areas (e.g. Diabetes and Renal), budget management, including recruitment, procurement and other expenditure decisions, clinical governance, patient services (including complaints management, social work and support services), infection control, clinical and health service research and governance and medical records
- Workforce management will also be the responsibility of the LHD. This will include recruitment, performance management, discipline and grievance management, Employee Assistance Program, Workers Compensation and return to work schemes.

Other functions of the LHD are Occupational Health and Safety, Fire Safety, Asset Management, Biomedical Engineering, Sterilising Services, local IT system support, Executive Support, community engagement, Interpreter Services and Disaster Plans. Governance arrangements for the LHDs will deliver improved clinical engagement and will work with clinicians to incorporate their views, especially on quality and safety, into day to day operations.

### 3.3 MEDICARE LOCALS

Medicare Locals form a national network of primary health care organisations and are an integral part of the National Health Reform Agreement. Medicare Locals have been established as independent legal entities with links to local communities, health professionals, service providers and consumer and patient groups.

The National Health Reform Agreement notes that the strategic objectives for Medicare Locals are:

- Improving the patient journey through developing integrated and coordinated services
- Providing support to clinicians and service providers to improve patient care
- Identifying the health needs of their local areas and development of locally focused and responsive services
- Facilitating the implementation of primary health care initiatives and programs
- Being efficient and accountable with strong governance and effective management.

North Coast NSW Medicare Local was established on 1 April 2012 through a partnership formed by Northern Rivers General Practice Network Ltd, Tweed Valley General Practice, Hastings Macleay General Practice Network, Mid North Coast Division of General Practice, North Coast GP Training and Many Rivers Aboriginal Medical Service (AMS) Alliance. These organisations are the foundation members of the North Coast NSW Medicare Local.

The North Coast NSW Medicare Local boundaries align with NNSW LHD and the Mid North Coast LHD, providing the opportunity for efficient care coordination and effective service integration across the region by building on strong relationships with the Boards and Executives of the two LHDs.

The vision of North Coast NSW Medicare Local is to be an organisation that ensures each person and their family in the community can partner with the care team they need to best look after their health. Underpinning this vision is a set of objectives that clearly align to the goals and purpose of the National Primary Care Health Reform and the National Primary Health Care Strategy.

VISION: BETTER HEALTH FOR NORTH COAST COMMUNITIES'

Improving Access and Reducing Inequity:

- Identify the health needs of local areas and develop locally focused and responsive services
- Improve access to primary health care services
- Improve the patient journey through development of integrated and coordinated services
- Contribute to the reduction of disadvantage and its health impacts.

Foster and Advance a Health System Where Service Delivery is Integrated, Complementary and Mutually Supportive:

- Improve coordination and integration of care
- Promote good health and prevent disease through partnerships and alliances
- Elevate the importance of primary health care.

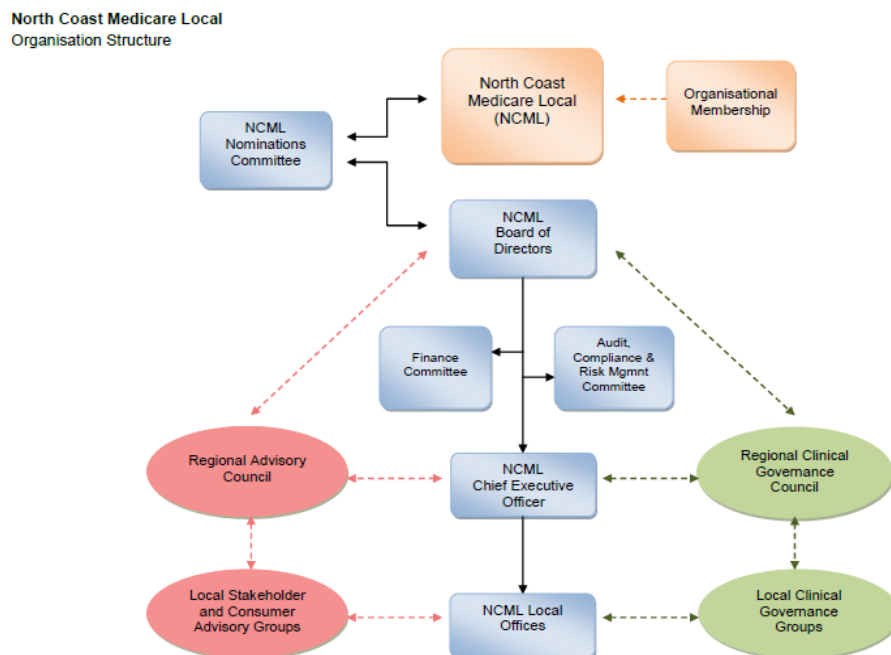
Improving Clinical Performance, Quality and Safety:

- Build capacity so that patient care in the primary health care setting is of high quality
- Contribute to the availability of an appropriately skilled primary health care workforce
- Participate and contribute to generation, dissemination and application of new knowledge.

Building a Strong Medicare Local:

- Strive for excellence and establish a foremost Medicare Local in Australia
- Be efficient, transparent and accountable with strong governance and effective management
- Establish a community perception of value.

**Figure 2: North Coast NSW Medicare Local – Organisational Structure**



Medicare Locals and LHDs are expected to share some common membership of governance bodies where possible. Medicare Locals will be expected to work closely with LHDs.

**Figure 3: North Coast New South Wales Medicare Local**



Source: YourHealth website: accessed 27.02.12

[http://www.yourhealth.gov.au/internet/yourhealth/publishing.nsf/content/MediLocProfile\\_NorthCoastNSW](http://www.yourhealth.gov.au/internet/yourhealth/publishing.nsf/content/MediLocProfile_NorthCoastNSW)

### 3.4 NATIONAL SAFETY AND QUALITY FRAMEWORK

The Australian Health Ministers' Conference tasked the Australian Commission on Safety and Quality in Health Care with developing a national safety and quality framework. The proposed framework is based on a vision for safe and high quality care for Australia and was approved in principle in April 2008.

The Framework has three dimensions:

- Patient focused care that is respectful of and responsive to individual preferences, needs and values
- Driven by information to improve the safety and quality of care, reduce unjustified variation in standards of care, and to improve patients' experiences and clinical outcomes
- Organised for safety - organisational structures, work processes and funding models recognise and reward taking responsibility for safety.



This Framework and its supporting standards are designed to guide action to improve the safety and quality of the care provided in all health care settings over the next decade.

### 3.5 NEW SOUTH WALES PLANNING CONTEXT AND HIERARCHY OF PLANS

On 4 April 2011 following the change of government in NSW the new Minister for Health and Medical Research, the Hon. Jillian Skinner, released a statement on the priorities for the future delivery of health services to the people of NSW. These included:

- A patient focus to improve access to timely, quality health care across NSW
- An emphasis on preventative health and better management of people with chronic diseases
- Strengthening of the public health system to improve patient access to timely, quality health care.

Additionally, the Minister articulated core values that are to guide the implementation of health care into the future. These were:

- **Collaboration** - Accepting that everyone from the Minister to the patient are all part of one team in one health system.
- **Openness** - Ensuring that facts are on the table and allowed to speak for themselves, no matter how embarrassing or uncomfortable they may sometimes be. Our processes must be transparent. People have a right to know how and why decisions are made, and who is making them. We also need to be up front about what it costs to deliver world-best health care.



- **Respect** - Insisting that everyone engaged in providing health care has a valued role; that there is no single source of wisdom and that listening is as important as talking. Acknowledging that everyone can make a contribution and should be given the opportunity to contribute, especially to a process of continuous improvement. Within a respectful health care system, we are able to give real meaning to the concept of accountability to our patients.
- **Empowerment** - Enabling patients to take greater control of their own health care in collaboration with care providers. Ensuring that decisions are based on clear information about what works best, how much can be afforded and where and when treatment is available. Acknowledging that for empowerment to work, there must be trust on all sides and at all levels, from the Minister, the Department, hospital administrators and care providers – doctors, nurses, allied health, carers and volunteers. Empowerment and accountability have to exist at every level in the health system. Responsible delegation of authority will be a hallmark of health administration in NSW.

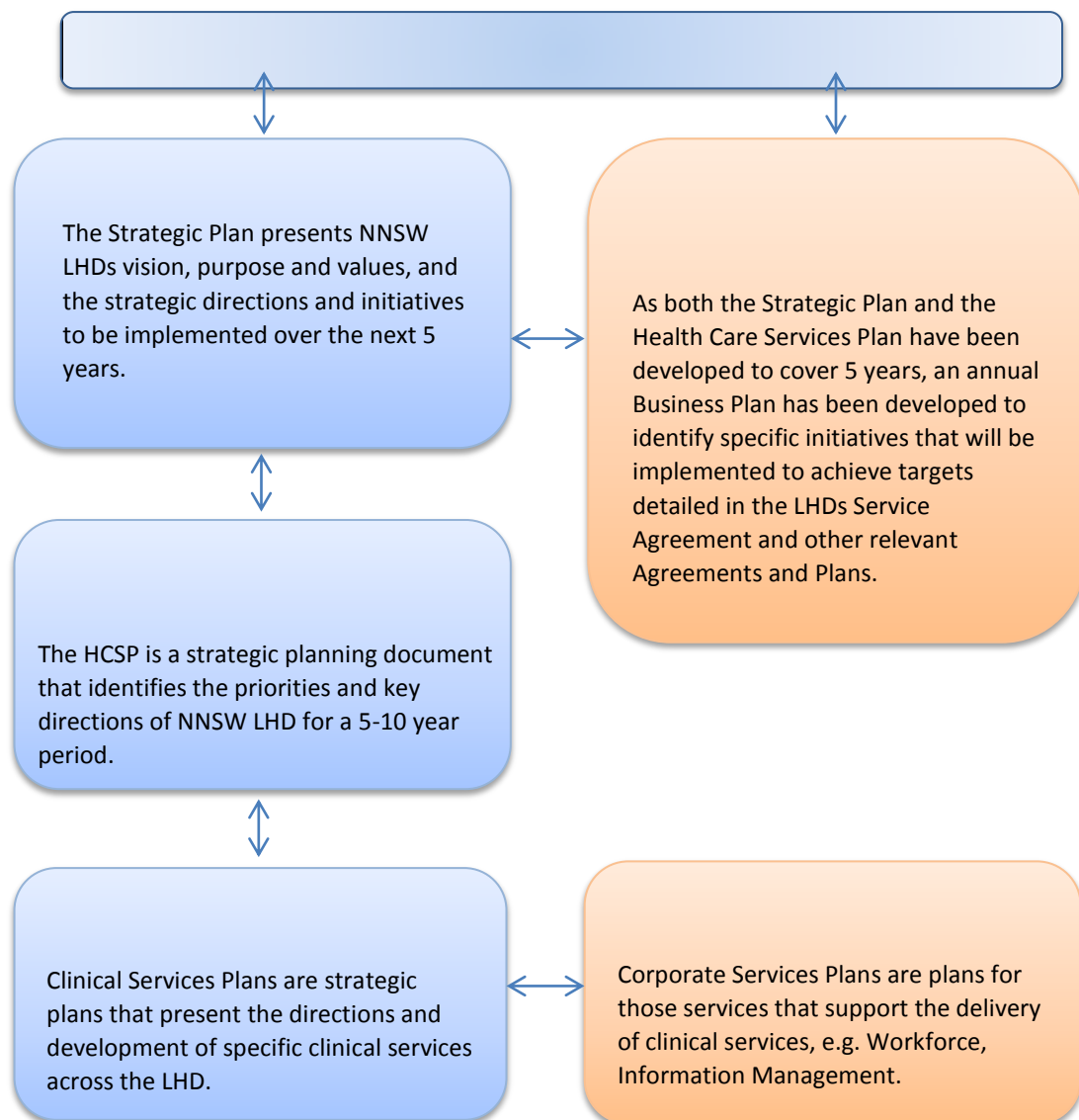
The overall direction of any health planning process within NSW is governed by the strategic directions outlined in NSW 2021 A Plan to Make NSW Number One. Under the NSW State Plan, the NSW Ministry of Health will play a key role in:

- Keeping people healthy and out of hospital
- ‘Closing the Gap’ in Aboriginal infant mortality
- ‘Closing the Gap’ and improving Aboriginal Peoples health outcomes
- Improving outcomes in Mental Health
- Reducing potentially preventable hospitalisations
- Providing world class clinical services with timely access and effective infrastructure
- Reducing hospital waiting times
- Reducing unplanned readmissions
- Decreasing health care associated bloodstream infections
- Improving transfer of patients from EDs to wards
- Managing health services well and promoting local decision making
- Better protecting the vulnerable members of our community
- Ensuring NSW is ready to deal with major emergencies and natural disasters
- Fostering opportunity and partnership with Aboriginal people.

The key goals of the NSW public sector health system are to help people stay healthy and to provide access to timely, high quality, patient-centred healthcare. Achieving these goals requires clear priorities, supportive leadership and staff working together, underpinned by the core values of

The NSW Government State Plan “NSW 2021 A Plan to Make NSW Number One” aims to improve overall access to quality health care by setting clear strategic directions for the NSW Health system. This strategic document outlines priority strategies to provide timely access to world class health care. The NSW State Plan “NSW 2021” informs and guides the development of all strategic plans within NNSW LHD as illustrated in the following figure.

**Figure 4: Planning Hierarchy**



Rural and remote NSW is characterised by its diversity. It is made up of major regional centres and coastal cities, small towns and remote communities. Rural and remote NSW is not homogeneous. A key direction in the first NSW Rural Health Plan<sup>2</sup>, released in 2002, was the provision of more services, where appropriate, closer to home. This direction encompasses the provision of tertiary level specialist services in regional centres and services that were previously delivered on an inpatient basis that might be provided in an outpatient, community or domiciliary setting. As a result of ongoing planning and investment in health services across NSW, the vast majority of residents in rural NSW, who total almost 2.5 million in number, receive a greater range of health care within their local area.

Implementation of the first NSW Rural Health Plan has achieved significant service developments for the facilities; providing both expanded roles and capacity of many of these hospitals, and for many

<sup>2</sup> NSW Rural Health Plan, 2002. NSW Government Response to the Report of the Rural Health Implementation Coordination Group. NSW Health Department, Sydney Australia

an extended availability of complex services. This enhancement of services has been beneficial for both rural communities and also for rural clinicians, who in many cases have been able to expand their scope of practice and also increase the critical mass of clinicians in their speciality. In some cases, this has had extended benefits for other specialities, with increased interest in joining some hospitals as the range of services grows. However, further capital investment is required to enable NSW to build on these previous results.

The first NSW Rural Health Plan focused on strengthening the role of Rural Referral Hospitals who also provide the base for teaching and training in rural health care and are supported in this role by Rural Clinical Schools and University Departments of Rural Health.

The planning process is informed by relevant NSW Health planning guides such as the *Guide for the Development of Area Health Care Services Plans*, the *draft template for Health Care Services Plans May 2012*<sup>3</sup> and the *Guide to the Role Delineation of Health Services, Third Edition 2002* and the *Rural Companion Guide to the Role Delineation of Health Services (Rural Hospitals)*.

The *draft template for Health Care Services Plans (May 2011)* provides a template for the development of District Health Care Service Plans. The template outlines common elements and data requirements to be incorporated into clinical service plans.

The *Guide to the Role Delineation of Health Services* indicates the support services, staff profile, minimum safety standards and other requirements that are required within a health facility to ensure that clinical services are provided safely and are appropriately supported.

A number of key State and Commonwealth initiatives inform the strategic directions of the NSW public health system and are relevant to this planning exercise and include the following:

- NSW 2021: A Plan to Make NSW Number One - NSW Health is the lead agency for the goals of:
  - Keeping people healthy and out of hospital
  - Providing world class clinical services with timely access and effective infrastructure
- Keep Them Safe – A Shared Approach to Child Wellbeing
- The NSW Aboriginal Health Plan 2013-2023, which supports NSW's commitments under the COAG National Indigenous Reform Agreement including the National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes (Closing the Gap)
- National Maternity Services Plan
- National Primary Health Care Strategic Framework
- NSW Health Framework for Women's Health 2013
- National Drug Strategy and the COAG Roadmap on Mental Health Reform
- Oral Health 2020: A Strategic Framework for Dental Health
- NSW Health Professional Workforce Plan 2012 – 2022
- Delivering Better Patient Journeys - (2008)
- Towards 2030 - Planning for our changing population (2008)
- The health of the people of NSW – Report of the Chief Health Officer (2010) and recent updates via <http://www.healthstats.nsw.gov.au/>
- NSW Health Trauma Services Plan (2009)

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<sup>3</sup> *Rural Health Services and Capital Planning, Service and Capital Planning Unit*

- Discussion Paper on Implementing the Federal Government's 'National Health and Hospitals Network for Australia's Future' in NSW (August 2010)
- Children and Adolescents - Guidelines for Care in Acute Care Settings (June 2010)
- NSW Health Policy/Guidelines and Clinical Redesign Models NSW Health Role Delineation and Rural Hospital Role Delineation Guidelines
- Emergency Department Models of Care (July 2012)
- NSW Health Service Planning Handbook for Rural Planners (2006)
- Critical Care Tertiary Referral Networks and Transfer of Care (Adults)
- Emergency Surgery Guidelines (2009)
- Rural Surgical Futures 2011-2021
- NSW Whole of Hospital Program (April 2013).

The development of hospital inpatient activity projections to the years 2016/17 and 2021/22 will be informed by the use of the acute Inpatient Modelling Tool (aIM 2010) developed for NSW Ministry of Health for hospital planning purposes in NSW. This tool provides hospital activity projections based on demographic projections of population growth and change in composition, and trends in acute hospital activity parameters (separation rates, overnight length of stay and proportion admitted on a day only basis) for Service Related Groups (SRGs).

### 3.6 THE FOUR PILLARS

The role of the Four Pillar agencies was strengthened in 2011 and the Four Pillars; the Health Education Training Institute (HETI), the Agency of Clinical Innovation, the Clinical Excellence Commission and the Bureau of Health Information, have a close supporting relationship with LHDs and the Ministry of Health in their respective areas of healthcare design, standards, reporting, education and related policy.

The role of each of the Four Pillar agencies is described below:

- The Health Education Training Institute has leadership responsibility for the education and training of all clinicians, management and support staff in NSW Health. HETI partners with LHDs and Specialty Health Networks and other public health organisations and training providers to develop and deliver education and training across the NSW public health system
- The Agency of Clinical Innovation is the primary agency for engaging clinical service networks and designing and implementing new models of care
- The Clinical Excellence Commission has responsibility for quality and safety and providing leadership in clinical governance
- The role of the Bureau of Health Information is to provide independent reports to government, the community and healthcare professionals on the performance of the NSW public health system, including safety and quality, effectiveness, efficiency, cost and responsiveness of the system to the health needs of the people of NSW.

### 3.7 NORTHERN NSW LOCAL HEALTH DISTRICT

On 29 September 2010, the NSW Government outlined the future shape of the NSW health system, with the announcement of 18 proposed LHDs. The Districts were established on 1 January 2010.

The NNSW LHD covers an area of 20,732 square kilometres, extending from the Clarence Valley LGA in the south to the Tweed LGA in the north. The LHD shares its northern border with Queensland, its southern border with Mid North Coast LHD and its western border with the Hunter New England LHD. NNSW LHD comprises a total of 13 SLAs, seven LGAs and the Urbenville part of Tenterfield LGA. The LHD is divided into two Health Service Groups and in 2011 had an estimated population of 288,384.<sup>4</sup>

Networking within the LHD can provide a number of benefits including complimentary development of services, standardisation of care and availability of appropriate policies, procedures and protocols for the delivery of care, appropriate training and development for clinicians within the District, an appropriate clinical governance and continuous improvement in the quality of service.

Implementation of the new LHDs has provided opportunities to further develop linkages between all facilities in the LHD. Systems and processes will continue to be strengthened to ensure clinical linkages between specialist services are supported and developed to realise opportunities to improve access to a range of health services for residents of NNSW LHD.

#### NORTHERN NSW LOCAL HEALTH DISTRICT STRATEGIC PLAN

The NNSW LHD Strategic Plan 2012-2017 was prepared in consultation with staff and forms the basis of the District's Business planning over the next 5 years. The objectives of the Strategic Plan will be achieved by working with many partners; these include the District's Clinical Council, the Community Engagement Advisory Council, the Ngayundi Health Council, non-government organisations, local government, the University Centre for Rural Health, Southern Cross University, aged care providers and the North Coast NSW Medicare Local.

Amongst NNSW LHD priorities are strategies which seek to optimise health and wellbeing across the age continuum and to provide efficient, effective and safe hospital and community based care.

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<sup>4</sup> ABS (2012) *Estimated Resident Population (includes a portion of Tenterfield LGA –Urbenville locality)*.

The following features comprise the vision, purpose, strategic objectives and values of NNSW LHD:<sup>5</sup>

## VISION

Better Health and Excellence in Health Care.

## PURPOSE

To work together to promote better health across our diverse community and provide person centred, integrated care through a valued, skilled, motivated and sustainable workforce.

## STRATEGIC OBJECTIVES

- Protect the health of our community and make and promoting better health a part of everything we do.
- Continually improve the quality of and access to a comprehensive range of integrated health services in partnership with key external partners.
- Develop a skilled and motivated workforce in a culture based on our core values.
- Ensure good stewardship and leadership through strong corporate and clinical governance.
- Embed research and education as an integral element of clinical services.
- Work in partnership to improve Child Wellbeing Health and Safety.
- Work with the Aboriginal community and partners to improve the health of Indigenous Australians.
- Maintain the LHDs counter-disaster and bio-preparedness system.
- Involve the community in decision making.

## VALUES

- **Collaboration** – Improving and sustaining performance depends on everyone in the system working as a team.
- **Openness** – Transparent performance improvement processes are essential to make sure the facts are known and acknowledged, even if at times this may be uncomfortable.
- **Respect** – The role of everyone engaged in improving performance is valued.
- **Empowerment** – There must be trust on all sides and at all levels with responsible delegation of authority and accountability.

The *NNSW LHD Strategic Plan 2012–2017* identifies nine strategic objectives which drive specific initiatives and actions required to achieve this vision. These include:

- Protect the health of our community and make promoting better health a part of everything we do
- Continually improve the quality of and access to a comprehensive range of integrated health services including in partnership with key external partners
- Develop a skilled and motivated workforce in a culture based on our core values
- Ensure good stewardship and leadership through strong corporate and clinical governance
- Embed research and education as an integral element of clinical services
- Work in partnership to improve child wellbeing, health and safety

<sup>5</sup> *NNSW LHD Strategic Plan 2012–2017*



- Work with the Aboriginal community and partners to improve the health of Indigenous Australians
- Maintain the LHDs counter-disaster and bio-preparedness system
- Involve the community in decision making.

By 2017, the NNSW LHD is striving for a health system that:

- Has a greater focus and investment in improving health and preventing illness while continuing to treat illness effectively paying particular attention to reducing the health gap for communities that experience multiple disadvantages
- Is focused on providing patients with ready access to safe and high quality journeys through NSW health services and ensuring patients and their carer's are informed and involved in healthcare decisions and treated with respect
- Helps people to access most of the healthcare they need through an integrated network of primary and community health services across the public and private health systems
- Has a greater focus on healthy ageing strategies integrating services across different levels of government and the private sector
- Engages more effectively with other government and non-government agencies and the broader community, to provide a more integrated approach to planning, funding and delivering health services to local communities and regions
- Makes the most effective use of the finite resources available and manages costs, services and infrastructure effectively to meet the State's healthcare needs while maintaining financial sustainability
- Has a valued, skilled and motivated workforce that is well planned, trained, organised and deployed creatively to focus on the changing needs of health consumers, carers and the wider population
- Is alert and capable of readily adapting to the changing needs of the community and is quick to anticipate and respond to new issues as they emerge
- Has a well-developed strategic relationship with the Gold Coast Health Service District.

### 3.8 NORTHERN NSW LOCAL HEALTH DISTRICT CLINICAL AND STRATEGIC PLANS 2012-2022

In addition to the NNSW LHD Strategic Plan, the development of the NNSW LHD Health Care Services Plan has been informed and guided by the array of LHD and hospital or health service-specific health plans that have been developed over the past 5 years. The relationship between these clinical service plans and the NNSW LHD Health Care Services Plan is illustrated in Figure 4. Specific local and regional clinical service plans that are relevant to this planning exercise include the following plans, reviews and guidelines.

Relevant documentation includes:

- NNSW LHD Asset Strategic Plan 2012-2017
- NNSW LHD Profile and Service Direction 2011
- Byron Shire Central Hospital and Community Health Services Clinical Services Plan 2012

- The Tweed Hospital Clinical Services Plan 2012
- Lismore Base Hospital Clinical Services Plan 2012
- Coraki and Surrounds Clinical Services Plan 2012
- Yamba Community Health Centre Clinical Services Plan 2012
- Former NCAHS Cancer Clinical Services Plan and other Clinical Network Plans
- Current Models of Care operating in NNSW LHD Health Services
- Former NCAHS Healthcare Services Plan 2010-2015.

### 3.9 NORTHERN NSW LOCAL HEALTH DISTRICT PERFORMANCE AND GOVERNANCE FRAMEWORK

LHDs represent a core part of the NSW Health System and are fundamental to the delivery of key goals and outcomes. Collaboration with other entities of the NSW health system, NGOs, the Aboriginal Community Controlled Health Sector and other Government agencies is essential for LHDs to achieve these goals.

LHDs are also part of the NSW Public Sector and its governance and accountability framework. District Boards must have effective governance and risk management processes in place to ensure compliance with this wider public sector framework.

The NSW Health Corporate Governance and Accountability Compendium outlines the governance requirements that must be completed by those organisations that are established as part of NSW Health, and sets out the roles, responsibilities and relationships of those organisations. Requirements under the Service Agreement appear at Schedule F. The Strategic and Services Planning section of the Compendium provides additional perspective on strategic context.

A Service Agreement is in place between NNSW LHD and the NSW Ministry of Health, flowing from the National Health Reform Agreement. The Service Agreement is a key component of the Performance Framework for LHDs, and provides a clear and transparent process for assessment and improvement of performance.

This Agreement supports the devolution of decision making, responsibility and accountability for the provision of safe, high quality, patient centred care to LHDs by setting out the service and performance expectations and funding for NNSW LHD.

The objectives of the LHD Service Agreement are:

- To enable the LHD to deliver a coordinated, high quality health service to the communities serviced by the District and to support its teaching, training and research roles
- To clearly set out the service delivery and performance expectations for the funding and other support services provided to the LHD
- To promote accountability to Government and the community
- To ensure NSW Government and national health priorities, services, outputs and outcomes are achieved
- To establish with the LHD a Performance Management and Accountability System that assists in achievement of effective and efficient management and performance

- To provide the framework for the LHD Chief Executive to establish service and performance agreements within the LHD
- To outline LHD roles and responsibilities as key member organisations of a wider NSW public health network of services and support organisations
- To facilitate the progressive implementation of a purchasing framework incorporating activity based funded services
- To provide a framework from which to progress the development of local Aboriginal Health Partnership Agreements and enhance collaborative work with Aboriginal Community Controlled Health Services
- To address the requirements of the National Health Reform Agreement in relation to Service Agreements, noting that the various requirements will commence at different stages over a number of years.

Key governance goals are to:

- Establish robust governance and oversight frameworks: To ensure that the authority, roles and responsibilities of its governing, management and operating structures are clearly understood
- Ensure clinical responsibilities are clearly allocated and understood: To ensure that clinical management and consultative structures within the organisation are appropriate to its needs of those of its clients
- Set the strategic direction for the organisation and its services: All accountable levels of the NSW public health system should have clear, articulated and relevant plans for protecting and promoting the health of their communities – including a clear vision and strategies to meet the health needs of these communities over time
- Monitor financial and service delivery performance: Boards are responsible for ensuring appropriate arrangements are in place to secure the efficiency and effectiveness of resource utilisation by their organisation and for regularly reviewing the financial and service delivery performance of the organisation
- Maintain high standards of professional and ethical conduct: Systems must be in place to ensure that staff and contractors are aware of and abide by the NSW Health code of conduct and relevant professional registration requirements. LHDs must also have policies, procedures and systems in place to ensure that any breaches of recognised standards of conduct are managed efficiently and appropriately
- Involve stakeholders in decisions that affect them: Systems must be in place to ensure the rights and interests of key stakeholders are incorporated into the plans of the organisation and that they are provided access to balanced and understandable information about the organisation and its proposals
- Establish sound audit and risk management practices: An effective internal audit function must be established and maintained to oversee the adequacy and effectiveness of the organisation's system of internal control, risk management and governance. The Implementation of the Enterprise Wide Risk Management Framework must follow the Australian New Zealand Standard 4360:2004, updated to 3100:2010, Risk Management

- Disaster preparedness: A current understanding of NSW Health disaster management policy and practice must be maintained in light of Commonwealth and State developments and advances in disaster medicine and technology; Undertake ongoing assessment of preparedness for disasters.

The Australian Health Ministers' Conference tasked the Australian Commission on Safety and Quality in Health Care with developing a national safety and quality framework. The proposed framework is based on a vision for safe and high quality care for Australia and was approved in principle in April 2008. The Framework has three dimensions:

- Patient focused care that is respectful of and responsive to individual preferences, needs and values
- Driven by information to improve the safety and quality of care, reduce unjustified variation in standards of care, and to improve patients' experiences and clinical outcomes
- Organised for safety - Organisational structures, work processes and funding models recognise and reward taking responsibility for safety.

This Framework and its supporting standards are designed to guide action to improve the safety and quality of the care provided in all health care settings over the next decade.

### 3.10 ABORIGINAL HEALTH IMPACT STATEMENT

Aboriginal people have poorer access to health services, higher levels of health risk, worse health and shorter life expectancy than non-Aboriginal people.

Culturally appropriate models of care will be implemented to improve the way health services are delivered to Aboriginal people. 'Closing the Gap' and improving Aboriginal Peoples health outcomes through improving access to health services are an important objective for NNSW LHD.

An Aboriginal Health Impact Statement checklist has been completed (registration number CE/2013/01) dated 1 February 2013.<sup>6</sup>

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<sup>6</sup> See Appendix 14.1.2 Aboriginal Health Impact Statement

## 4

# HEALTH SERVICES IN NORTHERN NSW LOCAL HEALTH DISTRICT

## 4.1 FRAMEWORKS FOR DELIVERY OF CARE

NNSW LHD provides a comprehensive range of local hospital, ambulatory care, community health services, population health and primary health care programs and services. These programs and services are provided from two Major Non-Metropolitan Hospitals, two District level Hospitals, one District Group 1, four District Group 2 Hospitals, 3 Community Hospitals, three Multi-Purpose Services (MPSs), Riverland Drug and Alcohol Centre and a number of community facilities.

These services are managed through a framework for delivery of care which provides the platform for the design and delivery of care in the LHD. The framework is patient centred and recognises the requirement for the patient to receive care and move smoothly between services and settings. While each element of the care delivery system plays a definite and clearly delineated role the service elements join together to deliver an integrated service delivery model.

The framework for delivery of care in NNSW LHD includes:

- Geographical Networks or Health Service Groups
- LHD-wide Clinical Streams
- Population Health Services
- Clinical Networks
- Hosted and Held Services
- NGO Contracts
- Partnerships with the non-government private sector.

## 4.2 HEALTH SERVICE GROUPS

Health Service Groups provide a construct within which facilities and services can interact and provide patient care. The Health Service Group structure provides improved opportunities for recruitment of clinical workforce, especially for smaller facilities, better communication and interaction with the community, by providing a clinical map for access to care closer to resident's homes. Networking of services within the Health Service Group clarifies and supports the roles of District level and smaller facilities.

NNSW LHD is divided into two Health Service Groups:

- Tweed Byron
- Richmond Clarence.

Within the Health Service Groups, organisational structures have been aligned to maximise service networking and to provide the necessary clinical support services to ensure safe and appropriate patient care.

Within each Health Service Group residents are able to access a broad range of services however boundaries are not intended to restrict patient flows. Each Health Service Group has a self-sufficiency level which ensures the volume of care provided is sufficient to maintain workforce skills, service efficiency, safety and sustainability, and ongoing access for residents. Clinical service networking between the two Major-Non-Metropolitan Hospitals, District Group 1 and 2 Hospitals, Community Acute and MPSs to support the provision of safe care is critical to the provision of safe quality care at an appropriate role delineation level.

The role delineation of health services is intended to support coordinated, integrated health service planning and delivery by providing a standard set of minimum criteria. The “role delineation level” of a service describes the complexity of the clinical activity undertaken by that service, and assists in determining the support services, staff profile and quality standards and requirements to ensure that the clinical services are provided safely and with appropriate support.

The eight Clinical Support Services detailed in the 2002 *Guide to Role Delineation* identify the minimum suite of supporting clinical services needed to deliver a Core service at a particular level to ensure safety and quality. For example, (under the current *Guide*) a level 4 Core Cardiac Service would require the clinical support services of a level 3 Pathology Service and a level 5 Intensive Care Service.

Some clinical support services may be required on campus for clinical reasons; however, where there are off-campus clinical support services available in an LHD or Health Service Group, a Core service may be credited with having that clinical support service, if there is equivalent functional access to that service and if patient care is not compromised by that service being off-site.

Pathology is a good example of a clinical support service that may not necessarily be required on-site for a particular level of on-site core service, the essential consideration would be whether the requirements of the clinical support service is met, rather than whether the pathology service is on- or off-site. For some services such as Critical Care formal agreements and transfer protocols are essential.

Current role delineation levels for NNSW LHD services are detailed in Appendix 14.1.1. Planned role delineation levels are also detailed in individual Clinical Services Plans for The Tweed, Lismore Base and Byron Shire Central Hospitals. The *Guide to Role Delineation* (2002) is currently under review. A new *Guide to Role Delineation* and web based consistency tool will be available in 2013.

There are 11 hospitals and three MPSs in NNSW LHD, categorised by peer group as detailed in table below:

**Table 1: NNSW LHD Hospital and MPSs**

• Peer Group	• Richmond Clarence HSG	• Tweed Byron HSG
• Major Non Metropolitan/ Rural Referral	• Lismore Base Hospital	• The Tweed Hospital
• District 1	• Grafton Base Hospital	
• District 2	• Casino and District Memorial Hospital, Ballina District Hospital, Maclean District Hospital	• Murwillumbah District Hospital
• Community Acute With Surgery		• Byron Bay District Hospital
• Community Acute Without Surgery	• Bonalbo Hospital	• Mullumbimby and District Memorial Hospital
• Multipurpose Services	• Urbenville and District MPS, Kyogle MPS, Nimbin MPS	

There are 18 Community Health Centres located at various hospital sites and as stand-alone facilities throughout NNSW LHD. These are listed by LGA in the table below.

**Table 2: NNSW LHD Community Health Centres by LGA**

• Local Government Area	• Richmond Clarence HSG
• Richmond Valley	• Casino, Evans Head, Alstonville and Coraki \ Campbell
• Clarence Valley	• Grafton, Aruma, Iluka and Maclean
• Kyogle	• Kyogle, Bonalbo, Urbenville
• Lismore	• Lismore, Nimbin, Goonellabah
• Ballina	• Ballina, Alstonville
	• Tweed Byron HSG
• Byron	• Byron Bay, Bangalow, Mullumbimby
• Tweed	• Tweed Heads, Murwillumbah, Kingscliff, Pottsville (HealthOne)

A new Community Health Centre is planned for Yamba with construction to commence shortly. The Centre is expected to be operational in 2014. Additionally a HealthOne (Integrated Community Health and Primary Care) facility is planned for Coraki with a Master Plan for the former Campbell Hospital site currently under development.

## 4.3 DISTRICT WIDE CLINICAL STREAMS

Clinical Streams can be defined as an integration and coordination system for all the elements of care within a particular clinical program. NNSW LHD has introduced District-wide Clinical Streams to support clinical service delivery. The aim of the Streams is link groups of professionals and organisations from across the full range of service settings to support them to work together in a

coordinated fashion to improve service delivery across all settings and to ensure the equitable provision of high quality, clinically effective healthcare.

In some clinical streams in NNSW LHD Stream Managers manage all resources. However some clinical streams do not manage the resources available in the system, but may have a Clinical Director to provide leadership to ensure standardisation of care and a team effort to achieve specific outcomes. For the purposes of this Plan they will be referred to as Clinical Networks.

Clinical Streams include:

- Cancer Services
- Breast Screening
- Mental Health and Drug and Alcohol
- Oral Health.

## 4.4 CLINICAL NETWORKS

Formal and informal Clinical Networks have also been established in NNSW LHD to facilitate strong relationships, improve clinical practice and to develop and implement new models of care. Clinical Networks are not management structures. Members work collaboratively across the continuum of care with a range of partners from within and outside the Health Service.

Clinical Networks within the Health Service Groups provide a platform for clinical support and professional development which are a critical element in defining and supporting the role of District level and smaller facilities.

Some Clinical Networks within the Health Service Groups rely on the Major Non-Metropolitan Hospital acting as the hub with each facility within the Health Service Group having a delineated role and the capability to operate at their designated level.

- Critical Care and Emergency Services
- Aged Care
- Rehabilitation
- Palliative Care
- Renal Services
- Cardiology Services
- Surgical Services
- Women's Care and Neonates
- Children's Health Services
- Primary and Chronic Care.

### CROSS DISTRICT AND CROSS BORDER REFERRAL NETWORKS

Every LHD is part of a referral network with other Districts and Health Services. The LHD must ensure the continued effective operation of these networks, especially the following.

### NSW CRITICAL CARE TERTIARY REFERRAL NETWORKS AND TRANSFER OF CARE (ADULTS)

This Network relates to critically ill adult patients and patients at risk of critical deterioration requiring referral and transfer. The NSW Critical Care Tertiary Referral Networks (Adults) define the



links between LHDs and tertiary referral hospitals and take into account established functional clinical referral relationships. (PD2010\_021).

### NETWORK FOR ADULT PATIENTS REQUIRING SPECIALIST CARE

This Network is for the transfer of adult patients requiring specialist care where existing clinical referral pathways do not exist or access to safe and timely care is delayed. Nominated tertiary referral centres are designated for this purpose and require senior clinicians, with facility Patient Flow Units, to coordinate the safe and timely transfer of patients. (PD2011\_031).

### CRITICAL CARE TERTIARY REFERRAL NETWORKS (PAEDIATRICS)

This Network relates to critically ill paediatric patients and paediatric patients at risk of critical deterioration requiring referral and transfer. The NSW Critical Care Tertiary Referral Networks (Paediatrics) define the links between LHDs and specialist Children's Hospitals, necessary for the timely transfer of critically ill children to higher levels of care. (PD2010\_030).

### CRITICAL CARE TERTIARY REFERRAL NETWORKS (PERINATAL)

This Network relates to critically ill neonates and women with high risk pregnancies that require specialist, level 5 and 6 services. The NSW Critical Care Tertiary Referral Networks (Perinatal) define the links between LHDs and principal referral hospitals and take into account established functional clinical referral relationships. (PD2010\_069).

### NSW SEVERE BURN INJURY SERVICE REFERRAL NETWORK

This Network relates to patients with severe burn injuries that require specialist burns management according to the criteria outlined in the NSW Severe Burn Injury Service - Burn Transfer Guidelines/Burns Transfer Flow Chart. The NSW Severe Burns Networks define the links between LHDs and principal referral hospitals for adults and children, and for patients with combined severe trauma and severe burns.

### NSW ACUTE SPINAL CORD INJURY REFERRAL NETWORK

The Spinal Cord Injury Referral Network describes specialist spinal services for acute spinal cord injuries and networked services across the State. The key element of this referral network is the coordination and facilitation of bed finding for acute spinal cord injuries with neural loss, by the NSW Aeromedical and Medical Retrieval Service (AMRS), who will facilitate communication between referring services and spinal unit clinicians in relation to acute clinical care.

## 4.5 HOSTED AND HELD SERVICES

With the transition from the North Coast Area Health Service (NCAHS) to form NNSWLHD and MNC LHD a process was established to identify those area-wide services which could be divided and those that would require a hosted or held arrangement. There was agreement that the LHD where the manager of a hosted service resided would have management and financial responsibility for the operation of the service.

The Executives of both LHDs endorsed a range of services which would be suitable to remain as a Hosted Service for varying periods of time. Service budgets are managed by the respective LHD Finance Departments. Staff of a Hosted Service are employees of the Hosting LHD irrespective of which LHD they are located in. Both LHDs have a governance structure that provides management oversight of the Hosted Services.

On 31 May 2011 NNSW LHD and MNC LHD signed a Hosted Services Partnership Agreement which outlines the objectives and principles of the Agreement, those services to be hosted and by which organisation and a range of standard conditions including clinical quality and governance arrangements. A Partnership Agreement Governance Committee was established including the Chief Executives of both LHDs and a reporting structure developed through a NNSW LHD Hosted and Held Services Sub-Committee. Each service hosted by NNSW LHD provides a report to the Sub-Committee and has agreed performance targets which are monitored through the meeting and through the Partnership Agreement Governance Committee.

Those services which continue to be hosted by NNSW LHD include:

- Revenue Services
- Medical Administration
- Research and Ethics
- Infection Prevention and Control
- Renal Services (Strategic leadership)
- SWISH (State Wide Infant Screening – Hearing)
- BreastScreen
- Child Protection/Keep Them Safe
- Aboriginal Mental Health.

Where matters of concern are raised by either LHD regarding the delivery of services or allocation of resources, these matters are discussed at the Sub-Committee and a resolution is sought. If a resolution is not agreed upon by both LHDs the matter is then scheduled for resolution at the Partnership Agreement Governance Committee. MNC LHD Hosted Services report through their governance structures.

Those services which continue to be hosted by MNC LHD include:

- ICT
- Cancer Services (Strategic leadership)
- Public Health (Held Service).

## 4.6 POPULATION HEALTH

Population health services in Northern NSW LHD include:

- Aboriginal Health
- Public Health
- Health Promotion
- Women's Health
- Men's Health Services.

## 4.7 HEALTH FUNDED NON-GOVERNMENT ORGANISATIONS

NSW Health provides funding under the NSW Health Non-Government Organisation (NGO) Grants Program for a broad range of health and health related services under the following programs:

- Drug and Alcohol

- National Women's Health
- Women's Health and Family Planning
- Community Services and Health Transport
- Mental Health
- Aboriginal Health
- Palliative Care.

Services are managed through a Funding and Performance Agreement.<sup>7</sup>

## 4.8 COMMUNITY AND CLINICIAN ENGAGEMENT

NNSW LHD Strategic Objective nine is "Involve the community in decision making". To achieve this NNSW LHD will:

- Ensure that systems and processes are in place to protect the rights and interests of key stakeholders and that they are provided access to balanced and understandable information about the organisation and its proposals
- Ensure consideration of diversity in representation of stakeholders including Local Government, Education, NGO, Clinicians and equal opportunity in engagement structures and processes
- Maintain and improve clinician and community engagement structures, systems and processes for involving both staff and the community in decision making
- Explore issues initiating from the clinician and community engagement structures for future planning and development of services within NNSW LHD
- Develop communication tools and processes to keep staff and community informed about the activities and services of NNSW LHD and about opportunities for engagement.

### MEDICAL AND CLINICAL COUNCILS

NNSW LHD By-Laws required the establishment of an LHD Medical Staff Executive Council, an LHD Clinical Council, Hospital Clinical Councils and Hospital Medical Staff Councils. These Councils were established to provide advice to the NNSW LHD Board and Executive.

- Four Hospital Clinical Councils have been established in NNSW LHD:
- Tweed Byron Hospitals Clinical Council
- Lismore, Ballina and Casino Hospitals Clinical Council
- Richmond Smaller Hospitals Clinical Council
- Clarence Valley Clinical Council.

Following consultation a 15 member District Clinical Council was established and held its first meeting in September 2011. The membership meets the NNSW LHD By-Law requirements and includes an additional Senior Clinician from Allied Health, Nursing and Medicine and an additional three positions aimed at increasing the diversity of membership to support involvement from areas such as Oral Health and Aboriginal Health.

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<sup>7</sup> See Section 10.8 Health Funded Non-Government Organisations

The District Medical Staff Executive Council consists of two representatives from the Lismore Base Hospital and The Tweed Hospital Medical Staff Councils and one representative from each of the other NNSW LHD Hospital Medical Staff Councils.

### COMMUNITY AND STAKEHOLDER ENGAGEMENT

NNSW LHD has endorsed a number of key advisory committees and mechanisms for stakeholder and community engagement these being:

- Community Engagement Advisory Council
- Mental Health Forum
- Ngayundi Aboriginal Health Council
- Carers Consultation Model
- Non-Government Forum - for Health Funded NGOs.

The NNSW LHD Community Engagement Advisory Council has 30 members made up of a combination of grass roots community membership through Expressions of Interest and targeted membership including Local Government, Education and NGO Sectors. The Membership is spread geographically across the District and includes a diversity of representation from smaller and larger towns.

The primary role of the Community Engagement Advisory Council is to provide advice to NNSW LHD on its communications and engagement with the wider community.

Points from the Community Engagement Advisory Councils discussions on community engagement have included:

- Community engagement needs to be planned and be undertaken early in the change process
- Need to sell the benefits 'what's in it for me'
- Need to educate the community in relation to changes in health service delivery, for example home visits
- Difficult for small communities to rationalise if they feel that they are losing their services and hospitals which are seen as 'social capital'
- Communities need to be better informed, it is difficult to counter misinformation
- Use of local champions has been successful in previous processes e.g. Kyogle Multi-Purpose Service.

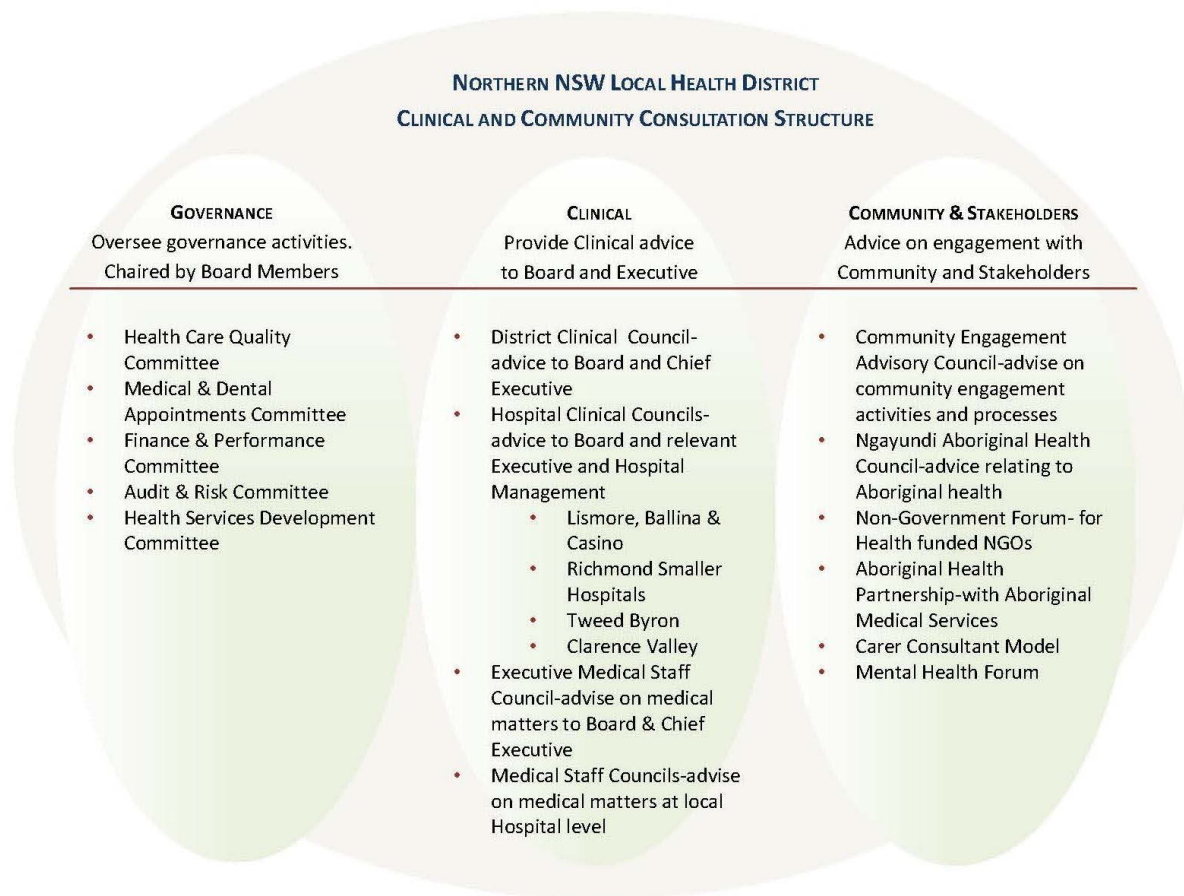
Advice from the Community Engagement Advisory Council supports consultation at the local and/or service level not being a 'one size fits all' but targeted to meet specific requirements such as consultation relating to changes in service delivery at a particular site or across the District.

The Ngayundi Aboriginal Health Council hosts four full day community meetings at various communities within NNSW LHD each year. An Ngayundi Executive, with 10 members from diverse communities of NNSW LHD, meets in between the Ngayundi Community meetings to follow up on issues which have been raised at the Ngayundi Community meetings.

### NNSW LHD CLINICIAN AND COMMUNITY CONSULTATION STRUCTURE

NNSW LHD has established formal structures for community and clinician participation (see following figure).

**Figure 5: NNSWLHD Clinician and Community Consultation Structure**



## COMMUNICATIONS

A Community Engagement Database has been established for individuals and organisations to register their interest to be kept informed of opportunities to be involved. The NNSW LHD newsletter Northern Exposure and information of interest as well as engagement opportunities are forwarded to the Community Engagement Database Members on a regular basis. The Northern Exposure newsletter contains an insert three times a year giving an update on activities of the Community and Clinician Engagement structures.

Minutes of the District Clinical Council are available to NNSW LHD Staff on the Intranet.

## KEY ISSUES

- The need for ongoing evaluation and development of the formal Clinician and Community Engagement Structures and the development of resources and processes to support engagement
- The need to ensure that Community and Clinician Engagement is embedded into the culture of the NNSW LHD and considered a part of everyone's business
- The impact of implementation of the National Safety and Quality Health Service Standard.

#### 4.8.1 MEDIA AND COMMUNICATIONS

Operating within the Office of the Chief Executive, this Unit has a brief to foster an awareness and understanding, both internally and externally, of the activities and achievements of NSW LHD, notably the safety, quality, makeup and location of the services provided.

As well as offering current information on service delivery, including service changes, and upcoming community events, key areas of focus are promoting the excellence of clinical staff and the satisfaction of patients/clients/ carers with the healthcare they have received; advising on healthy lifestyle practices; updating the community on the progress of important capital works enhancements and helping community members understand their partnership role in the health planning and service delivery process.

The Unit communicates key messages to its prime internal audience, NSW LHD staff through the development and distribution of the Chief Executives newsletter, *Northern Exposure*, and providing content to the organisations intranet. It connects the NSW LHD with external audiences – stakeholders and the broader community – through a proactive media communications strategy, which includes issuing media releases and arranging interviews for press, radio and television, the timely use of the NSW LHD internet, and an increasing involvement with social media platforms.

### 4.9 PRIVATE PROVIDERS <sup>8</sup>

Private hospitals are located at Coffs Harbour and Lismore. Private Day Surgery centres are located at Ballina, Tweed Heads and Lismore.

**Table 3: List of Private Providers within NSW LHD**

Hospital	Type	Location	Beds
Lismore Private Day Surgery	Day Surgery	Lismore	
St Vincent's Private Hospital	St Vincent's Private Hospital offers medical services including: general medicine, rehabilitation, palliative care, ophthalmology, facio-maxillary, pathology, radiology, ultrasound, pharmacy, physiotherapy, occupational therapy, psychology, podiatry, speech pathology, dietetics, and rehabilitation. The Day Surgery Unit is supported by three fully equipped operating theatres, a six bed recovery room and modern Sterilising Department. Specialties providing day procedures are dental, ear, nose and throat, gastroenterology, general surgery, gynaecology, ophthalmology, maxillofacial, orthopaedics, urology, plastic surgery, endoscopy and vascular surgery. Other services include: diabetes management, sleep studies, oncology and renal.	Lismore	87 beds 15 chairs

<sup>8</sup> <http://www.johnflynnprivate.com.au/>  
<http://www.baringprivate.com.au/>  
<http://www.portmacquarieprivate.com.au/>  
<http://www.svh.org.au/>  
<http://www.currumbinclinic.com.au/>  
<http://www.currumbinclinic.com.au/http://www.pindarprivate.com.au/>

Hospital	Type	Location	Beds
Ballina Day Surgery	Ballina Day Surgery offers ophthalmology, orthopaedics, endoscopy, plastic and reconstructive surgery, maxillofacial/oral surgery and ear, nose and throat services.	Ballina	5 beds 5 chairs
Tweed Day Surgery	Tweed Day Surgery offers gastroenterology and endoscopy, ophthalmology, ear, nose and throat surgery, maxillofacial surgery, orthopaedic, oral and dental surgery, gynaecology, urology, plastic, reconstructive and cosmetic surgery, pain management clinic and general surgery.	Tweed Heads	11 beds 10 chairs
John Flynn Private Hospital	John Flynn is a 323 bed acute care hospital located at Tugun, on the southern end of Queensland's Gold Coast. The Hospital provides a 24 hour emergency care centre, comprehensive cardiac services, general and orthopaedic surgery, gastroenterology, obstetrics, gynaecology, IVF services, medical services, maternity, paediatrics, renal dialysis, day surgery and rehabilitation services. John Flynn Cancer Centre in collaboration with the East Coast Cancer Centre provides a comprehensive service for the treatment of cancer patients conveniently located under the one roof. The Centre can provide services ranging from diagnostics through to treatments such as surgery, chemotherapy or radiation therapy, radiology and on-site pathology and pharmacy.	Gold Coast	323 beds
Pindara	Pindara has 260 licensed beds, 18 operating theatres, a cardiac catheterisation lab, a nine bed ICU and a five bed CCU; four delivery suites, 25 maternity beds and a 16 cot special care nursery, and a specialised 13 bed paediatric ward; as well as modern ward accommodation for medical and surgical patients. Services include: <ul style="list-style-type: none"> <li>• 24 hour Emergency and Cardiac Centre</li> <li>• Cardiac and Coronary Care supported by Cardiac Catheter Laboratory</li> <li>• Obstetrics, Gynaecology and IVF</li> <li>• Paediatrics</li> <li>• Day, General, Ear Nose and Throat, Orthopaedic, Breast, Bariatric/Obesity, Colorectal, Plastic and Vascular Surgery</li> <li>• Respiratory Medicine supported by a lung function laboratory</li> <li>• Gastroenterology supported by a dedicated endoscopy unit</li> <li>• Urology</li> <li>• Urogynaecology</li> <li>• General Medicine</li> <li>• Day Oncology</li> <li>• Day procedure.</li> </ul>	Gold Coast	260 beds

Hospital	Type	Location	Beds
Currumbin Clinic	Currumbin Clinic is a 104 bed private hospital that specialises in therapeutic interventions for issues relating to mood, anxiety, psychiatric, drug and alcohol.	Currumbin (Gold Coast)	104 beds
Coffs Harbour Day Surgery Centre	Coffs Harbour Day Surgery Centre is managed by Ramsay Health Care. Services include: ophthalmology, plastic surgery, general surgery, vitreoretinal and vascular day surgery.	Coffs Harbour	2 beds 4 chairs
Baringa Private Hospital	Baringa Private Hospital services Coffs Harbour and surrounding areas and provides services including; general surgery, general medicine and IVF. The hospital also incorporates a Special Care Unit and a Day Procedure Unit. Baringa also has a Rehabilitation Centre providing rehabilitation, physiotherapy, hydrotherapy, occupational therapy, speech therapy; massage therapy, psychology and exercise therapy for inpatients, outpatients and to clients in their homes. Baringa Private Hospital has a new five bed medical suite which has adjoining facilities for family and friends, a new day rehabilitation program, radiology, pathology and physiotherapy services are available on site.	Coffs Harbour	80 beds



## 5

## CURRENT ACTIVITY

## 5.1 HOSPITAL INPATIENT SEPARATIONS

NNSW LHD public hospitals provided a total of 76,383 inpatient separations in 2011/12. This represented a 5.6% increase on 2009/10. These separations include acute, sub-acute and mental health separations as indicated in the table below. There were 241,617 inpatient beddays associated with these 76,383 separations in 2011/12 an average length of stay of 5 days across all forms of inpatient activity.

Over half (58.6%) of the total separations in NNSW LHD were provided by the two Rural Referral Hospitals, The Tweed Hospital (31.5%) and Lismore Base Hospital (27.1%). A further 20% of total separations were provided at either Grafton Base Hospital (11.8%) or Murwillumbah District Hospital at (8.1%).

**Table 4: Current Hospital Activity – NNSW LHD Hospitals 2009/10-2011/12**

	Day Only Separations			Overnight Separations			Overnight Beddays			Total Separations			% change 2009/10- 2011/12
	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12	
Ballina	3,535	2,742	2,779	1,812	1,861	2,047	16,683	17,252	20,284	5,347	4,603	4,826	- 0
Bonalbo	44	28	67	461	479	204	1,735	2,165	855	505	507	271	- 0
Byron Bay	449	406	730	765	712	722	4,563	4,235	3,935	1,214	1,118	1,452	0
Casino	1,055	1,515	1,622	1,477	1,649	1,556	7,864	8,506	8,398	2,532	3,164	3,178	0
Grafton	3,208	3,328	3,479	5,175	5,240	5,515	22,003	24,415	23,276	8,383	8,568	8,994	0
Kyogle	107	128	186	687	687	716	2,942	3,020	2,686	794	815	902	0
Lismore Base	6,079	7,002	6,269	13,498	14,230	14,446	70,908	73,720	73,763	19,577	21,232	20,715	0
Maclean	677	696	1,601	1,924	2,012	2,080	13,127	11,327	12,838	2,601	2,708	3,681	0
Mullumbimby	237	246	386	937	875	891	3,842	3,816	3,484	1,174	1,121	1,277	0
Murwillumbah	2,643	2,696	2,686	3,772	3,528	3,483	20,282	19,175	19,373	6,415	6,224	6,169	- 0
Nimbin	9	11	25	152	154	138	880	1,070	922	161	165	163	0
St. Vincents Lismore(Pub. Pats.)	359	347	381	196	177	204	1,845	1,761	1,969	555	524	585	0
Tweed	7,115	7,122	7,398	15,806	16,347	16,642	65,533	67,697	68,832	22,921	23,469	24,040	0
Urbenville	50	46	24	92	115	106	466	601	1,002	142	161	130	- 0
<b>Grand Total</b>	<b>25,567</b>	<b>26,313</b>	<b>27,633</b>	<b>46,754</b>	<b>48,066</b>	<b>48,750</b>	<b>232,673</b>	<b>238,760</b>	<b>241,617</b>	<b>72,321</b>	<b>74,379</b>	<b>76,383</b>	<b>0</b>

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch Acute, Sub/Non-Acute, Other and Mental Health Separation. Excludes Chemotherapy, Renal Dialysis and Unqualified Neonates

The majority of total separations (95%) were admitted to NNSW LHD public hospitals for an acute episode of care and the casemix for these 72,286 separations is provided in the table below. There was a 3.8% increase in acute separations between 2009/10 and 2011/12 across all facilities. The most common reasons for admission were cardiology (7,118 separations or 10% of the total), orthopaedics (8%), non-subspecialty surgery (8%), gastroenterology (8%), obstetrics (7%), respiratory medicine and non-subspecialty medicine (7%).

Of the total 72,286 acute separations 27,542, or 38%, were Day Only separations. Some services were almost exclusively provided on a Day Only basis including ophthalmology (95%), dentistry (95%) and diagnostic gastrointestinal endoscopy (86%). The Service Related Group (SRG) with the greatest increase in separations was interventional cardiology, reflecting the recent establishment of this service at Lismore Base Hospital.

The number of acute Overnight separations across all facilities has remained fairly constant over the past 3 years at just over 44,000 separations. Over the same period, the total volume of Day Only separations has increased by 8%.

**Table 5: Current Acute Hospital Activity by SRG - NNSW LHD Hospitals 2009/10-2011/12**

	Day Only Separations			Overnight Separations			Total Separations			% change 2009/10- 2011/12
	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12	
11 Cardiology	1,636	1,950	2,333	4,762	4,824	4,785	6,398	6,774	7,118	0
12 Interventional Cardiology	39	101	65	87	413	380	126	514	445	3
13 Dermatology	92	96	111	172	176	167	264	272	278	0
14 Endocrinology	62	43	69	372	383	331	434	426	400	- 0
15 Gastroenterology	2,297	2,444	2,502	3,109	3,196	3,144	5,406	5,640	5,646	0
16 Diagnostic GI Endoscopy	2,541	3,097	2,560	450	419	406	2,991	3,516	2,966	- 0
17 Haematology	116	92	83	327	301	278	443	393	361	- 0
18 Immunology and Infections	228	222	253	504	498	460	732	720	713	- 0
19 Oncology	160	115	120	631	554	622	791	669	742	- 0
21 Neurology	1,048	1,099	1,143	2,115	2,226	2,182	3,163	3,325	3,325	0
22 Renal Medicine	1,475	500	321	555	548	596	2,030	1,048	917	- 1
24 Respiratory Medicine	572	640	811	4,148	4,334	4,445	4,720	4,974	5,256	0
25 Rheumatology	100	107	103	189	169	204	289	276	307	0
26 Pain Management	328	380	393	157	171	180	485	551	573	0
27 Non Subspecialty Medicine	899	949	1,107	4,067	4,107	4,277	4,966	5,056	5,384	0
41 Breast Surgery	103	130	111	176	190	212	279	320	323	0
42 Cardiothoracic Surgery			1	35	36	53	35	36	54	1
43 Colorectal Surgery	287	294	348	555	532	498	842	826	846	0
44 Upper GI Surgery	172	174	175	1,156	1,154	1,137	1,328	1,328	1,312	- 0
46 Neurosurgery	293	312	338	1,032	995	1,030	1,325	1,307	1,368	0
47 Dentistry	474	498	471	18	34	26	492	532	497	0
48 ENT & Head and Neck	736	786	873	1,617	1,359	1,399	2,353	2,145	2,272	- 0
49 Orthopaedics	1,956	1,884	2,210	3,555	3,597	3,891	5,511	5,481	6,101	0
50 Ophthalmology	2,173	2,300	2,462	112	138	136	2,285	2,438	2,598	0
51 Plastic and Reconstructive Surg.	1,043	1,072	1,035	507	461	432	1,550	1,533	1,467	- 0
52 Urology	1,362	1,518	1,645	1,352	1,272	1,098	2,714	2,790	2,743	0
53 Vascular Surgery	206	232	252	641	681	704	847	913	956	0
54 Non Subspecialty Surgery	1,911	2,095	2,371	3,774	3,854	3,736	5,685	5,949	6,107	0
62 Extensive Burns	6	1	2	6	20	17	12	21	19	1
63 Tracheostomy	1			79	75	73	80	75	73	- 0
71 Gynaecology	1,615	1,672	1,669	1,010	984	890	2,625	2,656	2,559	- 0
72 Obstetrics	789	738	741	4,599	4,520	4,578	5,388	5,258	5,319	- 0
73 Qualified Neonate	65	87	95	921	909	1,158	986	996	1,253	0
81 Drug and Alcohol	357	310	369	742	731	703	1,099	1,041	1,072	- 0
82 Psychiatry - Acute	338	352	383	567	540	466	905	892	849	- 0
99 Unallocated	14	24	17	28	79	50	42	103	67	1
<b>Grand Total</b>	<b>25,494</b>	<b>26,314</b>	<b>27,542</b>	<b>44,127</b>	<b>44,480</b>	<b>44,744</b>	<b>69,621</b>	<b>70,794</b>	<b>72,286</b>	<b>0</b>

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch Acute Separations. Excludes Chemotherapy, Renal Dialysis, Unqualified Neonates

The total number of acute separations provided by the individual hospital facilities within NNSW LHD in 2011/12 are presented in Table 6 for hospitals within the Tweed Byron Health Service Group, and in Table 7 for hospitals within the Richmond Clarence Health Service Group. It should be noted that in comparison to Table 4 these inpatient separations are for acute episodes only and do not include sub-acute, non-acute or mental health episodes of care.

In 2011/12 The Tweed Hospital provided 74% of the total acute separations within the Tweed Byron Health Service Group. Murwillumbah District Hospital provided a further 18% of total acute separations and Byron District Hospital and Mullumbimby and District War Memorial Hospital provided the remaining 8% of separations. The role of The Tweed Hospital in providing more complex, tertiary referral services is reflected in the volume of the more specialised service related groups as indicated in Table 6.

Within the Richmond Clarence Health Service Group, Lismore Base Hospital provided around half (48%) of the total acute separations in 2011/12. Grafton Base Hospital provided a further 21%, and Ballina District (11%), Maclean District (8.6%) and Casino and District Memorial (7.6%) Hospitals provided a further 27% collectively.

**Table 6: Current Acute Hospital Separations - Tweed Byron Health Service Group 2011/12**

SRG	Byron Bay	Mullumbimby	Murwillumbah	Tweed Heads	Total HSG
11 Cardiology	186	182	455	2,529	3,352
12 Interventional Cardiology				27	27
13 Dermatology	12	9	12	94	127
14 Endocrinology	4	4	19	143	170
15 Gastroenterology	127	91	380	1,755	2,353
16 Diagnostic GI Endoscopy	226		185	794	1,205
17 Haematology	20	1	14	88	123
18 Immunology and Infections	20	23	32	242	317
19 Oncology	8	3	52	260	323
21 Neurology	78	87	226	1,143	1,534
22 Renal Medicine	9	13	47	294	363
24 Respiratory Medicine	117	120	428	1,654	2,319
25 Rheumatology	22	7	22	84	135
26 Pain Management	8	13	26	227	274
27 Non Subspecialty Medicine	188	122	344	1,724	2,378
41 Breast Surgery			3	123	126
42 Cardiothoracic Surgery				44	44
43 Colorectal Surgery	1		82	253	336
44 Upper GIT Surgery	7	12	78	463	560
46 Neurosurgery	39	44	111	474	668
47 Dentistry			56	160	216
48 ENT & Head and Neck	13	11	171	854	1,049
49 Orthopaedics	50	35	581	2,055	2,721
50 Ophthalmology	10	3	611	62	686
51 Plastic and Reconstructive Surg.	3	2	151	200	356
52 Urology	11	18	311	991	1,331
53 Vascular Surgery	7	3	19	94	123
54 Non Subspecialty Surgery	118	77	354	2,074	2,623
62 Extensive Burns	1		2	3	6
63 Tracheostomy				46	46
71 Gynaecology	10	7	149	820	986
72 Obstetrics	1	195	419	2,163	2,778
73 Qualified Neonate	1	80	198	450	729
81 Drug and Alcohol	64	39	61	438	602
82 Psychiatry - Acute	46	29	56	296	427
99 Unallocated			1	27	28
<b>Grand Total</b>	<b>1,407</b>	<b>1,230</b>	<b>5,656</b>	<b>23,148</b>	<b>31,441</b>

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch Acute Separations. Excludes Chemotherapy, Renal Dialysis, Unqualified Neonates

**Table 7: Current Acute Hospital Separations Richmond Clarence Health Service Group 2011/12**

SRG	Ballina	Casino	Grafton	Kyogle	Lismore Base	Maclean	Nimbin	St. Vincent	Urbenville	Total HSG
11 Cardiology	721	408	549	103	1,380	530	16		16	3,723
12 Interventional Cardiology					418					418
13 Dermatology	17	15	29	6	58	22	1			148
14 Endocrinology	28	12	59	8	86	30	1		5	229
15 Gastroenterology	351	228	847	99	1,307	397	10	5	13	3,257
16 Diagnostic GI Endoscopy	3	6	689	1	954	100	1	7		1,761
17 Haematology	14	7	28	4	155	27	2			237
18 Immunology and Infections	26	30	88	21	189	35	5		1	395
19 Oncology	35	24	82	5	203	53	3		2	407
21 Neurology	347	130	278	85	749	170	7	1	1	1,768
22 Renal Medicine	50	23	89	19	316	48	1		1	547
24 Respiratory Medicine	408	262	630	111	1,061	371	27	1	22	2,893
25 Rheumatology	33	8	49	2	54	16	3	2	2	169
26 Pain Management	90	29	35	9	82	42			2	289
27 Non Subspecialty Medicine	442	272	587	127	996	470	17	12	24	2,947
41 Breast Surgery	14	25	7		149					195
42 Cardiothoracic Surgery			1		9					10
43 Colorectal Surgery	23	15	185		280	6		1		510
44 Upper GI/T Surgery	67	35	177	16	394	59	1		2	751
46 Neurosurgery	84	34	113	34	288	132	5	1	5	696
47 Dentistry		128	60		93					281
48 ENT & Head and Neck	83	176	259	32	599	55	4		3	1,211
49 Orthopaedics	286	403	654	20	1,734	256	4	8	2	3,367
50 Ophthalmology	21	4	376	6	1,127	14		359	2	1,909
51 Plastic and Reconstructive Surg.	210	72	387	3	30	97	1	6		1,106
52 Urology	216	131	119	14	858	59	3	4	1	1,405
53 Vascular Surgery	113	12	48	3	619	32			2	829
54 Non Subspecialty Surgery	525	288	737	74	1,469	302	10	3	16	3,424
62 Extensive Burns		1	2		7				1	11
63 Tracheostomy			1		26					27
71 Gynaecology	31	129	477	5	912	16		1	2	1,573
72 Obstetrics	17	98	595	7	1,790	34				2,541
73 Qualified Neonate	5	15	83	1	416	3				523
81 Drug and Alcohol	79	43	98	11	165	60	7		1	464
82 Psychiatry - Acute	81	24	118	18	105	56	13			415
99 Unallocated	1	5	3		28			1		38
<b>Grand Total</b>	<b>4,421</b>	<b>3,092</b>	<b>8,539</b>	<b>844</b>	<b>19,406</b>	<b>3,492</b>	<b>142</b>	<b>412</b>	<b>126</b>	<b>40,474</b>

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch Acute Separations. Excludes Chemotherapy, Renal Dialysis, Unqualified Neonates

## 5.2 AMBULATORY CARE ACTIVITY

Non admitted data currently includes a wide range of services including Medical Imaging, Physiotherapy Outpatients, Emergency Departments and Community Health activity. Community Health will be moving to a Cerner application which will include point of care clinical recording which will ensure a much more robust data collection system. In 2011/12 there were changes in the reporting of ED activity with the majority of NNSW LHD ED sites reporting ED activity through FirstNet.

The table below details Non Admitted Patient Occasions of Service (NAPOOS) for NNSW LHD for 2011/12 and a comparison with targets derived from 2010/11 results. Prior to July 2011 NAPOOS were reported on a NCAHS basis. Changes in activity at the service level may more closely relate to changes in reporting rather than actual activity however in some instances e.g. Coraki the change relates to the service closure and relocation of the Community Health staff who may be reporting against their base location rather than service location.

**Table 8: Table: Northern NSW LHD NAPOOS Activity 2011/ 2012**

FACILITY	YTD Actual	YTD		
		YTD Target	Variance	Variance %
Maclean	11,157	12,749	-1,592	-12.5%
Grafton	49,241	54,712	-5,472	-10.0%
Maclean CHC	27,586	27,743	-157	-0.6%
Grafton CHC	34,875	37,323	-2,449	-6.6%
<b>Clarence Total</b>	<b>122,858</b>	<b>132,527</b>	<b>-9,670</b>	<b>-7.3%</b>
Ballina	32,705	24,783	7,922	32.0%
Bonalbo	5,577	4,347	1,230	28.3%
Coraki	465	1,722	-1,257	-73.0%
Casino	20,492	22,571	-2,079	-9.2%
Lismore	120,443	116,603	3,840	3.3%
Nimbin	7,285	8,082	-797	-9.9%
Urbenville	4,733	4,217	516	12.2%
Kyogle	19,113	20,603	-1,490	-7.2%
Ballina CHC	43,123	40,994	2,130	5.2%
Bonalbo CHC	969	957	12	1.3%
Coraki CHC	7,976	10,178	-2,202	-21.6%
Casino CHC	21,719	21,157	562	2.7%
Lismore CHC	52,547	46,401	6,145	13.2%
Lismore Pathology Service	163,296	165,613	-2,317	-1.4%
<b>Richmond Total</b>	<b>500,443</b>	<b>488,229</b>	<b>12,214</b>	<b>2.5%</b>
Byron	11,513	13,098	-1,585	-12.1%
Mullumbimby	9,431	9,460	-29	-0.3%
Murwillumbah	36,023	33,325	2,698	8.1%
Tweed Heads	126,114	126,257	-143	-0.1%
Mullumbimby CHC	9,338	10,835	-1,497	-13.8%
Murwillumbah CHC	44,784	48,721	-3,937	-8.1%
Tweed Heads CHC	92,257	85,078	7,179	8.4%
Byron CHC	20,049	19,460	590	3.0%
<b>Tweed Total</b>	<b>349,509</b>	<b>346,233</b>	<b>3,276</b>	<b>0</b>
NNSW Drug & Alcohol	91,475	86,417	5,059	5.9%
NNSW Oral Health	29,099	65,557	-36,458	-55.6%
NNSW Aboriginal Health	11,225	11,116	109	1.0%
NNSW Population Health	10,533	10,790	-257	-2.4%
<b>Total</b>	<b>142,333</b>	<b>173,880</b>	<b>-31,547</b>	<b>-18.1%</b>
<b>NNSW Total</b>	<b>1,115,142</b>	<b>1,140,869</b>	<b>-25,727</b>	<b>-1.07%</b>

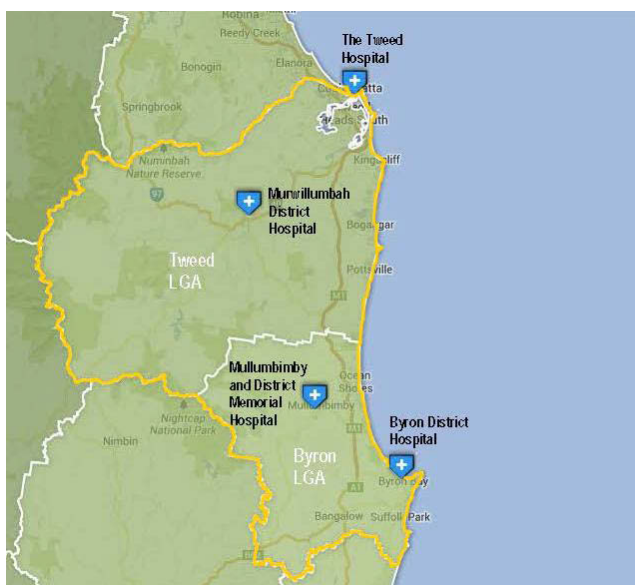
Source: NNSW LHD Internal Casemix Reporting Attachment A July 2012

## 6 FACILITIES AND SERVICES

### 6.1 TWEED BYRON HEALTH SERVICE GROUP

The Tweed Byron Health Service Group covers an area of 1,876 square kilometres and is the northern most part of NNSW LHD. Tweed Byron Health Service Group shares its southern border with the Richmond Clarence Health Service Group, its western border with Hunter New England LHD and its northern border with Queensland.

The Tweed Byron Health Service Group catchment includes Tweed and Byron LGAs with an estimated population of approximately 119,288 in 2011, and projected growth of 9% to 136,018 in 2016 and a further 8% to 157,948 in 2021.<sup>9</sup>



The population of the Southern Gold Coast regularly accessing services at The Tweed Hospital was approximately 51,870 in 2011, and is projected to grow by 14% to 59,276 in 2016 and by 20% between 2011 and 2021 to 62,226.<sup>10</sup>

The Tweed Byron Health Service Group forms a network of clinical services which are linked through a formal management structure. Service networking is well established, this has been supported through a developing medical governance model with Directors of Emergency Medicine, Paediatrics and Obstetrics appointed to facilitate service integration and appropriate delineation of roles.

Within the Health Service Group, The Tweed Hospital is the only Major Non-Metropolitan Principal Referral Hospital. The Tweed Valley Clinic located at The Tweed Hospital, is the only specialist Mental Health Inpatient Unit in the Health Service Group.

Other facilities within the Health Service Group include Murwillumbah District Hospital which is closely linked to The Tweed Hospital and is 30km from The Tweed Hospital (EDT of 20 minutes), Byron Bay District Hospital which is 65km from The Tweed Hospital (EDT of 45min), and Mullumbimby and District War Memorial Hospital which is 55km from The Tweed Hospital (EDT of 30min). A new Central Hospital for Byron Shire is planned and will be constructed at Ewingsdale close to the Pacific Highway. The distance between the proposed Byron Shire Central Hospital and The Tweed Hospital will be approximately 59 km (EDT 35 min).

Murwillumbah District Hospital, Byron Bay District Hospital and Mullumbimby and District War Memorial Hospital refer their tertiary patients to The Tweed Hospital. The Tweed Hospital provides emergency operating theatres for all surgery, intensive care, coronary care, acute mental health and

<sup>9</sup> NSW Health Population Projection Series 1. 2009, Department of Planning & Statewide Services Development Branch, NSW Health, March 2009

<sup>10</sup> Queensland Government Population Projections 2011 edition (medium series), Office of Economic and Statistical Research, Queensland Treasury

a range of diagnostic services 24 hours day. The majority of specialist medical, surgical and other services within the Tweed Byron Health Service Group are provided at The Tweed Hospital, which forms the hub for clinical services.

Community Health Centres are located at a range of locations including Tweed Heads, Kingscliff, Murwillumbah, Mullumbimby, Byron Bay and Bangalow. A new HealthOne facility with a collocated general practice has recently opened at Pottsville.<sup>11</sup>

The Executive Director has overall accountability and responsibility for Tweed Byron Health Service Group. This position reports to the Chief Executive and is a member of the NNSW LHD Executive. The following positions report to the Executive Director and form the Tweed Byron Health Service Group Executive:

- Director of Medical Services, Tweed Byron Health Service Group
- Director of Nursing The Tweed Hospital and Murwillumbah District Hospital
- Director of Allied Health and Community Health and Site Manager Murwillumbah District Hospital
- Executive Officer/Director of Nursing Byron Bay District Hospital
- Executive Officer/Director of Nursing Mullumbimby and District War Memorial Hospital
- Business Manager Tweed Byron Health Service Group.

The Executive Team is working to address a range of issues in relation to service networking including bed management, networked surgical and critical care services and coordinating services across sites, much improved medical governance and service integration. Resource sharing, provision of clinical support, education and training, best-practice care and leadership are an integral part of the operations of the Tweed Byron Health Service Group.

Mental Health Services are organised in a separate Clinical Stream across the District and there is a Network Manager for Tweed Byron Mental Health with responsibility for all community and inpatient mental health services from Byron to Tweed. The position reports to the District Director of Mental Health and Drug and Alcohol Services but maintains close links with the other Tweed Byron clinical services.

### 6.1.1 REGIONAL SERVICES

The Tweed Hospital forms the hub for the majority of specialist medical, surgical and other services within the Tweed Byron Health Service Group. It is the only facility in the Tweed Byron Health Service Group that provides emergency operating theatres for all surgery, intensive care, coronary care, acute mental health and a range of diagnostic services available 24 hours a day.

Cardiology Services are provided at role delineation level 5 at The Tweed Hospital supported by a level 5 Coronary Care Unit and level 1 Cardio-Thoracic Surgery. Cardiac catheterisation is provided through a contractual arrangement with John Flynn Hospital which is 10 minutes' drive from The Tweed Hospital.

The Tweed Hospital is the primary Cancer Unit for the Tweed Byron Health Service Group. Services include Medical Oncology (role delineation level 5) and Haematology (role delineation level 4).

The Dialysis Unit at The Tweed Hospital for Renal Services forms the hub of services across the Health Service Group. There are currently 22 Overnight sub-acute rehabilitation beds located at Murwillumbah District Hospital which service the Tweed Byron Health Service Group.

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<sup>11</sup> See Section 8.10 Primary and Chronic Care



### 6.1.2 CROSS BORDER SERVICES

Sharing a border with Queensland is a major challenge for the planning and delivery of health services in the Tweed Byron Health Service Group. Queensland residents from the southern end of the Gold Coast access Tweed Valley services, and the Gold Coast Hospital and Health Service recognises that The Tweed Hospital will continue to provide health services to that population into the future.

Queensland Health intends to increase some services in the southern Gold Coast region, which may reduce some of the pressure on The Tweed Hospital. The Gold Coast University Hospital will open in 2013 and may affect cross border patient inflows to The Tweed Hospital and tertiary referral networks for residents of the Tweed Byron Health Service Group. Demand from residents of the southern Gold Coast region met by The Tweed Hospital includes considerable birthing and ED services. It is expected that this demand for services will continue to grow in relation to population growth.

Residents of border communities in NSW and Queensland experience difficulties as a result of differences in the way that the two States operate. These differences can occur across a range of services where different kinds and levels of service are offered in the two jurisdictions. There may also be differences in legislation or lack of clarity around application of legislation in either jurisdiction. These differences impact on the daily lives of residents living on the border. It is important to acknowledge that residents from both States will seek health services at a location of their choice wherever possible.

Services located on the Gold Coast include Pindara, John Flynn Private Hospital 10km (EDT of 15min), Gold Coast Hospital Robina Campus 25km (EDT of 20min) and Gold Coast Hospital Southport 45km (EDT of 35min).

The new Gold Coast University Hospital is expected to open in September 2013. The Gold Coast University Hospital is a specialist hospital which will be equipped with the latest technology. It forms part of the Government's new Gold Coast Health and Knowledge Precinct planned for the area and is expected to be more than three times the size of the existing Gold Coast Hospital.

Some of the features of Gold Coast University Hospital include:

- New and expanding healthcare services to treat more patients closer to their home
- Provision for a collocated private hospital and private suites scheduled for opening in 2015
- Cancer Centre including radiotherapy, the Cancer Centre includes three radiation oncology bunkers, with space to grow for future needs, and nuclear medicine services
- Neurosciences
- Neonatal Intensive Care
- Trauma response including a helicopter landing site
- Cardiac Surgery
- The Pathology and Education building features a 274 seat lecture theatre
- Three Acute Adult Mental Health Inpatient Units (72 beds).

Gold Coast University Hospital will have on-site advanced diagnostic imaging and interventional services such as Nuclear Medicine and Positron Emission Tomography (PET) and intraoperative Magnetic Resonance Imaging (MRI) to support new and expanding services such as cancer, trauma, cardiac and neurosciences. The growing specialisation of the Gold Coast University Hospital will



mean that the existing patterns of cross border patient flows are likely to increase to incorporate most of the complex patients who currently flow to Brisbane, Sydney or Newcastle from NNSW LHD.

Gold Coast Hospital Robina Campus currently provides Mental Health Services including acute adult, acute young adult, rehabilitation, older persons and child and adolescent psychiatry. Further acute adult mental health inpatient beds are also provided at the Gold Coast Hospital in Southport.

The Hospital provides a 24 hour ED, general medicine including a Medical Assessment Unit (MAU), surgery including five operating theatres and two procedure rooms – general, orthopaedics, endoscopy suite, rehabilitation and palliative care, geriatric support unit, intensive care /coronary care, outpatients, renal dialysis and home training, medical imaging, pathology, pharmacy, clinical measurement unit and allied health.

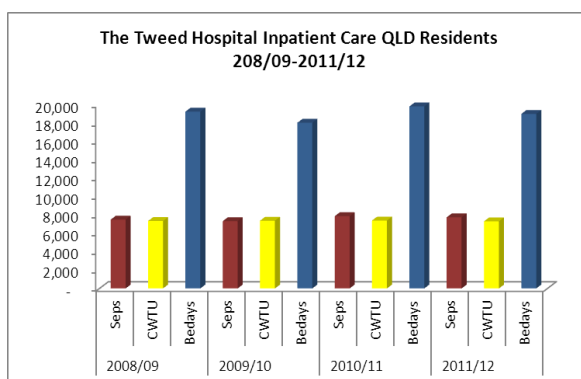
### CROSS BORDER ACTIVITY

There were 8,984 separations for Queensland residents in NNSW LHD in 2011/12. This accounted for 21,670 beddays and 8,343 cost weighted undiscounted separations (CWTU). There has been an increase of 3.8% in separations for Queensland residents, a decrease of 2.5% in beddays and CWTU remained stable across the LHD between 2008/09 and 2011/12. In 2011/12 87% (n=7,306) of cost weighted undiscounted separations for Queensland residents from NNSW LHD were from The Tweed Hospital. A further 6% (n=509) were from Murwillumbah District Hospital. The remaining separations were from other facilities in the LHD.

The Tweed Hospital is the major provider of inpatient services to Queensland residents in the LHD. Between 2008/09 and 2011/12 separations for Queensland residents at The Tweed Hospital grew by 3.2%, beddays decreased by 0.4% and CWTU decreased by 1.2%.

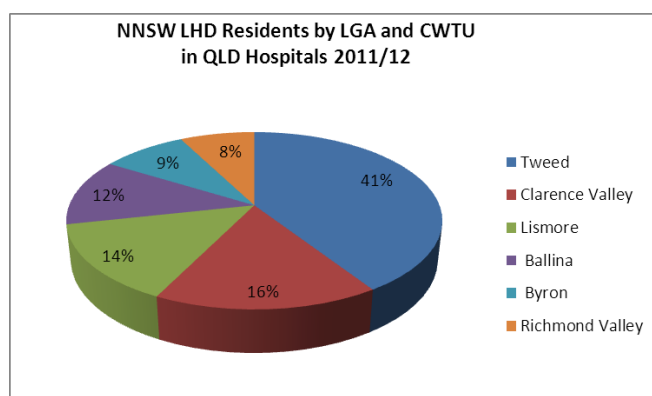
The following figure details separations, CWTU and beddays for Queensland residents at The Tweed Hospital between 2008/09 and 2011/12. In 2011/12, 27% of all separations at The Tweed Hospital were for residents of Queensland.

**Figure 6: The Tweed Hospital Services to Queensland Residents 2008/09-2011/12**



Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch (excludes Unqualified Neonates)

There were 5,797 separations for NNSW LHD residents in Queensland hospitals in 2011/12. This accounted for 12,297 CWTU and 25,935 beddays. The following figure details the proportion of NNSW LHD residents by LGA and CWTU accessing care in Queensland hospitals in 2011/12.

**Figure 7: NSW LHD Residents by LGA Accessing Care in Queensland Hospitals 2011/12**

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch (excludes Unqualified Neonates)

## CROSS BORDER ISSUES

There are a range of issues which are considered to be most effectively dealt with at the State-wide level as they require higher level policy review and/or changes. These include workforce planning, child protection legislation, enactment of mental health legislation and overall funding of services and Pharmaceutical Benefits Schedule policies and a clear mechanism for funding of services for the treatment of interstate patients.

Local policy and implementation issues include improving clarity of service roles and boundaries, discharge planning and emergency services management. Commissioning of the Gold Coast University Hospital, 4 hour target for patient flow through ED, discharge planning, ensuring clarity of service roles through the development of service agreements, provision of health information, health transport, workforce, disaster and emergency management and planning and Medicare Local collaboration are all matters which need to be addressed through continued development of cooperative cross border relationships.

Opening of the new Gold Coast University Hospital will change tertiary referral networks but have little impact on local patient flows to The Tweed Hospital. There will need to be a continued effort through the Cross Border Committee structure to ensure service coordination issues are resolved for the benefit of patients and communications systems are well developed.

A cross border meeting structure was established in July 2010 to enhance opportunities arising from a strong collaboration between Northern NSW and South East QLD Health Services. The Cross Border Executive Committee oversees the implementation of strategies/initiatives to address issues in relation to cross border health service provision by developing an annual work plan and matrix of responsibility which will guide the referral of issues to the appropriate Cross Border Sub-Committees.

The Cross Border Executive Committee has identified the following key areas of focus:

- Implementation of the Commonwealth Health Reforms in NSW and QLD;
- Evolving structures within the Local Health Districts (NSW) and Local and Health and Hospital Networks (QLD) and the impact of these structures and the envisaged greater autonomy
- Implementation of Activity Based Funding (ABF)
- Development of relationships with Medicare Locals
- Address ongoing issues in relation to child protection
- Cooperation on management of EDs to ensure National Emergency Access Targets are met

- Optimising benefits that can be derived from the establishment of the Integrated Clinical Training Networks
- Development of more collaborative relationships with NSW and QLD Ambulance Services
- Continued integration of service planning and service delivery.

With the opening of the Gold Coast University Hospital the Cross Border Executive will be working with local clinicians, NSW and QLD ambulance services and other service providers to ensure a smooth transition to new tertiary service arrangements with QLD Health.

### KEY ISSUES TWEED BYRON HEALTH SERVICE GROUP<sup>12</sup>

- The need to implement Clinical Services Plans for The Tweed, Byron Shire and Mullumbimby and District War Memorial Hospitals, to ensure optimal healthcare is provided to the catchment population
- The impact of the ageing population and increasing number of patients with cognitive changes
- The need to increase networking of services between The Tweed Hospital and Murwillumbah District Hospital
- The need to focus on opportunities to better utilise resources minimising bed block and reducing inpatient length of stay
- The need to ensure that models of care are contemporary and have the ability to change and adjust to meet increased demand
- The impact of ABF and closer clinician involvement in the ABF arena
- The impact of increased clinician engagement
- The need to improve the flow of patients utilising HITH and community based models of care
- Increasing demand for specialist services at The Tweed Hospital due to limited access to medical specialists at peripheral hospitals within the Tweed Byron Health Service Group
- The need for a structured model of care with residential aged care facilities (RACFs) to ensure admission avoidance and timely transfer back
- The need for standardised Advanced Care Directives and to work in partnership in this area with RACFs and Medicare Locals
- The need for improved structured relationships with Medicare Locals
- The challenge of meeting National Emergency Access Targets (NEAT) and National Elective Surgery Targets (NEST), particularly as NEAT targets are elevated next year<sup>13</sup>
- There is limited access to the coordination of care of stroke patients
- There is limited access to a palliative care specialist across the Health Service Group
- There is a need to improve access to specialist services for older patients including Geriatric Evaluation and Management (GEM) and Dementia specific services

<sup>12</sup> See Clinical Stream and Network sections for other key issues

<sup>13</sup> See Key Priorities in Section 8.3

- There is a need for leadership in care of diabetes patients across the Health Service Group particularly in relation to care of children; this cohort is growing and demand for services increasing
- There is increasing demand for specialist services including cardiology and cancer services in Tweed Byron Health Service Group
- There is limited access to geriatric medical specialist input into the care of older people with chronic and complex conditions and/or cognitive impairment
- There is limited access to Specialist Mental Health Service for Older People (SMHSOP) and no inpatient beds in the LHD and limited access to non-acute mental health beds
- Implementation of the Grants Management Improvement Program in relation to Mental health Services will require a review of services provided by the non-government sector
- There is a need for antimicrobial surveillance and stewardship
- There is a need to ensure community based chronic disease models are embedded to minimise need for admission and readmissions
- There is a need to further develop the medical governance model across the Health Service Group
- There is variable access to ACAT across the Health Service Group particularly in relation to patients who meet the ACAT entry criteria and are age  $\leq 65$  years
- Out of hours community health services are not available across the Health Service Group which limits capacity to discharge patients over the weekend
- The need for a more coordinated approach to inter-hospital transport process between The Tweed Hospital, community transport services and Ambulance Services
- Clinical Pharmacy is limited across the Health Service Group and additional support is required for inpatients and community clients
- There is no LHD-wide policy for the care of bariatric patients; there is a need to provide leadership on and capacity to manage patients who are overweight (BMI  $>35$ ).

### 6.1.3 THE TWEED HOSPITAL

The Tweed Hospital is a 209 bed Major Non-Metropolitan Hospital including specialist Mental Health beds. The Tweed Hospital is the main public referral hospital for residents of Tweed and Byron LGAs in Northern NSW and several southern Gold Coast SLAs in Queensland. The Tweed Hospital predominantly provides services at role delineation level 5 (except rehabilitation and vascular surgery at level 4). The Tweed Hospital is located in the Tweed LGA and is part of the Tweed Byron Health Service Group.

Over the past 3 years there have been a number of improvements at The Tweed Hospital. In 2010 the Outpatients and Pathology Departments were refurbished and expanded, a Safe Assessment Room was constructed in the ED and the existing Operating Theatre and recovery area was refurbished to include a new dedicated Day Procedure room and an expanded recovery area. A new CT and MRI were also commissioned and a Discharge Transit Lounge was opened in 2013.

Griffith University is proposing to develop and operate a Tweed Hospital Dental Student Education Clinic. The development option creates a 10 chair dental clinic/education unit. It is expected that the project will be completed in 2014. A Master Plan for The Tweed Hospital and Community Health Services is also currently under development.

### CURRENT SERVICES

The majority of specialist medical, surgical and other services within the Tweed Byron Health Service Group are provided at The Tweed Hospital, which forms the hub for clinical services. It is the only facility in the Tweed Byron Health Service Group that provides emergency operating theatres for all surgery, intensive care, coronary care, acute mental health and a range of diagnostic services available 24 hours a day. Byron Bay District Hospital, Mullumbimby and District War Memorial Hospital and Murwillumbah District Hospital refer their tertiary patients to The Tweed Hospital.

Medical Imaging Services are provided at role delineation level 5 at The Tweed Hospital. Diagnostic imaging and procedural radiology services include: ultrasound, general x-ray and angiography/interventional services. A 128 Slice CT scanner has been installed and is operated by a private provider. Pathology and pharmacy services are provided at role delineation level 4.

The Tweed Hospital also provides the hub for critical care services across the Health Service Group including support to level 2 and three HDUs and provides ongoing clinical support to the EDs across the Health Service Group through Telehealth facilities.

A full range of Community and Allied Health services are based at The Tweed Hospital. Ambulatory care services including ComPacks, TACs and CAPACs are available to facilitate hospital care substitution and post discharge support for patients and carers. An Express Community Care Centre (ECCC) operates from the ED and an Emergency Medical Unit (EMU) and Transit Lounge have recently been constructed. The existing Day Surgery has recently been restructured to include a dedicated Procedures Room and to refurbish the remainder of the Day Surgery area for better space utilisation and better patient flows.

A full range of Mental Health Services are provided across the Tweed Byron area, including a 25 bed acute adult inpatient unit at Tweed. Community Mental Health Services based at Tweed Hospital include Acute Care Service, Extended Care Service, Mental Health Emergency Care, Youth and Family, Older Persons and a consultation-liaison service to general wards. There is an extended hours Acute Care Service based at Byron Bay Community Health Centre and at Mullumbimby Community Health Centre there is an Adult Extended Care Service and Youth and Family Service. Mental Health Services do not provide service to Queensland residents unless there is an emergency need for admission to hospital.

Sharing a border with Queensland is a major challenge for the planning and delivery of health services in the Tweed Byron Health Service Group. Queensland residents from the southern end of the Gold Coast access Tweed Valley services. Demand from residents of the southern Gold Coast region met by The Tweed Hospital includes considerable birthing and ED services. It is expected that this demand for services will continue to grow in relation to population growth and ageing.

### CURRENT ACTIVITY

In 2011/12 there were 23,500 separations from The Tweed Hospital resulting in 67,859 beddays. Between 2009/10 and 2011/12 total separations increased by 4.8% and beddays by 5.6%. In 2010/11 there were 15,781 acute Overnight separations resulting in 58,083 beddays. Overnight acute separations increased by 3.2% and beddays by 2.3% between 2009/10 and 2011/12. ALOS has remained unchanged at 3.7 days. Between 2009/10 and 2011/12 ED presentations decreased by 3.5%.<sup>14</sup>

There were 7,367 Day Only separations from The Tweed Hospital in 2011/12. Between 2009/10 and 2011/12 Day Only separations from The Tweed Hospital increased by 3.5%.

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<sup>14</sup> See section 8.3 for a detailed analysis of ED activity

The proportion of separations for patients aged  $\geq 65$  years has increased from 51% to 53% and  $\geq 85$  years from 10% to 11% in the same period. Separations for people of Aboriginal or Torres Strait Islander descent as a proportion of total separations have remained stable at 3%. Sub-acute separations have increased from 24 in 2009/10 to 352 in 2011/12 probably as a result of improved coding. Overall complexity<sup>15</sup> has remained stable at 1.5 between 2009/10 and 2011/12.

The following table is intended to give an overall picture of activity at The Tweed Hospital between 2009/10 and 2011/12. More detailed information is included in individual sections of the Plan.

**Table 9: The Tweed Hospital Inpatient Activity 2009/10-2011/12**

<b>The Tweed Hospital Inpatient Activity Acute and Sub-acute Excluding Mental Health</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separation	22,430	22,900	23,500
Total Beddays	64,256	66,220	67,859
<b>Acute Overnight Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separation	15,291	15,540	15,781
Total Beddays	56,762	57,413	58,083
ALOS (Adult Acute O/N)	3.7	3.7	3.7
Undiscounted cost weighted separations	23,487	23,529	24,059
Complexity	1.5	1.5	1.5
$\geq 65$ years (% Total)	51%	52%	53%
$\geq 85$ years (% Total)	10%	10%	11%
Aboriginal & TSI People (% Total)	3%	3%	3%
<b>Day Only Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	7,115	7,104	7,367
<b>Sub-acute Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Sub-acute Separations	24	256	352
<b>Mental Health Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	489	566	532
Beddays	8,390	8,596	8,363
<b>Emergency Department</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Presentations	42,420	41,550	40,322

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch. Excludes Unqualified Neonates

27% of all separations from The Tweed Hospital in 2011/12 were for residents of Queensland. Significantly 49.4% of separations for SRG Obstetrics, Qualified and Unqualified Neonates (n=3,824) at The Tweed Hospital were for residents of Queensland. In the same year 31% (n=707) of separations for children aged 0-14 years (excluding Qualified and Unqualified Neonates) were residents of Queensland.

## FUTURE MODELS OF CARE

The Tweed Hospital will focus on models of care that better manage the patient journey across the care continuum including the provision of the right type/level of treatment at the most appropriate time as close to the patient's home as possible.

Dedicated coordinated care for stroke patients in hospital under a multidisciplinary team who specialise in stroke management results in a significant reduction in death and disability as well as streamlined discharges to rehabilitation or community programs, thereby reducing length of stay. A proposal for the development of a dedicated stroke unit is included in The Tweed Hospital Clinical Services Plan.

<sup>15</sup> Complexity calculated on Overnight acute undiscounted cost weighted separations (all ages)/total number of Overnight acute separations, (excluding Day Only, Unqualified Neonates, Chemotherapy and Renal Dialysis)

Models of care will also be developed that assist acute hospital flow and demand management; these will involve strategies across the spectrum of services including: emergency, medical, surgical and community based services. There is a recognised need to better manage patients out of hospital, and more effectively in hospital with shorter stays.

These models will include integrated services that enhance coordination and continuity of care and which can provide alternatives to hospitalisation, such as:

- Increased ambulatory care, acute/post-acute care, ComPacks, HITH and chronic disease management to assist in meeting growing demand for healthcare services
- New models of care in ED and Surgical Services to meet increasing demand for these services
- An emphasis on managing chronic disease in ambulatory care settings
- Development of specialist stroke services, GEM services and specialist dementia services
- Improved access to Community Health services to support hospital substitution and early discharge e.g. HITH and Chronic Care programs
- Midwifery led birthing service for suitable mothers with normal risk pregnancies, antenatal care in community settings, early discharge and home visiting
- Increasing home dialysis and examining the option of a satellite facility where home-based dialysis is unsuitable
- New models of care to improve collaboration with RACFs to address the increasing number of nursing home patient presentations in ED
- Increasing investment in post-acute and continuing care, in community rehabilitation and chronic disease management
- An emphasis on networking across the Health Service Group.

### FUTURE DIRECTION

Over the next 10 years The Tweed Hospital will strengthen its role as a B2 Major Non-Metropolitan Hospital and further develop as the main public referral hospital for residents of Tweed and Byron LGAs and several southern Gold Coast LGAs in Queensland. It is expected that demand for services will continue to grow in response to population growth and ageing. Patient flows to The Tweed Hospital from Queensland are considered natural flows and are not expected to change significantly with the opening of the Gold Coast University Hospital. The Tweed Hospital will continue to be challenged by an increasing and ageing population in southern Queensland.

The Tweed Hospital will continue to increase its role in provision of specialist medical, surgical and other services and as the hub for clinical services in the Tweed Byron Health Service Group. Services will continue to be provided predominantly at role delineation level 5 with increasing self-sufficiency in vascular surgery, urology and gynaecology. It is proposed to establish diagnostic and interventional cardiology services at The Tweed Hospital and to develop an integrated cancer service including provision of radiotherapy services. These services are considered essential to meet the needs of the ageing catchment population.

The Tweed Hospital will further develop links with smaller facilities in the Health Service Group to ensure complementary service provision and a smooth flow of patients through the system. A one hospital on two campus model between The Tweed Hospital and Murwillumbah District Hospital will continue to develop.



## KEY ISSUES

- Queensland residents from the southern end of the Gold Coast access Tweed Valley services, and the Gold Coast Hospital and Health Service recognises that The Tweed Hospital will continue to provide health services to that population into the future
- Demand from residents of the southern Gold Coast region met by The Tweed Hospital includes considerable birthing and ED services. It is expected that this demand for services will continue to grow in relation to population growth
- Increasing demand from an ageing population with limited access to specialist services for older people; specialist geriatric medicine, GEM and dementia care
- The absence of a Stroke Unit and Stroke Care Coordinator at The Tweed Hospital impacts directly upon the delivery of timely and appropriate medical attention to patients admitted following a stroke, transient ischaemic attack or other cranial/peripheral nerve disorders<sup>16</sup>
- Limited capacity to meet increasing demand for ICU services
- Increasing demand for specialist services at The Tweed Hospital due to limited access to medical specialists at peripheral hospitals within the Health Service Group
- Sustained bed occupancy rates of around 94%
- Increasing demand for cardiology and cancer services for the Tweed Byron Health Service Group
- Future expanded role for outpatient/ambulatory care and improved integration with enhanced community-based services in helping address pressures on acute care services and meet growing demand from an ageing population with increasing chronic conditions
- The transit lounge needs to be appropriately utilised to improve discharge planning and patient flow.

### 6.1.4 MURWILLUMBAH DISTRICT HOSPITAL

Murwillumbah District Hospital is a C2 District Group 2 Hospital with 70 inpatient beds and providing services predominantly at role delineation level 3.

#### CURRENT SERVICES

The Hospital provides a 24 hour ED which is staffed by CMOs and Registrars (and Locums as required). Specialists are Network appointments and GP VMOs provide 24 hour medical cover for inpatients. A range of clinical support services are available on-site 24 hours a day including medical imaging, pathology, pharmacy and high dependency beds.

Level 3 Maternity and level 2 Neonatal services are also provided at Murwillumbah District Hospital. In early November 2009 a midwifery led model of care was introduced. Only normal risk patients are treated under this model at Murwillumbah District Hospital and all other patients are referred to The Tweed Hospital. Booked caesarean sections are performed at Murwillumbah District Hospital by Specialist Obstetricians. Paediatric inpatient services are also available at role delineation level 3.

Surgical Services include ENT, general, ophthalmology, orthopaedics, urology, dental and endoscopies. Specialists are Network appointments with visiting surgeons including obstetrics and

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<sup>16</sup> National Stroke Foundation, 2010 Clinical Guidelines for Acute Stroke Management



gynaecology, urology, orthopaedics and ophthalmology. Elective caesareans are performed at Murwillumbah District Hospital. Murwillumbah District Hospital has a chemotherapy satellite unit consisting of one bed and three chairs operating 1 day per week.

A full range of Community and Allied Health services are based in the Murwillumbah township. Ambulatory care services available to facilitate hospital care substitution and post discharge support for patients and carers include HITH, ComPacks and TACs. A new HealthOne facility has been constructed at Pottsville providing much needed space for primary and community health services including GPs, community health staff, private allied health professionals visiting specialists, meeting rooms, treatment rooms and group and therapy rooms. Some staff from Murwillumbah Community Health Service will relocate to Pottsville and others will outreach from both Murwillumbah and Tweed Community Health.

Telehealth facilities on-site are used for educational purposes for all staff, as well as for videoconferencing and Telemedicine. In 2014 clinical videoconferencing will be available to patients undergoing treatment in the ED, with a direct link to The Tweed Hospital ED staff specialist care. Murwillumbah District Hospital is linked to ICU at The Tweed Hospital for clinical support and formal transfer arrangements are in place.

The Tweed Hospital is the closest Major Non-Metropolitan Hospital and is located 30km from Murwillumbah District Hospital (EDT<sup>17</sup> of 20min). The other nearest services are Mullumbimby and District War Memorial Hospital 40km (EDT of 25min) and Byron Bay District Hospital 50km (EDT of 40min). Telehealth facilities on-site are used for educational purposes for all staff, as well as for videoconferencing and Telemedicine. In 2014 clinical videoconferencing will be available to patients undergoing treatment in the ED, with a direct link to The Tweed Hospital ED staff specialist care.

### CURRENT ACTIVITY

There were 6,164 Day Only and Overnight separations at Murwillumbah District Hospital in 2011/12 resulting in 22,054 beddays. Between 2009/10 and 2011/12 total separations decreased by 3.9% and beddays by 3.7%. There were 2,979 Overnight acute separations in 2011/12 resulting in 10,734 beddays representing a decrease of 9.8% in separations and 15.5% in beddays for the same period. ALOS decreased from 3.9 to of 3.7 and Day Only separations increased by 1.5% in the same period.

Between 2009/10 and 2011/12 the proportion of separations for patients aged  $\geq 65$  years increased from 44% to 45% and  $\geq 85$  years from 13% to 14%. In the same period separations for people of Aboriginal or Torres Strait Islander descent as a proportion of total separations increased from 1% to 2% and sub-acute separations increased by 6.7%. Overall complexity<sup>18</sup> remained stable at 1.5. There were 292 Overnight separations for paediatrics in 2011/12 representing a decrease of 45% between 2009/10 and 2010/11. ED presentations decreased by 2.1% in the same period.<sup>19</sup>

The following table is intended to give an overall picture of activity at Murwillumbah District Hospital between 2009/10 and 2011/12. More detailed information is included in other sections of the Plan.

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<sup>17</sup> EDT = Estimated Driving Time

<sup>18</sup> Complexity calculated on Overnight acute undiscounted cost weighted separations (all ages) /total number of Overnight acute separations, (excluding Day Only, Unqualified Neonates, Chemotherapy and Renal Dialysis)

<sup>19</sup> See section 8.3 for a detailed analysis of ED activity

**Table 10: Murwillumbah District Hospital Inpatient Activity 2009/10-2011/12<sup>20</sup>**

<b>Murwillumbah Hospital</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	6,415	6,219	6,164
Total Beddays	22,925	21,866	22,054
<b>Acute Overnight Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	3,301	3,056	2,979
Total Beddays	12,709	11,375	10,734
ALOS (Adult Acute O/N)	3.85	3.72	3.60
≥65 years (% Total)	44%	43%	45%
≥85 years (% Total)	13%	11%	14%
Aboriginal People (% Total)	1%	1%	2%
<b>Sub-acute Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Sub-acute Separations	476	473	508
<b>Day Only InPatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	2,638	2,690	2,677
<b>Emergency Department</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Presentations	15,568	15,261	15,242

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

## FUTURE MODELS OF CARE

High priorities for Murwillumbah District Hospital are the expansion of the satellite chemotherapy service, planning for development of a satellite renal dialysis service, development of paediatric, obstetrics and gynaecology outpatient services and other specialist services e.g. ophthalmology. The Paediatric service will be reviewed to ensure it is operating at a level for which the required staff skill mix is available and opportunities identified to increase the Paediatric Day Only activity to reduce demand on The Tweed Hospital where possible.

The Hospital and Community and Allied Health Services will need to develop a shared care model in partnership with North Coast NSW Medicare Local, to reduce avoidable admissions and readmissions and primary care type presentations to the ED. Opportunities to develop a medium risk Maternity Service in collaboration with The Tweed Hospital will be examined.

## FUTURE DIRECTIONS

Murwillumbah District Hospital will work towards a one hospital on two campuses model with The Tweed Hospital. The provision of specialist medical outpatients and ambulatory care services will be strengthened. To achieve this, capital solution will be required at Murwillumbah District Hospital.

As part of the development of Health Service Group wide services, access will need to be improved to specialist medical services such as palliative care, geriatrics, infectious diseases, respiratory and psychogeriatric specialists. Development of a satellite renal dialysis service and expansion of the chemotherapy service at Murwillumbah District Hospital is a high priority.

There will be a continued focus on coordinating and integrating services across the continuum of care and further development of care models which prevent avoidable hospital admissions and readmissions.

<sup>20</sup> Complexity is included to allow an assessment of overall change to complexity over time at the facility

The Community Health Service will work towards a more integrated service provision model with GPs and the Hospital particularly in the area of palliative care. To support this model the LHD will need to support the introduction of a shared medical record (eMR), mobile communication devices and tablet technology to support best practice particularly in relation to medication management.

### KEY ISSUES

- There is a need to define the role of Murwillumbah District Hospital within the context of the complementary role of The Tweed Hospital
- The need to have capacity to decant services to Murwillumbah District Hospital during capital works at The Tweed Hospital
- Withdrawal/retirement of GP VMOs who have historically provided first line medical care at Murwillumbah District Hospital
- The need for new models of medical staffing at the Hospital will need to be considered in light of the changing patterns of local GP involvement in patient care at Murwillumbah District Hospital
- There is growing activity in outpatients and a need to consider how Specialist Medical and Ambulatory Care can be accommodated on the site; Specialist Gynecology and Paediatric Clinics and a proposed satellite renal dialysis service on the site are some of the services which could be accommodated in the future
- ED design and capacity needs to be improved; an ED redevelopment is planned
- There is limited specialist support for palliative care patients in the community
- Clinical Pharmacy is limited and additional support is required for both inpatients and community clients
- RACFs refer patients to hospital who could be cared for in the facility
- The ED needs to ensure patients who are suitable for referral to HITH are referred to the Community Health Service; there is a need for both services to collaborate to reduce avoidable presentations to the ED
- Community Health needs to have the capacity to work more closely with GPs; there is a need to implement an integrated eMR in the community to enhance shared care with GPs
- Access to tablet based therapeutic tools and mobile devices would support the provision of best practice care in the community
- The majority of after-hours care in Murwillumbah occurs in the hospital as there is no out of hour's community health service.

### 6.1.5 MULLUMBIMBY AND DISTRICT WAR MEMORIAL HOSPITAL

Mullumbimby and District War Memorial Hospital is a D1b Community Acute Hospital (without surgery facilities) with 16 inpatient beds and the capacity to surge to 28 if required.

#### CURRENT SERVICES

Mullumbimby and District War Memorial Hospital provides a 24 hour ED which is staffed by GP VMOs and Locums (as required). Local GP VMOs provide 24 hour medical cover for inpatients. A Clinical Pharmacy service is provided 1 day per week. Three part-time Radiographers provide cover to

both Byron Bay District Hospital and Mullumbimby and District War Memorial Hospital. On-site Pathology is available in the form of I-stat point of care testing.

Mullumbimby and District War Memorial Hospital has a role delineated level 2 Maternity Service with approximately 200 normal risk births per year. In 2009 a continuity of maternity care model was implemented. The Mullumbimby Maternity Unit is supported by GP Obstetricians and Midwives. The Mullumbimby Community Birthing Service provides continuity of midwifery care through the antenatal, birthing and postnatal period. In 2012 the Mullumbimby Community Birthing Service commenced a 12 month trial to provide women who live in the local and surrounding area the option of publicly funded homebirths. The trial was successfully completed in 2013 with good outcomes and endorsed by the NSW LHD Board and the model has now been adopted. The service currently provides home birthing as an option for all women eligible to birth at Mullumbimby Community Birthing Service.

The Maternity Unit offers a range of maternity care and birthing options for low risk pregnancies. Women at risk of a complicated pregnancy and birth are referred to The Tweed Hospital or Queensland facilities for their confinement. The Mullumbimby Maternity Service has a clinical linkage with the role delineated level 5 Maternity Unit at The Tweed Hospital.

A range of Community and Allied Health services are based at Mullumbimby, Byron Bay and Bangalow Community Health Centres, providing services to Byron Shire. There is a limited range of ambulatory care services available to facilitate hospital care substitution and post discharge support for patients and carers. These include HITH, ComPacks and TACs.

Mullumbimby and District War Memorial Hospital plays an important role in the Tweed Byron Health Service Group and in providing low complexity care to residents of Mullumbimby and the surrounding rural area, and has an important role in the provision of low risk birthing services. Mullumbimby and District War Memorial Hospital predominantly provides services at role delineation level 2. Services offered at the Hospital include acute medical, emergency, and low risk birthing services.

Telehealth facilities on-site are used for educational purposes for all staff, as well as for videoconferencing and Telemedicine. In 2013 limited clinical videoconferencing was made available to patients undergoing treatment in the ED, with a direct link to The Tweed Hospital ED staff specialist care.

The Tweed Hospital is the closest Major Non-Metropolitan Hospital and is located 55km from Mullumbimby and District War Memorial Hospital (EDT<sup>21</sup> of 30min). Byron Bay District Hospital is located 20km (EDT of 20min) from Mullumbimby and District War Memorial Hospital, and Murwillumbah District Hospital is 40km away (EDT of 25min).

## CURRENT ACTIVITY

There were 844 Day Only and Overnight separations at Mullumbimby and District War Memorial Hospital in 2011/12 resulting in 2,954 beddays. Between 2009/10 and 2011/12 total separations decreased by 8.2% and beddays by 17.8%. ALOS decreased from 3.9 to 3.5 days in the same period. At the same time Day Only separations increased by 66%. Between 2009/10 and 2011/12 ED presentations decreased by 3%.<sup>22</sup>

The proportion of separations for patients aged  $\geq 65$  years increased from 43% to 50% and  $\geq 85$  years from 13% to 18% between 2009/10 and 2011/12. For the same period separations for people of

<sup>21</sup> EDT = Estimated Driving Time

<sup>22</sup> See section 8.3 for a detailed analysis of ED activity

Aboriginal or Torres Strait Islander descent as a proportion of total separations remained at around 1% of total separations. Between 2009/10 and 2011/12 ED presentations decreased by 3%.<sup>23</sup>

The following table is intended to give an overall picture of activity at Mullumbimby and District War Memorial Hospital between 2009/10 and 2011/12. More detailed information is included in other sections of the Plan.

**Table 11: Mullumbimby and District War Memorial Hospital Inpatient Activity 2009/10-2011/12**

<b>Mullumbimby and District War Memorial Hospital</b>			
<b>Overnight Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	919	828	844
Total Beddays	3594	3147	2954
ALOS (Adult Acute O/N)	3.9	3.8	3.5
Undiscounted cost weighted separations	1034	962	901
≥65 years (% Total)	43%	48%	50%
≥85 years (% Total)	13%	18%	18%
Aboriginal & TSI People (% Total)	1%	0%	1%
<b>Day Only Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	235	244	386
<b>Emergency Department</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Presentations	7,696	7,582	7,450

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

## 6.1.6 BYRON BAY DISTRICT HOSPITAL

Byron Bay District Hospital is a D1A Community Acute Hospital (with surgery) providing inpatient services predominantly at role delineation level 2. The Hospital has 16 inpatient beds and the capacity to surge to 28 if required.

### CURRENT SERVICES

Byron Bay District Hospital provides a 24 hour ED which is staffed by GP VMOs, CMOs and Locums (as required). Local GP VMOs provide 24 hour medical cover for inpatients. A Clinical Pharmacy service is provided 1 day per week. Three part-time Radiographers provide cover to both Byron Bay District Hospital and Mullumbimby and District War Memorial Hospital. On-site Pathology is available in the form of I-stat point of care testing.

Services offered at Byron Bay District Hospital include acute medical, acute mental health, palliative care, and emergency services. Surgical services are limited to Endoscopy only (role delineation level 2) and these endoscopy procedures are supported by Specialist Anaesthetists. A limited range of Community and Allied Health services are based in the Byron Shire.

Telehealth facilities on-site are used for educational purposes for all staff, as well as for Videoconferencing and Telemedicine. Clinical videoconferencing is not yet available to patients undergoing treatment in the ED with an upgrade to the network required before a direct link can be provided to The Tweed Hospital ED staff specialist care.

A limited range of Community and Allied Health services are based at Mullumbimby and Byron Bay District Hospitals and Bangalow Community Health Centre providing services to Byron Shire residents. There is a limited range of ambulatory care services available to facilitate hospital care

<sup>23</sup> See section 8.3 for a detailed analysis of ED activity

substitution and post discharge support for patients and carers. These include HITH, ComPacks and TACs.

Byron Bay District Hospital plays an important role in the Tweed Byron Health Service Group and in providing low complexity care to residents of Byron Bay, Suffolk Park, Bangalow and surrounding rural areas.

Byron Bay District Hospital is situated between two Major Non-Metropolitan Hospitals. Lismore Base Hospital is 46km to the west (EDT of 35min) and The Tweed Hospital is 66km to the north (EDT of 40 min). The other nearest services are Murwillumbah District Hospital which is 50km away (EDT 40min) and Mullumbimby and District War Memorial Hospital which is 20km away (EDT of 15min).

## CURRENT ACTIVITY

There were 679 Day Only and Overnight separations at Byron Bay District Hospital in 2011/12 resulting in 3,351 beddays. Between 2009/10 and 2011/12 total separations decreased by 9.9% and beddays by 24.7%. ALOS decreased from 5.9 to 4.9 days in the same period. At the same time Day Only separations increased by 63%.

The proportion of separations for patients aged  $\geq 65$  years increased from 48% to 51% and  $\geq 85$  years decreased from 20% to 18% between 2009/10 and 2011/12. For the same period separations for people of Aboriginal or Torres Strait Islander descent as a proportion of total separations increased from 1% to 3% of total separations. Between 2009/10 and 2011/12 ED presentations decreased by 15%.<sup>24</sup>

The following table is intended to give an overall picture of activity at Byron Bay District Hospital between 2009/10 and 2011/12. More detailed information is included in individual sections of the Plan.

**Table 12: Byron Bay District Hospital Inpatient Activity 2009/10-2011/12**

<b>Byron District Hospital</b>			
<b>Overnight Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	754	670	679
Total Beddays	4,448	3,760	3,351
ALOS (Adult Acute O/N)	5.9	5.6	4.9
Undiscounted cost weighted separations	1046	921	863
$\geq 65$ years (% Total)	48%	50%	51%
$\geq 85$ years (% Total)	20%	22%	18%
Aboriginal & TSI People (% Total)	1%	3%	3%
<b>Day Only InPatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	446	401	728
<b>Emergency Department</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Presentations	13,133	11,960	11,158

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

## FUTURE MODELS OF CARE

Development of a new consolidated facility on a greenfield site at Ewingsdale provides the opportunity to achieve a greater critical mass of acute, sub-acute and clinical support services and this will have an impact on the capacity of the hospital to attract a greater level of clinical workforce.

<sup>24</sup> See section 8.3 for a detailed analysis of ED activity

The focus for Byron Shire Health Services will be to further develop contemporary models of care, including a greater emphasis on primary, community and ambulatory care services with a multidisciplinary orientation that will excel in the provision of services such as integrated primary and community care, low risk caseload midwifery birthing service and ambulatory clinics for patients with chronic conditions.

### FUTURE DIRECTION FOR BYRON SHIRE HEALTH SERVICES

NNSW LHD has endorsed the proposal to develop a consolidated Byron Shire Central Hospital on a single site at Ewingsdale. This proposal provides the opportunity to replace two relatively small hospitals with out-dated infrastructure with a purpose-built facility with contemporary functional design and models of care with a significantly larger critical mass of acute, sub-acute, clinical support and primary health services that will have the capacity to meet the needs of the Byron Shire community to 2021 and beyond.

### KEY ISSUES

- The population of the Byron Shire is growing and ageing. This growth and ageing of the local population will ensure increasing pressure on available health services across all domains from emergency and acute care, to sub-acute and community health services
- Byron Bay District Hospital and Mullumbimby and District War Memorial Hospital have outgrown their current physical infrastructure which is now out-dated and unsuited to the delivery of contemporary health care
- Neither facility has the physical capacity to support the growing population and increasing complexity of demand on health service delivery
- Containment of asbestos at Mullumbimby and District War Memorial Hospital is a critical issue
- Hospital service capacity in the Byron Shire needs to be appropriate to the role delineation of local services and linked effectively with both higher level acute services within the Tweed Byron Health Service Group and with the community and primary care services in the Byron Shire
- Byron Bay District Hospital and Mullumbimby and District War Memorial Hospital as stand-alone facilities do not have the critical mass individually, to effectively support the provision of a higher level of clinical expertise, health technology, diagnostic and support services required by the population catchment they serve
- Byron Bay District Hospital and Mullumbimby and District War Memorial Hospital are duplicating the provision of acute medical and emergency services with limited clinical workforce across two sites
- The fragmentation of services is creating challenges in attracting and retaining clinical staff and in the effective utilisation of resources including clinical staff and physical infrastructure
- There is a need to upgrade IT infrastructure at both Mullumbimby and District War Memorial and Byron Bay District Hospitals in the short term to enable a direct link to The Tweed Hospital ED for staff specialist care
- Potential fragmentation of services and the impact on patients in relation to changing funding models e.g. National Disability Insurance Scheme (NDIS) and Medicare Locals



- There is no Aboriginal Health Service provided in Byron Shire; this has led to increased length of stay in Byron Bay District Hospital
- There is limited access to a Paediatrician for families locally; they are currently travelling to Tweed for this service.

## 6.2 RICHMOND CLARENCE HEALTH SERVICE GROUP

The Richmond Clarence Health Service Group is part of the NNSW LHD and covers an area of 18,855 square kilometres and shares its northern border with the Tweed Byron Health Service Group, its southern border with Mid North Coast LHD, and its western border joins the Hunter New England LHD.

The Richmond Clarence Health Service Group catchment includes the five LGAs of Ballina, Clarence Valley, Kyogle, Lismore and Richmond Valley. In addition, a part of the Tenterfield LGA (Urbenville) also forms part of the Richmond Clarence Health Service Group.

Richmond Clarence Health Service Group LGAs had an estimated population of approximately 169,096 in 2011, and projected growth of 3.5% to 178,944 in 2016 and a further 3% to 147,465 in 2021.<sup>25</sup>

Within the Health Service Group Lismore Base Hospital is a Major Non-Metropolitan Referral Hospital, providing a range of role delineation level 5 services and specialist Mental Health inpatient beds. Other hospitals in the Health Service Group refer their tertiary patients to Lismore Base Hospital.

Ballina District and Casino and District Memorial Hospitals are closely linked to Lismore Base Hospital which is 30km from Ballina (EDT<sup>26</sup> of 25 minutes) and 35kms from Casino (EDT of 30 minutes). Lismore Base Hospital is 85kms from Maclean District Hospital (EDT approximately 1hr) and 120kms from Grafton Base Hospital (EDT of 1 hour 30 minutes). Kyogle Memorial MPS is located 45km (EDT of 35min) from Lismore Base Hospital, Nimbin MPS 32km (EDT of 27min) and Urbenville and District MPS is 120km (EDT of 1hr 35min) from Lismore Base Hospital. Bonalbo District Hospital is 100km from Lismore Base Hospital (EDT of 1hr 20min).

The Richmond Clarence Health Service Group forms a network of clinical services which are linked through a formal management structure. The Executive Director Richmond Clarence Health Service Group has overall responsibility for the day to day operations and strategic direction of the Health Service Group and for management of Lismore Base Hospital. Service networking is well established



<sup>25</sup> NSW Health Population Projection Series 1. 2009, Department of Planning & Statewide Services Development Branch, NSW Health, March 2009

<sup>26</sup> EDT = Estimated Driving Time



and has been strengthened to support the provision of safe care close to people's homes, reduce duplication and to develop complementary roles between Hospitals.

The Executive Director has overall accountability and responsibility for Richmond Clarence Health Service Group. This position reports to the Chief Executive and is a member of the NSW LHD Executive.

The following positions report to the Executive Director and form the Richmond Clarence Health Service Group Executive:

- Executive Officer in the Clarence Network
- Executive Officer/Director of Nursing in the MPS Network
- Executive Officers/Directors of Nursing at Casino and District Memorial Hospital, Bonalbo District Hospital and Ballina District Hospital
- Director of Medical Services, Lismore Base Hospital
- Director of Nursing, Lismore Base Hospital
- Manager Community and Allied Health Richmond Valley
- Business Manager Lismore Base Hospital.

The Executive Team works together to coordinate and integrate services and to strengthen service provision and patient safety through networking arrangements, to improve the provision of clinical support services and to provide a coordinated bed management strategy. Medical governance has been consolidated with one Director of Medical Services responsible for Grafton Base and Maclean District Hospitals. One Director of Nursing is responsible for both the hospitals in the Clarence Network.

There are formal network structures within the Health Service Group including the Clarence Network and the MPS Network of services. Services within these Networks are well integrated and work together to provide a comprehensive range of local health services. These Networks are not intended to create boundaries for service provision across the Health Service Group. They have complementary roles based on proximity to other health services and service role delineation levels.

### 6.2.1 REGIONAL SERVICES

Within the Health Service Group Lismore Base Hospital provides services to a wide area with patient flows from LGAs outside the Richmond catchment including Tenterfield and Byron LGAs. Lismore Base Hospital provides (role delineation level 5) surgery, intensive care, coronary care and a range of diagnostic services.

The North Coast Cancer Institute ((NCCI) Lismore forms the hub for services which provide support for the treatment of patients through satellite services such as the Ballina Satellite Cancer Unit. Radiotherapy services are provided at Lismore. PET and MRI units were opened at Lismore Base Hospital in 2012. The NCCI Lismore Cancer Care and Haematology Unit (NCCI Lismore) currently offers a wide range of services to patients of the North Coast from as far west as Tenterfield, to as far south as Grafton and north to the border of Queensland.

Cardiology Services at Lismore Base Hospital are provided at role delineation level 5 and include high-level inpatient care, interventional cardiology, temporary pacemaker insertion, non-invasive investigations such as Echocardiographs and exercise stress testing.

The Renal Dialysis Unit at Lismore Base Hospital acts as the hub for Renal Dialysis services across the northern sector of the Richmond Clarence Health Service Group. A satellite dialysis service is offered

at Ballina District Hospital, which provides a seven chair Haemodialysis Dialysis Unit. A nine chair Renal Dialysis Unit is also available at Grafton Base Hospital.

Lismore Adult Mental Health Unit is a 40 bed declared Mental Health Inpatient Unit which works collaboratively with Lismore and Grafton Base Hospitals and other smaller regional hospitals in the Richmond Clarence Health Service Group to provide voluntary or involuntary care of mental health patients.

The Child and Adolescent Inpatient Unit (CAIPU) opened in June 2008. It is an eight bed acute mental health inpatient facility within the Richmond Clarence Health Service Group Mental Health Service, collocated with the Lismore Base Hospital. The Unit is a declared mental health facility allowing for care on a voluntary or involuntary basis, in accordance with the provisions of the Mental Health Act (MHA) 2007.

The centre for rehabilitation services in the Richmond catchment (including MPS catchment) is Ballina District Hospital. The Hospital has a 31 bed specialist Rehabilitation Unit and a six bed Transitional Care Unit. A new 14 bed Sub-Acute Unit will open at Maclean District Hospital in 2014. There will be 10 sub-acute rehabilitation beds and four palliative care beds which will provide services across the Clarence Network. Specialist palliative care inpatient beds for the Richmond Clarence Health Service Group are currently contracted from St Vincent's Hospital, Lismore. An eight bed Geriatric Evaluation Management (GEM) Unit and four bed Dementia Specific Unit will open at Lismore Base Hospital in 2014 and be a resource to other hospitals in the Health Service Group.

Located opposite Lismore Base Hospital, Riverlands Drug and Alcohol Centre is a multipurpose Drug and Alcohol Centre consisting of a 14 bed acute inpatient Withdrawal Management Unit, Opioid Treatment Program, Outpatient and Community Counselling Team along with a centralised Intake and Assessment process. The Inpatient Unit is a voluntary admission Unit and has a minimum age limit of 18 years. The Centre acts as a strategic hub in the coordination of Drug and Alcohol services across the LHD as well as being available on a 24/7 basis for consultation and treatment support to all hospitals in the NNSW LHD.

#### KEY ISSUES RICHMOND CLARENCE HEALTH SERVICE GROUP <sup>27</sup>

- The impact of the ageing population on clinical complexity and increasing numbers of patients with cognitive impairment on future demand for all services
- The importance of defining the role of Lismore Base Hospital within the context of the complementary roles of Grafton Base Hospital, Ballina District Hospital and Casino and District Memorial Hospital
- The need to implement Clinical Services Plans for Lismore Base Hospital, Coraki and Surrounds and Yamba Community Health Centre
- Planning and implementing a new model of service provision for residents of Bonalbo and surrounding rural area
- The need for access to an Infectious Diseases Specialist and a Microbiologist with antimicrobial stewardship across the Health Service Group
- There is limited access to a public Endocrinologist
- The need to focus on opportunities to better utilise resources minimising bed block and reduce inpatient length of stay to create more capacity for acute care at Lismore Base Hospital

<sup>27</sup> See clinical stream and network sections for other key issues

- The need to increase capacity at Lismore Base Hospital to meet increasing demand for surgical services
- There is a need to develop surgical services at Grafton Base Hospital to increase access to services locally and improve self sufficiency
- The need to define the interface between acute and community-based services including that for HITH medical oversight
- There is a need to work closely with the North Coast NSW Medicare Local to increase access to a range of primary health care services
- The need to develop networking between the new Sub-Acute Unit at Maclean District Hospital and Ballina Rehabilitation Unit
- Out of hours community health services are not available across the Health Service Group which limits capacity to discharge patients over the weekend
- Access to out of hours Allied Health services is limited
- The need for a more coordinated approach to inter-hospital transport processes between Lismore Base Hospital, MPS Network and other hospitals in the Health Service Group
- There is limited access to clinical pharmacy and additional support is required for inpatients and community clients
- There is no LHD-wide policy for the care of bariatric patients; there is a need to provide leadership on and capacity to manage patients who are overweight (BMI >30)
- Community and Allied Health staff need access to tablet based therapeutic tools and mobile devices to support the provision of best practice care in the community
- There is a need to work more closely with RACFs to prevent avoidable admissions and presentations to the ED and admissions.

### 6.2.2 RICHMOND VALLEY NETWORK OF SERVICES

The Richmond Valley Network of services is located in the Ballina, Lismore and Richmond River LGAs. Bonalbo District Hospital which is also part of the Network sits in Kyogle LGA. The Network is part of the formal management structure for Richmond Clarence Health Service Group. Lismore Base Hospital is situated in the Richmond Valley Network of services and plays an important role in providing for the majority of acute health needs of residents of Lismore and is the Major Non-Metropolitan Referral Hospital for all services in the Health Services Group. Other hospitals in the Network include Ballina District, Casino and District Memorial and Bonalbo Hospitals.

Casino and District Memorial, Ballina District and Bonalbo District Hospitals work as part of a clinical network with Lismore Base Hospital forming the hub of services. Casino and District Memorial, Ballina District and Bonalbo District Hospitals refer their tertiary patients to Lismore Base Hospital, which is the only facility in the Richmond Clarence Health Service Group that provides intensive care, coronary care, acute mental health and a range of diagnostic services available 24 hours a day.

The current health services provided by Casino Aboriginal Medical Service at the Box Ridge Community Centre have become busier since the closure of the Campbell Hospital (Coraki). An outreach clinic is provided and the Aboriginal transport driver assists to get people to the clinic.

In 2011, the Campbell Hospital (Coraki) which was a 14 bed inpatient facility serving the local community of Coraki and surrounds closed. A Clinical Services Plan for Coraki and Surrounds was

endorsed by the NNSW LHD Board in October 2012. The Clinical Services Plan recommended that a HealthOne facility be constructed on the site and a HealthOne model of care be developed. A Master Plan is currently being developed for the former Campbell Hospital site.

### 6.2.3 LISMORE BASE HOSPITAL

Lismore Base Hospital is a 248 bed B2 Major Non-Metropolitan Hospital including specialist Mental Health beds, an Integrated Cancer Care Centre (ICCC) including Radiotherapy (two LINACs) and PET/CT, MRI and Diagnostic and Interventional Cardiology. Lismore Base Hospital is located in the Lismore LGA and is part of the Richmond Clarence Health Service Group. It is an acute facility providing high level (role delineation level 5) care for residents across the Richmond Clarence Health Service Group and extending into Byron and Tenterfield Shires.

There have been a number of capital projects undertaken in recent times and planning has commenced for further service development. The Diagnostic Cardiology Unit at Lismore Base Hospital commenced operation in 2010 and commenced the provision of interventional cardiology services in 2012. A second LINAC has been installed and commenced operations in November 2011 and a new PET, CT scanner and MRI were commissioned in December 2012.

An interim redevelopment of the ED at Lismore Base Hospital is under construction and will expand the current ED space and provide a seven bed Emergency Medical Unit (EMU) and additional space for the provision of Telemedicine. The Endoscopy Suite will be relocated as part of this project.

The Lismore Base Hospital Clinical Services Plan was endorsed by the NNSW LHD Board in June 2012. Capital funding of \$80.25M was announced for the first phase of Lismore Base Hospital Redevelopment (Stage 3A). NSW Health Infrastructure is managing the Lismore Base Hospital Stage A3 Redevelopment and is proceeding with the next phase of the Capital Planning which includes a revised Site Master Plan, and a combined Service Procure Plan \Project Definition Plan for Lismore Base Hospital.

Lismore Base Hospital Redevelopment (Stage 3A) will commence in 2014. The redevelopment will include:

- Redevelopment of the ED
- A 12 bed EMU
- Relocation and expansion of Renal Dialysis from nine to 12 chairs in 2016 and to 18 in 2021
- Expansion of Medical Imaging
- Relocation and expansion of Community Health facilities to the Lismore Base Hospital site incorporating HITH
- New Outpatients Department incorporating additional consulting rooms to accommodate Outpatient Services on-site
- A new Endoscopy Suite with two procedure rooms, four consulting rooms and eight recovery beds will be constructed.

Additionally eight existing beds at Lismore Base Hospital are being converted to GEM beds and four existing beds will be converted to a specialist Dementia Unit in 2014.

### CURRENT SERVICES

The majority of specialist medical, surgical and other services within the Richmond Clarence Health Service Group are provided at Lismore Base Hospital, which forms the hub for clinical services for the Health Service Group.

Lismore Base Hospital is a designated Regional Trauma Centre serviced by the Westpac Helicopter Retrieval Service. The Hospital provides the hub for critical care services across the Health Service Group including support to level 2 and 3 HDUs and ED. Completion of the interim ED at Lismore Base Hospital in 2014 will allow the Hospital to develop formal arrangements for clinical support to smaller facilities and their EDs through Telemedicine facilities.

Lismore Base Hospital provides emergency operating theatres for surgery (role delineation level 5) supported by specialist anaesthetists, intensive care, coronary care and a range of diagnostic services.

Medical Imaging Services are provided at role delineation level 5 at Lismore Base Hospital. Diagnostic imaging and procedural radiology services include ultrasound, general x-ray and angiography/interventional services. PET, MRI and CT scanner and are provided on-site. Pathology and pharmacy services are provided at role delineation level 4.

A full range of Community and Allied Health services are based in Lismore either at the Hospital, at Goonellabah or Molesworth Street, Lismore. Ambulatory care services including ComPacks, HITH, TACs and CAPACs are available to facilitate hospital care substitution and post discharge support for patients and carers. An Express Community Care Centre (ECCC) operates from the ED and an EMU is currently under construction.

Ballina District Hospital, Casino and District Memorial Hospital, Bonalbo District Hospital and Kyogle, Nimbin, and Urbenville and District MPSs refer their tertiary patients to Lismore Base Hospital. Although Grafton Base Hospital provides some emergency surgery Lismore Base Hospital is the only facility in the District that provides a wide range of emergency services e.g. operating theatres for surgery, intensive care, coronary care and a range of diagnostic services 24 hours per day.

St Vincent's Private Hospital, Lismore is the major private provider and currently supplies palliative care services plus day surgery services in ophthalmology for public patients under contract to the District.

### CURRENT ACTIVITY

In 2011/12 there were 20,682 separations from Lismore Base Hospital resulting in 79,998 beddays. Between 2009/10 and 2011/12 total separations increased by 5.7% and beddays by 3.9%. There were 13,174 acute Overnight separations from Lismore Base Hospital in 2011/12 resulting in 56,188 beddays. Overnight acute separations increased by 4% and beddays decreased by 3.6 % between 2009/10 and 2011/12. ALOS has decreased from 4.6 to 4.3 days.

There were 23,181 undiscounted cost weighted separations from Lismore Base Hospital in 2011/. Between 2009/10 and 2011/12 undiscounted cost weighted separations increased 6.2%.

Complexity<sup>28</sup> increased from 1.7 in 2009/10 to 1.8 in 2011/12.

There were 7,367 Day Only separations from Lismore Base Hospital in 2011/12. Between 2009/10 and 2011/12 Day Only separations from Lismore Base Hospital increased by 3.4%.

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<sup>28</sup> Complexity calculated on Overnight acute undiscounted cost weighted separations (all ages)/total number of Overnight acute separations, (excluding Day Only, Unqualified Neonates, Chemotherapy and Renal Dialysis)

The proportion of separations for patients aged  $\geq 65$  years has increased from 35% to 36% and  $\geq 85$  years has remained at 7% of total Overnight Acute separations. Separations for people of Aboriginal or Torres Strait Islander descent, as a proportion of total separations, have increased from 7% to 8%. Sub-acute separations have increased from 24 in 2009/10 to 330 in 2011/12 probably as a result of improved coding. Between 2009/10 and 2011/12 ED presentations decreased by 3.5%.<sup>29</sup>

The following table is intended to give an overall picture of activity at Lismore Base Hospital between 2009/10 and 2011/12. More detailed information is included in other sections of the Plan.

**Table 13: Lismore Base Hospital Inpatient Activity 2009/10-2011/12**

<b>Lismore Base Hospital</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separation	19,575	21,200	20,682
Total Beddays	76,985	80,680	79,998
<b>Acute Overnight Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separation	12,671	12,992	13,174
Total Beddays	58,270	58,232	56,188
ALOS (Adult Acute O/N)	4.6	4.5	4.3
Undiscounted cost weighted separations	21,823	22,269	23,181
Complexity	1.7	1.7	1.8
$\geq 65$ years (% Total)	35%	36%	36%
$\geq 85$ years (% Total)	7%	8%	7%
Aboriginal & TSI People (% Total)	7%	7%	8%
<b>Day Only Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	6,025	6,959	6,232
<b>Sub-acute Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Sub-acute Separations	24	343	330
<b>Mental Health Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	855	906	946
Beddays	12,447	12,973	14,919
<b>Emergency Department</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Presentations	30,512	29,234	29,453

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch, excluding Renal Dialysis, Chemotherapy Unqualified Neonates.

## FUTURE MODELS OF CARE

Models of care will be developed that assist acute hospital flow and demand management, these will involve strategies across the spectrum of services including emergency, medical, surgical and community based services. There is a need to better manage patients out of hospital, and more effectively in hospital with shorter stays.

These models will include integrated services that enhance coordination and continuity of care and which can provide alternatives to hospitalisation, such as:

- An emphasis on networking across the Health Service Group
- Developing Lismore Base Hospital as a hub site for Connecting Critical Care in the Health Service Group
- New models of care in ED and Surgical Services to meet increasing demand for these services

<sup>29</sup> See section 8.3 for a detailed analysis of ED activity

- Increased access to minimally invasive surgery and consideration of Rural Surgical Futures models of care e.g. High Volume Short Stay model
- Increasing capacity at Lismore Base Hospital Cardiology Unit
- Developing new models of care for the GEM and specialist Dementia Unit at Lismore Base Hospital
- Examining options to meet increasing demand at the Ballina Satellite Renal Dialysis Unit
- New models of care to improve collaboration with RACFs to address increasing number of nursing home patient presentations and admissions
- Expanding Nurse-led models including Midwifery Caseload and Nurse Practitioner Clinics e.g. aged care, diabetes, respiratory and palliative care and mental health
- Shared care involving GPs, RACFs and other government and non-government agencies involved in community care programs
- Development of additional strategies to reduce readmission and avoidable admissions including increased ambulatory care, post-acute care, ComPacks, HITH and chronic disease management to assist in meeting growing demand for healthcare services
- Multidisciplinary models of hospital substitution and chronic disease management
- Increasing investment in post-acute and continuing care, in community rehabilitation and chronic disease management.

A Stroke Unit is defined as dedicated, coordinated care for stroke patients in hospital under a multidisciplinary team who specialise in stroke management. The benefits of providing care in a Stroke Unit compared to a general medical ward is a significant reduction in death and disability as well as streamlined discharges to rehabilitation or community programs, thereby reducing length of stay. A proposal for a four bed specialist stroke unit at Lismore Base Hospital has been developed. A Stroke Coordinator position for the Richmond Network was established in 2012.

New models of care will be developed for the GEM and Dementia specific beds.

Completion of the interim ED upgrade will provide much needed capacity for an EMU and improvements to Telemedicine facilities which will facilitate the provision of clinical support to other EDs in the Health Service Group requiring the development of new models of care and service provision.

Construction of Lismore Base Hospital Stage 3A will increase the capacity of the ED, Medical Imaging and the Endoscopy Unit. Ambulatory care will be enhanced including Renal Services and the collocation of Community Health Services.

Lismore Base Hospital and Community and Allied Health Services will focus on models of care that better manage the patient journey across the care continuum including the provision of the right type/level of treatment at the most appropriate time, as close to the patient's home as possible.

### FUTURE DIRECTIONS

Over the next 10 years Lismore Base Hospital will strengthen its role as a B2 Major Non-Metropolitan Hospital and further develop as the main public referral hospital for residents of Richmond Clarence Health Service Group. It is expected that demand for services will continue to grow in response to population growth and ageing across the Health Service Group. Critical to meeting increasing demand will be the commissioning of Lismore Base Hospital Stage 3A Redevelopment and the staged implementation of the Clinical Services Plan.



Lismore Base Hospital will continue to increase its role in provision of specialist medical, surgical and other services and as the hub for clinical services in the Richmond Clarence Health Service Group. Services will continue to be provided predominantly at role delineation level 5 with increasing self-sufficiency in vascular surgery, urology and gynaecology.

Lismore Base Hospital will further develop links with smaller facilities in the Health Service Group to ensure complementary service provision and a smooth flow of patients through the system. A one hospital on two campus model between Lismore Base Hospital and Casino and District Memorial Hospital will be developed.

## KEY ISSUES

- Increasing demand from an ageing population
- Limited access to specialist stroke services including a specialist neurologist and appropriately skilled Allied Health staff
- Constructing and operationalizing the interim redevelopment of Lismore Base Hospital ED and development of new models of care
- The ED and inpatient units are not able to address current needs in an efficient way and will not meet future community demands
- Operationalisation of the GEM and Dementia Units at Lismore Base Hospital will require development of new models of care
- There is a need for more proactive and effective workforce planning for Medical, Ancillary and Nursing staff
- There is currently fragmentation of services between hospital, community health, general practice, other government, non-government and community agencies
- There is need to further enhance and develop clinical pathways, case management and shared care services for older people and people with chronic and complex care issues
- There is a need for an improved integrated service model between Community Health and Acute services
- Information technology, information management and information technology infrastructure including those supporting e-Health and Telehealth initiatives need to be improved
- There is a need to provide better teaching facilities supporting allied health professionals, nurses and doctors in partnership with the University Centre for Rural Health North Coast, Southern Cross University, Newcastle University, University of New England, North Coast Institute of Technical and Further Education, University of Sydney, Bond University and Griffith University.

### 6.2.4 BALLINA DISTRICT HOSPITAL

Ballina District Hospital is a District Group 2, C2 Hospital which has 73 inpatient beds including 30 general ward beds (6 surge beds) a 31 bed specialist Rehabilitation Unit and a six bed Transitional Care Unit. Services provided are predominantly at role delineation level 3. Surgical services are elective and include urology, vascular surgery and general surgery with all Specialists visiting from Lismore Base Hospital.

The Hospital provides a 24 hour ED which is staffed by FACEMS, CMOs and GP VMOs. Local GP VMOs and CMOs provide 24 hour medical cover for inpatients. A range of clinical support services are



available on-site 24 hours a day including medical imaging, pharmacy and close care monitoring beds. Limited pathology services are available on-site in the form of I-stat point of care testing.

Ballina District Hospital also has a seven chair Renal Dialysis Unit and a three chair Home Dialysis Training Unit. There is a four chair/treatment Satellite Chemotherapy Service outreached from Lismore. The Service is provided weekly and services local residents of the Ballina and Byron LGAs.

A full range of Community and Allied Health services are based at Ballina District Hospital. Ambulatory care services include ComPacks and TACS facilitating hospital care substitution and post discharge support for patients and carers. Ballina District Hospital also has a well-established Day Therapy Service which provides allied health assessments and therapy programs.

Telehealth facilities on-site are used for educational purposes for all staff, as well as for videoconferencing and Telemedicine. Clinical videoconferencing is also available to patients undergoing treatment in the ED, with a direct link to Lismore Base Hospital emergency staff specialist care.

The University Centre for Rural Health and NNSW LHD has formed a partnership to construct a new teaching and student accommodation centre on the Ballina District Hospital grounds. Construction is now completed.

### CURRENT ACTIVITY

In 2011/12 there were 4,823 separations from Ballina District Hospital resulting in 23,012 beddays. Between 2009/10 and 2011/12 total separations decreased by 9.8% and beddays increased by 13.8%.<sup>30</sup> There were 1,647 acute Overnight separations from Ballina District Hospital in 2011/12 resulting in 9,266 beddays. Overnight acute separations increased by 7.5% and beddays by 2.5 % between 2009/10 and 2011/12. ALOS has decreased from 5.9 to 5.6 days.

There were 2,744 Day Only separations<sup>31</sup> from Ballina District Hospital in 2011/12. Between 2009/10 and 2011/12 Day Only separations from Ballina District Hospital decreased by 21%. This decrease was mainly related to a decrease in separations for ESRG Renal Failure from 1,192 in 2009/10 to 18 in 2011/12 which may have resulted from a change in coding practise.

The proportion of separations for patients aged  $\geq 65$  years has increased from 66% to 67% and  $\geq 85$  years has increased from 23 % to 25%. Separations for people of Aboriginal or Torres Strait Islander descent, as a proportion of total separations remained at between 3% and 4%. Sub-acute separations have increased from 285 in 2009/10 to 402 in 2011/12 which is an increase of 41%. Between 2009/10 and 2011/12 ED presentations decreased by 8%.<sup>32</sup>

The following table is intended to give an overall picture of activity at Ballina District Hospital between 2009/10 and 2011/12. More detailed information is included in other sections of the Plan.

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<sup>30</sup> Total separations include acute and sub-acute with the large beddays increase related to increasing activity in the Sub-acute Unit

<sup>31</sup> Excludes, Renal Dialysis, Chemotherapy and Unqualified Neonates

<sup>32</sup> See section 8.3 for a detailed analysis of ED activity

**Table 14: Ballina District Hospital Inpatient Activity 2009/10-2011/12**

<b>Ballina Hospital</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	5,347	4,600	4,823
Total Beddays	20,218	19,991	23,012
<b>Acute Overnight Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	1,532	1,550	1,647
Total Beddays	9,039	9,514	9,266
ALOS (Adult Acute O/N)	5.9	6.1	5.6
≥65 years (% Total)	66%	68%	67%
≥85 years (% Total)	23%	25%	25%
Aboriginal People (% Total)	3%	4%	3%
<b>Sub-acute Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Sub-acute Separations	285	314	402
<b>Day Only Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	3,530	2,736	2,774
<b>Emergency Department</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Presentations	16,611	15,135	15,285

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch, excluding Renal Dialysis, Chemotherapy Unqualified Neonates

## FUTURE MODELS OF CARE

Models will include:

- Integrated services that enhance coordination and continuity of care and which can provide alternatives to hospitalisation such as:
- An emphasis on networking across the Health Service Group
- Consideration of Nurse-led models including Nurse Practitioner in Aged Care and ED
- Multidisciplinary models of hospital substitution and chronic disease management
- Short term paediatric care.

## FUTURE DIRECTION

Over the next 5 years a Clinical Services Plan will be developed for the site to assess future need and to inform development of a Master Plan for the site and capital options to meet the demands of a growing and ageing population and to address current capacity issues in Ballina District Hospital and Community Health and Allied Health Services. 67% of acute Overnight separations from Ballina District Hospital in 2011 were for people aged ≥ 65 years. This is a significantly larger proportion of aged patients than any other hospital in the LHD.

Ballina District Hospital will further develop links with Lismore Base Hospital to ensure complementary service provision and a smooth flow of patients through the system. Networking of surgical services will be further developed and consideration to increasing short term paediatric care. Improved medical governance, development of a dispensing pharmacy and the provision of on-site MRI and ultrasound would improve clinical care and self-sufficiency.

Ballina District Hospital will strengthen its role in the provision of sub-acute care and will need to enhance provision of community based rehabilitation.

Ballina District Hospital and Community and Allied Health Services will need to have an increasing focus on developing clinical pathways, case management and shared care services for older people and people with chronic and complex care issues particularly in relation to Aboriginal residents.

### KEY ISSUES

- Significant increase and ageing of the population of the catchment and increasing Aboriginal population
- Current infrastructure is unable to cater for the population increase and increased demand from an ageing population; there is insufficient capacity in Community Health, ED, medical and surgical wards; increasing demand for In-centre Renal Dialysis services and a need for a designated Medical Specialist Outpatient facilities
- Provision of enhanced Medical Imaging (CT scan and ultrasound on-site) is a high priority to provide more timely diagnostics and treatment for patients at Ballina District Hospital
- There is currently fragmentation of services between the Hospital, Community Health and General Practice
- There is need to further enhance and develop clinical pathways, case management and shared care services for older people and people with chronic and complex care issues
- Medical coverage for the ED and inpatient units is problematic
- There needs to be a continued effort to enhance association/collaboration with University Centre for Rural Health and other Universities
- There needs to be improved access to short term care for children
- ED receive a lot of presentations as people cannot get in to see their GPs, which blocks the ED; an integrated after hours service, rotational with GPs was proposed at consultation
- Ballina District Hospital cannot always send patients back to RACFs
- A standardised end of life package is required
- RACFs are often not able to manage dementia patients and associated behavioural problems
- There is a need for improved access to Geriatricians and Psycho-geriatricians for RACFs
- There is a need to develop HITH services in Ballina
- Medical leadership at Ballina District Hospital needs improvement
- There is no Home Care available and this has been the case for some years
- There is limited access to and increasing demand for Child and Family Mental Health services
- The closure of Day Therapy at Casino is increasing demand for this service in Ballina
- There is no dispensing pharmacy at Ballina District Hospital and limited access to clinical pharmacy in the Hospital and for clients of the Community Health Service.

### 6.2.5 CASINO AND DISTRICT MEMORIAL HOSPITAL

Casino and District Memorial Hospital is a C2 District Group 2 Hospital with 36 inpatient beds<sup>33</sup> (plus three bed surge capacity) and services predominantly operating at role delineation level 3. The Hospital provides day surgery, general surgery including urology, gynaecology, orthopaedics, ENT and oral surgery with all Specialists visiting from Lismore Base Hospital.

The Hospital also provides a 24 hour ED which is usually staffed by a CMO (1FTE) however this position is currently vacant. The ED and inpatient wards are currently covered by medical locums. A range of clinical support services are available on-site 24 hours per day including medical imaging and monitored beds. Pharmacy is available 3 days per week and pathology services are available on-site in the form of I-stat point of care testing.

Closure of the Birthing Service at Casino and District Memorial Hospital was announced in July 2013. This resulted from an ongoing decline in the number of births at the hospital and unresolved workforce issues.

A full range of Community and Allied Health services are based at Casino and District Memorial Hospital. Ambulatory Care services include ComPacks and TACS facilitating hospital care substitution and post discharge support for patients and carers.

Telehealth facilities on-site are used for educational purposes for all staff, as well as for videoconferencing and Telemedicine. Clinical videoconferencing will be available in 2014 to patients undergoing treatment in the ED once the direct link to Lismore Base Hospital emergency staff specialist care is established.

#### CURRENT ACTIVITY

In 2011/12 there were 1,474 separations from Casino and District Memorial Hospital resulting in 7,627 beddays. Between 2009/10 and 2011/12 total separations increased by 1.5% and beddays 6.4%.<sup>34</sup> ALOS increased from 4.9 to 5.2 days.

There were 1,618 Day Only separations from Casino and District Memorial Hospital in 2011/12. Between 2009/10 and 2011/12 Day Only separations increased by 53%. This increase includes an increase of 253% in separations for DRG Chest Pain from 32 Day Only separations in 2010/11 to 113 in 2011/12.

Between 2009/10 and 2011/12 the proportion of separations for patients aged  $\geq 65$  years increased from 44% to 50% of total separations and patients  $\geq 85$  years increased from 13 % to 14%. Separations for people of Aboriginal or Torres Strait Islander descent,<sup>35</sup> as a proportion of total separations remained at 8% in the same period. Between 2009/10 and 2011/12 ED presentations increased by 4.1%.<sup>36</sup>

The following table is intended to give an overall picture of activity at Casino and District Memorial Hospital between 2009/10 and 2011/12. More detailed information is included in other sections of the Plan.

<sup>33</sup> Casino and District memorial Hospital has 46 bed built capacity

<sup>34</sup> Total separations include acute and sub-acute with the large beddays increase related to increasing activity in the Sub-acute Unit

<sup>35</sup> There were four separations for people identifying as Torres Strait Islander at Casino and District Memorial Hospital in 2011/12

<sup>36</sup> See section 8.3 for a detailed analysis of ED activity

**Table 15: Casino and District Memorial Hospital Inpatient Activity 2009/10-2011**

<b>Casino Hospital</b>			
<b>Overnight Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	1,452	1,583	1,474
Total Beddays	7,169	7,470	7,627
ALOS (Adult Acute O/N)	4.94	4.72	5.17
≥65 years (% Total)	44%	49%	50%
≥85 years (% Total)	13%	15%	14%
Aboriginal & TSI People (% Total)	8%	8%	8%
<b>Day Only InPatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	1,054	1,513	1,618
<b>Emergency Department</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Presentations	14,764	15,037	15,375

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch, excluding Unqualified Neonates

## FUTURE MODELS OF CARE

Casino and District Memorial Hospital will further develop links with Lismore Base Hospital to ensure complementary service provision and a smooth flow of patients through the system.

Given the low and decreasing volume of care at Casino and District Memorial Hospital and workforce issues the Birthing service is no longer viable and new models of care for birthing have been developed with Lismore Base Hospital providing the hub for birthing. There may be potential for Casino and District Memorial Hospital to provide postnatal care and early discharge follow up will be critical for Casino mothers should the service at Casino and District Memorial Hospital close. The long term vacancy in the Aboriginal Antenatal Program will need to be addressed.

There will be a continued focus on coordinating and integrating services across the continuum of care and further development of care models which prevent avoidable hospital admissions and readmissions. A closer working relationship with Casino AMS will improve outcomes for Aboriginal residents of the catchment.

## FUTURE DIRECTIONS

Casino and District Memorial Hospital will work towards a one hospital on two campuses model with Lismore Base Hospital. To achieve this there is a need to improve Specialist Medical Outpatient and Ambulatory services in the area of respiratory disease and the management of other chronic diseases.

The ED will require urgent attention to increase capacity and to improve functionality.

Networking of surgical services will be further developed and consideration be given to increasing Day Surgery at the site. This would assist Lismore Base Hospital to maintain costs and improve surgery outputs. Improved medical governance and improved medical cover for the ED and inpatient wards would improve clinical care.

Casino and District Memorial Hospital and Community and Allied Health Services will need to have an increasing focus on developing clinical pathways, case management and shared care services for older people and people with chronic and complex care issues particularly in relation to Aboriginal residents.

## KEY ISSUES

- There is a need to define the role of Casino and District Memorial Hospital within the context of the complementary role of Lismore Base Hospital
- There are difficulties in recruiting a CMO to provide cover for the ED and inpatient wards
- There is a need for improved medical governance for the ED and inpatient wards; There is no afterhours or weekend medical cover
- There is limited GP cover for RACFs
- The birthing service has recently closed as a result of declining births and workforce issues
- There is a need to develop appropriate networking with Lismore Base Hospital in relation to outreach antenatal service provision at Casino
- ED design, capacity and functionality need to be improved
- Demand for Child and Family and Adult Allied Health Services is high and there is demand from outlying rural areas including Bonalbo and Kyogle
- There is limited access to Speech Pathology services in the ED, inpatient wards and community which includes a larger catchment including Bonalbo and outlying rural areas
- Private Allied Health services in the community are limited and many residents are unable to afford the co-payment fee charged
- Continuing the development of multidisciplinary models of hospital substitution and chronic disease management will require consideration of the role of the Day Therapy Unit at Casino which has been closed for 18 months
- Clinical pharmacy is limited and additional support is required for both inpatients and community clients
- Community Health needs to have the capacity to work more closely with general practice.

### 6.2.6 BONALBO DISTRICT HOSPITAL

Bonalbo District Hospital usually functions as a D1b Community Acute Hospital without surgery with 10 inpatient beds; however these beds have been closed as Bonalbo has not been able to attract a permanent GP since the one local GP VMO resigned 1 January 2012.

Bonalbo District Hospital provides a 15hr hour per day ED from 7.00am to 11.00pm daily which is staffed by First Line Emergency Care (FLEC) accredited Registered Nurses when the locum GPs are not available. Locum GPs are on-site most days between the hours of 9.00am to 5.00pm and provide services to the ED when available. Bonalbo District Hospital has an on call nursing service (including a FLEC accredited Registered Nurse) from 11.00pm to 7.00am daily for the ED.

There is a nurse operated medical imaging service available on-site and point of care pathology, as well as a regular external pathology service twice daily on weekdays.

Two Community Nurses are based at Bonalbo District Hospital and provide services to the local township and surrounding rural area Monday to Friday 8.00am - 5.00pm. Services provided include audiometry, school health, child and family health, immunisation, diabetes education, palliative care, basic foot care, PICC management and wound management.

Tabulam Aboriginal community is located in the Tenterfield LGA and is 30km from Bonalbo District Hospital (EDT of 20min). An Aboriginal Health Post is located in the Tabulam local Aboriginal community with limited primary health care services provided by Bonalbo and Casino Community and Allied Health Services and Casino AMS. There is one Aboriginal Liaison Officer based at the Bonalbo District Hospital who coordinates the Jubullum Health Post. Bonalbo District Hospital and Community Health Service has an Aged Day Away service and visiting Allied Health services.

Telehealth facilities on-site are used for educational purposes for all staff, as well as for videoconferencing and clinical reviews. The videoconferencing unit is also available for inter- small site facility communications and reduces the barrier of travel.

Lismore Base Hospital is the closest Major Non-Metropolitan Hospital and is located 100km from Bonalbo District Hospital (EDT<sup>37</sup> of 1hr 20min). Other services located near Bonalbo District Hospital are Urbenville and District MPS 40km (EDT of 30min), Kyogle Memorial MPS 100km (EDT of 1.5hrs) and Casino and District Memorial Hospital 70kms (EDT of 50- 60 min).

Uniting Care Ageing currently provides a 15 bed aged care facility in the Bonalbo township. It is a Commonwealth funded residential aged care program with Uniting Care Ageing as the approved provider. Caroonna Bonalbo is collocated on the Bonalbo Hospital site. Caroonna Bonalbo offers residents the opportunity to age in place. It is currently certified and accredited under Commonwealth requirements.

Uniting Care Ageing also provides community care in the local area including a small program with the Department of Veterans Affairs and Veterans Homecare clients and Community Aged Care Packages.

NNSW LHD is working with Uniting Care Ageing to determine how a partnership arrangement could benefit both services and local residents. A Feasibility Study is currently being undertaken to determine the preferred option for the site.

### CURRENT ACTIVITY

In 2010/11 which was the last full year of operation there were 460 Overnight separations from Bonalbo District Hospital resulting in 1,920 beddays. Between 2009/10 and 2010/11 total separations increased by 1.3% and beddays 13.7 %. ALOS increased from 3.7 days to 4.1 days. There were minimal Day Only separations in the same period.

Between 2009/10 and 2010/11 the proportion of separations for patients aged  $\geq 65$  years increased from 29% to 39% and  $\geq 85$  years from 5 % to 7%.

Overnight separations for patients identifying as Aboriginal, as a proportion of total Overnight separations were 41% in 2009/10 and 45% in 2010/11. Of the total Overnight separations for Aboriginal people in 2010/11 there were 24 separations for DRG Alcohol Use Disorder and Dependence, 11 separations for Seizure without complications, seven for Cellulitis and five for Chronic Obstructive Airways Disease. More appropriate models of care could be developed to reduce admissions for these conditions.

Between 2009/10 and 2011/12 ED presentations increased by 23%.<sup>38</sup>

The following table is intended to give an overall picture of activity at Bonalbo District Hospital between 2009/10 and 2011/12. More detailed information is included in other sections of the Plan.

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<sup>37</sup> EDT = Estimated Driving Time

<sup>38</sup> See section 8.3 for a detailed analysis of ED activity



**Table 16: Bonalbo District Hospital Inpatient Activity 2009/10-2011/12**

<b>Bonalbo Hospital</b>			
<b>Overnight Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	454	460	203
Total Beddays	1,689	1,920	842
ALOS (Adult Acute O/N)	3.72	4.17	4.15
≥65 years (% Total)	29%	30%	38%
≥85 years (% Total)	5%	7%	12%
Aboriginal & TSI People (% Total)	41%	45%	42%
<b>Day Only InPatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	44	28	67
<b>Emergency Department</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Presentations	3,954	4,156	4,758

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch. Activity data for 2011/12 is not for a full year as the Hospital was closed in February 2012

## FUTURE MODELS OF CARE

Bonalbo District Hospital and Community and Allied Health Service will further develop links with Casino and District Memorial Hospital, MPS Network and Lismore Base Hospital to ensure complementary service provision and a smooth flow of patients through the system.

New models of care will be developed to better integrate service provision between Casino AMS, Bonalbo District Hospital and Community Health Service and North Coast NSW Medicare Local to provide more appropriate health services to the Aboriginal community and prevent avoidable hospital admissions and readmissions. A partnership with Riverlands Drug and Alcohol Centre and related NGOs may provide more appropriate care for Aboriginal people who have in the past been admitted at Bonalbo District Hospital for Alcohol Use and Dependence Disorder.

## FUTURE DIRECTION

A Feasibility Study is currently being undertaken to decide the preferred future service provision model for Bonalbo District Hospital and Community Health Services. At this stage the preferred model is an MPS model in partnership with Uniting Care Ageing.

Some admissions for patients of Aboriginal and Torres Strait Islander descent to Bonalbo District Hospital are considered avoidable. New models of care need to be developed in partnership with North Coast NSW Medicare Local, Casino AMS, Riverlands Drug and Alcohol Centre, Casino Community and Allied Health and Bonalbo Health Services.

Working with the North Coast NSW Medicare Local to address the long term GP vacancy of the town is critical to local service provision.

## KEY ISSUES

- Medical workforce shortages and an inability to attract a GP to Bonalbo have resulted in closure of inpatient beds and a reduction in ED services
- Bonalbo and surrounding area is serviced by one Ambulance with a paramedic; however there has recently been a regular reduction in personnel and patients requiring transfer need to wait until backup arrives from outside the region or from Urbenville
- Roads are impassable during floods and this restricts the flow of patients out of the area; the helicopter is unable to land in cloudy weather



- Bonalbo District Hospital and Community Health Service has an ageing workforce with the majority of staff working part-time and planning to retire within 5-10 years; recruitment is a challenge
- Maintaining clinical competency in emergency medicine is critical
- There is diminishing access to Allied Health through outreach services from Casino and Lismore
- Due to remoteness and social disadvantage patients require additional support in the provision of home based care more than just nursing; some homes are without adequate plumbing and electricity
- Distances are considerable which limits the sustainability of home based services.

### 6.2.7 CLARENCE NETWORK OF SERVICES

The Clarence Network of services is located in the Clarence LGA and part of the Richmond Clarence Health Service Group and is comprised of Grafton Base and Maclean District Hospitals and Community and Allied Health Services.

The Clarence Health Services Executive Team is comprised of the Executive Officer, Director of Nursing, Director Medical Services and Business Manager. A Community and Allied Health Manager will shortly be appointed.

The Executive Team focuses on working together across sites, much improved medical governance and service integration. Resource sharing, provision of clinical support, education and training, best-practice care and leadership are an integral part of the operations of the Clarence Network of services.

Grafton Base Hospital plays an important role in providing for the majority of acute health needs of residents of the Grafton, Copmanhurst, Ulmarra and Nymboida SLAs. Grafton Base Hospital also provides services to residents of Maclean, Yamba, Iluka and surrounding rural areas. Opening in 2011 redevelopment of the Grafton Base Hospital Surgical Services Unit incorporated a new theatre suite consisting of two operating theatre rooms and a procedure room including support facilities, a new Central Sterile Supply Department (CSSD), recovery and day surgery facilities. A new ED was also constructed and opened in 2011 and a new Medical Imaging Department was opened in 2012. The intention of this redevelopment was to increase Clarence Valley's self-sufficiency in surgical services, provide more immediate emergency care and to reduce travel for local residents.

Maclean District Hospital works as part of a clinical network with Grafton Base Hospital forming the hub of services. Grafton Base and Maclean District Hospitals refer their tertiary patients to Lismore Base Hospital, which is the only facility in the Richmond Clarence Health Service Group that provides intensive care, coronary care, acute mental health and a range of diagnostic services available 24 hours a day.

The Sub-Acute Beds Program at Maclean District Hospital is to provide 10 new sub-acute rehabilitation beds and four palliative care beds which will provide services across the Clarence Network. It will act as a hub for sub-acute services and will link with the Specialist Rehabilitation Unit at Ballina District Hospital.

Higher level care is provided by Lismore Base Hospital or Coffs Harbour Health Campus which are the closest Major Non-Metropolitan Hospitals.

Grafton Base Hospital is located approximately 120kms (EDT 1 hour 30 min) from Lismore Base Hospital and 90kms from Coffs Harbour Health Campus to the south. Coffs Harbour Health Campus

which is the closest Major Non-Metropolitan Hospital is part of Mid North Coast LHD. Maclean District Hospital is located 45km from Grafton Base Hospital (EDT 40min) 85km from Lismore Base Hospital (EDT approximately 1hr) and 90km from Ballina District Hospital (EDT 1hr).

#### 6.2.8 GRAFTON BASE HOSPITAL

Grafton Base Hospital is a 110 bed C1 District Group 1 Hospital. Grafton Base Hospital predominantly provides services at role delineation level 3 and 4. Surgical services provided at role delineation level 4 include orthopaedics, gynaecology, vascular surgery, ENT, ophthalmology, dental, gastroenterology and general surgery. Grafton Base Hospital also provides emergency operating theatres for gynaecology, general surgery and orthopaedics.

The hospital provides a 24 hour ED which is staffed by CMOs and GP VMOs. Local Specialists and GP VMOs provide 24 hour medical cover for inpatients. A range of clinical support services are available on site 24 hours a day including medical imaging<sup>39</sup> including CT scan, pathology, pharmacy and high dependency beds, Level 4 Maternity and level 3 Neonatal services are also provided at Grafton Base Hospital. Grafton Base Hospital has a six chair chemotherapy satellite unit and a nine chair Renal Dialysis Unit operating 6 days and two shifts.

There is a full time Paediatrician at Grafton Base Hospital and well developed links to Mater Children's Hospital, Brisbane. Other clinical networking includes Telehealth links with Sydney Children's Hospital, Child Psychiatry (Sydney Children's Hospital) and Type 1 Diabetes (Sydney Children's Hospital Outreach).

A full range of Community and Allied Health services are based at Grafton Base Hospital and the nearby Aruma Community Health Centre. Ambulatory care services available to facilitate hospital care substitution and post discharge support for patients and carers include Hospital in the Home, ComPacks and TACS.

Telehealth facilities on-site are used for educational purposes for all staff, as well as for videoconferencing and Telemedicine. In 2014 clinical videoconferencing will be available to patients undergoing treatment in the ED, with a direct link to Lismore Base Hospital emergency staff specialist care. Grafton Base Hospital is linked to ICU at Lismore Base Hospital through clinical support arrangements and formal transfer protocols. A Simulation Laboratory is currently being constructed.

There are two correctional facilities in Grafton including Grafton Correctional Facility which has recently downsized and is now a remand centre only. Acmena Juvenile Justice Centre, an adolescent correctional facility remains in operation.

<sup>39</sup> MRI is provided in Grafton by Clarence Valley Imaging

## CURRENT ACTIVITY

**Table 17: Grafton Base Hospital Inpatient and ED Activity 2009/10-2011/12**

Grafton Base Hospital	2009/10	2010/11	2011/12
Total Separations	8,383	8,567	8,990
Total Beddays	25,211	27,742	26,750
Acute Overnight Inpatient Activity	2009/10	2010/11	2011/12
Total Separations	4,869	4,871	5,064
Total Beddays	18,008	19,205	18,091
ALOS (Adult Acute O/N)	3.7	3.9	3.6
Undiscounted cost weighted separations	6,740	6,939	7,298
Complexity	1.4	1.4	1.4
≥65 years (% Total)	36%	38%	38%
≥85 years (% Total)	8%	9%	9%
Aboriginal People (% Total)	8%	8%	8%
Sub-acute Inpatient Activity	2009/10	2010/11	2011/12
Sub-acute Separations	307	373	451
Day Only Inpatient Activity	2009/10	2010/11	2011/12
Separations	3,207	3,323	3,475
Emergency Department	2009/10	2010/11	2011/12
Total Presentations	23,461	23,356	22,511

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

Over the past 3 years there has been a 7% increase in total separations from Grafton Base Hospital and a 6% increase in beddays. Total Overnight acute separations have increased by 4% to 5,064 between 2009/10 and 2011/12 and beddays by 0.4%. ALOS has decreased from 3.7 to 3.6 days in the same period. Overnight acute separations for patients aged ≥65 years made up 36% of all separations in 2009/10 compared with 38% in 2010/11 while the proportion of patients aged ≥85 years increased from 8% to 9% in the same period. Overnight acute separations for Aboriginal people have remained steady at around 8% of total separations. Sub-acute separations increased by 47% between 2009/10 and 2011/12. Day Only separations made up 38% of total activity in 2011/12. In June 2012 Average Occupancy was reported to be 86%. Overall complexity<sup>40</sup> remained at 1.4 between 2009/10 and 2011/12. There was a decrease of 4% in ED presentations between 2009/10 and 2011/12.

### 6.2.9 MACLEAN DISTRICT HOSPITAL

Maclean District Hospital is a C2 District Group 2 hospital with 36 inpatient beds predominantly providing services at role delineation level 3. Surgical services are elective orthopaedics, some minor general surgery, and the remaining gastroenterology with Specialists visiting from Lismore and Grafton Base Hospitals.

The Hospital provides a 24 hour ED which is staffed CMOs and GP VMOs. Local GP VMOs provide 24 hour medical cover for inpatients. Limited clinical support services are available on site 24 hours a day including Medical Imaging, Pharmacy and on-site Pathology in the form of I-stat point of care testing.

A range of Community and Allied Health services are based at Maclean District Hospital. There are a limited range of ambulatory care services available to facilitate hospital care substitution and post discharge support for patients and carers. These include Hospital in the Home, ComPacks and TACS.

<sup>40</sup> Complexity calculated on Overnight acute undiscounted cost weighted separations (All ages) /total number of overnight acute separations (excluding Day Only, Unqualified Neonates, Chemotherapy and Renal Dialysis)

A new 14 bed Sub-acute Unit with 10 Rehabilitation beds and four Palliative Care beds unit is under construction. Establishment of a specialist Rehabilitation Unit at Maclean District Hospital will provide access to specialist rehabilitation services to Clarence Valley residents. The Unit will be linked to Ballina District Hospital Specialist Rehabilitation Unit for clinical oversight and staff education.

Telehealth facilities on-site are used for educational purposes for all staff, as well as for videoconferencing and Telemedicine. Clinical videoconferencing will also be available to patients undergoing treatment in the ED, with a direct link to Lismore Base Hospital emergency staff specialist care in 2014.

Construction of a new community health centre at Yamba will commence shortly. When complete the Yamba Community Health Centre will be the base for a wide range of community health services, and will provide local access through additional visiting and community health services and clinics.

## CURRENT ACTIVITY

**Table 18: Maclean District Hospital Inpatient and ED Activity 2009/10-2011/12**

<b>Maclean Hospital</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	2,601	2,708	3,674
Total Beddays	13,804	12,023	14,432
<b>Acute Overnight Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	1,825	1,805	1,896
Total Beddays	12,357	9,374	10,803
ALOS (Adult Acute O/N)	6.8	5.2	5.7
≥65 years (% Total)	66%	65%	67%
≥85 years (% Total)	15%	18%	17%
Aboriginal People (% Total)	5%	5%	4%
<b>Sub-acute Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Sub-acute Separations	103	210	182
<b>Day Only Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	673	693	1596
<b>Emergency Department</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Presentations	11,958	11,840	11,531

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

Over the past 3 years there has been a 41% increase in total separations from Maclean District Hospital from 2,601 in 2009/10 to 3,674 in 2011/12. The largest increase has been in Overnight sub-acute activity (76%) and in Day Only activity (76%). This activity includes admission to ED which were previously not counted. Overnight acute separations have increased by 3.9% with beddays decreasing by 12.6%. ALOS has decreased from 6.8 to 5.7 days in the same period. Overnight acute separations for patients aged ≥65 years made up 66% of all separations in 2009/10 compared with 67% in 2011/12 while the proportion of patients aged ≥85 years increased from 15% to 17% in the same period. The proportion of Overnight acute separations for Aboriginal people decreased from 5% to 4% between 2009/10 and 2011/12. In June 2012 Average Occupancy was reported to be 86%. There was a decrease of 3.6% in ED presentations between 2009/10 and 2011/12.

### FUTURE MODELS OF CARE CLARENCE NETWORK

The Clarence Network will work toward increasing Clarence Valley's self-sufficiency in surgical services with a particular focus on the provision of orthopaedics and urology at Grafton Base Hospital. An expansion of clinical pharmacy would support more effective models of care across a range of specialties.

Clarence Network will continue to develop models of care to meet the needs of an ageing population. Grafton Base Hospital has appointed a Nurse Practitioner in Aged Care and successfully implemented Hospital in the Home. These services will continue to expand to meet the growing need and to reduce avoidable hospital admissions and readmissions.

Opening of the specialist Rehabilitation and Palliative Care Units at Maclean District Hospital will require a Network approach to managing the journey for these patients. New models of care will be implemented to support the implementation of rehabilitation services and to reduce the length of stay at Maclean District Hospital.

An improved range of Diagnostic Services and improved CMO cover would reduce the movement of patients from Maclean District Hospital to Lismore Base and Grafton Base Hospitals. Development of Specialist Medical Outpatient Services at Grafton Base Hospital will be a high priority for the Network. A move to an outpatient model of care will require a capital solution to gain the greatest benefit.

Development of Medical Specialist Outpatient Services and increased outreach services from Lismore will enhance local access to a range of services. Haematology is a high priority for local service development.

### KEY ISSUES CLARENCE NETWORK

- In order to fully utilise Grafton Base Hospital as a District level hospital there is a need to redevelop the site to improve ward accommodation, a dedicated ambulatory care centre (outpatients and renal dialysis unit) and to expand specialist services such as orthopaedic imaging service
- There is a need to further develop outreach services from Lismore Base Hospital to provide Specialist services at Grafton Base Hospital especially in the areas of cardiology, respiratory and urology. These Specialist services would be used for outpatient service, support Hospital in the Home and give access to specialist opinion for inpatients
- At Grafton Base Hospital the service and its patients would benefit from a reconfiguration of ambulatory services and Specialist Medical Outpatients into an integrated service provision model. This would reduce administration and cleaning costs; there is a need for a dedicated outpatients and ambulatory care area, required to deal with increasing pressure for services and changes needed in models of care
- Medical cover at Grafton Base Hospital could be improved with the appointment of a Hospitalist for 24 hour site inpatient care
- Currently there is no space available at Grafton Base Hospital to offer to visiting Medical Specialists and other Clinicians
- Ambulatory Care and Specialist Medical Outpatient services identified as a high priority at consultations include:
- Psychogeriatrics, palliative care, rehabilitation services (cardiac, respiratory), vascular services including stroke clinics, ENT and urology

- In the Clarence Valley there are no private inpatient facilities and limited community based private services
- Access to ACAT was a particular issue at Maclean; TACS packages are only available to patients on discharge from hospital and the assessment must occur in the hospital. If eligible patients are not assessed (ACAT) prior to discharge from Lismore Base Hospital they are not able to be admitted to the program
- No out of hours community health services are available across the Network which limits capacity to discharge patients over the weekend. It should be noted that this is impacted on by lack of availability of other government and non-government services
- Hospital in the Home needs to be further developed
- There is limited access to the Palliative Care Clinical Nurse Consultant across the Network
- An improved range of Diagnostic Services and improved CMO cover would reduce the movement of patients from Maclean District Hospital to Lismore Base and Grafton Base Hospitals
- Rehabilitation models of care and care pathways will need to be developed with the opening of the Rehabilitation Unit at Maclean District Hospital.

#### 6.2.10 MPS NETWORK OF SERVICES

The Multi-Purpose Service (MPS) Network is part of the Richmond Clarence Health Service Group and is comprised of three MPSs, Nimbin, Kyogle and Urbenville under the direction of one Manager. Each service is managed on-site by a Nurse Manager. Resource and idea sharing overarched by best-practice care is integral to the continued operations of each of these sites.

The integrated service model (Acute, Sub-Acute and Primary Care) operating at the three MPSs demonstrates a depth of cooperation and coordination between services and individual staff. This model supports equitable distribution of resources and consideration of impacts on all services when considering priorities for service provision.

The majority of inpatient activity at the three MPSs is comprised of low complexity medical conditions however this patient profile is changing with the ageing of the local population and residents of the aged care facilities. Patients are presenting with more complex conditions and co-morbidities. At Nimbin beds are also used at times to treat voluntary mental health patients and patients requiring detoxification.

Across the Network, Community Aged Care Packages (CACPs) support aged clients to maintain their independence at home and thereby decreasing demand for greater numbers of aged care beds. Community Nurses provide a range of primary care services in consultation with GPs (palliative care, chronic and complex care and wound care). Allied Health positions are based on each site, shared across facilities or provided through outreach from Lismore or Casino.

Telehealth services are available at each of the MPS sites for staff videoconferencing and for educational purposes. In the future clinical videoconferencing will be available to patients undergoing treatment in the ED, with a direct link to Lismore Base Hospital ED for specialist care. The MPS Network has two part time (1.0FTE) Clinical Nurse Educators who provide education, training and staff assessment. They also provide these services to Bonalbo Hospital.

There is a fulltime Nurse Practitioner in Chronic and Complex Care based at Kyogle who provides services to Nimbin, Kyogle and Urbenville and District MPSs and Bonalbo Hospital and Community Health Service.

The MPS Network is establishing a more innovative and flexible approach to recruitment and retention by organising recruitment across the MPS sites (Kyogle, Nimbin and Urbenville) to maximise the use of staff, vary work practices and skill mix to make work more attractive and improve retention. Other advantages include a supportive and collegiate environment for local Managers and sharing of education resources.

Higher level care is provided by Lismore Base Hospital which is the closest Major Non-Metropolitan Hospital and is located 45km from Kyogle MPS (EDT<sup>41</sup> of 35min) 120km south east of Urbenville MPS (EDT 1hr 35min) and 32km from Nimbin MPS (EDT of 27min). Other services located nearby are Casino and District Memorial Hospital and Bonalbo Hospital.

### KYOGLE MEMORIAL MPS

Kyogle Memorial MPS is an F3 Multi-Purpose Service which has 12 inpatient beds, 25 residential aged care beds and six CACPs. Services are primarily provided at role delineation level 2. The ED provides services 24 /7 and three local GP VMOs provide medical cover for the ED and inpatient beds.

Limited medical imaging and pathology are available on-site consisting of one part time radiographer and five remote nurse x-ray operators for medical imaging after hours. Limited pathology services are available on-site in the form of I-stat point of care testing.

An alternative primary health care model for chronic disease management for Aboriginal people has been established at Kyogle, but is currently on hold due to recruitment issues of the Aboriginal Health Education Officer for Chronic and Complex Care.

General Practice and the Community and Allied Health Service are collocated on the MPS site providing a range of primary and community health services. There are three Community Nurses (2FTE) based at Kyogle MPS who provide services to the local township and surrounding rural area Monday to Friday 8.00am – 4.30pm.

### CURRENT ACTIVITY

**Table 19: Kyogle Memorial MPS Inpatient and ED Activity 2009/10-2011/12**

<b>Kyogle Memorial MPS</b>			
<b>Overnight Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	681	657	670
Total Beddays	2887	2672	2267
ALOS (Adult Acute O/N)	4.24	4.07	3.38
≥65 years (% Total)	51%	50%	57%
≥85 years (% Total)	17%	14%	18%
Aboriginal & TSI People (% Total)	5%	8%	6%
<b>Day Only Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	107	127	174
<b>Emergency Department</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Presentations	6,370	6,514	5,627

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

Over the past 3 years there has been a 1.6% decrease in Overnight separations and a decrease in beddays (21%) from the acute section of Kyogle Memorial MPS. ALOS has reduced from 4.24 in 2009/10 to 3.38 in 2011/12. Separations for patients aged ≥65 years made up 57% of all separations

<sup>41</sup> EDT = Estimated Driving Time



in 2011/12 compared with 51% in 2009/10 while patients aged  $\geq 85$  years increased from 17% to 18% of total Overnight separations in 2011/12. Overnight separations for Aboriginal people have remained steady at around 6%. In June 2012 average occupancy was reported to be 85%. ED presentations have also decreased by 11.6%.

### URBENVILLE AND DISTRICT MPS

Urbenville and District MPS is an F3 Multi-Purpose Service which has three acute inpatient beds, 14 high care and four low care residential aged care places, six CACPS and one Extended Aged Care in the Home (EACH) package. Services are primarily provided at role delineation level 1. The ED provides nursing services 24 hours a day/7 days a week. Two local GP VMOs provide medical cover for the ED and inpatients. When they are not available medical cover is provided by medical staff at Lismore Base Hospital. Limited pathology services are available on-site in the form of I-stat point of care testing.

General Practice and the Community Health Service are collocated on the MPS site providing a range of primary and community health services. There are two Community Nurses based at the MPS providing services to the local village and surrounding rural area Monday to Friday 7.30am - 4.00pm.

Muli Muli, an Aboriginal community of approximately 200 people, is located in the Kyogle LGA and is approximately halfway between the two rural villages of Woodenbong (5km) and Urbenville (8km). Services provided to Muli Muli residents include all services offered at the MPS e.g. community and outreach nursing and allied health, Aboriginal health education staff, chronic and complex care nurse practitioner, Aboriginal health nurse and chronic disease complications clinic. Casino AMS provides regular visiting services to the community.

### CURRENT ACTIVITY

**Table 20: Urbenville and District MPS Inpatient and ED Activity 2009/10-2011/12**

<b>Urbenville and District MPS</b>			
<b>Overnight Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	89	110	102
Total Beddays	445	481	917
ALOS (Adult Acute O/N)	5.00	4.37	8.99
$\geq 65$ years (% Total)	43%	45%	62%
$\geq 85$ years (% Total)	8%	9%	15%
Aboriginal & TSI People (% Total)	16%	29%	23%
<b>Day Only Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	50	46	24
<b>Emergency Department</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Presentations	1,095	1,115	967

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

Over the past 3 years there has been a 14% decrease in Overnight separations from the acute section of Urbenville and District MPS and an increase of over 100% in beddays. ALOS has increased from 5 days in 2009/10 to 9 days in 2011/12. It is important to note that overall numbers are small and changes to ALOS are not a good indicator of change to models of care under these conditions. Patients aged  $\geq 65$  years made up 62% of all separations in 2011/12 compared with 43% in 2009/10 with patients aged  $\geq 85$  years increasing from 8% to 15% in the same period. In June 2012 average occupancy was reported to be 76%. ED presentations also decreased by 11.6% between 2009/10 and 2010/11.



Overnight separations for Aboriginal people from Urbenville and District MPS increased from 16% of all separations in 2009/10 to 23% in 2010/11. While the number of Aboriginal admissions is small, these represent a significant proportion of hospitalisations at Urbenville and District MPS. A considerable proportion of these hospitalisations could be avoided by enhanced primary health care services to the Muli Muli Aboriginal community. Health services provided to the community could be improved through a more integrated and planned approach to service delivery in partnership with Casino AMS.

## NIMBIN MPS

Nimbin MPS is an F3 Multi-Purpose Service which has four inpatient beds and 11 high care residential aged care beds. It also has six CACPs. Nimbin MPS predominantly provides services at role delineation level 1. The ED provides services 24 /7. One Local GP VMO provides medical cover for the ED and inpatient beds 4 days a week. Limited medical imaging is available on-site consisting of two remote nurse x-ray operators for medical imaging. Limited pathology services are also available on-site in the form of I-stat point of care testing.

General Practice and Community Health Service are collocated on the MPS site providing a range of primary and community health services. Nimbin MPS has appointed two full time Nurse Practitioners, one based in ED and one based in Mental Health/Drug and Alcohol in the Community. There are two (1.2FTE) Community Nurses based at Nimbin MPS providing services to the local township and surrounding rural area Monday to Friday 8.00am-5.00pm.

## CURRENT ACTIVITY

**Table 21: Nimbin MPS Inpatient and ED Activity 2009/10-2011/12**

<b>Nimbin MPS</b>			
<b>Overnight Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Separations	147	128	121
Total Beddays	839	742	628
ALOS (Adult Acute O/N)	5.71	5.80	5.19
≥65 years (% Total)	29%	37%	36%
≥85 years (% Total)	5%	9%	7%
Aboriginal & TSI People (% Total)	5%	5%	3%
<b>Day Only Inpatient Activity</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Separations	9	10	21
<b>Emergency Department</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Total Presentations	4,641	4,617	3,550

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

Over the past 3 years there has been a 17.6% decrease in Overnight separations from the acute section of Nimbin MPS and a decrease of 25% in beddays. ALOS has remained steady and was 5.2 days in 2009/10. Patients aged ≥65 years made up 36% of all separations in 2011/12 compared with 29% in 2009/10 with patients aged ≥85 years increasing from 5% to 7% of total separations in the same period. Overnight separations for Aboriginal people decreased from 5% of all separations in 2009/10 to 3% in 2010/11. In June 2012 average occupancy was reported to be 87%. ED presentations decreased by 23.5% in the same period.

## FUTURE MODELS OF CARE

The three MPSs will continue to consolidate their role as an integrated multi-purpose service. There will need to be a greater focus on aged and chronic/complex care and increased resourcing of community and inpatient care to meet increasing demand for services.

There will be increasing demand on aged care services requiring a greater focus on specialist nursing and allied health services. The success of the Nurse Practitioner role in ED at Nimbin could fill gaps in medical cover for Nimbin and Urbenville MPS.

In future the three EDs will be connected to Lismore Base Hospital ED under the “Connecting Critical Care” program. Work is progressing on developing the role of Lismore Base Hospital as the hub site. This innovative Telehealth model is expected to be fully operational in 2014. This change to the model of care will require training for both ED nurses and GP VMOs and the development of strong relationships with the hub site at Lismore Base Hospital.

## KEY ISSUES

- Maintaining the skill mix required to deliver services safely is a challenge. Difficulties in delivering the required skill mix may increase risks associated with recognising and managing the deteriorating patient
- Clinical pharmacy services are limited at each MPS
- Pathology services are limited and each MPS could benefit from an improved pathology courier arrangement
- The special needs of aged residents (Residential Aged Care Facility) need to be considered in future service development e.g. Tablets and iPads for communication with families
- Delays in access to ACAT assessments pose a challenge and impact on bed occupancy
- There is an increasing demand for Allied Health and Community Aged Care services associated with an increasing aged population and an increasing complexity of care required for aged care residents
- Transport via the Area Transport Unit is difficult to access especially where a nurse escort is required
- The process of arranging transport is cumbersome and time consuming
- Retrieval of critically ill patients can be delayed due to high demand and low numbers of FACEMs (Fellow of the Australasian College of Emergency Medicine) available to provide service from definitive regional centres
- There are issues around IT capacity and lack of integration of medical records
- There are a number of admissions for Aboriginal people which are considered amenable to alternatives to hospital admission.

## 6.3 CLINICAL SUPPORT SERVICES

### 6.3.1 MEDICAL IMAGING

Medical Imaging Services are provided at role delineation level 5 at The Tweed and Lismore Base Hospitals and level 4 at Grafton Base Hospital. Other facilities in the LHD provide Medical Imaging

Services ranging between role delineation levels 1 and 3. These services include diagnostic imaging and procedural radiology services including CT, ultrasound, and MRI, general x-ray and angiography /interventional services. Medical Imaging Services provide Imaging Services for inpatients, outpatients and EDs.

A CT scanner is operated by a private provider (Healthcare Imaging Services) at The Tweed Hospital. MRI Services are currently also provided by the private provider but the MRI is a non rebatable scanner being operational on-site since December 2012. This equipment assists in offering a thorough investigative potential to The Tweed Hospital and surrounding areas patients including Murwillumbah, Byron Bay and Mullumbimby.

Lismore Base Hospital commissioned a new PET/CT scanner and MRI in December 2012. High level imaging services are provided to the surrounding District Hospitals. Lismore Base Hospital currently utilises North Coast Radiology as a radiology provider.

The Medical Imaging service at Grafton Base Hospital provides CT services, general radiology, mobile x-ray and ultrasound facilities. There is a visiting Radiologist 5 days per week. Fluoroscopy screening is referred to a private service in Grafton.

Patient Archive Communication System (PACS) and Radiology Information System (RIS) have been developed to provide economical storage, rapid retrieval distribution and display of images. This technology is designed to facilitate the efficient electronic transfer of patient information. Patient images are transmitted digitally resulting in timely and efficient access to images, their reports and interpretations for the purpose of clinical support, diagnosis and treatment. By the end of 2013 it is planned to upgrade PACS/RIS to interface with all acute facilities within NSW.

### CURRENT ACTIVITY

Clinical Services Plans for The Tweed Hospital and Lismore Base Hospital indicate that CT, ultrasound, angiography, interventional and general x-ray modalities have experienced continued growth. It is noted that the growth in general radiography is population dependant while the growth in complex modalities reflects changes in treatment pathways and changes in interventional techniques that have produced much larger growth patterns.

### FUTURE DEMAND

Medical Imaging is a vital support service that directly impacts on patient flows and the timely provision of appropriate care. Demands on the service are increasing in frequency, complexity and acuity. This demand is exacerbated by the increasing trend to extensively test patients for all possible conditions. The development and addition of new imaging equipment infrastructure impacts on the volume and nature of future Medical Imaging services.

### CURRENT MODELS OF CARE

The Medical Imaging Team is made up of multi-skilled radiographers assisted by highly skilled highly trained nurses. Medical Imaging services are reliant on digital imaging technology supported by information technology infrastructure and software for the creation, interpretation and storage of diagnostic and interventional medical imaging and the associated reports.

Medical Imaging has strong relationships with the following craft groups –Radiology, Surgery, Emergency Medicine, Orthopaedics, Obstetrics and Renal Medicine. It is noted that all clinical areas of a health service now have a strong and important relationship with Medical Imaging.

## FUTURE DIRECTIONS

The overall model of service delivery for Medical Imaging is likely to remain the same; however, the following are some anticipated future changes:

- There will be an even stronger reliance on Imaging technology as changing technologies make significant reductions in radiation dose, removing one of the significant obstacles to Medical Imaging using radiation
- The introduction of imaging tools that construct a 3D real time rotatable image will change the way all clinical staff view and review images
- The move towards reduced length of stay hospitalisation of patients indicates the need for a greater focus on the post procedural recovery of patients to facilitate early discharge. While some of this post procedural time may be able to be done centrally, some of it will need to be done in the Medical Imaging Department
- The RIS/PACS system has been rolled out to all acute care areas to keep NNSW LHD facilities in alignment with other major hospitals within NSW. Scope of expansion will be dependent on available space
- Imaging equipment should be digitally compatible with Health Information Systems across the Health Service Group. Digital compatibility will facilitate the ongoing efficient functioning of RIS/PACS
- Future medical imaging expansion should be commensurate with expansion in other services
- Expansion of Medical Imaging Services at Lismore Base Hospital and Grafton Base Hospital is a priority and planning for appropriately expanded infrastructure and equipment is underway
- New technology is changing the nature of medicine but the basis of good care will continue to be a coordinated approach to face to face case conferencing between medical imaging staff and clinicians of different streams to ensure that approaches to patient diagnosis are appropriate.

## KEY ISSUES

The following are key issues and factors affecting service delivery in Medical Imaging:

- Recruitment of high quality, competent Radiologists and Sonographers
- Limitations in the ability to accommodate the needs of Bariatric patients with appropriate equipment
- Provision of medical imaging equipment to reduce patient travel and delays in ED has been raised at a number of consultations<sup>42</sup>
- There needs to be an established plan for the replacement of equipment across the Network
- With the increased and increasing volume of digital images being moved across sites, Networks, LHDs and across the State there needs to be a continued focus on the

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<sup>42</sup> See Sections 6 & 8.3

strength, robustness and speed of the information system architecture to ensure timely delivery of critical clinical information

- There needs to be a continued examination of KPIs across the LHD to ensure that reporting times on examination targets are met
- There is a need for improved integration between inpatient and outpatient medical imaging services
- New technology is changing the nature of medicine but the basis of good care will continue to be a coordinated approach to face to face case conferencing between medical imaging staff and clinicians of different streams to ensure that approaches to patient diagnosis are appropriate
- An interventional service at Grafton needs to be developed to meet the requirements of the Clarence Valleys ageing population.

### 6.3.2 PHARMACY

Pharmacy Services support all clinical hospital services including ED, ICU, surgical, medical, paediatrics, maternity, neonatal, mental health, cancer, cardiology, stroke, outpatients, HITH and Renal Services. Pharmacy Services at The Tweed Hospital and Lismore Base Hospitals operate at role delineation level 5. Pharmacy Services operate at role delineation level 4 at Grafton Base Hospital and level 3 at Murwillumbah District, Ballina District, Casino and District Memorial and Maclean District Hospitals. All other facilities have access to pharmacy services at role delineation level 1 or 2.

The Tweed Byron Health Service Group and Richmond Clarence Health Service Group each have a Director of Pharmacy supported by Clinical Pharmacists, Pharmacists, Pharmacy Technicians, Pharmacy Assistants and Inventory Managers.

Lismore Base Hospital Pharmacy provides an inpatient service for Lismore Base Hospital and services outlying District Hospitals. Both Lismore Base and The Tweed Hospital Pharmacy Services provide clinical pharmacy and dispensing services for inpatient and outpatient services. Pharmacy outpatient services are primarily directed to the dispensing of high cost medicines for renal patients and the Sexual Health and AIDS Clinics but also include Cancer Care, Mental Health, Drug and Alcohol and the Pain Clinic.

Grafton Base Hospital service includes the provision of routine medications to inpatient wards and patients on discharge and high cost drugs to outpatients. Grafton Base Hospital Pharmacy Department provides pharmacy support for Maclean District Hospital. Some part time clinical pharmacy service is provided. Murwillumbah District Hospital has a full time Pharmacist and a part-time Clinical Pharmacist who supports Murwillumbah District Hospital, Byron Bay District Hospital and Mullumbimby and District War Memorial Hospital on a rotational basis. Grafton Base Hospital has a full time Pharmacist and a part-time Clinical Pharmacist. Both have part time Pharmacy Assistants.

### CURRENT MODEL OF CARE

The role of Pharmacy Services is divided into two service delivery models:

- Supply Model
  - Purchasing and storage of medications
  - Supply of medications to inpatients by imprest system or direct patient dispensing

- Provide medications to patients when discharged from hospital
- Dispensing Clinical Trials medications
- Dispensing, via the PBS, of Highly Specialised Drugs (\$100 – ‘High Cost Drugs’) to outpatients
- Clinical Model
  - Appraisal of all aspects of patient medication management including medication reconciliation, review of medication prescribing, dispensing, administration, monitoring of outcomes and documentation of medication related information to optimise patient medication safety and the quality use of medications
  - Clinical Trials documentation
  - Providing drug information and education to patients and other health professionals, including provision of relevant lectures and written materials to wards, clinical staff, the community and maintaining electronic information as needed
  - Pharmacokinetic drug monitoring and advice
  - Coordination of adverse drug reaction and medication incident reporting (IIMS)
  - Medication counseling and advice on medications for inpatients, particularly on discharge.

## FUTURE MODELS OF CARE

NSW Ministry of Health is currently developing a new model of care for Clinical Pharmacy Services that will set minimum standards based on greater cost effectiveness. The model of service delivery for Pharmacy Departments is evolving, especially in regards to the provision of ward-based and ambulatory care clinical services.

Future technological advances that will impact upon pharmacy include the introduction of the eMR. It is critical that Pharmacy staff participate in development of eMR systems across the LHD. This will ensure medication charting and supply requirements are factored into the new system. Electronic Pharmacy applications will need to interface with e-Health.

Robotics and other computer controlled drug storage and delivery options are slowly being introduced throughout Australia and are likely to be commonplace in medium to large pharmacy departments over the next decade. The Tweed Hospital has a PYXIS Medstation® Unit in the ED. Using robotic dispensing units would assist in both inpatient and outpatient dispensing services and will create much change in hospital Pharmacy Departments. The Computerised Medstations® or similar cabinets have many advantages for stock security and cost minimisation in the wards and units.

The most profound change in the foreseeable future will be the likely implementation of the Pharmaceutical Benefits Scheme (PBS) dispensing function as has been undertaken in the majority of other Australian States. The highly significant increases in workload and throughput from such a development will change the face of hospital pharmacy dispensing, since much of the drug dispensing for hospital patients that is occurring in the community will be driven back to the hospital.

Under these circumstances the demands for outpatient and discharge dispensing will increase enormously, as will the need for appropriate facilities for medication counseling and education. Discharge dispensing has already increased over 400% in 5 years. It is envisaged that PBS dispensing

will become core business for NNSW LHD in the future and any future moves by NSW to join the Pharmacy Reform program (which will be the driver for the change to PBS dispensing) will have a profound impact on the hospital Pharmacy.

The service delivery profile for Pharmacy will change if (or when) this change occurs. Enrolment into this program means that hospital Pharmacies will have access to the PBS for all public admitted patients on discharge, and for all non-admitted patients.

Those changes will demand a substantial increase in storage, dispensing and counselling areas for patients, all of which will have a significant impact on the performance requirements and the size of the pharmacy departments. Anecdotal reports suggest that undertaking the PBS reform program requires a 50% increase in staffing and a doubling of stockholding.

### KEY ISSUES

- Introduction of the National Safety and Quality Health Standards have mandatory requirements that involve a significant increase of clinical work to be done by pharmacists. This increase is beyond the ability of the current establishment of pharmacists in all LHD pharmacy departments
- Availability of new drug therapies that require clinical consultation and monitoring for safety and cost effectiveness as well as supply by dispensing
- The extra roles being undertaken by pharmacy in the provision of a complex mix of clinical, educative and patient-focused services will result in an expansion of the Pharmacy Departments role and scope of practice and will require appropriate facilities and staff to ensure success
- A hyperbolic increase in discharge supply required over the last 5 years (>450% in 5 years). Continued expansion of ambulatory services with high pharmaceutical needs including renal, oncology, mental health, chronic and acute cardiac care, pain management services, sexual health and HIV services, GEM and rehabilitation
- The need to improve safety and patient outcomes, especially for patients with chronic and complex conditions, by implementing strategies to reduce the incidence of adverse medication events in hospital and community settings
- There is a growing demand for the repacking of items into smaller unit-of-use packs that are distributed throughout the LHDs hospitals; this involves Pharmacy Assistants or Technicians and increases the number of transactions for supply
- There is a recognised need to develop pharmacy programs to assist patients and carers in reducing medication errors; establishment of a post discharge contact service would provide support to patients with discharge medications and reduce possible drug interaction side effects. The National Safety and Quality Health Standards consolidate this perceived need into a mandatory requirement from NSW Health
- Establishment of a designated ED Pharmacist at Lismore Base Hospital has been identified as an essential requirement in contributing towards the improved patient flow through the ED at Lismore Base Hospital. The Tweed Hospital has a dedicated ED Pharmacist
- The current workload of pharmacy staff impacts upon the efficiency of pharmacy services which has the potential to impact on patient length of stay



- The rapid increase of requests for discharge medications has created a critical resource issue
- There is limited Clinical Pharmacy Service available to support regular and specialist areas such as mental health, paediatrics, women's care unit and critical care services
- There needs to be an improvement in liaison between Pharmacists within the LHD and in the private sector
- There is a need for the Pharmacies at Lismore Base Hospital and The Tweed Hospital to operate 7 days a week with after hours on-call arrangements
- Space allocation for the Pharmacy Departments need to be sufficient for them to function efficiently; sufficient space needs to be allocated for the efficient storage of the very large range of medications and fluids required
- There are clinical pharmacy issues, in particular relating to inpatients and management of ageing patients with Polypharmacy
- The provision of computer terminals at each bedside would improve efficiency in clinical pharmacy service delivery. This should be part of the implementation of the Electronic Medication Management program
- Establishment of Anti-microbial Stewardship Pharmacist directly targeting Standard 3
- Funding needs to be sought to relocate Pharmacy Services near the Emergency Department at Grafton Base Hospital. This will ensure improved provision of clinical care and efficiencies.

### 6.3.3 PATHOLOGY SERVICES

Pathology North-NNSW (PN-NNSW) is the local pathology provider for NNSW LHD. PN- NNSW is a large not-for-profit organisation; income generated by PN-NNSW is used to enhance local health services. PN-NNSW is part of Pathology North, the pathology network of NSW Health Pathology. PN-NNSW is one of the largest pathology services in the nation, offering services from Sydney to the Queensland Border. PN-NNSW Laboratories support all hospitals in NNSW LHD, as well as local GPs.

Two General Pathologists, one Anatomical Pathologist and four Haematologists provide on-site consultation at The Tweed and Lismore Base Hospitals. PN-NNSW is equipped to provide most diagnostic pathology services, with only very specialised tests being referred to other appropriate Pathology North laboratories.

PN- NNSW service includes:

- Bulk billing based on the Commonwealth Medicare Benefits Schedule
- Local Pathologists consultation
- National Association of Testing Authorities accreditation
- Laboratory services available 24 hours, 7 days a week
- Rapid turnaround for results
- Results provided by electronic download if required.

The scope of testing offered by PN-NNSW includes: microbiology, bacteriology, parasitology, virology, mycology, and mycobacteriology, serology of infection, immuno-haematology, haematology, immunology, anatomical pathology, histopathology, cytopathology, chemical pathology and environmental microbiology.

PN –NNSW Lismore and Tweed Laboratories are accredited facilities providing a comprehensive service to hospitals, medical practices and specialty departments. The Lismore and Tweed Laboratories are level 5 services supporting Lismore Base Hospital and Tweed Hospital and Tweed Byron Health Services Group, Ballina District Hospital, Casino and District Memorial Hospital and Bonalbo Hospital. The service also supports Kyogle Memorial, Nimbin and Urbenville and District MPSS, Murwillumbah District Hospital, Byron Bay District Hospital and Mullumbimby and District War Memorial Hospital.

The Lismore Laboratory operates 7 days a week. Opening hours are 6:30am to midnight Monday to Friday and 8:00am till midnight on weekends and public holidays. There is an on call system outside of these hours. The Tweed Laboratory also operates 7 days a week. Opening hours are 6.00am to 11.00pm, 7 days a week and from 7.00am to 11.00pm during public holidays with limited staff. There is an on-call system in place between 11.00pm and 7.00am each day.

The on-site laboratory at Grafton Base Hospital is a level 3 service operating 7 days a week and on-call after business hours. Limited on-site Pathology in the form of a managed I-stat point of care testing service is available at all other facilities in NNSW LHD.

### KEY ISSUES

- Increasing activity at Lismore Base Hospital and The Tweed Hospital
- Advances in testing methods and technology
- Increasing expectations for the provision of results in shorter timeframes
- The need to improve Clinical Microbiology services to support the clinical management of patients across the LHD and to provide antimicrobial surveillance and stewardship
- There is a need to review the requirement for Pathologists across NNSW LHD
- There is a need to review the future requirements for haematology, anatomical pathology, clinical chemistry and microbiology considerate of technology advances and increasing automation and broadening of the test base
- Succession planning is required in the near future to offset issues arising as a result of an ageing workforce
- There is a need to review the IT services to improve the seamless reporting of pathology results to clinicians, and to maintain information services to clinicians.

## 6.4 PAIN MANAGEMENT SERVICES

People with chronic or persistent pain currently face both inequity of access to pain management services and a system that requires better integration between the community and the hospital. Approximately one in five Australians suffer from chronic pain (estimated from a sample of over 17,000 NSW residents), with the burden spread across the entire lifespan from childhood to old age.

The most common contributors to chronic pain are injury (sport, motor vehicle or accidents at home or the workplace), surgery and conditions such as arthritis, diabetes and cancer. In biological terms, chronic pain is the sensitisation of the nervous system rather than structural tissue damage that correlates most strongly with the persistence of pain.

## CURRENT SERVICE AND CURRENT MODELS OF CARE

### THE LISMORE BASE HOSPITAL MULTIDISCIPLINARY PAIN MANAGEMENT CLINIC

The Interdisciplinary Pain Management Clinic at Lismore Base Hospital is a Tier 2 multidisciplinary service offering acute and chronic pain management services for the residents of NNSW LHD. The Interdisciplinary Pain Management Clinic operates out of a purpose-designed facility adjacent to Lismore Base Hospital, primarily for the management of non-cancer chronic pain.

The Interdisciplinary Pain Management Clinic provides a higher level pain management service and is the 'hub' for pain management services for NNSW LHD. It is a specialised service that enables GPs, Specialists and hospitals to refer patients to higher level service when required.

The Interdisciplinary Pain Management Clinic delivers:

- An outpatient based service involving the assessment and treatment of patients in the community referred by GPs or Specialist Medical Officers
- A consultancy service to inpatient units providing assessment and recommendations for acute pain management for patients in the hospital setting.

### OUTPATIENT CLINIC

The Outpatient Clinic is a referral service that provides consultation, assessment and treatment of clients experiencing persistent or chronic pain.

The Interdisciplinary Pain Management Clinic also offers a consultation service to GPs, Specialists and other health professionals within NNSW LHD. This service works closely with referring medical practitioners and insurance companies for those patients with compensation claims.

Interdisciplinary pain management addresses all aspects of illness behaviour, reducing distress, improving function, reducing anxiety, depression and somatisation through the use of a bio-psychosocial model of interdisciplinary assessment and treatment.

The primary method of treatment is via group based treatment programs. The efficacy of adopting this approach over a traditional biomedical approach has been overwhelmingly supported by research.<sup>43 44</sup>

### INPATIENT ASSESSMENT

The Anaesthetic Specialist, Anaesthetic Registrar and the Acute Care Pain Nurse provide inpatient assessment and recommendations for management of patients admitted to Lismore Base Hospital. The majority of inpatients receiving pain management assessment and advice are surgical patients in either Recovery, ICU or in the Surgical Inpatient Unit.

The Acute Care Pain Nurse supports the Clinical Nurse Educators in their role to educate clinical staff in acute pain management at Lismore Base Hospital.

The Acute Care Pain Nurse works with the Anaesthetics Registrar to provide pain management options to post-surgical patients.

<sup>43</sup> Flavell H, Carrafa G, Thomas C & Disler P. 1996. Managing chronic back pain: impact of an interdisciplinary team approach. *Medical Journal of Australia* 165 (5) 253-255.

<sup>44</sup> Nicholas M, Wilson P & Goyen J. 1991. Operant-behavioural and cognitive-behavioural treatment for chronic low back pain. *Behaviour Research and Therapy*, 29 (3) 225-238

### FUTURE DEMAND

The demand for pain management services is expected to increase across NNSW LHD. The prevalence is projected to increase as Australia's population ages from 3.2 million in 2007 to 5.0 million by 2050 (*ACI Pain Management Clinical Network Work Plan 2011-12*). Chronic pain is a condition which affects 20% of the population. It has been described as a silent epidemic. The cost of chronic pain to the Australian economy is estimated at \$34 billion annually. Chronic pain should be recognised as a chronic disease. Chronic pain could be better managed, with only 10% of patients receiving effective treatment.

### FUTURE MODELS OF CARE

#### ESTABLISH TIER 1 PAIN MANAGEMENT PROGRAMS

- Further develop a network of pain management services across NNSW LHD that will enable peripheral sites to refer patients to higher level service when required. To be achieved through establishing:
- Tier 1 Pain Management Programs are limited duration, low – medium intensity programs for the treatment and management of chronic pain. The design of the Tier 1 Program is to up-skill local clinicians located at other NNSW LHD hospitals that will enable a sustainable model of care so patients can be treated closer to home. In the first instance, the priority is to up-skill clinicians at The Tweed Hospital, Grafton Base Hospital and Casino and District Memorial Hospital
- The intention is that once Tier 1 Programs are operational, the Interdisciplinary Pain Management Clinic at Lismore Base Hospital will play a continuing, supporting role
- Tier 1 Pain Management Programs will also be established with peripheral hospitals through telemedicine. The Interdisciplinary Pain Management Clinic at Lismore Base Hospital will work in collaboration with local clinicians at these sites to directly deliver pain management assessment and treatment to patients
- Introduce pain management interventional procedures such as radiofrequency ablation of selected nerve endings. These procedures would need to be performed in the Medical Imaging Department. Enhancement funding through the NSW Ministry of Health is being considered to support the purchase of this equipment.

#### SHARED CASE MANAGEMENT WITH GPs

- Shared Case Management conferences with GPs.

#### OPIOID REDUCTION

- Development of a service for patients who are discharged from hospital on opioids that will later require opioid reduction and cessation to reduce the impact of long term opioid use.

#### FRACTURE AND THE ORTHOPAEDIC CLINICS

- Capturing patients who attend the Fracture and the Orthopaedic Clinics who are likely to develop chronic pain and ensure early referral to the Interdisciplinary Pain Management Clinic for early intervention to prevent the transition from acute to chronic pain and to

reduce the financial burden of treating chronic pain. Develop an Osteoporosis service – part of the Fracture Clinic in the future.

#### TECHNOLOGICAL ADVANCES

- Explore the use of smart phone and tablet applications for ongoing daily treatment and management of chronic pain. For example, there are iPhone Apps that provide timed pain management reminders.
- Explore internet based access to online Cognitive Behavioural Therapy Program for treatment of psychological presentations.

#### KEY ISSUES

- Need to increase access to Acute Pain Nurse position; increased to a 7 day position within Lismore Base Hospital in line with other pain services across Australia
- There is only one Pain Management Clinic between the Queensland border and Port Macquarie. One Pain Management Clinic is unable to sustain the needs of the current population
- To ensure that ongoing service delivery is up to date and evidence based, staff need increased support to undertake professional development in line with National Registration Guidelines as set out by the Australian Health Practitioner Regulation Agency.
- More education is needed for inpatient unit nursing staff within Lismore Base Hospital on aspects of acute and chronic pain management.

## 7

## DISTRICT-WIDE CLINICAL STREAMS

## 7.1 CANCER CARE

Development of comprehensive cancer centres in rural and non-metropolitan settings has been a major initiative of the NSW and Commonwealth Governments over the past 5 years. This resulted from the 2001 Radiation Oncology Inquiry (Baume Report). The development of level 5 Cancer Care Centres capable of providing radiation and medical oncology services within multidisciplinary team settings has enabled a significant improvement in access for residents of non-metropolitan areas in NSW.

Cancer Services are currently managed locally within each of the two Health Service Groups with strategic support provided by the Director Cancer Services and a Cancer Systems Innovation Manager.

## CURRENT SERVICES

North Coast Cancer Institute, Lismore Cancer Care and Haematology Unit (NCCI Lismore) provides an integrated comprehensive cancer service which incorporates the provision of medical oncology (role delineation level 4), clinical haematology (malignant and non-malignant), radiation oncology (role delineation level 5), cancer and general surgery, limited paediatric haematology/oncology gynaecology; Research – Phase 3 clinical trials, teaching and education, pharmacy (via a private provider), and cancer care coordination services with a multidisciplinary team approach. The Radiation Oncology service has two linear accelerators that treat a wide range of cancers and an orthovoltage treatment unit that is mainly used for treating skin cancers.

A PET service and public MRI service are available at Lismore Base Hospital having commenced operation in 2012. Both of these diagnostic services will improve access to rapid and accurate diagnosis and staging of cancers so that appropriate care management can be put in place sooner and locally.

The Chemotherapy Day Unit at Lismore Base Hospital has 17 treatment bays; however current staffing only supports the operation of 10 treatment bays. The Unit also has two single rooms; in 2003/04 a 1 day per week Chemotherapy Service with four chairs was established at Ballina District Hospital to reduce the demand on Lismore Base Hospital service.

A treatment service also operates at Grafton Base Hospital consisting of five chair spaces; currently this service operates 5 days per week. The service also provides infusions for those patients with neurology, rheumatology, immunology disorders and renal patients. Until recently a Haematologist from Coffs Harbour visited Grafton regularly. Due to increasing workload in Coffs Harbour this service has ceased. Many Clarence Valley residents travel to see the Haematologist based in Lismore resulting in a number of these patients (who could be treated in the Grafton Treatment Unit) being referred to the Lismore Unit for ongoing chemotherapy. Future planning of this newly established Lismore Base Hospital Haematology service for Clarence Valley residents will provide for the majority of these patients being treated in the Grafton Unit in the very near future. Haematology Telehealth appointments enabling the patient to be seen in the Oncology Unit have now been set up and are occurring on a regular basis.

Cancer care including surgery can be provided locally for the majority of tumour types such as breast, prostate, oesophageal, upper/lower gastrointestinal and melanoma. Most low volume/high complex cancer care such as paediatric oncology, bone sarcomas, gynae-oncology and lung cancer is referred to tertiary centres in Sydney and Brisbane. The Lismore Cancer Care and Haematology Unit is progressively increasing its capacity to treat head and neck cancers.

The development of radiation oncology services within NNSW LHD at Lismore Base Hospital has resulted in greater self-sufficiency for the LHD and a reduction in outflow of patients to Sydney or South Eastern Queensland for their cancer treatments. This is having a flow-on impact in terms of the increasing need to support the provision of medical oncology and radiotherapy cancer care services for NNSW LHD residents with surgical treatment, allied health support and care coordination services.

The opening of the Our House facility to support Lismore Base Hospital patients with on-site accommodation at Lismore Base Hospital has provided much needed accommodation to patients living in isolated rural areas.

The Tweed Cancer Care and Haematology Unit is based at The Tweed Hospital and is the primary cancer unit for the Tweed Byron Health Service Group. These services include medical oncology (role delineation level 5) and haematology (role delineation level 4), cancer and general surgery, gynae-oncology, Research – Phase 3 clinical trials, teaching and education, pharmacy and cancer care coordination services within a multidisciplinary team approach.

There are 10 chemotherapy chairs and two beds available for chemotherapy and other treatments at The Tweed Hospital. The service also provides an ambulatory care centre role and provides services such as transfusions and infusions for renal patients and patients with conditions such as iron deficiency, ulcerative colitis, neurological disorders, and immunological disorders. A satellite treatment service operates at Murwillumbah District Hospital consisting of one bed and three chair spaces; currently this service operates 1 day per week.

It is important to note that satellite services in the Richmond Clarence and Tweed Byron Health Service Groups are linked with the major cancer care centres at Lismore Base Hospital and The Tweed Hospital via agreed protocols, clinical governance structures, Telehealth, staff education and the use of eMRs. The development of these satellite centres has enabled cancer patients in regional centres to receive chemotherapy locally without the need for regular, lengthy trips to distant centres.

A Radiation Oncologist from Lismore visits The Tweed Hospital fortnightly at the moment however due to space limitations this will not be able to be sustained. The Tweed Hospital does not provide radiation oncology services. Private radiotherapy services are available at the John Flynn Hospital; however many residents of The Tweed Hospital catchment are not able to meet the financial costs to receive private radiotherapy treatment. Public radiation oncology services are available in Brisbane. There are two linear accelerators planned for the Gold Coast University Hospital however this access may be limited due to a high demand for this service by the local population. There is currently limited access to affordable radiotherapy for patients of the Tweed Valley and a local public service would provide convenience for patients as well as facilitating multidisciplinary care and effective care coordination within the jurisdiction.

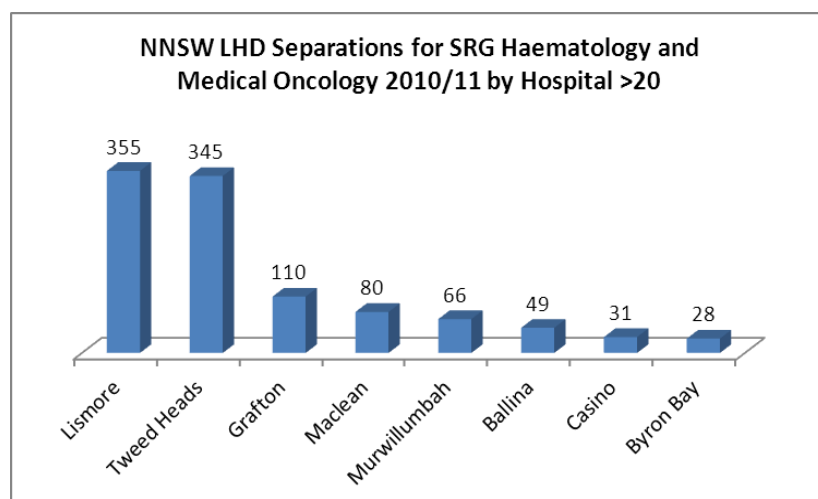
Cancer surgery at The Tweed Hospital is provided locally for a range of tumour types such as breast, prostate, oesophageal, upper/lower gastrointestinal, lung and melanoma. Most low volume/high complex cancer surgery such as paediatric, gynae-oncology, head and neck cancer is referred to tertiary centres in Brisbane.



## CURRENT ACTIVITY

There were 1,096 separations for SRG Haematology and Medical Oncology in NNSW LHD in 2011/12. The majority of these were at Lismore Base Hospital (32%), The Tweed Hospital (31%), Grafton Base Hospital (10%), Maclean District Hospital (7%), Murwillumbah District Hospital, (6%) and Ballina District Hospital (4%). The figure below details separations for SRG Haematology and Medical Oncology by Hospital (Seps>20) in 2011/12.

**Figure 8: NNSW LHD Overnight and Day Only Separations for SRG Haematology and Medical Oncology 2011/12 by Hospital>25 seps**



Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

Overnight and Day Only separations for Haematology have declined by 19% between 2009/10 and 2011/12 and beddays by 18% with a stable ALOS of 4.6 days across the LHD.

**Table 22: NNSW LHD Overnight and Day Only Separations for SRG Haematology 2009/10-2011/12**

Haematology SRG		Year			% Change
		2009/10	2010/11	2011/12	(2009/10-2010/11)
Day Only	Separations	116	92	83	-28
	Beddays	116	92	83	-28
Overnight	Separations	327	302	278	-15
	Beddays	1,928	1,634	1,590	-18
Total	Separations	443	394	361	-19
	Beddays	2,044	1,726	1,673	-18
	ALOS (overnight)	4.6	4.4	4.6	0

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

Day Only and Overnight Separations for Medical Oncology declined by 6% between 2009/10 and 2011/12 and beddays by 18% with ALOS reducing by 13% to 5.8 days across the LHD.

**Table 23: NNSW LHD Overnight and Day Only Separations for SRG Oncology (Medical) 2009/10-2011/12**

Medical Oncology SRG		Year			% Change (2009/10- 2010/11)
		2009/10	2010/11	2011/12	
Day Only	Separations	160	115	120	-25
	Beddays	160	115	120	-25
Overnight	Separations	631	554	622	-1
	Beddays	5075	4016	4161	-18
Total	Separations	791	669	742	-6
	Beddays	5235	4131	4281	-18
	ALOS (overnight)	6.6	6.2	5.8	-13

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

There were 10,500 chemotherapy treatments reported at Lismore Base and Ballina District Hospitals in 2011/12. The number of treatments undertaken at Lismore Base Hospital and the Ballina satellite unit remained stable between 2010/11 and 2011/12 following a significant increase in activity between 2009/10 and 2010/11.

There were 3,457 chemotherapy treatments recorded at Grafton Base Hospital in 2011/12 reflecting a 25% increase in activity between 2010/11 and 2011/12. The Haematology Service at Grafton formerly provided by Coffs Harbour Health Campus was withdrawn in January 2013. Many Clarence Valley residents now have to travel to Lismore to be seen by the Haematologist and to commence their chemotherapy regime. There is anecdotal evidence that this is placing increasing pressure on Lismore Base Hospital Chemotherapy Unit.

There were 7,723 treatments recoded at The Tweed and Murwillumbah District Hospitals in 2011/12. There has been a 20% increase in treatments provided at The Tweed Hospital Chemotherapy Unit between 2010/11 and 2011/12. This is placing pressure on the Chemotherapy Unit at The Tweed Hospital which has only limited access to a satellite unit at Murwillumbah District Hospital (1 day per week).

It is important to note that data collections for chemotherapy treatments differ between Lismore, Grafton and Tweed and comparison in activity between sites is not possible.

The Radiotherapy Service commenced in June 2010. During that year there were 78 courses of MVT (megavoltage treatment on LINACs) undertaken. In 2011 this rose to 309 MTVs. The second LINAC commenced operations in late 2011 and a second Radiation Oncologist and Registrar commenced in February 2012. In 2012 this again rose to 507 MTVs.

Case mix distribution for 2012/2013 included Breast (24%), Prostate, (20 %), Lung (14 %), Skin (10 %), Gastro Intestinal (9%), Haematological malignancies (6%) and Head and Neck (5%). Others including gynaecological cancers, genito-urinary cancers, unknown primary cancers, neurological cancers, bone and soft tissue cancers and non-malignant conditions made up the remaining 12%.

Radiotherapy activity data is sourced from the Oncology eMR, MOSAIQ. Data includes patients that have returned for multiple courses and patients that may have had initial radiation therapy at another centre before having subsequent courses in Lismore.

## CURRENT MODELS OF CARE

The Cancer Care Model for NSW is based on the development of a network of cancer care services in which strategic alliances or 'partnerships' between providers are used as a means of promoting community accessibility, quality and efficiency in service delivery. The networking concept is based on integrating or linking different service providers who share a common goal, improving health

outcomes for those with or at risk of cancer and the general community. This approach provides a 'one stop shop' for patients and their carers.

The focus is on the continuum of care for the patient by a multidisciplinary team with the provision of case coordination and case management. This multidisciplinary team includes allied health, nursing and medical services.

### FUTURE MODELS OF CARE

Growth in demand for cancer care services in NNSW LHD is being driven by:

- Population growth significantly greater than the NSW average
- Ageing of the population with those aged  $\geq 65$  years projected to represent 20% of the total population by 2011 and 23% by 2016.

Over the next 10 years, the provision of a holistic and individualised approach to patient care will continue to be a focus. The multidisciplinary team approach is the preferred model of care where health care professionals consider all treatment options together and develop an individual treatment plan for each patient. At the major cancer care centres, patients should have access to all members of the multidisciplinary team on a single site, including pharmacy, pain relief, psychology services, social workers, dietetics, palliative care, rehabilitation and complementary therapies.

Clinical trials offer cancer patients the best up to date treatments, and treatment for those patients for whom there are no alternative treatments available and represent a key component of the cancer service model of care. This multidisciplinary team approach will require a strong focus on availability of sufficient allied health and other support resources to provide an individualised approach to Cancer Care Services.

Cancer care is a complex part of our health system involving a range of service providers in the public and private systems and different intervention models, public health and health promotion initiatives aimed to help people live longer and enjoy healthier lives through prevention of disease and injury.

There are a number of changes in the direction of cancer treatments including an increase in the following therapies:

- Monoclonal targeted therapies
- Combined therapies
- Stem cell therapy and related support
- Supportive therapies
- Non-malignant haematology treatments.

### PROJECTED REQUIREMENTS

In 2006 there were a total of 2,011 new incidences of cancer for residents of NNSW LHD.<sup>45</sup> These cases represented 5.6% of the total new incidences of cancer in NSW in 2006. The number of new cases of cancer for NNSW LHD residents is projected to increase to 2,905 cases in 2021, a 45% increase over that 15 year period or approximately 3% per annum.<sup>46</sup>

Not all of these cancer treatments will be provided in NNSW LHD. Patients requiring care for complex cancers will continue to access tertiary cancer care centres in Sydney and Brisbane. In the Tweed Byron area patients will continue to access services such as radiotherapy across the border in South

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<sup>45</sup>Tracey E (2010) *Cancer in NSW: Incidence and Mortality Report 2008*

<sup>46</sup>Tracey E (2011) *Cancer Incidence and Mortality: Projections 2011 to 2021*

East Queensland, and while the majority of patients in the Clarence LGA will access cancer care at Lismore Base Hospital, a proportion will choose to travel south to Coffs Harbour Health Campus. What can be expected following the establishment of radiotherapy services at Lismore Base Hospital is that NNSW LHD will increase its level of self-sufficiency in the provision of cancer care services for its resident population, and therefore an annual increase in demand greater than the average 3% per annum can be expected.

The recently completed Clinical Services Plans for Lismore Base Hospital and The Tweed Hospital have estimated facility requirements to provide for the anticipated demand in 2016 and 2021. The current capacity at Lismore Base Hospital for chemotherapy and radiotherapy is sufficient to provide for estimated demand to 2016, however there are increased needs for access to surgical services and allied health services. The Tweed Hospital Clinical Services Plan has identified the need to develop additional chemotherapy chair capacity at The Tweed Hospital as well as Murwillumbah District Hospital and the proposed Byron Shire Central Hospital. Access to radiotherapy services for residents of the Tweed Byron Health Service Group will continue to be provided in South East Queensland, however access times will be monitored and the need to develop capacity at The Tweed Hospital in the longer term will continue to be pursued.

#### KEY ISSUES

- There is a need for an LHD Cancer Care Committee governance structure and coordinated approach to development and provision of cancer services on a District-wide basis
- If all sites were collecting the same information e.g. all using the same data set and same eMR the collection of statistics would be more accurate
- The need to implement the Tweed Hospital Clinical Services Plan in relation to Cancer Services to improve access to a range of services including local public radiotherapy services
- Limited access to lymphodema physiotherapy support (currently part time at Murwillumbah District Hospital and The Tweed Hospital and no dedicated hours at Grafton Base Hospital)
- Increasing demand for chemotherapy services at The Tweed Hospital with limited capacity to expand; Murwillumbah satellite unit operates 1 day per week when most treatments run over 3 days
- There is limited capacity to expand at Grafton Base Hospital
- Limited access to affordable accommodation for patients receiving cancer treatment at The Tweed Hospital
- Increasing demand at Lismore Base Hospital for chemotherapy services
- Absence of a complete haematology service at Grafton Base Hospital placing additional demands on Lismore Base Hospital and reducing access to Clarence Valley residents to haematology services
- There is limited access to Allied Health staff at Lismore Base Hospital (including Dieticians) and Grafton Base Hospital
- Limited access to staff education for new models of care and limited access to Cancer Care Coordinators

- Data collection systems do not accurately reflect numbers of residents from South East Queensland
- Using the same eMR (Medical Oncology and Haematology) would also make it much easier transferring patients between sites e.g. Lismore and Tweed as the information would be on the system for all to see as is done for radiotherapy
- Demand from Queensland residents receiving cancer services treatment at The Tweed Hospital
- Limited access to diagnostic staffing resources such as Pathologists, Haemato-pathology, Clinical Haematologist and Infectious Disease Physician across the LHD
- Providing adequate diagnostic services for patients in the context of technological advances.

## 7.2 BREASTSCREEN SERVICES

BreastScreen NSW North Coast is a screening program offering 2-yearly free mammograms to women without breast symptoms, aged 40 years and over. The service actively targets asymptomatic women aged 50-69 years by inviting them to join the program when they reach 50 years of age and sending a reminder letter to have a rescreen every 2 years until they reach 70 years of age.

The purpose of the program is to detect small cancers early which provides greater treatment options to the woman and improves life expectancy. The service works on the premise that early detection is vital when detecting breast cancer.

The aim of the program is to screen 70% of women on the North Coast in the target age group, (50-69 years) as defined by the National BreastScreen Program. Screening targets are set annually by the State Coordination Unit, BreastScreen NSW, in consultation with the local program. The program on the North Coast does not have the capacity to screen 70% of the women in the target age group as the population in this age range increases annually and the service also has workforce and funding challenges. There is a national shortage of Radiographers with mammography expertise. The program does however increase its actual screening numbers each year through the implementation of strategies to improve efficiency.

### CURRENT SERVICES

In NNSW LHD there are fixed screening units at Lismore and Tweed Heads. A mobile unit travels to the more rural and remote areas of NNSW LHD and also provides services to the MNC LHD.

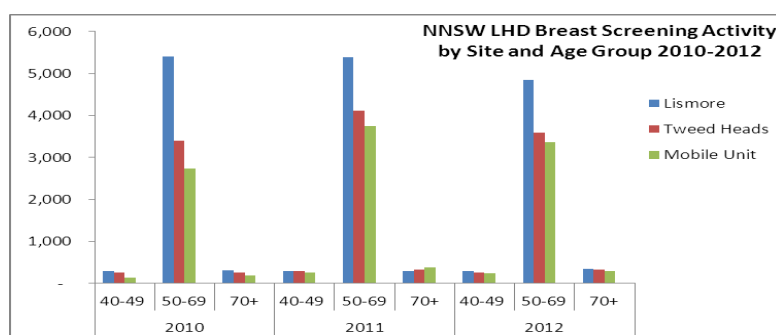
The fixed sites offer digital mammography and new x-ray equipment was installed in 2012. All images are archived at the Cancer Institute in NSW PACS. The program upgraded its BreastScreen Information System (BIS- electronic medical record) to a State-wide BIS in May 2013. The services offered on the mobile unit are partially digital (CR) and the images are transferred from the unit to Lismore via USB for reporting and archiving.

### CURRENT ACTIVITY

There were 15,117 occasions of services for breast screening and associated care provided to women living in NNSW LHD in 2011 and 13,557 in 2012. This represents a 10.2 % decline in activity between 2011 and 2012. This can be attributed to the closure of all sites during the replacement of the x-ray equipment in September and October 2012. There was an overall growth of 4.4% in activity between 2010 and 2012.

The figure below details activity by age group and site for NSW LHD between 2010 and 2012.

**Figure 9: NSW LHD Activity by Age Group for BreastScreen Services by Site 2010-2012**



Source: BreastScreen NSW North Coast Activity data

## FUTURE DEMAND

The target population for BreastScreen services is women aged 50-69 years. The table below outlines the total actual and projected target population for BreastScreen services in the NSW LHD by LGA between 2011 and 2031. Although the target population is women aged 50-69 years, women aged 40 and above are eligible for BreastScreen services.

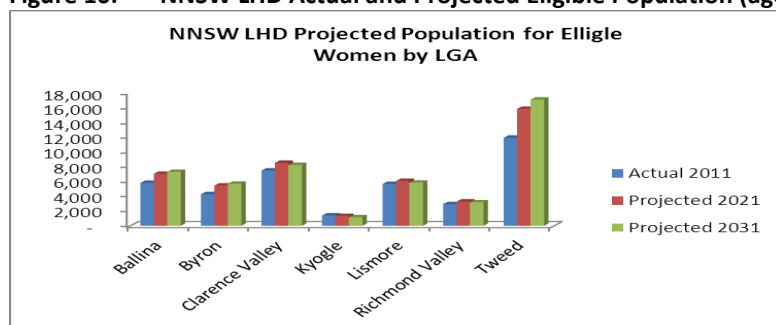
**Table 24: NSW LHD Actual and Projected Eligible Population (age 50-69 years) for BreastScreen Services by LGA and Total NSW LHD, 2011-2031**

LGA	Actual 2011	Projected 2021	Projected 2031	% Change 2011-2021	% Change 2021-2031	% Change 2011-2031
Ballina	5,799	7,033	7,293	21.28%	3.70%	25.76%
Byron	4,272	5,451	5,687	27.60%	4.33%	33.12%
Clarence Valley	7,488	8,518	8,229	13.76%	-3.39%	9.90%
Kyogle	1,404	1,332	1,150	-5.13%	-13.66%	-18.09%
Lismore	5,656	6,069	5,841	7.30%	-3.76%	3.27%
Richmond Valley	2,932	3,285	3,175	12.04%	-3.35%	8.29%
Tweed	11,909	15,833	17,073	32.95%	7.83%	43.36%
<b>Total NSW LHD</b>	<b>39,460</b>	<b>47,521</b>	<b>48,448</b>	<b>20.43%</b>	<b>1.95%</b>	<b>22.78%</b>

Source: 2011-2031 Estimated Resident Population- Figures supplied by BreastScreen NSW State Coordination Unit

The following figure details the expected growth in target population for BreastScreen services in NSW LHD by LGA. According to projected population figures, there will be a 20.43% growth in the target population for BreastScreen services across NSW LHD between 2011 and 2021. Areas of high population growth are Tweed (33%), Ballina and Byron (28%). While other LGAs will see moderate growth, the eligible population is projected to decline in Kyogle LGA by 5.1%.

**Figure 10: NSW LHD Actual and Projected Eligible Population (age 50-69 years) for BreastScreen**



Source: 2011-2031 Estimated Resident Population- Figures supplied by BreastScreen NSW State Coordination Unit

### CURRENT MODELS OF CARE

Screening services are offered at a fixed site in Lismore and at Tweed Heads. A mobile unit offers screening mammograms to the more rural and remote locations in the LHD including: Casino, Kyogle, Urbenville, Bonalbo, Grafton, Ballina, Byron Bay, Maclean, Iluka, Evans Head, Uki and Yamba. A screening mammogram differs from a diagnostic mammogram in that screening is conducted on asymptomatic “well” women to detect unsuspected lesions. Women who have no signs of breast changes are encouraged to attend the service.

Women screened at the service are provided with a definitive outcome of their mammogram. A woman can receive a normal result with a reminder to have a mammogram every 2 years or is called to an assessment clinic. At the assessment clinics which are held at Lismore a woman is identified by the Radiologist as needing further investigations for a ‘lesion/markings’ on the mammogram. This may include a further targeted mammogram, ultrasound and biopsy. The results of these procedure(s) help to provide a definitive outcome to the woman. When appropriate, on a diagnosis of breast cancer or if further investigations are required BreastScreen refers the woman to her GP with a recommendation to have a surgical review to discuss treatment options.

### FUTURE MODELS OF CARE

The BreastScreen service is planning to replace the current mobile unit and its equipment with full digital equipment and disabled access in March 2014. Discussions around the provision of assessment clinics at Tweed Heads have commenced. The program will move to a full electronic medical record environment, as currently hybrid medical records are in use part hard copy/electronic.

### KEY ISSUES

- The main issue for the program is to increase its participation rate
- The service has and continues to experience challenges in recruiting Radiographers with mammography experience and interest to the program; this is not unique to this BreastScreen service
- The population in NNSW LHD, especially along the coastal strip is increasing and this increases the demand on the service
- From 1 July 2013 the target age for screening will be extended from 50-69 years to 50-74 years. This will have a major impact on the program in terms of its capacity to screen and assess additional women.

## 7.3 MENTAL HEALTH AND DRUG AND ALCOHOL SERVICES

Specialist Mental Health and Drug and Alcohol Services across NNSW LHD operate as a dedicated clinical stream. People with mental illness, particularly those with chronic conditions and co-morbid drug and alcohol issues require high quality, integrated service provision with collaboration between government and non-government services. The Director of Mental Health and Drug and Alcohol is responsible for overall management of Mental Health and Drug and Alcohol Services, with the District Clinical Directors of Psychiatry, Network Managers, District Nurse Manager Mental Health position providing clinical leadership to Mental Health Services and Managers Drug and Alcohol Services to the Drug and Alcohol Program.



### 7.3.1 MENTAL HEALTH SERVICES

The Specialist Mental Health Service is part of a broad range of clinical services within the LHD that deliver services to mental health patients – including inpatient units, EDs and Community Mental Health Services.

#### CURRENT SERVICES

The Mental Health Inpatient Units at Lismore and Tweed Heads operate as level 5 role delineation. Both inpatient units are Declared and admit voluntary and involuntary patients. The Lismore Adult Mental Health Unit (LAMHU) has 40 beds including an eight bed HDU. The Tweed Clinic has 25 beds which include five HDU beds.

The Lismore Child and Adolescent Inpatient Unit (CAIPU) opened in June 2008. It is an eight bed acute mental health inpatient facility collocated with the LAMHU and Lismore Base Hospital. The Unit is a declared mental health facility allowing for care on a voluntary or involuntary basis, in accordance with the provisions of the Mental Health Act 2007. The Unit provides a safe, developmentally appropriate and therapeutic environment allowing comprehensive diagnostic assessments, therapeutic programs and management of children and adolescents aged primarily between 12-17 years (inclusive) with severe and or complex mental health presentations. For most children under 12, inpatient care should be provided in a general hospital setting, with mental health services providing consultation/liaison and support to the treating teams. The eight beds service both NSW and MNC LHDs as a regional facility.

Rehabilitation inpatient services provide longer term care of up to 6 months to people with mental illness. Rehabilitation inpatient services - also called non-acute intensive rehabilitation units - have a primary focus on intensive and structured rehabilitation in a safe environment for consumers with enduring symptoms. A 20 bed non-acute adult intensive rehabilitation unit opened at Coffs Harbour Health Campus (MNC LHD) in August 2009 to service the former NCAHS catchment.

Community Mental Health Services incorporate Acute Care and Extended Care services. Within each Health Service Group, the Acute Care Service Team and the 24 hour Mental Health Line function as the main intake system for Mental Health Services. The Acute Care Service Team is responsible for assessing and managing people in the community during the acute stage of mental illness. The Acute Care Service Team also provides Clinical Nurse Consultation Liaison, Mental Health Emergency Care and an in-reach service to the inpatient general medical and surgical units.

Extended Care Service is a rehabilitation and recovery clinical team. The majority of their work is delivered through a case management model. Included in the Extended Care Service are the following services:

- Youth and Family Mental Health Services (12 to 17 years)
- Youth Mental Health Services (18 to 24 years)
- Aboriginal Mental Health Services
- Specialist Mental Health Services for Older People (over 65 years)
- Rehabilitation and Recovery Services
- Adult Services (18 to 64 years).

NNSW LHD Mental Health Services are currently working in partnership with the following NGOs servicing the needs of people with mental health problems in our local communities:

- Child and Adolescent Special Programs and Accommodation (CASPA)
- GROW North Coast
- Casino Neighbourhood Centre
- Cranes Community Programs
- On Track Community Programs
- Mission Australia
- New Horizons
- North Coast NSW Medicare Local.

## CURRENT ACTIVITY

There were 1,365 Overnight separations for psychiatric care from acute mental health inpatient units in NNSW LHD in 2011/12, accounting for 21,486 beddays. ALOS for adults was 15.2 days at Lismore and 16.4 days at the Tweed Clinic compared to the NSW average of 15.9 days. Occupancy at The Tweed Clinic was 87% and at LAMHU was 88%<sup>47</sup> this is within the NSW target range of 14-17 days.

As detailed in the table below there has been a 12% increase in Overnight separations for adults for psychiatric care at Lismore<sup>48</sup> and a 7% increase at the Tweed Clinic between 2009/10 and 2011/12.

**Table 25: NNSW LHD Overnight Adult Separations for Psychiatric Care (Patient Type) 2009/10- 2011/12**

	2009/10		2010/2011		2011/12			
Hospital	Seps	Beddays	Seps	Beddays	Seps	Beddays	% Growth Seps	% Growth Beddays
Lismore Base	738	12,712	813	13,190	836	12,859	12%	2%
The Tweed	493	8,900	573	9,136	529	8,627	7%	-3%
<b>NNSW LHD</b>	<b>1,231</b>	<b>21,612</b>	<b>1,386</b>	<b>22,318</b>	<b>1,365</b>	<b>21,486</b>	<b>19%</b>	<b>-1%</b>

Source: SCI-MHOAT, NNSW LHD Business Objects Reporting & Cerner Patient Administration System

There were 112 separations for Overnight care for children and adolescents (0-18 years) in NNSW LHD in 2011/12 accounting for 2,336 beddays. ALOS for children and adolescents was 17.9 days at Lismore compared to the NSW average of 17 days. Occupancy at Lismore Child and Adolescent Mental Health Unit (CAMHU) was 75%.<sup>49</sup> This is within the NSW target range of 21-24 days.

As detailed in the following table there has been a 41% increase in Overnight separations for children and adolescents for psychiatric care at Lismore and 0.5% reduction at the Tweed Clinic between 2009/10 and 2011/12.<sup>50</sup>

<sup>47</sup> Mental Health Performance Report, 2011-2012, NSW Health

<sup>48</sup> New LAMU beds opened in 2008

<sup>49</sup> Mental Health Performance Report, 2011-2012, NSW Health

<sup>50</sup> CAMHU at Lismore in 2011

**Table 26: NNSW LHD Overnight Children and Adolescent Separations for Psychiatric Care (Patient Type) 2009/10- 2011/12**

	2009/10		2010/2011		2011/12			
Hospital	Seps	Beddays	Seps	Beddays	Seps	Beddays	% Growth Seps	% Growth Beddays
North Coast Child & Adolescent	77	1,949	91	1,864	112	2,336	41%	17%
<b>NNSW LHD</b>	<b>77</b>	<b>1,949</b>	<b>91</b>	<b>1,864</b>	<b>112</b>	<b>2,336</b>	<b>41%</b>	<b>17%</b>

Source: SCI-MHOAT, NNSW LHD Business Objects Reporting & Cerner Patient Administration System

The tables below present bed numbers and activity data for NNSW LHD Mental Health Services from 2009/10 to 2011/12.

**Table 27: NNSW LHD Tweed Byron Mental Health Activity Data 2009/10-2011-12**

Tweed Byron	2009/10	2010/11	2011/12	% Change 2009-2012
Bed Numbers	25	25	25	0%
Bed Occupancy	90%	92%	88%	-2%
Separations	494	575	517	4%
Equivalent NAPOOS	14,234	13,957	18,857	25%
Client Contacts	37,134	32,287	44,717	17%
Contact Hours	26,249	25,083	36,400	38%

Source: SCI-MHOAT, NNSW LHD Business Objects Reporting & Cerner Patient Administration System

**Table 28: NNSW LHD Richmond Clarence Mental Health Activity Data 2009/10-2011-12**

Richmond Clarence	2009/10	2010/11	2011/12	% Change 2009-2012
Bed Numbers	48	48	48	0%
Bed Occupancy	87%	89%	87%	0%
Separations	812	903	945	14%
Equivalent NAPOOS	14,178	16,022	24,347	42%
Client Contacts	44,920	48,514	63,888	30%
Contact Hours	37,151	40,014	54,196	31%

Source: SCI-MHOAT, NNSW LHD Business Objects Reporting & Cerner Patient Administration System

## PERFORMANCE<sup>51</sup>

75.5% of mental health patients were admitted through ED within the benchmark time in March 2013. This represents a variance of -5.6%. There were 101,080 Ambulatory Contacts compared with a target of 82,436 and an actual of 58,073 in the same period last year.

The target for community follow up of mental health patients is  $\geq 70\%$  within 7 days. Results for NNSW LHD in March 2013 demonstrate a variance of 9.5% against target however this is a considerable increase on the same period in 2012 where the result reported was 38.8%.

<sup>51</sup> NNSW LHD Performance Report March 2013

The NNSW LHD target for readmission of mental health patients is <13% within 28 days. The result for March 2013 was 13.7% which is unchanged for the same period in 2012.

### FUTURE DEMAND

The Mental Health Clinical Care and Prevention (MH-CCP) methodology is the recognised tool for both comparing current mental health resources against estimated prevalence in the community, and for projecting future service requirements in NSW. The MH-CCP methodology provides an estimate of population need using epidemiological and treatment data for population groups.<sup>52</sup>

The MH-CCP model was originally developed in 2001, and has recently been reviewed and the updated methodology provided by the Mental Health and Drug and Alcohol Office in 2012 has been used for the purpose of developing estimates and projections of prevalence rates and resource (inpatient beds, clinical staff FTE, supported places) requirements for the NNSW LHD Mental Health Clinical Services Plan.<sup>53</sup>

The MH-CCP model 2010 presents age-specific prevalence estimates for varying levels of severity of mental health risks and disorders across the lifespan. Four age groups are used in the MH-CCP:

- Children (age 0-11 years)
- Adolescents (age 12-17 years)
- Adult (age 18-64 years)
- Older People (age 65 years and over).

Overall, MH-CCP indicates a projected prevalence of mental health problems with 16.6% of the population projected to experience a clinically diagnosable mental disorder. This translates to around 42,400 people in 2011 for the population of NNSW LHD and increasing to over 47,400 people in 2021.

The MH-CCP estimates that for the projected NNSW LHD population of 285,363 in 2021, over a 12 month period that 47,370 people or 16.6% of the population, would experience a clinically diagnosable mental disorder:

- 12,840 people or 4.5% of the population, would experience moderate to severe problems that impair function and may be persistent and 27,400 people or 9.6% of the population, would experience significant but milder problems
- 7,130 people or 2.5% of the population would experience severe mental health problems, including psychotic disorders (i.e. schizophrenia, bipolar disorder), severe depression and anxiety disorders. People with these conditions form the primary target group for NNSW LHD Mental Health Services.

Mental Health bed requirements for the NNSW LHD population, as indicated by the MH-CCP 2010 are 73 acute mental health beds in 2011, comprising three beds for 12-17 year olds, 53 beds for adults and 17 beds for the over 65 years age group (refer table below). By 2021, this acute bed requirement is projected to increase to 83 beds with the greatest growth in demand in the older person's population group.

There are currently no designated SMHSOP beds in NNSW LHD. If admission is required, it is to the general adult LAMHU. The MH-CCP indicates the need for 12 acute SMHSOPs beds for the NNSW LHD population in 2011, increasing to 16 beds in 2021.

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<sup>52</sup> Ministry of Health (2003) *Mental Health - Clinical Care and Prevention Model, Version 1.11*

<sup>53</sup> Ministry of Health (2012) *MH-CCP 2010*

The MH-CCP estimates the need for 21 non-acute beds across all age groups for NNSW LHD in 2011, increasing to 26 beds in 2021. It should be noted that there are no Very Long Stay beds located in NNSW LHD. Long stay mental health facilities in NSW are located in the Sydney Metropolitan area, Orange and Morisset.

**Table 29: Estimated Mental Health Bed Numbers for NNSW LHD Population 2011-2021**

Table 23: Estimated Mental Health Bed Numbers for Known End Population 2011-2021					
Age Group	Bed Type	Estimated Requirements		Current Bed Numbers	
		2011	2021	2013	
<b>Acute Beds</b>					
12-17 years	EIP	1	1	CAIPU	8*
	Other Acute	2	2		
<b>Total</b>		<b>3</b>	<b>3</b>		<b>8</b>
18-64 years	EIP	7	8	LAMHU	40
	Acute	46	48	Tweed Clinic	25
<b>Total</b>		<b>53</b>	<b>56</b>		<b>65</b>
65+ years	General Adult	5	8		
	SMHSOP unit	12	16		
<b>Total</b>		<b>17</b>	<b>24</b>		
<b>Total Acute Beds</b>		<b>73</b>	<b>83</b>		<b>73</b>
<b>Non-Acute Beds</b>					
12-17 years	EIP	2	2		
	Other Non- Acute	1	1		
<b>Total</b>		<b>3</b>	<b>3</b>		
18-64 years	Other Non- Acute	9	10		
<b>Total</b>		<b>9</b>	<b>10</b>		
65+ years	T-BASIS	7	10		
	Other Non-Acute	2	3		
<b>Total</b>		<b>9</b>	<b>13</b>		
<b>Total Non-Acute Beds</b>		<b>21</b>	<b>26</b>		<b>0</b>
<b>Very Long Stay</b>					
18-64 years	Rehabilitation	9	10		
	Extended Care	14	15		
<b>Total</b>		<b>23</b>	<b>25</b>		
65+ years		7	10		
<b>Total</b>		<b>7</b>	<b>10</b>		
<b>Total VLS Beds</b>		<b>30</b>	<b>35</b>		<b>0</b>

Source: Ministry of Health (2012) MH-CCP 2010 \* Tertiary Catchment covering NNSW & MNC LHDs

**Table 30: MH-CCP Ambulatory FTEs**

	2011 (Predicted)	2013 (Actual)	2016 (Predicted)	2021 (Predicted)
Age Group 12 - 17	24.00	18.10	24.00	26.00
Age Group 18 - 64	88.00	86.90	91.00	92.00
Age Group 65 +	14.00	6.90	17.00	20.00
<b>Total NNSW MH</b>	<b>126.00</b>	<b>111.90</b>	<b>132.00</b>	<b>138.00</b>

Source: Ministry of Health (2012) MH-CCP 2010

## CURRENT MODELS OF CARE

Mental Health models of care include:

- Specialist clinical assessment and treatment for people with mental illness and their families using the recovery focused model of care
- Joint care planning and case management with GPs, NGOs and other service partners
- Integration of hospital and community care to improve outcomes following discharge from an episode of inpatient mental health care
- Families and carers are an integral part of both service planning and inclusion in service provision for people presenting with mental health problems
- Provision of consultation and education to our service partners, such as GPs, Commonwealth funded services such as Headspace and NGO providers.

Mental Health services for children and young people include:

- Access to the Mental Health Access Line
- Mental Health Risk Assessment at EDs
- Admission to local paediatric or general wards with Mental Health support dependent upon risk level, and further referral and transfer to tertiary specialist units where indicated
- Ongoing community-based clinical intervention and case management of most children with mental health problems under the age of 12 years provided by Child and Family Health Counsellors at Community Health Centres and by Mental Health Services for adolescent people between 12 and 17 years and young people 18 to 24
- Specialist child and adolescent psychiatry case consultation and clinical assessment are provided across all age groups in collaboration with Clinical Case Managers.

NNSW LHD Specialist Mental Health Service for Older People Program (SMHPOP) includes specialist community based services, residential or long-term care services which may be delivered through partnerships with aged care providers and specialist staff and programs for people with moderate-severe, persistent psychological symptoms associated with dementia and mental illness.

Mental Health NGOs provide essential support to people with mental illness. NGOs deliver a range of services across the age spectrum including accommodation support, disability support, community outreach and both individual and group rehabilitation programs.

The Nimbin Integrated Services Project is an innovative community based mental health initiative which is now in its fourth year of operation. The Nimbin Integrated Services Project consists of a full-time Nurse Practitioner specialising in mental health who is based in Nimbin Neighbourhood Centre. The Nurse Practitioner works through close street-based contact across the community of Nimbin. The Nurse Practitioner sees a wide range of clients and offers flexible, immediate, short and longer-term support to clients with a range of mental health problems including those with a dual diagnosis of mental health illness and drug and/or alcohol dependence. The project has been successfully evaluated.

The Housing and Accommodation Support Initiative (HASI) is an innovative partnership program between NSW Health, NSW Housing and the NGO sector that provides housing and housing support linked to clinical and psychosocial rehabilitation services for people with a range of levels of psychiatric disability. Housing accommodation by category available to NNSW LHD is detailed below.

**Table 31: Housing Accommodation by Category Funded through HASI**

NGO	HASI		HASI in the Home		Aboriginal HASI		
	High	Low	High	Low	High	Med	Low
On Track Community Programs	1	10			3	4	4
New Horizons	16	10	5	10			

Source: NNSW LHD Mental Health and Drug and Alcohol Business unit

The State Mental Health Telephone Access Line operates via an 1800 number, allowing a single point of access to NNSW LHD Mental Health Services from anywhere in Australia.

Telehealth has been successfully integrated into Mental Health service delivery models and subsequent clinical practice across NNSW LHD including:

- Child and Adolescent Psychological Telemedicine Outreach Service. This service provides access via videoconferencing with The Children's Hospital Westmead to a clinical psychologist for the purpose of clinical consultation, peer support and clinical supervision for clinicians working with children and young people
- Older People's Psychological Telemedicine Outreach Service. This service provides access via videoconferencing to a psycho-geriatrician at Concord Hospital in Sydney for the purpose of assessment, treatment planning and monitoring of clients with complex problems.

## FUTURE MODELS OF CARE

In planning for the future role of NNSW LHD Mental Health Services, there is an opportunity to develop a mental health service that support contemporary models of care, including a greater emphasis on primary, community and ambulatory care services with a multidisciplinary orientation that will excel in the provision of recovery focused care and services which are better integrated with non-government and Commonwealth-funded mental health services for the benefit of consumers and their carers.



Facilities will be required to manage short term presentations where admission is necessary and characterised by relatively short lived mental health issues that will resolve quickly or hold the potential to be further complicated by introduction to the broader inpatient population. Examples include:

- Mentally disordered presentations
- Management of patients with possible suicidal behaviour under Policy Directive PD 2005\_121
- Those commencing on Clozapine
- Those waiting for a bed in the inpatient unit
- As demand for Mental Health Services increases, it is important that alternatives to hospital care are further developed
- Consideration will need to be given to Nurses Practitioner roles in Mental Health in the future.

### KEY ISSUES

- Increasing demand across the full range of Mental Health Services
- Limited access to SMHSOP and no inpatient beds
- Limited access to mental health non-acute beds
- The large geographical area covered by Clarence Valley Acute Mental Health Team and resulting delays in responding to patients at Maclean District Hospital
- It was reported that Casino AMS receives referrals for mental health patients but do not have a Specialist Mental Health Service
- Implementation of the Grants Management Improvement Program will require a review of services provided by the non-government sector
- Limited access to Children's Mental Health Services across the LHD
- The need for improved clinical governance
- The NIS Nurse Practitioner role could be expanded to include pathology prescribing rights.

### 7.3.2 DRUG AND ALCOHOL SERVICES

The NSW Health, Population Health Report 2009 states that the proportion of NNSW LHD population in 2011 (32.4%) that engaged in risk alcohol drinking (i.e. consumes more than two standard drinks a day when drinking) is slightly higher than the NSW average (29%).<sup>54</sup> The rate of risk alcohol drinking is twice as high for males as females (39% against 20%).

Drug and alcohol use has a significant impact on the people of NSW and can give rise to many areas of concern. There are often social, cultural and economic consequences of drug and alcohol abuse not just the impact on poor health outcomes.

Alcohol, tobacco and other drugs continue to be the primary causes of preventable diseases and mortality, and are major risk factors for cancers, cardiovascular disease, mental health disorders, and infectious diseases like HIV, Hepatitis B and accidents and injuries. They have a significant social cost including considerable healthcare costs, workplace costs, disability, family disruption, anti-social and

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<sup>54</sup> *Op cit*

criminal behaviour. Over recent years there has been increased demand for drug and alcohol services across NNSW LHD.

The National Drug Strategy 2010-2015 states that the harms to individuals, families, communities and Australian society as a whole from alcohol, tobacco and other drugs are well known. For example, the cost to Australian society of alcohol, tobacco and other drug misuse<sup>1</sup> in the financial year 2004–05 was estimated at \$56.1 billion, including costs to the health and hospitals system, lost workplace productivity, road accidents and crime.

The overarching approach of harm minimisation outlined in the Strategy encompasses the three pillars of:

- Demand reduction to prevent the uptake and/or delay the onset of use of alcohol, tobacco and other drugs; reduce the misuse of alcohol and the use of tobacco and other drugs in the community; and support people to recover from dependence and reintegrate with the community
- Supply reduction to prevent, stop, disrupt or otherwise reduce the production and supply of illegal drugs; and control, manage and/or regulate the availability of legal drugs
- Harm reduction to reduce the adverse health, social and economic consequences of the use of alcohol, tobacco and other drugs. The three pillars apply across all drug types but in different ways, for example, depending on whether the drugs being used are legal or illegal. The approaches in the three pillars will be applied with sensitivity to age and stage of life, disadvantaged populations and settings of use and intervention.

A guiding principle of drug and alcohol management is that of harm minimisation. The principle encompasses the reduction in the supply of drugs; reduction of demand of drugs and the reduction of the harm caused by drugs and alcohol to individuals, family members and the community in general.

Drug and alcohol dependency is not simply a consequence of age, gender, geography or social divide. It affects people from all backgrounds and walks of life. As such it is an issue for all NSW citizens to take very seriously. There are approximately 19,100 people currently receiving methadone treatment in NSW; 900 of these are treated in NNSW LHD.

## CURRENT SERVICES

NNSW LHD Drug and Alcohol Services aim to provide treatment to affected people, to contribute to the prevention of substance use harms, and to work with other agencies to improve their capacity to intervene and co-manage affected people. Drug and Alcohol Services are required to operate with a high level of consistency in the modern environment of evidence-based practice.

There are comprehensive integrated outpatient drug and alcohol services established in Tweed Heads and Lismore with smaller service teams located in Byron Bay, Grafton and Nimbin. In addition, there are single counsellor positions based in Community Health Centres in Mullumbimby, Ballina, Kyogle, and Maclean. There is also a 14 bed inpatient withdrawal unit in Lismore which is part of the purpose built Riverlands Centre.

Other services offered within the District include:

- Consultation liaison support to all Hospitals, all Wards and EDs through Clinical Nurse Specialists, VMOs, Clinical Nurse Consultants and Drug and Alcohol Counsellors

- Education and training in Drug and Alcohol Withdrawal Management for Nursing and Medical staff within the hospital, ED and Mental Health as well as the provision of clinical placements for Southern Cross University Nursing and Midwifery students, Medical students from the University of NSW and Sydney, Social Work students from Bond University, Pharmacy students and post graduate Psychology students completing their clinical supervision
- Drugs in Pregnancy Program
- Magistrates Early Referral Into Treatment (MERIT) program
- Counsellors based in Ballina, Casino, Byron Bay, Maclean, Grafton and Mullumbimby Community Health Centres
- Cannabis Outreach Clinic.

Drug and Alcohol Services operate in collaboration with primary health care clinicians such as GPs, general hospital staff, liver clinics, mental health services and non-government organisations. The Magistrates Early Referral Into Treatment (MERIT) program, which aims to divert drug offenders from the Criminal Justice System to treatment and rehabilitation services, MERIT operates in Lismore, Tweed Heads, Murwillumbah, Maclean, Byron Bay, Ballina, Casino, Mullumbimby, Kyogle and Grafton.

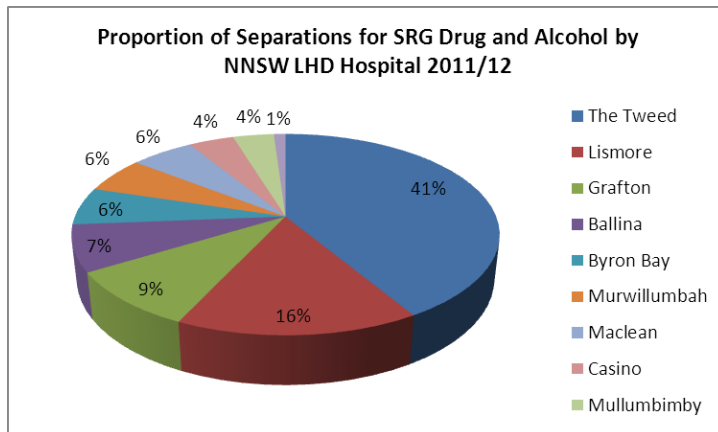
Riverlands Drug and Alcohol Centre is a multipurpose Drug and Alcohol Centre consisting of a 14 bed acute inpatient Withdrawal Management Unit, Opioid Treatment Program (OTP), Outpatient and Community Counselling Team along with a centralised Intake and Assessment process.

The Centre has historically acted as a strategic hub in the coordination of Drug and Alcohol projects, activities, research and education, as well as being available on a 24/7 basis for consultation and treatment support to all hospitals in NNSW LHD. Whilst the primary catchment area for Riverlands is NNSW LHD, the Inpatient Withdrawal Management Unit (Detoxification) treats clients from all over NSW and from South East Queensland (specifically Brisbane and the Gold Coast). The Inpatient Unit is a voluntary admission unit and has a minimum age limit of 18 years.

### CURRENT ACTIVITY

There were 1,072 separations for SRG Drug and Alcohol in 2011/12. Of these 10% were for patients identifying as Aboriginal. There was a decrease in separations for drug and alcohol of 2% and in beddays of 16% between 2009/10 and 2011/12. This is a poor reflection of drug and alcohol related admissions as many patients are admitted under an injury or other code. The following figure details the proportion of separations from each facility in NNSW LHD. The Tweed Hospital has the highest proportion of total separations with 41% of all separations in 2011/12 followed by Lismore at 16%.

**Figure 11: NNSW LHD Separations for SRG Drug and Alcohol 2011/12**



Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

The incidence of offences for the possession or use of cannabis is in excess of the State average on the North Coast.<sup>55</sup>

## FUTURE DEMAND

It is likely that demand for drug and alcohol treatment and intervention will continue to increase in NNSW LHD over the next 5 years, driven by population increases and changing patterns of drug use. The challenges in providing efficient and effective services will be mainly in:

- High demand
- Limitations in resources
- Maintaining a skilled workforce
- Providing equity in rural service provision
- Developing effective partnerships.

## CURRENT MODELS OF CARE

NNSW LHD Drug and Alcohol Services provide:

- Intake and Assessment
- Opioid Maintenance Treatment
- Inpatient Withdrawal
- Outpatient Withdrawal
- Outpatient Counselling
- Cannabis Clinics
- Drugs in Pregnancy Service
- Young people's programs
- Mothers using Methadone and other substances
- Advice and education service provided by LHD Drug and Alcohol Nurse Consultant
- Addiction medicine
- Consultation liaison with hospitals
- MERIT Court diversion program
- Early Intervention

<sup>55</sup> Further information on the impact on EDs included in Section 8.3

- Education and Training
- Aboriginal Liaison Service.

NNSW LHD Drug and Alcohol Service locations use various models of care depending on the best treatment option for the client.

While the services work from a client centre model of care it is couched using a Stepped Care framework that incorporates:

- Comprehensive assessment
- Psychosocial interventions
  - Cognitive Behavioral Therapy
  - Didactic Behavioral Therapy
  - Motivational intervention
  - Relapse prevention
  - Mindfulness
- Opioid Maintenance Treatment
- Medical Treatment and Management.

Dedicated cannabis clinics operate from a range of Community Health Centres. The clinics have been set up to stand apart from the mainstream drug and alcohol treatment services and provide intensive clinical interventions and treatment to dependent cannabis users with complex needs, including clients with mental health issues. Further aims of the clinics are to reduce the health, social and legal problems and risk of harm associated with cannabis use, and to assist people using cannabis who want to become abstinent.

Community Drug Action Teams (CDATs) are community groups supported by the Government to increase and improve general community awareness about drugs and to help communities develop their own responses to local drug problems. These projects are practical and creative, reflecting the different needs and culture of the communities for which they were developed.

The MERIT program is a Court based diversion program that allows arrested defendants with illicit drug use problems to be assessed for suitability to undertake treatment and rehabilitation under bail conditions. As a result of that assessment, Magistrates can bail defendants to attend dedicated drug treatment services created through specific MERIT program funding.

The NSW Opioid Treatment Program (OTP) seeks to reduce the social, economic and health harms associated with opioid use. The OTP delivers pharmacotherapy and associated services to opioid dependent patients and private sector (private clinics, GPs, psychiatrists and pharmacies). There are currently three types of opioid treatment pharmacotherapy available in NSW: methadone, buprenorphine and buprenorphine-naloxone.

### KEY ISSUES

- There is a need for more specialist support for nurses managing drug and alcohol clients with complex needs and challenging behaviours
- Increased complexity of client presentations has raised demand on services due to population growth especially along the coast, this is reflected in the proportion of separation from facilities in NNSW LHD (i.e. 41% in Tweed Heads)
- It will be important to maintain and increase the availability of private prescribers and pharmacies to service the increase in demand from OTP clients

- Use of various substances is identified as a major significant burden in Aboriginal communities
- There is limited research to identify evidence based Drug and Alcohol Prevention and Treatment programs for Aboriginal people
- There is a need to increase frequency of outreach Drug and Alcohol Programs that are inclusive of cannabis use to provide a regular presence in Aboriginal communities.

## 7.4 ORAL HEALTH SERVICES

Public Oral Health Services provide services to children and general treatment and limited specialist services to the eligible adult population through public dental clinics and Oral Health Fee for Service Schemes. The objective of the service is to improve the oral health of the community, to reduce inequities for people accessing oral health services and reduce disparities in the oral health status of the community.

### CURRENT SERVICES

Oral Health Services provided by NNSW LHD include dental clinics based in hospitals and community health centres. NNSW LHD has implemented a hub and spoke model of delivering Oral Health services in the LHD. Through this model, higher capability sites (hubs) provide services and support to smaller, lower capability level sites (spokes). This model increases the ability of smaller services to provide improved access to a broader range of services, particularly in rural and remote areas where the efficient provision of services is challenged by workforce and physical capacity.

Oral Health Services at The Tweed Hospital, Goonellabah (Lismore) and Ballina District Hospital operate as hubs for the satellite services in their respective networks. The role of these hubs includes the provision of:

- Specialist services including paediatric dentistry, oral surgery and orthodontics, in addition to the provision of general dentistry services for children and adults
- Specialised expertise in providing services to high risk groups such as people with special needs, older people, refugees, and homeless people
- Outreach services to the spokes
- Education and training opportunities for staff from the spokes.

Through the NSW Oral Health Fee for Service Scheme, Oral Health Services partner with private prosthetists to provide prosthetic services (dentures) and with private dentists to provide general dental treatment.

At the smaller dental clinics, the child oral health service provides routine dental examinations and general dental treatment and these services are provided primarily by dental therapists, with dentists providing services to adults, and the adult service provides general dental care, emergency relief of pain and assessment for dentures under the Pensioner Denture Scheme.

**Table 32: Dental Clinics in NNSW LHD**

NNSW LHD Dental Clinics		Number of Chairs
<b>Ballina Network</b>	Ballina District Hospital	7
	Grafton Base Hospital	3
	Maclean	1
	Yamba	( 2 in 2014)
<b>Lismore Network</b>	Goonellabah Clinic	5
	Casino and District Memorial Hospital	2
	Nimbin	1
<b>Tweed Network</b>	The Tweed Hospital	4 (10 in 2014)
	Mullumbimby and District War Memorial Hospital	3
	Pottsville HealthOne	2
	Murwillumbah District Hospital	1
<b>TOTAL</b>		<b>29 (37 in 2014)</b>

Source: NNSW LHD, Oral Health Services Data Collection

## CURRENT MODELS OF CARE

The Priority Oral Health Program provides an equitable system that assists in assessing patients on the basis of medical and dental need as well as socio-economic and other risk factors. Patients are prioritised following a standardised procedure, and are registered into the Information System for Oral Health (ISOH) to have their oral health condition assessed and treated; this ensures that the people requiring extra support are given higher priority.

The model of care ensures easy access to the service. Potential patients phone 1300 651 625 to register and provide details of a current Medicare card before proceeding, and adults are also required to hold a current health care card or pension card.

Child Oral Health Services provide routine dental examinations and general dental treatment to children aged up to 18 years of age. These services are provided primarily by dental therapists.

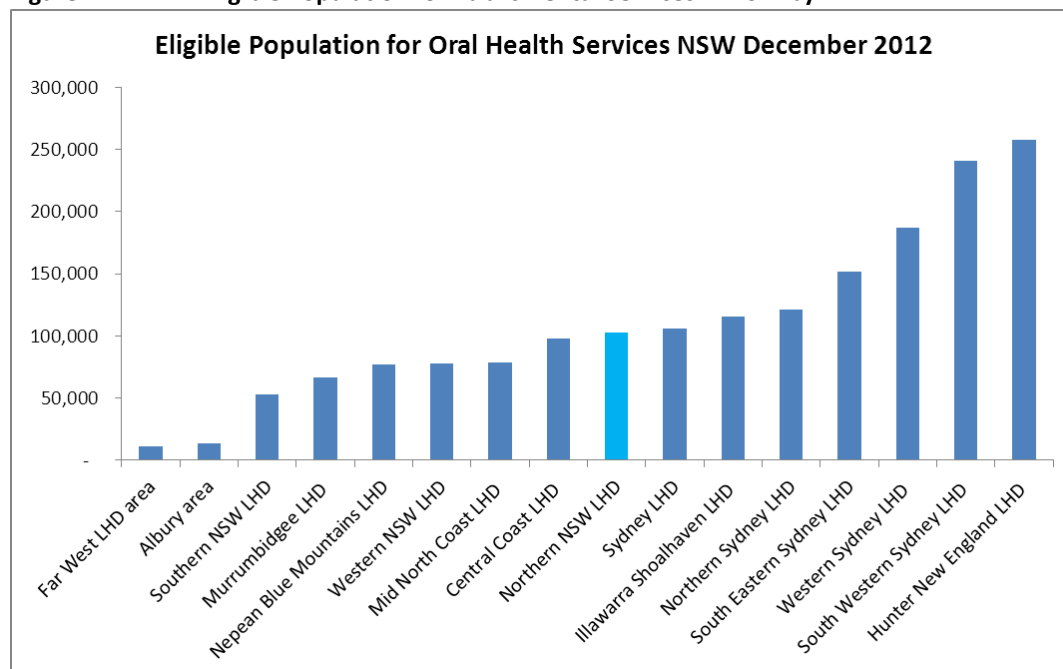
Adult Oral Health Services offer emergency and general dental care, and dentures under the Pensioner Denture Scheme.



## CURRENT ACTIVITY

The eligible population for public Dental Services in NSW by LHD is detailed in the figure below.

**Figure 11: Eligible Population for Public Dental Services in NSW by LHD**



Source: NNSW LHD, Oral Health Services

Eligible populations include persons, 18 years or over, with a health care card, pensioner concession card or commonwealth senior health care card. Estimates as at June 2012 were used.

Populations for persons 18-24 years were estimated as a proportion of the 16-24 year age group and cells with fewer than 20 people were assigned a value of 10. LHD was assigned using postcodes. 121 postcodes were not assigned to an LHD. Most of these were postcodes reserved for non-standard use e.g. PO Boxes.

NNSW LHD has 102,943 residents eligible for public Dental Services. NNSW LHD has the highest eligible population outside Sydney and Hunter New England (which includes the city of Newcastle).

In 2011/12 a total of 126,962 weighted occasions of service were provided for residents within the NNSW LHD catchment. The majority (over 92%) were provided in house by NNSW LHD Oral Health Services and the remainder were provided by private providers using vouchers provided via the NNSW LHD Oral Health Service. The weighted occasions of service provided in 2011/12 represented an achievement of 90.7% of the target for that year.

**Table 33: NNSW LHD Weighted Occasions of Oral Health Service, 2011/12**

Year	In House	Voucher	Total	Target	% Achieved
2011/12	117,135	9,827	126,962	140,000	90.7%

Source: NNSW LHD, Oral Health Services Data Collection

As can be seen in the following table there were 1,905 adults and 963 children resulting in a total of 2,868 persons waiting for a dental assessment in June 2012. This reflects a 16% decrease overall in the NNSW LHD dental waiting list between 2010/11 and 2011/12. It is important to note that the waiting list grew by 98% for children and 32% for adults at the Ballina and Grafton Clinics.

**Table 34: NNSW LHD Dental Assessment Waiting List 2010/11 and 2011/12**

	2010/11	2011/12	% Change
Adult	492	141	- 71
Child	136	66	- 51
<b>Tweed/Byron</b>	<b>628</b>	<b>207</b>	<b>- 67</b>
Adult	1,080	958	- 11
Child	973	654	- 33
<b>Richmond(Goonellabah/Casino/Nimbin)</b>	<b>2,053</b>	<b>1,612</b>	<b>- 21</b>
Adult	611	806	32
Child	123	243	98
<b>Ballina/Grafton</b>	<b>734</b>	<b>1,049</b>	<b>43</b>
<b>Total Adult</b>	<b>2,183</b>	<b>1,905</b>	<b>- 13</b>
<b>Total Child</b>	<b>1,232</b>	<b>963</b>	<b>- 22</b>
<b>NNSW LHD</b>	<b>3,415</b>	<b>2,868</b>	<b>- 16</b>

Source: NNSW LHD, Oral Health Services Data Collection

There were 1,905 adults waiting for dental treatment in NNSW LHD in 2011/12. This reflects an overall decrease of 13% in NNSW LHD between 2010/11 and 2011/12.

**Table 35: NNSW LHD Dental Treatment and Denture Waiting List 2010/11 and 2011/12**

	2010/11	2011/12	% Change
Denture	1,694	1,813	7
Treatment	0	1	0
<b>Tweed/Byron</b>	<b>1,694</b>	<b>1,814</b>	<b>7</b>
Denture	1,274	1,175	- 8
Treatment	1,668	1,128	- 32
<b>Richmond (Goonellabah/Casino/Nimbin)</b>	<b>2,942</b>	<b>2,303</b>	<b>- 22</b>
Denture	705	617	12
Treatment	264	918	248
<b>Ballina/Grafton</b>	<b>969</b>	<b>1,535</b>	<b>58</b>
<b>Total Adult</b>	<b>3,673</b>	<b>3,605</b>	<b>- 5</b>
<b>Total Child</b>	<b>1,932</b>	<b>2,047</b>	<b>- 6</b>
<b>NNSW LHD</b>	<b>5,605</b>	<b>5,652</b>	<b>- 1</b>

Source: NNSW LHD, Oral Health Services Data Collection

There were 3,605 adults waiting for Dentures in NNSW LHD in 2011/12. This reflects an overall decrease of 5% in NNSW LHD between 2010/11 and 2011/12.

There were 2,047 children waiting for dental treatment in NNSW LHD in 2011/12. This reflects an overall increase of 6% in NNSW LHD between 2010/11 and 2011/12.

## PROJECTED REQUIREMENTS

Demand for public dental care, especially for adults due to increasing retention of natural teeth, is expected to increase over the next 15 years reflecting population ageing and growth despite a marginal decline in the number of children eligible for free dental care.

The demand for oral health services within NNSW LHD is expected to increase in line with general population growth and the ageing of the population. Increasing tooth retention in older Australians is increasing the incidence of age-related oral health disorders. Accordingly, a range of chronic degenerative dental disorders is now emerging, such as; tooth wear, tooth erosion, cuspal fractures, pulp death and root fracture. The consequences of increased tooth retention means new skills will be required to manage these age-related disorders. Also, the lack of fluoridated water in the local catchment has increased the level of tooth decay in the general population. NNSW LHD population is projected to increase by 11% to 2021 and the population aged 65 years and over is projected to increase by 41% over the same period.

Across NNSW LHD, there have been recent increases in capacity with an additional four chairs at Ballina and two chairs at Pottsville recently opened and there are projected increases in capacity in oral health chairs with an additional six chairs at Tweed Heads, two chairs at Yamba and four chairs at the proposed Byron Shire Central Hospital to replace the three chair clinic at Mullumbimby and District War Memorial Hospital.

Workforce is not expected to be a constraint on future service provision with broad availability of dental assistants and a projected increase in the number of new dentists graduating over the next 5 years.

#### FUTURE MODELS OF CARE

- Further expansion of teaching clinics
- An increasing recognition of oral health as an integral part of general health and the combined proportion of NNSW LHD residents aged 65 years and over with the potential for the development of chronic illness will increase demand on the service.

#### KEY ISSUES

- There is limited access to oral health services for Lismore Base Hospital inpatients
- Population growth and ageing of the population leading to increased demand for services
- The need to reduce the gap in oral health between the general population and some of the most disadvantaged groups in the community in particular establishing stronger links with the Aboriginal community and its existing service providers
- There is a need to maintain health promotion and disease prevention initiatives within available resources in the context of increasing demand for individual treatments
- The need to efficiently and effectively use Commonwealth funding initiatives
- The need to ensure Oral Health and Oral Health Services are recognised and considered in health service and facility planning, oral health services operate across facilities and boundaries and a multidisciplinary approach is required to provide high quality dental care
- The need for continued fluoridation of water supplies.

## 8

## DISTRICT-WIDE CLINICAL NETWORKS

## 8.1 AGED CARE

By 2021, people over the age of 65 years will account for almost one quarter (24%) of the NNSW LHD population, as compared to 19% in 2011. By comparison the proportion of people aged 65 years and over in the total NSW population in 2021 is projected to be 17.5%.

Current levels of growth in people aged 65 years and over across the LHD are having a significant impact on demand for a range of hospital and community health services including specialist aged care programs. Older people have a greater propensity to experience significant chronic and complex conditions as well as co-morbidities.

A substantial proportion of the older age group experience a number of different diseases rather than just single disease episodes. In particular, cardiovascular disease, diabetes and chronic kidney disease are likely to occur together and are strongly associated with old age and obesity.<sup>56</sup> Older people are more likely to suffer from a combination of conditions such as these as well as chronic respiratory conditions, dementia, delirium and hip fractures as a result of falls.

The ageing of the population will result in a significantly greater prevalence of dementia, a condition that was found to be responsible for the highest level of disability in the community. The 2003 Survey of Disability, Ageing and Carers found that 98% of those with dementia had a severe or profound disability. On the basis of these prevalence estimates there would be over 5,000 people aged 65 years and over in NNSW LHD living with dementia in 2011, and this number would be projected to increase to over 7,200 in 2021.

Australian Institute of Health and Welfare Report - Dementia Care in Hospitals (2013) reported on a population study of 20,748 people with dementia who had a completed hospital stay including at least one night in a NSW public hospital in 2006/07 which highlighted:

- Almost half (47%) of episodes for people with dementia did not have dementia recorded as a diagnosis
- Identification and reporting of dementia is often poor in hospitals—for almost half of the episodes for people with dementia in this study, dementia was not recorded as either a principal or additional diagnosis
- People with dementia generally have a longer length of stay within a hospital than other patients, leading to greater costs to the health system. Almost three-quarters of the reasons for hospital care included in this study involved a longer median length of stay for people with dementia compared with people without dementia. The average cost of hospital care for people with dementia was higher than for people without dementia (\$7,720 compared with \$5,010 per episode, respectively). The total cost of care in NSW public hospitals for patients who had dementia in 2006/07 was estimated to be \$462.9 million, of which around 35% (\$162.5 million) may be associated with dementia.

<sup>56</sup> AIHW (2007) *Co-morbidity of cardiovascular disease, diabetes and chronic kidney disease in Australia*

## NATIONAL REFORM

Under the National Health Reform,<sup>57</sup> the Australian Government is shifting policy and funding responsibility for aged care services from States and Territories to a national approach. This will enable more consistent and coordinated care for older people in their homes and also in aged care settings.

Through the National Aged Care Package, the Commonwealth Government is taking full responsibility for aged care, including home and community care provided to older Australians in most States and Territories. From 1 July 2012, the Commonwealth will fund basic community care services in all States and Territories, except Western Australia and Victoria. This covers people aged 65 and over and Aboriginal and Torres Strait Islander people aged 50 and over. There will also be up to 2,500 new aged care places available through Zero Real Interest Loans.

The Commonwealth Government will also be providing an estimated \$280 million to the States and Territories to fund older Australians who are stuck in hospital waiting for an aged care place - freeing up valuable health funding and helping to end the blame game. Incentives to GPs to provide more services in aged care homes will also be increased. The capacity of MPSs will be expanded by 286 sub-acute beds or bed-equivalents.

The Government will also make it easier for older Australians, their families, and carers to access information about aged care through implementing a single national aged care information phone number and improvements to the Aged Care Australia website.

## CURRENT SERVICES AND MODELS OF CARE

Healthcare is provided to older people through mainstream hospital and community health services, with outreach services provided to the smaller, outlying communities. In recent years there has been significant development of specialist aged care services across NNSW LHD. Specialist aged care services operate across a range of care settings including the older person's home, acute facilities, day centres, and a range of primary and community health settings. Community-based services are provided in collaboration with GPs, non-government organisations, LHDs and other Government programs.

A number of community based programs for older people are provided through NNSW LHD:

- HITH and Community Ambulatory Care give acutely ill patients (including older people) the opportunity to be cared for in the community rather than in hospital either by replacing hospital care or reducing the amount of time spent in hospital<sup>58</sup>
- ComPacks are case managed packages of care for up to 6 weeks after discharge from hospital for people who need two or more community services. There are 1,921 ComPacks available for patients being discharged from a hospital in the LHD
- A Carer Support Program operates across NNSW LHD under the banner of the NSW Carers Program. The Carer Support Program focuses on raising the profile of carers and the service of carers, within the health service; this program leads the development and implementation of the NSW Carer Recognition Act<sup>59</sup>
- The Chronic Disease Management Program and Chronic Care for Aboriginal People aim to reduce avoidable and unplanned ED presentations and admissions to hospital, and

<sup>57</sup> <http://www.yourhealth.gov.au/internet/yourhealth/publishing.nsf/Content/theme-agedcare>

<sup>58</sup> Further information on Hospital in the Home is included in section 8.3

<sup>59</sup> Further information on the Carers Program is included in section 10.5

improve quality of life for people with chronic conditions and their family and carers. The focus of the program is persons aged over 18 years and Aboriginal persons aged over 16 years, with heart disease or heart failure, chronic obstructive pulmonary disease, diabetes or hypertension. The target population for the Chronic Care for Aboriginal People program is Aboriginal persons aged 15 years and over who have, or are at risk of, chronic conditions.<sup>60</sup>

The service environment for the delivery of Aged Care Services is complicated by the various levels of Commonwealth, State, and Local Government involvement and funding. This is in addition to the challenges presented by the geography, greater than average aged and Aboriginal population, and the lower than average socio-economic status of NNSW LHD.

In recent years there has been significant growth in Aged Care Services in NNSW LHD which has led to a risk of fragmentation of service provision. The interface with Commonwealth-funded services is critical to quality care outcomes and demand management in relation to the care of older people with LHD services and interlinked specialist aged care services across the LHD.

Key community aged care services/programs provided by organisations external to NNSW LHD include:

- Home and Community Care (HACC) Program which is a joint State and Commonwealth Government program administered in NSW by the Department of Ageing, Disability and Home Care (ADHC). The program is designed to provide basic community support services to frail older people and younger people with a disability to prevent their inappropriate admission to residential care and to enhance their quality of life
- Commonwealth Respite and Carelink Centres (CRCC) that operate as information centres for older people, people with disabilities, carers and other service providers
- National Respite for Carers Program supports carers who are caring for people with a chronic disease, disability or frailty
- Residential Aged Care Facilities (RACFs) that provide a home like environment for older people who can no longer manage to live at home. Entry to a RACF is reliant upon an assessment and approval by ACAT. RACFs are operated by a range of non-government organisations across the North Coast. Funding is allocated according to assessed care levels (low care or high care)
- With the National Aged Care Reforms from the 1 August 2013 Home Care packages replacing Community Aged Care packages such as CACP and EACH will be introduced. ACAT will be assessing for four new levels of care. Level 1 basics care, level 2 equivalents to a CACP, level 3 interim levels of care and level 4 equivalents to EACH level of care. A dementia supplement will be available for clients with diagnosed dementia and can be added to any level of care
- Home Medicine Review is a service that aims to maximise an individual patients benefit from their medication regimen, and prevent medication-related problems
- Department Of Veterans' Affairs works in partnership with public and private providers to ensure that veterans and their dependents have access to good health care and rehabilitation services

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<sup>60</sup> Further information on Chronic Disease Management is included in section 8.10

- Specialist aged care services operate in an interlinked manner to ensure access for older patients across all relevant clinical streams and service locations throughout the catchment area.

### SUB-ACUTE AGED CARE

Sub-acute and non-acute services incorporating rehabilitation and palliative care are available at a range of sites with designated rehabilitation beds available at Ballina and Murwillumbah District Hospitals. A purpose built Sub-acute Unit with rehabilitation and palliative care beds is under construction at Maclean District Hospital and is expected to open in 2014. NSW LHD contracts inpatient palliative care for residents of the Richmond Clarence Health Service Group from St. Vincent's Private Hospital, Lismore. There are no designated palliative care beds available at The Tweed Hospital.

### ACUTE TO AGE RELATED CARE SERVICE (AARCS)

The aim of the Acute to Aged Related Care Services is to provide appropriate identification of the discharge care needs of older people admitted to hospital to improve patient outcomes and reduce the length of stay of older people in acute care settings. It is primarily focused on those patients wishing to access Commonwealth funded aged care services such as Home Care Packages and RACFs. AARCS work closely with the Discharge Planner, Nursing Unit Managers (NUMs), Allied Health staff and ACAT. Staff also network with providers in the community and residential aged care sectors.

### AGED CARE ASSESSMENT TEAM (ACAT)

ACAT undertake multidisciplinary, comprehensive assessments of frail older people with a view to assisting them to remain in their own homes as long as possible, while promoting their health, wellbeing, dignity and independence. Some members of ACAT are Commonwealth Delegates and are able to approve the authorisation of admission to RACFs and for the receipt of Home Care Packages and Transitional Aged Care Packages.

The target group for the service is clients eligible for Australian Government subsidised aged care services, and determined by demonstrated aged care needs. The Commonwealth standard for inpatient ACAT consultations is that patients are seen within 14 days. In 2012/13 the average time to assessment was 2 days across all hospitals within NSW LHD. The three ACATs Tweed, Ballina and Grafton, covering NSW LHD have amalgamated forming Northern NSW ACAT with a standardisation of intake and assessment and a centralised delegation system.

Current networking arrangements in the Richmond Clarence Health Service Group include provision of clinical support by the Geriatrician and Geropsychologist for ACAT through a case review process. Referral links are in place with the Dementia Outreach Team providing case management for clients and carers, post diagnosis, in the early stages of dementia. There is access to a Psychogeriatrician on a fortnightly basis in the Richmond Network.

### AGED SERVICES EMERGENCY TEAM (ASET)

ASET are ideally multidisciplinary teams comprising Nursing and Allied Health practitioners experienced in aged care. These Teams target people  $\geq 70$  years who access EDs. In some facilities this may be a single position. These positions are located in The Tweed and Lismore Base Hospitals.



### DEMENTIA/DELIRIUM SERVICES

Patients with acute confusion or longer-term challenging behaviours currently receive care across various clinical areas, placing high demands on inpatient services. The Richmond Network Geriatricians provide a visiting consultancy service depending on availability and levels of referral.

Geriatrician and Psychogeriatric services in the Tweed Byron Health Service Group and Clarence area are limited. Some services are provided by visiting services.<sup>61</sup>

The Psychogeriatric Nurse Practitioner provides inpatient assessment and consultancy to all Lismore Base Hospital wards as well as to smaller hospitals in the catchment. There are Transitional Psychogeriatric Nurse Practitioners at The Tweed Hospital and the Grafton Base Hospital who provide inpatient assessment and consultancy to the Tweed and Grafton catchment.

The Dementia Behaviour Management Assessment Service supports patients in RACFs by providing dementia behaviour management education and training to the staff of RACFs. This service was advertised for competitive tender and will be managed by Hammond Care in the future.

Dementia Outreach Service covers the three valleys of Tweed, Richmond and Clarence – it is a service for people newly diagnosed with dementia or in the early stage of dementia and offers:

- A community-based outreach service offering information, support and advice
- Bio-psycho-social assessment of memory loss at memory clinics; however these are being phased out although remaining in Clarence Valley and to some extent in Tweed Heads
- A Carer Support Program
- Community education
- Dementia education for workers in health and community services.

### SPECIALIST MENTAL HEALTH SERVICES FOR OLDER PEOPLE (SMHSOP)

Specialist Mental Health Service for Older People is a community mental health service targeting clients' ≥65 years and 45 years and over for Aboriginal people. The service provides non-urgent, non-crisis mental health assessment, consultation, care planning and treatment in collaboration with service partners and aged care service providers.

There are currently no designated SMHSOP beds in NNSW LHD. If hospital admission is required patients are admitted to Lismore Adult Mental Health Unit or the Tweed Valley Clinic, with inpatient consultations provided as required. Networking arrangements exist with NNSW LHD Aged Care Services, Mental Health Community Teams, Mental Health Inpatient Units, RACFs, GPs, and ACAT as well as relevant Commonwealth Services such as the Dementia Behaviour Management and Outreach Service.

### TRANSITIONAL AGED CARE SERVICE (TACS)

TACS provides short term care to optimise the functioning and independence of older people following a hospital stay. Transitional Care is goal oriented, time limited (to a maximum of 12 weeks) and therapy focused. It provides people with a package of services that includes low intensity physiotherapy and occupational therapy, as well as nursing, social support, personal care and case management. It aims to enable older people to return home after a hospital stay rather than seek premature entry to residential care. It has the potential to reduce the number of inpatients from

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<sup>61</sup> NSW Telehealth Service Planning and Evaluation Framework 2003-2007

residential care in inappropriate hospital settings. To access Transitional Care, older people must be assessed and approved by ACAT as requiring the type and level of assistance that TACS provides.

There are 45 community-based packages provided to residents of the Richmond Clarence Health Service Group and 26 community-based packages to residents of Tweed Byron Health Service Group. Six residential care based packages are also provided at the Ballina District Hospital Rehabilitation and Transitional Care Unit. Networking arrangements are in place with public and private hospitals, ACAT, GPs and community and residential aged care providers.

### MULTI-PURPOSE SERVICES (MPSS)

Multi-Purpose Services (MPSs) provide for a combination of high and low residential aged care services and appropriate level of acute services related to the community needs and the role delineation of the MPS. These services are currently located at Urbenville, Nimbin, and Kyogle. The MPS structure ensures the sustainability of these combined services in smaller communities.

### CURRENT ACTIVITY

There were 75,399 separations for acute and sub-acute Day Only and Overnight care excluding psychiatric, chemotherapy, renal dialysis and unqualified neonates in 2012/13. Of these 37,720 or 50% were for patients aged  $\geq 65$  years. The Table below details these total separations and separations for patients aged  $\geq 65$  years and as a proportion of total separations for each facility in NNSW LHD in 2012/13.

**Table 36: NNSW LHD Separations for Patients aged  $\geq 65$  years as a proportion of total separations**

Hospital	Total Seps	Seps $\geq 65$ years	Seps $\geq 65$ years ( % total)
Ballina	4,826	2,717	56
Ballina Transitional Care Beds	62	62	100
Bonalbo	271	107	39
Byron Bay	1,452	579	40
Casino	3,178	1,533	48
Grafton	8,994	4,491	50
Kyogle	902	502	56
Lismore (St Vincent's Contract)	1,104	878	80
Lismore Base Hospital	18,665	8,752	47
Maclean	3,681	2,169	59
Mullumbimby	1,277	675	53
Murwillumbah	6,169	3,446	56
Nimbin	163	70	43
Riverlands Drug and Alcohol Centre	432	9	2
St. Vincents Lismore(Pub. Pats.)	585	403	69
The Tweed Hospital	23,508	11,250	48
Urbenville	130	77	59
<b>NNSW LHD</b>	<b>75,399</b>	<b>37,720</b>	<b>50</b>

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch excluding Renal Dialysis, Chemotherapy and Unqualified Neonates

There were 37,720 separations for patients aged  $\geq 65$  years for acute and sub-acute Day Only and Overnight care excluding psychiatric, chemotherapy, renal dialysis and unqualified neonates in 2012/13 resulting in 157,265 beddays. Changes in numbers of these separations varied across the LHD however there was an increase of 8% in separations and 5% in beddays for NNSW LHD between 2009/10 and 2011/12.

**Table 37: NNSW LHD Separations and Beddays for Patients aged ≥65 years by Hospital 2009/10-2012/13**

	2009/10		2010/11		2011/12		% Change Seps	% Change beddays
Hospital	Seps	Beddays	Seps	Beddays	Seps	Beddays		
Ballina	3,081	14,364	2,496	15,455	2,717	18,151	-	12
Ballina Transitional Care Beds	54	1,887	57	1,839	62	1,747	-	7
Bonalbo	192	905	162	1,048	107	517	-	44
Byron Bay	480	3,166	482	3,002	579	2,993	21	-
Casino	1,144	6,175	1,520	6,793	1,533	6,841	34	11
Grafton	4,198	15,587	4,377	17,777	4,491	16,315	7	5
Kyogle	406	2,111	405	1,973	502	1,979	24	-
Lismore (St Vincent's Contract)	698	698	695	700	878	900	26	29
Lismore Base Hospital	8,231	36,402	9,166	37,735	8,752	35,713	6	-
Maclean	1,676	10,856	1,720	9,103	2,169	10,954	29	1
Mullumbimby	577	2,767	595	2,947	675	2,744	17	-
Murwillumbah	3,606	16,690	3,443	15,226	3,446	15,694	-	4
Nimbin	48	442	65	527	70	564	46	28
Riverlands Drug and Alcohol Centre	8	47	7	56	9	56	13	19
St. Vincents Lismore(Pub. Pats.)	363	1,118	378	1,392	403	1,435	11	28
The Tweed Hospital	10,239	36,761	10,660	38,479	11,250	40,170	10	9
Urbenville	63	397	70	442	77	492	22	24
<b>NNSW LHD</b>	<b>35,064</b>	<b>150,373</b>	<b>36,298</b>	<b>154,494</b>	<b>37,720</b>	<b>157,265</b>	<b>8</b>	<b>5</b>

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch excluding Renal Dialysis, Chemotherapy and Unqualified Neonates. In a report to the Federal Minister for Ageing Dr Mark Yates reported an estimated prevalence of disability associated with cognitive deficit to be 30% of all patients over 65years admitted to acute care

## ACAT

In 2012/13 there were 4,118 completed assessments by ACAT across NNSW LHD. The number of completed assessments is not a clear marker of demand as the “number of completed assessments” is determined by ACAT workforce capacity rather than the actual level of community need.

NNSW ACAT has met all benchmarks for referral to assessment times for the last 12 months.

## FUTURE MODELS OF CARE

There are no specialist inpatient aged care services currently provided in NNSW LHD. Plans are in place to establish an eight bed GEM Unit collocated with a four bed Acute Delirium Unit at Lismore Base Hospital during 2014. A GEM Unit and an inpatient facility specifically designed for the care of patients with Dementia is also a high priority for The Tweed Hospital.

Provision of inpatient specialist mental health inpatient beds will be considered in future capital developments.

Nurse Practitioners in Aged Care have proved effective in settings across NSW including Port Macquarie. There is an Aged Care Nurse Practitioner (Transitional) position operating at Grafton Base Hospital. Consideration will need to be given to remodelling or expansion of Nurse Practitioner positions in Aged Care to assist in managing increasing demand for inpatients services for older people especially those from RACFs who may have limited access to GP services.

NNSW LHD has been successful in obtaining funding to host the Council of Australia Government (COAG) Telehealth Project- Linking Residential Aged Care Facilities (RACF) to Emergency Departments which will be trialled in 2013.

A strengthened shared care model for Dementia/Delirium Services would involve collaboration between the Dementia/Delirium Service and the Acute Care and Mental Health Teams including shared case conferencing and care planning for individual clients.

Technological advances will include the increased use of scanning and continued use of the electronic Aged Care Client Record (ACCR)/eMR. The utilisation of the ACCR/eMR will enable increased communication as any Commonwealth funded service/hospital/GP can access the Medicare website to view the ACCR required for service commencement.

Use of technology can enable increased delegation and use of telelink with delegates in other sites. Bedside rounds via Telehealth would provide better access to assessment, diagnosis and management of dementia, making effective use of limited Geriatrician and Psychogeriatrician resourcing.

There is a possibility that service coverage could be effectively extended utilising Telehealth for potential clients that live “west of the range.” For example, if clients were able to access Telehealth facilities at Bonalbo or Urbenville, they could be seen by a case manager, undergo physiotherapy assessment and review thereby decreasing the need for Nursing and Allied Health staff to physically travel to the client’s home.

Medicare Locals also have an important role in provision of primary care support to RACFs. A variety of partnering initiatives could contribute to addressing demand. North Coast NSW Medicare Local could work with NNSW LHD to assist with professional development of staff to increase clinical care and reduce ED presentations and avoidable admissions.

#### FUTURE DIRECTIONS<sup>62</sup>

The expected growth in the proportion of people aged 65 years or more during the coming years will have a significant impact on demand for a range of health services including specialist aged care services. Older people require longer recovery times with sufficient access to sub-acute care models and facilities. The provision of inpatient and ambulatory sub-acute care at Maclean District Hospital will have a significant impact on access to this service for older residents of the Clarence Valley. The provision of accessible services to the older population is a priority and there is commitment to providing high quality accessible services by a professional workforce to the older residents of NNSW LHD.

Dementia is a significant health challenge. It is a serious chronic, usually progressive condition, often with complex physical co-morbidities. Delirium and psychological/behavioural symptoms require expert clinical assessment, diagnosis and management. Dementia demands considerable time, effort and resources to ensure the provision of quality care and facilitate timely and safe hospital discharge.

Significant numbers of people in the current target groups of the Severe Chronic Disease Management Program (SCDMP) will present with dementia into the future. This will complicate diagnosis and management, leading to risks of lengthened hospital stays. Coordinated service provision is a high priority for older people with chronic illness to reduce duplication, streamline patient flows and improve care outcomes.

The Dementia Services Hospital Project has found that people with younger onset dementia and psychiatric symptoms and behaviours of concern tend to have very long acute care stays. There is a need for streamlined Guardianship applications and Guardianship Tribunal responses to improve timely transfer of care for all patients with significantly reduced testamentary capacity.

The projected demand for dementia care is driven by growth in the old age groups (85+ years) where cognitive impairment occurs in 1:4 persons. With high clinical care needs related to pressure ulcers, incontinence, falls, functional decline, and delirium. This will result in an escalation of demand for Specialist Aged Health Services over the next 10 years.

<sup>62</sup> See Section 8.10 Chronic Care

The development of an Acute Delirium Unit at Lismore Base Hospital will provide a short-term response to growing demands for specialist care resulting from the growing prevalence of dementia and delirium. The Lismore Base Hospital Clinical Services Plan also proposes an expansion of the Acute Delirium Unit to 8 beds by 2021. The Tweed Hospital Clinical Services Plan proposes the development of an eight bed GEM and four bed Acute Delirium Unit. This will provide capacity to meet the forecast growth in the ageing population and provide the appropriate capacity to facilitate staffing efficiencies.

### KEY ISSUES

- Increasing demand due to population growth and ageing
- The impact of the National Aged Care Reforms and the uncertainty that exists for Commonwealth funded Aged Care services within the LHD after June 30 2014
- The need to work in partnership with community aged care service providers, GPs and RACFs
- There is limited access to a Geriatrician in the Clarence Valley and no Geriatrician in The Tweed Byron Health Service Group
- The current limited access to SMHSOP acute inpatient beds and SMHSOP rehabilitation beds leads to admissions of older people to the Lismore Acute Mental Health Unit and The Tweed Valley Clinic
- Access to Specialist Psychiatrists (members of the Faculty of Old Age Psychiatry or Psychogeriatricians) is limited
- There is no after-hours service provided by Allied Health professionals in the LHD which impacts on completion of timely assessments and patient transfers to less intrusive care settings
- There is a need for rationalisation of data systems and software programs for community based staff working in different specialist aged care programs
- There is a need for all hospitals have Clinical Nurse Specialists in Dementia. These specialist nurses can provide staff education, carer support and important links for the person with dementia/ delirium into the community on discharge
- Transition to the new Aged Care reforms that are being rolled out nationally should include those outside the hospital, strategies within emergency departments, strategies within the hospital, cross-sectorial strategies and environmental strategies.

## 8.2 REHABILITATION

Rehabilitation care is care in which the primary clinical purpose or treatment goal is improvement in the functioning of a patient with impairment, activity limitation or participation restriction related to a health condition. The patient will be capable of actively participating.

Rehabilitation care is always:

- Delivered under the management of a clinician with special expertise in rehabilitation

- Evidenced by an individualised multidisciplinary management plan, that is documented in the patient's medical record that includes negotiated goals within specified time frames and a documented assessment of functional ability.<sup>63</sup>

Rehabilitation care in NSW aims to restore functional ability for a person who has experienced an illness or injury, enable regaining function and self-sufficiency to the level prior to that illness or injury, within the constraints of the medical prognosis for improvement, and to develop functional ability to compensate for deficits that cannot be medically reversed.

The typical rehabilitation patient is medically stable and capable of participating in a rehabilitation program. Their functional ability would not permit them to be discharged home under self-care safely, or could be managed at home but with ongoing impairment resulting in activity limitation and participation restriction; however, there is an opportunity for improved functional ability and a return to activity, when provided with appropriate rehabilitation care in either a supported inpatient or community setting. The admission of this group of patients into RACFs would be inappropriate prior to receiving appropriate rehabilitation care.

While the patient can be any age, more than 70% of rehabilitation admissions are of people aged over 65 years. Diagnostic groups treated include cerebrovascular (stroke), orthopaedic, cardiac, reconditioning respiratory, chronic degenerative and other chronic conditions, amputees, brain and head injury (traumatic or acquired) and end stage spinal cord recovery. It is the goal of the service to achieve improvement in functional independence, restore health function and prevent deconditioning and complications.

## CURRENT SERVICES

Rehabilitation services are provided at a range of health settings across NNSW LHD. There is a 31 bed specialist Inpatient Rehabilitation Unit at Ballina District Hospital which opened in 2006. The Unit provides rehabilitation services primarily at role delineation level 3 to residents of the Richmond Clarence Health Service Group and forms the hub for rehabilitation in the Health Service Group.

There is a 24 bed specialist Rehabilitation Unit situated at Murwillumbah District Hospital which provides rehabilitation services primarily at role delineation level 4 to residents of the Tweed Byron Health Service Group forming the hub for rehabilitation services in that Health Service Group.

There are also 10 new sub-acute rehabilitation beds being constructed at Maclean District Hospital. The project is due for completion in June 2013. The Service will provide inpatient rehabilitation services to residents of the Clarence Valley.

Ambulatory or outpatient rehabilitation is currently provided by NNSW LHD through Day Therapy Services at Lismore, Ballina, and Murwillumbah.

In addition a Community Based Rehabilitation Service provides home based rehabilitation to patients residing in the former Richmond Network.

## CURRENT ACTIVITY

There were 3,922 Overnight and Day Only separations for residents of NNSW LHD for rehabilitation from public and private facilities in 2011/12. Of these 2,745 or 70% were from private facilities.

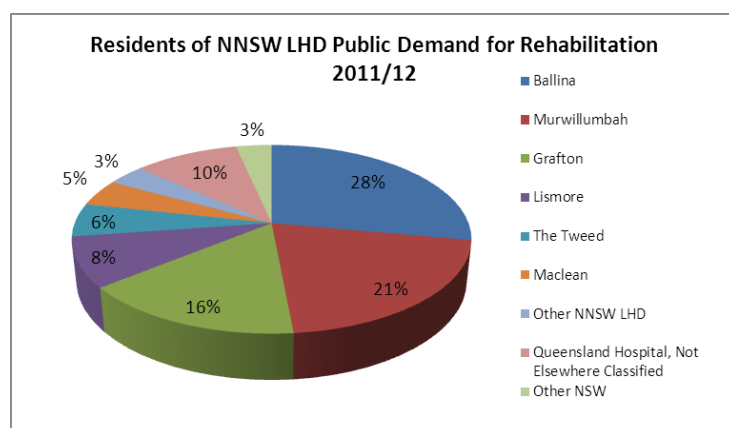
NNSW LHD has a self-sufficiency level in public rehabilitation of 87%. The figure below demonstrates that around 49% of that care is being received in the two Rehabilitation Units at Ballina and Murwillumbah; however 21% is being received at Grafton Base and Maclean District Hospitals where

<sup>63</sup> Australian Institute of Health and Welfare 2013. Development of nationally consistent sub-acute and non-acute admitted patient care data definitions and guidelines

an inpatient Rehabilitation Service will open in 2014. The majority of residents receiving higher level care for rehabilitation received that care in Queensland hospitals or in private facilities.

The following figure details the public facilities where residents received Day Only and Overnight rehabilitation services in 2011/12.

**Figure 12: NNSW LHD Residents by Place of Care - Rehabilitation 2011/12**



Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch; Includes all service categories

As can be seen in the table below there were 1,472 Overnight separations from NNSW LHD Hospitals in 2011/12 for rehabilitation accounting for 22,993 beddays. This represents a 23% growth in separations and 29% growth in beddays between 2009/10 and 2011/12. This is considered to be under reported given that rehabilitation episodes of care in facilities without specialist units may have been coded incorrectly in the past. Some work has been undertaken to improve coding timeliness and accuracy and this work will continue.

**Table 38: Day Only and Overnight Separations for Rehabilitation NNSW LHD 2009/10- 2011/12**

	2009/10		2010/2011		2011/2012	
	Seps	Beddays	Seps	Beddays	Seps	Beddays
Day Only	45	45	27	27	27	27
Overnight (s)	1,195	17,757	1,336	20,042	1,472	22,993
<b>Total NNSW LHD</b>	<b>1,240</b>	<b>17,802</b>	<b>1,363</b>	<b>20,069</b>	<b>1,499</b>	<b>23,020</b>

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch; excluding patient type Psychiatric and Unqualified Neonates

## FUTURE DEMAND

Using the SiAM modelling tool and not allowing for changes to models of care Overnight separations for rehabilitation will grow by 77% and 63% growth in beddays between 2011 and 2022.

## CURRENT MODELS OF CARE

The primary focus of the inpatient rehabilitation units is the management of newly acquired disability with the major diagnostic groups including stroke, orthopaedic conditions, neurological conditions, amputations, acquired brain injury, spinal cord injury and congenital conditions. A significant group of patients requiring reconditioning rehabilitation are those with major functional impairment following critical illness or major injury.



Rehabilitation is a multifaceted service enabling individuals to integrate back into the community with an optimum level of independence. The service is supported by highly skilled and specialised nursing and allied health staff within a multidisciplinary team.

Medical governance of the two specialist rehabilitation units is provided by two Rehabilitation Specialists, one based at Murwillumbah and one at Ballina.

A Day Hospital and Outpatient Service is collocated with the Murwillumbah Inpatient Rehabilitation Unit. This service provides ambulatory rehabilitation for discharged inpatients of the Inpatient Rehabilitation Unit, as well as for clients in the community upon referral to the service. As the service is provided by the therapists of the inpatient unit, it is subject to closure when allied health is not fully resourced as the inpatient service is a priority.

Community and Allied Health, Richmond Network provides three Day Therapy Services located at Ballina, Lismore and Casino. The Casino Service has been non-operational since 2010 due to allied health recruitment and resourcing issues. In addition the Community Based Rehabilitation Service provides home based rehabilitation to client's living in the Richmond Valley. Currently, there are no formal ambulatory rehabilitation services for residents in the Clarence Valley.

## FUTURE MODELS OF CARE

A major Clinical Redesign Project has been completed by NSW Health (2011).<sup>64</sup> In that document the imperative for rehabilitation redesign is described in summary in the following terms, Rehabilitation services are fundamental in enhancing patients' functional independence and play an integral role in patient flow across the health care continuum. The provision of effective rehabilitation services requires a diverse range of health professionals, services and external agencies to work together and overcome system challenges such as separate funding, administration and reporting structures.

The setting in which rehabilitation takes places is principally defined by the patient's changing needs over time and the availability of rehabilitation services in particular areas. A rehabilitation patient journey is not a linear process and pathways are individually determined based on functional impairment, medical acuity and prognosis and access to rehabilitation services.<sup>65</sup>

Rehabilitation clients require different levels of care at different points in their rehabilitation. Patient flow considerations include those from the acute care setting to the sub-acute setting, from sub-acute care into an ambulatory care setting, and ultimately the patient's return to the community and, where possible home.

The future of rehabilitation care needs to be considered in the context of the overarching health system. The changing nature of the health system together with the ageing population provides an ideal opportunity to develop a consistent model of care for rehabilitation services.

Imminent systemic changes such as activity based funding (ABF) and e-Health initiatives will be supported by the implementation of a consistent model of care. Such a model will move NSW toward transparency and meeting or exceeding national benchmarks in relation to nationally consistent classification, counting and costing.

Rehabilitation services have the opportunity to reshape service delivery, patient outcomes, efficiencies and collaboration with health care providers across the health system through the implementation of a Rehabilitation Model of Care founded on good practice principles and innovation.

<sup>64</sup> NSW Ministry of Health 2011 Rehabilitation Redesign Project, Final Report

<sup>65</sup> NSW Ministry of Health 2011 Rehabilitation Redesign Project, Final Report

The NSW Rehabilitation Model of Care developed by the Redesign Project, consists of:

- Definition of rehabilitation
- Guiding principles
- Elements of a patient journey
- Six defined care settings
- Enablers of rehabilitation services.

Thorough consideration and adoption of the model of care contained in the Rehabilitation Redesign Project Report the model is being implemented across NNSW LHD.

The NNSW LHD Rehabilitation Redesign Project is currently in the action planning phase of the project with the analysis phase completed.

Key short term priorities from this project are:

- Improved management of rehabilitation patients in acute settings
- Provision of inpatient and ambulatory rehabilitation services within the Clarence Valley
- Review of current allied health resourcing and in particular, therapy intensity with a focus on providing therapy services 7 days per week in sub-acute inpatient facilities
- A review of ambulatory rehabilitation services across the LHD
- Improved governance across and within Rehabilitation Services
- Being ready for ABF across service settings for sub-acute care
- Improved pathways between acute care and rehabilitation service settings
- Improved standardisation of rehabilitation service descriptions and procedures across rehabilitation settings
- Improved patient centred multidisciplinary care processes across rehabilitation settings.

In addition, NNSW LHD is partnering with the NSW Agency for Clinical Innovation (ACI) to implement the ACI Rehabilitation Implementation Toolkit as an outcome from the NSW Rehabilitation Redesign Project.

### KEY ISSUES

- Growth and ageing of the population will continue to place increasing demand on Rehabilitation Services
- There is a need to better manage patient flows between the acute facilities and Rehabilitation Units including handover from Queensland public hospitals
- It was reported at Murwillumbah that there are issues around engaging Orthopaedic Surgeons
- There is no LHD-wide clinical governance structure
- There are limited ambulatory rehabilitation services in the Tweed Byron Health Service Group and the Clarence Valley
- Ballina Rehabilitation Unit reports that it is admitting ambulatory patients because they cannot access community based rehabilitation
- Queensland services are reluctant to take referrals for Spinal Cord Injury and Brain Injury patients; patients often need to go to Sydney if they do not have a Queensland address

- Queensland Hospitals are unwilling to take back patients who require further surgery even if they have come from a Queensland Hospital
- There is potential for a Registrar at the Murwillumbah and Ballina Rehabilitation Units; funding has been applied for
- Appropriate equipment is not always available for individual patient needs
- A reduction in the availability of Allied Health staff impacts upon efficient service delivery when staff are expected to fill vacancies in the acute setting
- Limited access to discharge planning services and post discharge support impacts upon length of stay.

### 8.3 CRITICAL CARE AND EMERGENCY SERVICES

Critical Care and Emergency services in the NNSW LHD comprise of:

- Emergency Department (ED) services
- Intensive Care and High Dependency Unit services
- Trauma services as part of a regionalised trauma system
- Emergency Retrieval and Transfer services.

Critical Care services are the first point of contact for patients of all ages presenting to hospitals for medical care in cases of trauma and other medical emergencies as well as people presenting with a range of less critical conditions on a 24/7 basis. Critical Care represents a major interface between hospitals and the communities they serve. Due to differences in resources and role delineation, the level, scope and nature of on-going care and clinical support varies between sites. A well-coordinated approach to critical care services is essential for the delivery of efficient health care services across NSW.

In December 2009, NSW Health released the 'Selected Specialty and State-wide Services Plan for NSW Trauma Services'. This Plan designates six adult major trauma services within NSW at John Hunter, Liverpool, Royal North Shore, Royal Prince Alfred, St George and Westmead Hospitals. Within rural areas there are a total of 10 designated regional trauma services, including two in the NNSW LHD at Lismore Base Hospital and The Tweed Hospital. These two regional trauma centres are the first point of call and provide advice on retrieval options and are involved in clinical decision making for disposition.

Consistent with the NSW Trauma Services Plan, patients who meet the criteria for major trauma are transported to the highest level trauma service within a 1-hour travel time. Local hospitals located outside a 1-hour travel time to a major trauma centre also play an important role within a coordinated rural trauma system. As part of the NSW Ambulance Protocol T1, smaller local facilities are bypassed for major trauma cases but continue to receive and manage minor to moderate trauma cases as required.

In March 2010 NSW Health also released Policy Directive 2010\_021 "Critical Care Tertiary Referral Networks Transfer of Care" (Adults).<sup>66</sup> This policy directly relates to critically ill adult patients and patients at risk of critical deterioration requiring referral or transfer. The NSW Critical Care Referral Networks (Adults) defines the links between Area Health Services (LHDs) and tertiary referral hospitals mainly within NSW. The policy also defines the roles of various State-wide clinical speciality referral networks that operate in conjunction with the NSW Critical Care Tertiary Referral Network.

<sup>66</sup> NSW Health Policy Directive 2010\_021 "Critical Care Tertiary Referral Networks Transfer of Care" (Adults)

Owing to proximity, NSW LHD hospitals also maintain a referral network with Queensland. Within the NSW LHD, The Tweed Hospital and Lismore Base Hospital are hubs for critical care service provision in the Tweed Byron and Richmond Clarence Health Service Groups providing support to smaller hospital facilities.

EDs play a pivotal role in the receipt of casualties in cases of a major incident/disaster and they may deploy a Medical Response Team to the disaster site if requested, provided a team with suitable education and training is available. All NSW LHD health facilities have plans to manage a surge of patient presentations from an emergency situation. The emergency may result from a mass casualty incident or an infectious disease emergency e.g. Pandemic Influenza. These plans outline management roles, responsibilities and department responses and identify areas that can be utilised to manage additional patients. In the event of The Tweed Hospital being overwhelmed the LHD Functional Area Coordinator will be notified and the NSW LHD Health Plan will be implemented for the coordination of resources and assistance as required.

Emergency service plans are regularly tested using table top exercises and simulations are undertaken at Hospitals and at LHD levels to test and ensure currency and relevance. Education and training of disaster planning is ongoing within NSW LHD.

### 8.3.1 EMERGENCY DEPARTMENT SERVICES

#### CURRENT SERVICES

NSW LHD has a total of 13 EDs with varying levels and types of services provided by each of the hospitals consistent with the service role delineation. ED services are available 24 hours a day, 7 days a week.

The Tweed Hospital and Lismore Base Hospital provide high level (role delineation 5) emergency medicine services. The two EDs are the clinical hub for emergency medicine within the Tweed Byron and Richmond Clarence Health Service Groups. The Tweed Hospital and Lismore Base Hospital work in combination with smaller rural hospitals within each Health Service Group to form a network of emergency medicine services. These networking arrangements enable the two EDs to provide higher level emergency medicine clinical expertise to the smaller rural hospital EDs and support the transfer of patients from smaller sites to The Tweed Hospital or Lismore Base Hospital, NSW or Queensland Hospitals for tertiary or quaternary level care.

Table 39: NNSW LHD Profile of ED Services

Hospital	ED Presentations 2011/12	Acute Treatment Beds	Role Delineation	ED Medical/Clinical Governance
<b>Richmond Clarence HSG</b>	<b>109,057</b>			
<b>Lismore</b>	29,453	12	5	FACEMs/Staff Specialists & CMOs
Grafton	22,511	12	3	GP VMOs, permanent and locum CMOs
Ballina	15,285	6	3	FACEM/Staff Specialist from LBH & permanent CMOs
Casino	15,375	4	3	GP VMOs, permanent & locum CMOs
Maclean	11,531	4	2	GP VMOs, permanent & locum CMOs
Kyogle	5,627	4	2	GP VMOs
Nimbin	3,550	3	2	CMOs & NPs
Bonalbo	4,758	2	2	
Urbenville	967	1	2	GP VMO, Nurse Practitioner under trial
<b>Tweed Byron HSG</b>	<b>74,172</b>			
<b>The Tweed</b>	40,322	14	5	FACEM, Staff Specialists & CMOs
Murwillumbah	15,242	5	3	FACEM from TTH, permanent CMOs & GP VMO
Mullumbimby	7,450	4	2	GP VMOs, permanent and locum CMOs
Byron Bay	11,158	4	2	GP VMOs, permanent and locum CMOs
<b>NNSW LHD</b>	<b>183,229</b>	75		

Source: NNSW LHD ED Internal Performance Reports 2008/09 – 2011/12. Count of acute treatment beds does not include treatment or multipurpose rooms, consultation rooms, ambulatory care area or mental health safe rooms

### TWEED BYRON HEALTH SERVICE GROUP

Four public EDs are located in the Tweed Byron Health Service Group comprising of The Tweed Hospital, Murwillumbah District Hospital, Mullumbimby and District War Memorial Hospital and Byron Bay District Hospital.

- Private emergency medicine services are also available at the John Flynn Private Hospital
- Ambulance Stations are located at Tweed Heads, Murwillumbah, Mullumbimby and Byron Bay.

## RICHMOND CLARENCE HEALTH SERVICE GROUP

Nine public EDs are located in the Richmond Clarence Health Service Group comprising of Lismore Base Hospital, Grafton Base Hospital, Ballina District Hospital, Casino and District Memorial Hospital, Maclean District Hospital and Bonalbo District Hospital and Kyogle Memorial Hospital, Nimbin and Urbenville and MPSs.

- Ambulance Stations are located at Lismore, Ballina, Casino, Kyogle, Urbenville, Bonalbo, Evans Head, Maclean, Yamba and Grafton.

## CURRENT ACTIVITY

Across the LHDs 13 EDs the number of ED presentations has decreased by 9,777 or -5% since 2008/09, from 193,006 to 183,229 presentations in 2011/12.

**Table 40: NSW LHD ED Presentations 2008/09 – 2011/12 by Health Service Group**

	Tweed Byron HSG	Richmond Clarence HSG	NSW LHD Total	LHD Per Annum Reduction
<b>2008/09</b>	77,020	115,986	<b>193,006</b>	
<b>2009/10</b>	78,817	113,366	<b>192,183</b>	- 0.4%
<b>2010/11</b>	76,353	111,004	<b>187,357</b>	-3%
<b>2011/12</b>	74,172	109,057	<b>183,229</b>	-2%
<b>Change 2008/09 – 2011/12 (%)</b>	<b>-4%</b>	<b>-6%</b>	<b>-5%</b>	

Source: NSW LHD Internal Performance Reports 2008/09 – 2011/12

- NSW LHD experienced an overall 5% reduction in ED presentations with a 4% decrease in the Tweed Byron Health Service Group and a 6% decrease in the Richmond Clarence Health Service Group
- Importantly, while there has been a decrease in the volume of ED presentations, there has been growth in the acuity of ED presentations evidenced by an increasing proportion of higher acuity Triage 1, 2 and 3 category presentations
- A decrease in lower acuity Triage 4 and 5 ED presentations indicate the range of models of care implemented by NSW LHD to treat clinically appropriate acute, non-urgent patients by alternative service models has been successful. Co-location of GP clinics to NSW LHD hospitals and the extension of GP clinic operating hours have played an important role in providing community with other options for treatment.

In 2011/12 there were changes in the reporting of ED activity with the majority (11 of 13) of NSW LHD ED sites reporting ED activity through FirstNet. This was the first year smaller ED sites reported on activity at triage category level and admissions to ward. Bonalbo and Urbenville were an exception and continue to report total activity without differentiation of triage category. The four main ED sites at The Tweed, Lismore Base, Murwillumbah District and Grafton Base Hospitals continue to report on ED performance.

The following table provides a profile of the acuity of people presenting to NSW LHD EDs in 2011/12. This analysis indicates:

- Richmond Clarence Health Service Group with nine ED's and accounts for 60% of NNSW LHD ED activity and the Tweed Byron Health Service Group with four EDs and accounts for 40%
- Tweed Byron and Richmond Clarence Health Service Groups have similar proportions of ED presentations for Triage 1, 2, 4 and 5, however Tweed Byron Health Service Group has a greater proportion of Triage 3 presentations
- Triage 4 presentations account for the majority of ED activity across NNSW LHD
- The combined Triage 4 and 5 presentations account for 57% of NNSW LHD ED activity and at the nine peripheral ED sites they account for 26% of the LHD total ED activity
- Triage 4 and 5 ED presentations (47,521) of the 17% of NNSW LHD ED patients are admitted to inpatient areas with 1:5 patients admitted from ED to inpatient areas in the Tweed Byron Health Service Group and 1:7 in the Richmond Clarence Health Service Group.

**Table 41: Profile of NNSW LHD ED Activity by Triage Category 2011/12**

	TBHSG	RCHSG	NNSW LHD Total
<b>Total ED Presentations 2011/12</b>			
( % of Total)	<b>74,172 (40)</b>	<b>109,057 (60)</b>	<b>183,229 (100)</b>
Triage 1	379 (0.5)	497 (0.5)	876 (0.5)
Triage 2	5,633 (8)	9,091 (8)	14,724 (8)
Triage 3	24,960 (34)	29,387 (27)	54,347 (30)
Triage 4	28,845 (39)	42,323 (39)	71,168 (39)
Triage 5	13,261 (18)	20,156 (18)	33,417 (18)
Unknown Triage Category	1,094 (1.5)	1,878 (2)	2,972 (2)
(Urbenville & Bonalbo)		5,725 (5)	(5,725(3)
Admissions from ED	15,059 (20)	16,034 (15)	31,093 (17)
Did Not Wait	2,446 (3)	5,122(5)	7,568 (4)

Source: NNSW LHD ED Internal Performance Reports 2008/09 – 2011/12

The following table provides a profile of age (paediatrics 0-16 years and older persons >65 years) and Aboriginal and Torres Strait Islander characteristics of ED presentations. Of the total NNSW LHD ED presentations, paediatric presentations account for 22%, older persons account for 20% and Aboriginal and Torres Strait Islander 7%.



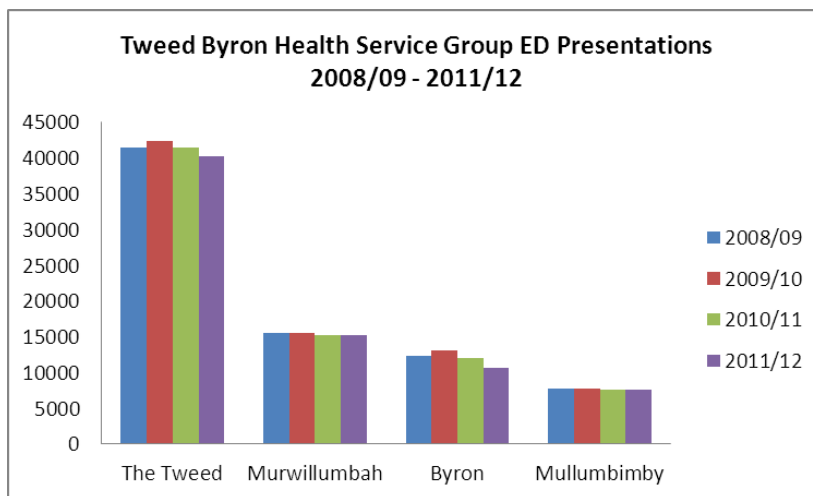
**Table 42: Age and ATSI Characteristics of NNSW LHD ED Presentations 2011/12**

Hospital	Paediatrics 0-16 years			Older Persons >65 years			ATSI		
	Total Paediatric ED Presentations	% of LHD Total	% of Hospital Total	Total Older Persons ED Presentations	% of LHD Total	% of Hospital Total	Total ATSI ED Presentations	% of LHD Total	% of Hospital Total
<b>NNSW LHD Total</b>	<b>40,918</b>	<b>22</b>		<b>36,336</b>	<b>20</b>		<b>11,908</b>	<b>7</b>	
Lismore	6,637	4	22	5,791	3	20	2,755	2	9
Grafton	5,303	3	24	4,540	3	20	2,017	1	9
Ballina	3,288	2	21	3,797	2	25	1,002	0.5	7
Casino	4,056	2	26	2,901	2	19	2,006	1	13
Maclean	2,596	1	22	2,942	2	23	910	0.4	8
Kyogle	1,382	1	25	1,150	1	20	484	0.2	9
Nimbin	736	0.4	21	388	0.2	11	283	0.1	8
The Tweed	9,101	5	23	9,828	5	24	1,692	1	4
Murwillumbah	4,109	2	27	2,719	1.5	18	379	0.2	2
Mullumbimby	1,888	2	25	1,236	0.6	17	154	0.08	2
Byron Bay	1,822	1	16	1,044	1	9	226	0.1	2
Bonalbo	Data not available								
Urbenville	Data not available								

Source: NNSW LHD Business Objects ED Reports 2011/12

## TWEED BYRON HEALTH SERVICE GROUP

The Tweed Hospital is the busiest ED in the NNSW LHD with 40,322 presentations in 2011/12, The Tweed Hospital ED accounted for 22% of the LHD total ED activity in 2011/12. This ED provides services to a region greater than the Tweed Byron LGAs with Queensland residents accounting for 29% of ED presentations to The Tweed Hospital.

**Figure 13: Total ED Presentations Tweed Byron Health Service Group 2008/09 – 2011/12**

Source: NNSW LHD ED Internal Performance Reports 2008/09 – 2011/12;

The figure above indicates all four EDs in the Tweed Byron Health Service Group experienced reductions in ED presentations.

Table 5 provides a profile of ED activity in the Tweed Byron Health Service Group over the 4 year period of 2008/09 - 2011/12. Consistent with LHD trends, The Tweed Hospital experienced an overall 3% reduction in ED presentations with growth in higher acuity ED presentations and decreases in lower acuity ED presentations.

The Tweed Hospital ED experienced significant growth in higher acuity triage categories Triage 1 (14%), Triage 2 (39%) with an increase of 880 patients in 2011/12 and Triage 3 (18%). There has been a shift in Triage 3 presentations which now account for the majority of ED activity whereas Triage 4 patients previously represented the majority.

There were reductions in lower complexity triage categories. Triage 4 presentations decreased by 14% with the most significant decrease of 1,478 presentations in 2011/12. Triage 5 presentations decreased by 36%.

Reductions in lower acuity presentations can be attributed to the introduction of targeted models of care and the development of an after-hours medical centre adjacent to The Tweed Hospital which opened in 2009 and the extension of operating hours of several other larger clinics in neighbouring shopping centres.

The 5% growth in admissions from ED can be attributed to an increased acuity of ED patients. Increased higher acuity ED presentations and limited inpatient bed capacity has resulted in a declining ED Access Performance (EAP) result from 72% - 64%.

In 2010/11 there were 1,777 hours (equivalent to 74 days) of Queensland Ambulance redirection at The Tweed Hospital. Ambulance redirection generally occurs during periods of peak activity i.e. Saturday, Sunday or Monday. The main reason for Ambulance redirection at The Tweed Hospital was due to access block i.e. an inability to admit patients to wards due to bed shortages and high occupancy levels.

Murwillumbah District Hospital:

- Total ED presentations decreased by 2% with reductions across all triage categories except for Triage 3 which experienced a 9% growth
- Admissions from ED to inpatient areas progressively decreased from 15% to 12% in 2011/12

- Lower acuity Triage 4 presentations continue to represent the majority of ED activity.

Byron Bay District Hospital and Mullumbimby and District War Memorial Hospital:

- Combined ED activity for 2011/12 indicated the two hospitals had a decrease in ED presentations from 20,008 in 2008/09, to 18,608 in 2011/12 with a 9% decrease at Byron Bay District Hospital from 12,307 in 2008/09 to 11,158 in 2011/12 and a 3% reduction at Mullumbimby and District War Memorial Hospital reducing from 7,701 to 7,450 during the same period.

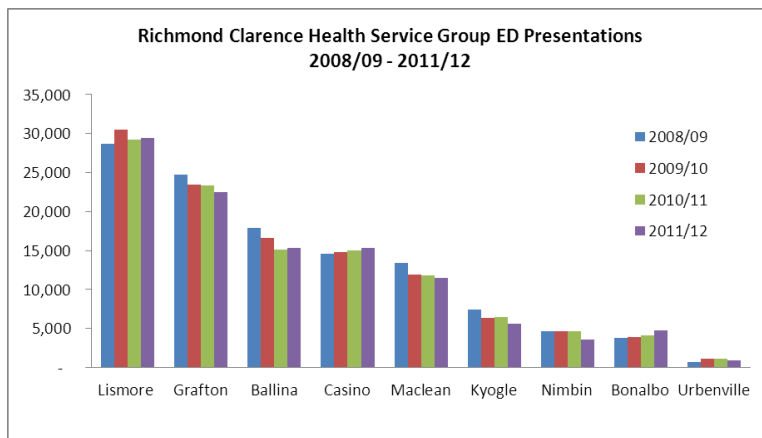
**Table 43: Tweed Byron Health Service Group ED Activity Profile**

Tweed Byron Health Service Group	ED Reporting Across Four ED Sites				Change 2008/09 – 2011/12 (%)
	2008/09	2009/10	2010/11	*2011/12	
Total ED Presentations	77,020	78,817	76,353	74,172	-4
The Tweed & Murwillumbah	ED Reporting Across two Major ED Sites				Change 2008/09- 2011/12 (%)
	2008/09	2009/10	2010/11	*2011/12	
ED Presentations	57,012	57,988	56,811	55,564	-3
Triage 1 (% of Total)	313 (0.5)	342 (0.6)	260 (0.5)	345 (0.6)	10
YTD % in Target Time	96	88	100	100	
Triage 2 (% of Total)	3,439 (6)	3,819 (7)	3,685 (7)	4,481 (8)	30
YTD % in Target Time	73	68	87	76	
Triage 3 (% of Total)	18,395 (32)	20,946(36)	21,018(37)	21,312(38)	16
YTD % in Target Time	74	68	71	64	
Triage 4 (% of Total)	24,771 (43)	24,316 (42)	23,665 (42)	22,277 (40)	-10
YTD % in Target Time	79	74	76	72	
Triage 5 (% of Total)	10,094 (18)	8,565 (15)	8,183 (14)	7,006 (13)	-31
YTD % in Target Time	93	92	91	91	
Unknown Triage Category	0	0	0	143 (0.3%)	
EAP	85	82	79	80	
Admissions from ED (% of Total)	13,844 (21)	13,770 (21)	15,233 (22)	13,917 (22)	1
Did Not Wait (% of Total)	2,277 (4)	2,568 (4)	2,376 (4)	2,095 (3)	-18
Byron & Mullumbimby	ED Reporting Across Two Smaller Sites				Change 2009/10- 2011/12 (%)
	2008/09	2009/10	2010/11	*2011/12	
ED Presentations	20,008	20,829	19,542	18,608	-7
Triage 1				34 (0.2)	
Triage 2				1,152 (6)	
Triage 3				3,648 (20)	
Triage 4				6,568 (35)	
Triage 5				6,255 (34)	
Unknown Triage Category				951 (5)	
Admissions from ED (% of Total)				1,142 (6)	
Did Not Wait (% of Total)				351 (2)	

Source: NNSW LHD ED Internal Performance Reports 2008/09 – 2011/12; (\*11 of 13 ED sites data derived from FirstNet excluding Urbenville & Bonalbo data sourced from Attachment A).

## RICHMOND CLARENCE HEALTH SERVICE GROUP

**Figure 14: Total ED Presentations Richmond Clarence Health Service Group 2008/09 – 2011/12**



Source: NNSW LHD ED Internal Performance Reports 2008/09 – 2011/12

The above figure indicates all nine EDs in the Richmond Clarence Health Service Group experienced reductions in ED presentations.

The following table provides a profile of ED activity in the Richmond Clarence Health Service Group over the 4 year period of 2008/09 - 2011/12. In 2011/12, the Richmond Clarence Health Service Group accounted for 60% of the LHD total ED presentations and Lismore Base Hospital represented 16%. Increased acuity of ED presentations and limited bed capacity resulted in a declining EAP performance from 80% in 2008/09 to 63% in 2011/12.

Lismore Base Hospital experienced a 3% growth in ED presentations with the most significant increase (18%) in Triage 1 presentations. Lower acuity triage categories 4 and 5 had a combined growth of 6%. Triage 4 presentations account for the majority (44%) of ED activity at Lismore Base Hospital. There has been a 1% reduction in admissions from ED with 29% of ED patients being admitted to inpatient areas.

During the same period Grafton Base Hospital experienced:

- 9% reduction in ED presentations with decreases in all triage categories except for Triage 2
- Triage 2 presentations increased by 17% increase with the proportion of Triage 2 presentations increasing from 8% in 2008/09 to 10% in 2011/12. This impacted on the ED capacity to treat Triage 2 patients within target time as indicated in the YTD performance result that reduced from 92% in 2008/09 to 77% in 2011/12
- 5% growth in admissions from ED can be attributed to growth in higher complexity patients and enhancement of HDU services with improved medical governance in 2011/12.

Across the seven Richmond Clarence Health Service Group peripheral hospital EDs:

- The majority of ED sites experienced reductions in overall ED presentations except for Casino and District Memorial Hospital with 5% and Bonalbo Hospital with 26% growth. The 14% growth in ED presentations at Bonalbo Hospital in 2011/12 is unprecedented.

**Table 44: Richmond Clarence Health Service Group ED Activity Profile**

Richmond Clarence Health Service	ED Reporting Across Nine ED Sites				
	2008/09	2009/10	2010/11	*2011/12	Change 2008/09 – 2011/12 (%)
<b>Total ED Presentations</b>	<b>115,986</b>	<b>113,366</b>	<b>111,004</b>	<b>109,057</b>	
Lismore & Grafton	ED Reporting Across Two Major ED Sites				Change 2008/09 – 2011/12 (%)
	2008/09	2009/10	2010/11	*2011/12	
<b>ED Presentations</b>	<b>53,436</b>	<b>53,973</b>	<b>52,590</b>	<b>51,964</b>	-3
Triage 1	320 (0.6)	352 (0.7)	328 (0.6)	347 (0.7)	8
YTD % in Target Time	98	92	100	100	
Triage 2	5,207 (10)	5,328 9 (10)	5,202 (10)	5,476 (11)	5
YTD % in Target Time	78	73	79	81	
Triage 3	19,145 (36)	20,117 (37)	18,728 (36)	18,266 (35)	-5
YTD % in Target Time	59	55	60	64	
Triage 4	22,249 (42)	22,134 (41)	21,333 (41)	21,236 (41)	-5
YTD % in Target Time	57	58	61	63	
Triage 5	6,515 (12)	6,042 (11)	6,999 (13)	6,545 (13)	0.5
YTD % in Target Time	84	85	82	84	
Unknown Triage Category	0	0	0	94 (0.2%)	
EAP	80	77	68	63	
Admissions from ED (% of Total)	10,448 (20)	12,498 (23)	12,201 (23)	9,911 (19)	-21
Did Not Wait (% of Total)	2,885 (5)	2,995 (6)	3,229 (6)	2,693 (5)	-10
Ballina, Casino, Maclean, & Bonalbo District Hospitals; Kyogle, Nimbin & Urbenville MPS's	ED Reporting Across Seven Smaller ED Sites				Change 2008/09 – 2011/12 (%)
	2008/09	2009/10	2010/11	*2011/12	
<b>ED Presentations</b>	<b>62,550</b>	<b>59,393</b>	<b>58,414</b>	<b>57,093</b>	-9
Triage 1				150 (0.3)	
Triage 2				3,615 (6)	
Triage 3				11,121 (19)	
Triage 4				21,087 (37)	
Triage 5				13,611 (24)	
Unknown Triage Category				1,784 (3)	
Admissions from ED (% of Total)				3,625 (6)	
Did Not Wait (% of Total)				2,429 (4)	

Source: NNSW LHD ED Internal Performance Reports 2008/09 – 2011/12; (\*11 of 13 ED sites data derived from FirstNet excluding Urbenville & Bonalbo data sourced from Attachment A)

## FUTURE DEMAND

Demand is projected to increase at EDs across NNSW LHD. Detailed planning for redevelopment of EDs at The Tweed and Lismore Base Hospitals has been undertaken as part of the development of Clinical Services Plans for these facilities. An interim redevelopment of the Lismore Base Hospital ED is underway with planning for construction of a new ED and EMU being well advanced. The new ED is expected to be completed in 2016. Planning is also being undertaken to improve capacity and functionality at Murwillumbah District Hospital and Casino and District Memorial Hospital. A Master Plan is also being prepared for The Tweed Hospital.

## CURRENT MODELS OF CARE

A key of current and future models of care is the National Emergency Access Targets (NEAT) which aims to improve patient access to clinical care by improving the throughput times of patients attending EDs. NEAT has established a “4 hour rule” which requires hospitals to work towards a target to be met by the end of 2015 in which 90% of all patients presenting to a public hospital ED will either physically leave the ED for admission to hospital, be referred to another hospital for treatment, or be discharged within 4 hours. Staged implementation of models of care to support hospitals achieve NEAT is underway in NNSW LHD and will require ongoing investment, development and implementation.

The Table below provides a profile of ED models of care currently operational across NNSW LHD EDs. Models of care vary across sites based on role delineation and demand for services. In light of the current and projected demand for ED services across NNSW LHD and the NEAT, there is a need to improve the patient journey and alleviate non-emergency demand to free up ED capacity to provide core emergency services. A number of service models have been implemented with the aim of:

- Reducing demand for ED services
- Improving patient access by improving patients flows and effective functioning of EDs
- Implementing clinically appropriate, alternative models of care for patients with acute and non-urgent conditions.

These models of care include: Aged Service Emergency Team (ASET), Emergency Medical Unit (EMU), Emergency Community Care Centre (ECCC), Fast Track, Hospital in the Home (HITH) and other services including Drug and Alcohol Clinical Liaison, Mental Health Liaison Clinical Nurse Consultant (MHLNC) and Mental Health Emergency Care Worker (MHEC) models of care.

The focus of investment in contemporary models of care has been at The Tweed Hospital and Lismore Base Hospital with limited investment in District Hospitals.

**Table 45: Profile of Current Models of Care in NNSW LHD EDs**

	ASET	EMU	ECCC	Fast Track	Mental Health		HITH	Allied Health
					Safe Room	MHLNC & MHEC		
Ballina					✓			
Grafton				✓	✓	✓	✓	
<b>Lismore</b>	✓		✓	✓	✓	✓	✓	
Maclean				✓	✓	✓	✓	
Nimbin						✓		
Murwillumbah					✓			
<b>The Tweed</b>	✓	✓		✓	✓	✓	✓	✓

Source: NNSW LHD Planning and Performance Unit

## TELEMEDICINE

The purpose of ED Telehealth is to provide clinical support, education and training to outlying hospitals further supporting clinical networking arrangements within each Health Service Group to provide higher level emergency medicine clinical expertise to the smaller hospital EDs. Telemedicine equipment has been installed in all sites except for Lismore Base Hospital due to insufficient space.

The Tweed Hospital ED is the ‘hub’ for telemedicine with the Tweed Byron Health Service Group District Hospital EDs. Lismore Base Hospital is planned to be the ‘hub’ for telemedicine when

equipment has been installed. While telemedicine equipment has been installed across all sites, Telehealth is not operational in most NNSW LHD EDs.

## EDUCATION AND TRAINING

The introduction of the Emergency Medicine Education Training (EMET) program is a significant advancement in ED education and training involving FACEMs delivering education and training to CMOs and GP VMOs who staff District Hospital EDs. The EMET program has also been beneficial in developing emergency nursing skills. ED nursing staff is actively encouraged to attend. Education and training at these sessions are supported by ED Nurse Educators and ED Clinical Nurse Consultants.

## ORGAN DONATION

Education of critical care clinicians in organ and tissue donation clinical pathways have been consolidated across the LHD with clinicians having a better understanding of procedures and processes required to effectively manage these lifesaving/life improving interventions. The Tweed Hospital Director of ICU/HDU and the Clinical Nurse Specialist Organ and Tissue Donation support hospitals in managing these processes.

## AVAILABILITY OF EXTENDED HOURS GP SERVICES AND COMMUNITY PHARMACY

Unavailability of primary health services on weekends, public holidays and Monday to Friday out of hours impacts on ED services. Community seek these services at the ED in the absence of GP Clinics and community pharmacy services. Table below indicates where community has access to extended hour GP Clinics and community pharmacy.

**Table 46: GP Clinics and Community Pharmacies with Extended Hours**

Extended Hour Services	Lismore	Grafton	Ballina	Casino	Maclean/Yamba	Kyogle	Nimbin	Tweed	Murwillumbah	Mullumbimby	Byron Bay	Bonalbo	Urbenville
GP Clinics	✓	✓	-	-	-	-	-	✓	-	-	-	-	-
Community Pharmacy – Saturday & some Public Holiday coverage	✓	✓	✓	✓	✓		-	✓	✓	-	✓	-	-

Source: NNSW LHD Planning and Performance Unit

## HOSPITAL IN THE HOME (HITH)

As indicated in following table, HITH is available at four of the 13 NNSW LHD Hospitals. In 2011/12 there were a total of 678 HITH separations accounting for a total 5,443 bed day with an ALOS of 8.0 days. All NNSW LHD HITH services have a varying relationship with ED services.



**Table 47: Hospital in the Home - Alternative to ED and Hospital**

NNSW LHD Hospitals - HITH Currently Operational	Seps	Bed days	ALoS	Treatment Location	Governance Arrangements
Lismore Base	93	791	8.5	ED Fast Track	Referring Lismore Base Hospital Medical Officer
Grafton Base	187	1,736	9.3	ED Fast Track	Shared care between ED and patients GP
Maclean District	147	804	5.5	ED Multi-purpose Room	Hospital GP VMO
The Tweed	251	2,112	8.4	ED Fast Track	The Tweed Hospital Community Health with joint governance with ED

Source: NNSW LHD Planning and Performance Unit

Patients suitable for HITH are identified and referred to the service by the Hospital or ED. HITH patients can either be treated in their home or in an ambulatory care setting (Fast Track) in the hospital depending on the patients preference and type of treatment.

- The Tweed Hospital ED Fast Track and Community Health Nurses deliver HITH services
- Lismore Base Hospital access to HITH is available 7 days per week from 10.00am – 8.00pm. Medical governance of HITH patients is provided by the referring medical officer i.e. if the patient is referred to HITH by ED, medical governance is provided by ED Physicians, likewise surgeons or physicians from inpatient areas who refer patients to HITH will continue to provide medical governance. This is considered an effective way of ensuring the patients continuum of care
- HITH at Grafton Base Hospital is a shared care arrangement between ED and GPs
- HITH is provided out of the multipurpose room in the ED at Maclean Hospital with the Hospital GP VMO providing medical governance
- HITH services are provided from ED and in the patient's home.

The Tweed Hospital:

- Fast Track consists of two beds and two recliners located in three consulting areas supporting the fast track of primary care and ambulatory care type patients
- EMU consisting of nine beds providing focused and/or extended observation for specific ED patient target groups (e.g. chest pain) and rapid planning/assessment (aged care) prior to discharge
- ASET provides allied health support (primarily social work and limited physiotherapy and occupational therapy services) to the ED 7 days per week. ASET have access to the Fast Track Zone and support the streamlining of low urgency, aged patients in this area
- Mental Liaison Clinical Nurse Consultant and the Mental Health Emergency Care Worker are based in the ED and support the ED 7 days per week providing assessment, support, consultation and liaison. Mental Health Acute Care Services provide support to the ED afterhours
- Early Pregnancy and Ambulatory Care Nurse Practitioner rostered for 8 hours/day, 7 days a week providing support to patients presenting to ED with problems related to early pregnancy ( $\leq 20$  weeks gestation) and managing ambulatory care patients as time allows.

The Tweed Hospital ED has limited access to:

- HITH with The Tweed Hospital Community Health providing clinical governance for this service and an 'in-reach' service to ED, jointly identifying patients with ED staff who may be appropriate for HITH
- Drug and Alcohol Service
- Physiotherapy and occupational therapy services are available to the Hospital Monday to Friday, 8.30am to 5.00pm. ED competes with intra-hospital for access to these services.

Murwillumbah District Hospital:

- The current ED has limited access to HITH
- In 2011, Murwillumbah District Hospital commissioned a CT scan and ultrasound under a private provider contract arrangement to improve local diagnostic capability and reduce delays associated with waiting for diagnostics. Access to CT has provided more timely diagnosis and clinical decision making for disposition and resulted in more patients being discharged home, less patients being admitted and the number of patients transferred to The Tweed Hospital ED has reduced by an estimated 30 patients per month.

Byron Bay District Hospital:

- Limited access to Mental Health Emergency Care Worker and Acute Care Team located at the Hospital.

Lismore Base Hospital:

- An ASET position operates in ED 7 days per week with the exception of public holidays
- Fast Track consists of three beds with HITH operating from this zone
- Mental Health Liaison Clinical Nurse Consultant and Mental Health Emergency Care Worker are based in the ED and support the ED from 9.00am – 10.00pm, 7 days per week providing assessment, support, consultation and liaison. Mental Health Acute Care Services provide support the ED out of hours
- Social Work can only be accessed in crisis situations.

Grafton Base Hospital:

- Grafton Base and Maclean District Hospital EDs operate under a 'one ED, two campus model' with integration of services across the two EDs with medical governance and clinical leadership provided by the FACEM/ED Director based at Grafton Base Hospital
- Fast Track is under trial at Grafton Base Hospital ED
- Access to Psychogeriatric Transitional Nurse Practitioner 4 days per week
- Limited access to Mental Health Liaison Clinical Nurse Consultant, available 8-12 hours, 5 days per week who is located at Grafton Base Hospital and covers both Grafton Base and Maclean District Hospitals.

Maclean District Hospital:

- Fast Track operational and HITH work out of multipurpose room in the ED
- Access to Psychogeriatric Transitional Nurse Practitioner 1 day per week.

#### Nimbin MPS

- ED Nurse Practitioner model has been operational for 12 months on the weekends providing clinical governance to the ED with support from Lismore Base Hospital. This successful model of care is being considered for trialling at other MPSs including Urbenville and District and Kyogle Memorial.

#### Kyogle Memorial MPS:

- The collocated GP Clinic is staffed by five GPs
- Three of the five GPs are GP VMOs and provide medical governance to the ED and inpatient admissions. More GP VMOs are needed to share the workload otherwise they are at risk of 'burn-out'
- Hours of the GP Clinic needs to be extended to capture more of the GP type patients who currently present to ED
- Consideration should be given to a Nurse Practitioner working in ED on the weekends to reduce the workload on a limited number of GP VMOs.

#### Urbenville and District MPS:

- A Nurse Practitioner is working in the ED on Saturdays with telephone support from Lismore Base Hospital to relieve the two GP VMOs. This trial model of care has been successful at Urbenville and District MPS
- Consideration should be given to a Nurse Practitioner working in ED on the weekends to reduce the workload on a limited number of GP VMOs.

### FUTURE MODELS OF CARE

NEAT is a key service driver and will influence the design of models of care into the future.

The design and layout of EDs influence the functionality of EDs, patient flows and the EDs capacity to deliver contemporary models of care. Redevelopment of the Grafton Base Hospital ED in 2010 and the planned refurbishments at Murwillumbah District Hospital and The Tweed Hospital during 2013, Stage 3 Redevelopment of Lismore Base Hospital and the Master Planning Process for future redevelopment of The Tweed Hospital site will continue to improve NNSW LHD capability to improve the patient journey in ED and streamline clinical processes.

NNSW LHD will need to establish an integrated stroke service including an early access to Stroke Thrombolysis Program. The following will need to be resolved:

- Development of an Integrated Stroke Service
- Reorganisation of current Stroke Services
- Location of Thrombolysis Centres
- Development of pre-hospital pathway
- Consideration of impact on current patient flows, future roles of facilities in providing a stroke service
- Further develop patient transfers to support acute stroke, sub-acute treatment, rehabilitation in-centre and home based
- Develop Medical Imaging to support the Stroke pathway.

### TWEED BYRON HEALTH SERVICE GROUP

#### THE TWEED HOSPITAL

Additions to the front entry and refurbishment of the internal areas of the existing ED are expected to be completed by December 2013 and will support new models of care to improve patient flow and the utilisation of the ED beds. In addition to the current 14 acute beds the refurbishment will provide:

- New Patient Transit Lounge and ED waiting area. This involves a minor extension to the existing hospital building of single storey construction
- Four Primary Care Rooms will be a dedicated fast track area and will facilitate specialist consultations and ambulatory care treatments. Vacated and renovated office space will provide this area
- Senior Assessment Zone will comprise of two beds and two recliners to provide a dedicated area to enable earlier senior medical input and initiation of treatment.<sup>67</sup> This zone will assist in risk-stratifying Triage 3 ED patients which account for the majority of ED presentations at The Tweed Hospital
- Results Pending Unit will consist of six recliners where lower acuity ED patients will continue to be cared for in an acute care area while awaiting results of diagnostics prior to disposition decision making. The majority of these patients are expected to go home from this zone
- The existing EMU will continue with nine beds.

This will increase the number of acute bed treatment areas from 14 to 16.

- The anticipated growing demand for ambulatory care services will require further investment in a dedicated ED Nurse Practitioner position. Establishing an ED Nurse Practitioner position requires a lengthy development phase to 'grow' a Nurse Practitioner within the ED environment. This position should be established to enable further development of the role so in the next 2-3 years a skilled ED Nurse Practitioner can support the ambulatory care zone with strong linkages to HITH
- Ongoing growth in older persons presenting to ED with acute, non-urgent conditions increases the need for an Aged Care Nurse Practitioner position in the hospital. The purpose of this role is to deliver an outreach, early intervention model of care to older people living in the community or RACFs with an acute, low complexity medical condition amenable to treatment in alternative care settings other than an ED or an inpatient hospital bed
- A Drug and Alcohol Clinical Liaison position has also been identified as a high priority.

#### MURWILLUMBAH DISTRICT HOSPITAL

Upgrade of the existing Murwillumbah District Hospital ED will involve a three stage renovation project expected to be completed by January 2014 that will increase the number of acute treatment areas from five acute beds to 10. The 'new build' ED will consist of:

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<sup>67</sup> Ministry of Health, Emergency Department Senior Assessment and Streaming Model of Care and Toolkit, June 2012

- A single point of entry for receiving ED patients except for Ambulance presentations which will have a separate, dedicated entry point adjacent to the Resuscitation Bay
- Six treatment areas consisting of five acute, monitored beds and one resuscitation bed
- A three bed sub-acute zone
- A dedicated Paediatric zone with one acute bed located adjacent to the staff station for close observation with an adjoining space for an accompanying parent/carer
- Consultation and treatment room to be used as an ambulatory care zone to fast track acute, non-urgent ED presentations

Telemetry from the inpatient monitored two bed area will continue to be routed to the ED and monitored by ED staff.

#### BYRON BAY DISTRICT HOSPITAL AND MULLUMBIMBY AND DISTRICT WAR MEMORIAL HOSPITAL

Byron Bay District Hospital and the Mullumbimby and District War Memorial Hospital both have 24 hour EDs and have outgrown their current physical infrastructure which is now out dated and unsuited to the delivery of contemporary health care. A Clinical Services Plan has been developed and proposes the establishment of a new Byron Shire Central Hospital on a green-field site to replace Byron Bay District Hospital and Mullumbimby and District War Memorial Hospital. To meet projected demand for ED services, the Clinical Services Plan recommends the new hospital should include an ED with an enhanced ED to role delineation level 3 providing 24/7 medical coverage with 13 acute treatment spaces, including two resuscitation bays, two paediatric bays and at least three to four “aged friendly” spaces.

#### RICHMOND CLARENCE HEALTH SERVICE GROUP

##### LISMORE BASE HOSPITAL

The expansion of the Lismore Base Hospital ED is a high priority for the LHD. In 2012, NNSW LHD was successful in receiving funding through the Hospital and Health Fund (HHF) Application for the redevelopment and enhancement of health services at Lismore Base Hospital. A resulting Clinical Services Plan was developed, and details projected demand for ED services at Lismore Base Hospital requiring a built capacity of up to 27 beds to meet long term future needs. Stage 3 Redevelopment will include an expanded ED providing 27 ED treatment spaces.

The redesigned ED will remain at role delineation level 5 to meet growing demands for emergency medical services and trauma care to the Richmond Clarence Health Service Group and beyond as well as a coordinated disaster response for the LHD.

The ED will treat children and adults, receiving both ambulance and ambulatory patients. The NSW Health Clinical Services Redesign Program Models of Emergency Care 2006 will inform the development of models of care. The new build will support the concept of ED zones to facilitate the differentiation of patient groups and support the safe and efficient flow of patients through ED receiving the appropriate treatment in the right zone. The ED will be of a culturally appropriate design with guidance from the Aboriginal community and will have a built capacity of 27 treatment spaces with 22 to be commissioned in 2016 and 27 in 2021.

New models of care for Lismore Base Hospital will include:

- Single point of entry for receiving all ED patients
- Triage room at entrance to ED
- Six ambulance handover bays

- Six 'Pit Bays' to facilitate rapid assessment of all ED presentations by a combined medical and nursing team expediting patient flows within the ED and disposition to appropriate ED zones
- Three resuscitation bays suitable for multiple car accidents and support the hospitals regional trauma role
- Provision for a Clinical Initiatives Nurse focusing on improving the flow of patients through the ED and providing surveillance of patients in the waiting room to prevent adverse events
- EMU comprising of a 12 bed EMU will require multidisciplinary staffing and a Nurse Practitioner in Aged Care. The proposed EMU will provide an intensive period of evaluation, treatment and supervision. The three main goals of the Unit would be to provide observation, specialist assessment and diagnosis and short-term high-level medical management and nursing care. The EMU will be operational 7 days per week and will assist in expediting disposition decision making
- ECCC with a minimum of four treatment bays and two chairs built in close proximity to the Ambulatory Care Centre. The focus of the ECCC is the management of ambulatory patients where the emphasis is on clinical teams commencing care rather than 'waiting to see a doctor'. The aim is to discharge within 2 hours of presentation for non-admitted lower acuity patients. Nurse Practitioner roles will be developed for ECCC
- Consultation room for Clinical Initiatives Nurse and/or Nurse Practitioner close to waiting area
- At least four beds to be designed to be aged-friendly
- Two mental health (safe) multifunction consultation rooms and an observation area with direct connection to the main ED
- Two isolation rooms with ensuites, one with negative pressure for infectious patients and the other with positive pressure for neutropenic patients that will also provide a separate environment for palliative care patients
- The redesigned ED will include a designated paediatric bay with four beds (mix of beds and chairs). This will provide a separate family friendly paediatric zone with ensuite facilities to treat the 30% of ED presentations to Lismore Base Hospital that are children. Paediatric ED care will continue to be supported by a 20 bed Paediatric Unit
- Staff education room equipped with videoconferencing facilities to support medical, nursing and allied health students and clinical staff
- Four procedure rooms, one of which is multipurpose (plaster traps) and one will be used as a paediatric procedure area
- Four consulting rooms one of which is suitable for sexual assault victims with ensuite bathroom
- Access to adequate numbers of consultation, procedure and interview rooms are required to support the involvement of specialist clinicians/services in the provision of services and ensure patients move through the ED in a timely manner. The areas will support a multidisciplinary team approach enabling provision of services by: Mental Health services; Drug and Alcohol services; ASET services supporting integration with aged care services and HITH services

- A priority for Lismore Base Hospital is the establishment of specialist, medical outpatient clinics with focus on delivering specialist diabetes, renal and respiratory to avoid ED presentations and readmissions.

#### GRAFTON BASE HOSPITAL AND MACLEAN DISTRICT HOSPITAL:

- The priority for Grafton Base Hospital and Maclean District Hospital is to further develop the “one ED – two campus model”. Focus to be given to further integration of ED services across the two ED sites, sharing of medical and nursing staff, imaging, pathology and mental health services and developing a strong medical governance model
- Consolidation of the Fast Track model of care with dedicated nursing staff at Grafton Base Hospital
- Extending the hours of the Mental Health Liaison Clinical Nurse Consultant service to improve access by the two EDs
- Establishment of an EMU at Grafton Base Hospital to more effectively manage complex cardiac, renal and respiratory ED presentations
- Further develop the role of Telemedicine in ED and HDU for better access to specialist consultations, in particular for paediatric burns, complex hand injuries and respiratory conditions
- The need for a specialist, medical outpatient clinics is a priority for Grafton Base Hospital. A specialist respiratory, urology, renal and diabetes service is considered a significant gap in services in the area
- Demand for an ambulatory care service is also needed to more appropriately manage non-urgent ED presentations.

#### CASINO AND DISTRICT MEMORIAL HOSPITAL:

- A review of Casino and District Memorial Hospital ED activity over a 6 month period in 2013 indicates 1,265 presentations were non-urgent. Investment is required to establish an ambulatory care service as an alternative to ED for treating patients with acute, non-urgent conditions. The review showed 33% of the presentations required “care-patient review” which involved review of wounds, referrals from GPs for further review, return for repeat blood tests including International Normalised Ratio (INR) and administration of Antibiotics; 22% required “care-medication administration” requiring a range of medications to be administered including antibiotics via IV and PICC line
- Casino and District Memorial Hospital ED is of limited capacity, and the design and functionality do not support contemporary models of care. Refurbishment of the ED to improve capacity and functionality is a high priority for the service
- The need for an Outpatient’s Clinic in Casino is considered a priority. A specialist medical respiratory service is a significant gap in services in the Casino region. The type of ED presentations and inpatient admissions indicate an increasing demand from the community for respiratory services. These patients could be more appropriately treated through a Respiratory Outpatients Clinic to provide earlier specialist medical input providing better management of patients in the community and avoid some ED presentations, admissions and support patients post-discharge



- An Outpatients Clinic model of care with Consultant VMOs that also provides medical specialist support to GP VMOs and CMOs providing medical governance in ED and inpatient areas is needed.

### BALLINA DISTRICT HOSPITAL:

- Ballina District Hospital ED also has a significant proportion of acute, non-urgent presentations and further development of HITH with strong, local medical governance is required
- Ballina District Hospital over a 6 month period in 2012 indicated of the combined total of 603 Triage 4 and 5 ED presentations, 11% of total ED presentations during the 6 month period were planned and unplanned repeat visits to the ED, many of which were patients >65 years of age
- An Aged Care Transitional Nurse Practitioner position is needed to manage the increasing demand for services by older people living in the Ballina LGA
- An ambulatory care service model to more appropriately treat lower acuity ED presentations is needed. It should be colocated with ED and the services should be integrated with HITH. An option for consideration is the storage room at the rear of the ED for this purpose.

### KEY ISSUES

- The design and layout of many of the older hospital EDs fall well below optimal functionality and have limited capability to expand to meet increasing demand for services, or adapt to deliver contemporary models of care
- The current size of The Tweed Hospital and Lismore Base Hospital EDs is insufficient to meet current and future needs
- Stage 3 Redevelopment of Lismore Base Hospital will provide a capital solution and include an expanded and redesigned ED. The challenge will be to manage increasing demand for ED services in a less than optimal physical environment until a new ED is built in 2016
- The ED at Casino and District Memorial Hospital does not have the capacity to meet the current demand nor the functionality to support contemporary models of care
- Murwillumbah District Hospital and Ballina District Hospital are at risk of piecemeal developments, poor functionality and limitations in the efficient delivery of services.

### Access and Patient Flow:

- There is a need for better access to 24 hour pathology and radiology services to improve streamlining of patient processing to decrease the time in ED. This is a key issue at The Tweed, Grafton Base, Maclean District and Murwillumbah District Hospitals
- Radiographer is required on-site at The Tweed Hospital and Grafton Base Hospital 24/7 rather than relying on on-call out of hours service
- Limited access to pathology and radiology affects the efficiencies in diagnostic treatments for ED and greater access to imaging services and modalities are required at The Tweed Hospital

- Allied Health services are predominately available during office hours rather than responding to the needs of EDs and the community. Improved access to Allied Health professionals, in particular Physiotherapists and Social Workers are required out-of hours to facilitate timely patient assessment, support improved patient flow and enable well-planned discharges. Allied Health should be available 7 days/week and out of hours
- Lismore Base Hospital ED competes with inpatient demand for limited Clinical Pharmacy and Allied Health services resulting in no access to these services with the exception of Social Work in crisis situations
- Lismore Base Hospital ED Physicians cannot admit patients to specialist Drug and Alcohol acute care beds. These patient requiring admission are discharged from ED with referral to the Drug and Alcohol Intake Officer, waiting in the community for 2 to 4 weeks for a Drug and Alcohol acute care bed
- Implementation of NEAT targets will require development of short stay models of care in inpatient areas that may have received short-term care in ED (in the past) for greater than 4 hours and discharged from ED e.g. receiving oral rehydration therapy or observation after low risk head injury
- There is a gap in paediatric specific ED models of care to support achievement of NEAT targets
- Across the LHD there is a lack of a medical day procedure units for routine procedures (other than chemotherapy). Availability of out of hours wound management and IV administration clinics would avoid non-urgent ED presentations
- Better access to Aboriginal Health services is needed in Tweed Heads, Grafton and Maclean. Aboriginal Health Liaison Officer positions remain vacant at The Tweed and Maclean District Hospitals which is a barrier to providing follow-up of Aboriginal people in the community increasing the risk of ED representations
- There are recurring occasions of bed block resulting in ambulances backed up outside the Lismore Base Hospital ED.

#### **Increasing Acuity in ED Presentations:**

- Growth in the acuity and complexity of ED patients increases the need for rapid assessment models of care that enable earlier intervention by senior clinicians with particular focus on Triage 1, 2 and 3 patients
- Ballina District Hospital ED CMOs currently provide medical governance overnight in the ED and inpatient areas. Overnight medical workforce staffing will need to be reviewed with any increases in occupancy, inpatient bed numbers, or increases in demand for ED services.

#### **Alternative to ED and Hospital Models of Care:**

- Lower acuity ED presentations (Triage 4 and 5) account for the majority (57%) of NNSW LHD total ED presentations. Whilst it is acknowledged that an estimated 25% of Triage 4 and 5 patients are expected to be admitted to inpatient units, reviews of these presentations at various EDs indicate many of the presentations are acute and non-urgent presentations. Some presentations are GP type patients or have conditions

amenable to alternative to ED and hospital models of care such as HITH and medical, specialist Outpatient Clinics. Greater investment is required in these models of care

- Combined Triage 4 and 5 ED presentations (47,521) at the nine peripheral ED sites account for 26% of the LHD total ED presentations. Table 47 indicates there is an opportunity for greater investment in HITH at District Hospitals
- Limited community access to GPs, Outpatient Clinics (especially respiratory, diabetes and renal) and follow-up post discharge contributes to repeat presentations and readmissions. An investment in contemporary models of care has focused on the two Rural Referral Hospitals with only limited investment in the District Hospitals where the demand for these services is growing
- An estimated 30 GPs in Murwillumbah do not provide extended operating hours resulting in GP type patients presenting to ED after 6.00pm, on weekends and public holidays. Table 47 indicates a lack of GP extended hour services. Joint planning with the North Coast NSW Medicare Local is required to improve community access to GP services after 6.00pm
- The Richmond Clarence Health Service Group has a lower than State average bulk billing rate with the Northern Rivers General Practice Network advising that the percentage of services bulk billed by Commonwealth Electoral Division (based on patient enrolment postcode) in 2009/10 (year of processing) for the electorate of Page was 71.5% compared to the overall NSW bulk billing rate for 2008/09 of 77.2%. This has generated a growing number and proportion of primary care type presentations to the Lismore Base Hospital ED
- The Richmond Clarence Health Service Group has a significant population of socially disadvantaged people who often present to local health services, including EDs, in crisis. This group includes transient people, those experiencing mental health issues, and minority groups such as Indigenous people
- Significant proportion of repeat and lower acuity ED presentations are by older persons >65 years of age. Growth in an ageing population is increasing the demand for new models of care that specifically focus on the older person such as the Aged Care Nurse Practitioner role. This model of care are required to improve collaboration with RACFs to address the increasing number of nursing home patient presentations in ED
- ED Nurse Practitioner models of care at smaller ED sites such as Nimbin and Kyogle (under trial) have been successful. An ED Nurse Practitioner model of care should be established at Urbenville, Bonalbo and Kyogle to share the workload of the limited number of GP VMOs to assist preserving this workforce and play an important role in delivering ambulatory care services and an effective conduit with HITH services
- Service integration between EDs and HITH services has not been achieved across all sites resulting in limited or no access by EDs to these services
- Where there is a strong medical governance model and clear referral processes, HITH services are used well
- Consultations with EDs identified that medical governance arrangements with some HITH services are not clearly understood and result in limited utilisation of the service.

### Specialist Services:

- Overall there are significant gaps in specialist medical services for respiratory, diabetes, renal and urology in many NNSW LHD rural communities which account for a significant proportion of ED presentations, representations and readmissions.
- In Casino there is a significant gap in respiratory services and in Grafton gaps are in ophthalmology, urology and orthopaedics
- The need for medical, specialist outpatient clinics is considered a priority. An Outpatient Clinic model of care with Consultant VMOs would also provide specialist medical support to GP VMOs and CMOs in ED and inpatient areas
- The need for integrated stroke services including early access to a stroke thrombolysis program
- Mental Health presentations put pressure on current ED resources and generate unnecessarily long lengths of stay:
  - Mental Health ED Admission Performance is assessed from the point of arrival in the ED rather than when the patient is identified as requiring a Mental Health Assessment.
  - Mental Health Assessment is a lengthy process, requiring specialist input and if the presentation is out of hours, the availability of mental health support is limited, leading to delays in the completion of an assessment and subsequent patient discharge or transfer
  - Most EDs request mental health services should be extended to support timely access to specialist services
- Ballina District Hospital ED does not have access on-site to CT, MRI and Ultrasound. ED patients are transported regularly to Ballina CBD to access private radiology service providers. A review of transfers over a 6 month period in 2012 indicates 365 ED patients were transported to Ballina CBD, an average of two patients per day:
  - The majority of patients (252) required CT, 110 for Ultrasound and three for MRI.
  - An escort nurse is required to transport patients. The NSW Ambulance Service is contacted to provide the transports. Many of these are non-urgent transports and are treated as low priority by the NSW Ambulance Service resulting in patients staying longer in ED
  - These delays result in delays in clinical decision making and disposition of ED patients
  - The cost of engaging the NSW Ambulance Service to transport these patients costs approximately \$1,000, double the price of a CT.

### ICT and Equipment/New Technology:

- There is now a heavy reliance on ICT technologies which are pivotal to the operation of hospitals and delivery of clinical services particularly in critical care areas including ED. Rapid growth in the eMR, FirstNet and “real time” clinical systems such as eMR, imaging and data management cannot sustain prolonged disruptions in the network
- A planned approach for replacement of medical equipment is needed. An equipment technology program for critical care equipment is required to progressively replace older

equipment with new technologies. Compatibility of medical devices and the recording of associated data and images, access to the hospital network and interface with eMR needs to be considered when purchasing new technology.

### **Clinical Networking:**

- The LHD lacks a LHD-wide ED forum for EDs to standardise ED processes, share education and training resources, manage data and enable benchmarking between EDs
- Telemedicine is an important tool in providing clinical support, education and training to outlying hospital EDs. While the equipment for Telemedicine has been installed in most EDs, the clinical networking from the Telemedicine hub at The Tweed Hospital and Lismore Base Hospital EDs is not fully operational. Telemedicine from Lismore Base Hospital ED will not be operational until the Stage 3 Redevelopment is completed
- Insufficient inter-hospital patient transport profoundly limits the ability of District Hospital EDs to ensure timely transfer of patients to The Tweed Hospital and Lismore Base Hospitals, which is a significant barrier to the effective networking of services
- NNSW LHD is reliant on the NSW Ambulance Service to provide these services at significant cost. Many of these transports are not considered by the NSW Ambulance Service to be a priority resulting in delays in transport and patients staying longer in ED
- Limited access to specialised transport for inter-hospital transfer of acutely unwell mental health patients is a significant issue. Limited access results in delays in transfers with acutely unwell mental health patients staying longer in small rural hospitals which are not equipped to treat and manage these patients. Delays in transport often results in delays in specialist treatment
- Clarification concerning the role of NSW Police and the NSW Ambulance Service in transporting acutely unwell mental health patients to and between rural/regional hospitals is required. Staff report these agencies are sometimes reluctant to transport these patients resulting in significant delays in patients receiving timely and appropriate care.

### **Organ Donation:**

- District Hospitals managing the medical, legal and ethical issues and family needs associated with organ and tissue donation indicate processes prescribed in NNSW LHD Clinical Pathways for organ and tissue donation where death has been confirmed by irreversible cessation of all functions of the person's brain (brain death)<sup>68</sup> and irreversible cessation of circulation of blood in the person's body<sup>69</sup> are essential but very time consuming for District Hospitals. The organ donation process involves another layer of work, the retrieval of a critical care patient placing significant workload on limited available staff to initiate these procedures locally while continuing managing a clinical workload in ED
- NSW organ donation recipients are required to travel to the nearest major metropolitan NSW hospital that performs organ transplant surgery. For NSW residents, these hospitals are located in Sydney. NNSW LHD organ recipients are required to travel to Sydney for

<sup>68</sup> NNSW LHD Clinical Pathway NC-NNSW-PRO-6155-12, *End of Life: Organ and Tissue Donation after Brain Death*

<sup>69</sup> NNSW LHD Clinical Pathway NC-NNSW – PRO-6283 – 12: *Organ and Tissue Donation after Cardiac Death*

transplant surgery and ongoing specialised care when these services are available in Brisbane; two hours travel time from NNSW LHD.

### 8.3.2 INTENSIVE CARE AND HIGH DEPENDENCY SERVICES

Intensive Care services manage patients with life threatening or potentially life threatening conditions.

#### CURRENT SERVICES

NNSW LHD has two ICUs and three HDUs that provide services 24 hours a day, 7 days a week. These Units provide varying levels of service consistent with the service role delineation. These Units are located as follows:

- ICU/HDU located at The Tweed Hospital
- ICU/HDU at Lismore Base Hospital and
- HDU at Grafton Base Hospital.

High-level Coronary Care Units (CCUs) are collocated with the ICU/HDU at The Tweed and Lismore Base Hospitals providing role delineation level 5 services with the capacity to ventilate patients.

**Table 48: NNSW LHD Profile of ICU/HDU Services**

NNSW LHD Health Service Group	Hospital	Role Delineation	ICU/HDU Beds		
			ICU	HDU	(Capacity to Ventilate)
<b>Tweed Byron</b>	The Tweed	5	5	2	5
<b>Richmond Clarence</b>	Lismore Base	5	9	4	5
	Grafton Base	4	0	4 <sup>70</sup>	0
<b>NNSW LHD Total</b>			<b>14</b>	<b>9</b>	<b>(10)</b>

Source: NSW Health AORTIC Data Base

The Tweed Hospital and Lismore Base Hospital provide high level (role delineation 5) Intensive Care services and is the clinical hub for intensive and high dependency services within the Tweed Byron and Richmond Clarence Health Service Groups. Grafton Base Hospital provides role delineation level 4 HDU services only.

Services provided by NNSW LHD ICU/HDU include:

- Treatment of critically injured patients performing the role of designated trauma centres
- Treatment of critically ill patients from the ED
- Provision of complex post-operative care after planned, complex surgery
- Central vascular access device support service (CVADs)
- Provision or supervision of specialised procedures e.g. Transoesophageal Echocardiograph (TOE)

<sup>70</sup> Surge capacity to 5 beds

- Total Parenteral Nutrition (TPN) service for the hospital
- Membership of the Medical Emergency Team call service
- Provision of Rapid Response Team for The Tweed Hospital and Lismore Base Hospital including Mental Health and Cancer Services on-site
- Provision of in-reach and outreach specialist ICU/HDU services to inpatient units and smaller rural hospitals providing advice, assessing and managing patients after an acute deterioration in condition including nursing support for complex patient care issues.

The Tweed Hospital and Lismore Base Hospital Intensive Care and High Dependency services are actively involved in the professional development of medical and nursing critical staff. They provide advanced accreditation for ICU specialist training and conduct a critical care nursing course and are actively involved in undergraduate/resident education programs. These Units link with Griffith University, Queensland University of Technology and New England University for the provision of post graduate critical care education.

The Intensive Care Clinical Nurse Consultant for the Richmond Clarence Health Service Group also provides ongoing education and support to nurses working in the HDU at Grafton Base Hospital. The Director of HDU was appointed as a full-time position at Grafton Base Hospital in January 2013.

### CURRENT ACTIVITY

- NSW LHD ICU/HDU admissions increased by 127 admissions or 8%, since 2009/10, from 1,563 to 1,689 patients in 2011/12. Trends in ICU/HDU admissions over the 3 years from 2009/10 to 2011/12 indicated in Table 12 show:
- The Tweed Hospital experienced significant growth (18%) in ICU/HDU admissions. The greatest growth (26%) was in ICU patients and an 11% growth in HDU patients. Coupled with the Apache Score (Table 13), this analysis indicates The Tweed Hospital ICU/HDU patient cohort is complex, and increasing admissions and reduced ALOS from 3.4 to 2.9 days suggests an increased rate of patient turnover
- At Lismore Base Hospital, there was an overall 3% growth in ICU/HDU admissions. With procedures included, the ICU/HDU experienced a 12% growth. Procedures increased from 76 to 137 during this period
- Grafton Base Hospital experienced a 12% reduction in HDU admissions with an increasing ALOS between 2010/11 and 2011/12 however in the first 6 months of 2013 (January-June) there were around 329 admissions to the HDU at Grafton Base Hospital
- The majority of ICU/HDU admissions are emergency admissions from ED or post-operative emergency surgery
- The Tweed Hospital has a greater proportion of post-operative surgical patients than Lismore Base Hospital
- The average patient age of ICU/HDU patients in 2011/12 was 63 years and Aboriginal people accounted for 6% of admissions to Lismore Base Hospital ICU/HDU, 5% at Grafton Base Hospital and 2% at The Tweed Hospital ICU/HDUs.



**Table 49: NNSW LHD ICU/HDU Activity 2009/10 – 2011/12**

	The Tweed Hospital			Lismore Base Hospital			Grafton Base Hospital		
	2009	2010/11	2011/12	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
<b>ICU</b>	245	258	308	198	373	199			
<b>HDU</b>	271	261	301	394	180	412	378	338	332
<b>Procedures</b>				76	187	137			
<b>Total</b>	<b>516</b>	<b>519</b>	<b>609</b>	<b>668</b>	<b>740</b>	<b>748</b>	<b>378</b>	<b>338</b>	<b>332</b>
<b>Bed days</b>	1,735	1,759	1,754	2,383	2,363	2,347	1,588	1,442	2,025
Indicative ALOS	3.4	3.4	2.9	3.6	3.2	3.1	4.2	4.3	6.1
Number Invasive Ventilated Patients (% of Total)	188 (36)	176 (34)	178 (29)	164 (25)	143 (19)	146 (20)	22 (6)	12 (4)	15 (5)
Invasive Ventilation (hours)	15,591	17,500	15,361	12,484	10,048	8,885			
Number of Non-Invasive Ventilated Patients (% of Total)	17 (3)	120 (23)	87 (14)	87 (13)	76 (10)	99 (13)	22 (6)	33 (10)	29 (9)
Non-Invasive Ventilation (hours)	332	3,606	2,831	3,199	3,172	4,459	452	644	862
<b>Patient Source</b>									
Emergency Department (% of Total)		211 (41)	251 (41)	254 (38)	242 (33)	228 (30)	285 (75)	225 (67)	212 (64)
Post-Operative Patients (% of Total)	158 (31)	205 (39)	226 (37)	211 (32)	211 (29)	217 (29)	36 (10)	41 (12)	54 (16)
Other IPU's		95	117	180	242	252	55	72	63
Other Hospitals		8	15	23	45	50	2		2
<b>Deaths</b>	32	61	70	63	39	63	12		13
<b>Average Age (years)</b>		63	64	62	61	62	58		63
<b>ATSI</b>		7	12	44	31	45	22		16
Elective Admission (% of Total)		144 (28)	168 (28)	152 (23)	146 (20)	161 (22)	68 (18)	52 (15)	88 (27)
Emergency Admission (% of Total)		375 (72)	441 (72)	434 (65)	407 (55)	448 (60)	302 (80)	283 (84)	228 (69)
Other (Inc Procedures & Monitoring Only)	96			82	186	139	8	3	16

Source: NSW Health AORTIC Data Base. (TTH 2009 activity data derived from TTH ICU/HDU).

The table below indicates the complexity of ICU/HDU patients treated at The Tweed Hospital and Lismore Base Hospital are comparable with other regional and tertiary ICUs in Australia.

**Table 50: NNSW LHD Profile of ICU/HDU Acuity and Complexity 2011/12**

MEAN APACHE SEVERITY ILLNESS SCORE	2012
The Tweed ICU	56.31
Lismore Base ICU	47.97
All Regional ICUs in Australia	48.02
All Metropolitan ICUs in Australia	54.40
All Tertiary ICUs in Australia	53.97
All Private ICUs in Australia	41.41

*Source: NSW Health AORTIC Data Base*

## FUTURE DEMAND

### THE TWEED HOSPITAL - PROJECTED ACTIVITY

Projected activity for ICU/HDU is usually provided by NSW Ministry of Health. Due to problems with data collection this modelling may not provide an accurate picture of demand for ICU /HDU services at The Tweed Hospital into the future. As this modelling is currently not available it is proposed that based on a comparison with Lismore Base Hospital projected activity that a minimum of 12 HDU/ICU beds would be required in 2016/17 and 16 in 2021/22. These projections are indicative only and will need to be revised should the Service proceed to a later stage of planning. A 16 bed unit will enable the implementation of contemporary models of care and an optimal staffing profile. It is proposed that the integrated unit would not differentiate between ICU and HDU beds but instead provide acuity adaptable standardised rooms with associated services infrastructure to all beds. This will enable beds to be used flexibly as required, rather than having to move patients.

### LISMORE BASE HOSPITAL - PROJECTED ACTIVITY

The following table summarises the modelling undertaken to forecast future ICU and HDU activity. These activity projections are based on the targeted flow reversal model.

**Table 51: Projected ICU/HDU Activity to 2021/22**

	Projected hours based on ICU Role Delineation Level 5 averages			Projected hours based on LBH averages		
	2009	2017	2022	2009	2017	2022
<b>Projected ICU and HDU Hours</b>						
Non-urgent admissions	14,384	17,580	19,917	9,469	11,637	13,187
Urgent admissions	45,871	49,927	56,786	44,682	47,587	53,796
Total Hours	60,256	67,507	76,702	54,151	59,224	66,983
<b>ICU / HDU Bed Requirements:</b>						
Assume 100% occupancy	6.9	7.7	8.8	6.2	6.8	7.6
<b>Assume 75% occupancy</b>	<b>9.2</b>	<b>10.3</b>	<b>11.7</b>	<b>8.2</b>	<b>9.0</b>	<b>10.2</b>

Source: Statewide and Rural Health Service and Capital Planning, NSW Ministry of Health

Due to problems with data collection the modelling detailed above may not provide an accurate picture of demand for ICU /HDU services at Lismore Base Hospital into the future. It is therefore proposed that an integrated 12 bed ICU/HDU is established to meet future demand in 2017 with an additional four ICU beds required in 2022. A 16 bed unit will enable the implementation of contemporary models of care and an optimal staffing profile. It is proposed that the integrated unit would not differentiate between ICU and HDU beds but instead provide acuity adaptable standardised rooms with associated services infrastructure to all beds. This will enable beds to be used flexibly as required, rather than having to move patients. It is proposed that the ICU/HDU would be separately managed from the CCU. The CCU would be managed as part of the acute cardiology service.

## CURRENT MODELS OF CARE

Intensive Care and High Dependency Units operate under a “closed” model of care whereby the admission, discharge and referral is under the control of the Intensivists with clear delineation of responsibility and treatment management. Admission to these Units is by direct referral, with the majority of referrals coming from ED and the Operating Theatres. They have the flexibility to adjust bed utilisation within the Unit based on demand. At times of high ICU demand HDU patients will be treated in other appropriate units such as CCU or other wards.

The Tweed and Lismore Base Hospitals provide an in-reach specialist service to inpatient units at both hospitals providing advice, assessing and managing patients after an acute deterioration in condition. The two Rural Referral Hospitals work in combination with smaller rural hospitals within each Health Service Group to form a network of intensive and high dependency care services. This service networking enables The Tweed Hospital and Lismore Base Hospital to provide an outreach service to smaller rural hospitals, providing higher level clinical expertise to support the clinical management and disposition decision making of patients with complex health needs and/or

deteriorating conditions and the transfer of patients from smaller sites to the appropriate facility including The Tweed Hospital or Lismore Base Hospital, NSW or Queensland Hospitals for tertiary or quaternary level care.

Clinical networking has been formalised between Lismore Base Hospital ICU/HDU and Grafton Base Hospital HDU with a Telemedicine facility installed in the ICU/HDU at Grafton Base Hospital linked to the Lismore Base Hospital ICU. This provides specialist input into daily ward rounds at Grafton Base Hospital HDU by an Intensivist based at Lismore Base Hospital. Introduction of this 'virtual rounds' strategy has been highly successful. It also plays a dual role of supporting case management and providing education. Telehealth support to ICU/HDU at Grafton Base Hospital has been formalised and policies and procedures developed to ensure ongoing support to Clinicians at Grafton Base Hospital ICU/HDU by Lismore Base Hospital ICU Clinicians.

Other models of care provided by The Tweed and Lismore Base Hospitals include:

- Central vascular access device support service (CVADs) including management of central, PICC and dialysis lines
- Total Parenteral Nutrition (TPN) service for the hospital
- Membership of the Medical Emergency Team call service
- Provision of Rapid Response Team for The Tweed Hospital and Lismore Base Hospital including Mental Health and Cancer Services onsite.

### FUTURE MODELS OF CARE

Intensive Care and High Dependency services should be treated as a separate stream to Coronary Care.

The Tweed and Lismore Base Hospitals are both challenged by insufficient ICU/HDU beds. Additional ICU and HDU beds are required to meet the demands of a growing and ageing population and increasing complexity of surgery. Projections in the ageing population indicate future investment in HDU services is required.

The Tweed Hospital and Lismore Base Hospital have identified the need for 'special care areas' in inpatient units to support the patient journey and transition of care from ICU/HDU to the wards. There is a need for special care areas in the two Rural Referral Hospitals. These will be designated areas within inpatient units to provide a more focused, higher level of care to patients post discharge from ICU/HDU. Standardised clinical pathways will be important to support the continuum of care and expedite patient journey to discharge into the community. This model of care is consistent with the direction taken in the State Plan for ICU/HDU services currently under-development by the NSW Agency for Clinical Innovation (ACI) in partnership with Intensive Care Clinical Monitoring Unit (ICCMU).

There is a need for a specialist vascular access clinician or team to support patients in acute care hospitals and the community. The Tweed Hospital and Lismore Base Hospital consider this a priority but have differing approaches to resolving this gap in these services.

Expansion and further development of the ICU/HDU in-reach and outreach models of care is required to improve the detection and early intervention in the management of deteriorating patients. The Tweed Hospital and Lismore Base Hospitals agree this role should be formalised by establishing a dedicated liaison position to provide a direct link between ICU/HDU services, inpatient units and smaller hospitals. Lismore Base Hospital proposed future model of care involves the establishment of an ICU/HDU Nurse Practitioner Liaison position which also supports patients in the community with Bi-Level Positive Air Pressure (BiPAP), Continuous Positive Airway Pressure (CPAP) and CVADs.

Future ICU/HDU services should be built as a part of a “Critical Care Hot Floor”, a purpose-built nucleus of critical care services designed to improve patient care and clinical outcomes bringing together intensive care, high dependency and coronary care in close proximity to one another.

#### THE TWEED HOSPITAL

There is a need to plan for an interim expansion of the ICU to meet increasing demand and to improve the functionality of the ICU/HDU in the short term. This could include:

- Opening a satellite HDU to meet immediate demand
- Meet the demand for postgraduate critical care education
- Improvements to the Medical Emergency Team call system at The Tweed Hospital
- Improve access to after-hours pathology and radiology at The Tweed Hospital for ICU/HDU patients
- Review staffing resources in ICU/HDU to allow bed flexing options (i.e. adequate staffing to allow transition from ICU to HDU type care).

#### LISMORE BASE HOSPITAL

- HDU type patients to be colocated and administered under a single operational system rather than having HDU beds distributed across wards.

#### KEY ISSUES

- The demand for ICU/HDU services outweighs the supply of services
- The number of Intensive Care and High Dependency services in NNSW LHD is insufficient to meet current and future demand
- There is limited access to tertiary and quaternary ICU beds outside the NNSW LHD (Sydney, Newcastle, Gold Coast and Brisbane) which will continue to place increasing pressure on limited beds at The Tweed and Lismore Base Hospital ICUs requiring ongoing coordination of retrieval and transfers of critical care patients
- NNSW LHD ICU/HDU services play an important role in implementing processes to enable partnership with patients in decisions about their care, not only informed consent to treatment but importantly, treatment-limiting orders. Further development of these processes is needed to ensure patients; family and their carers are informed and involved in decision-making. It is anticipated models of care that further support this will be articulated in the State Plan for ICU/HDU services currently underdevelopment
- There are delays in retrieving and transferring critical care patients to Queensland and NSW Tertiary Referral Hospitals especially patients requiring higher level specialist neurology services. This result in quaternary level type patients staying longer at The Tweed and Lismore Base Hospitals requiring a higher-level of skill and placing an increased workload on nursing and medical staff. This is further discussed in section 8.3.3 of this Plan
- There is growing demand to expand the role of ICU/HDU in providing in-reach and outreach critical care services to inpatient units within The Tweed and Lismore Base Hospitals and smaller hospitals within the two Health Service Groups
- ICU/HDU services in the two Health Service Groups are developing independently of each other and opportunities for coordinating services, sharing resources, setting standards

and benchmarks, planning workforce and developing consistency in models of care across the LHD is being missed

- Data management systems for monitoring and providing feedback on service activity data and patient flow indicators consistent with the NSW LHD 2013/14 Service Agreement between the NSW Ministry of Health and NSW LHD needs to improve. The performance of Critical Care Services is highlighted in Service Measures relating to Safety and Quality as well as Patient Flow
- There are gaps in services in the community with very limited clinical expertise in supporting patients using BiPAP and CPAP and requiring support with CVADs in the community. These patients become re-presentations to ED and readmissions to inpatient units and ICU/HDU
- Further investment and development of new models of care for the provision of ICU/HDU in-reach and outreach services to improve detection and intervention in the management of deteriorating patients in inpatient units and smaller Health Service Group hospitals
- Allied Health services are predominately available during office hours and need to be available 7 days/week and out of hours to support ICU/HDUs. Improved access to physiotherapists and social workers is required to facilitate timely patient assessment, support improved patient flow and enable well-planned discharges which are important in achieving patient flow related targets. Social Work services are especially needed on the weekends when relatives visit. This workload is falling on nursing staff whose focus is on providing critical care
- Expected workforce shortages associated with the retirement of an ageing, skilled workforce over the next 10 to 20 years will coincide with an increasing demand for health services by an ageing population. Critical care areas will feel the impact of these changes
- NSW LHD current ICU/HDU services are not equipped to manage bariatric patients. Should a bariatric patient require retrieval and transport for quaternary care there would be extended delays to access the appropriate Ambulance from Newcastle to provide road transport to the nearest Tertiary Referral Hospital
- Physical infrastructure of many of the older ICU/HDU is inadequate and:
  - Adversely impacts on the Units functionality and the capability to expand to meet increasing demand for services. The Tweed Hospital and Lismore Base Hospital require significant capital investment to increase ICU/HDU bed base and capacity of these services
  - Provides insufficient space for new and expanding ICT requirements and increasing amount of medical devices and equipment intrinsic to the delivery of critical care clinical practice
  - There is insufficient numbers of single rooms to treat critical care patients with Intensive Care Clinical Monitoring Unit (MRO). There is high demand and competition for a limited number of single rooms impacting on patient flows
  - The number of single rooms is insufficient to treat patients with behavioural conditions associated with mental health illness, substance abuse and drug

overdose. Dedicated areas within ICU/HDU need to be purpose built with more single rooms with 'safe room' features

- An equipment technology program for critical care is required that provides a planned and coordinated approach to progressively replace critical care equipment with new technologies. Compatibility of critical care medical devices and the recording of associated data and images, access to the hospital network and interface with eMR needs to be considered when purchasing new technology
- Critical Care services have a heavy reliance on ICT technologies. Rapid growth in the eMR, FirstNet and "real time" clinical systems including imaging and data management cannot sustain prolonged disruptions in the network.

### THE TWEED HOSPITAL

- Demand for ICU/HDU services currently outweighs the supply of services. Growth in the surrounding population and associated increase in demand from ED and planned, complex post-operative patients is placing significant pressure on limited ICU/HDU beds. The need for additional ICU/HDU at The Tweed Hospital is further supported by the outcomes of two, 3 month audits of ED patients who were identified as clinically appropriate for admission to The Tweed Hospital ICU/HDU but 70-100 patients were transferred to other ICU/HDUs due to lack of available beds. Growth in admissions and decreasing ALOS (2.9 days) indicates an increasing turnover of patients with patients being discharged earlier to inpatient units with patients to be "specialised" on wards and increasing the complexity of patients and associated workload in inpatient units
- In the short-term The Tweed Hospital need access to additional ICU/HDU beds to manage this demand until a capital solution can be provided. A short-term plan for ICU/HDU should include renovation to provide additional beds (e.g. refurbishment of an office space) and consideration be given to creating a "satellite area" to acquire additional beds until a new unit can be purpose built as part of The Tweed Hospital redevelopment. Access to additional HDU beds is a priority for The Tweed Hospital.

### 8.3.3 TRAUMA SERVICES

The term 'trauma' refers to patients who have sustained physical injury. The aim of a trauma system is to provide a coordinated and systematic means of recognising patients who potentially may have suffered serious injury, and transferring these patients in a timely manner to definitive specialist trauma care, matching the needs of the injured to the appropriate level of care.<sup>71</sup>

NNSW LHD Trauma Services consist of a network of critical care services which operate within a broader network of acute care services in NSW and Queensland to support a regionalised trauma system.

Trauma services consist of the following key elements:

- Pre-hospital care provided by the NSW Ambulance Service and medical retrieval services 'that take the ED to the patient' providing immediate treatment and disposition decision making
- In-hospital critical care services including emergency medicine and intensive care

<sup>71</sup> NSW Trauma Services, NSW Health Selected Specialty and State-wide Service Plans Number 6, December 2006



- Post-acute rehabilitation and community based services
- Education to develop a skilled trauma workforce
- Research, data management and evaluation.

## CURRENT TRAUMA SERVICES

The combination of critical care services and role delineation levels for ED, Emergency Surgery, Intensive Care and High Dependency services determines the hospitals capability to treat trauma patients. Table below provides a trauma service capability profile for NNSW LHD.

**Table 52: NNSW LHD Trauma Service Capability Profile**

NNSW LHD Health Service Group	Hospital	Trauma Designation	Role Delineation		
			ED	Operating Theatres	ICU/HDU
<b>Tweed Byron</b>	<b>The Tweed</b>	<b>Regional Trauma Centre</b>	5	6	5
	Murwillumbah	Feeder Hospital	3	4	3
	Mullumbimby	Feeder Hospital	2	0	0
	Byron Bay	Feeder Hospital	2	2	2
<b>Richmond Clarence</b>	<b>Lismore Base</b>	<b>Regional Trauma Centre</b>	5	6	5
	Ballina	Feeder Hospital	3	3	3
	Casino	Feeder Hospital	3	3	3
	Grafton	Feeder Hospital	3	4	4
	Kyogle	Feeder Hospital	2	0	0
	Maclean	Feeder Hospital	3	3	3
	Nimbin	Feeder Hospital	2	0	0
	Urbenville	Feeder Hospital	2	0	0

Source: NNSW LHD Planning & Performance Unit.

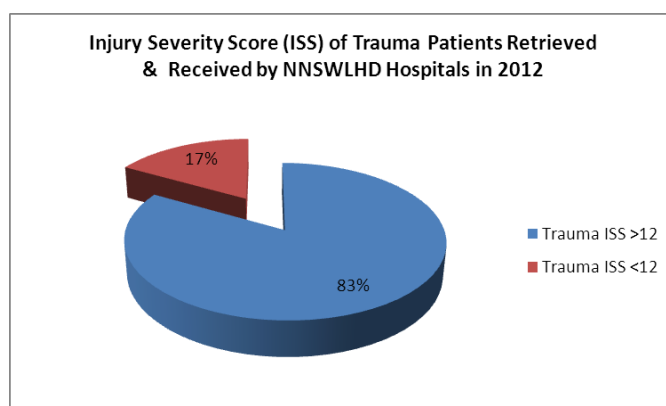
## CURRENT ACTIVITY

In 2012, an estimated 156 trauma patients were provided emergency treatment at NNSW LHD hospitals. The majority of these patients were retrieved from the trauma incident site (primary retrieval) and transferred directly by the NSW Ambulance Service to NNSW LHD Regional Trauma Centres the Lismore Base Hospital or The Tweed Hospital. 30 of the 156 patients were initially treated at NNSW LHD District Hospitals referred to as feeder hospitals.

The following figure indicates the majority of trauma patients treated by NNSW LHD hospitals 129 (83%) patients had severe injuries with an Injury Severity Score (ISS) >12 and the majority (49%) of these patients were admitted to NNSW LHD hospitals for ongoing critical care. This requires ED,

ICU/HDU and Operating Theatre staff to maintain high-level competency in trauma and critical care skills.

**Figure 15: Injury Severity Score of Trauma Patients Treated by NNSW LHD Hospitals in 2012**

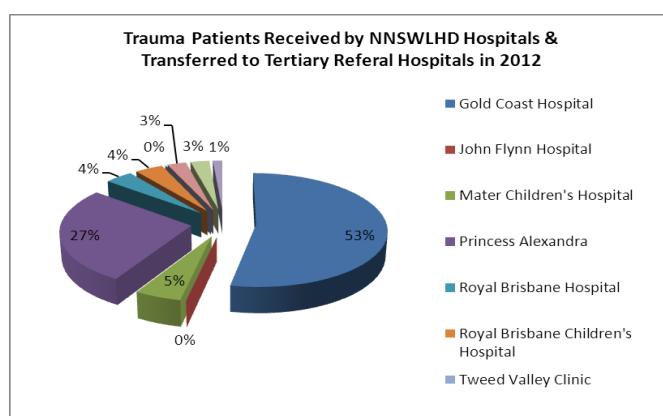


Source: State-wide Trauma Registry, NNSW LHD Trauma Injury Management System 2012

There are limitations in ISS methodology. Lower scored injuries can require intensive resourcing. For example, a spinal injury can have an ISS score of 4 as their presenting condition may not be life threatening but still require treatment and transfer for quaternary care. Also the score measures the severity of injury but not co-morbidities the patient may have at the time of trauma.

The following figure indicates 50% (n=78) of patients required retrieval from NNSW LHD hospitals after initial treatment and were transferred by the NSW Ambulance Service or Queensland Coordination Centre to the tertiary referral hospitals for definitive care. The majority of patients (n=74) patients were transported to Queensland Hospitals with the majority transferred to the Gold Coast Hospital (53%). Only four patients were transferred to NSW Hospitals with Grafton Base Hospital transferring four patients, two patients to Coffs Harbour Health Campus and two patients transferred to John Hunter Hospital.

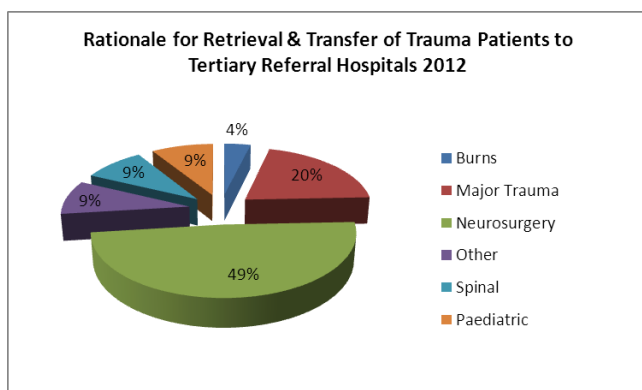
**Figure 16: Dispositions of NNSW LHD Trauma Patients**



Source: State-wide Trauma Registry, NNSW LHD Trauma Injury Management System 2012

As indicated in the following figure the majority of trauma patients were transferred for quaternary care in neurosurgery.

**Figure 17: Primary Reasons for Transfer of NNSW LHD Trauma Patients**



Source: State-wide Trauma Registry, NNSW LHD Trauma Injury Management System 2012

## FUTURE DEMAND

Data through the State-wide Trauma Registry has only been collected for the last 2 years. From 2011 there has been a 5% growth in trauma patients treated by NNSW LHD hospitals with an estimated 148 trauma patients in 2011 and 156 in 2012. Growth in trauma is expected to increase with population growth.

## KEY ISSUES

- There is insufficient intensive care services within NNSW LHD and limited access to tertiary and quaternary ICU beds outside the NNSW LHD (Sydney, Newcastle, Gold Coast and Brisbane) which will continue to place demands on The Tweed and Lismore Base Hospitals to manage timely patient transfers
- NSW Ministry of Health policy and guidelines for trauma services and critical care tertiary referral networks focus on networking with NSW Tertiary Referral Hospitals with only limited acknowledgement of NNSW LHD cross-border flows to Queensland. Alignment of future NSW Ministry of Health policy directives for critical care networking is required
- NNSW LHD experiences delays in retrieving and transferring critical care patients to Queensland and NSW Tertiary Referral Hospitals discussed in 8.3.4 of this Plan
- Patients who have sustained spinal and/or head injuries require quaternary level, acute care and are likely to require specialised sub-acute rehabilitation. The majority of these patients are transferred to Queensland Tertiary Referral Hospitals and (to a lesser extent) to NSW Tertiary Referral Hospitals for definitive acute care. These patients remain in these locations for their post-acute rehabilitation episode of care and are unable to be treated closer to home because these type of rehabilitation services are not available in NNSW LHD. Gaps in services in NNSW LHD for adolescent/young adult neuromedical/neurosurgical and orthopaedic rehabilitation result in these patients staying extended periods disconnected from family and home. Additional to this, NNSW LHD EDs have had difficulties accessing Queensland Tertiary Referral Hospital acute care beds for patients who are likely to require rehabilitation services. Queensland Tertiary Referral Hospitals have been reluctant to admit NSW patients who are likely to occupy limited Queensland rehabilitation beds for extended periods
- Data collection and analysis for State-wide Trauma Registry, the Institute of Trauma Injury Management (ITIM) system is currently undertaken by the Clinical Nurse

Consultant Trauma. This clinical expertise would be more effectively utilised by coordinating/supporting the continuum of care of trauma patients through their journey from critical care to rehabilitation and discharge back to the community rather than data management.

### 8.3.4 EMERGENCY RETRIEVAL AND TRANSFER

The key objective of emergency retrieval and transfer is to minimise the transport time to when the critically ill or injured patient receives definitive care.

#### CURRENT EMERGENCY RETRIEVAL AND TRANSFER SERVICES

There are two specialist medical retrieval services which undertake the majority of retrieval services across NSW. Medical retrieval teams are provided by:

- Aeromedical and Medical Retrieval Services (AMRS)
- Newborn and Paediatric Emergency Transport Services (NETS).

Patients transferred from NNSW LHD Hospitals to other hospitals for definitive care are transported using a number of different options including Road Ambulance, Air Ambulance, Helicopter, NETS retrieval, Care Flight retrieval and Wing Away, a private company providing air transport.

The NSW Ambulance Service is responsible for the provision of the AMRS. AMRS provides a central point of contact for retrieval of critical patients and collaborates with Regional Retrieval Services and Aeromedical Operations Centre which is responsible for the State-wide coordination and management of adult aeromedical retrievals in conjunction with the Regional Retrieval Services and the State-wide coordination and management of neonatal and paediatric retrievals by NETS, part of the Sydney Children's Hospitals. AMRS also provides advice by experienced retrieval consultants.

The accredited AMRS is provided from Lismore Base Hospital, with the Westpac Helicopter covering a 300 km radius from Lismore including to Queensland. Lismore Base Hospital coordinates adult, primary (from retrieval site) and secondary (hospital to hospital transfers) retrieval services in collaboration with the NSW Ambulance and the Westpac Helicopter which is contracted to the NSW Ambulance Service. The current helipad is located on Bangalow Road approximately one kilometre from the Hospital.

Lismore Base Hospital medical retrieval service has a designated Senior Medical Director and employs 1.5 FTE Registrars to accompany the Westpac Retrieval Helicopter Service based in Lismore. There are also part time CMOs.

The NSW Ambulance Service Medical Retrieval Unit liaises with the Lismore Base Hospital ED to arrange secondary retrievals from 'feeder' hospitals as/when required and the NSW NETS retrieval provides specialised retrievals for neonates and children when available. Otherwise a local retrieval team is used. If the Lismore Base Hospital Team does not have the required skills, the Mater Children's Hospital from Brisbane undertakes retrieval for neonates.

The Regional Retrieval Service based at Lismore comprises of:

- The Westpac Life Saver Rescue Helicopter
- Medical Retrieval Consultants. This role is provided by Emergency Medicine Physicians at Lismore Base Hospital
- Medical Retrieval Team. The Team comprises of an Emergency Medicine Physician (usually a Medical Registrar) and a flight Intensive Care Paramedic.

The ambulance service is available 24 hours per day / 7 days per week and provides a range of emergency transport services including:

- Primary emergency calls within each community of the North Coast
- Transporting critically ill and injured patients between smaller hospitals to the larger Base Hospitals for emergency care
- Transporting mental health patients between mental health facilities for further definitive care.

The Queensland Newborn Emergency Transport Service coordinates transfer of the majority of neonatal patient retrievals from The Tweed Hospital. Mater Children's Hospital from Brisbane also retrieves neonates and children.

The Tweed Hospital and Lismore Base Hospital EDs coordinate time-critical retrieval and transfer of critical care patients within the Tweed Byron and Richmond Clarence Health Service Groups. Lismore Base Hospital coordinates with AMRS and The Tweed Hospital liaises with Queensland Coordination Centre. The Queensland Coordination Centre will liaise with AMRS.

The Tweed Hospital rarely contacts AMRS for air retrieval of critical care patients due to the close proximity of The Tweed Hospital to the Gold Coast and Brisbane Hospitals and the proximity of The Tweed Hospital to the Byron Bay District, Mullumbimby and District War Memorial and Murwillumbah District Hospitals. Road Ambulance with a medical retrieval team is more appropriate than air retrieval.

### FUTURE DEMAND

Continued growth in the NNSW LHD population and demand for critical care services will continue to require a robust system for the safe retrieval and transport of time-critical transfers for critical care patients.

### KEY ISSUES

- There are delays in time-critical retrievals of patients to tertiary centres in Queensland as there is no formal agreement with Queensland Health to accept critically ill/injured patients from NSW
- NNSW LHD uses two service providers for the emergency retrieval and transfer of critical care patient, the Queensland Coordination Centre and the NSW Ambulance Service. 'One point of call' is then required that enables the NNSW LHD Rural Trauma Centres or Critical Care Units to make only one phone call to access both the AMRS and the Queensland Coordination Centre to discuss retrieval and disposition requirements. An immediate interface with both agencies is needed to expedite the bed finding process in Queensland or NSW, reduce delays and double handing of detailed medical information and avoid senior clinicians making multiple phone calls that take them away from the patient
- The use of two service providers for transferring critical care patients from The Tweed Hospital results in equipment issues. The requirement for monitoring equipment to be transferred with the patient means it must be secured into differently configured ambulances. As a result there are sometimes delays and refusals to transfer with unsecured equipment

- In the case of primary retrievals from within the Tweed Byron Health Service Group region, the NSW Ambulance Service often travels past The Tweed Hospital to Queensland Tertiary Referral Hospitals as they can be reached within 1 hour and comply with Ambulance Protocol T1. Some trauma cases may have benefited from joint clinical decision making, better communication and coordination between the NSW Ambulance Service and The Tweed Hospital to facilitate a staged approach to the transfer of some patients from the trauma site to The Tweed Hospital and then onto a Tertiary Referral Queensland Hospital
- Air retrieval from NNSW LHD hospitals to NSW Trauma centres such as John Hunter Hospital and Royal North Shore Hospital involves extended travel times deploying limited fixed or rotary wing resources and medical retrieval teams out of area leaving NNSW LHD unresourced for prolonged periods
- There are delays in retrieval of patients to tertiary centres in Sydney or Newcastle as a fixed wing aircraft is required and a medical retrieval team needs to be mobilised to support the transfer
- The new helipad at the Gold Coast Hospital is expected to reduce the travel time of trauma patients originating from the Tweed Valley being transported by rotary wing travel to the Gold Coast Hospital. This is expected to reduce the number of trauma patients being flown to The Tweed Hospital for treatment
- Staffing is insufficient to support 24/7 medical retrieval service.

## 8.4 PALLIATIVE CARE

Palliative care is provided for people of all ages who have a life limiting illness, with little or no prospect of a cure, and for whom the primary treatment goal is quality of life (World Health Organisation 1998). This definition is inclusive of both a malignant and non-malignant illness.

Overall, approximately 85-90% of people who use palliative care services in NNSW LHD have a diagnosis of cancer. The remaining 10-15% have non-malignant progressive diseases such as Advanced Organ Failure, AIDS and Degenerative Neurological Diseases.

### CURRENT SERVICES

A wide range of palliative services are provided across the LHD in public hospitals and by Community Nurses and Allied Health staff. The Senior Staff Specialist Palliative Care Physician based at Lismore provides medical and clinical services across the Richmond Health Service Network. This position also provides consultancy and support to local GPs. The Service is managed under the LHD Allied Health and Chronic Care Service.

There are nine designated specialist palliative care beds at St Vincent's Private Hospital in Lismore. This service is funded on a contractual basis and provides acute palliative care services to the Lismore Base Hospital catchment and a larger catchment which includes the Richmond Clarence Health Service Group and Byron LGA.

NNSW LHD has three Specialist Palliative Care Community Services. The specialist teams are located in the Tweed, Richmond and Clarence Valleys. The specialist palliative care teams are comprised of Clinical Nurse Consultants, Clinical Nurse Specialists, Registered Nurses and Social Workers. The Richmond Specialist Palliative Care Community Service is the only team with access to a Palliative Care Medical Specialist.

The Richmond Community Palliative Care Service is part of the Lismore Community Health Service providing services to patients/clients in public hospitals and the community, and acts in consultation and liaises with GPs, Community Nursing Teams, RACFs, private nursing agencies, clients, carers and their families. The catchment for the Richmond Community Palliative Care Service covers the Richmond Valley and the Byron LGA.

In the Tweed LGA, the Specialist Palliative Care Service provides services in both community and inpatient settings. Services are primarily provided by generalist community nurses that are based in the community and a GP VMO based at The Tweed Hospital. Services provided include assessment and referral, symptom management, case management, bereavement, consultation, education and training. There is limited provision of after-hours telephone support services and no after-hours home visits. At The Tweed Hospital there are six beds on a shared medical ward that are generally utilised as palliative care beds.

In the Clarence LGA, the Specialist Palliative Care Service also works in both community and inpatient settings. This specialist service is supported by generalist community nurses and allied health staff who are based in the community. There are four palliative care beds planned for the Maclean District Hospital that will provide services for the lower end of the Clarence Valley. The NNSWLHD is presently exploring options to provide clinical consultation via Telehealth to local GPs and clinicians.

### CURRENT MODELS OF CARE

The Palliative Care Service aims to operate as an integrated service across both inpatient and community care settings. Palliative care provides relief from pain and other distressing symptoms and offers a support system to help the family cope during the patient's illness and in their own bereavement.

The provision of palliative care services is seen as having four phases. These encompass the provision of:

- Supportive Care - for clients receiving active treatment for their condition who will benefit from palliative medicine/nursing consult services
- Palliative Care – for clients with a life limiting illness whose management plan does not include advanced life support management and who have a current advance care directive
- Terminal Care – for clients who are bed bound and expected to die within 5 days
- Bereavement Care – for families/ carers who require ongoing counselling.

The Palliative Care Service has a focus of ensuring that support is provided to people with life limiting conditions in the home environment, with less reliance on in-hospital care, in reflection of consumer preferences. In order to achieve this shift, the Service has focused recent efforts on developing a more community-based model of care with increased involvement of local GPs. Development of this model of care will provide a more sustainable service capable of meeting the increased demand of patients with life limiting conditions including those with end-stage organ failure, neurodegenerative and other terminal conditions as well as cancer diagnoses. This new model of care is described below under Future Models of Care.

Patients are accepted for palliative care via an intake and registration process. Registration means that the patient and their family are able to access the services provided in the community and also have access to the inpatient unit should the need arise. It also means they have access to a pool of loan equipment, contracted after-hours nursing care and social work services. After death, there is bereavement follow-up for the next of kin.



St Vincent's Private Hospital Palliative Care Unit is funded by NNSW LHD to provide specialist inpatient care and, where appropriate, ongoing care for patients with complex needs associated with life-limiting illness, in partnership with primary care providers. The Palliative Care Service provides consultation-based assessment and care as appropriate for patients with life limiting illness, their caregivers and family.

### PROJECTED REQUIREMENTS

Demand for palliative care services is expected to increase substantially over the next 10 years due to population growth and ageing in this catchment region. The incidence of cancer in NNSW LHD is increasing at a rate of around 3% per annum which will have a cumulative impact of over 30% increase in the population demand for a diagnosis that currently accounts for over 85% of total demand for palliative care services in NNSW LHD.

Of equal importance is the recognition that patients with many other chronic conditions such as end-stage cardiac, respiratory and renal disease and neuro-degenerative conditions have a need for end of life care and access to appropriate palliative care services.

Consultations indicate that the community wishes to have access to options including support to die at home and the option of care in an appropriate hospital setting where there is space for people to die in a home like environment with their families around them. The increasing requirement for supportive care, palliative care and end of life care will require an enhancement of both specialist and primary palliative care services.

There is a need to ensure palliative and supportive care is available for everyone who needs it and the term 'end of life' care (as opposed to palliative care which is associated with cancer) is used to encompass the range of services required.

### FUTURE MODELS OF CARE

In the desired model of care the GP is defined as the principle case manager. A standard formal assessment and care plan will be developed for all new palliative care patients in partnership with local GPs. A community "End of Life" pathway for terminal care in community settings will be developed and adopted which includes access to medication, equipment and access to specialist support where required. The pathway should facilitate easy access to inpatient beds should it be required and home discharge should it be preferred.

The role of the specialist palliative care service is to support and complement the care provided by primary care services including interdisciplinary assessment, consultation, and when required, ongoing care for those patients who require more complex end of life care, in conjunction with their primary care providers.

The aim will be to ensure the availability of best practice palliative care so that people who are dying and their families and carers are able to access it regardless of age, disease process, timing or care setting. The service will be multidisciplinary and integrated across both hospital and community settings in partnership with GPs, LHD hospital and community services, RACFs and volunteers.

In order to provide best practice palliative care the Service will have a commitment to ongoing education at both public and professional levels, research and quality development.

### KEY ISSUES

- Increasing demand for Medical Specialist hours and the need to increase hours is one of the key identified needs of the Palliative Care Service

- There is no Palliative Care Specialist in the Tweed LGA which has been identified as a major barrier by the North Coast NSW Medicare Local
- There is a need to increase resourcing of palliative care services, to enable earlier engagement of appropriate palliative care services for patients with life-limiting illnesses. It is expected that this will, in turn, enable improved symptom management, knowledge of care and treatment options and prevent unnecessary admission to acute facilities
- There is a need to improve clinical support to Clarence Valley and Murwillumbah in provision of specialist palliative care services
- Achieving smoother, more seamless transitions for patients between multiple care settings in which palliative care services may be provided including hospital inpatient care, palliative care services, GP practices, community based services, RACFs and patients' homes is critical to improving the patient journey
- The need to increase awareness of end of life issues, both in the general community and amongst health professionals to facilitate more timely conversations about treatment options, the dying process, avoiding futile or unwanted treatments, advance care planning and awareness and control of symptoms
- New models of care are needed which include the local GP as case manager and utilisation of Nurse Practitioners to provide palliative care services and in-reach palliative care into acute facilities.

## 8.5 RENAL SERVICES

Renal Services across Australia provide significant resources for the provision of dialysis treatment for end-stage renal disease. There has been a progressive increase in the proportion of people with renal disease caused by diabetes, particularly diabetes type 2 with rates rapidly increasing with advancing age. Population groups at particular risk of diabetes are older people, Aboriginal people and some sections of the overseas-born population. Within NNSW LHD the high Aboriginal and ageing population will contribute to a rising rate of diabetes. This will in turn impact upon future demand for renal dialysis services in NNSW LHD.

Strategic leadership is provided to Renal Services by the NNSW LHD Manager Renal Services. This position is hosted by NNSW LHD and also provides a leadership role for the MNC LHD Renal Services. There are two VMO Renal Physicians and a Staff Renal Physician at Lismore Base Hospital and three VMO Renal Physicians at The Tweed Hospital. Nurses skilled in the highly specialised renal field are required for both haemodialysis and peritoneal dialysis services across the LHD. These positions are often difficult to fill and ongoing education is provided by Renal Nurse Educators and Clinical Nurse Educators to ensure all staff have the highly specialised skills required.

### CURRENT SERVICES

#### CENTRE AND SATELLITE DIALYSIS UNITS

There are four Dialysis Units in the Richmond Clarence Health Service Group. The nine chair In-Centre Dialysis Unit at Lismore Base Hospital functions as a high level Dialysis Centre for the Richmond Clarence Health Service Group. The In-Centre Unit has a regular cohort of chronic dialysis-dependent patients; provides dialysis to the Lismore Base Intensive Care and Cardiac Units; provides acute after hours on-call dialysis services and manages acutely unwell patients from the other three Dialysis Units in the Richmond Clarence Health Service Group.

The other three Dialysis Units in the Richmond Clarence Health Service Group are a seven chair Satellite Dialysis Unit located at Ballina District Hospital; a nine chair Satellite Dialysis Unit located at Grafton Base Hospital; and a privately operated 10 chair Nephrocare Dialysis Unit located at St Vincent's Private Hospital in Lismore. These Units all provide dialysis to chronic dialysis-dependent patient cohorts. In total the Richmond Clarence Health Service Group has 35 public and private dialysis chairs.

The Tweed Hospital has a 12 chair In-Centre Dialysis Unit providing all non-home-based dialysis treatments within the Tweed Byron Health Service Group. The Dialysis Unit currently operates two shifts per day, 6 days per week providing dialysis to a regular cohort of chronic dialysis-dependent patients plus acute after-hours services for cardiac-monitored and ICU patients. Additional Dialysis Services are also located across the border in Queensland at the Gold Coast Hospital and Robina Campus. The Gold Coast Hospital provides acute dialysis and plasma exchange services predominantly to inpatients of the Gold Coast Hospital. The Robina Campus has a 22 chair Dialysis Unit and a Peritoneal Dialysis Home Training Unit.

#### HOME DIALYSIS TRAINING UNITS

The Richmond Clarence Health Service Group has two well-established Home Dialysis Training Services. There is a two chair Home Haemodialysis Training Unit at Ballina District Hospital and a two chair Home Peritoneal Dialysis Training Unit at Lismore Base Hospital. Both Home Training Units provide training to residents from both NNSW LHD and the MNC LHD. Due to proximity, many Tweed LGA residents choose to access Home Training Services at either Robina or Southport in South East Queensland. The Tweed Hospital has recently commenced a limited Home Peritoneal Dialysis Training program to train and support Tweed residents.

#### CHRONIC KIDNEY DISEASE NURSE PRACTITIONER, RENAL CASE MANAGERS, OUTREACH NURSES AND TRANSPLANT COORDINATORS

The Richmond Clarence Health Service Group has a Chronic Kidney Disease Nurse Practitioner. The Nurse Practitioner's role is to work with GPs, AMS, Community Health Services and Allied Health professionals to promote awareness of renal disease and to slow deterioration in renal function in patients with early signs of renal disease.

Both the Tweed Byron and Richmond Clarence Health Service Group have Renal Case Managers. The Renal Case Managers care for patients with renal impairment who have worsening renal function but who are not yet dialysis-dependent. The Case Managers continue the work of the Nurse Practitioner in slowing renal function deterioration and also play a significant role in patient choice and planning for conservative renal management or home dialysis therapy. The Case Managers work with Nephrologists, GPs and other health professionals.

The Home Dialysis Training Units teach patients how to provide their own dialysis therapy in the convenience of their own homes and continue to support patients via Outreach Nursing Services when they return home after their training. Both Home Training Units also provide Monday to Friday phone support services and visit patients in their homes at a minimum of every 3 months and more frequently as determined by individual patient need. The Home Haemodialysis Unit also provides 7 day a week technical support and after-hours nursing phone support services.

The Renal Case Manager and Outreach roles are intrinsic to Home Dialysis Programs. The Case Manager helps the patient plan to start home dialysis therapy and the Outreach Nurses support the patient on home dialysis. Without these roles Home Dialysis Programs fail and patient numbers on home therapy decline. Staff/patient ratios in both these roles need to be maintained as patient numbers increase.

The Tweed Byron Health Service Group and the Richmond Clarence Health Service Group have staff working in Renal Transplant Coordination roles. The Renal Transplant Coordination roles work with Transplant Teams in Sydney and Brisbane to activate patients with renal failure on the National Kidney Recipient Register. Activation of patients and potential donors is complex and lengthy and requires time and skilled staff to activate potential organ recipients.

## CURRENT ACTIVITY

As detailed in the table below, in 2011/12 there were 193 patients receiving regular renal dialysis in NNSW LHD of these 193 patients, 60 (31%) were receiving their dialysis at home.

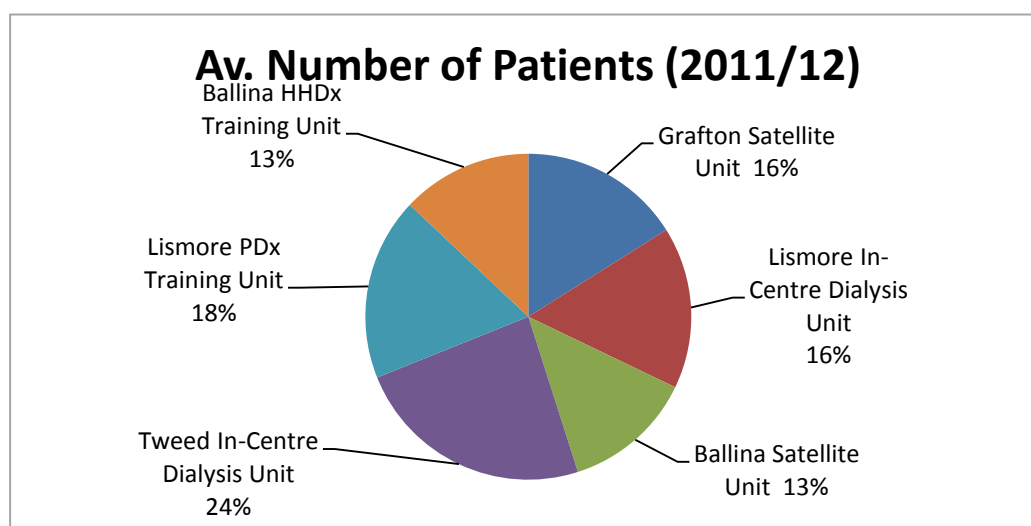
**Table 53: Number of Patients on Dialysis by Location and Treatment Centre, 2010/11**

Northern NSW Renal Dialysis Services	Av. Number of Patients (2011/12)
Grafton Satellite Unit	31
Lismore In-Centre Unit	31
Ballina Satellite Unit	25
The Tweed In-Centre Unit	46
Lismore – Peritoneal Dialysis (PDx) Training Unit	35
Ballina – Home Haemodialysis (HHDx) Training Unit	25
<b>TOTAL</b>	<b>193</b>

Source: Manager, Renal Services, Northern NSW

The following figure details the proportion of patients receiving in-centre dialysis by Treatment Centre.

**Figure 18: Proportion of Patients Receiving Dialysis Treatment by Location and Treatment Centre, 2010/11**



Source: Manager, Renal Services, Northern NSW

## CURRENT DIALYSIS CAPACITY

In 2013, NNSW LHD has 37 dialysis chairs located at four hospitals (as indicated in the following table). These chairs have the capacity to provide for a maximum 148 patients with each of the Dialysis Units operating two shifts per day, 6 days per week. At present both the Tweed In-Centre and Ballina Satellite Units are operating at maximum capacity with no scope to accommodate additional patients. Both Lismore and Grafton Dialysis Units are operating at over 85% of available capacity.

**Table 54: In-Centre and Satellite Dialysis Unit Capacity and Current Patient Numbers, 2013**

Hospital	Number of Chairs	Patient Capacity	Current Patients
Grafton Satellite Unit	9	36	31
Lismore In-Centre Unit	9	36	31
Ballina Satellite Unit	7	28	28
The Tweed In-Centre Unit	12	48	48
<b>TOTAL</b>	<b>37</b>	<b>148</b>	<b>138</b>

Source: Manager, Renal Services, Northern NSW

### FUTURE DEMAND AND CAPACITY

If demand continues to increase at the rate of around 3-5% per annum, NNSW LHD will have 220-235 patients on both home and hospital dialysis in 4 years (2017) and 245-275 patients in 2021.

Achievement of 40% of patients on home dialysis modalities by 2021 would provide for around 100 patients out of the expected 245-275 projected patient numbers. This would leave 145-175 patients requiring access to dialysis chairs, a demand in excess of the current maximum capacity. Increasing the proportion of renal dialysis patients on home modalities from the current 31% towards the 40% target represents a significant challenge given some of the physical, social and psychological barriers for patients.

The planned redevelopment of the Lismore In-Centre Dialysis Unit includes relocation and expansion of the Unit from the existing nine chairs to 12 chairs in 2016 and 18 chairs in 2021. Construction of the new Lismore Base Hospital In-Centre Unit is expected to commence in 2014. This expansion does not address the current and future capacity issues at Ballina Satellite Unit.

The Tweed Hospital Clinical Services Plan recommends redevelopment of the Tweed In-Centre Unit to include 22 chairs by 2021. This projection is for residents across the Tweed Byron Health Service Group but does not address the current capacity issues at the Tweed In-Centre Dialysis Unit. There is potential to provide additional dialysis capacity and accommodate some of the expected growth in demand through the development of a Satellite Dialysis Unit at Murwillumbah District Hospital. This option has not been examined in detail at this time.

### CURRENT MODELS OF CARE

NNSW LHD promotes home based dialysis as the first treatment choice for patients with end stage renal failure through strategies detailed in the *Supporting Home-Based Dialysis Implementation Plan 2009-2014* developed by the former NCAHS. This Plan aims to achieve a target of 50% of dialysis patients on home-based dialysis. The LHD promotes home-based dialysis as the first treatment choice for patients with end-stage renal failure and assumes home dialysis is the default treatment for all patients unless clinical or social factors preclude them from receiving home care. Strategies include a Multidisciplinary Team approach and Renal Case Managers working with Renal Outreach Nurses to support dialysis patients in their homes to increase survival time on home dialysis therapy.

### FUTURE MODELS OF CARE

Changes to the presentation of renal disease over the last decade mean that health services have better opportunities to direct resources into preventative strategies targeting life style changes. The primary cause of end-stage renal disease is now diabetes. Early detection and prevention programs aimed at improving diabetes control will reduce the number of people developing end-stage renal

disease. In association with these programs there is a need to develop new and responsive models of care focusing on early diagnosis, intervention, care and education regarding renal disease.

As the population ages there is an increasing need to look at the needs and best outcomes for elderly patients with renal impairment. There is increasing evidence that patients over 80 years of age live as long without dialysis therapy as they do with dialysis therapy. Clinical pathways for patients who choose conservative treatment rather than dialysis need to be developed with Advanced Care Directives embedded in the pathways to ensure patient's choices are respected.

Young patients, including children, with kidney disease associated with injury or early onset conditions have particular care requirements. They may be suitable for home haemodialysis or home-based peritoneal dialysis while they are awaiting transplantation. Suitable models tailored to children and younger patients should be considered with appropriate links to paediatric and youth services.

### KEY ISSUES

- There will be an ongoing and increasing demand for in-centre and satellite dialysis. At present there is no spare capacity at The Tweed and Ballina Hospitals to accommodate increasing demand in the short to medium term
- Grafton Base Hospital Renal Dialysis Unit needs to be moved to a more accessible location
- Attracting and retaining specialist medical and nursing workforce is an ongoing issue for Renal Services
- Limited local vascular access and peritoneal catheter surgical services impact on timely patient referral and intervention
- Service delivery to patients with chronic illnesses is fragmented; there needs to be greater integration and coordination of existing services to improve access and care coordination and to reduce duplication
- Targeted supports, education and training resources are required to improve renal health in Aboriginal communities
- Increasing demand for non-emergency health related transport is a major issue for renal dialysis patients in NNSW LHD, particularly in respect of the flexibility required to access evening shifts and for patients living in more remote locations
- An ageing population and growing incidence of diabetes will result in increased numbers of people affected by chronic renal failure. In turn there will be increasing demands on limited dialysis resources. There is a need for the development and implementation of renal disease prevention and intervention strategies appropriate for the elderly and for diabetic patients
- Leadership is required to oversee and plan for improved renal services networked across the LHD.

## 8.6 CARDIOLOGY

The term *cardiovascular disease* covers all diseases and conditions of the heart and blood vessels. Cardiovascular Diseases are one of Australia's leading health problems. Coronary heart disease and heart failure are among the major contributors to the cardiovascular burden in Australia.

The risk for cardiovascular disease strongly increases with age, is higher for Aboriginal people, and people from lower socio-economic groups. Coronary heart disease, also known as ischemic heart disease, is still the largest single cause of death in Australia.

## CURRENT SERVICES

Within NNSW LHD, all hospitals provide care for patients with coronary heart disease and heart failure. Due to differences in resources and role delineation, the level of ongoing and clinical support services varies in both scope and nature between each site. Smaller sites across the LHD provide assessment, consultation, stabilisation and patient transfer as required.

Cardiology Services are provided at role delineation level 5 at The Tweed Hospital and Lismore Base Hospital and are supported by a level 5 Coronary Care Unit and level 1 Cardio-Thoracic Surgery. Cardiac Specialists and coronary care units are provided at both The Tweed Hospital and Lismore Base Hospital. There has been some progress on key issues and recommendations over the past few years, and this has resulted in improved patient flow and access to best practice services.

Patients with chest pain that present to a hospital are risk stratified using the Acute Coronary Syndrome (ACS) algorithm to determine their appropriate treatment modality. Some patients at high risk may require immediate intervention for an acute episode including Percutaneous Coronary Intervention (PCI), or investigative angiography. Other patients with an intermediate risk may require further investigation prior to diagnosis or the most appropriate form of treatment.

Low risk patients can generally be discharged with follow up in the community by their GP and/or Cardiologist. For intermediate risk patients, exercise stress testing should be available from the ED in order to re-stratify them into a high risk stream for admission, or a low risk stream for patients who can be safely discharged home.

Patients who present at other smaller sites within the Health Service Groups are referred to The Tweed Hospital or Lismore Base Hospital for immediate exercise stress testing, or booked for outpatient exercise stress testing as required. The stratification assessment process is streamlined by the Cardiac Assessment Nurse who assists with timely access to exercise stress testing and/or referral to Cardiac Rehabilitation.

Cardiology Services are provided at role delineation level 5 at The Tweed Hospital and Lismore Base Hospital and are supported by a level 5 Coronary Care Unit and level 1 Cardio-Thoracic Surgery. At The Tweed Hospital there are five Coronary Care Unit beds and at Lismore Base Hospital there are four beds.

Services provided by NNSW LHD Coronary Care Units include:

- Treatment for patients with a primary cardiac diagnosis including acute myocardial infarction – ST elevation myocardial infarction (STEMI) and non-ST elevation myocardial infarction (NSTEMI), cardiac rhythm disturbances, congenital cardiac conditions, cardiomyopathy, acute and chronic cardiac failure, acute pulmonary oedema which may or may not require non-invasive ventilation and infective cardiac conditions
- Treatment of critically ill patients from the ED
- Provision of in-reach specialist service to inpatient units providing advice and assessing and managing patients in inpatient units after an acute inpatient deterioration
- Transfer of deteriorating in-patient or post-operative/post-procedural patient who has experienced a cardiac event.



Coronary Care Units are supported by allied health staff including social work, occupational therapy, physiotherapy and speech therapy as required. The Tweed Hospital provides a suite of Cardiac Services that support the Coronary Care Unit and the ED. These additional services include:

- Provision of 7 day per week exercise stress testing service
- Physiology Measurement Laboratory
- Cardiac Assessment Nurse
- Cardiac Rehabilitation
- Aboriginal-specific Cardiac Rehabilitation
- Heart Failure Rehabilitation.

NNSW LHD access to other Specialist Cardiology Services includes:

- A Cardiac Catheterisation Laboratory for diagnostic services was commissioned at Lismore Base Hospital in April 2010 and commenced interventional procedures in 2012
- The Gold Coast Hospital has a Cardiac Catheterisation Laboratory performing diagnostic angiograms and routine and emergency interventional procedures. Future plans at Gold Coast University Hospital include an additional two laboratories for the provision of diagnostic and interventional coronary procedures
- Elective coronary angiography and permanent pacemaker insertion services are provided at Gold Coast University Hospital and Princess Alexandra Hospital in Brisbane through a referral arrangement
- For emergent time-critical patients, services are also provided by John Flynn Hospital through contractual arrangements
- The Tweed Hospital provides limited Echocardiography services through a contracted arrangement with two Cardiologists at John Flynn Hospital. Improvements in the delivery of Echocardiography services at The Tweed Hospital could be achieved through the addition of a technician position and appropriate equipment at The Tweed Hospital
- The Tweed Hospital patients have access to a 5 day/week exercise stress testing service through the Cardiac Assessment Nurse.

### CURRENT MODEL OF CARE

Cardiology Services at Lismore Base Hospital and The Tweed Hospital are provided at role delineation level 5 supported by level 5 Coronary Care Units. Services include high-level inpatient care; temporary pacemaker insertion, non-invasive investigations such as Echocardiographs and exercise stress testing. At Lismore Base Hospital there are currently two VMO Cardiologists and one Staff Specialist and an advanced Trainee. Lismore Base Hospital is looking towards employing a fourth cardiologist in the near future. There are five Physicians and one Cardiologist providing care to cardiac patients at The Tweed Hospital.

The demand for inpatient Echocardiography services has increased dramatically over the past few years, and is an essential requirement of modern medical care. Patients requiring Echocardiography include cardiology, renal, oncology, neurology, intensive care, preoperative, mental health inpatients and others. Timely access to Echocardiography is critical in reducing length of stay for many hospitalised patients. Echocardiography is currently provided on a part time basis at Lismore, Tweed and Grafton Hospitals; this service is required at least full time at Lismore Base and The Tweed Hospitals with increased in-hospital service required at Grafton Base Hospital. This service is unable

to cater for current Echocardiography demand. Patients are prioritised, with only the high priority patients able to be serviced on any day. Currently there is a Paediatric Echocardiography service at the Gold Coast Hospital which provides services from visiting Brisbane Cardiologists, there may be opportunity in the future for Paediatric Echocardiography at Lismore Base Hospital.

Elective coronary angiography and permanent pacemaker insertion services are provided by tertiary hospitals in Sydney, Gold Coast University Hospital and Princess Alexandra Hospital in Brisbane. For emergent time critical patients, services are also provided by John Flynn Hospital through contractual arrangements.

Clinical pharmacy input for Cardiology is essential in ensuring patients are discharged with a good understanding of their new medicine regimens, promote compliance and reduce readmissions. Community up-titration of specific cardiology medications is important in reaching therapeutic levels and the communication of titration guidelines between the hospital and General Practice is an essential component of this. Linkages to community pharmacists are also an important part of this role. Until recently there was a Clinical Pharmacist in Cardiology at Lismore Base Hospital, this position is currently vacant and awaiting recruitment. This service is not available at The Tweed or Grafton Base Hospitals as well as the smaller sites of Ballina and Murwillumbah District Hospitals.

### 8.6.1 CARDIAC REHABILITATION AND HEART FAILURE SERVICES

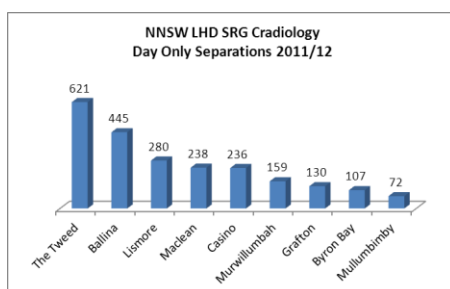
Cardiac Rehabilitation and Heart Failure Services are delivered across NSW LHD. Many patients still do not attend Cardiac Rehabilitation for a variety of reasons, and NSW LHD is currently below the NSW Health target of 60% of cardiac patients commenced and 90% completed rehabilitation. This contributes to the readmission of potentially avoidable cardiac presentations due to the absence of education and risk behaviour modification provided by the Cardiac/Heart Failure Rehabilitation Programs.

Recent enhancements to the Cardiac Rehabilitation, Exercise Stress Testing and Heart Failure services through Chronic Disease Management Program funding will improve service access and provision across the LHD. Additional work to improve the access of Aboriginal patients into mainstream cardiac rehabilitation services, as well as provide designated Aboriginal specific services where required, is ongoing.

#### CURRENT INPATIENT ACTIVITY CARDIOLOGY

There were 7,118 separations from NSW LHD Hospitals for SRG Cardiology in 2011/12 accounting for 18,028 beddays. Of these 13% were Day Only (n=2,333) and 87% Overnight (n=4,785). Between 2009/10 and 2011/12 Overnight separations remained stable while beddays declined by 11%. Day Only separations increased by 42% in the same period.<sup>72</sup>

**Figure 19: NSW LHD Day Only Separations (n>25) for SRG Cardiology 2011/12 by Hospital**

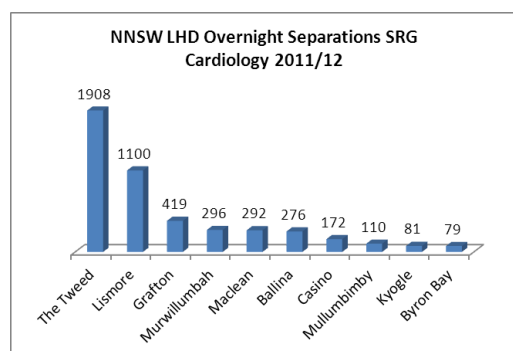


Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

<sup>72</sup> Does not include Diagnostic Cardiology at Lismore Base Hospital as these are seen as outpatients

Of the total 4,785 Overnight separations from NNSW LHD Hospitals for SRG Cardiology in 2011/12, the majority, 40% were from The Tweed Hospital, 22% from Lismore Base Hospital, 9% from Grafton Base Hospital and 6% from Murwillumbah District Hospital with the remaining separations from other facilities within the LHD.

**Figure 20: NNSW LHD Overnight Separations for SRG Cardiology (>25) 2011/12 by Hospital**



Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

During 2011/12 a total of 562 inpatients at The Tweed Hospital were transported to John Flynn Hospital to receive interventional cardiology treatments. Lismore Base Hospital Cardiac Catheterisation Laboratory became fully operational in May 2010 and has now conducted 2,308 successful diagnostic procedures, all of which have been conducted without incident in a safe and well managed facility. An Interventional Cardiologist (Staff Specialist) was appointed in January 2012. Lismore Base Hospital Cardiac Catheterisation Laboratory commenced performing Interventional procedures in March 2012 and has now conducted 175 successful interventional procedures.

## FUTURE DIRECTIONS

Given the growing demand and time critical nature of the provision of diagnostic and interventional cardiology services, the staged implementation of The Tweed Hospital Clinical Services Plan proposal to improve access to diagnostic and interventional cardiology services for residents of The Tweed Hospital catchment is essential. The LHD will need to plan for an increase in the number of cardiologists and associated support staff at The Tweed Hospital as part of development of a planned interventional cardiac catheter laboratory. As the Lismore Cardiac Catheter Laboratory moves to increase the availability of the Interventional Service, increased nursing staff and cardiologists will also be required. Improved access to Echocardiography is also required at Lismore Base, The Tweed and Grafton Base Hospitals.

A medical specialist outpatient and ambulatory model of care will need to be further developed at Lismore Base and The Tweed Hospitals. The facilities required for these services are highlighted in the Lismore Base and The Tweed Hospital Clinical Services Plans.

## FUTURE MODELS OF CARE

Clinical Services Plans for Lismore Base Hospital and The Tweed Hospital propose a future model of care based on an integrated cardiac care centre model (Cardiac Zone) at both facilities. The integrated care centre model will cover the breadth of services across the care continuum:

- Cardiology inpatient beds
- Coronary Care Unit
- Clinical measurements
- Transitional care services which support patient discharge planning and post-acute care

- Cardiac Outpatient services
- Cardiac Rehabilitation services
- Cardiac Education services.

Future models of care could also include telephony/internet support for cardiac rehabilitation patients from throughout the LHD, who are unable to attend current site based programs. This could be provided through Skype [or similar service], iPad, iPhone or tablet based technology. Technology advances in Cardiac Services are anticipated to include the use of communication technologies for patient reviews.

A dedicated medical specialist outpatient and ambulatory cardiology clinic is required at both Lismore Base Hospital and The Tweed Hospital. This Clinic would provide outpatient consultations, diagnostic services such as Echocardiography, exercise stress testing and pacemaker checking.

#### KEY ISSUES

- Increasing demand as the population ages and grows across the LHD
- A dedicated medical specialist outpatient and ambulatory cardiology clinic is required at both Lismore Base Hospital and The Tweed Hospital
- Poor access to Diagnostic and Interventional Cardiology Services for residents of The Tweed Hospital catchment
- Expansion of the Interventional Cardiology Service at Lismore Base Hospital to increase availability of the service is required with associated staff and training
- There is a need to enhance the ability to transfer images to referral hospitals quickly and securely. This would eliminate the need to copy and courier/mail CDs thereby streamlining patient flows and improving continuity of care
- Access to Echocardiography is under-resourced at both The Tweed Hospital and Lismore Base Hospital and not available at Grafton Base Hospital
- There are no outpatient Echocardiography or exercise stress testing services available at Lismore Base Hospital at present
- Echocardiography, exercise stress testing and Electrocardiography reporting is cumbersome resulting in delayed reporting. This service requires streamlining and integration with electronic medical records
- Clinical Pharmacy to review and teaching inpatients about new medication regimens and to provide a discharge medication profile for the patient and the GP, and maintain linkages to community pharmacists for Lismore, The Tweed and Grafton Base Hospitals as well as the smaller sites of Ballina and Murwillumbah District Hospitals
- Enhancements to the cardiac rehabilitation staff to support the additional cardiac services would be required.

## 8.7 SURGICAL SERVICES

NNSW LHD provides a broad range of elective and emergency surgical services up to role delineation level 5 for surgical specialties including general, gynaecology, orthopaedics and urology. The Tweed Hospital and Lismore Base Hospital are Rural Referral Hospitals and provide more complex elective and emergency surgery and District Hospitals provide non-complex, elective surgical procedures. The Tweed Hospital and Lismore Base Hospital work in combination with smaller rural hospitals within

each Health Service Group to form a network of surgical services enabling the referral of patients to appropriate levels of surgical services within each Health Service Group.

Three key service drivers that shape current and future development of surgical services in NSW LHD are the:

- National Elective Surgery Target (NEST)
- NSW Ministry of Health Rural Surgery Futures 2011 – 2021
- Introduction of Activity Based Funding (ABF).

The objectives of NEST are to increase the percentage of elective surgery patients so that 100% of all urgent category patients waiting for surgery are seen within the clinically recommended time, and to reduce the number of patients who have waited longer than the clinically recommended time (long waits).<sup>73</sup>

The Rural Surgery Futures 2011 – 2021 was released by the NSW Ministry of Health in 2011 which comprises the following key strategies that will inform planning directions:<sup>74</sup>

- A Network Model which is considered a key concept for the sustainability of rural surgical services
- Workforce attraction and retention strategies including Rural Surgical Fellowships and access to dedicated and integrated staff training.

The Rural Surgery Futures Project identified three key future models to address the future challenges of increasing demand and the need for greater coordination and distribution of resources.

These models of care are:

- High Volume Short Stay Surgical Model
- Specialty Centres
- Streaming Emergency Surgery.

### **High Volume Short Stay Surgical Model**

- Rationale:
- Maximise efficient use of Operating Theatres/bed capacity
- Most surgery is short stay type (< 3 days)
- Generally the types of procedures are:
- Frequently performed
- Have a predictable length of stay
- Are amenable to standard care plans
- Economic benefits:
- Efficient throughput for majority of surgical patients
- Opportunity for reinvestment of additional capacity into areas of complex service needs

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<sup>73</sup> National Elective Surgery Target (NEST) Schedule, National Health Reform Agreement – National Partnership Agreement on Improving Public Hospital Services, accessed at: [http://www.federalfinancialrelations.gov.au/content/national\\_partnership\\_agreements/health/National\\_health\\_reform/national\\_partnership.pdf](http://www.federalfinancialrelations.gov.au/content/national_partnership_agreements/health/National_health_reform/national_partnership.pdf)

<sup>74</sup> Rural Surgery Futures 2011 – 2021, NSW Ministry of Health

- Most importantly, improve the patient experience by reducing waiting times for surgery through the delivery of standardised care pathways in dedicated short stay surgical facilities.

Key features of a High Volume Short Stay Surgical Model include:

- A dedicated and uniquely identifiable surgical unit, which may be part of an existing facility (such as assigned theatres and dedicated beds within a hospital), structure (such as a stand-alone building), or a new building
- Offers a defined case-mix of procedures and services
- Performed or supervised by qualified consultant surgeons
- Has a clear (and safe) acceptance or exclusion criteria into facility
- Has an expected length of stay for all cases to within 3 beddays
- Has clearly defined procedures for the management of any unplanned or untoward circumstance
- Has defined care protocols and pathways into and out of the service.

### **Specialty Centres**

Specialist surgery met through development of formal specialist centres with:

- Clearly delineated referral roles within a geographic region
- Clinical and research leadership provided throughout the catchment
- Operates within a network of services
- Provides access to a high level of expertise
- Concentrating high cost resources such as highly complex interventional radiology and other medical imaging and surgical support services.

Potential Benefits:

- Better patient quality outcomes through better access to subspecialty care and state of the art clinical practice and technology
- Capacity to support registrar training as per specialty accreditation as well as post fellowship training.

### **Streaming Emergency Surgery**

Elements include:

- Standard-hours scheduling where clinically appropriate
- Load balancing of standard-hours operating theatre sessions with emergency surgery demand
- Streaming of elective and emergency surgery in hospitals
- Reallocation of surgery resources appropriate to roles of the designated hospitals
- Safe inter hospital transfer processes
- Specific emergency surgery KPIs.

### ACTIVITY BASED FUNDING AND SURGICAL SERVICES

The introduction of ABF funding from July 2012 will require improvements to LHD data collection systems and processes and skills in coding, costing and case-mix to ensure costs remain at or below the benchmarked price and will need to manage where costs exceed the efficient price. It will require a heightened focus on reducing length of stay and achieving waiting list targets.

Other key factors that influence current and future delivery of surgical services in NNSW LHD include:

- Ageing population with increasing demands for surgery coupled with increasing clinical complexity
- Increasing acuity of ED presentations and The Tweed Hospital and Lismore Base Hospital role as Regional Trauma Centres
- Proximity to the Queensland border and surgical outflows to Queensland Tertiary Referral Hospitals
- New technologies and evolving new surgical procedures
- Increasing specialisation in training of surgeons.

### CURRENT SERVICES

NNSW LHD has a total of eight hospitals providing varying levels and types of surgical services consistent with the service role delineation. Surgical services comprise of six modes of service delivery: elective and emergency; surgery and procedures; treatments requiring Day Only or Overnight admission.

- Elective surgical services are available at all surgical sites 5 days a week, Monday to Friday, 08.00am – 5.30pm
- Emergency surgical services are available at The Tweed, Lismore Base and Grafton Base Hospitals, 24 hours a day, 7 days a week.

Surgical Registrars, residents and medical students rotate to The Tweed Hospital and Lismore Base Hospital as part of their post graduate and undergraduate training programs. Anaesthetic Registrars, Orthopaedic Registrars (accredited and non-accredited positions), Urology, General, Gynaecology/Obstetric and Vascular Surgery Registrars are also provided with training at these two Hospitals.

The Tweed Hospital and Lismore Base Hospital provide elective and emergency surgical services including trauma surgery for adults and paediatrics within role delineation. These hospitals are referral hubs for the Tweed Byron Health Service Group and Richmond Clarence Health Service Group enabling the referral of more complex surgical patients to the two Rural Referral hospitals. The Tweed and Lismore Base Hospitals also provide Day Surgery and Endoscopy services.

### TWEED BYRON HEALTH SERVICE GROUP

Tweed Byron Health Service Group consists of three surgical sites. The Tweed Hospital and the following two hospitals are part of the surgical network of services providing:

- Murwillumbah District Hospital provide non-complex, elective surgical services requiring Overnight admission and Day Surgery for adults and some selected paediatric surgical procedures
- Byron Bay District Hospital provides an Endoscopy service.



## RICHMOND CLARENCE HEALTH SERVICE GROUP

Richmond Clarence Health Service Group consists of five surgical sites. Lismore Base Hospital and following four hospitals play an important role in the surgical network providing:

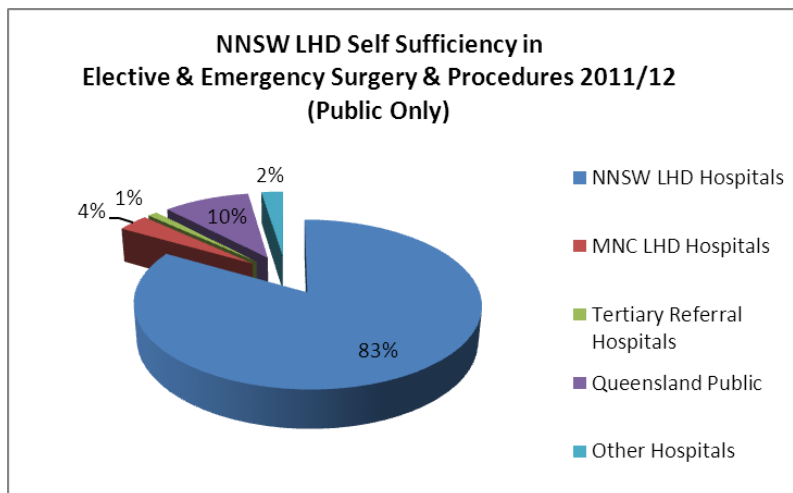
- Grafton Base Hospital provides non-complex, elective and emergency surgical services. Surgery requiring Overnight admission, Day Surgery and Endoscopy for adults and some selected paediatric surgery
- Ballina District Hospital provides minor, non-complex Day Surgery and Endoscopy
- Casino and District Memorial Hospital provides non-complex, Day Surgery and Endoscopy for adults and some selected paediatric surgical procedures
- Maclean District Hospital provides minor, non-complex general and orthopaedic Day Surgery.

## SELF SUFFICIENCY

In 2011/12, NNSW LHD hospitals provided 83% of NNSW LHD residents' public surgical needs. The remaining 3,723 of outflows (17%) were residents who accessed surgical services from other public hospitals including:

- 10% to Queensland Public Hospitals including Queensland Tertiary referral Hospitals
- 4% to MNC LHD primarily to Coffs Harbour Health Campus
- 2% to a range of other hospitals
- 1% to NSW Tertiary Referral Hospitals.

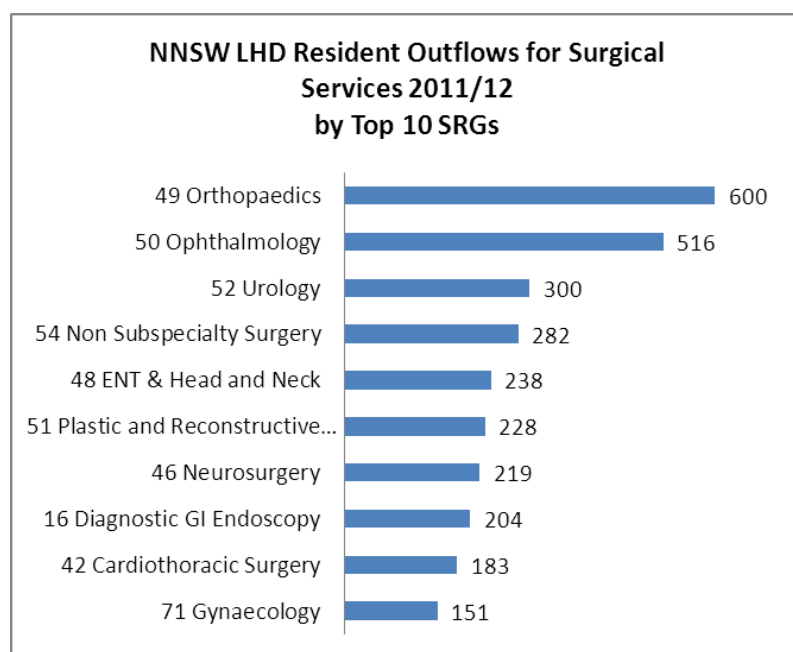
**Figure 21: NNSW LHD Self-Sufficiency in Delivery of Surgical Services 2011/12**



Source: NSW Ministry of Health State-wide Services FlowInfo V.12

As indicated in following figure, the top 10 surgical outflows were for: orthopaedics accounting for the majority (16%), ophthalmology (14%), Urology (8%), non sub-speciality surgery (8%, ENT and head and neck (6%), plastics and reconstructive surgery (6%), neurosurgery (6%), diagnostic GI endoscopy (5%), cardiothoracic (5%) and gynaecology (4%), of the total surgical outflows in 2011/12.

**Figure 22: NNSW LHD Resident Surgical Outflows 2011/12**



Source: NSW Ministry of Health Statewide Services FlowInfo V.12

## NNSW LHD NEST PERFORMANCE

NNSW LHD has been successful in achieving NEST Targets to date as indicated in the table below.

**Table 55: Overdue Booked Surgical Patients**

NEST Results @ 30 June	2009/10	2010/11	2011/12
<b>1 Urgent (&lt;30 days)</b>	0	0	<b>0</b>
<b>2 Semi Urgent (&lt;90 Days)</b>	0	0	<b>0</b>
<b>3 Non-Urgent (&lt;365 Days)</b>	0	0	<b>0</b>

Source: NNSW LHD ED Internal Performance Reports 2009/10 – 2011/12

The following table provides a profile of surgical activity (separations), Operating Theatre infrastructure, location of surgical specialties performed (indicated by the colour blue) and role delineation of surgical services provided across NNSW LHD. By the end of 2013, capital investment in surgical services will result in NNSW LHD providing a total of 18 Operating Rooms, one purpose-built Day Procedure room at The Tweed Hospital and two procedure rooms in the Endoscopy Unit at Lismore Base Hospital.

**Table 56: LHD Profile of Surgical Activity, Operating Theatre Infrastructure and Role Delineation of Surgical Services**

	Number			Role Delineation													
Hospital	Surgical Seps 2011/12	Operating	Procedure Rooms	Paediatric	Day Surgery	Operating	Dental	ENT	General	Gynaecology	Obstetric/Caes	Ophthalmology	Orthopaedics	Plastic Surgery	Urology	Vascular	Anaesthetics
Richmond Clarence Health Service Group																	
Lismore	6,663	4	2	4	4	6	5	4	5	5	5	3	5	1	5	5	5
Lismore (Coll Care)	1,070																
Grafton	3,486	3	0	3	3	4	5	4	4	5	4	3	3	1	3	1	4
Ballina	586	1	0	1	2	3	3	1	3	2	0	0	2	1	3	2	3
Casino	946	2	0	3	3	3	3	3	3	3	3	1	3	1	3	2	3
Maclean	276	1	0	1	3	3	1	3	3	3	1	0	3	1	3	1	3
Tweed Byron Health Service Group																	
Tweed	6,162	4	1	4	4	6	5	4	5	5	5	3	5	1	5	4	5
Murwillumbah	2,101	2	0	1	3	4	1	3	3	3	3	3	3	1	3	2	3
Byron Bay	260	1	0	1	2	2	3	1	2	2	0	0	2	0	0	0	2
NNSW LHD Total	21,550	18	3														

Source: NSW Ministry of Health Statewide Services FlowInfo V.12 & NSW Health Guide to Role Delineation of Health Services. Includes all surgical procedures i.e. Elective and Emergency/ Day Only and Overnight/ Surgery and Procedures. Excludes Cardiology Diagnostic and Interventional Procedures

- A new Perioperative Unit was built and commissioned at Grafton Base Hospital in 2010 increasing the number of operating rooms from two to four
- A new Day Procedure Unit was built and commissioned at The Tweed Hospital in 2012
- In 2013, an anaesthetic room was built onto the existing operating room to improve patient flow and patient privacy at Ballina District Hospital
- The interim upgrade of Lismore Base Hospital ED to build a seven bed EMU has required relocation of the existing Endoscopy Unit to level 2 of the Hospital
- The construction of a new Endoscopy Unit at Lismore Base Hospital provides the hospital with an opportunity to expand the existing Recovery Unit. This expansion project will result in the:
  - Expansion of the existing Stage 1 Recovery area from five to 10 beds and the construction of a second stage Recovery area to accommodate 13 recovery chairs. Expansion of the Recovery Unit is expected to be completed in October 2013

- The last stage of this expansion project is the construction of a purpose built Endoscopy Unit comprising of two procedure rooms and staged recovery areas which is expected to be built by the end of 2013 and commissioned early 2014.

Casino and District Memorial Hospital has two operating rooms but only one is operational. The second operating room will need refurbishment to meet Australian College of Operating Room Nurses Standards.

#### CURRENT ACTIVITY

In 2011/12, the NSW LHD performed 21,550 surgical procedures, a growth of 1% from 2009/10 with a reducing ALOS from 2.7 days in 2009/10 to 2.5 days in 2011/12. In 2011/12:

- Tweed Byron Health Service Group delivered 40% (8,523 separations) of the total LHD surgical services and Richmond Clarence Health Service Group provided 60% (13,027 separations)
- Elective surgical services accounted for 79% and emergency surgical services accounted for 17% of the total LHD total surgical activity
- Other surgery (planned) obstetric vaginal and caesarean section deliveries represented 4% of total LHD surgical activity
- Table 59 indicates Day Only accounts for the majority of surgical services delivered by NSW LHD, increasing from 54% in 2009/10 to 56% in 2011/12. Overnight surgical admissions reduced from 46% to 44% and ALOS reduced from 4.9 days to 4.5 days.

**Table 57: NSW LHD Surgical Services Activity 2009/10 – 2011/12 by Health Service Group**

Years	Tweed Byron HSG	Richmond Clarence HSG	NNSWLHD Total	LHD Per Annum Change
<b>2009/10</b>	8,363	12,894	<b>21,257</b>	
<b>2010/11</b>	8,343	13,272	<b>21,615</b>	2%
<b>2011/12</b>	8,523	13,027	<b>21,550</b>	-3%
<b>Change 2009/10 – 2011/12 (%)</b>	<b>2%</b>	<b>1%</b>	<b>1%</b>	

*Source: NSW Ministry of Health State-wide Services FlowInfo V.12. Includes all surgical procedures i.e. Elective and Emergency/ Day Only and Overnight/ Surgery and Procedures. Excludes Cardiology Diagnostic and Interventional procedures*

The table above indicates adult surgical services between 2009/10 to 2011/12:

- Represented the majority (94%) of surgical services delivered across the LHD with a 1% growth
- Day Only surgical services accounted for 54% increasing to 55%
- Overnight surgical admissions decreased by 1% from 46% to 45% and ALOS reduced from 4.9 days to 4.5 days.

Orthopaedics represented the majority (16%) of adult surgical activity and diagnostic GI endoscopy accounted for the second highest (14%) adult surgical activity.

Paediatric surgical services between 2009/10 to 2011/12:

- Accounted for 6% of the LHD total surgical activity
- There was a 3% growth in paediatric surgical services increasing to 1,395 surgical procedures in 2011/12
- Day Only paediatric surgical services accounted for 54% increasing to 56%
- Overnight surgical admissions reduced by 2% from 46% to 44% and overnight ALOS progressively reduced from 1.9 days to 1.6 days.

ENT accounted for the majority (37%) of paediatric surgical services delivered and orthopaedics accounted for the second highest (18%) of paediatric surgical activity.

**Table 58: Table 4 Trends in NNSW LHD Adult and Paediatric Surgical Services 2009/10 – 2011/12**

Profile	2009/10	2010/11	2011/12	Change 2009 -2012
<b>Adult Total</b>	<b>19,901 (94%)</b>	<b>20,269 (94%)</b>	<b>20,155 (94%)</b>	<b>1%</b>
Day Only	10,805	11,423	11,186	4%
Overnight Seps	9,096	8,846	8,969	-1%
Overnight Beddays	4,449	42,723	40,480	3,969
ALOS	4.9	4.8	4.5	-0.4
<b>Paediatric</b>	<b>1,356 (6%)</b>	<b>1,346 (6%)</b>	<b>1,395 (6%)</b>	<b>3%</b>
Day Only	734	767	784	7%
Overnight Seps	622	579	611	-2%
Overnight Bed days	1,169	1,146	985	-134
<b>Overnight ALOS</b>	<b>1.9</b>	<b>2.0</b>	<b>1.6</b>	<b>-0.3</b>
<b>Day Only Total Seps</b>	<b>11,539 (54%)</b>	<b>12,190 (56%)</b>	<b>11,970 (56%)</b>	<b>4%</b>
<b>Overnight Total Seps</b>	<b>9,718 (46%)</b>	<b>9,425 (44%)</b>	<b>9,580 (44%)</b>	<b>-1%</b>
<b>NNSW LHD TOTAL SEPS</b>	<b>21,257</b>	<b>21,615</b>	<b>21,550</b>	<b>1%</b>

Source: NSW Ministry of Health State-wide Services FlowInfo V.12 Includes all surgical procedures i.e. Elective and Emergency/ Day Only and Overnight/ Surgery and Procedures. Excludes Cardiology Diagnostic and Interventional Procedures

## SURGERY AND PROCEDURES

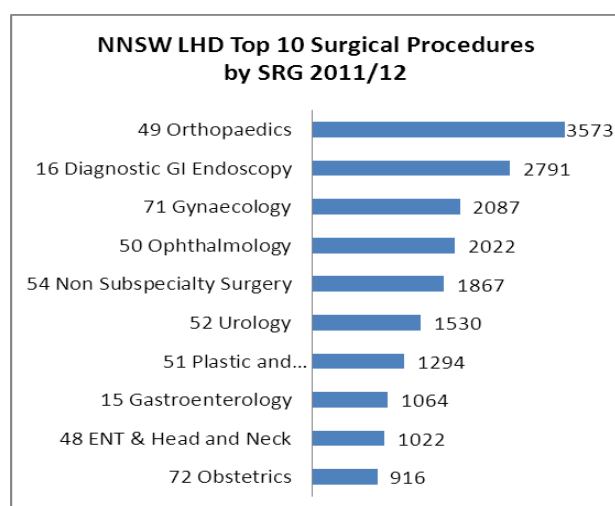
In 2011/12, NNSW LHD performed 16,178 surgeries a growth of 2% since 2009/10 and 5,372 procedures were performed, a 1% decrease since 2009/10. Surgery accounts for 75% of the LHD total surgical activity and procedures represent 25%. Procedures predominantly comprise of a range of scopes and dental procedures including Endoscopic Retrograde Cholangio-Pancreatography (ERCP), endoscopy, cystoscopies and dental extractions.

## TOP 10 SERVICE RELATED GROUPS

In 2011/12, the top 10 surgical specialties performed in NNSW LHD in 2011/12 are listed as follows with orthopaedics accounting for the majority (17%) of the total LHD surgical activity:

- Orthopaedics 17%
- Diagnostic GE Endoscopy (13%)
- Gynaecology (10%)
- Ophthalmology (9%)
- Non Subspecialty Surgery (9%)
- Urology (7%)
- Plastic and Reconstructive Surgery (6%)
- Gastroenterology (5%)
- ENT (5%)
- Obstetrics (4%).

**Figure 23: Top 10 Surgical Specialties Performed in NNSW LHD**



Source: NSW Ministry of Health Statewide Services FlowInfo V.12

## FUTURE DEMAND

### TWEED BYRON HEALTH SERVICE GROUP

#### PROJECTED ACTIVITY – THE TWEED HOSPITAL

Consistent with The Tweed Hospital Clinical Services Plan 2012, based on a scenario of targeted flow reversal model whereby The Tweed Hospital achieves a higher level of self-sufficiency for surgical and procedural urology, vascular, gynaecology and 100% of surgery currently conducted at Murwillumbah District Hospital being provided at The Tweed Hospital there will be an 76% increase in separations and 47% increase in beddays. Projected activity based on this scenario (excluding paediatrics) results in the need for an additional 10 Overnight surgical beds and 20 Day Only surgical beds by 2022.

For the purposes of calculating operating theatre capacity, paediatric activity, caesarean sections, compensation for planned surgery cancellations and additional endoscopy capacity have been

included resulting in the need for seven Operating Theatres in 2017 and eight in 2022; one of which is to be a designated Emergency Operating Theatre. These projections are indicative and would require further consideration once The Tweed Hospital proceeds to the next stage of planning.

The Surgical/Procedural activity projections (excluding unqualified neonates, chemotherapy, renal dialysis and interventional cardiology) at The Tweed Hospital are presented in the table below:

**Table 59: Projected Supply of Surgical/Procedural Services at The Tweed Hospital 2008/09 to 2021/22 (Flow Reversal Scenario Model)**

	2009		2017		2022	
	Seps	Beddays	Seps	Beddays	Seps	Beddays
Day Only	1,969	1,980	3,724	3,725	4,347	4,348
Overnight	2,985	15,343	3,611	17,831	4,153	20,861
Grand Total	4,954	17,323	7,334	21,555	8,500	25,208

Source: aIM 2010 NSW Ministry of Health (excluding Unqualified Neonates, Chemotherapy, Renal Dialysis and Interventional Cardiology)

Future key service drivers:

- The ageing of the catchment population with increasing demands for surgery coupled with increasing clinical complexity in surgical caseloads
- Increasing surgical specialisation
- Increasing pressures on The Tweed Hospital ED as a Trauma Centre has a flow-on effect with increasing Emergency Surgery demands
- The introduction of ABF and a heightened focus on reducing length of stay and achievement of waiting list targets will also act as a demand driver
- The advent of new surgical technologies and the adoption of new surgical procedures
- Changes in the capacity of peripheral hospitals to provide surgical services.

## RICHMOND CLARENCE HEALTH SERVICE GROUP

### PROJECTED ACTIVITY – LISMORE BASE HOSPITAL

As described in the Lismore Base Hospital Clinical Services Plan 2012, it is proposed that a proportion of outflows for surgical and interventional cardiology services will be reversed to Lismore Base Hospital. Both the base case model (i.e. no flow reversals are assumed) and the targeted flow reversal scenario are outlined below. Under the flow reversal model 2,565 additional separations will be managed at Lismore Base Hospital, 79% of these will be for Day Only surgery. This equates to an extra nine surgical beds required under the flow reversal model in comparison to the base case model.

### SCENARIO 1 - BASE CASE (STATUS QUO) MODEL

The inpatient projections for Lismore Base Hospital surgical and procedural services, under the base case model, are presented in the following table. Under this model there is anticipated to be 15% growth in separations between 2008/09 and 2021/22.



**Table 60: Projected Supply of Surgical Services, LBH 2008/09 – 2021/22 (Base Case)**

Surgery and Procedures		Year			% Change (2008/09-2021/22)
		2008/09	2016/17	2021/22	
Day Only	Separations	2,754	3,060	3,248	18%
	Beddays	2,786	3,060	3,248	17%
	Beds	9	10	10	17%
Overnight	Separations	3,531	3,708	3,988	13%
	Beddays	20,199	19,847	21,523	7%
	Beds	65	64	69	7%
<b>Total</b>	<b>Separations</b>	<b>6,285</b>	<b>6,768</b>	<b>7,236</b>	<b>15%</b>
	<b>Beddays</b>	<b>22,985</b>	<b>22,907</b>	<b>24,771</b>	<b>8%</b>
	<b>Beds</b>	<b>74</b>	<b>74</b>	<b>79</b>	<b>8%</b>

Source: aIM 2010 (NSW Health)

Discrepancies between the FlowInfo data presented in the previous section and the aIM2010 data for 2008/09 presented here reflect minor differences between the two tools in mapping ESRGs to clinical categories.

## SCENARIO 2 – TARGETED FLOW REVERSAL MODEL

The specific surgical groups that are targeted for flow reversals are outlined below.

**Table 61: Flow Reversal Estimates (Scenario 2 – Targeted Flow Reversal Model)**

Service	Estimated % Flow Reversal	SRGs/ESRGs/DRGs
Interventional Cardiology	Reversal of flows to achieve 95% self-sufficiency	ESRGs: invasive cardiac inves proc (121), percutaneous coronary angioplasty (122), other interventional cardiology (129)
General Surgery	50% of Clarence Valley outflows to return to Grafton	SRGs: orthopaedics, gastroenterology, diagnostic GI endoscopy, upper GIT, ophthalmology, plastic and reconstructive surgery ESRGs: tonsillectomy(481), myringotomy (482) and TURP-trans urethral prostatectomy (523)
Laser Surgery	100% minimal invasive surgery (laser) for urology to be conducted at Lismore Base Hospital	DRGs: M40Z & L41Z Cystourethroscopy same day, L40Z ureteroscopy and L 42Z lithotripsy for urinary stones and L50A L05A transurethral prostatectomy and laparoscopic prostatectomy
Breast Reconstructive Surgery	Reversal of 15% of private hospital outflows (aim 90% of breast reconstructive surgery to be conducted at Lismore Base Hospital)	ESRG: Breast surgery (411)
Day Surgery	Potential capacity for 100% day surgery for Richmond Valley (excluding Ballina) to be undertaken at Lismore Base Hospital	All day surgery ESRGs

Source: NSW LHD Planning and Performance

According to the flow reversal model, 91 surgical and procedural inpatient beds will be required by 2021/22. This is based on occupancy rates of 85% for Overnight activity and 120% for Day Only activity. It should be noted that this figure includes paediatric surgical activity which is included in the

overall bed allocation for paediatrics and obstetrics. It also includes activity relating to the proposed interventional cardiology services, accounted for in the projected cardiac unit requirements.

Excluding the projected beds related to paediatric surgery and interventional cardiology (two and three beds respectively), approximately 86 beds would be required to manage projected acute surgical demand at Lismore Base Hospital by 2021/22. 17 of these beds would be suitable for a Day Only surgical ward, with 69 Overnight inpatient surgical beds required. The proportion of these inpatient beds that may be appropriate for an extended Day Only surgical service will need to be confirmed by NNSW LHD as planning for the redevelopment of Lismore Base Hospital progresses.

The following table indicates that under this model there is anticipated to be 56% growth in separations between 2008/09 and 2021/22.

**Table 62: Projected Supply of Surgical Services, LBH 2008/09 – 2021/22 (Flow Reversal Model)**

Surgery and Procedures		Year			% Change (2008/09- 2021/22)
		2008/09	2016/17	2021/22	
Day Only	Separations	2,754	4,834	5,270	91%
	Beddays	2,754	4,834	5,270	91%
	Beds	9	15	17	91%
Overnight	Separations	3,531	4,152	4,530	28%
	Beddays	20,199	21,024	22,958	14%
	Beds	65	68	74	7%
<b>Total</b>	<b>Separations</b>	<b>6,285</b>	<b>8,986</b>	<b>9,801</b>	<b>56%</b>
	<b>Beddays</b>	<b>22,953</b>	<b>25,858</b>	<b>28,228</b>	<b>23%</b>
	<b>Beds</b>	<b>74</b>	<b>83</b>	<b>91</b>	<b>23%</b>

Source: aIM 2010 (NSW Health)

Discrepancies between the FlowInfo data presented in the previous section and the aIM2010 data for 2008/09 presented here reflect minor differences between the two tools in mapping ESRGs to clinical categories.

## GRAFTON BASE HOSPITAL

Grafton Base Hospital appointed an Orthopaedic Surgeon in 2012 and a second orthopaedic surgeon is expected to be appointed in 2013/14. It is anticipated this specialty will grow at Grafton Base Hospital and would warrant the reversal of a proportion of orthopaedic outflows from Coffs Harbour Health Campus to Grafton Base Hospital to treat Clarence Valley residents closer to home.

## CURRENT MODELS OF CARE

### ELECTIVE SURGERY

The management of elective patients and waiting lists is a key priority for the LHD. Waiting list management is a dynamic and complex process requiring input from and coordination by a multidisciplinary team. The NSW Health Department Waiting Time and Elective Patient Management Policy are employed to promote consistent and equitable management of elective patients and waiting lists in public hospitals.<sup>75</sup>

<sup>75</sup> NSW Department of Health 2009 Policy Directive: Waiting Time and Elective Patient Management Policy PD2009\_018

### EMERGENCY SURGERY

Emergency Surgery Services are delivered consistent with NSW Health Emergency Surgery Guidelines GL2009\_009. A partnership between clinicians and managers is vital to balancing the demand for elective surgery and waiting lists and the need for Emergency Surgery. Successfully implementing improvements in emergency surgery demands care in the management and resources required to deliver surgical services safely and efficiently.<sup>76</sup>

Emergency surgery is provided at The Tweed Hospital, Lismore Base Hospital and Grafton Base Hospital. Emergency surgery support birthing services at these hospitals.

As outlined by the NSW Health Emergency Surgery Service Guidelines, the following issues require operational reconfiguration throughout NSW:<sup>76</sup>

- Matching demand for emergency surgery with resources
- Matching demand for emergency caesareans with resources
- Roles of individual hospitals in providing emergency surgery
- After hours workload of emergency surgery
- Safe working hours
- Supervision of junior staff
- Disruption to elective surgery by emergency surgery
- Sub-specialisation of surgeons and surgical trainees
- Inter-hospital transfer of patients with specific conditions
- Patient handover between surgical teams
- Recognition of surgeon commitment
- Use of clinical guidelines in emergency surgery.

The following table provides a profile of models of care currently operational across NNSW LHD surgical sites. Models of care vary across sites based on role delineation, the hospital role within the surgical network and demand for services. In light of the current and projected demand for surgical services and the NEST, there is a need to improve patient journey, develop more efficient patient flow to improve access to surgical services and reduce patients waiting time for surgery. A number of service models have been implemented to address. They include: Extended Day Only (EDO), Short Stay Unit (SSU), Transit Unit/Lounge, Risk assessment through Preadmission Clinics and phone interviews supporting Day of Surgery Admission.

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<sup>76</sup> NSW Health Department 2009 *Emergency Surgery Guidelines GL2009\_009*

**Table 63: Profile of Surgical Models of Care Currently Operational in the NNSW LHD**

Hospital	Elective Surgery	Emergency Surgery	Surgical Service Supporting	Day Surgery	Endoscopy	EDO	SSU	Transit Unit/Lounge	Pre Admission Unit	Pre Admission Phone Interviews
<b>Lismore</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Grafton	✓	✓	✓	✓	✓				✓	
Ballina	✓			✓	✓					✓
Casino	✓			✓	✓					✓
Maclean	✓			✓	✓					✓
<b>Tweed</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Murwillumbah	✓		✓	✓	✓					✓
Byron Bay	✓				✓					✓

Source: NNSW LHD Planning and Performance Unit

Operating Theatre staff including Anaesthetic VMOs and nursing, resource the following other Departments:

- Radiology services by providing anaesthetic cover, nursing staff and anaesthetic equipment for a range of interventional procedures
- Acute pain services rely on Recovery staff to cover the service 4 days per week as well as afterhours cover for the wards
- Support difficult airway access experienced in ED, ICU or Endoscopy.

## FUTURE MODELS OF CARE

### HIGH VOLUME SHORT STAY

High Volume Short Stay surgery is defined as planned treatments requiring admission up to 72 hours. It includes both Day only and Extended Day Only (23 hour admission). It does not include minor surgery under local anaesthetic conducted in procedure rooms or surgeon's office.<sup>77</sup> Further establishing High Volume Short Stay models of care in NNSW LHD is a priority. The Green Light Laser system and Holium Laser should be introduced for Urology:

Green Light Laser should be considered in the short term as providing a clinically safe and effective alternative to Transurethral Resection of the Prostate (TURP). Green Light Laser is an endoscopic procedure using a laser to remove prostate tissue. Clinical studies show Green Light Laser is clinically equivalent to the TURP procedure, with similar clinical outcomes. Green Light Laser studies indicate reduced inpatient costs and improved patient journey associated with shorter catheterisation and

<sup>77</sup> Surgery Futures – A Plan for Greater Sydney, NSW Ministry of Health

irrigation times and less time spent in hospital; and Holium Laser treatment as a minimally invasive alternative for the treatment of Urinary Stones.

### RARE AND/OR COMPLEX CANCER SURGERY

The delivery of surgical services for rare and/or complex cancers such as oesophageal, pancreatic, lung and gastric surgery remains a consideration of the NSW Cancer Institute and the NSW Surgical Services Taskforce. NNSW LHD awaits final deliberations by the NSW Ministry of Health. NNSW LHD future role in providing any of these surgical services into the future will be informed through this process.

### BARIATRIC SURGERY

Bariatric surgery involves highly specialised and complex surgery requiring a range of complex surgical requirements, specialised support services and infrastructure to provide the best possible clinical outcomes for the patient. Further consideration is required.

### TWEED BYRON HEALTH SERVICES GROUP

#### THE TWEED HOSPITAL

Per key priorities identified in the Lismore Base Hospital Clinical services Plan, to enable a more comprehensive peri-operative model of care to be provided there is a need to reorganise the theatre suite and day surgery to provide better functional relationships and areas for booking, pre-admission clinics and aesthetic department offices. Further there is also a need to expand recovery and provide improved linkage with the Central Sterile Supply Department (CSSD) to manage the surgical workload and provide better overall workflows. Overnight surgical bed numbers will also need to increase.

There is a need to develop an Integrated Day Surgery Unit which combines pre-admission, procedural theatre, first stage recovery and step-down recovery. With an integrated unit patients are prepared in the pre-admission area; walk into the theatre taken by a bed to first stage recovery then into a recliner as the step down before discharge. Planning has also been included for technology advances such as the Navigated Total Knee Procedure which allows for a more precise incision and better patient outcomes.

### RICHMOND CLARENCE HEALTH SERVICE GROUP

#### LISMORE BASE HOSPITAL

The interim upgrade of Lismore Base Hospital ED to build a seven bed EMU will require the relocation of the existing Endoscopy Unit to level 2 of the Hospital. This expansion project consists of three components:

- Expansion of the existing recovery area of the operating theatres to increase from five to 10 beds
- Construction of a second stage recovery area to accommodate 13 recovery chairs. Expansion of the Recovery area is expected to be completed in October 2013
- The last stage of this expansion project is the construction of a purpose built Endoscopy comprising of two procedure rooms and staged recovery areas which is expected to be built by the end of 2013 and commissioned early 2014. It will consist of two procedure rooms, four consulting rooms and eight recovery areas with a suitable combination of beds and recliners

- The second stage recovery area will enable ophthalmic and other day surgery patient groups (in the future) to experience the entire surgical patient journey from admission to discharge in the Perioperative Unit.

Stage 3 Redevelopment of Lismore Base Hospital will enable the delivery of contemporary models of care in the delivery of future surgical services. They include:

- Interventional Operating Suite, a new angiography suite designed for flexible use with full operating theatre capacity as part of a new Surgical Unit.

#### INTEGRATED SURGICAL UNIT AND DAY SURGERY

This module combines pre-admission, procedural theatre, first stage recovery and step-down recovery. With an integrated unit patients are prepared in the pre-admission area; walk into the theatre taken by a bed to first stage recovery then into a recliner as the step down before discharge.

#### ORTHOPAEDIC SURGERY

Orthopaedic services will continue to provide multidisciplinary care. A specialised Orthopaedic Surgical Unit is required with close proximity to appropriate Allied Health Services, community rehabilitation and follow-up outpatient clinics. In the short term it has been suggested that Casino and District Memorial Hospital is a potential location for this model.

Further investigate new models of preadmission management of elective hip and knee replacements which may result in avoidance of surgical intervention e.g. Orthopaedic Weight List Management Program (OWL) and the Osteoarthritis Chronic Care Program.

#### RECOVERY FOR CAESAREAN SECTION PATIENTS

Within the recovery unit a bay that is large enough to be able to support the skin-to-skin policy after caesarean section is required at Lismore Base and The Tweed Hospitals. It should also be in a quieter area of the recovery so that optimal bonding may occur for mother, baby and their partner. This area needs to accommodate a recovery bed as well as a transport cot, recovery nurse, midwife and partner.

#### VASCULAR SURGERY

Vascular access surgery will also need to increase to meet increasing demand from increased renal dialysis activity.

#### MINIMALLY INVASIVE SURGERY

There will be further expansion of minimally invasive surgery in line with clinical services planning.

#### TECHNOLOGICAL ADVANCES

Navigated Total Knee Procedure allows for a more precise incision and better patient outcomes and requires investigation.

#### FUTURE DIRECTIONS

Surgical Services will need to expand to meet the demand in line with Clinical Service Plans for The Tweed and Lismore Base Hospitals. These Plans require a capital solution. In the short term Surgical Service Plans need to be developed for the Health Service Groups to identify, at speciality level the preferred configuration of surgical services. Due to the complexity of these issues and the various craft groups involved, further consultations and negotiations are needed. Detailed planning required

cannot be articulated in this Health Care Services Plan. This requires a dedicated surgical services planning process consistent with recommendations from the Rural Surgical Futures Final Report.<sup>78</sup>

Grafton Base Hospital appointed an Orthopaedic Surgeon in 2012 and it is expected a second Orthopaedic Surgeon will be appointed in 2013/14. A recruitment process is currently underway to appoint an Urologist. Growth in the demand for orthopaedic and urology surgery by Clarence Valley residents and LHD population would support some reversal of outflows of patients currently being treated at Coffs Harbour Health Campus.

Grafton Base Hospital has capacity to undertake a greater volume of surgery. The majority of public, surgical outflows of Clarence Valley residents to Coffs Harbour Health Campus were for orthopaedics (266) and urology (179). In 2011, an Orthopaedic Surgeon was appointed and a second Orthopaedic Surgeon is being recruited to meet the local demand for orthopaedic surgery. The appointment of a Urology Surgeon will support the future development of a urology surgical service at Grafton Base Hospital.

While the focus of Surgical Services Plans should be on the Health Service Groups, a number of overarching LHD issues need to be resolved to inform the surgical services planning process.

Determining NNSW LHD position on:

- Providing Bariatric surgery
- Providing clinically appropriate paediatric surgery in designated NNSW LHD hospitals
- Achieving the balance between the rural surgical networking model and centralising selected High Volume Short Stay procedures to gain possible efficiencies

Fundamental to surgical service planning process is the need to further specify the role of hospitals within the Health Service Groups and further develop The Tweed Hospital and Lismore Base Hospitals as Regional Resource Centres that network with surrounding hospitals consistent with the Rural Surgical Futures Final Report.

Surgical Service Planning should include:

- Consideration of opportunities for maximising the efficient use of surgical infrastructure across NNSW LHD
- Efficient scheduling, minimising late starts and turnaround times
- identify interventions that don't require theatres e.g. investment in flexible cystoscopes to enable 'check' cystoscopies to be performed at peripheral hospitals
- Further risk stratify patients requiring pre-admission risk assessment and devolve some of the some of this work to selected peripheral hospitals
- Further implementation of Waiting Time and Elective Patient Management Policy within a network model of Surgery Services
- Consideration of collocation of surgical procedures where there are similarities in equipment used and surgical procedures performed e.g. gynaecology and urology to achieve efficiencies
- Consideration of operative and post-operative requirements for bariatric patients
- Maintaining and coordinating Anaesthetic services at smaller sites
- Strategies for improving surgical patient flows

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<sup>78</sup> Rural Surgery Futures 2011 – 2021, NSW Ministry of Health



- Articulate emergency surgery strategies to enable more timely access and limit the impact on planned surgery
- Achieve a balance between the rural surgical networking model and centralising selected High Volume Short Stay procedures to gain possible efficiencies
- Specify the role of hospitals within the Health Service Groups.

Interventional radiology services within the LHD require review and an appropriate service development framework articulated to manage the growth of this specialty and the interface with surgical services. Care for older patients following orthopaedic surgery is more complex and needs to be better supported by increased availability of a Geriatrician.

Consistent with the recommendations from the Rural Surgical Futures Final Report and key priorities articulated in the section 8.3.3 of this Plan formal agreements and documented processes with tertiary referral centres to facilitate timely and appropriate specialist consultation and inter hospital transfers will be established.

Capital solutions will be required to improve the functionality, more integrated and comprehensive perioperative model of care and improved functional relationships between Operating Theatres and Day Surgery Units at Lismore Base and The Tweed Hospitals.

There will need to be a planned approach for the progressive replacement of surgical equipment. An equipment technology program for Operating Theatres is required to progressively replace older equipment with new technologies. When purchasing new technology, compatibility of surgical equipment, recording of associated data and images, access to the hospital IT network and interface with eMR will need to be considered.

#### KEY ISSUES NNSW LHD

- Surgical networking needs to be further developed across NNSW LHD to maximise current surgical infrastructure
- Further consideration needs to be whether some surgical services should be centralised to improve efficiencies and/or quality
- The design and layout of many of the older Perioperative Units fall well below optimal functionality and have limited capability to expand to meet increasing demand for services, or adapt to deliver contemporary models of care
- There is now a heavy reliance on ICT technologies in Operating Theatres and rapid growth in “real time” clinical systems including imaging and data management that cannot sustain prolonged disruptions in the network
- A surgical services equipment technology program is required to progressively replace older equipment and instrumentation with new technologies. Appropriate and functional theatre equipment is essential for the achievement of surgery KPIs and elective surgery targets
- Paediatric surgery was a core component of surgeon training and this is no longer available. As general surgeons become less available, rural LHDs will need to attract and recruit Paediatric Surgeons to provide services locally otherwise children (and their families) may need to travel to metropolitan hospitals for non-complex surgery which is currently available in rural LHDs

- All opportunities for ensuring minimally invasive surgery is performed have not been fully realised. Green Light Laser system is a clinically safe alternative for some TURPs and Holium Laser is suitable for the removal of some types of urinary stones
- CSSD equipment at The Tweed Hospital and Lismore Base Hospital is ageing and losing functionality.

### KEY ISSUES THE TWEED HOSPITAL AND TWEED BYRON HEALTH SERVICE GROUP

- There are gaps in surgical services for Vascular, Gynaecology and Urology
- Operating Theatre capacity will need to increase to meet current and future demand and to reduce outflows for surgical specialties such as Urology and Breast Surgery
- Lack of Surgical Services Outpatients at The Tweed Hospital
- There is a significant shortage of availability of chronic pain services in the region - neighbouring services (Gold Coast and Lismore) are at capacity. Ideally The Tweed Hospital should be working towards having a multidisciplinary service based at Tweed Heads within the next 10 years
- The introduction of alternative to surgery strategies
- Improved timeframe for coding of surgical patient records to comply with Audit requirements and support better ABF funding
- Ensuring provision of adequate qualified and experienced Anaesthetists to meet the growth in demand for services
- Maintaining Anaesthetic Services at smaller sites within the Tweed Byron Health Service Group
- Lack of an electronic Tracking System for surgical equipment in CSSD
- Lack of storage space and work space to conduct required tasks in CSSD
- Lack of appropriate outpatient space for the high volume of patients requiring follow-up at The Tweed Hospital
- Lack of Interventional Radiology Department.

### KEY ISSUES LISMORE BASE HOSPITAL AND RICHMOND CLARENCE HEALTH SERVICE GROUP

- There is an emerging gap in ENT surgical services associated with reducing availability of ENT surgeons
- The increasing volume and range of interventional radiology procedures and the complexity of patients has staffing implications for the Radiography Department, Operating Theatres, Anaesthetics and Nursing. It is currently a challenge for Lismore Base Hospital Operating Theatres to provide required staffing and equipment to support both surgery and interventional radiology
- The introduction of an eMR (SURGINET) has had increased workload taking clinical resources away from patient care
- Loan instrument processes need to be more streamlined and timely and the degree of role overlap for Theatre and CSSD staff needs to be addressed.
- Operating Theatres have an ageing workforce, with the average age being 45+ and planning for training and recruitment into the future is essential. Provision of Clinical

Nurse Educators to support learning for current, as well as novice theatre staff and student nurses will be essential to meet future surgical targets.

- Compliance with mandatory education requirements as per 2002 Australian College of Operating Room Nurses Standards is difficult within staffing current levels
- The current provision of a 24-hour Emergency Service is not optimal with on-call delays and flow-on impacts on nursing staff availability for the subsequent day's Theatre Sessions as well as security issues for staff called in at night
- Determine appropriate location of pre-admission processes to further devolve some of the risk assessment processes to selected peripheral hospitals and alleviate some of the pressure from the Lismore Base Hospital Pre-admission Unit.
- Management of patients with Multi Resistant Organisms (MROs) is an issue causing delays in procedures because of the time required for cleaning down the theatre after such cases. Ongoing care for patients who have MROs is also difficult due to the limited availability of single rooms
- Theatre equipment is dated and there is a need for a proactive system for scheduled repairs/replacement
- Current reporting/ordering systems need to be streamlined. Finance reports have to be continually updated as product pricing changes. A system which streamlines the ordering of prostheses is required. An integrated reporting system would reduce workload on staff and improve efficiency
- It is currently difficult to achieve shorter length of stay for orthopaedic patients. Length of stay is extended due to patient deterioration while on the wait list. The absence of a designated Orthopaedic Ward at Lismore Base Hospital leads to patients being spread over different wards, resulting in extended length of stay. Care for older patients following orthopaedic surgery is more complex and the absence of an available Geriatrician compounds the difficulty
- Access to acute pain management services is needed to improve support to patients having joint replacement surgery
- Change processes are challenging with major limitations arising from organisational "silos" and frequent changes to organisational structures. VMOs at Lismore Base Hospital perceive themselves to be disconnected from ongoing clinical service development
- The current service struggles if there is more than one day surgery list as the preoperative clinic operates also as the step-down recovery unit and the number of available beds are limited especially during the winter months when this preoperative unit becomes an overflow area for hospital admissions
- Grafton Base Hospital appointed an Orthopaedic Surgeon in 2012 and it is expected a second Orthopaedic Surgeon will be appointed in 2013/14. A recruitment process is currently underway to appoint an Urologist. Growth in the demand for orthopaedic and urology surgery by Clarence Valley residents and the LHD population would support some reversal of outflows of patients currently being treated at Coffs Harbour Health Campus
- There is increasing pressure on the four HDU beds at Grafton Base Hospital associated with increasing complexity of orthopaedic surgery in the last 18 months. As pressure for

HDU beds has increased the adjacent Medical Ward is being used as a HDU step down area

- Greater focus in developing nursing HDU skills is required at Grafton Base Hospital HDU including:
  - Rotation of HDU staff between Grafton and Lismore Base Hospitals
  - Greater access to Nurse Educator hours
  - Development of nursing leadership for HDU.

### 8.7.1 CENTRAL STERILE SUPPLY SERVICES

Central Sterile Services are essential to the delivery of emergency and elective surgical services and supports the delivery in the reduction of infection rates in NNSW LHD hospitals.

#### CURRENT SERVICES

Central Sterile Supply Services include the CSSD at The Tweed Hospital, Lismore Base Hospital CSSD and Grafton Base Hospital CSSD. These services provide sterile re-usable surgical instrumentation to hospitals and health services within the Tweed Byron Health Service Group and Richmond Clarence Health Service Group. Activities include the receipt, cleaning, assembly, sterilisation, storage and distribution of sterilised items. These Departments conduct bacteriologically safe sterilisation under controlled conditions with adequate managerial and technical supervision at an optimum cost.

#### RICHMOND CLARENCE HEALTH SERVICE GROUP

The CSSD at Lismore Base Hospital provides sterilising services to:

- Ballina District Hospital for the supply of sterile surgical instruments to service theatres
- Casino and District Memorial Hospital has its own small sterilising department, which is staffed by a supervisor and two casual staff and overseen by Lismore Base Hospital CSSD Manager. Some instrumentation is provided by Lismore Base Hospital CSSD
- Maclean District Hospital is part supplied from Lismore Base Hospital CSSD and Grafton Base Hospital CSSD
- Nimbin MPS and Medical Centre
- Community Nurses

A new CSSD was built at Grafton Base Hospital in 2010 when the new Perioperative Unit was built and an electronic tracking system was installed at that time.

#### TWEED BYRON HEALTH SERVICE GROUP

The Tweed Hospital CSSD provides sterile re-usable surgical instrumentation to the Tweed Byron Health Service Group Surgical Services. The CSSD is an important clinical support service and directly supports the reduction of infection rates within the Tweed Byron Health Service Group.

Activities are centralised and include the receipt, cleaning, assembly, sterilisation, storage and distribution of sterilised items. The CSSD conducts bacteriologically safe sterilisation under controlled conditions with adequate managerial and technical supervision at an optimum cost.

The CSSD at The Tweed Hospital provides sterilising services to:

- Murwillumbah District Hospital for the supply of sterile surgical instruments to service theatres, and Byron Bay District Hospital

- Mullumbimby and District War Memorial Hospital
- Community Nurses
- The Tweed Hospital Theatres and Ward user areas
- Byron Bay District Hospital Theatre and Ward user areas
- Bangalow Medical Centre
- Bangalow Community Nurses
- Cape Byron Medical Centre
- Pottsville HealthOne Dental Clinic
- Murwillumbah Dental Clinic
- North Coast Medical Centre.

## FUTURE DIRECTIONS

Investment in an electronic tracking system for surgical equipment and instrumentation is a priority. It is essential that Central Sterilising Services have the ability to collect and manipulate data, including the daily production statistics to be able to use this information to forecast the impact that various changes to surgical services may have. This would also enable the CSSD to identify peak workload times and roster staff accordingly, monitor staff productivity, and therefore assists in training needs analysis. This would also allow the capture of information for future changes in perioperative and sterilising services requirements, and identify capacity opportunities or limitations. An electronic tracking system would also streamline the weekly collection of reprocessing statistics that have to be sent to the Ministry of Health. Any recalls that may be necessary would also be more expedient.

Careful consideration will be necessary when planning for any upgrades of Central Sterilising Services at The Tweed and Lismore Base Hospitals. An independent, qualified consultant would be required to assess and project the needs of the Department into the future to enable expansion and growth according to community needs and planned service development.

## KEY ISSUES

- The CSSD at The Tweed Hospital and Lismore Base Hospital CSSD do not have an electronic tracking system for surgical equipment
- Infrastructure and equipment at The Tweed Hospital CSSD and Lismore Base Hospital CSSD are ageing. Current infrastructure does not provide optimal functionality and requires improvement at both Hospitals.

## 8.7.2 ANAESTHETIC SERVICES

Anaesthetic Services play a vital role in the delivery of:

- Surgical Services
- Trauma and retrieval support
- Pain Management Services
- Electroconvulsive Therapy (ECT)
- Endoscopy
- Cardiology

- Medical Imaging and Interventional Radiology.

Anaesthetic Services also support the care of patients in the ED, ICU and support birthing services.

## CURRENT SERVICES

Anaesthetic Services are networked across the two Health Service Groups with The Tweed Hospital and Lismore Base Hospital providing higher level role delineation 5 services supporting District Hospitals within the Health Service Groups.

Anaesthetic services are primarily delivered by trained and accredited specialist anaesthetic clinicians consisting of Anaesthetists and Anaesthetic Nurses across the LHD with the exception of Byron Bay District Hospital and Grafton Base Hospital which are supported by GP VMOs trained and accredited for Anaesthetics.

Anaesthetic services vary across facilities in the LHD dependent upon the role delineation for each facility.

**Table 64: Richmond Clarence Health Service Group Current Anaesthetic Role Delineation Levels**

Levels	Tweed Byron Health Service Group Hospitals	Richmond Clarence Health Service Group Hospitals
5	The Tweed Hospital	Lismore Base Hospital
4		Grafton Base Hospital
3	Murwillumbah District Hospital	Macleay District Hospital Ballina District Hospital Casino and District Memorial Hospital
2	Byron Bay District Hospital	
1	Mullumbimby and District War Memorial Hospital	Kyogle Memorial MPS Nimbin MPS Urbenville and District MPS Bonalbo District Hospital

Source: NSW Health Guide to Role Delineation of Health Services

## PRE-ADMISSION CLINICS

Anaesthetists provide pre-admission risk assessments prior to surgical procedures, a vital service fundamental to the delivery of Surgical Services. Pre-Admission Clinics are multidisciplinary and contribute to the commencement of the discharge planning process by identifying possible post discharge supports.

## RECOVERY

Anaesthetic Services provide patient monitoring during their time in Recovery.

## EMERGENCY DEPARTMENT AND INTENSIVE CARE SERVICES

Anaesthetic and Recovery Services are also provided in ED and ICU/HDU providing anaesthetic support to critically ill/injured patients, patients requiring post-operative care in ICU, or to support other procedures performed in these Units.

## MEDICAL IMAGING AND INTERVENTIONAL RADIOLOGY

Anaesthetic Services support the delivery of a range of procedures performed in Medical Imaging.

At Lismore Base Hospital Anaesthetic Services support Endoscopic Retrograde Cholangio-Pancreatography (ERCP), paediatric CT scans, endoluminal AAA repairs, and uterine artery

embolisation. Medical Imaging Services are supported by Anaesthetic Nurses as part of a Nurse Practitioner-led multidisciplinary model.

At the Tweed Hospital Anaesthetic services support ERCP and paediatric CT scan. There is an increasing demand for anaesthetic support for other procedures in Medical Imaging. The new MRI suite contains anaesthetic equipment to provide sedation and general anaesthesia for patients, especially children, undergoing MRI.

### ACUTE PAIN MANAGEMENT SERVICES

Anaesthetic Services work in collaboration with acute pain management services in recovery and inpatient units to provide pain management options to post-surgical patients.

At Lismore Base Hospital the Acute Care Pain Nurse works 3 days a week with the Anaesthetics Registrar to provide pain management options to post-surgical patients.

At The Tweed Hospital acute pain rounds occur 5 days a week with the Acute Pain Service Clinical Nurse Consultant and an Anaesthetic Registrar attending. Weekend pain rounds are conducted by an Anaesthetic Registrar. Anaesthesia Specialists attend approximately once per week.

### CURRENT MODELS OF CARE

Anaesthetic Services are delivered consistent with current Standards and Guidelines including:

- NSW Health, Pre Procedural Preparation (PPP) Toolkit 2007
- Australian College of Operating Room Nurses (ACORN) 2002 Standards including the 2004 Standard for paediatrics which allows for two recovery staff to be available for an unconscious child. Note that there are current 2008 Standards not yet achieved and impending 2012 Standards
- The ANMC (Australian Nursing and Midwifery Council) Guidelines relating to nursing practice
- ANZCA (Australian and New Zealand College of Anaesthetists) Technical Standard T03 Minimum Safety Requirements for Anaesthetic Machines for Clinical Practice updated in July 2011.

### FUTURE DEMAND

Demand for Anaesthetic Services is expected to increase across the LHD.

As stated previously, Anaesthetic Services are directly aligned with the delivery of Surgical Services, Trauma and retrieval support, Pain Management Services, electro convulsive therapy, endoscopy, cardiology, medical imaging, interventional radiology, critical care and birthing services. All these services are expected to experience growth. Anaesthetic Services will need to be further developed and resourced to meet the demands of these associated services and to deliver specialised Anaesthetic models of care.

### FUTURE MODELS OF CARE

- In the future, Anaesthetists and Anaesthetic Nurses will be required to continue to provide clinical leadership in the development of Perioperative Services. Overarching clinical governance of Perioperative Services will improve service integration across the continuum of care and provide patients with improved continuity of care across existing and future Perioperative Services



- Provision of care in line with the 2008 ACORN Standards, provision of a clinical educator in accordance with the number of FTE staff per theatre and a step-down recovery unit to expedite day-only surgery patients
- Consideration be given to a Perioperative Care Unit model of care to improve the quality of ongoing postoperative care of high risk patients in a dedicated environment close to the operating theatre for between 24 to 48 hours
- In conjunction with the planning for future redevelopment of the Operating Theatres to support the projected future increasing surgical services activity, there will need to be consideration of the infrastructure requirements to address current service issues and support the introduction of new models of care such as the Perioperative Care Unit
- In collaboration with the Lismore Base Hospital Interdisciplinary Pain Management Clinic, in the first instance establish a Tier 1 Pain Management Program at The Tweed Hospital and Tweed Byron Health Service Group District Hospitals. Work towards establishing a Tier 2 Pain Management Service at The Tweed Hospital consistent with the NSW Health Pain Management Plan 2012 – 2016.

### KEY ISSUES

#### Common Key issues:

- There is only one Nurse Educator in the Richmond Clarence Health Service Group who only provides services to the Richmond Valley Network. There are no Clinical Nurse Educators at Lismore Base Hospital. The Tweed Byron Health Service Group has one Clinical Nurse Educator and The Tweed Hospital and Murwillumbah District Hospital are in the process of recruiting two 0.5FTE Clinical Nurse Educators
- Additional administrative and data collection assistance is required to support the large volume of services. Without the appropriate level of administrative and data entry support, these clerical tasks are being completed by clinical resources in lieu of providing direct patient care
- The current eMR system does not have an anaesthetic component
- Insufficient Allied Health resources available to support the multidisciplinary model of Pre- Admission Clinics
- Maintenance and replacement systems need to be improved and there needs to be proactive replacement of equipment that is past its intended design life. Ordering and replacement processes need to be more timely
- Beds in perioperative suites are often taken up with patients admitted overnight which slows the throughput of patients in the perioperative suite
- Accommodation for Registrars is substandard and needs to be improved as a priority
- Recovery of patients in locations outside of operating theatres is difficult as there are insufficient recovery spaces in places like the ED and Medical Imaging. It is often not safe to move these patients over considerable distances to the Recovery Unit so the recovery of patients is being monitored by Anaesthetists in situ
- Anaesthetic Services are key to the delivery of current and future surgical services. Services supported by Anaesthetics are reliant upon the LHD ability to recruit and retain

adequate numbers of qualified and experienced Anaesthetists to maintain service delivery.

#### LISMORE BASE HOSPITAL

- Electro convulsive therapy is currently being provided in the endoscopy suite within the Operating Theatre complex at Lismore Base Hospital. These procedures should be provided in a separate location to allow better use of Operating Theatres
- The age and functionality of current anaesthetic equipment at Lismore Base Hospital presents a range of issues for Anaesthetists, including difficulties obtaining appropriate printouts of records of anaesthesia and recovery
- The current perioperative suite is not big enough and there is no step down recovery area for postoperative patients. The capacity and function of the perioperative suite is crucial to patient flow and facilitating the movement of patients out of the Operating Theatre to the Surgical Inpatient Unit
- There is no overnight accommodation for Consultants who do not live proximate enough to Lismore Base Hospital to meet the overnight response time of 20 minutes
- Current infrastructure is inadequate. Storage space is insufficient for anaesthetic consumables, equipment and beds
- Staff Specialists require offices proximate to the operating theatres to allow for appropriate levels of supervision; Registrars do not have access to adequately sized office spaces; and there is insufficient training and meeting spaces available for the Anaesthetic Service
- Current facilities for pre-operative consultations have limited privacy.

## 8.8 WOMEN'S CARE AND NEONATES

### 8.8.1 WOMEN'S CARE

NNSW LHD delivers a range of services and programs that provide specialist care to women and neonates including Antenatal Care; Early Pregnancy Care; Intrapartum Care – Birthing; Postnatal Care; and Neonatal - Special Care Nursery.

Local Maternity Service availability is strongly influenced by available workforce. Where possible, changes to models of care have been implemented to meet changing conditions. For example both Murwillumbah District Hospital and Mullumbimby and District War Memorial Hospital have successfully introduced Continuity of Care Midwifery; and Shared Care models for women with normal risk pregnancies.

#### CURRENT SERVICES

Services offered across NNSW LHD include inpatient antenatal, intrapartum and postnatal care. Specifically this entails the following:

- Midwives Antenatal Clinics for women with normal risk pregnancies
- Medical Specialist Outreach Antenatal Clinics including outlying rural areas such as Kyogle and Bonalbo

- Continuity of Care Midwifery models for women with normal risk pregnancies at point of entry
- High Risk Medical Antenatal Clinics
- 24 hour Outpatient Pregnancy Assessment Service which requires no appointment
- 24 hour Phone Advice Service for antenatal, intrapartum and postnatal women
- Early Pregnancy Assessment Service (under 20 weeks gestation)
- Obstetric Risk Assessment Clinic
- Day Assessment Service
- Community based midwifery postnatal care
- State-Wide Infant Hearing Screening (SWISH)
- Antenatal Education Classes
- MUM's (Mothers Using Methadone and other substances) Program and Dietician
- Safe Start, Aboriginal Maternal and Infant Health, Sustaining Families NSW and Child and Family Health Nurses
- Aboriginal Maternal and Infant Health Program.

Across NNSW LHD access to maternity care varies as hospitals have varying role delineation levels depending on the resources and support services available for the provision of maternity services. Where possible, NNSW LHD provides networked referral and consultation pathways for appropriate management and escalation of complex cases.

For women who develop high risk obstetric and/or fetal complications, travel outside NNSW LHD is required as NNSW LHD does not have any level 6 role delineated maternity services with tertiary and neonatal intensive care services. In general women are referred to Brisbane tertiary facilities. Gold Coast University Hospital will open in September 2013. The new Hospital will provide level 6 Maternity and Neonatal Intensive Care Services. Some patients will then be transferred to the Gold Coast University Hospital depending on their clinical condition.

Maternity Services across the LHD provide postnatal care in the hospital for on average 2.8 days (2010 NSW Mother and Babies) and in the community for up to 6 weeks (depending on the service model). Due to local issues in regard to limited resources and the demographics of women in the community not all women can be provided with community based midwifery postnatal care.

There are six hospitals in NNSW LHD providing Maternity Services. The following table details the provision of maternity services by hospital and role delineation.

**Table 65: NNSW LHD Maternity Services by Hospital**

Role Delineation Level	Description	NNSW LHD Maternity Services
1	Postnatal only	
2	Normal risk only >37 completed weeks	Mullumbimby and District War Memorial Hospital and Murwillumbah District Hospital (caseload model)
3	As above plus selected moderate risk $\geq 37$ completed weeks	
	Elective Caesarean Section capacity	Murwillumbah District Hospital

4	As above plus moderate risk $\geq 34$ completed weeks and above	Grafton Base Hospital
5	As above plus selected high risk $\geq 32$ completed weeks and above	Lismore Base Hospital and The Tweed Hospital

Source: Guide to the Role Delineation of Health Services, NSW Health Statewide Services Development Branch; Third Edition 2002

## CURRENT ACTIVITY

As seen in the table below, there were a total of 3,701 births in NNSW LHD public hospitals in 2012. Between 2010 and 2012 the total number of births in NNSW LHD facilities increased by 3%. During the same period the number of births decreased in all NNSW LHD facilities except Murwillumbah District Hospital and The Tweed Hospital. Between 2010 and 2012 births at The Tweed Hospital increased by 7% and at Murwillumbah District Hospital by 31%. At Murwillumbah District Hospital this was largely related to workforce changes and introduction of new models of care. In 2011/12, 51% of women giving birth at The Tweed Hospital were residents of southern Queensland. The following table details births by hospital for NNSW LHD 2010 to 2012.

**Table 66: NNSW LHD Births by Hospital 2010-2012**

Hospital	2010	2011	2012	% Change
The Tweed	1,488	1,483	1,592	7.0
Murwillumbah	150	175	197	31.3
Mullumbimby	164	130	160	-2.4
<b>Total Tweed Byron HSG</b>	<b>1,802</b>	<b>1,788</b>	<b>1,949</b>	<b>8.2</b>
Lismore	1,275	1,327	1,249	-2.0
Casino	52	58	50	-3.8
Grafton	465	469	453	-2.6
<b>Total Richmond Clarence HSG</b>	<b>1,792</b>	<b>1,854</b>	<b>1,752</b>	<b>-2.2</b>
<b>Total NNSW LHD</b>	<b>3,594</b>	<b>3,642</b>	<b>3,701</b>	<b>3.0</b>

Source: NNSW LHD Obstetrix Data Base

The following table details Day Only and Overnight separations for NNSW LHD for obstetrics care. Between 2009/10 and 2011/12 separations decreased by 2% and beddays by 3.6% across NNSW LHD. These changes are largely reflected at Lismore Base Hospital where separations for SRG Obstetrics declined by 9.3% and beddays by 9.5%. At The Tweed Hospital separations for SRG Obstetrics for the same period grew by 4.4%.

**Table 67: NNSW LHD SRG Obstetrics Activity, Day Only and Overnight 2009/10-2010/11**

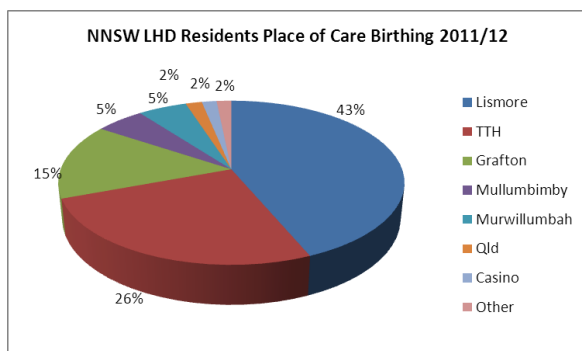
SRG Obstetrics	2009/10		2010/11		2011/12		% Change		% Change	
ESRG	Seps	Beddays	Seps	Beddays	Seps	Beddays	Seps 2009/2012	Beddays 2009/2012	Seps 2009/2012	Beddays 2009/2012
721 Ante-natal Admission	1,296	1,824	1,248	1,772	1,228	1,752	-	5.2	-	3.9
722 Vaginal Delivery	2,755	7,356	2,744	7,272	2,745	7,268	-	0.4	-	1.2
723 Caesarean Delivery	901	4,060	835	3,855	849	3,705	-	5.8	-	8.7
724 Post-natal Admission	433	977	439	995	455	984	-	5.1	-	0.7
<b>NNSW LHD</b>	<b>5,385</b>	<b>14,217</b>	<b>5,266</b>	<b>13,894</b>	<b>5,277</b>	<b>13,709</b>	<b>-</b>	<b>2.0</b>	<b>-</b>	<b>3.6</b>

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

In 2010 with the introduction of the ObstetriX database, caesarean section rates were reported to range between 22% and 28% in the former NCAHS facilities. With the implementation of the NSW Health PD 2010\_045 Maternity - towards normal birth in NSW, caesarean section rates have declined to 24.2% in the NNSW LHD in 2012.

The following figure details the proportion of births to NNSW LHD residents by hospital. While 43% of births to NNSW LHD residents occurred at Lismore Base Hospital it is important to note that 51% of births at The Tweed Hospital in 2011/12 were to Queensland residents and these births are not reflected in the chart.

**Figure 24: NNSW LHD Residents by Place of Care - Birthing 2011/12**



Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

Of the total 3,701 births for NNSW LHD women in 2011/12 (n=239) 6.6% were for women identifying as Aboriginal. This compares with the NSW rate of 3.3% for Aboriginal mothers.<sup>79</sup>

## FUTURE DEMAND

The population of women of child bearing age is projected to increase by 7.5% in the Tweed Byron Health Service Group. Overall the population of women of child bearing age in the Richmond Clarence Health Service Group is projected to decline by 1.6% with declines in all LGAs with the exception of Ballina.

The projected growth in the population of women of child bearing age in the Tweed Byron Health Service Group (most particularly Tweed LGA) is compounded by the addition of women from South East Queensland within the catchment of The Tweed Hospital choosing to birth at The Tweed Hospital and this is one of the fastest growing regions of Australia.

Over the next 10 years there will continue to be changes to models of care and increasing use of technologies which will impact on length of stay in inpatient services, however using the aIM modelling tool (base case) there will be a projected need for 4,200 separations and 10,710 beddays for Obstetrics in NNSW LHD by 2022 representing a 5% increase in separations and a 1% increase in beddays between 2011 and 2022. This is considered conservative given the large numbers of women presenting to The Tweed Hospital from southern Queensland for obstetric care. Clinical Services Plans for The Tweed and Lismore Base Hospitals contain more detailed projections.

## CURRENT MODELS OF CARE

Maternity Services are provided by Midwives, GPs and Specialist Obstetricians in inpatient, outpatient and community settings, through a range of service models designed to meet the needs of women and their families.

In 2008 NSW Health provided funding under the “Improving Early Care” initiative for the implementation of publicly funded antenatal care at all NSW maternity services. All NNSW LHD Maternity Services now provide publicly funded antenatal care. Antenatal (high risk) Care is provided by an appropriate Medical Officer ranging from Resident Medical Officer to Consultant Medical Officer depending on the level of a woman’s pregnancy risk.

<sup>79</sup> Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

There are a number of models of maternity care available (including standard intrapartum care) however access to these models varies across the LHD. Obstetricians, Midwives and GPs may be the lead carers during the woman's pregnancy, or care may be shared by a combination of providers who may work in a range of settings from private practice to public hospitals. The choice and type of options vary between sites depending on a range of factors including the available workforce, available facilities, community needs and resources.

Continuity of Midwifery Led Care is available at Lismore Base Hospital, Murwillumbah District Hospital and Mullumbimby and District War Memorial Hospital. Under this model a designated Midwife is allocated to care for a woman through the entire pregnancy, intrapartum and postnatal period. In the GP Antenatal Shared Care model the majority of care is provided by the woman's GP in their local area, with shared care also provided by hospital based Midwives.

Women wishing to discharge early or who require extended care may access a Domiciliary Home Care program. This model of postnatal care provides the women with access to a Midwife through phone contact or home visiting for up to 14 days.

#### ABORIGINAL MATERNAL AND INFANT HEALTH PROGRAM

The Aboriginal Maternal and Infant Health Program (AMIHP) is a State-wide program which commenced in 2001. The program provides services to pregnant Aboriginal women and/or women who are partners of Aboriginal men. It aims to improve the health of Aboriginal women and their babies during and after pregnancy and decrease perinatal morbidity and mortality. The service provides accessible and culturally appropriate antenatal and early post natal services for up to 6 weeks after delivery. Each service comprises a Midwife and an Aboriginal Health Education Officer who work collaboratively through a primary health care model. The service also works closely with generalist maternity, medical, obstetric and paediatric staff internally and GPs, Aboriginal Medical Services and non-government organisations externally.

#### FUTURE MODELS OF CARE

Implementation of the 'Towards normal birth in NSW' will continue to have a considerable impact on all maternity/birthing services. NSW LHD will continue to improve the normal birth rate and outcomes for mothers and babies by implementing the 10 steps of the NSW Health Policy Directive 2010\_045 Maternity - towards normal birth in NSW.

In April 2012 a 12 month trial of a publicly funded home birthing model was introduced as part of the Mullumbimby Community Birthing Service. The trial was successfully completed in 2013 with good outcomes. The model was then endorsed by the NSW LHD Board and has now been adopted. The service currently provides home birthing as an option for all women eligible to birth at Mullumbimby Community Birthing Service.

Technological innovation has the potential to deliver new treatments, ways to improve patient care, and better tools for managing and improving the overall quality of health systems. Technological advances in birthing include the development of a cardiotocograph with telemetry capabilities to allow active movement of the women during labour that require the foetus to be monitored. NSW LHD will need to introduce this new technology and provide the training needed to ensure safe operation.

The Aboriginal Maternal and Infant Health Program has proven to be effective in improving health outcomes for pregnant Aboriginal women and babies by increasing the uptake of antenatal and postnatal services by Aboriginal women.

### KEY ISSUES

- There are issues relating to the timely and appropriate transfer of women who are assessed as having increasing maternal and fetal risk; there is a need to ensure referral and consultation pathways and processes are in place for women who require a higher level of care
- The Tweed Hospital has experienced a large increase in demand for maternity care from the local community, a large proportion of which are residents of southern Queensland
- There is a need to improve choice for women and reduce demand at The Tweed Hospital by providing greater access to midwifery continuity of care models at Murwillumbah District Hospital and Mullumbimby and District War Memorial Hospital
- More outreach clinics for women who are unsuitable for the low risk models are required in the Tweed Byron Health Service Group
- The need to plan for the introduction of the publically funded Outpatient Clinics requires the provision of appropriate facilities at both Grafton Base and Murwillumbah District Hospital
- Closure of the birthing service at Casino and District Memorial Hospital requires consideration of the changing role of Lismore Base Hospital and the provision of antenatal outreach clinics to Casino
- There is a need to ensure an appropriate level of access to culturally appropriate services for the Aboriginal community
- Assisting in empowering Aboriginal women, encouraging them to be actively involved in the decision making associated with their care and contribute towards improving the social, economic and political conditions for Aboriginal women and families
- Developing strategies to decrease the young adolescent birth rate in Aboriginal communities through culturally appropriate educational programs.

### 8.8.2 NEONATAL CARE

The neonatal period is considered to be the first 28 days of life. Lismore Base Hospital and The Tweed Hospital Special Care Nursery (SCN) are level 4 Neonatal Units. This means that they manage babies greater than 32 weeks gestation with minimal to moderate complications and can provide short-term complex care in consultation with a level 5 and/or level 6 Neonatal Centre. The Special Care Nursery is capable of delivering care to convalescing medical and surgical infants.

NSW Health PD2008\_027 Maternity - Clinical Care and Resuscitation of the Newborn Infant is relevant to the Special Care Nursery. The Policy Directive has directed that there will be a person trained in advanced neonatal resuscitation on-call for low risk births and in attendance for all high risk births. This directive acknowledges that while the need for resuscitation of the newborn infant can often be predicted, the need may also arise suddenly and in any birth setting.

### CURRENT SERVICES

Across NNSW LHD access to neonatal care varies as hospitals have varying role delineation levels depending on the resources and support services available for the provision of neonatal services. The following table details the provision of neonatal services by hospital and role delineation for NNSW LHD.



**Table 68: Provision of Neonatal Services (approved clinical activity) based on Role Delineation for NNSW LHD**

Role Delineation Level	Description	Tweed Byron Health Service Group	Richmond Clarence Health Service Group
1	Postnatal only		
2	As level 1 plus provision for normal risk pregnancies and healthy infants of >36 weeks gestation	Mullumbimby and District War Memorial Hospital	Casino and District Memorial Hospital
3	As level 2 plus management of babies >34 weeks gestation with minimal complications and convalescing babies	Murwillumbah District Hospital	Grafton Base Hospital
4	As level 3, plus may provide short term and complex care in consultation with a level 5/6 Neonatal Centre	The Tweed Hospital (6 SCU cots)	Lismore Base Hospital (4 SCN cots)

Source: Guide to the Role Delineation of Health Services, NSW Health Statewide Services Development Branch; Third Edition 2002

Transfer to a higher level service may occur if neonatal intensive care unit services are required for babies less than 32 weeks gestation or who are critically ill. Referral in this instance is directly to a tertiary service with neonatal intensive care unit capacity. Lismore Base Hospital and The Tweed Hospital Special Care Nurseries have established referral links with a level 5 Neonatal Intensive Care Unit through a cross border referral arrangement with the Mater Mothers Hospital in Brisbane. Transfers are organised through Neonatal Emergency Transport Service (QLD NETS) and are directed to either the Mater Mothers Hospital or Royal Brisbane Women's Hospital.

Lismore Base and The Tweed Hospitals are consultation and referral centres for the lower role delineated maternity and neonatal facilities within their Health Service Groups. This involves providing support for clinicians at Murwillumbah District and Mullumbimby and District Memorial Hospitals which are level 2 facilities.

Murwillumbah District Hospital and Grafton Base Hospital have an area dedicated for special care nursery neonates who have minimal complications or are convalescing. NNSW LHD normal risk birthing services provide care to healthy infants only and do not have dedicated special care nursery beds.

### CURRENT ACTIVITY

There were 4,139 separations recorded in NNSW LHD and identified as qualified and unqualified neonates in 2011/12<sup>80</sup>. Of these 30% were recorded as qualified and 70% unqualified. The proportion of separations of qualified neonates ranged between 18% at Grafton Base Hospital, 27% at The Tweed Hospital and 30% at Lismore Base Hospital in 2012. Significantly at Mullumbimby and District War Memorial Hospital separations for qualified neonates were recorded as 46% and at Murwillumbah District Hospital as 56%. This anomaly i.e. a high proportion of qualified neonates in the two normal risk birthing services appears to be related to recording anomalies. Investigation of recording methods at these sites is required.

Total separations associated with the management of qualified neonates in Special Care Nurseries are provided below. The number of separations increased by 11.6% between 2009/10 and 2011/12 in NNSW LHD with a 5.8% increase at Lismore Base Hospital and 16.9% growth at The Tweed Hospital of 16.9%.

<sup>80</sup> FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

**Table 69: Separations for Qualified Neonates by NNSW LHD Birthing Facility 2009/10-2011/12**

	2009/10	2010/11	2011/12	% Change
Lismore	325	333	344	5.8
Tweed Heads	354	337	414	16.9
<b>Total NNSW LHD</b>	<b>679</b>	<b>670</b>	<b>758</b>	<b>11.6</b>

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch, Special Care Nursery Involvement

## FUTURE DEMAND

Special Care Nurseries at Lismore Base Hospital and The Tweed Hospital are at capacity. Growth in demand is projected for both facilities. It is unclear what the impact of expanded Special Care Nursery (28 special care nursery cots and 16 neonatal intensive care unit cots) services at The Gold Coast University Hospital will be on demand at The Tweed Hospital; however special care nursery cots will need to be expanded to meet increasing demand commensurate with population changes in the Tweed LGA and South East Queensland.

## CURRENT MODELS OF CARE

There are a range of models of care used in Special Care Nurseries across NNSW LHD including:

- Family Centred Care which encourages a collaborative role between parents and the neonatal nurse. It aims to promote a partnership between parents and nurses in order to reduce parental anxiety
- Shared Care is used when a previously premature/sick infant is ready to leave the Special Care Nursery and go to the postnatal ward to be cared for by the mother and postnatal staff. Special Care Nursery staff remain involved in any changes to the care-plan of these babies
- Mums Using Methadone Program (MUMS) at Lismore Base Hospital provides a Case Manager antenatally if identified and postnatally to assist with any problems and to support parents of neonates experiencing Neonatal Abstinence Syndrome or other issues arising from drug or alcohol abuse. Referrals are made to the MUMS Case Manager for any mothers not on the program that are using illicit substances. Mothers are aware of and consent to referrals
- Kangaroo Care is promoted in the Special Care Nursery. This is the holding of a nappy clad infant in skin-to-skin contact, prone and upright on the chest of the parent. The infant is enclosed in the parent's clothing in order to maintain temperature stability and promote parent-infant bonding and growth. We endeavour to facilitate Kangaroo Care where possible with medically stable infants
- Social Workers offer support and assistance for parents of sick/premature infants
- Child and Family Health Nurses, Physiotherapists and Speech Therapists are referred to by the Special Care Nursery, for infants born prematurely or who have had a significant health issue
- Department of Human Services Case Workers liaise with The Tweed Hospital and Lismore Base Hospital Social Workers and Special Care Nursery staff when child at risk issues arise and/or when issues have become evident during a woman's pregnancy.

## FUTURE MODELS OF CARE

There will be varying levels of demand for Neonatal Services across the LHD. The highest growth area for women of child bearing age is Tweed LGA.

The NSW Health PD2008\_027 Maternity - Clinical Care and Resuscitation of the Newborn Infant has directed that there will be a person trained in advanced neonatal resuscitation on-call for low risk births and in attendance for all high risk births. This directive acknowledges that while the need for resuscitation of the newborn infant can often be predicted, the need may also arise suddenly and in any birth setting. Implementation of this recommendation will need to be carefully considered given the impact this may have on midwives providing care through the Continuity of Care Model and GP Obstetricians.

## KEY ISSUES

- There are physical and functional layout issues in the Special Care Nursery at both The Tweed Hospital and Lismore Base Hospital that directly impact the efficient and safe operation and staffing of the service
- It is essential to have an escalation plan in place in each Health Service Group
- There are issues regarding back transfers to hospitals with lower levels of neonatal care. Difficulties arise in having the neonate transferred depending on availability of medical cover and appropriately skilled staff. Arrangements at NNSW LHD, Southern Area Health Service, and Central Area Health Service (Royal Brisbane and Women's Hospital) level regarding criteria for acceptance of neonates for transfer and back transfer arrangements need to be formalised
- Special care nursery cots at Grafton Base and Murwillumbah District Hospitals are not funded for this level of care
- There are difficulties back transferring babies from Brisbane Neonatal Intensive Care Units to The Tweed Hospital in a timely manner due to unavailability of beds
- There are difficulties recruiting and rostering appropriately skilled staff for the provision of neonatal care at Murwillumbah District Hospital; this impacts on neonates returning from Neonatal Intensive Care Units and Special Care Nurseries from The Tweed Hospital and Queensland facilities
- There are problems at Grafton Base Hospital when demand exceeds ability to staff special care nursery cots. At times Grafton Base Hospital is unable to receive babies back from tertiary centres.

## 8.9 CHILDREN'S HEALTH SERVICES

Childhood is an important period in an individual's life. It is at this time when the foundations for lifelong health and wellbeing are established. The biological, social, family, community and economic influences that an individual experiences during childhood impact on their ongoing physical, emotional and mental health. These influences also impact on behaviour, development, education and future employment.

Access to quality primary, secondary and tertiary level care for women, infants, younger and older children is essential to good health outcomes for children and their families. Access to the right services at the right time will impact on the future health and wellbeing of an individual child.<sup>81</sup>

The Women's and Child Health Program Coordinator position provides strategic leadership for Children's Health Services across the LHD. A Director of Paediatrics has been appointed across The Tweed and Murwillumbah District Hospitals and an Acting Director of Paediatrics has been appointed to the Richmond Clarence Health Service Group. The NSW LHD Children's Health Services Action Plan 2012-2015 which outlines the LHDs key priorities and actions in Paediatric and Children's Health was developed in 2012 and forms the basis for service direction and development across the LHD. The NSW LHD Children's Health Services Governance Committee oversees the governance of Children's Health Services across the LHD and monitors implementation of the NSW LHD Children's Health Services Action Plan 2012-2015.

Health services for children across NSW LHD are diverse and in high demand. Acute paediatric services providing appropriately trained specialist medical and nursing staff are linked to community Child and Family Health Services. GPs also have a central role in the provision of children's health services.

NSW LHD is part of the Northern Child Health Network. The Northern Child Health Network is one of three paediatric networks in NSW, which were established in 2001 by the NSW Ministry of Health in response to the Government Action Plan for Health. Each network incorporates metropolitan and rural partners and is based on an assessment of flow patterns for paediatric inpatient care.

### CURRENT SERVICES

#### ACUTE PAEDIATRIC INPATIENT SERVICES

Specialist Paediatric Services are provided primarily through Lismore Base and The Tweed Hospitals. These services are supported by VMO and Staff Specialist Paediatricians. Staff Specialist Paediatricians have been appointed at Grafton Base, Lismore Base and The Tweed Hospitals. The administrative role of the Staff Specialist Paediatrician at The Tweed Hospital has also been extended to include Murwillumbah District Hospital.

NSW LHD recognises the special needs of children in acute settings. As stated in the Policy Directive PD2010\_34 Guidelines for Care in Acute Settings – Children and Adolescents, "Special needs of children, adolescents and their families, whether inpatients or outpatients, must be addressed to minimise physical and emotional distress. The special needs of the unaccompanied child should be recognised and provided for including the provision of an alternative care giver (e.g. the Hospital Ward Grandparent Scheme coordinated by the Association for the Wellbeing of Children in Healthcare where available)".

Across NSW LHD access to paediatric care varies as hospitals have varying role delineation levels depending on the resources and support services available for the provision of paediatric services. Lismore Base Hospital and The Tweed Hospital have the only role delineation level 4 paediatric services across the LHD, with role delineation level 3 services at Grafton Base Hospital and Murwillumbah District Hospital. Grafton Base Hospital provides inpatient paediatric services under the supervision of a staff paediatrician and a GP paediatrician which meets the criteria for role delineation level 4 paediatric medical services – an urgent review of and acknowledgement of this level of service provision needs to be acknowledged and integrated into any current paediatric services plan.

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<sup>81</sup> NSW LHD Children's Health Services Action Plan 2012-2015

The following table details the provision of paediatric services by hospital and role delineation for NSW LHD.

**Table 70: Provision of Paediatric Services by Hospital and Role Delineation**

Role delineation level	Description	NSW LHD Paediatric Medicine	
		Tweed Byron Health Services Group	Richmond Clarence Health Services Group
1	No planned inpatient paediatric medical service or designated beds; provides primary and emergency care; and stabilisation for children prior to moving to appropriate higher level of service	Byron District Hospital Mullumbimby and District War Memorial Hospital	Ballina District Hospital Bonalbo Hospital Kyogle Memorial MPS Maclean District Hospital Nimbin MPS Urbenville and District MPS
2	Designated paediatric inpatient in general hospital in an outlying or geographically isolated area		Casino and District Memorial Hospital
3	As level 2, plus designated paediatric ward/area with patient amenities; has isolation capacity in separate rooms; provides care for common medical conditions	Murwillumbah District Hospital	Grafton Base Hospital
4	As level 3, designated Director of Paediatric Medical Services plus provides integrated hospital inpatient unit, non-inpatient family and child health services and community health services for most paediatric medical conditions. Designated adolescent area	The Tweed Hospital	Lismore Base Hospital
5	As level 4, plus Specialised Paediatric Inpatient Unit. May have some paediatric subspecialty skills. Designated adolescent area		
6	As level 5, plus paediatric medical and surgical sub-specialties available		

Source: Former NCAHS Healthcare Services Plan 2010 and NSW Guide to Role Delineation of Health Services Third Edition 2002

Lismore Base Hospital and The Tweed Hospital Paediatric Units provide level 4 paediatric services to patients aged 0 (neonates)-16 years and up to 18 years depending on presenting illness and history.

There is clear assessment criteria for the admission of adolescents aged up to 18 years to the Paediatric Ward. These are long term patients of the Unit some of whom may have a life limiting illness who have had previous admissions to the Unit.

## PAEDIATRIC OUTPATIENTS

Paediatric outpatients' clinics are provided at Lismore Base, Grafton Base, Murwillumbah District and The Tweed Hospitals.

## COMMUNITY CHILD AND FAMILY HEALTH SERVICES

Child and Family Health Services address the health and social wellbeing of children, young people, their families and carers. These services are made up of a multidisciplinary team of health professionals who provide a range of services across the primary health care continuum.

Child and Family Health Services provide a range of services across the primary health care continuum including prevention, early intervention, screening, assessment, education, developmental checks, support, therapeutic interventions and treatment. Provision of outreach services through home and community visits and consultation and partnership with other children's service providers is a key component in efficient and effective health care delivery by the Child and Family Health Teams.

Community based Child and Family Health clinicians also provide services for paediatric inpatients in role delineation level 3 and 4 paediatric facilities (with the exception of Lismore Base Hospital). Some allied health services may also be provided to newborns prior to discharge from hospital.

## KEEP THEM SAFE AND CHILD PROTECTION SERVICES

NNSW LHD provides a range of services that focus on both enhancing the health and wellbeing of children and young people and their caregivers and reducing the health impacts of abuse and neglect. There is commitment to ensuring that staff meet their mandatory legal and professional obligation to make a report to the Department of Human Services - Community Services when they suspect a child (0-16 years) is at risk of significant harm from abuse or neglect.

## CURRENT ACTIVITY PAEDIATRIC INPATIENTS

There were 6,539 Day Only and Overnight separations for children aged 0-14 years who are residents of NNSW LHD (excluding qualified and unqualified neonates) from public and private facilities in 2011/12. The majority of these (88%) were from public facilities. The highest proportion of these separations were from Lismore Base Hospital (n=1,750), The Tweed Hospital (n=1,462), Queensland Hospitals (966) and Grafton Base Hospital (n=705).

There were 5,901 Overnight and Day Only separations from NNSW LHD facilities for children aged 0-14 years (excluding qualified and unqualified neonates, renal dialysis and chemotherapy) accounting for 10,307 beddays. Day Only separations have increased by 16% while there has been an overall reduction in Overnight separations of 12% and beddays of 8%. Of the total separations 78% were for paediatric medicine and the remaining 20% for surgery and procedures.

**Table 71: NNSW LHD Day Only and Overnight Separations and Beddays for Paediatrics 2009/10-2011/12**

	2009/10		2010/11		2011/12	
	Seps	Beddays	Seps	Beddays	Seps	Beddays
Day Only	2,005	2,005	2,157	2,157	2,328	2,328
Overnight(s)	4,073	8,676	3,754	8,006	3,573	7,979
Total	6,078	10,681	5,911	10,163	5,901	10,307

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

There were 3,500 Overnight separations for paediatrics (excluding qualified and unqualified neonates, renal dialysis and chemotherapy) in NSNW LHD in 2011/12 accounting for 7,901 beddays in 2011/12. This reflects a decrease of 12% in Overnight separations and 7% in beddays for paediatrics between 2009/10 and 2011/12. At Lismore Base Hospital ALOS has increased from 2.6 days in 2009/10 to 2.95 days in 2011/12. In 2011/12 ALOS was 1.74 days at The Tweed, 1.92 days at Grafton Base and 1.83 days at Murwillumbah District Hospital. Of the total Day Only and Overnight separations at The Tweed Hospital for paediatrics 31% were residents of Queensland in 2011/12.

**Table 72: NNSW LHD Overnight Separations and Beddays for Paediatrics 2009/10-2011/12**

	2009/10		2010/11		2011/12		
	Seps	Beddays	Seps	Beddays	Seps	Beddays	LOS
Lismore	1,510	4,017	1,477	3,839	1,400	4,130	2.95
The Tweed	1,554	2,693	1,432	2,514	1,399	2,438	1.74
Murwillumbah	291	622	188	355	160	292	1.83
Grafton	600	1,200	598	1,231	541	1,041	1.92
NNSW LHD	3,956	8,533	3,695	7,939	3,500	7,901	2.26

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch, excluding Qualified and Unqualified Neonates, Chemotherapy and Renal Dialysis

## FUTURE DEMAND

The population of 0-14 year olds in NNSW LHD is projected to increase by 7.9% between 2006 and 2021, a rate of increase lower than that for the general population. Growth in this age group will be largely restricted to the coast with a moderate to large increase of between 12.1% (Ballina LGA) and 16.9% (Tweed LGA). Minimal growth of 1.1% is projected for Lismore LGA and small declines in the Clarence Valley, Kyogle and Richmond Valley LGAs.

Over the next 10 years there will continue to be reductions in the length of stay, changes to models of care and increasing use of technologies which will impact on demand for paediatric inpatient, outpatient and community based services. Using the aIM modelling tool (base case) there will be a projected need for 5,029 separations and 8,933 beddays in NNSW LHD by 2021 representing a 15% increase in separations and a 13% increase in beddays from 2011.

Acute paediatric services are experiencing increasing acuity in their patient population. This is resulting in a growing workload in both inpatient and ED presentations. This increasing complexity is putting pressure on current specialist services. There is a role for lower acuity patients to have their needs met locally through new models of care outside specialist paediatric centres.

The condition and size of the Paediatric wards at Lismore Base Hospital and The Tweed Hospital will continue to make managing periods of peak demand for inpatient services problematic. This is particularly critical at The Tweed Hospital. Improved service networking with Murwillumbah District Hospital may alleviate this to a limited extent in the short term.

## CURRENT MODELS OF CARE

Lismore Base Hospital and The Tweed Hospital Paediatric Service treat a wide range of acute and chronic paediatric conditions up to and including infants and children requiring HDU type care. These HDU type patients are not currently acknowledged through the formal allocation of paediatric HDU type beds at The Tweed and Lismore Base Hospitals. The Tweed Hospital is located less than one kilometre from the major population of the Southern Gold Coast in Queensland and therefore nearly half of their inpatient cohort is from Queensland which provides additional challenges in providing coordinated post-acute care.

The types of patients cared for at Grafton Base, Lismore Base and The Tweed Hospitals inpatient units include:

- Medical patients: respiratory, gastrointestinal, seizure disorders, feeding problems, meningitis/encephalitis, minor cardiac problems, endocrine disorders, metabolic disorders, skin infections/disorders, autoimmune disorders
- Surgical patients: booked surgery for ENT and hernia's, as well as emergency surgery, infections and abdominal surgery and care for trauma, head injury, and minor burns



- Orthopaedic patients: surgery for fractures sustained through various mechanisms, traction for some fractures and bone infections
- Oncology patients: Paediatric Teams provide collaborative care in conjunction with Brisbane and Sydney tertiary paediatric oncology services. Paediatric oncology services are usually provided as an outpatient or through the day oncology units. Acute inpatient and palliative services are occasionally provided to this patient group in collaboration with their tertiary care providers
- Mental health patients: including patients with eating disorders, patients being stabilised for other reasons prior to going to the adolescent mental health unit or patients who are too young for the mental health unit.

There is no paediatric tertiary facility within NNSW LHD. Through affiliation with the Northern Child Health Network, all the Networks benefit from the networking support from John Hunter Children's Hospital. At some sites this includes the rotation of Paediatric Registrars from that facility. Paediatric Registrars are also employed from other training programs including Brisbane and elsewhere as required.

The majority of acute and sub-acute referrals from the Tweed Byron and Richmond Clarence Health Service Groups are to Queensland tertiary services however formal cross-border reciprocal arrangements beyond acute service delivery are limited. Paediatrician representatives from both Health Service Groups are participating in planning meetings associated with the 'under construction' integrated Queensland Children's Hospital and its associated networking. The new Gold Coast University Hospital will also open in September 2013. The scope of growth in 2013/14 will include paediatric surgery and neurosurgery; however other major paediatric trauma will continue to flow to Brisbane.

Child and Family Health services include prevention, early intervention, screening, assessment, education, developmental checks, support, therapeutic interventions and treatment. They encompass a range of service modalities including Child and Family Health Nursing, Parenting Education (Child Birth and Early Parenting), Aboriginal Maternal and Infant Health, Genetic Counselling, Specialist Paediatrics, Speech Pathology, Occupational Therapy, Physiotherapy, Audiometry, School Health, Counselling and Therapy Services, Mental Health, Domestic Violence Programs and appropriate family support services. Outreach services are also provided through home and community visits and partnerships with other key children's service providers are central to the work of these multidisciplinary teams.

Other services also providing services to children include Dietetics, and Podiatry. Dietetics services provide services to children with chronic and complex conditions and also see children with weight related issues (e.g. obesity), failure to thrive, food intolerance and sensitivity allergy.

Specialist Child and Family Health services available in NNSW LHD include:

- Families NSW is the NSW Government's whole of government prevention and early intervention strategy for families expecting a baby or with children aged up to 8 years. Families NSW is implemented through a range of evidence based service models known to be beneficial for children, families and the community. These service models include universal health home visiting, supported playgroups, family workers, schools as community centres, volunteer home visiting services and parenting programs
- Universal health home visiting offers at least one universal contact by a Child and Family Health Nurse in the client's home within 2 weeks of birth. Universal health home visiting provides support to parents with young children and engages them in early childhood

health services. The program is based on universality of access, assessment and intervention in partnership with families

- The Aboriginal Child, Youth and Family Strategy is a State-wide prevention and early intervention Strategy that aims to provide Aboriginal children with the best start in life. From 2008/09 the Aboriginal Child, Youth and Family Strategy has placed greater emphasis on investment in the 0-5 year age range in keeping with the significant body of evidence around the importance of the early years and to align more closely with Families NSW principles and planning cycles. NNSW LHD employs Aboriginal Family Workers who deliver services to families in accordance with this Strategy
- NNSWLHD Sustaining NSW Families Program is a nurse led home visiting service to vulnerable families. This service utilises findings from the Miller Early Childhood Sustained Home Visiting Program. The aim of the service is to improve the health, development and wellbeing outcomes for women, children and families through a sustained home visiting program. The service works with parents to improve the transition to parenting using a “strength based” approach. Through the program mothers and families are supported with psychosocial and environmental issues until the child’s second birthday. The program is a combination of a structured parenting program, anticipatory guidance, health promotion, child and family health screening and surveillance measures. This comprehensive program is delivered by Child and Family Health Nurses in conjunction with and supported by a full time Social Worker and part time Allied Health staff
- Child and Family Health Nursing Services are provided to families with children aged 0-5 years and include health and developmental advice and information, assessment of growth, hearing, speech, vision and developmental progress of children, strategies to promote normal development and behaviour, childhood immunisation, support with breastfeeding and nutrition, parenting education and support, and the identification of postnatal depression and child abuse. Sustained home visiting, which provides services to families with complex health issues with children 0-5 years, is provided on a limited basis
- The School Health Program is an early identification and referral program provided by registered nurses through outreach to preschools and long day care centres. The program targets Aboriginal children and children identified with concerns by preschool teachers or parents the year prior to starting school. The program assesses hearing, vision, speech, dental, fine and gross motor development, social and emotional development and health history
- Paediatric Therapy Services include physiotherapy, occupational therapy and speech pathology. These services provide assessment, diagnosis and treatment of specific child health and developmental conditions and also implement health promotion programs related to child development and family wellbeing. These services are also provided on an outreach basis and in close partnership with GPs, preschools, schools and family support programs
- Child and Family Counselling Services provide assessment and counselling aimed at enhancing psychological and social wellbeing. This service provides health promotion, individual and group programs for children 0-12 years with mental health or other emotional or behavioural needs

- NSW Newborn Hearing Screening Program is a State-wide Infant Screening for Hearing (SWISH) program which commenced in December 2002. Since that time, over 95% of babies born in NNSW LHD have been screened. Through this program babies are offered a hearing screen as soon as possible after birth. In most of the hospitals providing birthing services, screening is conducted by specially trained enrolled nurses and midwives. Some screening is conducted as an outpatient in Community Health Centres. Approximately one-two babies per thousand are expected to be diagnosed with a bilateral moderate or greater hearing loss
- Statewide Eyesight Preschoolers Screening (StEPS) is a free population based vision screening program and is designed to identify childhood vision problems which cannot be detected by observation, behaviour, family history or vision surveillance. The program identifies childhood vision problems early, during the critical developmental period, so treatment outcomes are optimised. It provides active follow-up for children identified with significant vision problems and avoids preventable vision impairment and blindness later in life by treating childhood vision problems early. It also provides a universal point of access to children in NSW prior to school entry
- Genetic counselling is the provision of information and support regarding genetic disorders, birth defects, health concerns or test results relating to the individual or their family. This may involve the diagnosis of a genetic condition and supportive counselling to assist decision making and the adjustment process that occurs when a condition is new to a family or individual. These include inherited and sporadic genetic disorders. Genetic Counsellors work in collaboration with visiting Clinical Geneticists, Genetic Specialists and other local medical and allied health professionals. Genetic counselling may occur via telephone counselling or by appointment at a genetic clinic.

### FUTURE MODELS OF CARE

Innovative and forward thinking models of care are required into the future as resources are limited in an environment of a growing population and need. “Models of care need to strengthen networking and collaboration between community and hospital services to ensure a strong continuum of care for patients and their family” (NNSW LHD Children’s Health Services Action Plan 2012-2015). The flow of information, data and records between acute and community services needs to be strengthened as does technological tools, eMRs and Telehealth links.

There is potential to reallocate selected facilities to Paediatric Medicine level 2. This could provide appropriate emergency care and short term definitive care (e.g. oral rehydration therapy in mild-moderate gastroenteritis, management of mild to moderate asthma and croup) and stabilisation of children in the ED prior to transfer or discharge home. For example, as part of clinical service planning for a new Byron Shire Central Hospital it is proposed to construct a single room within the ED with one paediatric bed and capacity to accommodate a parent or carer.

This model has the capacity to be duplicated at other facilities in the LHD that have significant numbers of paediatric ED presentations and daily transfers for minor acute conditions requiring short term care in level 4 facilities due to the absence of local safe overnight paediatric care facilities and support services such as Ballina District Hospital.

There is also a need to ensure adequate numbers of higher acuity paediatric beds, along with the provision of expanded HITH paediatric services, to meet growing demand. Strategies for preventable admissions and hospital avoidance also need further strengthening.

Other models of care for future development include:

- Improvement of trans-disciplinary practice for the provision of Child and Family Health Services to integrate service provision and maximise resources
- Telehealth and coordinated outpatient services to assist service access by children and families in the outer areas of NNSW LHD
- Use of Telehealth facilities that enable timely consultation with Paediatric Specialist services in tertiary level facilities potentially minimising travel and possibly decreasing admissions or length of stay and maximising patient care
- Establishing formal consultation mechanisms in order to plan for the integration of the northern sector paediatric services within the Queensland Children's Hospitals outreach and referral network
- Establishment of processes and strategies to address chronic disease and preventable health issues specifically catering to the needs of a paediatric population.

## KEY ISSUES

- There is a need to develop a NNSW LHD Paediatric Stream which works within the anticipated framework of the NSW Kids and Families rollout; consistent policies and procedures, guidelines, health records and review processes are required in Children's Health Services across the LHD
- Once a Statewide Plan has been developed by NSW Kids and Families, strategic planning will be required in NNSW LHD
- Demand for inpatient beds at The Tweed Hospital increasingly exceeds the current inpatient bed capacity of 12 and due to constraints of the current infrastructure it is unlikely that additional paediatric bed capacity will become available in the medium term. Improved networking arrangements with Murwillumbah District Hospital particularly around ENT surgery may improve currently available beds at Murwillumbah District Hospital and improve capacity at The Tweed Hospital in the medium term
- The low demand for paediatric inpatient care at Murwillumbah District Hospital is impacting on maintenance of current nursing skills across a broad range of conditions and acuity and the ability to staff the Paediatric Ward with appropriately skilled nurses
- Both The Tweed and Lismore Base Hospitals receive and care for high dependency paediatric patients but neither hospital has dedicated paediatric high dependency beds
- There is a need for greater access to paediatric outpatient services to assist with early discharge and provide appropriate and timely follow-up. This need is compounded by limited availability of GP or bulk billing services for post discharge which makes it difficult to address prevention and readmission issues in a timely manner
- Child and Family Health Services are experiencing sustained clinical demand for programs and services which is not being met due to limited clinical resources. There are long waiting lists for most services and current staffing resources are unable to meet demand
- There is limited access to services for children with chronic and complex diseases as many of these services are adult based and have limited time to provide services specifically catered to the paediatric population (e.g. Diabetes and Dietetics services)

- Implementation of the National ED 4 hour NEAT targets will place significant pressure on inpatient facilities to accept patients from the ED who would have otherwise received short term care in the ED and discharged such as for receiving oral rehydration therapy or observation after low risk head injury. New models of care will be required to facilitate these ED NEAT targets
- There is an increase in the number and frequency in child protection issues that arise during the provision of Child and Family Health Services. This often then correlates to an increased level of case complexity and increases the resources required to provide support to the child and their family
- There are issues in the Tweed Byron Health Service Group with incompatible child protection legislation between Queensland and NSW
- As demand for Genetic Services increases, issues of service availability and access in rural areas will need to be addressed
- There is limited access across the LHD to Child and Adolescent Mental Health Services. This is particularly the case for children under 12 years of age and for children and young people with eating disorders. In Grafton and in some of the more isolated rural areas it was reported that there is no access
- There is an increased demand for specialist Allied Health, Mental Health, Medical and Nursing services across the LHD. Specialist paediatric staff numbers are limited and many Paediatric/Child Health Services are attached to generalist roles. Generalist staff have limited ability to allocate specific time to paediatric service provision and maintenance of specialist skills is difficult
- There is scope for paediatric dietetics positions to be established in the LHD
- It is important to ensure that service delivery matches community needs whilst ensuring sufficient throughput for skills maintenance within a rapidly changing clinical environment
- There are gaps in specialist child and family therapy services particularly where there is no access to private services or where the gap between the fee and refund is prohibitive
- There is a need for a review of child sexual assault services in Grafton as there is currently limited resources to meet current demand; there is a gap in the provision of forensic medicine for young adolescents
- There is a need to investigate options for the use of technology in therapy tools. An example of this could be the use of iPad or tablet based tools
- There are physical and functional layout issues in the paediatric inpatient units at Lismore Base Hospital and The Tweed Hospital that directly impact on the efficient and safe operation and staffing of the units
- There is a lack of suitable long term accommodation and affordable transport options for parents of children receiving inpatient care at The Tweed Hospital
- There is a lack of clarity around the impact of the NDIS on the way Child Therapy Services will be provided.

## 8.10 PRIMARY AND CHRONIC CARE

### 8.10.1 PRIMARY AND COMMUNITY HEALTH SERVICES

Primary care is the provision of access to comprehensive, community-based health care, including through first point of call services for prevention, diagnosis and treatment of ill-health, and ongoing management of chronic disease.

Primary care includes a range of services provided by health professionals such as GPs, practice nurses, psychologists, physiotherapists and community health workers. A strong primary health care system is crucial to ensuring that people can get the health care they need, when they need it, where they need it. It helps people better manage their health and plays an important role in preventing disease.

The Commonwealth Government is making a major investment in general practice and primary health care by establishing Medicare Locals across Australia, to work with the full spectrum of general practice, allied health and community health care providers and improve access to care and drive integration between services.

New services will be piloted with new approaches to provide flexible delivery of primary health care services through general practice for the treatment and ongoing management of people with diabetes. The Government will also be delivering a total of 64 GP Super Clinics and around 425 upgrades to general practices, primary care and community health services, and Aboriginal Medical Services to improve access to integrated general practice and primary health care.<sup>82</sup>

The NSW Ministry of Health describes Community Health as a range of community based prevention, early intervention, assessment, treatment, health maintenance and continuing care services delivered by a variety of providers. The NSW public health system provides the majority of community health services. A well-resourced community based service can also provide the broad range of prevention, early detection, early intervention programs that enable communities to stay healthy and avoid acute care altogether. NNSW LHD Community Health Services work in partnership with government and non-government agencies including GPs, GP Super Clinics and North Coast NSW Medicare Local.

#### NORTH COAST NEW SOUTH WALES MEDICARE LOCAL

North Coast NSW Medicare Local is a not for profit organisation which came into existence as part of the Commonwealth Governments health reform package. It was established through a partnership of Hastings Macleay General Practice Network, Tweed Valley General Practice Network, Mid North Coast Division of General Practice, Northern Rivers General Practice Network, North Coast GP Training and Many Rivers Aboriginal Medical Services Alliance. This partnership ensures strong links to local communities, health professionals, service providers, consumers and patient groups.<sup>83</sup> Key Program areas for the North Coast NSW Medicare Local are detailed below.

#### MENTAL HEALTH SERVICES

The North Coast NSW Medicare Local delivers a range of mental health services around the region focused on traditionally under-served members of our community. These include psychological therapy and counselling services for people on a low income, living outside of urban centres where traditional services are scarce or unavailable, Indigenous communities and young people and

<sup>82</sup> *National Health Reform Progress and Delivery September 2011*

<sup>83</sup> <http://www.ncml.org.au/index.php/about-us>

children. The North Coast NSW Medicare Local is lead agency for the new headspace centres, due to open in Lismore in 2014. The North Coast NSW Medicare Local also manages the Access to Allied Psychological Services program in the region and engages over 30 mental health practitioners and supports over 1,000 people per year. A variety of smaller programs focused on supporting people with substance misuse and serious and enduring mental health issues are offered by the North Coast NSW Medicare Local.

### PRACTICE AND PROVIDER SUPPORT

The North Coast NSW Medicare Local provides support to primary health care providers to assist them deliver a range of high quality, person centred health care services. Currently this approach links a Practice Assistance and Liaison Officer to General Practices, Pharmacies, Aged Care Facilities and Psychologists/Mental Health professionals with services expanding incrementally to include allied health practitioners. This program provides a direct link between practices and other programs delivered by the North Coast NSW Medicare Local.

### EHEALTH

Implementation of the Person Controlled Electronic Health Record (PCEHR) is a key activity for the North Coast NSW Medicare Local. In 2013-2014 the focus will be on progressing registered providers towards meaningful use of the record and increasing the recruitment of consumers. This program also looks for opportunities to support the increased uptake of Telehealth solutions.

### AFTER HOURS CARE

The focus of the North Coast NSW Medicare Local After Hours Care program has been on retaining existing providers who were nervous because funding of After Hours Practice Incentive Programs (PIPs) has been transferred to Medicare Locals. GPs have been provided with funding certainty and this has ensured the minimum interruption to existing services while new funding models and services are being developed. Work in this area is expected to continue for some time.

### HEALTH PATHWAYS

The North Coast NSW Medicare Local has committed a significant investment to progress implementation of the Health Pathways program, initially in collaboration with the Mid North Coast LHD. Health Pathways offer significant opportunities to standardise access to care, improve the patient journey and increase efficiency.

### INDIGENOUS HEALTH

An Indigenous Health Program Officer oversees a project to increase integration of indigenous health programs across the North Coast NSW Medicare Local, including the Care Coordination and Supplementary Services program which offers support for indigenous people with chronic diseases in respiratory, coronary, renal disease, diabetes and cancer. This program has recently been expanded and can now include children under 15 years of age with these chronic diseases.

### PALLIATIVE CARE

At a multi-sector meeting about palliative care, priorities identified include:

- Identification of a standard Palliative Care Pathway for people requiring end of life care in RACFs
- Development of resources to encourage early end of life planning and sharing of these resources via Health North Coast



- Development of a 'Where to from here?' resource document for people with life limiting illnesses who will eventually move into a palliative phase of their illness.

This is in addition to the existing collaboration between the North Coast NSW Medicare Local and NNSW LHD which has seen the establishment of a pilot program exploring the use of Palliative Care Registrars to enhance palliative care in the community.

### PARTNERSHIP WITH NNSW LHD

The NNSWLHD and the North Coast NSW Medicare Local joint Board meeting was held on 29 May 2013 at the University Centre for Rural Health, Lismore. A broad and varied set of matters were discussed including:

- Joint Vision for Health: Partnership for Health System Reform and Improvement
- Health Pathways Program
- Colocation of LHD Community and Allied Health Services with General Practice
- Alliance to Improve Provision of Services to the Vulnerable Members of the Community: the homeless; people with a disability; and children at risk of significant harm
- Joint Projects: Bonalbo GP recruitment; Palliative Care Registrar; Chronic Disease Management (Connecting Care); Social Media (Healthy North Coast); Gurgun Aboriginal Medical Service.

### GP SUPER CLINICS

GP Super Clinics provide support for preventative health care, including promotion of healthy lifestyles, addressing risk factor and lifestyle modification to prevent chronic disease and improving early detection and management of chronic diseases such as diabetes, hypertension, heart disease, respiratory disease, mental illness, asthma and more.

There are three GP Super Clinics now in operation in NNSW LHD. These are located at Grafton, Tweed Heads South and Goonellabah.

The Grafton GP Super Clinic offers patients access to an integrated team based approach to quality health care that leads to the delivery of medical and health care that can make a difference to people's lives and improve the health of the communities they live in.<sup>84</sup>

Tweed Heads GP Super Clinic operating under the name "Tweed Health for Everyone GP Super Clinic" provides an integrated, multidisciplinary, team-based, patient-centred health care under one roof. The GP Super Clinic also provides psychology, physiotherapy, diabetes education, dietetics and podiatry, with an emphasis on chronic disease care and preventive activities. It also offers mental health care nursing, exercise physiology, occupational therapy, continence physiotherapy, asthma education, dental, pathology, a social worker and an Aboriginal health worker. The Super Clinic also trains medical, nursing and allied health students along with GP Registrars.

The Lismore GP Super Clinic is an expansion of the Rous Road Meridian Practice and some services commenced in May 2012. The Super Clinic will include more specialist services including dentistry and allied health services as well as the current Aboriginal services. Construction of the Super Clinic commenced in April 2013.

<sup>84</sup> <http://graftongpsuperclinic.com.au/>

## NNSW LHD COMMUNITY HEALTH SERVICES

A number of the community based health care activities are established under a range of specific State or joint Commonwealth/State programs. Some of these have specific target client groups, eligibility criteria and priorities.

The general aim of these programs is to improve the health and wellbeing of people in the community resulting in avoidance of inpatient admission or to allow for early discharge from an acute admission or the reduced likelihood of unplanned readmission.

Significant principles guiding the services, deriving from the NSW Community Health Policy, include:

- Early identification of individuals at risk
- Coordination of care
- Encouragement of self-management of conditions
- Client/patient involvement
- Cost effectiveness
- Reduced inpatient demand
- Better outcomes
- Streamlined referrals
- Response to health and social conditions impacting wellbeing.

## CURRENT SERVICES<sup>85</sup>

There are 22 Community Health Centres located at various hospital sites and as stand-alone facilities throughout NNSW LHD. Service locations are detailed in the table below. Additionally a new community health centre is planned for Yamba. The Centre is expected to open in 2013. In general, Community Health operational hours are from 8am to 5pm Monday to Friday with limited weekend service for Palliative Care, Nursing, HITH, ASET and TACS.

**Table 73: NNSW LHD Community Health Centres**

Community Health Facilities		
Alstonville	Evans Head	Mullumbimby
Ballina	Goonellabah	Murwillumbah
Bangalow	Grafton	Nimbin
Banora Point	Iluka	Pottsville (HealthOne)
Bonalbo	Kingscliff	Tweed Heads
Byron Bay	Kyogle	Urbenville
Casino	Lismore	Yamba (being developed)
Coraki\Campbell	Macleay	

Source: NNSW LHD Planning and Performance Unit

Community Health services work in partnership with a range of other Government Departments and community based services offering prevention, early detection, early intervention, health maintenance and treatment programs that complement acute care and treatment services provided by NNSW LHD programs, hospitals, GPs and medical specialists. Services provided from Community

<sup>85</sup> See sections 6, 8.1, 8.3, 8.8, 8.9 and other sections of 8.10

Health include; Allied Health (including physiotherapy, speech therapy, occupational therapy, podiatry, social work, counselling and dietetics), Nursing, Palliative Care, Podiatry, Child and Family services, Women's Health, Aboriginal Health Services, Sexual Assault Services and Health Promotion.<sup>86</sup>

Other Ambulatory Care Services and alternatives to hospital admission models of care are provided across a range of settings including the person's home, acute facilities, day centres, and primary and community health settings. Generally services are provided in collaboration with GPs, NGOs, AMSS and other Government organisations. These Ambulatory models of care include ASET, AARCS, HITH, ComPacks and HACC services.<sup>87</sup>

## HEALTHONE NSW

HealthOne NSW is a NSW Government initiative which is based on an integrated approach to provision of comprehensive primary and community health services. HealthOne provides leadership to services in developing service integration across the primary and community health sector and activities which support an integrated service model. Activities include collocation of government and non-government health services with general practice, integration of health records, shared care arrangements and multidisciplinary team activities such as shared education and training of staff, team meetings and case conferences. HealthOne NSW funded the construction of a HealthOne Centre at Pottsville. HealthOne Pottsville was officially opened by the Minister for Health and Medical Research, the Hon. Jillian Skinner on 5 April 2013.

## CURRENT MODELS OF CARE

Models of care within Community Health services are not uniform. However, broadly speaking they seek to achieve a range of aims which include:

- Promoting optimum health for clients and their families
- Delivering appropriate, effective and accessible care
- Facilitating a multidisciplinary approach
- Leading to coordinated care
- Involving clients and carers
- Observing relevant prioritisations
- Providing alternatives to hospital admission
- Improving access to health services for Aboriginal people
- Providing or facilitating a continuum of care
- Promoting prevention and early intervention.

Community Health staff offer prevention, early detection, early intervention, health maintenance and treatment programs that complement acute care and treatment services provided for individuals by hospitals, GPs and specialists. Specific current models in use include:

- Nurse-led clinics
- Generalist community nursing
- Palliative Care community nursing
- Hospital substitution and post- acute care

<sup>86</sup> Detailed information on these services is included in other sections of the Plan

<sup>87</sup> See Section 8.1 for more information

- Care Coordinator and Case Management
- Connecting Care.

With the increasing demand on acute care beds there has been growth in demand for post-acute care services as increasing numbers of patients are discharged from hospital requiring continuing health based support. Alternate to Hospital models of care have been developed to meet the demand and are operational across the Tweed Byron Health Service Group.

### FUTURE MODELS OF CARE

The integration of Community Health services with general practice has developed significantly over the years. The partnerships established in some sections with Priority Health Care programs are a good example at hand. This is reflected both in provision of acute services in the community and community based rehabilitation programs e.g. Pulmonary and Cardiac Rehabilitation. Service integration and coordination has also been supported through joint case management systems.

Developing the models of care that are most responsive to consumer needs and patterns of service use is one of the challenges for developing primary and community health services in the future.<sup>88</sup> Decisions about the future of Community Health are fundamentally linked to decisions about the whole of NSW health system in the context to improve efficiency.<sup>89</sup>

### FUTURE DIRECTIONS

A key priority for NSW Health is to promote an integrated health system that ensures continuity of care for patients with chronic disease and complex needs. Partnering and collaborating within the primary health care sector is fundamental to achieving this vision.<sup>90</sup>

NNSW LHD is keen to engage with Medicare Locals, AMSs, general practice and other primary health care providers to develop and support the implementation of innovative models of care and associated practices that deliver integrated, person-centred care across primary, community and acute care settings.

### KEY ISSUES

- Increasing demand for Community and Allied Health services as the population grows and ages
- The Community and Allied Health workforce has been limited due to resourcing issues and ageing of its workforce
- The need for partnerships to be developed between NNSW LHD Community Health Services and North Coast NSW Medicare Local and to identify opportunities to better integrate service provision
- The need to review key priorities for the Community Health Service to ensure the range of services provided by GPs and Practice Nurses are linked to Community Health priorities to identify and reduce gaps, reduce duplication and ensure services are integrated and coordinated
- The need to expand access to new models of care as alternative options to hospital admission

<sup>88</sup> Owen et al (2008) *Community Health: the evidence base. A report for NSW Community Health Review. Centre for Health Service Development. University of Wollongong.*

<sup>89</sup> Eagar et al. (2008) *Community health at the crossroads: which way now? Final report of NSW Community Health Review. Centre for Health Service Development. University of Wollongong.*

<sup>90</sup> [http://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0009/182565/ACI-Information-Sheet-for-Primary-Health-Sector.pdf](http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0009/182565/ACI-Information-Sheet-for-Primary-Health-Sector.pdf)

- The need for greater investment in preventative interventions in the aged care population and chronic disease management
- There is a need to provide an integrated eMR with capacity to communicate with GPs
- Mobile devices and tablet based tools are required to support the provision of timely information and assessment tools for community health staff
- Improving communication about patients being discharged from hospital has been raised as an issue across a number of community based organisations<sup>91</sup>
- There is a need to provide improved access to training for the implementation of new models of care.

### 8.10.2 CHRONIC DISEASE MANAGEMENT

Strategic directions for the Chronic Care Program reflect program objectives provided by NSW Health. NNSW LHD Executive Director Allied Health, Primary and Chronic Care provides strategic leadership together with Service Coordinators for cardiac and respiratory services in the development and implementation of chronic disease management services across NNSW LHD. This work is undertaken in consultation with key stakeholders such as Executive Directors Health Service Groups, Network Community and Allied Health Managers, Clinicians and the North Coast NSW Medical Local. Implementation and management of chronic disease services is the responsibility of the respective Health Service Groups. The Chronic Care for Aboriginal People Program is managed by the Manager Aboriginal Health. The core components of identification training and 48 hour follow-up are managed by the Aboriginal Health Unit, and attendance and completion of cardiac and respiratory rehabilitation is managed through the Chronic Care Program.

#### CURRENT SERVICES

Residents of NNSW LHD can access disease specific services such as Cardiac and Pulmonary Rehabilitation Programs, Diabetes Educators, Heart Failure and Respiratory Liaison staff and the Chronic Disease Management Program - *connecting care in the community*. The staff work across the acute and community setting. An integrated approach to the management of chronic disease programs has been adopted across the Networks of NNSW LHD. These programs work in partnership with Diagnostic Services, Specialists Medical Officers and GPs.

#### CHRONIC DISEASE MANAGEMENT PROGRAM - CONNECTING CARE IN THE COMMUNITY

The purpose of the NNSW LHD Chronic Disease Management Program (Connecting Care in the Community) is to deliver more effective health management for patients aged over 18 years and Aboriginal patients over 16 years, with heart disease or heart failure, chronic obstructive pulmonary disease, diabetes or hypertension.

The objectives of the program are achieved through the following strategies:

- Establishment and implementation of models of shared care - linking together GPs, Specialist Medical Officers, Community Health services, Emergency, acute inpatient and sub-acute services, residential and other aged services and community support services
- Introduction of State-wide and LHD information and communications technology, telephone health coaching, regional chronic disease management, treatment protocols, referral pathways, shared care plans, and ongoing coordinated care and support

<sup>91</sup> See Section 8.10 Chronic Care and Chronic Care for Aboriginal People

- Delivery of an integrated, patient focused, whole person approach – addressing patient clinical and non clinical functional deficits.

Key features of the program include:

- A proactive, coordinated approach to chronic disease management
- Proactive identification, assessment, enrolment, monitoring and care of high risk and very high risk patients
- Strong support for multidisciplinary care, care planning, care coordination and review with coordinated networks of health care providers
- Support for the GP as main medical care provider
- Strong support for patient self-management
- A Governance structure that reflects an integrated approach to chronic care
- Information and communication technology systems supporting central and LHD information collection and sharing
- Supporting patients and care providers
- A State-wide and LHD telephone support service based on a hub and spoke model linked to enhanced regional telephone communication services to receive inbound calls and referrals and provide outbound health coaching and email/web support
- Funding, organisational and governance structures
- Utilisation of evidence based practice and models.

NNSW LHD has developed a comprehensive suite of services for the management of chronic diseases. These services are provided in acute care settings, the community, outpatients and in local community health facilities. NNSW LHD has developed models of care that ensure patients have access to services close to their home. A hub and spoke service model has enabled chronic care services to be delivered in the larger centres and also outreached into the smaller communities such as Nimbin.

There are five priority disease areas within the scope of the program:

- Diabetes
- Chronic Obstructive Pulmonary Disease
- Congestive Heart Failure
- Coronary Artery Disease
- Hypertension.

### DIABETES SERVICES

Diabetes is a significant and growing health problem in Australia. Diabetes is one of the leading health issues for Australians; it is associated with many complications and has a major impact on quality of life and life expectancy.

There are three main types of diabetes: Type 1; Type 2; and gestational diabetes:

- Type 1 diabetes mostly occurs in children or young adults, but can emerge at any age
- Type 2 diabetes is the most common form of diabetes, occurring mostly in people aged ≥50 years

- Gestational diabetes is a form of diabetes that develops in women during pregnancy.

In Type 2 diabetes, adverse outcomes for diabetes can be prevented, delayed or alleviated, however if diabetes is undiagnosed or poorly managed its complications can cause disability, poor quality of life and premature death. After 25 years from diagnosis, more than 50% of people with Type 1 diabetes will have some form of complications.

Diabetes complications can arise quickly or develop over a number of years. Short-term complications are considered a medical emergency and may lead to coma and death. These complications include conditions such as diabetic ketoacidosis and hypoglycaemia (low blood glucose). Long-term complications include disease of large blood vessels (macrovascular disease) that leads to conditions such as heart disease, stroke and lower limb amputation; and disease of small blood vessels (microvascular disease) that can cause chronic kidney disease, nerve damage and visual impairment.

Control of risk factors for cardiovascular disease is particularly important for people with diabetes as this co-morbidity continues to be a common underlying cause of cardiovascular related death in NSW.

Diabetes services are based primarily in the Community Health setting and provide a framework for integrated and seamless patient care across hospital and community service settings. Diabetes Educators work with GPs, Physicians and Endocrinologists to support an ambulatory care model of service delivery by providing insulin stabilisation in the community setting.

#### CURRENT INPATIENT ACTIVITY DIABETES

In 2011/12 there were a total of 376 separations from NNSW LHD Hospitals for definitive care for Diabetes. It is important to note that diabetic patients are admitted under a range of DRGs and for the purpose for this assessment ESRG 141 Diabetes has been selected.

As can be seen in the table below there has been a 25% increase in Day Only separations for ESRG Diabetes at NNSW LHD Hospitals between 2009/10 and 2011/12. For the same period there was a 15% decline in Overnight separations and 11% decline in beddays.

**Table 74: NNSW LHD Day Only and Overnight Separations and Beddays for ESRG Diabetes 2009/10-2011/12**

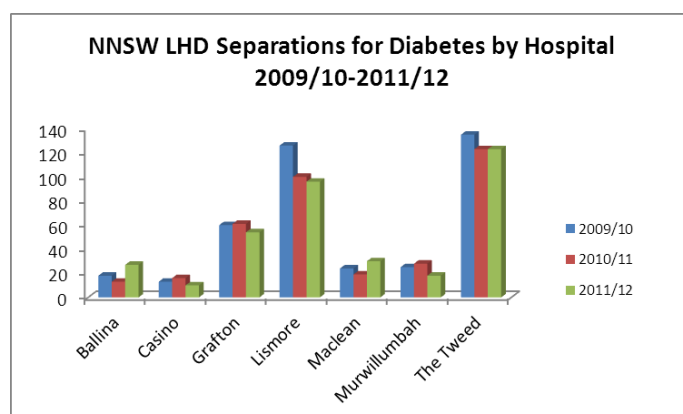
	2009/10		2010/11		2011/12	
	Seps	Beddays	Seps	Beddays	Seps	Beddays
Day Only	44	44	37	37	55	55
Overnight(s)	377	2,513	359	2,580	321	2,234
<b>Total NNSW LHD</b>	<b>421</b>	<b>2,557</b>	<b>396</b>	<b>2,617</b>	<b>376</b>	<b>2,289</b>

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

Most inpatient diabetes care occurs at either Lismore Base Hospital or The Tweed Hospital. As shown in the figure below the number of separations for ESRG Diabetes declined at all NNSW LHD Hospitals except Ballina District Hospital and Maclean District Hospital between 2009/10 and 2011/12.



**Figure 25: Day Only and Overnight Separations for ESRG Diabetes 2009/10-2011/12 by Hospital**



Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

## CHRONIC OBSTRUCTIVE PULMONARY DISEASE

The term Chronic Obstructive Pulmonary Disease (COPD) describes any disorder that persistently obstructs bronchial airflow. COPD mainly involves two related diseases - chronic bronchitis and emphysema. The obstruction is generally permanent and is progressive over time and is generally associated with an abnormal inflammatory response in the lungs to noxious particles or gases such as tobacco smoke, environmental tobacco smoke, air pollution or exposure to harsh chemicals. A small number of people can get emphysema from a genetic cause. Asthma is also an obstructive respiratory disease but this obstruction is generally reversible and therefore between asthma attacks the airflow is usually good.

Evidence shows that best practice management of COPD can improve quality of life, increase exercise capacity, and reduce morbidity and mortality in affected individuals. Early intervention is the key to reducing the progression of the disease into stages that cause significant impacts on quality of life and costs to the health system.

NNSW LHD Respiratory services target all adults with a chronic respiratory disease including asthma, COPD, bronchiectasis and interstitial lung disease. Respiratory services aim to optimise individual patient health outcomes by providing equitable and timely access to evidence based interventions across the disease continuum.

Service delivery objectives are to support early diagnosis, optimise management across disease continuum, prevent disease progression and disability, optimise individual physical and psychosocial function, improve quality of life of patients and carers and to empower patients to maximise their disease self-management capabilities. A reduction in ED presentations, hospital admissions, readmissions and beddays for unplanned chronic respiratory disease exacerbations is a flow-on objective of the respiratory services.

Pulmonary rehabilitation programs are conducted at all sites in NNSW LHD. There is level one evidence to support those with COPD attending these programs. Teleforms are used for respiratory assessments and for pre and post pulmonary rehabilitation data. The data collected can be used as the basis for planning requirements at individual sites and also as a basis for quality improvement.

## CURRENT INPATIENT ACTIVITY CHRONIC OBSTRUCTIVE PULMONARY DISEASE

In 2011/12 there were a total of 5,256 Day Only and Overnight separations from NNSW LHD Hospitals for Respiratory Medicine. There has been a 42% increase in Day Only separations for Respiratory Medicine between 2009/10 and 2011/12. Although a proportion of this increase is due to a doubling of the number of bronchoscopies performed there were also significant increases in

separations for chronic obstructive airways disease, bronchitis and asthma. For the same period there was a 7% increase in Overnight separations and 6% increase in beddays.

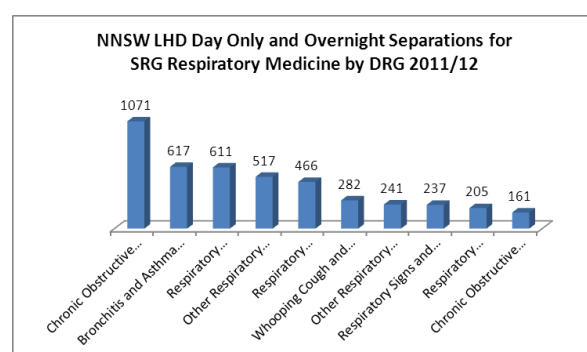
**Table 75: NNSW LHD Day Only and Overnight Separations and Beddays for SRG Respiratory Medicine 2009/10-2011/12**

	2009/10		2010/11		2011/12	
	Seps	Beddays	Seps	Beddays	Seps	Beddays
Day Only	572	572	640	640	811	811
Overnight(s)	4,148	20,635	4,334	21,609	4,445	21,937
<b>Total NNSW LHD</b>	<b>4,720</b>	<b>21,207</b>	<b>4,974</b>	<b>22,249</b>	<b>5,256</b>	<b>22,748</b>

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

Of the 5,256 separations for respiratory disease in 2011/12, 23.4% were for DRG Chronic Obstructive Airways Disease. The figure below details the top 10 DRGs for Respiratory Disease separations from NNSW LHD Hospitals in 2011/12.

**Figure 26: NNSW LHD Day Only and Overnight Separations for SRG Respiratory Medicine by DRG 2011/12**



Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

## CONGESTIVE HEART FAILURE AND CORONARY ARTERY DISEASE

Within NNSW LHD, all hospitals provide care for patients with congestive heart failure, however, due to differences in resources and role delineation, the level of ongoing and clinical support services varies in both scope and nature between each site.

Cardiac Rehabilitation and Heart Failure Services are delivered through a variety of models across NNSW LHD. The model of care used at a site is based on a balance between the funding available and the volume of patients. Many patients still do not attend Cardiac Rehabilitation for a variety of reasons, and NNSW LHD is currently well below the NSW Health target of 60% of cardiac patients commenced and 90% of cardiac patients completed rehabilitation. This contributes to the readmission of potentially avoidable cardiac presentations due to the absence of education and risk behaviour modification provided by the Cardiac/Heart Failure Rehabilitation Programs.

Cardiac Rehabilitation and Heart Failure Services in all sites currently use a standardised LHD-wide Cardiac Assessment form. This form has the ability to collect best practice assessment and outcome data when used as a Teleform. This data can be used as a basis for service quality improvement and inform service planning at individual sites.

Cardiac service integration within Networks has been achieved to a certain extent, and improved with the opening of the Diagnostic and Interventional Cardiology Unit at Lismore, and exercise stress testing at Lismore and Tweed; however improved integration within Networks is still required.

## CURRENT INPATIENT ACTIVITY HEART FAILURE AND CORONARY ARTERY DISEASE

As seen in the table below separations from NNSW LHD Hospitals and beddays for Coronary Artery Disease declined between 2009/10 and 2011/12. For the same period there was significant growth in separations and beddays for Heart Failure.

**Table 76: NNSW LHD Day Only and Overnight Separations for SRG Cardiology by DRG 2011/12**

DRG	2009/10		2010/11		2011/12	
	Seps	Bedays	Seps	Bedays	Seps	Bedays
F62A Heart Failure and Shock W Catastrophic CC	121	1,266	114	1,310	134	1,511
F62B Heart Failure and Shock W/O Catastrophic CC	430	2,571	481	2,584	504	2,641
F66A Coronary Atherosclerosis W Catastrophic or Severe CC	46	233	42	193	37	187
F66B Coronary Atherosclerosis W/O Catastrophic or Severe CC	341	805	293	604	307	547
<b>Total NNSW LHD</b>	<b>938</b>	<b>4,875</b>	<b>930</b>	<b>4,691</b>	<b>982</b>	<b>4,886</b>

Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch.

## FUTURE DIRECTIONS

A greater focus on early intervention and rehabilitation services has the potential to affect readmission rates and should be the focus of future service development. Working closer with General Practice and offering a wider scope of rehabilitation services including the provision of 'online' or smartphone based risk factor management programs will enhance patient support and assist in meeting the increasing demand for rehabilitation services across the LHD.

There will be increasing use of videoconferencing and online education programs for staff development including GPs and Practice Nurses as well as the use of Skype [or similar type of service] for patient review and case conferencing with General Practice and other service providers.

## FUTURE MODELS OF CARE

The NNSW LHD has been working with Southern Cross University in the development of an exercise based model of care for patients with chronic conditions. This model uses supervised exercise physiology students to provide maintenance exercise programs for patients following cardiac and respiratory rehabilitation and for patients with diabetes and other chronic conditions. Currently this model is being trialled at a Southern Cross University venue in Lismore, and an outreach service is being provided to Casino residents. The participating students gain experience in working with patients who have chronic disease, while providing a much needed maintenance program. Replicating this program once the trial has been evaluated would be a cost effective way of providing this model of care. Incorporation of exercise physiology into management plans and team care arrangements could support this program to remain free of charge in the future.

## KEY ISSUES

- Increasing ageing population and the growth of chronic disease within this age group
- Insufficient access at some locations to inpatient, outpatient and maintenance groups for respiratory and cardiac patients which has the potential to affect readmission rates
- Increasing demand for respiratory, diabetes and cardiac rehabilitation services across the LHD
- Limited access to a Respiratory Physician at The Tweed Hospital

- Promoting access to cardiac and respiratory services for Aboriginal people
- The need to develop an outpatient cardiac clinic at Lismore Base Hospital for review of patients with pacemaker or implantable defibrillators
- Greater access to clinical pharmacology for cardiac patients at Tweed, Lismore, Ballina, Murwillumbah, Maclean and Grafton Hospitals
- The need to ensure access for cardiac and respiratory patients to exercise physiologists or physiotherapists in development of home exercise programs
- Community provision of accessible and affordable maintenance exercise groups for patients with chronic diseases
- Lack of Diabetes Coordinator for the LHD for leadership in the provision of Diabetes Services. There is a need to develop a Diabetes Clinical Services Plan for the LHD
- There is one Endocrinologist in Tweed Heads and no public Endocrinologist in Lismore, only private Endocrinologists
- There is increasing demand from children with long term Type 2 diabetes
- Lack of coordination between inpatient units, GPs and Community Health services.

## CHRONIC CARE FOR ABORIGINAL PEOPLE

Aboriginal people  $\geq 45$  years are considered to be at greater risk of developing a chronic disease and are therefore the target population for the Aboriginal Chronic Disease Management Program. The recommended age for chronic disease management focus in the general population is  $\geq 65$  years.<sup>92</sup> It is interesting to note that 20% of the projected Aboriginal population for NNSW LHD in 2011 are  $\geq 45$  years of age. The significant health disadvantage of Aboriginal communities continues, with life expectancy estimated to be 60.0 years for NSW Aboriginal males and 65.1 years for NSW Aboriginal females for the period 1996 to 2001. For both males and females the life expectancy for Aboriginal people is estimated to be almost 17 years less than for the general population.<sup>92</sup>

Chronic conditions such as cardiovascular disease and kidney disease share common risk factors, such as tobacco smoking, physical inactivity, poor diet and heavy alcohol consumption. Kidney damage is often caused by diabetes; and risk factors for kidney failure include high blood pressure, infections, low birth weight and obesity.

The purpose of the Chronic Care for Aboriginal People program in NNSW LHD is to implement practical steps and solutions to improve access to early intervention services to Aboriginal people with chronic conditions, build working relationships between Aboriginal and mainstream chronic disease services, identify and share best practice in meeting the needs of Aboriginal people with chronic disease, work towards a common goal which supports and improves chronic care management and access to culturally appropriate healthcare.

The objectives of the program will be achieved through the following strategies:

- Enhance the existing service by provision of program development, education and service delivery with a secondary clinical focus
- Encourage prevention, detection and treatment of chronic diseases within the Aboriginal population and assist with accessing and coordinating services for Aboriginal people with chronic care needs.

<sup>92</sup> Department of Health Chronic Disease Management Project Plan

### CURRENT SERVICE

The Chronic Care for Aboriginal People program consists of a Clinical Nurse Consultant, a Registered Nurse and three Aboriginal Chronic Care Worker positions that provide a client service delivery model across the Tweed Byron and Richmond Clarence Health Service Groups.

The aim of the Chronic Care of Aboriginal People program is to ensure that services work in partnership to provide healthcare to Aboriginal people and work towards a common goal which supports and improves chronic care management and access to culturally appropriate healthcare.

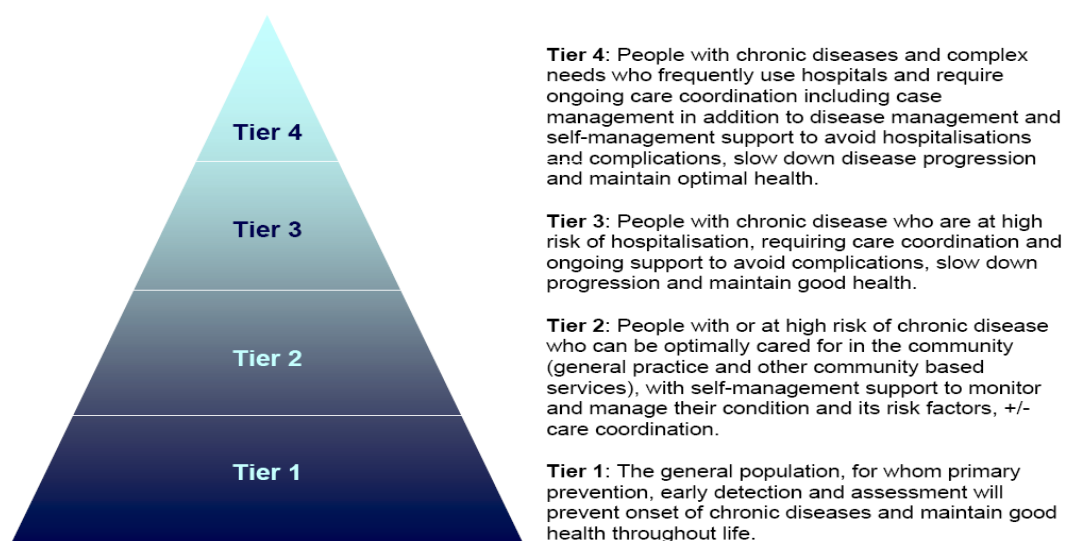
The NNSW LHD Chronic Care for Aboriginal People Team also advise regarding the development and implementation of Chronic Care services for Aboriginal people across NNSW LHD, in consultation with key stakeholders including Health Service Group Executive Directors, Community Health Managers, Clinicians, AMS and North Coast NSW Medicare Local. Diseases targeted by the program include diabetes, hypertension, chronic kidney and respiratory disease.

Key features of the program include:

- Opportunistic awareness promotion through meetings, clinicians and community meetings
- Improved access to rehabilitation programs for Aboriginal people with chronic disease
- Increase access to services for Aboriginal people
- Promote access to existing mainstream health services for Aboriginal people
- Develop culturally appropriate alternative models of care to align with NSW Health Chronic Care of Aboriginal People model of care
- Improve access to Chronic Care programs
- Provide follow-up within 48 hours to Aboriginal patients with chronic disease who are discharged from hospital
- Case management and case coordination of people with chronic disease in the community setting to optimise care and facilitate links to services.

### TARGET POPULATION

The target population for the program are Tier 2 and 3 outlined in the figure below and are Aboriginal persons, 15 years and over who have, or are at risk of, chronic conditions.

**Figure 27: Chronic Care for Aboriginal People Program, Target Population**

Source: NSW Health Chronic Care for Aboriginal People, Models of Care 2010

### KEY PERFORMANCE INDICATORS

The table below details targets and results for KPIs for the Chronic Care for Aboriginal People Program in 2011/12.

The KPI for PAS identification of Aboriginal people admitted to hospital is being met however more training has been undertaken across the LHD and further improvement is expected in 2012/ 2013.

While 24% of Aboriginal people with chronic disease are being referred to participating services and completing chronic disease rehabilitation programs within the required time frames, the recent development of a dedicated position is expected to improve this result in 2012/2013.

Difficulties in resourcing are impacting on achievement of the target of 90% of Aboriginal patients with chronic disease being followed up within 48 hours of discharge from hospital.

**Table 77: KPIs and Results for the Chronic Care for Aboriginal People Program 2011/12**

KPI	Target	Performance 2011 - 2012
PAS identification of Aboriginal people admitted to hospital, consistent with PD2005_547 Aboriginal and Torres Strait Islander origin – recording of information of patients and clients	<1% of PAS Aboriginal status data should be recorded as 'not stated' or 'unknown'	0.86%
% of Aboriginal people with chronic disease being referred to, participating / completing chronic disease rehabilitation programs	60%	24%
% of Aboriginal patients with chronic disease followed up within 48 hours of discharge from hospital by any member of the agreed health provider team	90%	37%

Source: NNSW LHD Aboriginal health Program Data Collection 2011/12

### COORDINATION OF CARE

Care of Aboriginal people with chronic conditions is provided by a range of health service providers including General Practice, AMSs and government and non-government community support services. Where services operate in isolation there is potential for duplication and fragmentation.

### FUTURE DIRECTIONS

Aboriginal Liaison Officers are critical to the coordination of care between an individual's acute admission and discharge back to the primary health care setting. In an ideal world Aboriginal Liaison Officers at hospitals, would alert the GP or AMS at the time of admission (or within an agreed period). This would assist in providing a coordinated approach to Aboriginal patient's health care and lower the risk of the patient getting lost in the time between discharges and when they next present to their GP or AMS. Informing the GP or AMS earlier may also gain access to additional services. GPs and AMSs in particular are skilled at engaging the client's families and this can be useful for various reasons depending on the health status of the client. Confirmation of attendance to ED with non-admitted patients to the GP or AMS would also be beneficial.

### KEY ISSUES

- Earlier notification of admission or presentation to ED is needed to ensure services are well coordinated and additional services required are engaged
- Inpatients need to be identified more readily and referred to the program on discharge
- Timely filling of vacant positions within NNSW LHD that directly impacts on follow-up and ongoing management
- In Tweed Heads there is no 48 hour follow up due to the long term vacancy in the Aboriginal Liaison Officer position
- Providing the skill mix to manage the increasing complexity and chronicity of the patient group with the current workforce
- There are communication issues around coordination of care between the NNSW LHD Chronic Care for Aboriginal People program, Connecting Care in the Community, Casino AMS and North Coast NSW Medicare Local resulting in duplication and gaps in service provision



- There is a need to work with the North Coast NSW Medicare Local who delivers a care coordination and supplementary services program for Aboriginal people with designated chronic diseases. There is the opportunity to improve coordination of services, to avoid duplication by collaboration.

## 8.11 SEXUAL ASSAULT SERVICES

People from all cultures and backgrounds are vulnerable to sexual assault. All victims (adults, children and young people) have the right to receive free counselling, medical care and support following sexual assault. Services are delivered in a way that recognises the diversity of victims and families.

The key intent of NNSW LHD is to improve access to Sexual Assault Services and to the services of other government departments concerned with protection and criminal investigation, in a way that recognises the trauma experienced by victims and their families and ensures appropriate support and advocacy.

Sexual Assault Services have a responsibility to provide forensic medical services that will assist in the investigation of the sexual assault of both adults and children. The Service priority is to respond to all matters of suspected or disclosed sexual abuse of children, the sexual assault of young people 16-18 years of age and to all recent sexual assault of adults. A lower priority has to be given to non-recent sexual assault and the sexual assault of adults abused as children because of client demand, except where criminal proceedings are being pursued. A specialist consultation service is available to other health and welfare practitioners who also play a role with these client groups in order to facilitate appropriate referral, assessments and trauma informed care, to recognise and support victim's rights and to ensure protective interventions for children and for some vulnerable adults.

Sexual Assault Services are committed to the prevention of sexual assault and hence provide community education and training to other service providers, as well as early intervention and secondary prevention through a wide variety of services including Disability and Aboriginal Services.

The Services must keep up to date with changing social issues (such as alcohol and drug facilitated sexual assault and use of social media) with particular attention to the impact of new technologies and the internet which have redefined 'risk', particularly for young people. Of identified concern across the LHD is the increasing presence of children and young people within our community with sexualised behaviours (under 10 years) or problematic or harmful sexual behaviours (ages 10 to 17). Whilst the Sexual Assault Service has clear responsibility to work with children under 10 with sexualised behaviours who have also experienced sexual abuse, there is a large cohort for whom a specialist response is required for early intervention to interrupt the progression of such behaviours but which lies outside the role of Sexual Assault Services.

### CURRENT SERVICES

Sexual Assault Services work in collaboration with the NSW Police and the Department of Community Services in regard to evidentiary investigation and protection considerations for both children and adults. Sexual Assault Services intervention with adults and children is underpinned by Memorandums of Understanding (MOUs) between NSW Health, NSW Police and the Department of Community Services.

Sexual Assault Services are based within each of the Tweed Byron, Richmond and Clarence Networks. Services are provided 24 hours 7 days per week based on client needs and service resources and are delivered as part of Community Health Services. Out of hours services to the Clarence Valley are delivered through the Richmond Sexual Assault Service.

On-call Sexual Assault Service requests outside of business hours are attended to at either a hospital or Police facility. Hospitals where acute counselling and medical services are provided are The Tweed, Murwillumbah District, Byron Bay District, Ballina District and Lismore Base. Delivering the acute service in this way ensures counsellor safety, increases access and provides optimal care for the presenting client. The capacity for medical and forensic service to be provided locally in the Clarence Valley during business hours is currently being developed. During business hours Sexual Assault Services are offered at Community Health facilities or through home visiting and outreach services.

Sexual Assault Services offer support, advocacy, medical and forensic examinations and therapeutic counselling to victims and their families. They contribute to criminal justice and child protection processes by providing court reports, expert testimony and court support. The Services provide community education with particular attention to secondary prevention activities with vulnerable populations such as the disabled, mental health clients and Aboriginal communities. There is only one identified Aboriginal Sexual Assault counselling position within the LHD. This position, based with Richmond Sexual Assault Service, is only part-time.

Whilst providing a limited service to some adults who have experienced childhood sexual abuse who are also engaged in legal proceedings, Sexual Assault Services have worked to ensure increased access to individual and group counselling elsewhere for these clients through partnerships with the NGO and private counselling sector and with other mental health practitioners. This has been undertaken by providing supervision and consultation.

### CURRENT ACTIVITY

During the period from April 2008 to March 2013 the NSW Bureau of Crime Statistics and Research identified a statistically significant upward trend in the recording of sexual assault incidents in the Richmond-Tweed Statistical Division with an average annual percentage change of 4.5%, with Lismore specifically reflecting an upward trend. Other sexual offences, including indecent assault, have been stable during this period. Whilst showing stability in recorded incidents of sexual assault over that period, the Clarence Valley LGA has a proportionately higher rate of reporting than other LGAs within the LHD. Sexual Assault Services have an identified role to assist victims of crime in the reporting, investigation and criminal justice process.

During the period 2007 to 2011, 1,528 children were provided with Sexual Assault Service responses across the LHD (from the LHD Response to the NSW Ombudsman's Audit ACSA IAP). Data held for the Clarence Valley in this period, however, is not complete. Of the 1,528 children, 234 (15%) were identified as Aboriginal for this 4 year period. In the 2011/12 Chief Executives Joint Investigation Report Card 31% of children referred for investigation of child sexual assault in the Richmond Valley were Aboriginal, in the Clarence Valley, Aboriginal children represented 29%, for the Tweed Valley the figure was 10%. In 2007, the NSW Government Implemented the NSW Interagency Plan to Tackle Child Sexual Assault in Aboriginal Communities (2007-11) which followed recommendations made in 'Breaking the Silence', the Report of the Child Sexual Assault Task Force.

The Ombudsman's Auditing of the implementation of the Plan, December 2012, notes *'Breaking the Silence and the Interagency Plan both acknowledged that there was significant shortage in the availability of specialist child sexual assault counselling, particularly for Aboriginal victims. Our audit has identified that there has been very little improvement to this situation as a result of the Interagency Plan. Almost universally the available specialist services are not able to meet current demand. For many victims of child sexual assault, this means that there are no options available to receive timely counselling.'* The high level of referral of Aboriginal and Torres Strait Islander children and families creates particular complexity due to the presence usually of multiple traumas and the higher level of Aboriginal children in out of home care or at risk of placement into care.

The commencement and lead up to the Royal Commission into Institutional Responses to Child Sexual Abuse has resulted in an increase in requests for counselling by adults who were sexually abused as children and this trend can be expected to continue. Whilst Sexual Assault Services have had very limited capacity to respond to this client group, staff do have a responsibility to assist victims who are wishing to report offences to the Police or other authorities. Within the LHD, the Richmond Sexual Assault Service has already been able to identify an 83.78 % increase in referrals of adult 'survivors' since 2011/2012 (from 37 to 68 in 2012/2013). Those within this particular client group reflect the long term impacts of chronic childhood sexual and other abuse, with the frequent presence of co-morbidities relating to mental health sequelae and substance abuse. Parenting capacity may be negatively impacted by such impacts requiring a child protection focus within service delivery. Increasingly recognition is also being given to the long term physical impacts of exposure to psychological trauma.

Medical forensic services provided for victims of sexual assault through NSW Sexual Assault Services have become increasingly more complex due to rapid developments in scientific knowledge and technologies. Further training of medical staff has been required with increased demands for the provision of expert reports. Changing practice in this area can be expected to continue.

#### FUTURE DEMAND

Clinical Service Plans for Lismore, Byron Shire and The Tweed Hospital highlight the need for improved facilities in EDs for the care of victims of sexual assault. Population growth and public awareness have led to higher demand for Sexual Assault Services and this is expected to continue to put pressure on the service.

#### KEY ISSUES

- There is a need to increase the number of Aboriginal sexual assault workers across the LHD to meet current and future demand for services in a culturally sensitive way
- The ability to increase access to and to deliver acute counselling and medical and forensic services through multiple EDs as well as follow up services through local community health centres requires access to appropriate facilities; this will need to be considered in the redevelopment of all health sites
- An increase in the number of participating doctors in the provision of medical and forensic services is required in order to ensure that Sexual Assault Services are able to meet their accountabilities along with increased capacity for leadership of this aspect of service development; this is particularly the case in Grafton where there is a gap in service provision for young people
- The need for children and young people to have access to specialist services to address sexualised and sexually harmful or abusive behaviours.

## 9

# POPULATION HEALTH SERVICES

## 9.1 ABORIGINAL HEALTH AND WELLBEING

*“Aboriginal health means not just the physical wellbeing of an individual but refers to the social, emotional and cultural wellbeing of the whole community in which each individual is able to achieve their full potential as a human being, thereby bringing about the total wellbeing of their community...”<sup>93</sup>*

The NSW Aboriginal Health Plan 2013-2023 outlines the strategic directions for Aboriginal Health including:

- Building trust through partnerships
- Implementing what works and building the evidence
- Ensuring integrated planning and service delivery
- Strengthening the Aboriginal workforce
- Providing culturally safe work environments and health services
- Strengthening performance monitoring, management and accountability.

The traditional custodians of the land covered by NNSW LHD are the Bundjalung, Yaegl, Gumbaynggirr and Githabul Nations.<sup>94</sup> NNSW LHD includes 11,396 persons identified as Aboriginal<sup>95</sup> or around 4.0% of the total population. At 30 June 2011, the estimated Aboriginal population of NSW was 2.6% of the total population. It is important to note that the proportion of the Aboriginal population in younger age groups is much higher compared to the non-Aboriginal population.

A range of socio-economic indicators demonstrate that the Aboriginal population in NSW is disadvantaged and report their health as poor or fair, compared with non-Aboriginal people. The long term conditions most impacting on their health are kidney disease, asthma, bronchitis, migraine, diabetes, high cholesterol, cancers and infectious diseases. The child mortality rate for Aboriginal children aged 1-4 years is 2.1 times the rate for non-Aboriginal children. For Aboriginal people born in NSW in 2005-2007, life expectancy was estimated to be 70 years for males and 75 years for females, around 9 years for males and 7 years for females less than the estimates for non-Aboriginal males and females.

### CURRENT SERVICES

Health services to Aboriginal people are provided by a range of service providers across NNSW LHD including Hospitals and Community Health Services, Mental Health and Drug and Alcohol Services, Aboriginal Chronic Care Team, Chronic Care Services, Public Health, General Practices, North Coast NSW Medicare Local, NGOs and Aboriginal Community Controlled Health Services.

<sup>93</sup> National Aboriginal and Islander Health Organisations [NAIHO] definition of Aboriginal Health, restated in the National Aboriginal Health Strategy [NAHS] 1989 <http://www.naccho.org.au/aboriginal-health/definitions/> accessed at 21/11/12. OATSIH (1989) (NSW Aboriginal Health Plan 2013-2023).

<sup>94</sup> Population Health & Planning Directorate. Aboriginal Health & Wellbeing Strategic Plan 2008-2013. Lismore: NCAHS

<sup>95</sup> See NNSW LHD Health Care Services Plan Volume 2 “Health of the Population”

## CHRONIC CARE FOR ABORIGINAL PEOPLE

The purpose of the Chronic Care for Aboriginal People program in NNSW LHD is to implement practical steps and solutions to improve access to early intervention services to Aboriginal people with chronic conditions, build working relationships between Aboriginal and mainstream chronic disease services, identify and share best practice in meeting the needs of Aboriginal people with chronic disease, work towards a common goal which supports and improves chronic care management and access to culturally appropriate health care.

The Chronic Care for Aboriginal People program is managed by the Aboriginal Health Unit and aims to work in partnership with other chronic care services, inpatient units, Community Health services, North Coast NSW Medicare Local, Rekindling the Spirit and other NGO service providers, Bulgarr Ngaru and Casino Aboriginal Medical Services (AMSS) and Aboriginal communities. Diseases targeted by the Chronic Care for Aboriginal People program include diabetes, hypertension and chronic kidney disease.

## ABORIGINAL MATERNAL AND INFANT HEALTH PROGRAM

The Aboriginal Maternal and Infant Health Program is a priority health program for NNSW LHD. It is considered vital for improving the health of Aboriginal women during pregnancy and decreasing perinatal morbidity and mortality. The Aboriginal Maternal and Infant Health Program is managed by Community and Allied Health services across the LHD.

## MENTAL HEALTH, SOCIAL AND EMOTIONAL WELLBEING

There is evidence of high levels of psychological distress present in Aboriginal communities which impact significantly on the social and emotional wellbeing of Aboriginal people. These include:

- Burden of grief
- Loss and trauma from the historical context of the forcible removal of children
- The erosion of family and community structures
- Disproportionate rates of incarceration
- Frequent deaths of Aboriginal family members.

NNSW LHD Mental Health Services do not have sole responsibility for improving the social and emotional wellbeing of Aboriginal people. This is the responsibility of all Clinical Streams, Networks, Facilities and program areas. Aboriginal Hospital Liaison Officers are key to improving access to mainstream services for Aboriginal people. Self-determination by Aboriginal communities is the key to improving emotional and social wellbeing and to further support self-determination.

## DRUG AND ALCOHOL PREVENTION AND MANAGEMENT

Drug and Alcohol, Mental Health, social and emotional wellbeing are key priority health areas for Aboriginal people. The key objectives in this area are:

- To improve Aboriginal peoples access to services
- To operationalise respective Strategic Plans
- To achieve greater integration working collaboratively with Aboriginal Community Controlled Health Services for effective management.

Namatjira Haven is an Aboriginal specific alcohol and other drug rehabilitation centre, located in Alstonville. At present it is for men only. The service works in collaboration with NNSW LHD Riverlands Drug and Alcohol Centre.

### PROMOTION OF GOOD HEALTH AND HEALTHY ENVIRONMENTS

The NNSW LHD Aboriginal Health Team works with the Health Promotion Unit, Community Health services and Aboriginal communities to deliver health promotion activities. The following are NNSW LHD Health Promotion priorities:

- Tobacco control and smoking cessation
- Injury prevention
- Healthy weight
- Promotion of physical activity
- Oral Health
- Sexual Health.

Priority Health Promotion programs that focus on reducing risk factors for chronic disease and preventable deaths in Aboriginal people to provide:

- A targeted and coordinated approach to health promotion
- Programs which are equally spread across the NNSW LHD
- Programs which are readily available to all Aboriginal communities.

The NNSW LHD Environmental Health Program Team work with Aboriginal communities, Aboriginal Land Councils and Local Governments specifically in relation to:

- Nutrition and environments
- Disease and injury prevention.

Priority for Environmental Health programs that focus on reducing risk factors for chronic disease and preventable deaths in Aboriginal people include:

- Identifying and remedying environmental health issues
- Implementing the Dog Health Program, Colisure Program (water quality)
- Implementing Housing for Health Projects on the North Coast
- Supporting the NSW Health Aboriginal Health, Environmental Health Officer Trainee Program.

### ABORIGINAL SPECIFIC HEALTH SERVICES

Aboriginal specific services within the LHD and other services such as AMSs, provide a limited specialist role depending on their funding structure and available resources. The individual needs of each patient/client should always be assessed and then matched to available services where possible working closely with Aboriginal Liaison Officers. Specific Aboriginal Health services located across the LHD include:

- Aboriginal Health Posts are located at Muli Muli, Jali (Cabbage Tree Island), Tabulam and Box Ridge communities
- Gurgun Bulahnggelah Aboriginal Health, Lismore which is a partnership between NNSW LHD, North Coast NSW Medicare Local and Rekindling the Spirit
- Rekindling the Spirit which provides a general counselling service.

## ABORIGINAL COMMUNITY CONTROLLED HEALTH SERVICES

Aboriginal Community Controlled Health Services have a central role in improving health outcomes for Aboriginal people. Aboriginal Community Controlled Health Services are independent organisations, providing primary health care services initiated and operated by local Aboriginal communities to deliver holistic, comprehensive, and culturally appropriate health care to their community. Aboriginal residents of the NNSW LHD have access to three major AMSs:

- Bulgarr Ngaru AMS (Grafton)
- Casino AMS
- Bullinah Aboriginal Health Service (Ballina), presently under the auspice of North Coast NSW Medicare Local but works within the framework of an Aboriginal Community Controlled Health Service
- They also have access to:
  - Bugalwena General Practice, South Tweed Heads is a partnership between North Coast NSW Medicare Local and the Commonwealth Government
  - Gurgun Bulahnggelah is managed by North Coast NSW Medicare Local and Rekindling the Spirit and provides a range of GP and allied health services.

## NON-GOVERNMENT ORGANISATIONS

NGOs receive funding from NNSW LHD and NSW Health to provide a range of services to Aboriginal communities and individuals. NGOs funded by NNSW LHD include.

## COMMUNITY ENGAGEMENT

Ngayundi Aboriginal Health Council provides a forum for community members of the Bundjalung and Yaegl Nations to participate in and provide advice on health service planning, development, delivery, evaluation and prioritisation, with a view to attaining equality of health status and life expectancy for local Aboriginal people. Ngayundi meets four times a year with an Executive Committee managing business in between community meetings.

## CULTURALLY SENSITIVE HEALTH SERVICES

Cultural understanding shapes the way we design and deliver health services and improving cultural sensitivity of mainstream health services will be pivotal to improving access. An important goal is to move mainstream services to a position whereby Aboriginal Health is considered core business. Aboriginal Health Education Officers play a pivotal role in the provision of cultural education programs to NNSW LHD staff.

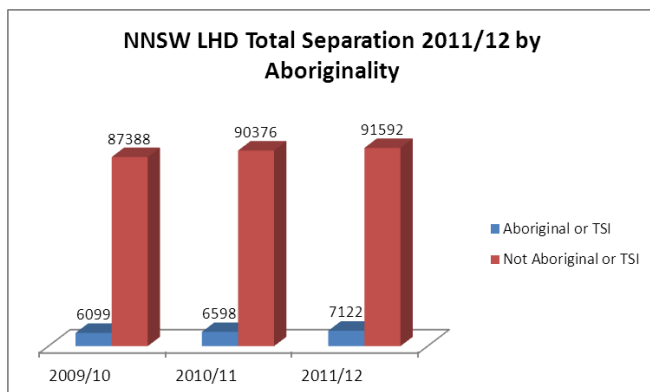
## CURRENT ACTIVITY

There were a total of 7,122 Day Only and Overnight separations for Aboriginal and Torres Strait Islander People<sup>96</sup> (n=172) in NNSW LHD in 2011/12 accounting for 16,179 beddays and representing 7.1% of all separations from NNSW LHD facilities. There has been a 17% increase in separations and 18% increase in beddays for Aboriginal and Torres Strait Islander people since 2009/10. There were also 239 births to Aboriginal and Torres Strait Islander women in NNSW LHD facilities in 2011/12 the majority of which occurred at Lismore Base Hospital (n=112), Grafton Base Hospital (n=59) and The Tweed Hospital (n=55).

<sup>96</sup> 172 people or 0.4% of total separations were for people who identified as Torres Strait Islander in NNSW LHD in 2011/12.



**Figure 28: NSW LHD Total Separations for Aboriginal and Torres Strait Islander People 2009/10-2011/12**

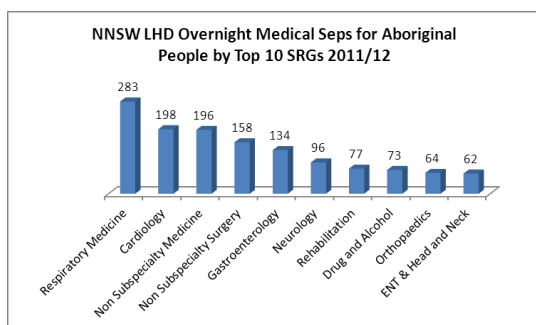


Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

There were 2,866 Overnight separations for Aboriginal and Torres Strait Islander people in NSW LHD hospitals in 2011/12. Of these 41% were from Lismore Base Hospital (n=1,196), 17% from Grafton Base Hospital (n=479) and 21. 2% from The Tweed Hospital (n=604), 1.8% (n=53) from Riverlands Drug and Alcohol Centre and the remaining separations from other hospitals in the LHD. Of the 2,866 Overnight separations for Aboriginal and Torres Strait Islander people from NSW LHD in 2011/12, 84% were for medical care including 293 separations for obstetrics and 90 for qualified neonates and 26% for surgery and procedures.

Excluding psychiatry, obstetrics and qualified and unqualified neonates the largest proportion of medical separations was for respiratory medicine (16.5%), cardiology (11.5%), non-subspecialty medicine (11.5%), non sub-specialty surgery (9.2%) and gastroenterology (8%). The figure below details Overnight separations by the top 10 SRGs for Aboriginal and Torres Strait Islander people in NSW LHD in 2011/12 excluding obstetrics, qualified and unqualified neonates.

**Figure 29: NSW LHD Top 10 Overnight Medical Separations for Aboriginal and Torres Strait Islander People by SRG 2011/12**

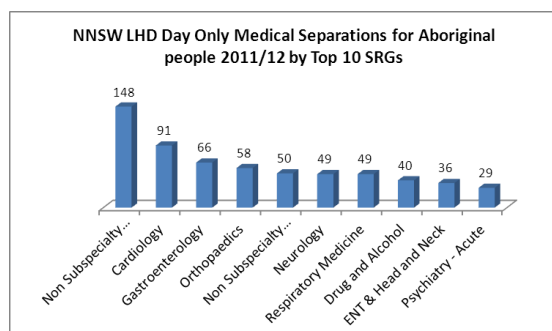


Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch, excluding Obstetrics, Unqualified and Qualified Neonates and Psychiatry

There were 4,256 Day Only separations for Aboriginal and Torres Strait Islander people in NSW LHD hospitals in 2011/12. Of these 25.2% were from Lismore Base Hospital (n=1,070), 25.8% from Ballina District Hospital (n=1,095), 22.3% from Grafton Base Hospital (n=947) and 17.7% from The Tweed Hospital (n=750) with the remaining from other hospitals in the LHD.

The following figure details Day Only Medical separations by the top 10 SRGs, excluding renal dialysis, birthing and psychiatry for Aboriginal and Torres Strait Islander people receiving care at NSW LHD Hospitals in 2011/12.

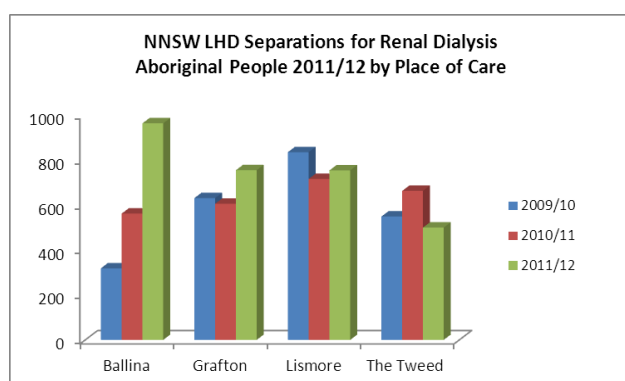
**Figure 30: NSW LHD Top 10 Day Only Medical Separations for Aboriginal and Torres Strait Islander People by SRGs 2011/12**



Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch (Excludes Renal Dialysis)

Of the total of 4,256 Day Only separations, the vast majority (n=2,967) or 68.9% were for renal dialysis. Overall separations for renal dialysis for Aboriginal and Torres Strait Islander people grew by 27% between 2009/10 and 2011/12; however at Ballina there was over 200% growth. The figure below details renal dialysis separations by site in 2011/12.

**Figure 31: NSW LHD Day Only Separations for Aboriginal and Torres Strait Islander People for Renal Dialysis 2011/12<sup>97</sup>**



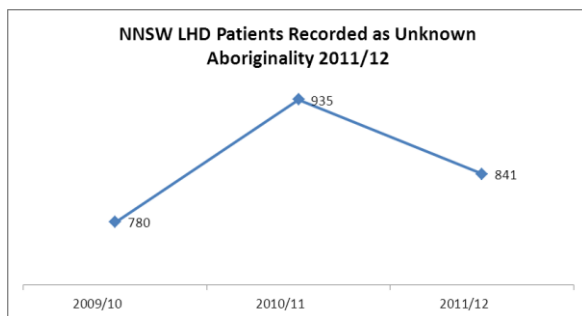
Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

NNSW LHD recognises the importance of identifying Aboriginal and Torres Strait Islander people when they are admitted to hospital. Over the past 3 years there has been an education program to improve identification of Aboriginal and Torres Strait Islander people on admission. The figure below details the number of separations where a patient identifying as an Aboriginal or Torres Strait Islander person was unknown.

While there was a small improvement between 2010/11 and 2011/12, there has been an overall increase of 7.8% over the past 3 years of where a patient identifying as an Aboriginal or Torres Strait Islander person was unknown. It is important to note that there are only small numbers of people identifying as Aboriginal or Torres Strait Islander in NNSW LHD (0.4% of total separations in 2011/12).

<sup>97</sup> Ballina Activity data includes Ballina Training Unit

**Figure 32: NSW LHD Total Separations Recorded as Unknown 2009/10-2011/12**



Source: FlowInfo V12.0 NSW MoH, Statewide and Rural Health Services and Capital Planning Branch

## FUTURE DIRECTIONS

Further education is required to ensure Aboriginal patients are identified.

There will need to be a concerted effort on the part of all services to better coordinate service provision in order to reduce duplication and to support efficient and effective service provision to Aboriginal people. Discharge planning and coordination will be a key focus with Aboriginal Hospital Liaison Officers playing an important role.

The LHD will need to continue to focus on the provision of culturally appropriate health services through staff training to ensure Aboriginal patients are cared for in a sensitive and culturally appropriate way. Ensuring new facilities and redevelopments are culturally appropriate is also an important priority for the LHD.

It is acknowledged that to achieve a balanced approach to quality service delivery across the chronic disease spectrum, NSW LHD will need to focus on prevention, screening and early intervention and build stronger links with programs that focus on health promotion, disease prevention, promoting healthy lifestyles, nutrition and environments.

The key area of chronic disease management for Aboriginal people will continue to be a high priority for NSW LHD. All services however will need to focus on addressing the key issues impacting significantly on the health and wellbeing of Aboriginal people including drug and alcohol misuse, mental health and social and emotional wellbeing including teenage mental health and suicide prevention, teenage pregnancies, STIs, injury prevention, child protection and prevention and response to violence against women.

## KEY ISSUES

- There are issues in relation to transport to medical/ health appointments including renal dialysis
- Reducing barriers to accessing health services through a continued focus on the provision of culturally appropriate health services through staff training
- Meeting increasing demand for renal dialysis services particularly at Ballina<sup>98</sup>
- The continued challenges in providing chronic care services to Aboriginal people
- Limited access to Aboriginal Liaison Officer support e.g. Cardiology, Renal Dialysis and Cancer Care at Lismore Base Hospital; this could be extended to health funded NGOs

<sup>98</sup> See Renal Dialysis Section

- There is an often expressed perception that Aboriginal Liaison Officers and Aboriginal Health Education Officers provide clinical services when in fact their role is limited to service coordination and provision of health education programs
- Discharge planning for Aboriginal people is reported as being uncoordinated and there is a lack of information provided to AMSs, Rekindling the Spirit, North Coast NSW Medicare Local and other community based service providers
- There are gaps in services for the support of patients being discharged from hospital
- There is very limited access to Drug and Alcohol and culturally appropriate Mental Health Services
- Teenage mental health, social and emotional wellbeing, pregnancies, STIs, injury and self-harm are all significant health risks facing Aboriginal adolescents
- The need for continued support for consultation structures which enhance Aboriginal community involvement in decision making
- The Health Post at Tabulam (Jubullum Aboriginal community) is in poor condition and requires replacement to support outreach services to the community.

## 9.2 PUBLIC HEALTH

### 9.2.1 PUBLIC HEALTH SERVICES

Public Health Unit services are essential to the primary purposes of the Health Service, namely “to promote, protect and maintain the health of the community”<sup>99</sup> and to reduce disparities in health status between social groups.<sup>100</sup>

Public Health Services adopt a population health approach, designing and implementing strategies to protect and promote the health of the population as a whole or for population sub-groups. These population level strategies recognise the influence of the broad determinants of health which are also the province of other parts of the Health Service and other agencies (notably local councils, GPs, AMSs, Local Aboriginal Land Councils, schools and child care centres).

The Public Health Unit is committed to working in collaboration with partners and customers to ensure the environment in which people live is as safe and hazard free as possible, the population is vaccinated against harmful diseases, health status risks are monitored and disease outbreaks in the community are controlled effectively.

Public Health related legislation underpins many Public Health Unit services and complements our collaborative approach to protecting the health of the community in partnership with other organisations which have related and specific roles and responsibilities.

The Public Health Unit also takes a lead role in planning the local response to outbreaks of infectious diseases. The LHDs Infectious Diseases Emergency Action Plan has been developed under the auspices of the Counter Disaster Planning Committee and reflects National and State recommendations and strategies.

Public Health Unit services are delivered through a “held” service collaborative partnership agreement in which MNC LHD employs the Units staff and manages its resources in delivery of Public Health services to the communities of NNSW LHD.

<sup>99</sup> Health Services Act 1997, Chapter 2 Clause 9 “The primary purposes of area health services

<sup>100</sup> Public Health Practice Today”, National Public Health Partnership Secretariat, Melbourne 2002

### CURRENT SERVICES

Core functions of the Public Health Unit are Environmental Health, Communicable Disease Control and Epidemiology.

#### Public Health Unit – Core Activities

- Public Health Legislation compliance advice, monitoring and enforcement including:
- Microbial Control – Legionella
- Water Quality
- Skin Penetration
- Tobacco Control
- Funeral Industry
- Swimming Pools and Spas
- Waste Management
- Effluent Management
- Environmental Health Risk Assessment and Communication
- Urban Planning and Health Impact Assessment
- Aboriginal Environmental Health
- Public Health Response to Disasters
- Refugee Health Assessment and Multicultural Health
- Communicable Disease Control – surveillance and response
- Tuberculosis Prevention and Control
- Immunisation services including the school-based immunisation program
- Epidemiology and Health Information
- Public Health Research.

In working with others on population based health issues the Public Health Units primary responsibilities are to assess, monitor and communicate health risk, facilitate the development of strategies to address priority issues, provide specialist technical advice and supervision and to direct service action as required by public health legislation.

### FUTURE NEED

There is an accepted link between poor health and lower socio-economic status. Overall NSW LHD has relatively low socio-economic status with pockets of considerable disadvantage. The SEIFA indices indicate that while all LGAs within the LHD are disadvantaged compared to Australian norms, Richmond Valley, Kyogle and Clarence Valley suffer greater than average disadvantage within the LHD, as measured by all four socio-economic indices.

The significantly poorer health status of Aboriginal communities and other disadvantaged groups are the major areas for attention for the Public Health Unit. There are Aboriginal communities throughout NSW LHD, many of which are remote from regional centres and carry responsibility for the provision of housing, drinking water and sewerage services for local inhabitants. Working with communities and relevant agencies to improve environmental conditions in Aboriginal communities remains a key focus for the Public Health Unit. Action is taken in line with the principles of the “Close the Gap” campaign.

In some parts of the LHD, community attitudes are reflected in low childhood vaccination rates that do not provide community-level protection and expose communities and vulnerable individuals to higher risks of contracting vaccine-preventable diseases. Other major preventable risk factors for communicable diseases include exposure to mosquitoes, exposure to agricultural or wildlife reservoirs (livestock, flying foxes), illicit drug use and poor hygiene (housing, sanitation and water).

Environmental risks include relatively high proportions of the population without a reticulated water supply or an unfluoridated water supply; water supplies that are not fully filtered and/or are prone to blue-green algal blooms; relatively high reliance on on-site sewage disposal; recreational waters at risk of contamination; urban development that borders natural habitats for disease vectors and the absence of systematic mosquito breeding habitat control programs.

### KEY ISSUES

- Persistently low childhood vaccination coverage in some locations and relatively high levels of parents registered as conscientious objectors to vaccination
- Urban expansion and development in areas bring people into close proximity of natural or adapted habitats of disease vectors such as mosquitoes and flying foxes
- Emerging infectious diseases such as Hendra Virus and Australian Bat Lyssavirus that have limited treatment options leaving prevention of exposure as the main health protection strategy
- Changing climatic patterns that may result in changed local ecology and introduction of new disease vectors or increase incidence of other infections
- Increasing financial and social pressures on key partners such as local government that can result in decreased capacity for, or reduced emphasis being placed on, public health aspects of their roles
- Frequent and significant changes in organisational arrangements of key partners such as NSW Health, LHDs, Medicare Local, Local Aboriginal Land Councils, Department of Industry and Investment, Environmental Protection Authority, Department of Primary Industries and NSW Office of Water that interrupt ongoing strong working relationships
- Wide proliferation of non evidence-based health advice, wild conspiracy theories and spread of misinformation results in a constant stream of ill-founded health concerns in some communities, consuming resources and undermining public confidence in government agencies including health services
- Increasing media, community and organisational expectations for rapid, comprehensive response in pace with increased immediacy of information availability. Media and community members demand resolution of complex issues or concerns which may or may not be well founded
- Small group of highly specialised and experienced staff covering a broad spectrum of issues across a large and diverse region leaves little capacity for attention to longer-term priorities such as locally-relevant public health research and succession planning.

### 9.2.2 HIV AND RELATED PROGRAMS (HARP)

The HIV and Related Programs (HARP) is a component of the North Coast Public Health Division, with services provided within NNSW LHD under a held services partnership agreement by the Mid North Coast Local Health District (MNC LHD). HARP is responsible for the provision of services aimed at the

prevention, early detection, treatment and management of Human Immunodeficiency Virus (HIV), Hepatitis C Virus (HCV), Sexually Transmitted Infections (STIs). HARP also oversees Harm Reduction services including safe injecting practices among injecting drug users and safe disposal of community sharps within NNSW LHD.

AIDS –related deaths have fallen dramatically in NSW due to effective HIV treatment, and international research shows that the lifespan of people living with HIV is now not much different from the average population life expectancy (ref: NSW Ministry of Health, NSW 2011).

North Coast HARP goals are based on National and NSW State goals and include the following:

- To maintain high levels of safe behaviour amongst priority populations in order to eliminate or minimise the transmission of HIV, STIs and HCV
- To minimise the personal and social impacts of HIV infection, HCV and STIs
- To enhance and maintain the health and wellbeing of people who are infected or affected by maximising the capacity of individuals and communities to maintain and enhance sexual health practices
- To maximise mental and physical wellbeing associated with sexuality, sexual practice and serodiscordant relationship issues
- To minimise the morbidity and mortality associated with HIV, HCV and STIs.

The National and State strategies identify activities for priority target populations. These are based upon the epidemiology of the particular health concern. Target populations for HARP include:

- Gay and other homosexually active men
- Aboriginal people
- People who inject drugs
- Sex workers
- Young people
- People from culturally and linguistically diverse backgrounds (CALD)
- People living with HIV, STI or HCV.

NNSW LHD has a higher population of people living with HIV than any other rural health service in NSW. This is a reflection of the area as a popular destination for gay, lesbian and other sexually diverse populations and the increased prevalence of HIV in gay men. Local incident infections however have not increased.

Chlamydia remains the most frequently reported notifiable disease across Australia and notifications have been rising strongly over recent years, with the increase believed to be due to increased testing. NNSW LHD data for chlamydia shows an average over the 2008-2012 period of 824, well up on the average of 495 for the previous 5 year period. The highest notification rates are seen in women under 30 and are almost double that of males in the 15 to 24 year age group and with roughly equal rates in the 25-29 year age group.

Gonorrhoea notifications have continued to rise across NSW and within NNSW LHD since 2009. NNSW LHD data shows an average of 48 cases per annum between the 2008 and 2012 data, with a modest average annual increase of five cases per annum compared to the 2003-2007 period. Males and females are approximately even in representation in the 15 to 24 year age group and thereafter males are represented in greater numbers than females.



Syphilis notifications have remained fairly steady across NSW over the past decade and this pattern is also evident in NNSW LHD. NNSW LHD data for 2008 to 2012 shows an average of 15 cases per year. Male notifications exceed female notifications four fold.

Since reporting commenced in 1990, there have been over 6,700 cases of Hepatitis C infection reported amongst residents of NNSW LHD with an average of 195 HCV notifications reported annually over the 2008 to 2012 period. As elsewhere across Australia, annual HCV notifications within NNSW LHD have been steady or falling slowly over the past decade. Males are represented more in all age groups except the 15 to 24 years where female notifications are approximately double that of males, perhaps due to screening during pregnancy. Due to the chronic nature of HCV infection and the long latency period, notification rates rise with increasing age, peaking in the 50-54 year group.

## CURRENT SERVICES

Services are mainly community based and are provided to key target populations. Sexual Health Services include education, screening, diagnosis, treatment, management and counselling of HIV and other STIs, HIV Post Exposure Prophylaxis (PEP) and supply and distribution of free condoms, dams and lubricant. Clinics are run at Lismore Sexual Health Service (formerly SHAIDS), Clinic 229 in Grafton, and Clinic 145 at Tweed Heads with an outreach service to Byron Bay. HIV Specialist Clinics are run in Lismore and Tweed Heads.

Lismore Liver Clinic and its outreach clinics at Byron Bay, Casino and Maclean provide education, work-up to treatment and management whilst on treatment. Using a nurse-coordinated model of care within an interdisciplinary team of specialist gastroenterologists, dietician, counsellor and experienced specialist nurses. The Lismore Clinic provides daily nursing clinics and weekly specialist, dietician and counselling clinics. Outreach clinics are conducted at a number of smaller centres with a weekly nurse clinic and a monthly specialist clinic in Byron Bay, a monthly nursing clinic in Casino and a twice-monthly nurse clinic in Maclean.

Harm Minimisation / Needle Syringe Program (NSP) Services provide access to sterile injecting equipment, condoms and lubricant. Primary NSPs also provide information on HIV, Hepatitis B and HCV prevention, safe injecting, vein care, safe sex, client referrals and access to community safe sharps disposal. This program is provided in Tweed Heads, Byron Bay, Murwillumbah, Ballina, Nimbin, Lismore and Grafton, with secondary outlets and vending machines available in additional locations.

The Aboriginal Sexual Health program offers Aboriginal communities community education in HIV, HCV, STI, harm reduction, sexual health and related topics. Aboriginal Sexual Health Workers in NNSW LHD are based in Tweed Heads and Lismore.

A HARP Health Promotion Officer is located within NNSW LHD and is responsible for the coordination and provision of targeted education in HIV, STI, HCV, harm reduction, sexual health and related topics to priority populations as well as organising broader Social Marketing and Prevention campaigns within NNSW LHD. The Health Promotion Officer also coordinates intersectoral partnerships with various clinical, educational, community and NGO (non-government organisation) sectors to improve sexual health and BBV (Blood Borne Virus) services to priority populations within NNSW LHD.

## FUTURE DIRECTIONS

Australia has entered a new era dubbed the HIV Prevention Revolution; where significant advances in HIV treatment can now not only save lives of those treated, but help prevent infections. Planning and preparation for the introduction of point-of-care testing for HIV (rapid tests) in NNSW LHD is

underway. This will improve the timeliness of HIV diagnosis and encourage more people to come forward for testing.

The following strategies will be key to the future direction of HIV prevention and management in NNSW LHD and will be offered in partnership with various organisations such as North Coast NSW Medicare Local and ACON:

- Intensify HIV prevention and maintaining high levels of safe behaviour amongst priority populations
- Improve access to the Needle and Syringe Program
- Promote HIV testing, make it easier to have a test
- Encourage treatment uptake and support treatment adherence
- Provide treatment, care and support services in the community
- Improve the health and well-being of people living with HIV.

Treatment for Hepatitis C is evolving rapidly and interferon-free (much more tolerable) treatment is anticipated in 2 to 5 years. Point-of-care testing may also be available within a similar timescale. It is anticipated that large numbers of currently undiagnosed people living with HCV may come forward for treatment. It is expected that large numbers of people with advanced liver disease, cirrhosis and hepatocellular carcinoma will require treatment and monitoring; local clinics are only just beginning to see the increases in these conditions.

Gonorrhoea notifications continue to rise across NSW and within NNSW LHD. Syphilis notifications remain stable and incidence of chlamydia continues to rapidly grow in the NNSW LHD.

### KEY ISSUES

- The introduction of ABF across HARP clinical services will have significant negative impact on services unless specific funding is allocated to non-listed services within the ABF model
- It is projected that the complexities associated with multi-morbidity, an ageing HIV positive population and continued movement of people living with HIV from other population centres will continue to increase the demand on HIV and other HARP clinical services within NNSW LHD
- Changing emphasis on 'treatment as prevention' has significant implications for future service development
- Service imperatives to increase distribution of injecting equipment will require expansion of NSP access points, including secondary outlets at all community health centres and hospital EDs. In addition, installation of additional automatic vending machines in appropriate locations will be required
- Planning and additional services will be required for expected significant increases in presentations to the acute health services, for services such as paracentesis, variceal banding and hepatocellular carcinoma treatment related to HCV infection
- Establish simple means of grading liver fibrosis within NNSW LHD
- Skills development for GPs will be needed so that GPs will be in a position to manage most cases of HCV in future leaving the Specialists to manage complex cases
- Prioritise and support prevention and early intervention activities such as sexual health education, health promotion and social marketing programs in order to reduce infections and minimise pressure on HARP clinical services as well as improve patient outcomes.

## 9.3 HEALTH PROMOTION

Health Promotion improves the health of the population by creating environments that support wellbeing, reducing inequitable differences in health status between groups and enabling individuals and communities to make healthy choices.

### CURRENT SERVICES

Prevention programs reduce demand for acute services and are a critical component of the health continuum. The Health Promotion Unit in NNSW LHD has a proven record of effective interventions that increase wellness, prevent or reduce illness, and are cost effective.

Just a few factors account for most of the preventable death and chronic disease in Australia. Tobacco smoking, physical inactivity, obesity, alcohol, lack of fruit and vegetables, and falls injury amongst older people are the main challenges. Yet only a small proportion (1-2%) of the health care budget is available for prevention within Australian health services.<sup>101</sup>

Key performance targets for NNSW LHD in Population Health include:

- Centre-based children's service sites adopting the Children's Healthy Eating and Physical Activity Program in Early Childhood to agreed standard
- Primary School sites adopting the Children's Healthy Eating and Physical Activity Program in Primary School to agreed standard
- Children 7-13 years who:
  - Enrol in the Targeted Family Healthy Eating and Physical Activity Program
  - Complete the Targeted Family Healthy Eating and Physical Activity Program.

To increase efficiency of external grant money and to provide a more equitable geographical reach, NNSW LHD Health Promotion contracts the delivery of some strategies to Community Health Education Groups Inc (CHEGS) for the following programs; Stepping On, Live Life Well at School, Munch and Move, RRISK® (Reduce Risk Increase, Student Knowledge) and Go4Fun.

A number of effective health promotion programs have been developed and evaluated either locally or within the State and are currently being implemented in the LHD including:

- Live Life Well at School program that aims to get more primary school students, more active, more often, as well as focusing on healthy eating habits
- The Munch and Move program supports the healthy development of young children by promoting physical activity, healthy eating and reducing small screen time and is delivered through early childhood services
- RRISK® is a resilience building program that is relevant to the social life, developmental stage and concerns of adolescents. The program focuses on reducing risks with drugs, alcohol, celebrating and driving
- Drinksafe® aims to educate people about responsible drinking through brief interventions that help to reduce risky drinking levels
- The Go4Fun® program is an intensive family treatment program to reduce childhood overweightness and obesity by assisting parents and children to develop a long lasting and healthy approach to living
- Stepping On (exercise and information) program is a falls prevention program for older people

<sup>101</sup> National Preventative Health Taskforce, Australian Government. *Australia: The healthiest country by 2020*, Canberra 2009

- CHEGS is a not-for-profit organisation, which was established in 1979. CHEGS aims to identify, develop and implement specific community education programs that support major health promotion initiatives
- Sustain Northern Rivers is the overall collaboration of approximately 20 Northern Rivers organisations working to accelerate action on climate change, particularly active transport and local food
- Smoke Free Beginnings is a local project which aims to reduce the prevalence of pregnant women smoking through the training of health staff in conducting brief interventions to reduce smoking in pregnancy
- Quit for New Life aims to reduce the prevalence of smoking among pregnant Aboriginal women
- Stand Together - Tweed Heads Community Options Falls Prevention program aims to assist frail older people to reduce risk which may lead to falls
- The HEALInG program is designed to provide realistic and practical information on healthy eating and lifestyle activities for Aboriginal people
- Active Kyogle is a community development program to encourage more people in Kyogle Shire to adopt a healthier lifestyle and help reduce the risk factors for chronic disease
- Get Healthy Information and Coaching Service provides free goal setting advice and support to help adults lose weight, improve their diets and/or increase physical activity
- The Health Equity e-Learning course assists health practitioners develop and reinforce their understanding of key health equity concepts. It includes seven modules targeting the social determinants of health and effective ways of working in health equity practice
- Smoke Free Environments aims to increase community awareness of new laws that ban smoking in some public places.

Most Health Promotion programs have a large reach; RRISK reaches every high school in the Northern Rivers; Live Life Well at School and Munch and Move aim to reach 80% of all Primary Schools and Early Childhood Services. For those programs that cannot have a large reach, vulnerable populations that are most likely to be in the poorest health are targeted. For example, a recent review of families participating in Go4Fun showed 21% were Aboriginal, 44% were single parent households, 47% were living in rented or public housing accommodation and 39% of parents were unemployed.

### FUTURE DIRECTIONS

The NSW Healthy Workers Initiative is a new and innovative program that will encourage and support workplaces to offer a range of workplace health promotion initiatives to improve the health-related lifestyles of working adults, particularly targeting 'blue collar' workers. Further interventions to help disadvantaged families and those with special needs to adopt healthy eating and active lifestyles such as a Supported Playgroups Program will be required. There will continue to be a focus on programs such as on Munch and Move, Live Life Well at School, Go4Fun, Stepping On, Get Healthy and Quit for New Life to ensure the LHD meets its performance targets.

### KEY ISSUES

- All non-government organisation grant funding arrangements are under review by the NSW Ministry of Health which may impact on future contractual arrangements for the delivery of Health Promotion programs
- There is a need to ensure access to programs for vulnerable families and communities.

### 9.3.1 FALLS PREVENTION AND MANAGEMENT

The NSW Ministry of Health instigates quality and safety initiatives that promote a comprehensive systemic approach to falls prevention within the health service. The Prevention of Falls and Harm from Falls among Older People: 2011-2015, is a policy developed by the NSW Ministry of Health to assist LHDs to plan and implement strategies aimed at the settings in which older people will reside, that is, in acute/sub-acute hospitals, RACFs and the community.

This policy released in 2011 describes the actions that the Ministry of Health, LHDs, Ambulance Service and the Clinical Excellence Commission, will undertake between 2011 to 2015 to support prevention of falls and fall-related harm. This policy aims to reduce the incidence and severity of falls among older people and reduce the social, psychological and economic impact of falls on individuals, families and the community. It provides the framework to promote a comprehensive, systemic approach to falls prevention within NSW across the three domains of community, residential aged care and acute care services.

NNSW LHD has been successful in maintaining a falls rate lower than the State average and this has been as a result of the dedication of health practitioners and community service providers working together to prevent falls within the LHD. In NNSW LHD, acute care staff now routinely screen people for falls risk, identify those at risk and implement falls prevention strategies to prevent fall incidents and injuries as a result of falls. Falls education and physical activity opportunities are provided to reduce the risk of falls in the community.

#### CURRENT SERVICES

The NNSW LHD Falls Prevention Coordinator provides information, education, support and assistance to ensure that:

- NNSW LHD staff and other service providers involved with older people have current policies, plans and procedures that identify those at risk of falls and ways to address the risks identified
- NNSW LHD staff and other service providers involved with older people have an understanding of evidence based falls prevention intervention
- That evidence based strategies and interventions are developed and/or implemented by NNSW LHD staff to reduce the falls and injuries with older people.

#### ACTIVITY IN 2012-2013

- 28 Stepping On Falls Prevention programs conducted with an average of 15 community dwelling participants per group. Five additional falls prevention groups developed and conducted for those people at particularly high risk of falls developed and completed
- Two Aboriginal Elder Falls Prevention Education sessions completed
- 13 information sessions on Falls Prevention given to community organisations that cater for older people
- Liaison with three community organisations to incorporate falls prevention groups into their services
- CHEGS provided 40 weekly physical activity programs with an average of 10 participants at each
- NNSW LHD Falls Prevention Policy reviewed and updated according to Best Practice Guidelines and the NSW Ministry of Health Falls Prevention Policy

- Procedures undertaken by NNSW LHD staff reviewed and updated to reflect requirements of Standard 10 of the National Safety and Quality Health Service Standards.

### FUTURE DIRECTIONS

There will be a focus on self-help opportunities and strategies that older people in the community can adopt to continue to reduce the risk of falls. NNSW LHD will develop further partnerships with community organisations to assist and encourage the adoption of falls prevention strategies for older people they service. The successful falls prevention program “Stepping On” will continue in the community. The Falls Prevention Coordinator will continue to facilitate awareness, advice and education to support NNSW LHD staff, and staff from other organisations catering for older people to adopt evidence based falls prevention activities within their practice, especially within hospitals and RACFs. CHEGS will continue to provide low cost accessible, appropriate physical activity programs in the community.

### KEY ISSUES

- One in three people aged 65 years and over fall annually, and with NNSW LHD having a large percentage of older people this means that falls prevention needs to be a priority for all service providers who work with older people
- Falls and fall injuries is one of the main reasons why older people move from independent living to residential aged care. To keep people independent and living in the community it is important to emphasize that there are ways to reduce the risk of falling in older people
- Exercise and physical activity is one intervention that has been proven to reduce the risk of falls. Simple exercises that challenge a person’s balance and increase lower limb strength can reduce the risk of falls at any age
- Multifactorial assessment of a person at high risk of falling is the most effective intervention that can prevent falls in older people. This means that medical and allied health staff and other service providers need to work collaboratively to ensure the best possible outcome for an older person at risk of falls
- Falls related hospitalisation, its prevalence and impact on demand for health services is a critical issue for NNSW LHD
- NNSW LHD Falls Prevention Coordinator raising awareness that Falls Prevention strategies can be incorporated into everyday life.

## 9.4 WOMEN’S HEALTH SERVICES

The NNSW LHD Women’s and Child Health Program Coordinator manages the Women’s Health Program and works with health services, non-government organisations and external agencies to deliver coordinated health services for women. The Coordinator has a strategic management and program support responsibility for Women’s Health, Cervical Screening, Aboriginal Maternal and Infant Health Strategy, Domestic Violence, Child Health and Paediatrics.

Gender is recognised as a social determinant of women’s health and wellbeing. There are marked differences in the patterns of health and illness for women and men. While some differences are biological in origin, others are due to the complex social, cultural, political and economic influences that determine health and illness. The inequalities experienced by women can create, maintain or exacerbate exposure to risk factors that endanger health.



Women's Health Services aim to improve access to all women and in particular women from priority populations such as women residing in rural and isolated areas, Aboriginal women, women who are socio-economically disadvantaged, women who are carers, women who experience violence, older women, young women, lesbian, bisexual, trans-gendered and inter-gendered women and women from culturally and linguistically diverse backgrounds.

The needs of rural, disadvantaged and socially isolated women are particularly recognised by NNSW LHD. The coastal towns of the LHD increasingly attract both young families and retirees. Cheaper housing in inland areas also attracts marginalised vulnerable women. In addition the LHD has a large Aboriginal population which is another vulnerable group with specific needs.

"Sexual, domestic and family violence are experienced by women at greatly increasing rates. Many women who experience violence do so in a recurring way and sexual and domestic violence are often experienced together" (NSW MoH, NSW Health Framework for Women's Health 2013, May 2013). "Family violence is a key issue in Aboriginal communities" (Department of Families, Housing, Community Services and Indigenous Affairs, Women in Australia 2009, Canberra). The cost of domestic violence to individuals, families, the community and the health system is unacceptably high. Reducing domestic and family violence and its effects on women is a key priority area for women's health.

## CURRENT SERVICES

Specialist services to women are provided across a range of settings in NNSW LHD. Women's Health Services work collaboratively with internal and external partners and aim to build strong partnerships with key stakeholders to improve the health and wellbeing of women residing in NNSW LHD.

Women's Health Nurses are located in Tweed Heads, Lismore and Grafton. They provide free cervical screening, sexual and reproductive health clinics targeting women most at risk of poor health outcomes. They also provide women's health counselling, health promotion, education, community development and advocacy across a lifespan utilising a social model of health.

The biennial cervical screening rate for women aged 20-69 years residing in NNSW LHD between October 2010 and September 2012 was 57.6%. This rate was higher than the NSW rate of 56.3%. Screening rates were significantly higher than the State rate in Byron (67.7%), Ballina (60.0%) and Kyogle (60.6%) (NSW Pap Test Register, Cancer Institute NSW).

The Women's Health Matters Service based in Lismore targets mid-life and older women, and has a multidisciplinary team who provide health education, counselling and clinical services specialising in menopause, osteoporosis, incontinence and the prevention of women's cancers and osteoporosis.

## ABORIGINAL WOMEN

There are two main Women's Health projects that target Aboriginal women. The Aboriginal Family Violence Prevention and Early Intervention Project Officer in Lismore works through a health education and community development model to decrease domestic violence amongst Aboriginal communities. This service also provides referral and support with the aim of increasing access to services for Aboriginal women who are victims of domestic and family violence. The Aboriginal Infant and Maternal Health Program is a state-wide program which provides services to pregnant Aboriginal women and/or women who are partners of Aboriginal men.

## DOMESTIC AND FAMILY VIOLENCE

Counselling and support services are provided both in the community and acute settings across the LHD. Social Workers located in hospitals and community health centres provide services including



counselling, advocacy, referrals to internal and external service providers including police, refuges, financial support services, housing and legal services.

Routine screening for domestic violence is conducted for all women over the age of 16 years who access Child and Family, Drug and Alcohol, Mental Health, Women's Health Nursing, Aboriginal Infant and Maternal Health Program and Maternity services. The NNSW LHD Domestic Violence Coordination Committee oversees the implementation of domestic violence policies and procedures and provides strategic direction for the LHD.

Domestic violence and screening training is offered in Richmond, Tweed and Clarence Valleys annually and a network of trainers has been established across the LHD in order to systematically provide training on an ongoing basis. A domestic violence resource library has also been established to provide resources for the pool of trainers. A comprehensive domestic violence resource for frontline workers in health and other agencies has been updated and redeveloped. This resource assists workers to recognise and respond appropriately to domestic violence.

There is also ongoing support for and collaboration with the Aboriginal Domestic and Family Violence Coordinator with the aim of reducing the occurrence of domestic and family violence within Aboriginal communities and ensuring that Aboriginal women have access to appropriate and equitable services.

### HEALTH FUNDED NGOS

Lismore and District Women's Health Centre and Lismore Family Planning Service are two non-government organisations (NGOs funded under the NSW Health funded NGO funding Program).

Lismore and District Women's Health Centre provides health and wellbeing services within a feminist context for women and girls of all ages. The service targets those who are most disadvantaged within a social model of health. Current strategic priority populations include girls and women experiencing life transition (such as puberty, pregnancy, menopause, bereavement, major health diagnosis), women who experience violence, Aboriginal women, women of low socio-economic status, women in isolation or disadvantaged due to their rural location and women with a disability.

Key strategic health goals include delivering effective and accessible services for women and girls that respond to local health needs, adopting a health promotion approach that recognises the key burden of disease risks for women and building and strengthening community connection and partnerships that support the health of women.

Services include Women's Health Nurse, Generalist Counsellor, health promotion and education, information and referral, peer support, cross-profession training, community noticeboards, coordinating events, information stands and partnership development. Outreach services provided at Lismore and District Women's Health Centre premises include the NSW Health Women's Health Nursing Service (pap smears) and NSW Rape Crisis Centre (Counsellor for adult survivors of childhood sexual assault).

Lismore Family Planning Service provides a range of reproductive and sexual health services to low income and disadvantaged people in Lismore and Kyogle. The service provides a bulk billing service to clients seen by a doctor or clinical nurse consultant at no cost to the client and contraceptive items at cost price. Specific target groups include young people, Aboriginal people and individuals who are of low socio-economic status.

The service provides:

- Pap smear tests
- Pregnancy planning, testing, information, counselling and referral

- Contraception information and product provision
- HIV and sexually transmitted infections testing's
- Gynaecological investigation and treatment
- Vasectomy information and referral
- Information and medical management for menopause
- Fertility assessment and referral.

## FUTURE PLANS

In May 2013 The Minister for Health launched the “NSW Health Framework for Women’s Health 2013”. This document outlines the state-wide service directions for Women’s Health. It is a framework for collaboration across government and non-government sectors to deliver appropriate services and programs for the diverse needs of women. This document will guide the development of a NNSW LHD Women’s Health Plan.

## KEY ISSUES

- The removal of the Medicare provider number for Practice Nurses to perform pap smear tests within GP surgeries has resulted in an increased workload for Women’s Health Nurses and has also impacted on the financial viability of the Family Planning Service whose nurses can no longer provide cervical screening tests under Medicare
- There are delays for women requiring a dilatation and curettage following miscarriage or still birth due to demand on operating theatres at Lismore Base Hospital; introduction of RU486 may lead to increased demand
- There are no public services for termination of pregnancy available within NNSW LHD except at Grafton. The cost of private services is prohibitive for many women and these are only available at Tweed Heads or Brisbane which creates transport access issues
- Access to Family Planning Services for young people is limited, and the lack of bulk billing by GPs in the LHD impacts on demand for the service. Family Planning services are currently limited to Lismore and an outreach service in Kyogle; there is demand for Family Planning Services across the LHD
- Community Nutrition Groups are not available for women, impacting in particular on those who have chronic conditions or mental health problems
- Affordable treatments for young women with eating disorders are not currently available within the community
- Access to social media is not available within the LHD and this impacts on the ability of women’s health services to communicate with some of the greatest need clients. These clients are often not contactable through means other than social media
- Access to emotional support (including counselling) for women is limited
- There is a need to include counsellors (award classification) in recruitment rather than just social workers and psychologists
- Medical services provided with a co-payment are now out of the reach of women who are single parents with children older than 8 years of age who have been moved onto NewStart.

## 9.5 MEN'S HEALTH

In recent years it has been acknowledged the health status of males in comparison to the female population has received more attention. Males as a group experience poorer health and have a shorter life expectancy than females. Men have higher rates of mortality in mental health, cardiovascular disease, diabetes, injuries and cancer. Traditionally men have accessed health services at a lower rate than women and have fewer hospital admissions, but longer length of stay. More males die at every age grouping than females except for those aged 65 years or older.<sup>102</sup>

The health inequalities between males and females are particularly noticeable for Aboriginal people. The life expectancy for the male Aboriginal population in NSW is 69.9 years compared with Aboriginal females of 75 years; the general male (non-Aboriginal) population is 78.7 years and for the general female (non-Aboriginal) population is 82.5 years.<sup>103</sup> (These statistics are the most current for comparative purposes).

### CURRENT SERVICES

NNSW LHD service development is guided by the NSW Men's Health Plan 2009-2012. This Plan has been extended to 30 June 2013 and contains the following guiding principles:

- Provision of health care, health promotion and information which addresses the specific health needs of men
- Expanding the evidence base in providing health care to men and boys
- Assisting NSW Health in monitoring and evaluating initiatives under the Plan.

Currently there are limited dedicated Men's Health Services on the North Coast. Aged Care and General Care Non Inpatient Occasions of Service are used less frequently by men than women. On the other hand, Drug and Alcohol and Mental Health Services are used more frequently by men than women. Currently there is one Clinical Nurse Specialist in Men's Health providing local support for men with prostate cancer, fathering education to clients, staff education and planning support to the LHD.

### FUTURE MODELS OF CARE

The NSW Men's Health Plan extends to June 2013. NNSW LHD will need to be responsive to future guiding plans or strategies from the NSW Ministry of Health. It will also be important to improve Men's Health service provision to Aboriginal men and boys in the LHD.

### KEY ISSUES

- The development and resourcing of infrastructure that will affect social change and support men and boys to positively interact with their environments
- Development of targeted services that are male gender specific
- Developing specific men's health programs including screening programs and incorporation of men's health issues and strategies into current NNSW LHD programs
- Changing of health service models so that men will be encouraged to use the available services in a timely manner
- Development of a workforce skilled in male health practice service provision.

<sup>102</sup> NSW Health Men Health Plan 2009-2012 p2 November 2009

<sup>103</sup> Australian Bureau of Statistics', Experimental life tables May 2009

## 10 SERVICE ENABLERS

### 10.1 WORKFORCE

Recruiting and retaining skilled staff is a challenge across the NSW Health system, especially in rural areas. The next 10 to 20 years will see the ageing and retirement of many current health professionals. Workforce planning and development activities need to address both the size and skill mix required in the workforce of the future.

The next decade will see the beginning of significant changes in the structure of the health workforce across Australia. Diversification and restructuring of professional roles will occur as new training regimes are implemented and work practices change, driven by new therapies and models of care, clinical service redesign and developments in information technology and communications.

Task redefinition is already advanced overseas, especially in the National Health Service and United States health systems. Roles such as nurse practitioners, physician assistants, generic practitioners with core nursing and allied health training, allied health assistants and other options are being designed and implemented to provide a flexible workforce for the future, and to ensure that the time of medical staff and skilled nurses and allied professionals is effectively deployed to patient care.

The Productivity Commission Report on the Australian Health Workforce (2005) highlights many of the role redefinition issues as well as the requirements for additional training places in medical, nursing and allied health to keep pace with demand and the importance of lifelong learning and skills acquisition programs.

Expanded training programs in nursing and allied health, more medical student places and new medical schools have been announced by the Australian Government in response to the Commission Report and the expansion in health sector training and professional development is already generating additional demand for training and clinical placement opportunities in urban and rural settings.

There are a number of key drivers for workforce that include the NSW Health, Health Professionals Workforce Plan 2012-2022; the Review of Australian Government Health Workforce Programs, Mason April 2013; and the National Rural and Remote Health Workforce Innovation and Reform Strategy May 2013 – Health Workforce Australia.

Health workforce planning is a high priority for NNSW LHD, whose strategic directions include 'developing a skilled and motivated workforce in a culture based on our core values'. It is only through developing a sustainable workforce that NNSW LHD will be able to implement the various clinical service developments described in this Health Care Services Plan.

#### 10.1.1 WORKFORCE CHANGE AND SUSTAINABILITY SERVICE

The Workforce Change and Sustainability Service is one of the services within the Chief Executive Unit, reporting through the Chief of Staff to the Chief Executive. The Service comprises the six functional areas outlined below.

NNSW LHD is committed to working towards a culture that encourages a safe workplace environment that values and respects the contribution of all staff in delivering quality healthcare service to our communities.

The role of the Workforce Change and Sustainability Service is to ensure the safe development and continued support of a sustainable, valued and resilient NSW LHD workforce that promotes effective and efficient healthcare delivery.

The Team aims to provide appropriate and sound advice, support and guidance in regards to the management of the valued individuals within our workforce in a way that supports the workforce in confidently fulfilling the responsibility in line management of all staff members as well as achieve fair and reasonable outcomes that consciously mitigate individual, corporate and clinical risk.

The ultimate outcome is to enhance the capacity across the organisation to proactively support the workforce in a manner that recognises the integral and influencing role that all staff play in contributing positively to our workplace environment and to quality healthcare.

The Core Components designed to support the workforce include:

- Utilisation of Data – access and analysis of workforce data to support the organisation in a practical useful way in identifying current workforce data trends and projections
- Workforce Framework –provision of practical frameworks to support development and implementation of innovative workplace strategies through development of agreed sets of procedures and processes
- Facilitation of Workforce Strategy Development – support managers to assess appropriate workforce data and develop local, relevant and innovative strategies to support the changes required
- Systems that support Workforce Strategy Implementation – the Workforce Change and Sustainability Service will provide District-wide systems to support the implementation of a range of workforce support strategies aimed at attraction, recruitment and retention of staff
- Learning interventions that support Workforce Strategy Realisation –provision of support to the workforce in development of key skills to influence and implement workforce change and sustainability.

Initiatives within the Culture, Development and Equity portfolio within workforce include Workplace Culture and Change; Retention strategies; Equity and Diversity and Leadership Capability and Development. The Human Resources Support portfolio includes performance support, support for management concern and complaint, human resource and industrial policy, disciplinary processes, criminal record risk assessments, Service Check Register entries, award and grading assessments and advice on industrial negotiation. Work Health, Safety and Injury Management support work health and safety systems inclusive of relevant profiling and audit tools, and manual handling, fire safety and security, preventative injury management including re-deployment of injured workers, fitness for work assessments and medical retirement, pre-employment health and occupational screening, insurance notifications and the Staff Health and Employee Assistance Program.

Medical Administration is a Hosted Service with MNC LHD and includes Medical appointment, registration and credentialing, VMO management, medical study leave entitlements and Professional indemnity status. The Clinical Workforce Development portfolio includes the coordination of the Interdisciplinary Clinical Training Network and Student placements, medical education and training, career attraction and promotion, clinical service grants and enhancements and clinical workforce development partnerships.

There are also a range of workforce systems and support for workforce management inclusive of Advertisement and Recruitment systems (Mercury E-Recruit), human resource information systems (STAFFLINK); rostering/staff scheduling systems (PROACT), education and training systems (HETI Online, ClinConnect), employee services and personnel records and orientation and relocation.

### 10.1.2 MEDICAL WORKFORCE

Growth in the population is resulting in greater demand for medical services. Community expectations and advances in medical technology have enabled more complex medical services to be developed locally to reduce the volume of residents travelling out of area. While it is difficult to identify all the factors that may impact on the future demand for the medical workforce, two factors are likely to be of critical importance, ageing of the workforce and the anticipated retirement of a large proportion of the medical workforce in the absence of appropriate succession planning.

Despite strategies at Federal and State levels to address the shortage of medical professionals working in rural and regional areas, the ability to attract and retain medical staff across the North Coast continues to be a major challenge.

Sustaining and resourcing the clinical supervision of medical undergraduates and graduates continues to be difficult, adding to the current workload of mainly VMOs and Staff Specialists in the rural setting.

### 10.1.3 NURSING AND MIDWIFERY WORKFORCE

Nursing and Midwifery services need to remain abreast of contemporary knowledge and skills. While there are a small number of Nurse Practitioners and Clinical Nurse Consultants across NNSW LHD, there is an additional need for Clinical Nurse Educators and Nurse Educators to support and educate nurses in the work situation. Evidence based practice, changed models of care, and an older nursing workforce combine to place greater emphasis and reliance on nursing educational resources.

Nursing and Midwifery manage a variety of programs to support the nursing and midwifery workforce. Transition to practice programs targeting new graduates and experienced nurses to other modalities provide a career pathway for newly qualified nurses and for more experienced nurses to move to a new area of nursing.

Nurse Practitioner positions seek to address identified clinical service needs or gaps in existing services and to address future service development needs for the LHDs residents. Planning by Nursing and Midwifery has been undertaken with the following key areas for workforce development identified:

- End of life care/palliative care
- HITH
- Chronic disease management
- Stomal therapy and continence
- Wound management
- Aboriginal Health
- Aged Care
- Emergency care.

These roles target the key priority areas of the LHD including an ageing population and associated burden of disease and rural isolation and subsequent workforce shortages.

#### 10.1.4 ALLIED HEALTH WORKFORCE

The expertise of Allied Health specialties in the management of acute and community based care systems deliver a range of benefits to the individual patient and the health system. Allied Health services are an integral component of the multidisciplinary models of care required for the delivery of contemporary healthcare. Additionally Allied Health staff supply stand-alone discipline based services to many clients.

Many Allied Health services have seen continued significant growth in demand across acute, sub-acute and community services, with limited increase in Allied Health staffing numbers. Within available capacity, service delivery generally targets acute or urgent demands, with less ability to focus on prevention, early intervention and other less immediate service delivery models.

#### 10.1.5 ABORIGINAL WORKFORCE

The NSW Aboriginal Health Plan 2013-2023 outlines key areas of focus to strengthen the Aboriginal workforce by attracting, developing and sustaining more Aboriginal people to work in health. Strengthening the Aboriginal workforce in the health system is seen as critical to improving services.

Good Health-Great Jobs, the Aboriginal Workforce Strategic Framework 2011–2015 provides a strong foundation with key priorities including:

- Increasing the representation of Aboriginal employees to 2.6% across the NSW public health sector
- Increasing the representation of Aboriginal people working in all health professions
- Developing partnerships between the health and education sectors to deliver real change for Aboriginal people wanting to enter the health workforce and improve career pathways for existing Aboriginal staff
- Providing leadership and planning in Aboriginal workforce development
- Tapping into the increasing pool of Aboriginal university graduates undertaking health courses
- Building a NSW Health workforce that closes the gap in health outcomes between Aboriginal and non-Aboriginal people by providing culturally safe and competent health services
- The Aboriginal workforce in health needs to feel and be culturally safe; strategies to improve recruitment, retention, education and training are needed
- A more visible Aboriginal workforce in the health system may assist in decreasing the impact of workplace racism on retention, while simultaneously enhancing cultural understanding and educating people on the importance of the Aboriginal workforce to health.

#### CURRENT PROFILE

In 2011/12 NNSW LHD employed a total of 4,329 non-casual staff, a 13% increase on the 3,829 staff employed in 2010/11. Of these 3.0% were of Aboriginal and/or Torres Strait Islander descent.

In terms of full time equivalent (FTE) positions, NNSW LHD employed 3,075.6 FTE in 2011/12 including 57.5% full-time staff and 42.5% part-time staff. Overall, including casual staff, 77% of staff were employed on a permanent basis, 16.4% were employed on a temporary basis and 6.4% were casual staff.



The average age of staff was 49 years in 2011/12. Three-quarters of NNSW LHD staff were female (76%) and the average age of female staff was 49 years. The average age of male staff was 47 years. Over 70% (70.9%) of staff had worked for NNSW LHD for more than 5 years and 50% had worked for NNSW LHD for more than 10 years.

In 2011/12 NNSW LHD had a stability rate of 98.24% for permanent staff with only 1.76% of staff leaving and 1.12% commencing. This low level of attrition reflects the post Global Financial Crisis experience for most LHDs with many older staff choosing to delay their retirement.

### KEY WORKFORCE ISSUES NNSW LHD

Ensuring a future sustainable health workforce has been identified nationally as one of the major challenges facing the Australian health system in 2013.

The major challenges facing all jurisdictions, including NNSW LHD are:

- Development of new service models of care that reflect the changing nature of health provision and shifts in the burden of disease including:
  - Increased focus on ambulatory care services delivered in primary care or home settings
  - Increased use of multidisciplinary team management approach to delivering care
  - Increased need for services tailored to the wholistic needs of people with chronic and co-morbid conditions
  - Development of new healthcare worker roles (e.g. Nurse Practitioner, Hospitalist)
  - Increased use of Telehealth to support the provision of clinical advice, consultation, education and training services to remote locations
- Impending workforce shortages resulting from the ageing of the existing health workforce and the increased demand for services required by an ageing population
- Succession planning strategies are required for the ageing workforce across all professional groups
- Shortages of nursing staff with experience in specialist fields e.g. obstetrics and neonatal, renal, oncology, palliative care and intensive care
- Changes in the demographic composition of the health workforce (feminisation, Generation Y) requiring increased flexibility on the part of employers
- Shortages of all professions other than nursing in rural and regional areas
- Continuing pressure on health budgets from constrained health budgets
- Trend towards increasing specialisation of healthcare professionals
- Higher pay rates and better conditions in Queensland which may place further pressure on recruitment over all disciplines particularly across the Tweed Byron Health Service Group
- The challenge for Maternity Services is to ensure that they have a workforce that is skilled and competent in the care of sick neonates. This is particularly an issue in smaller maternity services where it is uncommon to have neonates that require resuscitation or ongoing medical support in an emergency situation.

More specifically, in relation to the major health professional groups the key challenges are listed below:

- There is a need to develop a centralised medical recruitment processes
- There are shortages in medical specialty areas including geriatrics, palliative care, neurology, psycho-geriatrics, geriatric oncology, cardiology, infectious diseases and microbiology
- There are specific workforce challenges in relation to recruitment and retention of Allied Health and JMOs at The Tweed Hospital
- There is a need to further develop Registrar places at The Tweed and Lismore Base Hospitals; additional places could be further progressed in consultation with Queensland Health
- Workforce gaps were identified in the areas of clinical pharmacy, physiotherapy, speech pathology and occupational therapy in the community and inpatient areas at Lismore Base Hospital
- There is currently no standardised tool to project workforce needs across Allied Health services, locally, nationally or internationally. Recommendations on enhancements for Allied Health services are based on expert advice from senior Allied Health staff across the LHD
- Maintaining the skill mix required to deliver services safely is a challenge. Difficulties in delivering the required skill mix may increase risks associated with recognising and managing the deteriorating patient in smaller more isolated facilities
- Attracting and retaining qualified nursing, medical and allied health staff particularly to the more isolated sites
- Maintaining the skill mix required to deliver services safely is a challenge. Difficulties in delivering the required skill mix may increase risks associated with recognising and managing the deteriorating patient in the MPS Network
- Limited access to professional development and educational opportunities is a barrier to retaining staff in the MPS Network
- Retaining Registered Nurses and Medical Officers is a particular issue due to the isolation of Urbenville and District MPS.

### 10.1.6 KEY WORKFORCE ISSUES FOR CLINICAL STREAMS AND NETWORKS

#### MENTAL HEALTH WORKFORCE

- An inconsistent skill mix amongst mental health clinical staff across the District and capacity building is required in Mental Health Services
- There is a need for Managers to be oriented to service benchmarking, business management and reporting service activity
- Appropriate recruitment to specialist SMHSOP positions has been identified as a State-wide issue. This has been addressed to a degree by the development of SMHSOP Core Competencies by the NSW Ministry for Health
- Consideration of the impact of a changing environment for Mental Health Services, where Commonwealth Government funding is increasingly allocated to sectors other

than the traditional health one. This includes NGO, private providers and Primary Care/Medicare Locals.

#### AGED CARE WORKFORCE

- There is a need for improved education opportunities, particularly for smaller teams; multidisciplinary education needs to be expanded and post graduate training is not generally a priority for allied health staff in relation to aged care as a specialty
- Availability of locum staff with appropriate qualifications and skills within specialist aged care programs is problematic
- There needs to be improvement in staff knowledge in the early recognition of delirium/dementia risk factors and appropriate management for the confused/disoriented older patient
- Acute and ED staff require additional support and training to better understand patient-centred care approaches and its relevance to the needs of the SMHSOP client group
- Across Aged Care Services, there is a need for specialist nursing positions from Assistant in Nursing level through to Nurse Practitioner level. There is a need to maintain a pool of trained/skilled staff that can be called upon to provide 1:1 specialist care for confused older patients in the hospital setting.

#### ABORIGINAL HEALTH WORKFORCE

- A more visible Aboriginal workforce in the health system may assist in decreasing the impact of workplace racism on retention, while simultaneously enhancing cultural understanding and educating people on the importance of the Aboriginal workforce to health
- The need to define the scope of work for Aboriginal Health Education Officers
- There is a need to embed recruitment of Aboriginal people in all clinical areas across the LHD
- There is a need to increase traineeships for Aboriginal people
- A more diverse clinical skill mix among Aboriginal Health Workers is required.

#### CARDIOLOGY WORKFORCE

- Increased cardiology services at both The Tweed and Lismore Base Hospitals will require additional medical, nursing and administration staff and a plan for ongoing training
- There is a need for cardiac technicians to perform Echocardiography and exercise stress testing services at both Lismore Base and The Tweed Hospitals
- There is a need to improve access to training for staff from peripheral sites
- Up-skilling of new staff to achieve competency in provision of cardiac and heart failure rehabilitation within existing programs
- There is a need for ongoing staff education in relation to new technologies and care models including Telehealth.

## MATERNAL AND CHILD HEALTH WORKFORCE

- There has been a decline in the number of GP Obstetricians practicing in NNSW LHD over the past 10 years and their numbers continue to decline
- Maintaining sufficient skilled and experienced Midwives at the smaller sites is an issue
- As a result of the introduction of Midwifery Led Model of Care (Continuity of Care Midwifery); the Midwives working within the model require extensive training to ensure they have the appropriate breadth of Midwifery skills
- Additional Clinical Midwifery Education resources are required to:
- Support new graduate Midwives who require at least 1 year of support to facilitate their transition to be part of the experienced workforce
- Supervise an increasing number of student Midwife placements
- There is a need for a recognised reconnect program to support Midwives who have been out of the workforce for greater than 5 years to regain registration as a Midwife with the Australian Health Practitioner Regulation Agency
- Most Midwives prefer to work in their specialty area and the increase in Direct Entry Midwives means that these staff can only be deployed in the Maternity Unit
- There is a need to ensure that there are staff with an adequate skill mix to improve and maintain the flexibility of the workforce within the Women's Care Unit to work across the continuum
- Urgent action is required to address decreasing births and workforce challenges at Casino and District Memorial Hospital
- Succession planning for the Obstetricians due to retire at Grafton Base Hospital.

## CHILDREN'S HEALTH SERVICES WORKFORCE

- An ageing workforce amongst paediatric clinicians and child and family services including medical, allied health and nursing staff highlights the need for good paediatric leadership, locally provided training and succession planning
- There is a need for Paediatric Clinical Nurse Educators to provide education, training and support for existing and new paediatric staff as well as undergraduate nursing students on a range of topics including child protection training
- Linkages with Tertiary institutions need further strengthening to address workforce and training issues
- Networking with research partners is required with furthering of research and innovation.

## 10.2 TEACHING, RESEARCH AND EDUCATION SERVICES

### 10.2.1 TEACHING

NNSW LHD recognises the benefits of, and strives to develop, a culture of learning within the organisation. This manifests itself in many ways through the organisation, including:

- Professional development/educational opportunities for staff

- Teaching of junior staff through structured and “on the run” strategies
- Clinical placements for tertiary students
- Vocational education traineeships
- Processes to facilitate research being undertaken within LHD facilities
- Support of a viable library service to assist NSW LHD staff undertaking research and educational opportunities
- Support for staff undertaking research.

To maintain and build the health workforce, the commitment to building a learning organisation will need to be strengthened and strategies developed to address challenges such as:

- Ensuring expenditure on professional development/education, focuses on the most pressing organisational needs and delivering high value for money
- Managing the increasing requirements for clinical placements for tertiary students
- Ensuring teaching and supervision of junior staff is of a high standard, meets the needs of the staff and the organisation and develops them into experienced well qualified personnel
- Ensuring research systems and processes meet the expanding needs of the organisation
- Ensuring the maintenance of a viable library service to support staff professional development and education.

#### HEALTH EDUCATION AND TRAINING INSTITUTE (HETI)<sup>104</sup>

The Health Education and Training Institute (HETI) undertakes a core role in supporting the NSW Health System in its education and training requirements. HETI works closely with LHDs, specialty health networks, other public health organisations and health education and training providers to ensure the development and delivery of health education and training across the NSW Health System.

HETI ensures that education and training across the system:

- Supports safe, high quality, multidisciplinary, team based, patient centred care
- Meets service delivery needs and operational requirements
- Enhances workforce skills, flexibility and productivity.

HETI commenced operations on 2 April 2012 as a Statutory Health Corporation following a Ministerial Review of Future Governance for NSW Health. HETI builds on the work of predecessor organisations: the Clinical Education and Training Institute (CETI), the NSW Institute of Medical Education and Training (IMET) and the NSW Institute of Rural Clinical Services and Teaching.

Core functions of HETI include:

- Design, commission, conduct, coordinate, support and evaluate education and training programs for the full range of roles across the NSW public health system including patient care, administrative and support services
- Design, commission, conduct, coordinate, support and evaluate management, leadership and professional development programs

<sup>104</sup> <http://www.heti.nsw.gov.au/about/>

- Support reform and improve the workforce capacity and quality of clinical and non-clinical training
- Institute, coordinate, oversee and evaluate education and training networks and ensure they support service delivery needs and meet operational requirements.

The **organisational structure of HETI** includes the following portfolios:

- Allied Health
- Education Strategy and Implementation
- Medical
- Nursing and Midwifery
- Operations
- Rural and Remote

Consolidation of the processes and structures in place to support the ongoing relationship between NSW LHD and HETI continues. This strategic collaborative partnership is supported by the internal Executive Sub-Committee for Education and Training that supports improved coordination of the activities from both HETI and other providers of education and training to NSW LHD employees.

### NNSW LHD WORKFORCE CHANGE AND SUSTAINABILITY SERVICE

NNSW LHD Workforce Change and Sustainability Service provide support to its workforce in development of key skills to influence and implement relevant workforce strategy.

The role of the Workforce Change and Sustainability Service is to ensure the safe development and continued support of a sustainable, valued and resilient NSW LHD workforce that promotes effective and efficient healthcare delivery.

The Team aims to provide appropriate and sound advice, support and guidance in regards to the management of the valued individuals within our workforce in a way that supports the workforce in confidently fulfilling the responsibility in line management of all staff members as well as achieve fair and reasonable outcomes that consciously mitigate individual, corporate and clinical risk.

In the context of the role of the Workforce Change and Sustainability Service in regards to supporting education and training, it is responsible for the development and monitoring of effective management frameworks and systems, and reaching predicted outcomes and agreed measurable Key Performance Indicators for the operation of the Workforce Change and Sustainability Service related to:

- Medical education and training, inclusive of the Hospital Skills program, prevocational and vocational training programs, Staff Hospitalist initiatives, GP training programs
- Coordination of Interdisciplinary Clinical Training Network and Student placements
- Career Attraction and Promotion
- Development of relevant clinical and clinical support workforce training and education data and reports through implementation of a new state-wide Learning Management System (LMS) HETI On-Line
- Oversight of clinical service grants and enhancements
- Liaison with key clinical workforce development partnerships such as universities and general practice

- Implementation of the Leading for Better Patient Outcomes (incorporating the Clinical Excellence Commission (CEC) Clinical Leadership Program).

The Workforce Change and Sustainability Service also supports the systems for education and training for the provision of e-Learning, ClinConnect for student placements and a centralised coordination point for face to face education and training programs.

## E-LEARNING

e-Learning is utilised by all staff across the LHD (clinical and non-clinical) with clinical staff being the highest volume users of the e-Learning system. There are a variety of e-Learning modules available and e-Learning is available in all hospital PCs via each individual staff members log on, on the LHD intranet.

e-Learning provides a mechanism for training that is easily accessed by a large number of employees and currently includes programs such as Code of Conduct, Mandatory Training, Open Disclosure, and risk management (written locally based on Route Cause Analysis recommendations). e-Learning will play an important ongoing role in supporting staff to maintain their skills and meet mandatory continuous professional development requirements. e-Learning will also be critical to the support of newly trained staff members or clinical students to undertake training and reduce the demands on clinical educators.

## CLINCONNECT

ClinConnect is a NSW Health web-based interdisciplinary Clinical Placement Booking system used by all public health facilities in NSW and by education providers booking placements within those facilities. Disciplines utilising ClinConnect for student placement coordination include: dentistry and oral health, diagnostic radiography, medicine, midwifery, nuclear medicine technology, nursing, nutrition and dietetics, occupational therapy, pharmacy, physiotherapy, podiatry, psychology, radiation therapy, social work and speech pathology.

ClinConnect allows LHD clinicians to manage their capacity for student placement specific to each discipline and facility. System reporting allows the LHD to manage student compliance, identify areas of capacity variation and provides information relevant to Health Workforce Australia national reporting requirements.

## MEDICAL TRAINING

There has been a significant increase in the role of NNSW LHD in providing undergraduate medical education with the establishment of the collocated Education and Research facility in partnership with Griffith and Bond University Medical Schools. Medical Registrar training positions have expanded and across NNSW LHD there are positions in anaesthetics, cardiology, emergency medicine, gynaecology, medicine, obstetrics, orthopaedics, oncology, paediatrics, psychiatry, surgery and urology.

Medical practitioner career opportunities are available in addiction medicine (Riverlands), cardiology, emergency medicine, gastroenterology, general and child and adolescent psychiatry (Mental Health Services), general medicine, general paediatrics, general surgery, geriatric medicine, haematology, intensive care medicine, neurology, medical oncology, nephrology, obstetrics and gynaecology, ophthalmology, orthopaedics, otorhinolaryngology, palliative medicine, radiation oncology, respiratory medicine, sexual health medicine (SHAIDS), urology and vascular surgery.

Junior medical staff have been increasing, including prevocational training places. Across the facilities, accredited terms are available in anaesthetics, emergency, medicine, obstetrics and gynaecology, orthopaedics, paediatrics rehabilitation, renal and surgery. Many of the VMOs and staff



specialists undertake a teaching role. Strategies will be required to maximise the teaching capacity and capabilities and supervision of the increasing number of junior medical staff.

### NURSING AND MIDWIFERY

The Nursing and Midwifery Directorate positions within the LHD and Health Service Groups continue to facilitate and support extensive nursing education and training across the NNSW LHD. Examples of this activity include preceptor programs, leadership development programs, clinical competency packages and career advancement education.

The NNSW LHD specialist Clinical Nurse Consultants and Nurse Practitioners provide a variety of education opportunities for staff across all disciplines of the LHD.

There are significant and increasing numbers of nursing students across NNSW LHD facilities. These students are primarily from Southern Cross and Griffith Universities and include midwifery students. Models of student supervision have been reviewed and revised to maximise capacity and ensure quality clinical placements. Two different models of clinical supervision for General Nursing placements are being compared and contrasted to determine the benefits and challenges of each model. New and recent graduate nursing programs across NNSW LHD facilities continue strongly.

Additionally, there has been the implementation of a "Transition to Practice" philosophy across NNSW LHD to support all transitioning nurses. The Tweed Hospital has a well-established transition to practice program for critical care that has been operating for the past 5 years. This is a year-long program that has advanced standing with Griffith University and is worth two subjects towards the Masters of Nursing (Critical Care). The transition to practice program being developed by the Nursing and Midwifery office is available to units that don't have a specialty transition to practice program.

NNSW LHD has recently signed an articulation agreement with Southern Cross University which will facilitate the staff of NNSW LHD to attain Recognition for Prior Learning for any previous education which meets the Australian Qualification Framework Standards. This includes previous tertiary study and in-house programs such as in-service, hospital based workshops etc. Once assessed, this education could be allocated credit points towards further tertiary study and nation-wide university recognition.

One area in which future collaboration will be required is the provision of leadership in relation to expanding the role of nurse practitioner positions. There is also a need to develop partnerships and pathways for post graduate specialist nurse education. This would require the development of specialised links, conjoint appointments and articulation between specialist areas of nursing with appropriate tertiary programs.

In collaboration with Southern Cross University North Coast Network, the Director of Nursing and Midwifery and The Tweed Hospital are working on a proposal of a practice development initiative whereby joint appointments between Southern Cross University and The Tweed Hospital for the positions of Mental Health Service development and Midwifery Service development are deployed across the Health Service Group. These two positions would provide education, supervision and support to staff and students on clinical placements at The Tweed Hospital and contribute to curriculum design and review.

The new Southern Cross University campus based at Coolangatta was completed in 2012. In collaboration with the Medicare Local, the new GP Super Clinic in Tweed Heads and The Tweed Hospital, future plans for the new campus include the establishment of a University Clinic for the delivery of ambulatory allied health services to the public. The University Clinic will be staffed by Allied Health students and private providers. Areas of specialty will include: speech therapy, physiotherapy, podiatry, naturopathy, psychology, cardio-vascular clinic and dietetics.

A Collaborative Practice Unit located on the Lismore Base Hospital campus with outreach to nurses and midwives across the LHD has been established. The Unit includes:

- A Postdoctoral Research Fellow who is focused on research and evidence based practice related to capacity building
- A Senior Research Fellow who is focused on role development and leadership coaching
- Administrative support.

Unlike the 'classic' or 'clinical chair' approach to academy/health service collaboration in nursing and midwifery, the Collaborative Practice Unit is framed as a three-arm service.

#### WORKPLACE-BASED RESEARCH AND KNOWLEDGE TRANSFER

This arm claims its principal expertise in the application of research methodology and analytical support and training/mentorship in relation to this. Its purpose is to wed methodological and analytical skills with all nursing and midwifery clinical knowledge bases which require support and development. Since the Collaborative Practice Unit inception, formal research and evidence appraisal capacity building education and support has been conducted across the LHD and some 12 clinical projects are under Collaborative Practice Unit support.

#### PROFESSIONAL DEVELOPMENT AND COACHING SUPPORT

This arm, like the research arm, seeks to offer support broadly to the nursing and midwifery corpus as a whole. A grounded theory of the coaching aspects of the emerging range of developmental supports offered is underway, and experimental and quasi experimental evaluative work is in advanced planning. Investigative and evaluative work regarding the process of mainstreaming leadership coaching in the LHD, targeting nursing and midwifery leaders has commenced.

#### CONDUIT FOR FACULTY PRACTICE AND RESEARCH IN THE LHD

The Collaborative Practice Unit is the point for academics to register collaborative practice and research in the LHD. The Collaborative Practice Unit registers the activity and facilitates interaction with the LHD.

#### NURSING WORKFORCE RESEARCH

The Collaborative Practice Unit is active in driving and supporting two separate participatory action research projects among Nursing and Midwifery Educators and Nursing and Midwifery Consultants in the LHD. Both projects are concerned with collaboratively developing clear role-related models of practice in the LHD. The first is among Nursing and Midwifery Educators and Clinical Nursing and Midwifery Educators and is being progressed locally by the Collaborative Practice Unit. The second is among Clinical Nursing and Midwifery Consultants and is being progressed by the Southern Cross University School of Health and Human Sciences with the support of the Collaborative Practice Unit. This second project is the likely subject of a submission for Australian Research Council grant support to do State-wide work in relation to the Clinical Nurse Consultant/Clinical Midwifery Consultant role.

#### CLINICAL NURSE/MIDWIFE EDUCATOR

Clinical Nurse Educators and Clinical Midwife Educators play an important role in the support of a range of services in the LHD. Clinical Nurse Educator/Clinical Midwife Educator means a Registered Nurse/Midwife appointed to a position classified as such and who holds relevant clinical or education post registration qualifications or such education and clinical experience deemed appropriate by the employer.

The Clinical Nurse Educator/Clinical Midwife Educator is required to deliver and evaluate clinical education programs at the ward/unit level.

The Clinical Nurse Educator/Clinical Midwife Educator provides for the delivery of clinical nurse/midwifery education in the ward/unit level, and performs the following functions at that level:

- Delivers competent nursing education in the ward/unit
- Contributes to the development of colleagues
- Supports less experienced staff and acts as preceptor for new staff
- Acts as the preceptor in orientations to the ward/unit
- Provides day to day clinical education support in the ward/unit
- Provides one on one informal education
- Provides support for skill development in clinical procedures
- Provides support for professional development
- Provides support for clinical policy development
- Provides a ward/unit based in-service program
- Refer NSW Health Policy Directive - Clinical Nurse/Midwife Educators Definition and Educator Grades 1, 2 & 3 Award Classifications PD2008\_043 for further details.

### ALLIED HEALTH

New graduate programs have been developed e.g. in pharmacy. Where applicable, other allied health services would benefit from more structured support programs for graduates.

Strong relationships have been developed with specific universities offering allied health courses. These include:

- Occupational Therapy – Newcastle University and Southern Cross University
- Physiotherapy – Newcastle University, Griffith University and Bond University
- Pharmacy – University of Sydney and Griffith University.

Where suitable, further relationships will be developed with appropriate universities.

A range of strategies for managing increasing requirements for student placements and supporting junior staff will need consideration, including:

- Skill development and maintenance in providing supervision to and management of student performance
- Alternative and innovative models of student supervision suitable for regional and rural areas
- Skill development and maintenance in clinical teaching “at the bedside”
- Skill development and maintenance in the supervision of junior staff
- Student accommodation for undergraduates.

Development of strategies for the assistant workforce, such as existing worker traineeships for Certificate IV in Allied Health Assistance will be continued to maximise utilisation of this role.

A number of Allied Health staff has been supported to undertake postgraduate study through the NSW Health Rural Allied Health Scholarship Program. The NSW Institute of Rural Clinical Services and Teaching have supported many Allied Health staff to attend a range of educational opportunities,

including NSW Rural Allied Health Conferences and Critical Communication workshops. The University Centre for Rural Health North Coast supports Allied Health staff taking students through education and support networks. Continued access to these opportunities will support the development of the Allied Health workforce.

## LIBRARY

The Library Service provides and maintains resources and services and design and implement training programs to meet the information needs of NNSW LHD staff, VMOs, and students on placement. It is integral in the provision of evidence based healthcare.

The Library Service facilitates access to resources at other libraries to support the clinical information needs of the staff, VMOs and students of the Richmond Clarence Health Service Group. These include:

- A shared catalogue between Lismore Base Hospital and The Tweed Hospital Library Service
- A shared electronic journal list and blog between Lismore Base Hospital and The Tweed Hospital Library
- A reciprocal borrowing for no charge with the Australia-wide Gratisnet network for inter library loans
- Inter library loan access to all Australian libraries.

## UNIVERSITY CENTRE FOR RURAL HEALTH NORTH COAST

The University Centre for Rural Health North Coast is a joint venture of the University of Sydney, University of Western Sydney, University of Wollongong and Southern Cross University and operates in collaboration with the NNSW LHD and North Coast GP Network. Their footprint covers Grafton to the NSW/QLD border with coordinators based at Lismore, Murwillumbah and Grafton.

The University Centre for Rural Health North Coast aims to provide high quality health professional education and placements in a rural setting based on strong partnerships and collaboration between the participating universities, LHDs and clinicians. The long term goal is that students will return and practice on the North Coast following their training. While many students return to work in rural areas all of them develop a better understanding of the needs of rural communities. The University Centre for Rural Health North Coast fosters a strong grounding and appreciation of healthcare in a rural community.

The University Centre for Rural Health North Coast places up to 600 students per year from 14 different universities and is part of the Australian Rural Health Education Network, one of 11 university departments of rural health across Australia, which were developed in response to the rural workforce crisis. Placements include dentistry, dietetics, exercise physiology, medical imaging/diagnostic radiation, medical radiation, midwifery, nuclear medicine, nursing, occupational therapy, pharmacy, physiotherapy, psychiatry, psychology, podiatry, public health, radiation therapy and speech pathology.

Between January 2012 and December 2012 the University Centre for Rural Health North Coast placed 582 undergraduate students in Medicine (178), Nursing (159), Midwifery (2) and Allied Health (243).

## SOUTHERN CROSS UNIVERSITY SCHOOL OF HEALTH AND HUMAN SERVICES<sup>105</sup>

The Southern Cross University, School of Health and Human Sciences offers undergraduate and honours courses that are informed by research and responsive to the current needs of government and industry employers. A new Associate Degree of Allied Health is now available providing graduates with career opportunities and a pathway into a number of our undergraduate health degrees.

Undergraduate courses offered in 2014 include Bachelors of Midwifery, Nursing, Occupational Therapy and Psychological Science. The School of Health and Human Sciences at Southern Cross University has a strong focus of ensuring that students undertake professional placements in the industry, to provide a practical understanding of their chosen field and the opportunity to work with professionals. Students in both undergraduate and postgraduate courses may undertake professional experience or clinical placement as an integrated part of the curriculum. NSW LHD works closely with Southern Cross University to provide the necessary clinical placements.

### CAPITAL PROJECTS

A number of joint construction projects between NSW LHD and the University Centre for Rural Health North Coast have been undertaken in the past 2 years including:

- Construction of a new two storey multidisciplinary clinical teaching facility at Ballina District Hospital
- Refurbishment of student accommodation at Murwillumbah District Hospital
- Refurbishment of student accommodation Grafton Base Hospital. Upgrading at Grafton has been completed
- Establishment of a clinical training simulation facility, Lismore Learning Centre including:
- High-fidelity simulation room with adjacent purpose built control room/debriefing room and office facilities for the LHD
- Low fidelity four bed ward with the ability to convert to high-fidelity simulation with control room access for larger workshops
- Clinical skills laboratory with scrubs sink/plaster sink and six purpose built clinical work stations
- Purpose built storage room with the capacity to house manikin and training equipment
- Two consultation rooms with video capacity to the teaching rooms so consultations, assessments can be observed and learned from
- Two meeting/education rooms
- Offices to accommodate 13 staff, (eight from University Centre for Rural Health, two Lismore Base Hospital simulation educators and five clinical educators) plus reception
- Two vehicles have been purchased and fitted out with simulation equipment – one is located at Coffs Harbour and the other Lismore. The van at Lismore has an extensive training program already well underway.

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<sup>105</sup> <http://www.scu.edu.au/schools/hahs/index.php/62>

Griffith University has also proposed to develop and operate at The Tweed Hospital a Dental Student Education Clinic. This new service initiative which will add six new dental education chairs and train 12 rotating students for 9/10 months per annum.

Students working, in supervised pairs (taking alternating dentist and dental assistant roles), on selected patients will gain practical experience on 250 placement days during their 5 year dentistry course. Students will interact with and learn from the supervising dentist and from practicing dentists in the dental clinic.

Griffith University is expanding its dental students by 20 per annum over 5 years to meet growing demand. Over this 5 year pipeline 100 new dentistry students and 25,000 growth placement days will be added at full rollout. A six chair dental education unit at The Tweed Hospital operating for 40 weeks per annum will deliver up to 2,400 placement days per annum. The new facility will be constructed by August 2013.

### NNSW LHD FUTURE DIRECTIONS

The Health Education Workforce and Research Forum bring together NNSW LHD, Southern Cross University and the University Centre for Rural Health North Coast to provide advice on, and seek collaboration on education, workforce and research issues in relation to health service delivery in NNSW LHD.

The Health Education Workforce and Research Forum provides a forum where issues relating to teaching and learning and workforce issues as they impact on the delivery of health services within the NNSW LHD footprint can be discussed and collaborative solutions/activities explored.

The Health Education Workforce and Research Forum is critical to strengthening existing partnerships with Southern Cross University and the University Centre for Rural Health North Coast and affiliated universities through shared planning and development of shared strategic directions.

The use of simulation facilities for training for a range of clinical activities is continuing to increase in prevalence. Simulation facilities can be either purpose built or portable kits assembled in appropriately sized spaces. Simulated training can incorporate role play and offers experiential learning for participants in the delivery of multidisciplinary case analysis. Simulated learning will help undergraduates to obtain a mix of bed time and simulation time which will address current challenges relating to limited resources to provide supervision of students.

There will be further expansion in the use of videoconference technology for educational and clinical purposes with many regular links to tertiary institutions and facilities, including clinical consultation, ground rounds and clinical training seminars. e-Learning will need to be supported to continue, to expand and adapt to the training needs of staff and students at all facilities across NNSWLHD.

### KEY ISSUES

- NNSW LHD will continue to work closely with the North Coast Interdisciplinary Clinical Training Network (NCICTN) in further developing regional clinical placement programs and other initiatives, and explore options for the establishment of ClinConnect Reporting to assist Strategic Planning activities in regards to student placement
- The implementation of CMO attraction, recruitment and retention strategies to address the long term vacancies in a number of the rural and district hospitals will continue. Work will commence in identifying the key workforce planning priorities across the LHD over the next few years
- Consolidation of the processes and structures in place to support the ongoing relationship between NNSW LHD and HETI is a priority, inclusive of the internal Executive

Sub-Committee for Education and Training. This committee supports improved co-ordination of the activities from both HETI and other providers of education and training to NNSW LHD employees in an effort to enhance this strategic collaborative relationship

- There is a need to provide better teaching facilities supporting allied health professionals, nurses and doctors in partnership with the University Centre for Rural Health North Coast, Southern Cross University, Newcastle University, University of New England, North Coast Institute of Technical and Further Education, University of Sydney, Bond University and Griffith University
- Partnerships with Southern Cross University and the University Centre for Rural Health North Coast and affiliated universities need to be strengthened through shared planning and development of shared strategic directions. The current Strategic Collaborative Committee meets twice a year. A more active role for this committee should be considered into the future
- Supervision of JMOs and Undergraduate Nurses needs to be improved
- Consideration of the accommodation needs of students, new entry nurses and JMOs needs to be given
- There is a need for Paediatric Clinical Nurse Educators to provide education, training and support for existing and new paediatric staff as well as undergraduate nursing students on a range of topics including child protection training
- There is a need to maintain and improve access to professional development across all professional groups.

### 10.2.2 RESEARCH

There is significant capacity for research within NNSW LHD and local research organisations:

- Various units and groups within NNSW LHD have research programs, including Health Promotion, Public Health and the Nursing and Midwifery Directorate
- The University Centre for Rural Health, University of Sydney, has a strong health and health services research program with formal collaborative arrangements with NNSW LHD
- There are formal collaborative research arrangements with several universities in NSW, the Northern Territory, Victoria, Queensland and Canada
- There are commercial and not-for-profit sponsors for clinical trials
- Some research projects involve external research organisations with which there are no formal collaborative arrangements.

Human Research is conducted with or about people, or their data or tissue. Human participation in research is therefore to be understood broadly, to include the involvement of human beings through:

- Taking part in surveys, interview or focus groups
- Undergoing psychological, physiological or medical testing or treatment
- Being observed by researchers
- Researchers having access to their personal documents or other materials including medical records



- The collection and use of their body organs, tissues or fluids e.g. skin, blood, urine, saliva, hair, bones, tumour and other biopsy specimens or their exhaled breath
- Access to their information (in individually identifiable, re-identifiable or non-identifiable form) as part of an existing published or unpublished source or database.

Health and medical research makes a significant contribution to advances in the health of the Australian population. Some of the benefits of health and medical research are:

- Advancing knowledge about the health of individuals and populations and of ways to improve their health
- Identification of important health problems and factors contributing to those problems
- Improving quality of care
- Driving innovation in health care and service delivery with demonstration of the impact of new approaches
- Developing an understanding of the factors contributing to health and health service problems
- Supporting implementation of evidence-based practice.

## RESEARCH PRIORITIES

NNSW LHD values and fosters research that complements and strengthens the provision of healthcare services. Applied health research will continue to be supported when:

- It is aligned to current strategic priorities
- It can be quickly translated into better health outcomes for the local population
- It improves the safety and quality of NNSW LHD health services
- It supports the development of innovative models of care in the health service
- It develops the health knowledge of the healthcare staff working for the health service
- It reduces the cost of providing health services
- It attracts funding and is financially sustainable.

## RESEARCH GOVERNANCE<sup>106</sup>

Research Governance is a framework through which institutions are accountable for the scientific quality, ethical acceptability and safety of the research they sponsor or permit.

The Governance process ensures compliance with a broad range of regulations, legislation and codes of good practice to achieve and continuously improve research quality across all aspects of healthcare by:

- Safeguarding the dignity, rights, safety and well-being of participants
- Protecting and promoting the integrity of research and investigators
- Enhancing ethical and scientific quality
- Minimising risk
- Monitoring practice and performance
- Promoting good practice

<sup>106</sup><http://int.nswlhd.health.nsw.gov.au/clinical-governance/human-research-ethics-and-governance/>

- The Research approval and authorisation process.

Approval and authorisation of Research Proposals within NNSW LHD is a two-stepped process as follows including ethical approval and governance authorisation.

### ETHICAL APPROVAL

All research involving humans that involves more than low risk to participants, is subject to full ethical review, regardless of whether it relates to health or not. All research proposals involving more than low risk must be submitted on the National Ethics Application Form (NEAF) for review by an Ethics Committee.

Applications for research to be conducted in NNSW LHD must be submitted to either:

- The North Coast NSW Human Research Ethics Committee (for research conducted in NNSW and MNC LHDs only) or
- A lead Human Research Ethics Committee in NSW (for multi-centre research).

The North Coast NSW Human Research Ethics Committee is responsible for:

- Granting or withholding ethical approval of proposed research; and
- Monitoring approved research.

The North Coast NSW Human Research Ethics Committee is constituted and operates in accordance with the National Health and Medical Research Councils National Statement. If the Committee is satisfied that research is not being or cannot be conducted in accordance with the approved protocol and that, as a result, the welfare and rights of participants are not or will not be protected the Committee may withdraw approval.

### GOVERNANCE AUTHORISATION

In addition to ethical approval, Site Specific Assessment (SSA) authorisation is required.

No research is to be undertaken until both ethics approval and governance (SSA) authorisation is granted. The SSA document (with relevant supporting documentation) is to be submitted for review to the appropriate Research Governance Officer/s within NNSW LHD. The SSA can be submitted to the Research Governance Officer/s prior to Ethics approval being granted however the Governance process cannot be finalised until final Ethics approval has been obtained.

### RESEARCH PROJECTS

NNSW LHD supports and participates in a broad range of research projects. Some examples include:

- The Nursing and Midwifery Directorate has established a formal collaboration with Southern Cross University to build research capacity and undertake research related to nursing and midwifery practice, and improving evidence-based practice
- The University Centre for Rural Health has a primary research focus, with the following streams, many of which overlap and most of which include a health services research component:
  - Aboriginal Health
  - Chronic Ill Health Prevention and Management
  - Environmental Health
  - Maternal and Child Health

- Mental Health
- Health Workforce
- Public health concerns across NNSW LHD
- The University Centre for Rural Health also provides support for the HETI Rural Research Capacity Building Program; other clinicians undertaking clinical research and people undertaking research higher degrees such as PhDs
- Health Promotion, research evaluating and testing new approaches to health promotion
- Staff from a range of backgrounds have undertaken research through participation in the HETI Rural Research Capacity Building Program. This program supports novice researchers as they develop and undertake a research project
- Lismore Base Hospital and The Tweed Hospital Cancer Care Units are currently involved in clinical trials sponsored by both commercial organisations and non-government organisations, such as the Cancer Council
- Population health and health service research managed by research organisations external to the LHD.

Some brief case studies of recent research projects undertaken by the University Centre of Rural Health in partnership with NNSW LHD are provided in an appendix to this section.

#### FUTURE DIRECTIONS

Research and research capacity building will be informed by a number of programs of the NSW Ministry of Health as well as by local initiatives. The NSW Ministry of Health supports research through several mechanisms including (but not limited to) the Population Health and Health Services Research Support Program (PHHSRSP), Health Promotion Demonstration Grants and the implementation of the NSW Health and Medical Research Strategic Review.

#### **Population Health and Health Services Research Support Program:**

The LHD is a member of the Australian Rural Health Research Collaboration together with the University Centre for Rural Health, other rurally based academic departments, and other rural LHDs. The Australian Rural Health Research Collaboration receives a research capacity building grant through the Population Health and Health Services Research Support Program to support rural and remote research. The Australian Rural Health Research Collaborations mission is to undertake an innovative and robust program of research and development that leads to sustained improvements in the health of rural communities and informs national and international health practice by:

- Establishing effective research partnerships between academia, industry, rural health services and local communities
- Fostering the development of a culture of enquiry and evidence based practice in rural health workers
- Building a skilled rural research workforce
- Establishing effective mechanisms for translation of research results into improved health policies, programs and services in NSW.

Through its membership of the Australian Rural Health Research Collaboration, the LHD has access to a strong network of rurally based researchers and services with potential to undertake significant rural health and health services research.

A key priority for the LHD will be building on and enhancing local research collaborations which address LHD priorities, including those with Southern Cross University and the University Centre for Rural Health.

### KEY ISSUES

- There is a need to develop a research strategy for the LHD in collaboration with the University Centre for Rural Health and Southern Cross University
- The application of ABF to research will require decisions to be made collaboratively on the best way to apply this revenue and could enact this strategy
- Enhancing capacity for health services and population health research
- The LHD needs to provide support to clinicians to undertake research and to medical registrars to conduct the research projects required as a part of specialist training with appropriate resourcing
- Collaborating with other key health service organisations, particularly the North Coast Medicare Local, in research relevant to both organisations
- There needs to be a continued focus on collaboration with universities, medical research institutes and other centres of research excellence
- The need to streamline structures and processes for research governance and for supporting translation of findings into healthcare delivery, practice and policy
- The need to effectively manage the participation of sites in clinical trials.

### 10.2.3 CASE STUDIES OF LOCAL RESEARCH PROJECTS

“What does DOS do? Investigating the practice model for a rural dementia outreach service”

- Atosha Clancy, Social Worker and Team leader of the Dementia Outreach Service (DOS) has recently completed a two year research project supported by HETI, with mentoring from the University Centre for Rural Health.

DOS has been offering a service to people in the early stages of dementia and their family/carers for more than 10 years. The Service has grown – along with their target group. The target group will continue to grow with a projected increase of 39% in the number of people with dementia this decade. In the Far North Coast the projected increases to 2050 are: Tweed 281%; Ballina 267%; Clarence 255% and Lismore 246%. The majority of those people (70%) live in the community.

Hence it was timely to investigate what DOS does and how it does it. The aim was to establish good practice, articulate the practice model, and identify the knowledge and skill base of the service.

Using participative action research, data was collected in four focus groups and from literature. The findings are in four areas. The first identifies the influences that the broader context has had on the Service, including population increase, policy changes and issues in the health and community sector. The second describes a practice model which identifies target groups, theoretical foundations, pillars of practice, core activities and the “enablers”. The third area explores the knowledge and skill base of the service and highlights the importance of clinical expertise and the multi-disciplinary team. The fourth area identifies the shortfalls of the Service.

This investigation will enable the Service to make informed decisions about how it responds to service constraints. It also provides suggestions for policy makers and funding bodies to move forward in a time of change for structures and services.

#### Improving Renal Services for Aboriginal people on haemodialysis in rural NSW

- Providing services to rural Aboriginal people with end-stage kidney disease is challenging due to access and cultural differences. This research was undertaken by Liz Rix, a Renal Nurse at Lismore Base Hospital as part of her PhD. It was funded by the Clinical Excellence Commissions Ian O'Rourke Scholarship in patient safety, and aims to develop strategies for improving the experience and health outcomes of rural dwelling Aboriginal people on haemodialysis within NSW Health.

In-depth interviews were conducted with 18 Aboriginal haemodialysis patients in NNSW LHD. 29 service providers, managers and Aboriginal health workers were also interviewed within the LHD. A community reference group of Aboriginal renal patients, Elders and Aboriginal health workers guided the study. Analysis of all interviews revealed patients and service providers have parallel beliefs about what is required to improve rural renal services for Aboriginal patients.

Patients and service providers believe that current rural services are not designed to address cultural needs and Aboriginality. The treatment and care of Aboriginal haemodialysis patients should be family-focused and culturally safer. Building staff cultural awareness and enhancing cultural safety within hospitals is recommended. Increasing patient support for home haemodialysis may improve health and quality of care outcomes, in addition to keeping people on country with their families.

#### Workforce Research: How to keep our ageing GP workforce

- The project was led by Dr Sabrina Pit, Senior Research Fellow at the University Centre for Rural Health in Lismore. The Northern Rivers General Practice Network provided valuable GP data. Together with North Coast GP Training, they also provided advice throughout the study.

The research involved a survey and in-depth interviews about sustainable employability amongst ageing rural GPs and has gathered information on what measures and support would help our Northern Rivers GPs to remain in the rural workforce. A brief survey identified work ability, burnout, absenteeism and job satisfaction levels amongst GPs. The study also measured GPs health, and their intentions to leave rural general practice or direct patient care. Sabrina said: "While the majority of the group that was interviewed were highly motivated about their work and viewed general practice as their calling, others were burnt out and tired." The GPs who rated their work-life balance as low were also more likely to report that they wanted to retire early. "It is important to identify these weary GPs earlier, so they can be supported. We don't want to lose a GP early because of their work environment", she reported.

From a health policy reform perspective, the survey demonstrated that the highest impact to reduce early retirement among ageing rural GPs could potentially be found in intervening in working hours, psychological distress, burnout, work-related sleep issues, job satisfaction and mental and physical workability. Through consultation with older rural GPs, insights were gained into how to develop and implement effective retention strategies, by identifying those factors which are amenable to intervention at either the personal, practice, local or legislative level. A set of potential solutions were proposed

which may be instrumental in keeping valued Australian rural GPs happily working for longer. These solutions can be downloaded for free via:

<http://www.rrh.org.au/articles/subviewaust.asp?ArticleID=2369>

#### An Evaluation of the Nimbin Integrated Services Project

- The University Centre for Rural Health was commissioned by the Department of Premier and Cabinet to evaluate the Nimbin Integrated Services Project. This was a collaborative project involving the LHD, Nimbin Neighbourhood Centre, the Department of Premier and Cabinet, NSW Police, Nimbin General Practice and the Department of Community Services. The Nimbin Integrated Service is a community-based nurse practitioner-led mental health service offering support to clients with mental health problems (many of whom also had drug and alcohol dependence problems).

The Nimbin Integrated Services project is an innovative rural, community-based and community-originated mental health initiative now in its fourth year of operation. It consists of a full-time Nurse Practitioner specialising in mental health who is permanently based in a well-used, non-health community organisation in the town. The Nurse Practitioner works through close street-based contact with the community and sees a wide range of clients, 20% of whom are classified as 'in crisis'. The Nurse Practitioner offers flexible, immediate, short and longer-term support to clients with a range of mental health problems including those with a dual diagnosis of mental health and drug and/or alcohol dependence. The service includes a proactive and preventative (of escalation) approach as well as having the capacity to deal with crisis as and when they occur where possible. The service was established in response to community concerns over many years about the high level of violence and anti-social incidents in the town. These incidents were often highly visible in the street and had a significant mental health dimension. At the same time there were concerns about the apparent service gaps for such clients.

The evaluation demonstrated integration between services/partners at a strategic, worker and client level across a wide range of services which is noteworthy and unusual. Anecdotal evidence suggests the service is highly regarded and useful, and that life 'on the street' in Nimbin has improved. The LHD is currently considering the applicability of this model of service to other, similar, rural locations.

#### "Stop Smoking in its Tracks": Supporting pregnant Aboriginal women to quit smoking

- Rates of smoking during pregnancy are three times as high among Aboriginal as non-Aboriginal women, with associated increases in adverse birth outcomes. This project was initiated in 2007 when the Ballina Aboriginal Maternal and Infant Health Service Team approached Dr Megan Passey at the University Centre for Rural Health for help addressing the high smoking rates. Over the last 6 years, the Aboriginal Maternal and Infant Health Service program, the University Centre for Rural Health and a Community Reference Group of Aboriginal Health Workers and community women have worked together to help address this issue.

The research has involved interviews and focus groups with local Aboriginal women and service providers, surveys across NSW and the Northern Territory with pregnant Aboriginal women and their antenatal care providers, reviews of the literature on smoking cessation and numerous meetings of the team to discuss the findings and their implications. In the end they developed a program, "Stop Smoking in its Tracks", to help

women quit smoking. The program is designed to be provided by the Aboriginal Maternal and Infant Health Service Team and involves intensive counselling and support for pregnant women who smoke, support for their household members to help the woman quit smoking, free nicotine replacement therapy, peer support groups and rewards for abstinence. The program also addresses use of other substances if these are a problem.

The program has been piloted in two sites on the North Coast, with very encouraging results. There were some feasibility issues providing the intensive program because of the high demands on staff time. In particular it was quite resource intensive and challenging to provide the fortnightly peer support groups, particularly when there were staff vacancies putting a significant strain on staff capacity. However, despite these challenges, the program had excellent acceptability and managed to support 40% of women in the pilot to quit smoking and remain abstinent late in pregnancy. These are amazing results. Learnings from this initial small pilot study are being used to design a larger trial to rigorously test the impact of the program on smoking and other outcomes, and to assess its cost-effectiveness and policy implications.

#### Exploring Infant Feeding Choices in the Northern NSW Aboriginal Community

- Breastfeeding is the infant feeding method that provides the greatest short and long term health benefits for infants. It is protective against many illnesses that are commonly experienced by Aboriginal children in NNSW LHD such as otitis media, respiratory and gastrointestinal infections and protects against obesity in childhood and later life. Australian Aboriginal women in rural NSW have significantly lower rates of breastfeeding initiation and duration than the Australian average; well below levels recommended by the World Health Organisation and Australian breastfeeding targets.

This study is being undertaken by Catherine Helps, the Aboriginal Maternal and Infant Health Service Midwife at Ballina, as part of the HETI Rural Research Capacity Building Program. She commenced in 2012 and will conclude in 2014 and the work is being guided by consultation with staff at the AMSs in Casino, Lismore and Ballina. It will involve interviewing 10 first time Aboriginal mothers during the late antenatal period and again at 2 months to explore their choices regarding infant feeding. Indigenist methodology has guided the design and implementation of the study. This ensures community ownership of all results and findings from this study.

The 'yarning' style of interviewing has allowed for in depth exploration of the influences, attitudes and barriers to breastfeeding faced by this group of women. Additional interviews with Aboriginal Health workers and community members across the LHD will enhance the understanding and broaden the scope and applicability of the study.

A greater understanding of the experiences of this group of women in the health service as they make their infant feeding choices will allow education, service delivery and health promotion strategies to be more effectively targeted in supporting Aboriginal women to breastfeed their infants.



## 10.3 CLINICAL GOVERNANCE

Lilley and Lambden (1999)<sup>107</sup> define Clinical Governance as “doing anything and everything to maximise quality” in the health service. Braine (2006)<sup>108</sup> considers the overall purpose of Clinical Governance is to ensure that patients receive the highest quality of care possible through a systematic approach promoting and maintaining quality care through Evidenced Based Practice, Process Improvement, Risk Management Systems, Performance Management, Credentialing Systems and Clinical Incident Management and Reporting Mechanisms.<sup>109</sup>

Schedule F of the NNSW LHD Service Agreement 2013/14 outlines the structures and processes an LHD is to have in place to fulfil its statutory obligations and to ensure good corporate and clinical governance as outlined in relevant legislation, NSW Health policy directives and policy and procedure manuals. The LHD Board is responsible for having governance structures and processes in place to achieve this outcome.

The NSW Health Patient Safety and Clinical Quality Program,<sup>110</sup> released in 2005, provides a structure for improving the quality and safety of clinical services provided to patients. The Program is currently under review.

### 10.3.1 NATIONAL SAFETY AND QUALITY FRAMEWORK

The following guiding principles, based on the National Safety and Quality Framework, will be demonstrated in meeting clinical governance obligations:

- Consumer centred – which means:
  - Providing care that is easy for patients to get when they need it
  - Making sure that healthcare staff respect and respond to patient choices, needs and values
  - Forming partnerships between patients, their family, carers and healthcare providers
- Driven by information – which means:
  - Using up to date knowledge and evidence to guide decisions
  - Safety and quality data are collected, analysed and fed back for improvement
  - Taking action to improve patients’ experiences
- Organised for safety – which means:
  - Making safety a central feature of how healthcare facilities are run, how staff work and how funding is organised.

### 10.3.2 NNSW LHD SERVICE AGREEMENT 2013 - 2014

Under Schedule E of the Agreement, NNSW LHD is required to achieve targets for the following key performance indicators / service measures relating to safety and quality:

- Staphylococcus Aureus Bloodstream Infections (SA-BSI) (per 10,000 occupied beddays)
- ICU Central Line Associated Bloodstream (CLAB) Infections

<sup>107</sup> Lilley R, Lambden P (1999) *Making sense of Clinical Risk Management: A Workbook for Primary Care*. Radcliffe Medical Press, Oxford

<sup>108</sup> Braine ME (2006). *Clinical governance: applying theory to practice*. Nursing Standard. 20: 56-65

<sup>110</sup> NSW Health PD2005\_608 Patient Safety and Clinical Quality Program

- Incorrect procedures: Operating Theatre - resulting in death or major loss of function
- Mental Health: Acute readmission within 28 days (%)
- Mental Health: Acute Post-Discharge Community Care - follow up within 7 days (%)
- Deteriorating Patients (rate per 1,000 separations):
  - Rapid response calls
  - Cardio respiratory arrests
- Clostridium Difficile Infections (per 1,000 separations)
- Root Cause Analysis – completed in 70 days (%)
- Complaints Management – resolved within 35 days (%)
- Unplanned hospital readmissions: all admissions within 28 days of separation (%):
  - All persons
  - Aboriginal persons
- Unplanned hospital readmission rates for patients discharged following management of:
  - Acute Myocardial Infarction
  - Heart Failure
  - Knee and hip replacements
  - Paediatric tonsillectomy and adenoidectomy
- Unplanned and emergency re-presentations to same ED within 48 hours (%):
  - All persons
  - Aboriginal persons
- Aboriginal inpatients who are discharged against medical advice (%)
- Re-treatment following restorative treatment: Number of permanent teeth re-treated within 6 months of an episode of restorative treatment
- Denture remakes: Number of same denture type (full or partial) and same arch remade within 12 months
- NSW Health Patient Experience Survey following treatment: Overall care received (very good, excellent).

Under Schedule F of the Agreement, hospitals, day procedure centres and public dental practices in public hospitals are required to meet the accreditation requirements of the National Safety and Quality Health Service Standards from 1 January 2013.

### 10.3.3 NNSW LHD CLINICAL GOVERNANCE FRAMEWORK

Under the leadership of the Board, NNSW LHD has developed a Clinical Governance Framework (as required pursuant to s28(a) of the Health Services Act 1997 (NSW)). This was signed-off by the chair of the Board in January 2012. It is a framework for the whole LHD which is led, coordinated and supported by the Clinical Governance Unit.

Within the framework, structures and systems for clinical quality and patient safety are organised into four clinical governance programs:

- Consumer Engagement Program
- Patient Safety Program

- Clinical Quality Program
- Clinical Information Program.

The Clinical Governance Unit provides direction for clinical safety within the LHD enterprise-wide risk management and performance management frameworks, as well as coordinating accreditation, monitoring clinical safety indicators, providing support for clinical audit and performance reporting, and managing clinical incidents.

The Unit also has oversight responsibility for managing complaints (including complaints and concerns about clinicians), death screening and review / in-hospital mortality, NSW Patient Survey, clinical practice improvement initiatives, financial sustainability for clinical safety in the ABF environment and development of organisational structures for clinical safety.

NNSW LHD engages with many NSW Health organisations and other agencies on patient safety and clinical quality matters, including:

- NSW Clinical Excellence Commission
- NSW Agency for Clinical Innovation
- NSW Bureau of Health Information
- NSW Health Education and Training Institute
- NSW Health Care Complaints Commission
- Professional registration boards of Australia / professional councils of NSW
- Australian Council on Healthcare Standards (ACHS)
- North Coast NSW Medicare Local
- University Centre for Rural Health North Coast
- Local Coroner's office.

## KEY ISSUES

### ACHIEVING UNPLANNED HOSPITAL READMISSION TARGETS

An unplanned hospital readmission is the readmission of a patient within 28 days following discharge to the same facility for any purpose other than mental health, chemotherapy or dialysis.<sup>111</sup> Reducing unplanned hospital readmissions is a priority action for NSW.<sup>112</sup> The goal of this performance measure is to improve the safety and quality of healthcare, increase the focus on the safe transfer of care, and coordinated care in the community. The LHD Service Agreement also has performance measures for targeted unplanned hospital readmissions.

7.6% of patients in NNSW LHD were readmitted as an 'unplanned hospital readmission' in 2012/13. This was higher than the NSW average (6.8%). Analysis within the LHD<sup>113</sup> showed:

- 48% of readmissions are not related to the previous admission
- 46% of readmissions are potentially related to the previous admission and may be amendable to investment in community-based services
- 6% of readmissions are likely to be a complication of the health care provided during the previous admission.

<sup>111</sup> Service Agreement Indicator Dictionary for 2012/13; NSW Ministry of Health; 2012

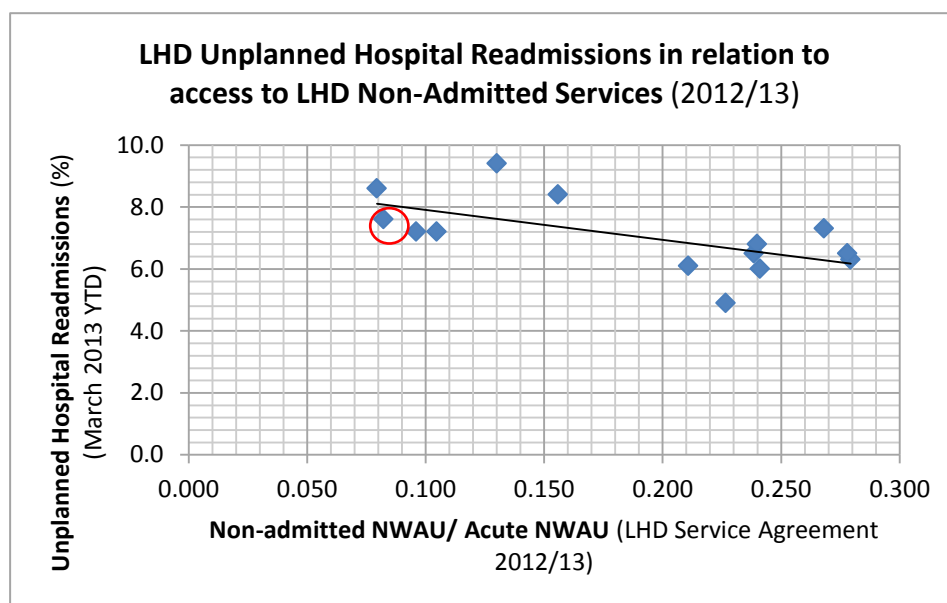
<sup>112</sup> NSW 2021: A Plan to Make NSW Number One (<http://www.2021.nsw.gov.au/>) Target: reduce current rates of unplanned hospital readmissions as percentage of total hospital admissions (5% per year over 4 years).

<sup>113</sup> Analysis of Unplanned Hospital Readmissions at Tweed Heads, Lismore and Grafton for the month of July 2012

Many readmissions would be expected to relate to access to GP, outpatient and community health services. To illustrate the importance of community-based services, the following figure shows the relationship between readmissions and non-admitted services (mainly outpatients and community health services) for each LHD in NSW Health. The inverse relationship implies that targeted investment in non-admitted services is required in order to reduce readmissions. NNSW LHD data indicates the areas to target are geriatrics/general medicine, cardiac services, respiratory services, gastroenterology services and urology/renal services.

The figure below (Scatterplot) shows the inverse relationship between unplanned hospital readmissions and non-admitted services by LHD in NSW (FWLHD is excluded as an outlier). To factor in the different sizes of LHDs, the horizontal axis uses a ratio of non-admitted to acute admitted services (NWAU = National Weighted Activity Unit). NNSW LHD is the LHD at the far left of the scatterplot just below the trendline (circled in red).

**Figure 33: Scatterplot showing the inverse relationship between Unplanned Hospital Readmissions and Non-Admitted Services by LHD in NSW (FWLHD is excluded as an outlier)**



Source: Vertical Axis NSW Health System Performance Report; Horizontal Axis NNSW LHD Service Agreement 2012-13 for every LHD in NSW Health.

## ACHIEVING ACCREDITATION AGAINST THE NATIONAL SAFETY AND QUALITY HEALTH SERVICE STANDARDS

The Australian Health Service Safety and Quality Accreditation Scheme (AHSSQA) commenced on 1 January 2013 and requires all public health organisations to undergo accreditation against the National Safety and Quality Health Service Standards. The National Safety and Quality Health Service Standards provide a nationally consistent statement of the level of care consumers should be able to expect from health services. The 10 standards are:

- Governance for Safety and Quality in Health Service Organisations
- Partnering with Consumers
- Preventing and Controlling Healthcare Associated Infections
- Medication Safety
- Patient Identification and Procedure Matching
- Clinical Handover

- Blood and Blood Products
- Preventing and Managing Pressure Injuries
- Recognising and Responding to Clinical Deterioration in Acute Health Care
- Preventing Falls and Harm from Falls.

The commencement of the Australian Health Service Safety and Quality Accreditation Scheme represents a major change in approach to accreditation for NNSW LHD. Previously, the LHD contracted to the Australian Council on Healthcare Standards and was accredited against their Evaluation and Quality Improvement Program (EQulP). The focus was on ongoing quality improvement across the continuum of care. Accreditation against the new National Safety and Quality Health Service Standards is more focused on demonstrating compliance with the standards and currently only applies to acute facilities, day procedure centres and public dental practices in public hospitals. Demonstration of compliance will require a significant increase in the amount of clinical auditing undertaken. The new National Safety and Quality Health Service Standards also prescribe actions not previously mandated, especially in relation to medication safety and preventing and controlling healthcare associated infections.

A gap analysis against the new National Safety and Quality Health Service Standards has identified the following areas as requiring resource enhancement to successfully achieve accreditation:

- Clinical audit and reporting
- Education and training of staff
- Antimicrobial stewardship
- Environmental cleaning
- Clinical pharmacy.

### PATIENT SAFETY ISSUES

Review of NNSW LHD clinical incident data has identified the following key patient safety issues:

- Recognition and management of clinical deteriorating of patients with the focus on:
  - Identification and management of sepsis; and
  - Fetal distress and monitoring during all stages of labour
- Early consultation, coordination and preparation of patients requiring medical retrievals to a higher level of care facility
- The identification, assessment and management of mental health clients at risk of suicide.

## 10.4 HEALTH RELATED TRANSPORT

In 2006, the then NSW Department of Health released the Transport for Health Policy 2006 – 2011 which established a framework to assist the NSW Ministry of Health to simplify and improve patient access to health services.

In response, the former North Coast Area Health Service (NCAHS) developed a Transport for Health Implementation Plan in 2007 as part of the State-wide Transport for Health initiative. It provided the opportunity to integrate all NSW Health funded non-emergency health related transport programs under one umbrella within the former Area Health Service. The Transport for Health Implementation

Plan set the foundations for a better planned and coordinated health related transport service to improve resident's access to healthcare closer to home.

The Transport for Health Implementation Plan was also informed by the Aboriginal Health Partnership Agreement between Aboriginal Health and Medical Research Council and the NSW Department of Health.

Transport for Health integrates all non-emergency health related transport services through the LHDs in NSW into one multifaceted program. The program for MNC LHD and NNSW LHD is currently administered by the Health Transport Unit located in Port Macquarie.

## CURRENT SERVICES

The current Transport for Health program in NNSW LHD consists of:

- Isolated Patient Travel and Accommodation Assistance Scheme (IPTAAS)
- Inter-facility Transport/Inpatient Transport (IPT)
- Non-Emergency Health Related Transport (NEHRT) service.

### ISOLATED PATIENT TRAVEL AND ACCOMMODATION ASSISTANCE SCHEME (IPTAAS)

Transport for Health – IPTAAS is a subsidy program to assist people travelling more than 100km each way to attend an appointment with their nearest medical specialist. IPTAAS provides partial reimbursement to assist with travel and accommodation expenses. Candidates must be an Australian citizen living in the area covered by the LHD and be referred by a medical practitioner to the nearest treating specialist and not be eligible for assistance under any other government assistance scheme.

### INTER-FACILITY TRANSPORT/INPATIENT

The Health Transport Unit coordinates and manages all non-urgent transport requirements for inpatients of the MNC and NNSW LHDs. Transport is provided between healthcare facilities and to treatment centres for diagnostic testings. A range of transport options are available such as Patient Transport Vehicles, NSW Ambulance Service, Private Fixed Wing Aeromedical and fleet vehicles.

### NON-EMERGENCY HEALTH RELATED TRANSPORT

The Health Transport Unit brokers appropriate transport providers to help patients arrange travel to and from NNSW LHD and MNC LHD appointments for patients who are transport disadvantaged.

NNSW LHD Patient Transport Fleet consists of nine vehicles located at:

- Grafton Base Hospital: 1 patient transport vehicle
- Maclean District Hospital: 1 vehicle
- Lismore Base Hospital: 4 vehicles
- The Tweed Hospital: 3 vehicles

In 2012, The Health Transport Unit coordinated 20,625 patient transports. Inpatient transports accounted for 15,843 (77%) and transports for outpatients were 4,782 (23%). Inter-hospital transfers accounted for the majority (38%) of inpatient transports and transports for inpatients to access medical imaging off-site accounted for 33%. Transports for attending a specialist appointment (27%) and renal dialysis (23%) represented the majority of outpatient transports.

**Table 78: NNSW LHD Patient Inpatient and Outpatient Transports 2012**

Reason for Transport	Inpatient Transports	Outpatient Transports
Cardiac Diagnostic/Consultation	758	36
Attend Clinic e.g. # Clinic	416	335
Drug and Alcohol		12
Discharge e.g. Transport to RACF	1,885	142
Dental Appointment/Procedure	26	26
Attend Medical Imaging	5,300	155
Mental Health Consultation/Procedure	24	8
Oncology Consultation/Procedure	337	1,051
Other	10	44
Pathology	6	24
Renal	154	1,094
Rehabilitation	5	323
Specialist Appointment	863	1,283
Surgery	50	245
Inter-Hospital Transfer	6,009	2
Hydrotherapy		2
<b>NNSW LHD Sub Total Transports</b>	<b>15,843</b>	<b>4,782</b>

Source: NNSWLHD & MNCLHD Health Transport Unit.

### PROPOSED NSW HEALTH REFORM IN NON-EMERGENCY PATIENT TRANSPORT

In December 2012, the NSW Ministry of Health endorsed the NSW Ambulance Reform Plan setting direction for the reform of non-emergency patient transport. Strategic Direction 2<sup>114</sup> comprises of three components:

- Establish a separate non-emergency patient transport from emergency medical retrieval patient services so that NSW Ambulance is able to focus on its core role to attend to emergencies
- Implement a centralised booking system which will manage all non-emergency patient transport requests
- Engaging a range of providers including community, existing Ambulance green fleet, LHD transport services and private providers to provide existing and future non-emergency patient transport services.

The new centralised booking system will manage all non-emergency patient transport requests and coordinate the dispatch of the non-emergency patient transport fleet. This work is currently undertaken by LHD Transport Units and the NSW Ambulance Service. It is proposed to have two booking hubs, one for the Metropolitan area and one for Regional NSW located in Newcastle. It is proposed the Regional hub will have up to three satellite booking offices.

### KEY ISSUES

- Limited access to patient transport services profoundly limits the ability of District Hospitals to ensure the timely transfer of patients to the Rural Referral Hospitals for higher level care. Limited access to inter-hospital patient transport services act as impediments to effective networking of services across the Health Service Groups, barriers in implementing the 'hub and spoke model' and maximising the use of beds across the LHD

<sup>114</sup> NSW Health Reform Plan for NSW Ambulance, 2012



- NNSW LHD is reliant on the NSW Ambulance Service to provide these services at significant cost. Many of these transports are not considered time-urgent by the NSW Ambulance Service and are treated as low priority resulting in delays in transport and patients staying longer in ED and inpatient units
- Limited access to specialised transport for inter-hospital transfer of acutely unwell mental health patients is a significant issue. Limited access results in delays in transfers with acutely unwell mental health patients staying longer in small rural hospitals which are not equipped to treat and manage these patients. Delays in transport often results in delayed specialist treatment.

There are identified gaps in transport provision issues where a patient:

- Does not have access to their own private transport or it is not appropriate to use it (i.e. can't drive back due to procedure)
- Has no family/friends to drive them
- Does not meet the criteria for ambulance transport yet is not fit to travel via public transport (train or bus). In these instances, the only transport option is taxi which is prohibitively expensive and therefore hinders access to necessary health care.

There is a broad community need for support to transport services to access a wide range of services. The current supply of non-emergency health related transport is not meeting demand. High transport service users include the following patients and service categories:

- Renal Dialysis
  - Patients make 312 individual trips to dialysis each year. This frequency, combined with the number of kilometres travelled, means rural dialysis patients are particularly transport-challenged
  - An ageing in-centre dialysis patient demographic compounds this issue. Older patients, if they do drive, often cannot drive at night due to vision limitations and are more at risk on long trips on isolated country roads with no lighting
  - Public transport services do not exist in some rural towns and where they do exist there may only be one or two transport runs per day made. NGO funded community transport service providers will not always transport dialysis patients into dialysis units because of the number of trips required per annum. The cost of taxis, even to those with subsidies, is prohibitive because of the distances and frequency involved
  - A Renal Transport Dialysis Plan was developed by the former NCAHS and addresses specific transport needs of this group. Improved coordination has occurred although issues still remain when ambulances are called to an emergency situation which may result in extended waiting times for renal patients
  - Transport of renal patients by ambulance can take 12-14 hours for pickup and collection – these people are medically unwell and should be monitored and 'triaged' to make sure they get some priority to return home in a timely manner
- Cancer Services

- Service development in cancer services in NNSW LHD has resulted in greater need for transport for medical oncology and the delivery of radiotherapy
- Community Health Centres
  - Community Health Centres across the LHD provide a range of high use services such as wound clinics, diabetes clinics and counselling services. Public transport to these centres is limited
- Day Surgery
  - Patients having day surgery/procedures are not permitted to drive home following surgery
  - Patients with limited family/carers support require transport assistance
- Aboriginal Health
  - The Aboriginal population in NNSW LHD has been identified as severely transport disadvantaged and as such is a high priority for transport assistance. Strategies that have been employed to increase transport assistance to Aboriginal people are:
    - Establishment of relationships and consult with:
      - Aboriginal Medical Services and their staff
      - Aboriginal Transport Development Officers
      - State-wide Aboriginal Project and Liaison Officer with the Ministry of Transport; HACC Development Officers
      - Aboriginal Health staff including discharge planners, Aboriginal Health workers, Aboriginal Hospital Liaison Officers
      - Development of a transport education program to be delivered to Aboriginal Medical Service Health Workers
      - Engagement of Aboriginal representation on the Transport for Health Network
- The proposed NSW Health reform in non-emergency health transport has not been articulated in any detail and it is not clear how efficiencies will be gained by NNSW LHD when the LHD has developed responsive and cost effective patient transport system which requires further investment to expand the fleet of patient transport vehicles and hours of operation across the LHD to address an increasing demand for services
- LHDs developed their in-house non-emergency patient transport units in response to NSW Ambulance Service not providing a timely and cost effective service
- Staff employed in a central booking office based in Newcastle is unlikely to be as familiar with our facilities as our own in-house booking staff and is likely to compromise the responsiveness of transport services
- Patient transport services at a State and LHD level are not equipped to transport bariatric patients. Should a bariatric patient require retrieval and transport for quaternary care there would be extended delays to access the appropriate Ambulance from Newcastle to provide road transport to the nearest tertiary referral hospital.

## 10.5 CARERS PROGRAM

The Carers Program is a District-wide program with a focus on raising the profile of family/friend carers, as a key component of the patient care team. The Carers Program plays a key role in assisting LHD service units to understand their responsibilities under the NSW Carers (Recognition) Act 2010 and the NSW Carers Charter that is contained within the Act. With the introduction of the Carer Consultant Model, the Carers Program will be able to assist service units to consult with carers and abide by the reporting requirements of the National Safety and Quality Health Service Standards, Standard 2 “Partnering with Consumers.

### CURRENT SERVICES

The Carers Program is involved in activities across NNSW LHD:

- **Carer Consultancy Program:** Using the Carer Consultant Model, the Carers Program provides LHD service units with access to a range of viewpoints on service development activities. The Carers Program Coordinator manages a register of expert consultants from a diverse range of caring circumstances. The consultants provide important information on the impact of service activities on carers and consumers. This information can be key to the success of the service
- **Service Development Consultancy Program:** The Carers Program offers a consultancy service to managers regarding the introduction of strategies to improve a service unit’s response to carers. Recent activity includes the Emergency Respite Pathways Project, Celebrating Aboriginal and Torres Strait Islander Carers Initiative and the Top5 Project
- **Staff Education Program:** Through a range of activities the Carers Program seeks to improve the awareness of staff on the issues that are essential to working with carers as a part of the care team. The Carers Program provides in-services to Nursing Units and presentations at staff education days and Assistant in Nursing training days. These activities are often conducted in partnership with external organisations and carers representatives. The Carers Program also utilises electronic and print media opportunities to raise the profile of carers across the LHD.
- **NSW Health and Ageing Disability and Home Care (ADHC) Joint Guidelines:** The guidelines aim to ensure that staff in hospitals and disability accommodation support services, are aware of their respective roles and responsibilities for people with a disability before, during and after transfer of care from hospital. It is intended that staff will develop the capacity to:
  - Identify areas of risk that could compromise a person with the disability’s capacity to achieve the best health outcomes and their safety and/or dignity during a hospital stay
  - Agree on what additional supports are required to reduce identified risks
  - Negotiate responsibility and resources for the provision of agreed additional support.

### FUTURE DIRECTIONS

The future direction of the Carers Program will be primarily guided by the NSW Health Carers (Recognition) Act Implementation Plan. The Plan outlines how the whole of organisation must

consider its relationship with carers. The Carers Program will provide a point of reference to service units for the planning and implementation of activity that relates to the Act.

The Carers Program will continue to focus on strategic system advancements that formalise the inclusion of carers as a key member of the healthcare team in clinical and service planning. The Carer Consultant Model of consultation with carers will be promoted broadly. Activity will be guided by the needs of managers in their transition to ensuring that their service units comply with the NSW Carers (Recognition) Act Implementation Plan, the NSW Carers Charter and the National Standards.

The introduction of NDIS/Disability Care Australia is a significant National Reform. It may result in changes to service providers who work in partnership with NNSW LHD to deliver services to children and adults with disabilities. Collaborative links will need to be strengthened between NNSW LHD and service providers to ensure LHD staff are informed of availability of services to support the ongoing care of people with disabilities in the community.

### KEY ISSUES

- Implementation and reporting on the NSW Carers (Recognition) Act by the LHD annually and monitoring how the LHD responds to carers in all healthcare settings and in the planning and delivery of services
- Standard 2 “Partnering with Patients” of the National Safety and Quality Health Service Standards determines that the LHD must consult with carers, as a key consumer group on service provision
- The ageing of the population in NNSW LHD will see an increase in the number of staff who balance work with a caring role for a family member or friend
- There will be an increase in the proportion of carers in the community and an increase in the age of carers
- Implementation of the NSW Health and ADHC Joint Guidelines
- The NDIS/Disability Care Australia will involve a reform of the NSW ADHAC as a provider of specialty therapy services for children and adults with disabilities. NNSW LHD will need to monitor future service provision in these specialty areas and possible gaps in services.

## 10.6 ICT INCLUDING TELEHEALTH

The provision of effective, efficient and appropriate Information and Communication Technology (ICT) systems and services are a foundational element for the provision of high quality health services to the local population across NNSW LHD.

A MNC and NNSW LHD ICT Strategy 2013/2016 (The ICT Strategy) and subsequent operational business plan has been developed after extensive consultation with clinicians and managers and takes into account ICT reform at both the NSW and Federal levels. A NSW Health Rural and Regional eHealth Framework has also been developed to facilitate a structured conversation regarding ICT requirements and priorities in rural and regional LHDs.

**Figure 34: NSW Health Rural and Regional eHealth Framework HealthShare NSW**

Source: HealthShare New South Wales

The Rural and Regional eHealth Framework and the ICT Strategy goals that support clinical service delivery will form the basis for the ICT component of the NNSW LHD Clinical Services Plan.

#### SECURE, RELIABLE AND HIGHLY AVAILABLE ICT INFRASTRUCTURE

The ICT Strategy includes the provision of an information infrastructure to support clinical service delivery through a capable and reliable computer network, fixed and mobile end user devices, a suite of clinical software tools that comprise the eMR and administrative support software including human resources, rostering, payroll and financial services tools.

#### KEY ISSUES

- Sufficient, affordable network capacity to support fast, reliable access to clinical and administrative support tools
- Balancing resource requirements to support and maintain existing infrastructure with those required to expand and enhance service delivery
- Provision of recurrent resources to ensure a cycle of regular technology refresh and additional skills and expertise to accommodate infrastructure expansion and a changing technology environment.

#### APPROPRIATELY RESOURCED AND CLINICALLY AWARE ICT SUPPORT

Maintenance of staffing and skill mix to ensure the appropriate numbers and skills to support enhanced clinical service delivery.

#### KEY ISSUES

- Ensuring that staffing and skill mix remains matched to the size and complexity of the NNSW LHD computing environment
- Enhancing the skills and knowledge of existing staff to support new systems and technology

- Attracting and retaining staff with the skills required to maintain and support the new technologies acquired by the organisation.

### ENHANCING THE PATIENT JOURNEY

The implementation of a person centred eMR supporting patient access and engagement, a streamlined and standardised journey, improved patient safety through enhanced decision support and continuity of care across inpatient and outpatient care settings.

#### KEY ISSUES

- The staged roll out of the eMR will necessitate a period in which there will be a hybrid system of both hard and soft copy information that will be used for patient care. Continued vigilance and understanding is required to ensure patient safety is not compromised and that staff engagement is optimised through this period of transition.
- The ability to roll out complete eMR functionality across both inpatient and outpatient care settings will be constrained by resource availability and dependent on effective change management and the availability of ongoing clinician training and support.

### ENHANCING COMMUNICATION AND COLLABORATION

Enhancing the patient journey and the staff experience through better communication and collaboration between staff, their clients/patients and external care providers.

#### KEY ISSUES

- The ability to improve communication and collaboration through technology initiatives will be constrained by resource availability and dependent on effective change management and the availability of ongoing clinician training and support
- The ability to attract required ICT expertise to support the development and ongoing management of ICT systems both the traditional corporate ICT support and emerging medical technologies in Operating Theatres and Cardiac Catheter Laboratories and the level of expertise needed locally to undertake preliminary diagnosis of issues.
- Providing a prompt response to manage disruptions to “real-time” clinical systems such as eMR and FirstNet which cannot sustain delays

### IMPROVING BUSINESS INTELLIGENCE CAPABILITY

The provision of data and information from clinical and administrative systems to relevant stakeholders, service managers and service planners for use in service management and the delivery of safe, quality care.

#### KEY ISSUES

- The availability of an appropriately skilled workforce to develop and maintain data repositories and develop an enhanced business intelligence environment
- Improving the skills of service managers to use the business intelligence environment effectively.

## 10.7 KEY PARTNERSHIPS

NNSW LHD is one of many providers in the health system. Other providers include State and Commonwealth Departments, Local Government, not-for-profit organisations, for-profit organisations, Education Institutions and voluntary groups.

NNSW LHD works in partnership with other NSW Government Departments including Ageing Disability and Home Care (ADHC), Family and Community Services (FACS), Department of Transport, NSW Ambulance Service and Department of Housing and Commonwealth Government Departments such as the Department of Health and Ageing. NNSW LHD also works in partnership with a range of non-government organisations (NGOs) including North Coast NSW Medicare Local, and community controlled Aboriginal Health Services. Partnership arrangements with the non-government sector are also formalised in some instances through Funding and Performance Agreements and include Health funded NGOs within NNSW LHD boundaries.

### REGIONAL PARTNERSHIPS

Regional Leadership Groups are a formal mechanism which has been established to deliver improved regional service delivery under the new NSW Government regional governance framework. There are seven Regional Leadership Groups throughout the State chaired by a Senior Regional Coordinator with executive support provided by the Regional Coordination Branch of the Department of Premier and Cabinet. The seven Regional Leadership Group regions are: North Coast; Western NSW; Hunter; Central Coast; Central and Sydney East; Greater Western Sydney and Illawarra/South East NSW.

The North Coast Regional Leadership Group identifies and advises on priority regional service improvement initiatives as identified in the Regional Action Plans, advises on regional service improvement initiatives referred from the Government, or developed locally, coordinates and facilitates priority regional service improvement initiatives and addresses emerging and significant regional whole of government issues and escalates when required.

The North Coast Regional Managers Network leads a coordinated delivery of actions in the Mid North Coast and Northern Rivers Regional Action Plans and seeks sustainable, social, economic and environmental benefits for the North Coast by implementing coordinated responses to multi-agency issues. The Network also provides networking opportunities to foster collaborative and multi-agency approaches to service delivery and advises the Regional Leadership Group of emerging service delivery issues and opportunities to better meet the needs of North Coast communities by making the best use of Government resources.

### LOCAL GOVERNMENT

NNSW LHD partners with Local Government in strategic planning, capital planning and in a range of population health activities e.g. Healthy Kyogle.<sup>115</sup> More recently NNSW LHD has partnered with Lismore City Council and the University Centre for Rural Health North Coast in a buy locally campaign, aimed at supporting local businesses, reducing transports costs and environmental impacts.

### PRIMARY HEALTH CARE PARTNERSHIPS

A significant partnership has been formed between NNSW LHD and North Coast NSW Medicare Local. This partnership will form the basis of an integrated planning system between the two organisations and provide opportunities for service coordination and integration.<sup>116</sup> NNSW LHD

<sup>115</sup> See Section 9.3

<sup>116</sup> See section 8.10



Managers and Clinicians also work closely with a range of individual GPs, GP Super Clinics, NGOs, Commonwealth and State Government Departments, Community Controlled Aboriginal Health Services and private providers in delivering an integrated primary health care service.

### PRIVATE PROVIDERS

NNSW LHD has contractual arrangements with John Flynn Private Hospital for the provision of cardiology services to public patients and with St Vincent's Private Hospital, Lismore for the provision of some surgical and palliative care services.<sup>117</sup>

### NON-GOVERNMENT ORGANISATIONS

A number of NGOs have contractual arrangements with NNSW LHD for the delivery of clinical services to the community. These include those NGOs funded under the Health Funded NGO Program<sup>118</sup> and others such as Community Health Education Groups (CHEGS) who provide health promotion activities. The way in which these NGOs are funded is changing and new models of service delivery are on the horizon. Seeing NGOs as a critical part of the health service delivery system and including them in relevant areas of service planning in the future is essential.

### ABORIGINAL COMMUNITY PARTNERSHIPS

Aboriginal self-determination, a partnership approach and the importance of inter-sectoral collaboration are important principles emphasised by NSW Health. At a State level the Partnership provides the NSW Minister for Health and Medical Administration with agreed positions on Aboriginal health policy, strategic planning and broad resource allocation, also encompassing national policy issues. The Partnership is replicated at regional and local levels through Local/Area Aboriginal Health Partnership Agreements. NNSW LHD has an interim partnership agreement with Aboriginal Controlled Health Services. A new Partnership Agreement is currently under development.

### PARTNERS IN EDUCATION

Educational and Research Institutions including schools and universities are key partners with NNSW LHD in the provision of education, research and workforce. The Health Education Workforce and Research Forum (HEWRF) has recently been established and brings together NNSW LHD, Southern Cross University and the University Centre for Rural Health North Coast to provide advice on, and seek collaboration on education, workforce and research issues in relation to health service delivery in Northern NSW.

### KEY ISSUES

- Funding of services is multifaceted and models are changing
- The NDIS will bring multiple service providers into the service network and the impact of these changes on existing services is unclear
- Partnership arrangements are a critical part of how NNSW LHD does business
- The long term effectiveness, diversity and sustainability of partnership systems require strong, clear and purposeful relationships between providers.

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<sup>117</sup> See section 4.9, 6.1 and 6.2

<sup>118</sup> See section 11.8

## 10.8 HEALTH FUNDED NON-GOVERNMENT ORGANISATIONS

NSW Health provides funding for a number of health programs under the NSW Health Non-Government Organisation (NGO) Grants Program for a broad range of health and health related services. NNSW LHD values the vital contribution that the non-government sector makes to building a fairer, more sustainable and inclusive society.

**Table 79: NNSW LHD NSW Health NGO Grants Program**

<b>Name of NGO</b>
<b>Drug and Alcohol</b>
The Buttery
Namatjira Haven
<b>National Women's Health</b>
Lismore and District Women's Health Centre
<b>Women's Health and Family Planning</b>
Lismore and District Women's Health Centre
Northern Rivers Social Development Council
<b>Community Services and Health Transport</b>
Clarence Community Transport
Lismore Neighbourhood Centre Inc
Northern Rivers Community Transport
Tweed Ballina Byron Community Transport
<b>Mental Health</b>
Child and Adolescent Specialist Program and Accommodation
GROW North Coast
Casino Neighbourhood Centre
CRANES (Community Programs)
On Track (Community Programs)
Bay Ami
Mental Health Accommodation Rehabilitation Service
<b>Aboriginal Health</b>
Casino AMS/Bulgarr Ngaru
Mull Muli Health Post
Jali Health Post
Box Ridge Health Post
<b>Palliative Care</b>
CRANES Community Programs

Source: NNSW LHD Service Agreement 2013/14

The 2013 release of the Grants Management Improvement Taskforce Report and Government Response “Partnerships for Health” heralded a substantial change to the way NSW Health currently sources external services. The Grants Management Improvement Program aimed to ensure quality and cost effective health services are delivered by NGOs, greater transparency in funding and resource allocation decisions achieved by introducing contestability, funding processes streamlined and consistent while retaining a level of flexibility to support innovation. These improvements were considered essential to ensure NSW Health achieves not only the best value for money from the NGOs it funds, but also that those NGOs deliver the best possible outcomes for the people of NSW.<sup>119</sup>

During 2013/14 the traditional grants program will be replaced by a contestable contractual program that will become effective as of 1 July 2014. As this change is complex it will be managed in a staged manner that is mindful of existing arrangements with NGOs.

### FUTURE DIRECTIONS

Central to the changes brought about by the Coalition Government after their election in 2011 was the major devolution of responsibility and authority to LHDs. The Minister committed the health system to ensuring that all of its policies and activities were patient centred and it is against these principles within the framework of the State Plan that the Grants Management Improvement Program Taskforce review has been conducted.

The Grants Management Improvement Program aims to ensure that quality and cost effective health care is delivered by NGOs through:

- Greater transparency being achieved by introducing contestability
- A purchaser/provider model where future funding is more closely aligned to current and future identified need
- Alignment with NSW Government goals, reduction of red tape, introduction of contestability, clearer definition of funding type, mandatory use of performance monitoring, reduced duplication, stronger governance arrangements within NSW Health and new opportunities for the NGO sector to provide a greater range of non-inpatient health care services.

The Government Response (Partnerships for Health) focuses on the key themes by grouping the improvements recommended by the Grants Management Improvement Program Taskforce Report and presenting ways that NSW Health will embed them in the new way of working. This Report considers the best way for NSW Health to partner with other organisations to deliver consistent, accountable and integrated services regardless of the provider. Key issues in relation to these changes include:

- Partnerships with the NGO sector must be planned in accordance with current and future identified priorities of the health system
- Reform must commence with a clear definition of what NSW Health wants to purchase
- A purchaser/provider model is proposed where future funding is more closely aligned to current and future identified need
- Any expiration of existing arrangements will take into consideration any client impacts and the alignment to any known future opportunities

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<sup>119</sup> *Partnerships for Health: A response to the Grants Management Improvement Program Taskforce Report March 2013*

- All partners in the health system need the opportunity to contribute to providing advice on what the priorities of the health system should be
- NGOs and other partners hold useful knowledge and hence will be consulted in what services to be purchased and what programs to fund.

An NGO Forum was held on 30 May 2013. Strategic issues raised have been incorporated in relevant sections of the Plan.

#### KEY ISSUES

- Services are unclear about the impact of implementation of the Grants Management Improvement Program Report
- There are concerns about the impact of the NDIS and the role of the Medicare Local in managing NGO funding
- Planning processes need to include all relevant Health funded NGOs so that funding can be aligned with current and future identified priorities of the health system
- Robust data collection is recognised as key to future planning and is crucial to funding agreements through ABF
- NSW Health and NGOs working together will improve outcomes for our patients and communities.

## 11 KEY ISSUES AND CHALLENGES

Looking ahead to the next 5 to 10 years, there are a number of key issues and challenges that have been identified in the development of the NNSW LHD Health Care Services Plan that are expected to impact on the delivery of quality and effective health services to best meet the needs of the population catchment served by NNSW LHD. These challenges are presented here under two sections, with issues and challenges listed according to whether they predominantly impact on the **demand** for health services by the NNSW LHD population, or on the **supply** of health services to be delivered by NNSW LHD facilities and service programs.

### 11.1 DEMAND

The major pressures and key challenges in terms of providing for the health needs of the NNSW LHD catchment population over the next 10 years are:

- Meeting the increased demand resulting from population growth and ageing
- Providing an effective response to the needs of the increasing population with chronic conditions, increasing complexity and higher level of cognitive impairment
- The impact of poor oral health on the overall health of the population
- Ensuring appropriate and timely access to services for people living in proximity to the Queensland border
- Addressing areas where NNSW LHD residents have comparatively poorer health outcomes
- Ensuring equity and social inclusion in access to health services
- Effectively engaging clinicians and the local community in developing services and providing information about these services, including the use of social media for the growing section of the community who rely on this source of information.

#### 11.1.1 POPULATION GROWTH AND AGEING

The greatest pressure on the provision of services by NNSW LHD over the next 10 years will be caused by population growth and ageing. The population of NNSW LHD is projected to increase by 11.2% between 2011 and 2021. Over the same period, the number of acute inpatient separations projected to be provided by NNSW LHD hospitals is projected to increase by 21.8%, twice the rate of the population increase.<sup>120</sup>

The reason for the significantly higher increase in demand for acute hospital services is the ageing of the population. Over the 10 year period between 2011 and 2021, the NNSW LHD population aged 65 years and over is projected to increase by 40%. The ageing impact on the demand for acute health services is accentuated in NNSW LHD compared to other LHDs. The population group aged 65 years and over, who utilise a disproportionately high proportion of acute health services is projected to comprise 24% of the total NNSW LHD population in 2021, this compares with 17.5% for the total NSW population.

<sup>120</sup> This represents a base case projection. Flow reversal scenarios are included in Lismore Base and The Tweed Hospitals Clinical Services Plans

People aged 65 years and over place the greatest demand on health services of all the age groups, and this is accentuated in the over 85 years age group. Older people are more likely to suffer from long term health conditions such as sight or hearing loss, arthritis or other musculoskeletal problems and elevated blood pressure or cholesterol levels. Older people are significantly more susceptible to falls. A large proportion of the “very old” age group experience frailty and poor health including dementia and fractures as a result of falls.

### 11.1.2 CHRONIC AND COMPLEX CONDITIONS

One of the most significant health trends over the past 10 years in western societies has been the growth in the prevalence of chronic and complex health conditions resulting from lifestyle choices and risky behaviours. The increase in disease risk factors such as obesity, low levels of physical activity, poor nutrition and high smoking rates in the population of NNSW LHD has resulted in significantly increasing rates of chronic diseases such as diabetes, renal failure, heart disease and poor mental health. A substantial proportion of the population with chronic conditions experience a number of these chronic diseases rather than just single disease episodes. In particular, cardiovascular disease, diabetes and chronic kidney disease are likely to occur together and are strongly associated with old age and obesity.

The optimal management of chronic conditions requires the development of an ongoing relationship with patients which promotes self-management and monitoring of risk factors. In order to promote optimal health outcomes and to reduce unnecessary hospital admissions, NNSW LHD seeks to promote a proactive, coordinated approach to chronic disease management that supports patient self-management and the ongoing monitoring of risk factors through a shared care approach between GPs, Specialist Medical Officers, diagnostic services and the NNSW LHD Chronic Care Program which covers:

- Diabetes
- Chronic Obstructive Pulmonary Disease
- Congestive Heart Failure
- Coronary Heart Disease
- Hypertension.

Over the next 5 years NNSW LHD aims to implement the following strategies to support more effective management for people with a range of chronic diseases, especially for elderly patients over 65 years and Aboriginal patients over 45 years with chronic diseases:

- Establishment and implementation of models of shared care - linking together GPs, Specialist Medical Officers, Community Health, Emergency, acute inpatient and sub-acute services, residential and other aged services and community support services
- Introduction of state-wide information and communications technology services, telephone health coaching services, regional chronic disease management services, treatment protocols, referral pathways, shared care plans, and ongoing coordinated care and support.

In addition to improvements in the management of chronic diseases, NNSW LHD will also need to implement health promotion and disease prevention strategies to improve nutrition and physical activity, and in this regard, there are a number of such initiatives identified in the *Northern NSW Local Health District Health Promotion Strategic Plan 2013-2017*.

### 11.1.3 ORAL HEALTH

*“Oral health is an important part of general health, with implications not only for the individual but also for the broader health system and economy. Oral health across the population varies considerably between socio-economic groups and between adults and children. Access to services is important, with prevention and early intervention playing a key role in improving oral health status. In parts of the population where access is poor, the risk of poor oral health outcomes increases. The cost to individuals, the health system and the economy can be significant.”<sup>121</sup>*

Oral health is considered integral to general health, with poor oral health likely to exist when general health is poor and vice versa. Dental disease negatively impacts general quality of life, affecting not only physical wellbeing but also psychological and social wellbeing. Compared to the overall Australian population of similar age, Aboriginal and Torres Strait Islander people experience significantly more oral disease among Aboriginal and Torres Strait Islander peoples.

Individuals who have difficulty accessing or delay seeking dental care seek relief from pain and infection through other services. The end result of delays in treatment can be admission to hospital to treat serious infections. This puts pressure on the broader health system through dental treatment sought from hospitals (public and private), non-admitted clinics (outpatient treatment) and GPs.

Specialised streams such as Dental Services operate across a range of facilities, in dental clinics, EDs, Operating Theatres and wards. It is important in planning health services and facilities to always consider such multi-disciplinary services to provide true integrated care and ensure specialised services do not operate in isolation.

The LHD will need to consider the impact of planned national reforms and ensure continued timely access to appropriate oral health care and prevention.

### 11.1.4 CROSS BORDER ISSUES

As part of the process in developing The Tweed Hospital Clinical Services Plan a number of priorities have been identified in relation to cross border service provision. They include:

- Examination of cross border arrangements relating to demand management across several clinical category areas
- Establishment of formal agreements and documented processes with tertiary referral centres to facilitate timely and appropriate specialist consultation and inter hospital transfers
  - Development of robust transfer arrangements for early acceptance of neurology patients to expedite transfer of head injury patients
  - Designation of the Gold Coast University Hospital as a Trauma Service will require The Tweed Hospital to formalise protocols and procedures for the clinical management of trauma patients across the Tweed Byron Health Service Group
  - Improved coordination between Aero Medical Retrieval Service (AMRS) and Emergency Management Queensland (EMQ)
  - Improved repatriation of trauma patients for rehabilitation from Queensland Hospitals

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<sup>121</sup> Report of The National Advisory Council of Dental Health February 2012



- Strengthened emergency referral pathways with particular focus on transfer arrangements
- Improvement in the provision of outpatient antenatal and postnatal clinics (currently over 50% of those giving birth at The Tweed Hospital are residents of the southern Gold Coast – the impact of the new Gold Coast University Hospital is unclear and will require monitoring)
  - Development of admission and transfer policies and protocols to provide an appropriate level of care for women who present with high body mass index (BMI)
  - Redesign of the Midwifery Early Discharge Program to improve access for residents of South East Queensland who give birth at The Tweed Hospital; and those being discharged from Queensland services
- Establishment of formal consultation mechanisms in order to plan for the integration of the northern sector paediatric services within the Queensland Children's Hospital's outreach and referral network
- Improvement of access to Geriatrician/Psycho-Geriatrician and Neuro-Psychiatrist services for Tweed Byron Health Service Group residents
- Provision of timely discharge summaries and relevant patient information across jurisdictions.

Over the next 5 to 10 years, with the commissioning of the Gold Coast University Hospital and the projected major population growth and ageing in the cross border population catchment it will be important for NNSW LHD to continue to develop its partnership arrangements with health services in South East Queensland and to develop greater clarity regarding some of the operational service delivery issues identified above, and to ensure the timely access to treatment of its residents living within this population catchment.

#### 11.1.5 ADDRESSING AREAS WHERE NNSW LHD RESIDENTS HAVE POORER HEALTH OUTCOMES

The epidemiological profile of NNSW LHD residents that forms part of the Health Care Services Plan 2013 (refer to Volume Two) has highlighted a number of health aspects where NNSW LHD residents have poorer health outcomes or health-related behaviours. This information may assist in developing health improvement strategies over the next 5 to 10 years. These areas of concern include:

- Asthma hospitalisations 25% greater than the NSW average rate
- Double the NSW rate of women giving birth at less than 20 years of age
- Low child immunisation rates
- Highest melanoma incidence rates in NSW
- Smoking rates 20% higher than NSW average
- Higher rates of alcohol related hospitalisations.

Addressing these areas where NNSW LHD residents have poorer outcomes will need to be considered within overall health improvement priorities including the major diseases contributing to the burden of disease in all LHDs and the need to improve nutrition and physical activity to reduce the level of overweight and obesity in the community. In this context, it is noted that two of the top

priority areas in the *Northern NSW Local Health District Health Promotion Strategic Plan 2013-2017* are to reduce smoking rates and risky drinking in the NNSW LHD.

### 11.1.6 EQUITY AND SOCIAL INCLUSION

Factors such as where we live, what we do, how much money we earn and how long we stayed at school influence our health. Groups with the poorest health have fewer opportunities to achieve and maintain good health.

Groups with lower socio-economic status have more diseases over their lifetimes and die younger. They visit doctors, EDs and hospital outpatients more, but use preventative services less. The population of NNSW LHD is one of the most disadvantaged in NSW with all LGAs scoring lower than the NSW average on most measures of socio-economic status. This population has lower than average weekly earnings, lower levels of education and high rates of unemployment. The overall level of socio-economic disadvantage in the Northern NSW region contributes to higher than average levels of health problems and demand for services.

In health terms, Aboriginal people are the most disadvantaged group in Australia which has resulted in the *Closing the Gap* initiative to reduce the discrepancy in health outcomes. While many non-Aboriginal people in NSW have experienced significant health gains in recent years, these improvements have not been equally shared by Aboriginal people who continue to experience greater health risks, poorer health and shorter life expectancies than non-Aboriginal people. Aboriginal people suffer much higher morbidity across a range of conditions, including: diabetes, renal, cardiovascular and respiratory diseases.

People with mental illness, particularly those with chronic conditions and co-morbid drug and alcohol issues require high quality and safe, integrated service provision with collaboration between government and non-government services. Other groups with relatively poor health status include people subject to homelessness, people living in public housing, unemployed people and people with disabilities.

An equity approach to health recognises that not everyone has the same level of health and people's health choices are limited by the choices they have available to them. It is important to respond to people differently in order to work towards equal outcomes. By targeting vulnerable communities and working in partnership with other organisations, the LHD can aim to ensure that all people have access to resources which will support them to improve their health.

### 11.1.7 COMMUNITY AND CLINICIAN ENGAGEMENT

The NSW Government and NNSW LHD are committed to increasing opportunities for people to participate in the way government makes decisions, including ways for people to have a real say and be involved in localised decision making.<sup>122</sup>

NNSW LHD will need to ensure that systems and processes are in place to protect the rights and interests of key stakeholders and that they are provided access to balanced and understandable information about the organisation and its proposals. There will need to be ongoing consideration of diversity in representation of stakeholders in engagement structures and processes. The LHD will also need to maintain and improve clinician and community engagement structures, systems and processes for involving both staff and the community in decision making.

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<sup>122</sup> NSW 2021 A Plan to make NSW Number One; Goal 31: Involve the community in decision making on government policy, services and projects

Communication tools and processes to keep staff and community informed about the activities and services of NNSW LHD and about opportunities for engagement will need to be developed. New and emerging technologies will be an important part of future communication systems. In keeping up with trends in the way that people access their health care information in 2013 and beyond, NNSW LHD needs to ensure that it is utilising the best methods of providing information on health issues and the health services it provides. This is increasingly expected to include social media such as Facebook and Twitter where younger people rely heavily for their access to information.

## 11.2 SUPPLY

The major pressures and key challenges in terms of ensuring the supply of quality and effective health services by NNSW LHD over the next 10 years are:

- Utilising clinical networking to ensure that services are organised in an optimal fashion to make best use of the available clinical staff and infrastructure resources
- Working in partnership with other providers of health and community support services
- Managing the cost of providing health services to ensure the provision of quality and accessible services from within available resources
- Providing an effective response to the needs of the population with conditions that are amenable to ambulatory care (in preference to hospital inpatient care)
- Reducing the number of unplanned hospital admissions
- Providing an effective response to the needs of older people across all health services and in particular providing for the needs of those with a cognitive impairment
- Introducing new models of care that utilise latest evidence and best practice in the delivery of healthcare
- Ensuring a sustainable health workforce
- Ensuring best use of information communication technology.

### 11.2.1 CLINICAL NETWORKING

Like all rural LHDs, NNSW LHD faces the challenge of ensuring patient safety and clinical quality in delivering health services to a relatively sparse population across a broad geographic area through a specialised clinical workforce that is limited in numbers. The organisation of services into two Health Service Groups covering Tweed Byron and Richmond Clarence represents an effective strategy for the provision of clinical governance and leadership and sharing of expertise.

It is essential, within this operating environment, that unnecessary duplication of clinical expertise and costly health infrastructure is avoided. For some of the smaller clinical specialties there may be only a single medical specialist across the LHD based in one of the two Rural Referral Hospitals. For this reason it is important that clinical networking approaches also encompass the full breadth of the NNSW LHD and that expertise is shared across the two Health Service Groups through the development of shared protocols and access to specialist advice.

### 11.2.2 WORKING IN PARTNERSHIP

Changes to funding models including introduction of the NDIS and a move to competitive tendering in the non-government health sector will impact on service integration and care coordination. In the present environment, it is more important than ever that NNSW LHD health services work

collaboratively and in partnership with a range of government funded, NGO and private providers of health and community support services. The proposed NSW Health reform in non-emergency health related transport for example has not been articulated in any detail and it is not clear how this will impact on increasing demand for health related transport services.

In many areas of health service provision, notably children's services, aged care, chronic care and mental health services, NNSW LHD is increasingly working with a range of other government agencies, NGOs and private providers including Aboriginal community controlled services. Working in partnership with these external agencies requires new ways of operating and of designing how services communicate and share information in the best interests of patients.

Working in partnership means collaborating with these other agencies in a way that enables the development of complementary roles that avoids unnecessary duplication and aims to achieve seamless care for patients. Health pathways can be complex and confusing for patients, especially those with complex conditions and multiple co-morbidities.

### 11.2.3 MANAGING COST OF PROVIDING HEALTH SERVICES

As part of the National Health Reforms ABF with new contracting and performance arrangement being introduced on 1 July 2012. The first year of operation under ABF has focused the LHDs attention on managing the growing costs of healthcare and the efficient use of District resources. In the short term, the smaller facilities will not be subject to ABF and will be funded on a block funding basis.

The introduction of ABF has emphasised the importance of ensuring the most cost-efficient models of service delivery, while ensuring appropriate levels of access and clinical quality. Access to more detailed information on service costs and benchmarks will identify areas where action may be required. Some services may need to be reviewed and redesigned if the cost of the service is not supported by ABF. As the funding process is rolled out across acute, sub-acute and ambulatory care, the balance of investment across these care types will need to optimise the use of recurrent funding and capital infrastructure and provide services which are clinically excellent, efficient and sustainable.

What is clear at this stage is that the LHD will need to ensure that inefficient practices are identified and that any unnecessary costs are avoided in order to ensure the maintenance, and growth of service volumes while ensuring clinical quality and patient safety.

### 11.2.4 MANAGEMENT OF AMBULATORY CARE SENSITIVE CONDITIONS

Ambulatory care sensitive conditions (ACSC) are those for which hospitalisation is considered potentially avoidable through preventive care and early disease management, usually delivered through primary health care (for example, by GPs or in community health centres).<sup>123</sup> They include a range of acute and chronic conditions such as respiratory infections and/or inflammations, chronic obstructive airways disease, bronchitis and asthma, venous thrombosis, musculo-tendinous disorders, cellulitis, other kidney and urinary tract diagnoses and red blood cell disorders.

In 2010/11 residents of NNSW LHD had a 10% higher rate of hospitalisation for these ambulatory care sensitive conditions (2,585 per 100,000 compared to NSW average of 2,346 per 100,000).<sup>124</sup> This relatively higher hospitalisation rate of NNSW LHD residents may be related to the relative shortage

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<sup>123</sup> Department of Human Services. *The Victorian Ambulatory Care Sensitive Conditions Study, 2001–02* Victorian Government, 2004

of primary care. On the North Coast there is an average 66.2 GPs (full-time equivalent) per 100,000 residents compared to the NSW average of 87.3.<sup>124</sup>

There were 9,031 hospital admissions in 2010/11 by NNSW LHD residents which were for potentially preventable hospitalisations (ACSC) and these accounted for approximately 35,133 beddays (equivalent to 96 fully-occupied hospital beds).<sup>125</sup>

### 11.2.5 REDUCING UNPLANNED HOSPITAL ADMISSIONS

An unplanned hospital readmission is the readmission of a patient within 28 days following discharge to the same facility for any purpose other than mental health, chemotherapy or dialysis.<sup>126</sup> Reducing unplanned hospital readmissions is a priority action for NSW.<sup>127</sup> 7.1% of patients in NNSW LHD were readmitted as an 'unplanned hospital readmission' in 2011/12. This was higher than the NSW average (6.6%). About half of these readmissions are for conditions which may be related to the previous admission.<sup>128</sup>

Many of the potentially related readmissions would be expected to relate to access to GP, outpatient and community health services. Data for all NSW LHDs indicates that unplanned hospital readmissions are higher in LHDs where there are fewer non-admitted services (mainly outpatients and community health services).

There is marked variation between LHDs regarding the quantity of non-admitted services provided. NNSW LHD has significantly lower provision of hospital outpatient and community health services than other LHDs and the data on unplanned hospital admissions suggests the need for targeted investment in these services should be planned over the next 5 to 10 years. Analysis of readmissions within the LHD<sup>129</sup> indicates the areas to target are: geriatrics/general medicine, cardiac services, respiratory services, gastroenterology services and urology/renal services.

Some of the unplanned readmissions are hospitalisations for complications of surgical or medical care.<sup>130</sup> These readmissions should be amenable to actions to improve the models of inpatient care.

### 11.2.6 PROVIDING AN EFFECTIVE RESPONSE TO THE NEEDS OF OLDER PEOPLE

In 2013 the first of the "baby boomer" generation reached the age of 65 years, an age when historically, the need for health care services significantly increases. By 2021, people over the age of 65 years will account for almost one quarter (24%) of the NNSW LHD population, as compared to 19% in 2011. By comparison the proportion of people aged 65 years and over in the total NSW population in 2021 is projected to be 17.5%.

While current data indicates that the "baby boomer" generation will have a longer life expectancy and in most aspects be relatively healthier than previous generations at the same age, the size of this population cohort and their need for health services will still place a substantially greater burden on health services in the NNSW LHD.

<sup>124</sup> [www.healthstats.nsw.gov.au](http://www.healthstats.nsw.gov.au) accessed 18 March 2012

<sup>125</sup> Op cit

<sup>126</sup> Service Agreement Indicator Dictionary for 2012/13; NSW Ministry of Health; 2012.

<sup>127</sup> NSW 2021: A Plan to Make NSW Number One (<http://www.2021.nsw.gov.au/>) Target: reduce current rates of unplanned hospital readmissions as percentage of total hospital admissions (5% per year over 4 years).

<sup>128</sup> This is a consequence of the way the indicator is defined rather than being due to data accuracy.

<sup>129</sup> Analysis of Unplanned Hospital Readmissions at Tweed Heads, Lismore and Grafton for the month of July 2012.

<sup>130</sup> The NSW Bureau of Health Information reported in December 2012 there were 306 hospitalisations for complications of surgical or medical care per 100,000 population in NSW in 2010/11. Wound infections following a procedure were the most commonly recorded complications.

Similar to its disproportionate share of the overall aged population, NNSW LHD has a higher proportion of the “very old” population aged 85 years and over. A large proportion of this age group experience frailty and poor health including dementia and fractures as a result of falls.

The needs of older people will require special consideration in planning services to meet the population needs, in respect of the greater propensity of this age group to experience significant chronic and complex conditions as well as co-morbidities. A substantial proportion of the older age group experience a number of different diseases such as cardiovascular disease, diabetes and chronic kidney disease, rather than just single disease episodes.

Older people are more likely to suffer from long term health conditions such as sight or hearing loss, arthritis or other musculoskeletal problems and elevated blood pressure or cholesterol levels. Older people are significantly more susceptible to falls. Ageing of the population will result in a significantly greater prevalence of dementia, a condition that was found to be responsible for the highest level of disability in the community.

NNSW LHD will need to continue to develop new and emerging models for older people including:

- Geriatric Evaluation and Management
- Management of Stroke
- Dementia Care
- Specialist Mental Health Services for Older People
- Rehabilitation and Palliative Care redesign.

### 11.2.7 MODELS OF CARE

A model of care broadly defines the way health services are delivered. It outlines best practice care and services for a person, population group or patient cohorts as they progress through the stages of a condition, injury or event. It aims to ensure that people get the right care, at the right time, by the right team and in the right place.

The review and development of new models of care is a change management process that looks for opportunities to work smarter. The aim is to bring about improvements in service delivery through effecting change to the way services are managed and delivered. New models of care may be informed by latest worldwide evidence of best practice, developed on a state-wide basis under the leadership of the Agency for Clinical Innovation or locally through local teams recognising the need for service redesign and potential for improvement in processes and/or patient outcomes.

An area for development as identified above under section 12.2.3 is the need to develop enhanced ambulatory care including, hospital outpatient services as a means of enabling improved access to ambulatory care for patients with chronic and ambulatory care sensitive conditions in the NNSW LHD. Focus areas are expected to include cardiology, diabetes and renal services with an emphasis on prevention, screening and early intervention, and, most importantly improving the integration of service management across and between these various chronic disease conditions.

Models of care will also be reviewed as part of the NSW Whole of Hospital Program that is being implemented across LHDs and aims to improve the connectivity of the entire patient journey in NSW public hospitals. The aim of the Program is to improve service flow (by identifying and removing blockages) and access for patients while maintaining or enhancing the quality, safety and outcomes of care. Local Program Teams will be established in NNSW LHD to develop local strategies for improving the connectivity of patient care, both within NNSW LHD hospitals and across the interface with key partners such as Ambulance Service NSW and primary care providers.



### 11.2.8 ADVANCED PLANNING FOR QUALITY END OF LIFE

NSW Health has released Advance Planning for Quality Care at End of Life - Action Plan 2013–2018.

This Action Plan provides the way forward for NSW Health implementing advance care planning in the NSW public health system over the next 5 years. It also identifies strategic partnerships with other government agencies and sectors to improve this aspect of planning for end of life care in primary, acute and aged care settings. This Action Plan seeks to normalise Advance Care Planning and improve end of life care by integrating patients' wishes into the management of chronic life-limiting illness. It seeks to ensure that patients are provided with care consistent with their wishes, within therapeutic limits, always focused on quality symptom management and best practice.

The AMBER care bundle improves quality of care of people in acute care facilities whose recovery is uncertain. It is for people who are at risk of dying in the next 1 to 2 months who may still be receiving active treatment. Evidence suggests that the AMBER care bundle results in improved decision making, enhanced documentation of treatment and escalation plans, a positive impact on multi-professional team communication and working, increased nurses' confidence about when to approach medical colleagues to discuss treatment plans, better patient /carer involvement in decision making, greater clarity around preferences and plans and how these can be met and patients' wishes being treated with greater respect.

### 11.2.9 A SUSTAINABLE WORKFORCE

Recruiting and retaining skilled staff is a challenge across the NSW Health system, especially in rural areas. The next 10 to 20 years will see the ageing and retirement of many current health professionals. Workforce planning and development activities need to address both the size and skill mix required in the workforce of the future.

The next decade will see the beginning of significant changes in the structure of the health workforce across Australia. Diversification and restructuring of professional roles will occur as new training regimes are implemented and work practices change, driven by new therapies and models of care, clinical service redesign and developments in information technology and communications.

Workforce roles are closely aligned with the new models of care being developed, as described above, and task redefinition is already occurring. Roles such as nurse practitioners, physician assistants, generic practitioners with core nursing and allied health training, allied health assistants and other options are being designed and implemented to provide a flexible workforce for the future, and to ensure that the time of medical staff and skilled nurses and allied professionals is effectively deployed to patient care.

Expanded training programs in nursing and allied health, more medical student places and new medical schools have been announced by the Australian Government in response to the Productivity Commission Report and the expansion in health sector training and professional development is already generating additional demand for training and clinical placement opportunities in urban and rural settings.

The major challenges facing all jurisdictions, including NNSW LHD are:

- Development of new service models of care that reflects the changing nature of health provision and shifts in the burden of disease including:
  - Increased focus on ambulatory care services delivered in primary care, or home settings
  - Increased use of multidisciplinary team management approach to delivering care



- Increased need for services tailored to the wholistic needs of people with chronic and co-morbid conditions
- Development of new health care worker roles (e.g. Nurse Practitioner, Hospitalist)
- Increased use of Telehealth to support the provision of clinical advice, consultation, education and training services to remote locations
- Impending workforce shortages resulting from the ageing of the existing health workforce and the increased demand for services required by an ageing population
- Changes in the demographic composition of the health workforce (feminisation, Generation Y) requiring increased flexibility on the part of employers
- Shortages of all professions other than nursing in rural and regional areas
- Continuing pressure on health budgets from constrained health budgets
- Trend towards increasing specialisation of healthcare professionals.

### 11.2.10 USE OF INFORMATION COMMUNICATION TECHNOLOGY (ICT)

The provision of effective, efficient and appropriate ICT systems and services are a foundational element for the provision of high quality health services to the local population across NNSW LHD. ICT is essential to support continuous improvement in clinical outcomes, greater coordination of care, better access to information and for the ability to use information to improve management decision-making.

NNSW LHD is in the process of developing a secure, reliable network of ICT infrastructure that will support clinical service delivery through a capable and reliable computer network, fixed and mobile end user devices, a suite of clinical software tools that comprise the electronic Medical Record (eMR) and administrative support software including human resources, rostering, payroll and financial services tools.

The enhancement of ICT infrastructure is expected to include:

- Participating in NSW Health state-based initiatives including the Health Wide Area Networking (HWAN), network remediation and State Wide Infrastructure Services (SWIS) directory and messaging work programs
- Provisioning support for mobile computing through the introduction of facility-wide wireless networking and delivery of virtualised clinical desktops
- Delivering a unified communications environment integrating voice, instant messaging and videoconferencing to enhance clinician communication and collaboration
- Identifying opportunities and benefits that can be gained as the National Broadband Network is rolled out to consumers across the NNSW LHD.

Ultimately, the aim of introducing improved ICT is to enhance the patient journey and this is expected to occur via the implementation of a person centred eMR supporting patient access and engagement, a streamlined and standardised journey, improved patient safety through enhanced decision support and continuity of care across inpatient and outpatient care settings.

NNSW LHD has plans in place to enhance the patient journey by:

- Optimising the existing eMR to include:
  - Rapid response team data collection

- Paediatric data collection
- Multidisciplinary electronic discharge reporting
- Past medical history
- Introducing electronic medication management
- Implementing the Community Health component of the eMR
- Facilitating improved clinical information sharing with clients by participating in the national Personally Controlled Electronic Health Record initiative
- Supporting new models of clinical care by working with the North Coast NSW Medicare Local to manage the health of clients with chronic conditions
- Implementing clinical analytics and reporting from the eMR
- Implementing the Enterprise Imaging Repository that will allow medical imaging studies from across NSW to be visible locally
- Deploying the Connecting Critical Care ED system to the Lismore Base Hospital in March 2014
- Developing new models of care that support “point of care” service delivery using unified communications technology.

In addition to these planned improvements which will enhance patient care, the Mid North Coast and Northern NSW LHDs ICT Strategy 2013-2016 aims to improve the capacity and skills of staff to support new systems and technology. This will include the development of an appropriately skilled workforce to develop and maintain data repositories and develop an enhanced business intelligence environment and ensuring that implications for ICT Team resourcing are considered and addressed in all business cases and project plans for new technology and systems acquisitions.

### 11.3 OVERVIEW OF CONSULTATION PROCESS

Consultation occurs before a draft plan is developed and presents participants with demographic data and service activity information and seeks their input into key issues and future directions to be included in the draft Plan. It is also important that clinicians, service managers and community representatives are involved in the development of the Health Care Services Plan. They have a considerable depth of knowledge to contribute to the draft Plan. Ownership by Health Service Staff and other key stakeholders results in a cohesive and integrated implementation phase support by clinician ownership and agreement.

A Consultation Plan was developed and endorsed by the Steering Committee at the beginning of the planning process. Central to the consultation process is the Steering Committee. The Steering Committee has been chaired by Ms Hazel Bridget, NNSW LHD Board Member and has broad representation from Senior Executive Members, Clinicians, Community Representatives and a range of key stakeholders.

Between April and July 2013 over 50 consultation sessions have been held with approximately 450 participants. A broad range of clinicians and management have been engaged. Consultation schedules were prepared detailing consultation sessions and meetings to be held at each facility. Service Managers were engaged in preparing the schedules and flyers detailing consultation themes, target groups, venues and times. The flyers were circulated through email, hard copies to Wards and Units and via Directors of Medical Staff to Medical Staff Councils. Key external stakeholders were also invited to participate to ensure full coverage of priority considerations and additional detail in related clinical services where required.

These consultations were conducted using a consistent approach that reflected and built upon the outcomes of the needs analysis and the review of activity data.

There was the following mix of participants:

- Senior Clinicians
- Senior Health Service Group Directors and Managers
- Facility Managers
- Clinical / Unit and Department Managers
- Staff Specialists
- Visiting Medical Officers
- Nursing Staff
- Community Health Staff
- Allied Health Staff
- Program Managers and Staff e.g. HIV AIDS and Related Diseases
- Pharmacy Staff
- Pathology Staff
- Medical Imaging staff
- Service Support Personnel
- Medical Staff Councils
- Medicare Local Representatives
- Aboriginal Controlled Health Services Representatives
- Health funded Non-Government Organisation Representatives
- Non-Government Organisation Forum
- Clinical Engagement Advisory Council Members
- LHD Clinical and Executive Medical Staff Councils
- NSW LHD Senior Manager Forum Members.

Each group session was facilitated by the Manager Planning and Performance or a Planning and Performance Officer with participant input sought in relation to:

- Current challenges, service strengths and recent/emerging initiatives including new models of care
- Clinical networking and referral pathways (where relevant)
- Future models of care
- Other key considerations relevant to clinical services planning.

The sessions were conducted as 'conversations' to ensure all participants had an opportunity for input, with findings recorded in a standard format and subsequently analysed to identify:

- Current challenges to clinical service provision
- Service-wide themes including feedback on service enablers and matters relating to the LHD as a whole
- Specific information relevant to particular clinical units/services.

The Chair of the Steering Committee attended the majority of consultation sessions and Steering Committee Members were invited to attend consultation sessions. Key issues raised at the consultation sessions were presented to the Steering Committee.

The consultation process also involved additional meetings with Service Managers and Directors e.g. Directors Pharmacy, Manager Renal Services, Executive Director Mental Health and Drug and Alcohol and Manager Cancer Services.

Facility and Program Managers were also requested to complete a questionnaire in relation to both clinical areas and key service enablers. Each section of the draft Plan was also circulated to relevant Clinical Groups, feedback incorporated and clarification provided.

Key issues raised at consultations have been analysed in relation to their strategic relevance and where appropriate included at the end of each section of the draft Health Care Services Plan. A detailed consultation report will be provided to the NNSW LHD Executive and Board incorporating those issues considered operational in nature rather than strategic.

The response from participants has been extremely positive. They have given of their time, their knowledge and expertise to inform the draft Plan. The draft Plan will now be uploaded to NNSW LHD Intranet, included in a dedicated site for the Health Care Services Plan and all staff invited to provide comment via a dedicated email address. The Draft Plan will be available on the Intranet for three weeks.

## 12 SUMMARY OF PROJECTED HOSPITAL ACTIVITY, FUTURE ROLES AND SERVICE DIRECTIONS

Section 9.2 of Volume Two of the NNSW LHD Health Care Services Plan presents the projected **demand** for hospital inpatient services by NNSW LHD residents. These projections include use of NNSW LHD public hospital facilities as well as outflows to hospitals in other LHDs, Queensland and private hospitals.

This section provides indicative projections of the **supply** of hospital inpatient services by NNSW LHD hospital facilities. These projections include local resident use of these NNSW LHD facilities as well as inflows of residents of other NSW and interstate LHDs.

### 12.1 PROJECTED HOSPITAL INPATIENT ACTIVITY

These acute inpatient supply projections have been developed using the Acute Inpatient Modelling tool (aIM2010). The aIM2010 methodology provides data on current acute inpatient activity (2010/11) and projects levels of acute inpatient activity to 2016/17 and 2021/22. The use of these planning horizons aligns with those used in contemporary clinical service plans developed for Lismore Base Hospital, The Tweed Hospital and Byron Shire Central Hospital. These acute inpatient activity projections exclude sub-acute and non-acute inpatient activity, unlike the data on current activity presented in Section 5 of Volume One which presents the total current inpatient activity for NNSW LHD facilities.

These projections are based on the “status quo” in relation to patient flow patterns. That is, they reflect the current flow patterns for residents of NNSW LHD seeking acute inpatient services within NNSW LHD, the inflow of residents from other LHDs and the outflow of NNSW LHD residents to other LHDs.

Specific hospital clinical service plans such as those mentioned above may include flow reversal scenarios estimated on the basis of altered patient flow patterns which may result in an increase or decrease in projected activity. For this reason, the activity projections presented here should be seen as indicative of the broad trends impacting on the provision of hospital inpatient activity in NNSW LHD. For example, individual clinical services plans have been prepared for Lismore Base Hospital and The Tweed Hospital which incorporate flow reversal scenarios which are in part dependent on capital investment, and the timing of any redevelopment is not yet established. There are also plans to further develop the Orthopaedic service and build a range of specialties at Grafton Base Hospital. Flow reversal scenarios will be developed when business planning is undertaken for these services at Grafton Base Hospital.

The projected change in hospital acute inpatient separations and beddays for NNSW LHD facilities are presented in the tables below. They do not include separations for chemotherapy, renal dialysis, unqualified neonates, ED only and HITH services in accordance with standard service planning practice.

The projections of acute inpatient hospital activity indicate that NNSW LHD facilities will provide a total of 73,079 acute inpatient separations in 2021/22, a 21.8% increase compared to the 59,981 separations in 2010/11. Day Only separations comprise 31.5% of total separations in 2021/22 and they are projected to have increased by 32.2% over this timeframe.

There are 234,005 acute inpatient beddays associated with the 49,995 acute separations in 2021/22, and these are projected to have increased by 28.3% compared to 2010/11.

This projected increase in hospital beddays will require a substantial increase in acute bed capacity in NNSW LHD hospitals by 2021.

**Table 80: Projected Supply NNSW LHD (status quo)**

Acute Inpatient Activity		2011	2017	2022	Projected Increase
Separations	Day Only	18,736	20,786	23,084	23.2%
	Overnight	41,245	45,756	49,995	21.2%
Beddays	Day Only	18,743	20,786	23,084	23.2%
	Overnight	182,375	212,088	234,005	28.3%
<b>Total sum of separations</b>		<b>59,981</b>	<b>66,542</b>	<b>73,079</b>	<b>21.8%</b>
<b>Total sum of beddays</b>		<b>201,118</b>	<b>232,875</b>	<b>257,088</b>	<b>27.8%</b>

Source: aIM2010. Excludes Chemotherapy, Renal Dialysis, Unqualified Neonates, HITH and ED Only activity

Almost two-thirds (63.3%) of separations projected for 2021/22 within NNSW LHD facilities are for medical diagnoses (refer Table below). A further 27% are for surgical operations and around 10% of separations are for procedures. The table below details projected supply (status quo) for NNSW LHD by surgical, medical and procedural activity.

**Table 81: Projected Supply Northern NSW (status quo) by Type of Separation**

Acute Inpatient Activity		2011	2017	2022	Projected Increase
Separations	Surgical	15,966	17,578	19,457	21.9%
	Medical	37,538	42,332	46,265	23.2%
	Procedural	6,477	6,632	7,357	13.6%
Beddays	Surgical	47,539	53,913	60,290	26.8%
	Medical	141,966	167,917	184,412	29.9%
	Procedural	11,613	11,044	12,387	6.7%
<b>Total sum of separations</b>		<b>59,981</b>	<b>66,542</b>	<b>73,079</b>	<b>21.8%</b>
<b>Total sum of beddays</b>		<b>201,118</b>	<b>232,875</b>	<b>257,088</b>	<b>27.8%</b>

Source: aIM2010. Excludes Chemotherapy, Renal Dialysis, Unqualified Neonates, HITH and ED Only activity

The relative increase in projected supply of acute inpatient separations at facilities within NNSW LHD reflects the relative ageing and growth of the catchment population.

By taking into account the age adjusted separation rates for the various Service Related Groups (SRGs), the projections incorporate the growth in utilisation rates for interventions such as joint replacement and cataract surgery and these are compounded by the substantial increase in the population group most likely to utilise these. The projected increase in ophthalmology separations is 36.4% over the 11 years to 2021/22, and 29.2% for orthopaedic separations; as compared to the overall increase of 21.8% in acute inpatient separations (refer following table).

In addition to the increased demand for surgical interventions, the increase in the aged population will substantially increase the proportion of the population affected by chronic and complex medical conditions such as cardiovascular disease, stroke, renal failure, chronic obstructive pulmonary disease and diabetes.

The table below details projected supply by NNSW LHD by (status quo) separations by SRG to 2022.

**Table 82: Projected Supply NNSW LHD (status quo) Separations by Service Related Group**

SRG	2011	2017	2022	Projected Increase
11 Cardiology	4,681	5,528	6,189	32.2%
13 Dermatology	224	271	289	28.8%
14 Endocrinology	377	431	481	27.6%
15 Gastroenterology	4,740	5,710	6,352	34.0%
16 Diagnostic GI Endoscopy	3,513	3,517	3,791	7.9%
17 Haematology	369	453	502	36.2%
18 Immunology and Infections	633	708	767	21.2%
19 Oncology	609	844	952	56.3%
21 Neurology	2,415	2,791	3,088	27.8%
22 Renal Medicine	936	944	1,095	16.9%
24 Respiratory Medicine	4,378	4,897	5,443	24.3%
25 Rheumatology	246	312	362	47.0%
26 Pain Management	260	304	343	32.0%
27 Non Subspecialty Medicine	4,277	5,126	5,735	34.1%
41 Breast Surgery	310	317	343	10.6%
42 Cardiothoracic Surgery	35	47	58	64.6%
43 Colorectal Surgery	826	909	1,023	23.8%
44 Upper GIT Surgery	1,184	1,301	1,419	19.9%
46 Neurosurgery	890	1,036	1,152	29.5%
47 Dentistry	532	560	598	12.4%
48 ENT & Head and Neck	1,922	2,030	2,148	11.8%
49 Orthopaedics	4,815	5,573	6,222	29.2%
50 Ophthalmology	2,359	2,753	3,217	36.4%
51 Plastic and Reconstructive Surg.	1,509	1,610	1,743	15.5%
52 Urology	2,469	2,677	3,081	24.8%
53 Vascular Surgery	832	908	1,014	21.8%
54 Non Subspecialty Surgery	4,377	4,830	5,257	20.1%
61 Transplantation	0	0	0	
62 Extensive Burns	18	13	14	-24.8%
63 Tracheostomy	76	87	101	32.4%
71 Gynaecology	2,505	2,437	2,485	-0.8%
72 Obstetrics	5,074	5,221	5,294	4.3%
73 Qualified Neonate	963	946	974	1.1%
75 Perinatology	0	6	8	
81 Drug and Alcohol	549	622	642	16.9%
82 Psychiatry - Acute	445	445	445	0.0%
99 Unallocated	120	120	120	0.0%
<b>TOTAL</b>	<b>59,981</b>	<b>66,542</b>	<b>73,079</b>	<b>21.8%</b>

Source: aIM2010. Excludes Chemotherapy, Renal Dialysis, Unqualified Neonates, HITH and ED Only activity



## 12.2 SUMMARY OF PROJECTED HOSPITAL INPATIENT ACTIVITY BY FACILITY

The projected volume of inpatient separations in 2021/22 for the major NSW LHD facilities is presented in the following table. These indicative projected separations are based on the status quo as previously described and include both acute inpatient separations as presented in Section 13.1 and sub-acute inpatient separations. They do not include mental health separations in designated mental health units. The sub-acute projections were developed using the Sub-Acute Inpatient Activity Modelling tool (SiAM). These sub-acute projections include separations for geriatric assessment, maintenance care, rehabilitation and palliative care.

The following table summarises total acute and sub-acute projected inpatient activity by larger facility in NSW LHD to 2021/22. Activity for Nimbin and Urbenville MPS and Bonalbo Hospital is included in Section 6 of the Plan.

**Table 83: Summary of Total Acute and Sub-Acute Projected Inpatient Activity by larger Facility**

Facility	Service Type	2010/11		2021/22		Projected Increase	
		Separations	Beddays	Separations	Beddays	Separations	Beddays
Tweed Hospital	Acute admitted	18,948	60,458	23,388	84,269	23.4%	39.4%
	Sub-Acute	265	1,798	694	4,887	161.8%	171.8%
	<b>Total</b>	<b>19,213</b>	<b>62,256</b>	<b>24,082</b>	<b>89,156</b>	<b>25.3%</b>	<b>43.2%</b>
Lismore Base	Acute admitted	18,006	62,891	20,448	71,254	13.6%	13.3%
	Sub-Acute	358	2,647	355	4,705	-0.7%	77.8%
	<b>Total</b>	<b>18,364</b>	<b>65,538</b>	<b>20,803</b>	<b>75,959</b>	<b>13.3%</b>	<b>15.9%</b>
Grafton	Acute admitted	7,049	20,477	8,227	26,423	16.7%	29.0%
	Sub-Acute	381	5,195	653	10,232	71.4%	97.0%
	<b>Total</b>	<b>7,430</b>	<b>25,672</b>	<b>8,880</b>	<b>36,655</b>	<b>19.5%</b>	<b>42.8%</b>
Murwillumbah	Acute admitted	4,995	13,284	7,016	22,990	40.5%	73.1%
	Sub-Acute	496	8,207	1,348	20,085	171.8%	144.7%
	<b>Total</b>	<b>5,491</b>	<b>21,491</b>	<b>8,364</b>	<b>43,075</b>	<b>52.3%</b>	<b>100.4%</b>
Ballina	Acute admitted	2,113	10,077	2,739	10,943	29.6%	8.6%
	Sub-Acute	340	8,480	492	8,605	44.6%	1.5%
	<b>Total</b>	<b>2,453</b>	<b>18,557</b>	<b>3,231</b>	<b>19,548</b>	<b>31.7%</b>	<b>5.3%</b>
Macleay	Acute admitted	2,246	9,803	3,132	13,913	39.4%	41.9%
	Sub-Acute	215	1,909	216	3,448	0.4%	80.6%
	<b>Total</b>	<b>2,461</b>	<b>11,712</b>	<b>3,348</b>	<b>17,361</b>	<b>36.0%</b>	<b>48.2%</b>
St Vincent's Lismore (public patients)	Acute admitted	368	446	547	620	48.6%	39.0%
	Sub-Acute	156	1,638	150	1,873	-3.8%	14.3%
	<b>Total</b>	<b>524</b>	<b>2,084</b>	<b>697</b>	<b>2,493</b>	<b>33.0%</b>	<b>19.6%</b>
Casino	Acute admitted	2,513	8,400	2,821	8,688	12.3%	3.4%
	Sub-Acute	65	1,021	57	928	-12.2%	-9.2%
	<b>Total</b>	<b>2,578</b>	<b>9,421</b>	<b>2,878</b>	<b>9,616</b>	<b>11.6%</b>	<b>2.1%</b>
Byron Bay	Acute admitted	1,059	4,151	1,584	5,283	49.6%	27.3%
	Sub-Acute	40	480	50	698	24.9%	45.5%
	<b>Total</b>	<b>1,099</b>	<b>4,631</b>	<b>1,634</b>	<b>5,981</b>	<b>48.7%</b>	<b>29.2%</b>
Mullumbimby	Acute admitted	1,069	3,388	1,512	5,389	41.4%	59.1%
	Sub-Acute	48	756	53	789	10.0%	4.4%
	<b>Total</b>	<b>1,117</b>	<b>4,144</b>	<b>1,565</b>	<b>6,178</b>	<b>40.1%</b>	<b>49.1%</b>
Kyogle	Acute admitted	670	2,680	698	2,995	4.2%	11.8%
	Sub-Acute	31	363	21	338	-32.9%	-6.8%
	<b>Total</b>	<b>701</b>	<b>3,043</b>	<b>719</b>	<b>3,333</b>	<b>2.5%</b>	<b>9.5%</b>
<b>Total Major NNSW</b>	<b>Acute admitted</b>	<b>59,036</b>	<b>196,055</b>	<b>72,112</b>	<b>252,767</b>	<b>22.1%</b>	<b>28.9%</b>
<b>Facilities</b>	<b>Sub-Acute</b>	<b>2,395</b>	<b>32,494</b>	<b>4,088</b>	<b>56,589</b>	<b>70.7%</b>	<b>74.2%</b>
	<b>Total</b>	<b>61,431</b>	<b>228,549</b>	<b>76,200</b>	<b>309,356</b>	<b>24.0%</b>	<b>35.4%</b>

Sources: aIM2010, SIAM Excludes Renal Dialysis, Chemotherapy, Unqualified Neonates, HITH, ED Only separations

## 12.3 FUTURE ROLES OF HOSPITALS IN NNSW LHD

The projected activity levels for the major NNSW LHD facilities as presented in the table below reflects their current roles in the respective NNSW LHD Health Service Groups.

### 12.3.1 TWEED BYRON HEALTH SERVICE GROUP

Within the Tweed Byron Health Service Group, The Tweed Hospital will continue to provide the clinical hub for acute services within this network of services, including its major role in the provision of level 5 role delineated 24 hour emergency services, critical care, complex medicine and surgery, obstetrics and gynaecology, special care nursery, paediatric, coronary care, oncology, renal, and mental health services.

The Tweed Hospital provides a substantial proportion of the total acute inpatient activity within the Health Service Group but is supported by Murwillumbah District Hospital which provides acute services at predominantly role delineation level 3 including emergency, midwifery-led birthing, paediatric, medical, high dependency and less complex surgical services. Murwillumbah District Hospital provides a specialist inpatient rehabilitation Assessment and Rehabilitation Unit for the Health Service Group for which a significant increase in activity to 2021/22 is projected.

The Tweed Hospital Clinical Services Plan 2012 provides a framework for the development and delivery of healthcare services to the residents of Tweed LGA and a larger catchment which includes Byron LGA and a portion of the southern Gold Coast region. There will be increasing self-sufficiency in vascular surgery, urology and gynaecology. It is proposed to establish diagnostic and interventional cardiology services at The Tweed Hospital and to develop an Integrated Cancer Service including provision of Radiotherapy Services. These services are considered essential to meet the needs of the population.

The proposed Byron Shire Central Hospital provides the opportunity to develop a critical mass of services on a single site that will allow for the upgrading of clinical services and the development of a broader range of, predominantly role delineation level 2 acute and sub-acute services, primarily for the local Byron Shire population.

### 12.3.2 RICHMOND CLARENCE HEALTH SERVICE GROUP

Within the Richmond Clarence Health Service Group, Lismore Base Hospital will continue to provide the clinical hub for acute services within this network of services, including its major role in the provision of level 5 role delineated 24 hour emergency services, critical care, complex medicine and surgery, obstetrics and gynaecology, special care nursery, paediatric, interventional cardiology, oncology including radiotherapy, renal, and mental health services.

Lismore Base Hospital is supported within the Richmond Clarence Health Service Group, by the major hospitals at Grafton and Ballina providing a broad range of level 3 and 4 district level services and the smaller facilities providing level 2 services.

The role of Grafton Base Hospital and Ballina District Hospital in the provision of a substantial proportion of sub-acute inpatient services is crucial in supporting the more acute focus of services at Lismore Base Hospital.

A new 14 bed Sub-acute Unit with 10 rehabilitation beds and four palliative care beds is under construction at Maclean District Hospital. Establishment of a specialist Rehabilitation Unit at Maclean District Hospital will provide access to specialist rehabilitation services to Clarence Valley residents.

Construction of a new community health centre at Yamba will commence shortly. When complete the Yamba Community Health Centre will be the base for a wide range of community health services, and will provide local access through additional visiting and community health services and clinics.

A Feasibility Study is currently being undertaken to decide the preferred future service provision model for Bonalbo District Hospital and Community Health Services. At this stage the preferred model is an MPS model in partnership with Uniting Care Ageing.

In 2011, the Campbell Hospital (Coraki) which was a 14 bed inpatient facility serving the local community of Coraki and surrounds closed. A Clinical Services Plan for Coraki and Surrounds was endorsed by the NNSW LHD Board in October 2012. The Clinical Services Plan recommended that a HealthOne facility be constructed on the site and a HealthOne model of care be developed. A Master Plan is currently being developed for the former Campbell Hospital site.

## 13 KEY PRIORITIES

- 13.1 KEY PRIORITIES FOR NORTHERN NEWS SOUTH WALES LOCAL HEALTH DISTRICT
- 13.2 KEY PRIORITIES FOR FACILITIES AND SERVICES
- 13.3 KEY PRIORITIES FOR DISTRICT-WIDE CLINICAL STREAMS
- 13.4 KEY PRIORITIES FOR DISTRICT-WIDE CLINICAL NETWORKS
- 13.5 KEY PRIORITIES FOR POPULATION HEALTH AND OTHER SERVICES
- 13.6 KEY PRIORITIES FOR SERVICE ENABLERS AND OTHER CORPORATE SERVICES

## 13.1 KEY PRIORITIES FOR NORTHERN NEW SOUTH WALES LOCAL HEALTH DISTRICT

The following key priorities apply on an LHD wide basis in the provision of clinical services in Northern New South Wales.

Key Priorities NNSW LHD	
<b>Population Growth and Ageing</b>	<ul style="list-style-type: none"> <li>Continue to plan for growth in capacity required to meet projected increase in demand for hospital inpatient, non-inpatient and community based health services</li> </ul>
<b>Chronic and Complex Conditions</b>	<ul style="list-style-type: none"> <li>Establish and implement models of shared care - linking together GPs, Specialist Medical Officers, Community Health, emergency, acute inpatient and sub-acute services, residential and other aged services and community support services</li> </ul>
	<ul style="list-style-type: none"> <li>Introduction of State-wide information and communications technology services, telephone health coaching services, regional chronic disease management services, treatment protocols, referral pathways, shared care plans, and ongoing coordinated care and support</li> </ul>
<b>Address areas where NNSW LHD residents have poorer outcomes / chronic and complex conditions</b>	<ul style="list-style-type: none"> <li>Implement health promotion and disease prevention strategies to improve nutrition and physical activity, reduce smoking and prevent falls (along with other strategies in <i>NNSW Health Promotion Strategic Plan 2013-2017</i>)</li> </ul>
	<ul style="list-style-type: none"> <li>Enhance and develop clinical pathways, case management and shared care services for older people and people with chronic and complex care issues</li> </ul>
	<ul style="list-style-type: none"> <li>Accurately identify Aboriginal patients, improve the patient journey, and build trust between Aboriginal people and the LHD particularly through the Chronic Care for Aboriginal People Program, the Aboriginal Maternal and Infant Health Services and the Family Health Program</li> </ul>
<b>Equity and Social Inclusion</b>	<ul style="list-style-type: none"> <li>The North Coast Regional Managers Network to work in partnership with North Coast NSW Medicare Local, community support services, ADHC and FACS to target areas such as homelessness, disability (mental health, children &amp; adolescents at risk at home)</li> </ul>
<b>Community and Clinician Engagement</b>	<ul style="list-style-type: none"> <li>The ongoing evaluation and development of the formal Community and Clinician Engagement Structures and the development of resources and processes to support engagement</li> </ul>
	<ul style="list-style-type: none"> <li>Ensuring Community and Clinician Engagement is embedded into the culture of the NNSW LHD and considered a part of everyone's business</li> </ul>
	<ul style="list-style-type: none"> <li>Provide support to NNSW LHD Staff and Clinicians on meeting the requirements of the National Safety and Quality Health Service Standards</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a strategy for communicating with, and providing information to, the community including the use of social media</li> </ul>
<b>Clinical Networking</b>	<ul style="list-style-type: none"> <li>Establish clinical leadership for key specialties on a District-wide basis to support clinical networking e.g. Cancer Care and Paediatrics, Critical care and Palliative Care</li> </ul>
	<ul style="list-style-type: none"> <li>Provision of leadership in care of diabetes patients across the LHD particularly in relation to care of children; this cohort is growing and demand for services increasing</li> </ul>
	<ul style="list-style-type: none"> <li>Greater investment in developing an LHD based patient inter-hospital transport service to support non-emergency, inter-hospital</li> </ul>

Key Priorities NNSW LHD	
	transfers
	<ul style="list-style-type: none"> <li>Develop a consultative framework to support working more collaboratively with the Ambulance Service and other patient transport providers</li> </ul>
	<ul style="list-style-type: none"> <li>Develop the capacity to transport acutely unwell mental health patients from small rural hospitals which are not equipped to treat and manage these patients</li> </ul>
	<ul style="list-style-type: none"> <li>Develop the necessary resources including improved ICT infrastructure for The Tweed Hospital and Lismore Base Hospital to act as the hub for Connecting Critical Care to provide clinical support to outlying hospitals further supporting clinical networking arrangements within each Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Operationalise telemedicine across all EDs in the NNSW LHD to support clinical networking within the Health Service Groups and provide higher level emergency medicine clinical expertise to the smaller hospital EDs</li> </ul>
<b>Key Partnerships</b>	<ul style="list-style-type: none"> <li>Work in partnership with a range of government funded, NGO and private providers of health and community support services to ensure provision of patient care is collaborative and seamless</li> </ul>
	<ul style="list-style-type: none"> <li>Monitor the implementation of the National Disability Insurance Scheme (NDIS)/Disability Care Australia National Reform and any implications this significant National Reform may have on the availability of service providers who work in partnership with NNSW LHD to deliver services to children and adults with disabilities</li> </ul>
<b>Managing Cost</b>	<ul style="list-style-type: none"> <li>Review performance of NNSW LHD facilities in relation to ABF benchmarks in 2012/13 and identify any areas where substantial improvement is required</li> </ul>
<b>Management of Ambulatory Care Sensitive Conditions and Reducing Unplanned Hospital Readmissions</b>	<ul style="list-style-type: none"> <li>Develop additional strategies to reduce readmission and avoidable admissions including increased ambulatory care, post-acute care, and increasing investment in post-acute and continuing care in community rehabilitation to assist in meeting growing demand for health care services</li> </ul>
	<ul style="list-style-type: none"> <li>Strengthen a coordinated and integrated primary health care service and provide care targeting potentially preventable hospitalisations in partnership with HealthOnes, community support services and other primary health care Providers including Medicare Locals and Aboriginal Community Controlled Health Services</li> </ul>
	<ul style="list-style-type: none"> <li>Strengthen the partnership with North Coast NSW Medicare Local to increase access to a range of services including GPs</li> </ul>
	<ul style="list-style-type: none"> <li>Targeted investment in Community Health services for priority conditions and chronic disease management</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to Medical Specialist Outpatient Clinics to address significant gaps in specialist medical services for respiratory, diabetes, renal, geriatrics, general medicine, cardiology, gynaecology, obstetrics, paediatrics and urology in many NNSW LHD rural communities including:               <ul style="list-style-type: none"> <li>Casino and District Memorial Hospital to better manage respiratory patients in the community</li> <li>Grafton Base Hospital to provide medical specialist services with a focus on ophthalmology, urology and orthopaedics</li> <li>Murwillumbah District Hospital to extend medical specialist services for obstetrics, gynaecology and paediatrics</li> <li>Byron Bay District Hospital in relation to obstetrics and paediatrics</li> <li>Targeted increases to address the burden of disease</li> </ul> </li> </ul>



## key priorities

Key Priorities NNSW LHD	
	<ul style="list-style-type: none"> <li>Proposed Outpatient Clinic models of care led by Consultant VMOs would provide specialist medical support to GP VMOs and CMOs who provide medical care in ED and inpatient areas</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to Community Health services to support hospital substitution and early discharge e.g. HITH and Chronic Care programs</li> </ul>
<b>Needs of Older People</b>	<ul style="list-style-type: none"> <li>Develop new models of care for management of older people requiring:               <ul style="list-style-type: none"> <li>GEM</li> <li>Dementia Care</li> <li>Specialist Mental Health Services for Older People</li> <li>Rehabilitation and Palliative Care redesign</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to Psycho-geriatricians and specialist Dementia Services particularly for RACF residents</li> </ul>
	<ul style="list-style-type: none"> <li>In collaboration with RACFs develop a structured model of care for RACF residents to ensure admission avoidance and timely transfer back</li> </ul>
	<ul style="list-style-type: none"> <li>Develop new models of care to improve collaboration with RACFs to address increasing number of nursing home patient presentations in ED and admissions</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to the coordination of care of stroke patients</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to specialist services for older patients including GEM and Dementia specific services</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to ACAT in relation to patients who meet the ACAT entry criteria and are age <math>\leq 65</math> years</li> </ul>
<b>Models of Care</b>	<ul style="list-style-type: none"> <li>Review models of care within the context of the NSW Whole of Hospital Program</li> </ul>
	<ul style="list-style-type: none"> <li>Develop contemporary models of care that better manage the patient journey across the care continuum including the provision of the right type/level of treatment at the most appropriate time as close to the patient's home and which better utilise resources minimising bed block and reducing inpatient length of stay:               <ul style="list-style-type: none"> <li>Nurse-led models including Midwifery Caseload and Nurse Practitioner Clinics e.g. Aged Care, Diabetes, Respiratory, Palliative Care and Mental Health</li> <li>Multidisciplinary models of hospital prevention/substitution services</li> <li>Severe Chronic Disease Management</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Establish a District-wide working party to develop contemporary Stroke models of care including early access to Stroke Thrombolysis Program</li> </ul>
	<ul style="list-style-type: none"> <li>Complex care case management including co-case management</li> </ul>
	<ul style="list-style-type: none"> <li>Community Health service models to support hospital substitution and early discharge</li> </ul>
	<ul style="list-style-type: none"> <li>Increased models of care to support hospital avoidance and appropriate discharge including; HITH, CAPACKs and COMPACKs</li> </ul>
	<ul style="list-style-type: none"> <li>Develop additional strategies to reduce re-admission and avoidable admissions</li> </ul>

Key Priorities NNSW LHD	
	<ul style="list-style-type: none"> <li>Shared care involving Medicare Locals, GPs, LHD, Mental Health and Drug and Alcohol Services, Sexual Health Services, ED, residential care facilities and community care programs</li> </ul>
	<ul style="list-style-type: none"> <li>Better integrate services between hospital, community health, Medicare Locals, general practice, other government, non-government and community agencies and RACFs</li> </ul>
	<ul style="list-style-type: none"> <li>Build on the success of the Aboriginal Maternal and Infant Health Program identifying opportunities to enhance the service</li> </ul>
	<ul style="list-style-type: none"> <li>Define the interface between acute and community-based services including that for HITH medical oversight</li> </ul>
	<ul style="list-style-type: none"> <li>Target investment in outpatient and community health services for priority conditions including diabetes, heart failure and renal</li> </ul>
	<ul style="list-style-type: none"> <li>Develop targeted out of hours community health services across the LHD which will provide greater capacity to discharge patients over the weekend</li> </ul>
	<ul style="list-style-type: none"> <li>In partnership with RACFs and North Coast NSW Medicare Local, develop standardised Advanced Care Directives</li> </ul>
	<ul style="list-style-type: none"> <li>Develop an LHD-wide policy for the care of bariatric patients</li> </ul>
<b>Advance Planning for Quality End of Life</b>	<ul style="list-style-type: none"> <li>Implement Advance Planning for Quality End of Life Action Plan 2013-2018               <ul style="list-style-type: none"> <li>Further develop processes to enable partnership with patients in decisions about their care, in particular treatment-limiting orders</li> <li>Consider in-reach models of care to undertake/facilitate these processes with patients and their families in inpatient areas</li> <li>Develop a quality end of life package for the LHD which includes consideration of AMBER care bundle</li> </ul> </li> </ul>
<b>Service Development</b>	<ul style="list-style-type: none"> <li>Develop a Clinical Services Plan and Master Plan for Ballina District Hospital to develop capital options</li> </ul>
	<ul style="list-style-type: none"> <li>Develop appropriately designed facilities at The Tweed Hospital for management of older people requiring:               <ul style="list-style-type: none"> <li>GEM</li> <li>Dementia Care</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Support the development of a new Health Post at Jubullum Aboriginal community (Tabulam) in consultation with the Aboriginal community and Casino AMS</li> </ul>
	<ul style="list-style-type: none"> <li>Develop Specialist Mental Health Inpatient Services for Older People in the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Redevelop the ED at Casino and District Memorial Hospital to improve capacity, functionality and design which is conducive to implementation of contemporary models of care</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a Clinical Services Plan for Murwillumbah District Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Redevelop the ED at Murwillumbah District Hospital to increase capacity and improve functionality</li> </ul>
	<ul style="list-style-type: none"> <li>Address asbestos issues at Mullumbimby and District War Memorial Hospital in the short term</li> </ul>
	<ul style="list-style-type: none"> <li>Progress the preferred model of service delivery for Bonalbo residents</li> </ul>
	<ul style="list-style-type: none"> <li>Continue to progress establishment of a HealthOne facility at Coraki</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a Clinical Service Plan to inform the staged redevelopment at Grafton Base Hospital including redevelopment of:               <ul style="list-style-type: none"> <li>Pathology and Pharmacy to improve functionality and service linkages</li> </ul> </li> </ul>

## key priorities

Key Priorities NNSW LHD	
	<ul style="list-style-type: none"> <li>○ Ambulatory services including a dedicated ambulatory care centre (outpatients and renal dialysis unit) and to expand Specialist Medical Outpatients into an integrated service provision model</li> <li>○ Women's Care Unit</li> <li>○ Improve ward accommodation</li> <li>○ Increased HDU capacity</li> </ul>
	<ul style="list-style-type: none"> <li>● Construct and operationalise the planned Transit Lounge and refurbishment of ED at The Tweed Hospital and in line with Master Planning and VMS outcomes when implementing Tweed Stage 4A</li> </ul>
	<ul style="list-style-type: none"> <li>● Progressing the Clinical Services Plans and Master Plan for Lismore Base Hospital, The Tweed Hospital and Byron Shire Central Hospital</li> </ul>
<b>ICT</b>	<ul style="list-style-type: none"> <li>● Improve information management and information technology infrastructure including those supporting e-Health and Telehealth initiatives across the Health Service Group</li> </ul>
<b>Clinical Governance and meeting National Safety and Quality Health Service Standards</b>	<ul style="list-style-type: none"> <li>● Enhance Clinical Pharmacy across the LHD to meet National Safety and Quality Health Service Standards and to provide additional support to inpatients and community clients</li> </ul>
	<ul style="list-style-type: none"> <li>● Improve access to an Infectious Diseases Physician and Microbiologist for the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>● Invest at site level to: <ul style="list-style-type: none"> <li>○ Facilitate collection, analyse and report clinical audit data required under the new National Safety and Quality Health Service Standards</li> <li>○ Complete the education/training and competency assessment of staff required under the new National Safety and Quality Health Service Standards</li> <li>○ Achieve compliance with NSW Health Policy Directive 2012_061 Environmental Cleaning</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>● Implement a LHD-wide Antimicrobial Stewardship Framework with timely access to Infectious Diseases Physician and Clinical Microbiologist expertise</li> </ul>
	<ul style="list-style-type: none"> <li>● Continue roll out and embedding of the Clinical Excellence Commissions Sepsis Pathway across all LHD sites</li> </ul>
	<ul style="list-style-type: none"> <li>● Continue roll out of the Clinical Governance Units Medical Retrieval of Critical Patients Education Program to all sites in the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>● NNSW LHD Obstetrics and Gynaecology Services work towards the adoption and implementation of the NSW Health Policy Directive 2009_003 Maternity - Clinical Risk Management Program and the recommendations from the latest Clinical Excellence Commissions Clinical Focus Report <i>Fetal Monitoring: Are we getting it right?</i></li> </ul>
<b>Cross Border Networking</b>	<ul style="list-style-type: none"> <li>● Further develop and formalised arrangements to enable direct transfer of critical care patients to linked Queensland Tertiary Referral Hospitals in Queensland</li> </ul>
	<ul style="list-style-type: none"> <li>● Develop robust transfer arrangements for early acceptance of these patients to ensure timely retrieval and transfer of critical care patients for definitive care and reduce delays</li> </ul>
	<ul style="list-style-type: none"> <li>● Clearly define processes and pathways for initiating retrieval and transfer to Queensland Hospitals for time-critical patients</li> </ul>

Key Priorities NNSW LHD	
	through NSW Aero Medical Retrieval Service (AMRS) and Queensland Coordination Centre are required to reduce delays and improve patient outcomes
	<ul style="list-style-type: none"> <li>Investigate the potential for AMRS through the Queensland Coordination Centre to transport directly time-critical NNSW LHD patients to linked Queensland Tertiary Hospitals regardless of available bed state</li> </ul>
	<ul style="list-style-type: none"> <li>Strengthen and further develop networking arrangements with Queensland Critical Care Networks</li> </ul>
	<ul style="list-style-type: none"> <li>Improve critical care networking with Queensland Tertiary Referral Hospitals and the provision of priority access to beds through AMRS and the Queensland Coordination Centre for Neurosurgery, Paediatric, Spinal and Burn injuries</li> </ul>
	<ul style="list-style-type: none"> <li>One point of call' is required that enables the NNSW LHD Rural Trauma Centres and Critical Care Services to make only one phone call to link NNSW LHD clinicians with AMRS and the Queensland Coordination Centre</li> </ul>
	<ul style="list-style-type: none"> <li>Development of a Formal Agreement between NNSW LHD, Southern Area Health Service, and Central Area Health Service (Royal Brisbane and Women's Hospital) regarding criteria for acceptance of neonates for transfer and back transfer arrangements</li> </ul>
	<ul style="list-style-type: none"> <li>The Cross Border Executive Committee to continue to facilitate improved management of children at risk in relation to differing legislation in NSW and Queensland</li> </ul>
	<ul style="list-style-type: none"> <li>Invest in further education for staff on suicide risk assessment and strengthening of multi-disciplinary lines of communication within the LHD Mental Health Services</li> </ul>
Hosted and Held Services	<ul style="list-style-type: none"> <li>NNSW LHD will continue to identify opportunities to align these services with the NNSW LHD structure.</li> </ul>

## 13.2 KEY PRIORITIES FOR FACILITIES AND SERVICES

The following key priorities apply to Facilities and Services that are managed within the Richmond Clarence and Tweed Byron Health Service Groups. Key priorities identify priorities for service development and direction over the next 5-10 years.

Key Priorities for Facilities and Services	
6.1 Tweed Byron Health Service Group <sup>131</sup>	
	<ul style="list-style-type: none"> <li>Implement Clinical Service Plans for The Tweed Hospital and Byron Shire to ensure optimal health care is provided to the catchment population</li> </ul>
	<ul style="list-style-type: none"> <li>Increase networking of services between The Tweed Hospital and Murwillumbah District Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Examine options for development of a Renal Dialysis Satellite Unit in the Tweed Byron Health Service Group where home-based dialysis is unsuitable</li> </ul>
	<ul style="list-style-type: none"> <li>Work with North Coast NSW Medicare Local to increase access to medical specialists through GPs with Specialist qualifications and to a range of community based services across the Tweed Byron Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Work towards the provision of access to out of hours Community Health Services (e.g. generalist community nursing) across the Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Increase access to Medical Specialists in respiratory, palliative care, gerontology and an Infectious Diseases Specialist and Microbiologist with antimicrobial surveillance and stewardship</li> </ul>
	<ul style="list-style-type: none"> <li>Further develop the clinical governance model across the Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Work with NSW Ambulance and Community Transport to develop a coordinated approach to inter-hospital transport processes between The Tweed Hospital, community transport services and Ambulance Services</li> </ul>
	<ul style="list-style-type: none"> <li>Recruitment of a Stroke Care Coordinator for the Tweed Byron Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Consider strengthening the role of Murwillumbah District Hospital in the Tweed Byron Health Service Group Surgical Network</li> </ul>
<b>Cross Border Networking</b>	<ul style="list-style-type: none"> <li>Work with Gold Coast Hospital and Health Service to:                             <ul style="list-style-type: none"> <li>Improve service coordination and improve access to tertiary services</li> <li>Strengthen emergency referral pathways with particular focus on transfer arrangements</li> <li>Coordinate cross border transport of patients in consultation with NSW and QLD Ambulance</li> <li>Formalise protocols and procedures for the management of trauma patients across the Tweed Byron Health Service Group and with Gold Coast University Hospital</li> <li>Redesign the Midwifery Early Discharge Program to improve access for residents of South East Queensland who give birth at The Tweed Hospital; and those being discharged from Queensland services</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Improve coordination between AMRS and Emergency Management Queensland (EMQ)</li> </ul>

<sup>131</sup> Includes Community and Allied Health Services in Tweed Byron Health Service Group

Key Priorities for Facilities and Services	
	<ul style="list-style-type: none"> <li>• Improve repatriation of trauma patients for rehabilitation from Queensland Hospitals</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop admission and transfer policies and protocols to provide an appropriate level of care for women who present for obstetrics care with high body mass index (BMI)</li> </ul>
	<ul style="list-style-type: none"> <li>• Establish formal consultation mechanisms in order to plan for the integration of the northern sector paediatric services within the Queensland Children's Hospitals outreach and referral network</li> </ul>
	<ul style="list-style-type: none"> <li>• Service Coordination Sub-Committee (including appropriate clinicians) is to form a working party to review the provision of Neonatal Intensive Care and Birthing Services to residents of NNSW LHD in the new Gold Coast University Hospital, to identify gaps and develop joint actions to improve transfer and discharge arrangements</li> </ul>
The Tweed Hospital	
	<ul style="list-style-type: none"> <li>• The staged implementation of The Tweed Hospital Clinical Services Plan to meet increasing demand from residents of the catchment</li> </ul>
	<ul style="list-style-type: none"> <li>• Increase ambulatory care, acute/post-acute care, ComPacks, HITH and chronic disease management to reduce avoidable admissions and readmissions</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop a Midwifery led birthing service for suitable mothers with normal risk pregnancies, ante-natal care in community settings, early discharge and home visiting</li> </ul>
	<ul style="list-style-type: none"> <li>• Increase investment in post-acute and continuing care, in community rehabilitation and chronic disease management</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop services to meet the needs of an ageing population including specialist geriatric medicine, specialist stroke services, Geriatric Evaluation Management (GEM), dementia care and Mental Health Service for Older People (MHSOP)</li> </ul>
	<ul style="list-style-type: none"> <li>• Improve access to Cancer and Cardiology Services for residents of the Tweed Byron Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>• Work more closely with RACFs to prevent avoidable admissions and presentations to the ED and admissions; consider increasing and formalising Nurse Practitioner positions in Aged Care across the Health Service Group</li> </ul>
Murwillumbah District Hospital	
	<ul style="list-style-type: none"> <li>• Develop a Clinical Service Plan for Murwillumbah District Hospital inclusive of networking with The Tweed Hospital to ensure optimal health care is provided to the catchment population</li> </ul>
	<ul style="list-style-type: none"> <li>• Continue to define the role of Murwillumbah District Hospital within the context of the complementary role of The Tweed Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop new models of medical staffing at Murwillumbah District Hospital in light of the changing patterns of local GP involvement in patient care at the Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop new Medical Specialist Outpatients and Ambulatory Care services to be better accommodated on the site</li> </ul>
	<ul style="list-style-type: none"> <li>• Increase specialist palliative care support for inpatients and community clients</li> </ul>
	<ul style="list-style-type: none"> <li>• Define the role of Murwillumbah District Hospital in the provision of paediatric services</li> </ul>
	<ul style="list-style-type: none"> <li>• Increase access to Nurse Led Models of Midwifery Care</li> </ul>
	<ul style="list-style-type: none"> <li>• Collaborate with RACFs and the provision of additional support e.g. Nurse Practitioner in Aged Care</li> </ul>

## key priorities

Key Priorities for Facilities and Services	
	<ul style="list-style-type: none"> <li>Collaborate with the Hospital and Community Health to ensure patients who are suitable for referral to HITH are referred to the Community Health Service</li> </ul>
	<ul style="list-style-type: none"> <li>Strengthen relationships between Community Health and GPs through increasing partnership with North Coast NSW Medicare Local</li> </ul>
	<ul style="list-style-type: none"> <li>Identify capacity to utilise Murwillumbah District Hospital for decanting of The Tweed Hospital during capital works</li> </ul>
Byron Shire Health Services	
	<ul style="list-style-type: none"> <li>Implement the Byron Shire Clinical Services Plan to ensure optimal health care is provided to the catchment population</li> </ul>
	<ul style="list-style-type: none"> <li>Continue to define the role of Mullumbimby and District War Memorial and Byron Bay District Hospitals within the context of the complementary role of The Tweed Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Develop capacity for both hospitals to work effectively with both higher level acute services within the Tweed Byron Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Effectively working with both higher level acute services within the Tweed Byron Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Upgrading IT infrastructure at both Mullumbimby and District War Memorial and Byron Bay District Hospitals in the short term to enable a direct link to The Tweed Hospital ED for staff specialist care</li> </ul>
	<ul style="list-style-type: none"> <li>Strengthen relationships between Community Health and GPs through increasing partnerships with the North Coast NSW Medicare Local</li> </ul>
	<ul style="list-style-type: none"> <li>Increase access to Nurse Led Models of Midwifery Care</li> </ul>
	<ul style="list-style-type: none"> <li>Further develop the home birthing model currently being trialled at Mullumbimby and District War Memorial Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to Aboriginal Health Services in Byron Shire</li> </ul>
	<ul style="list-style-type: none"> <li>Maintain palliative care support to Byron Shire health services</li> </ul>
6.2 Richmond Clarence Health Service Group <sup>132</sup>	
	<ul style="list-style-type: none"> <li>Continue to define the role of Lismore Base Hospital within the context of the complementary roles of Grafton Base Hospital, Ballina District Hospital and Casino and District Memorial Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Implement Clinical Service Plans for Lismore Base Hospital, Coraki and Surrounds and Yamba Community Health Centre to ensure optimal health care is provided to the catchment population</li> </ul>
	<ul style="list-style-type: none"> <li>Plan and implement a new model of service provision for residents of Bonalbo and surrounding rural area</li> </ul>
	<ul style="list-style-type: none"> <li>Develop models of care for the interim redevelopment of Lismore Base Hospital ED</li> </ul>
	<ul style="list-style-type: none"> <li>Develop new models of care for the GEM and Dementia Units at Lismore Base Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Provision of access to an Endocrinologist for the Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Develop networking between the new Sub-Acute Unit at Maclean District Hospital and Ballina Rehabilitation Unit</li> </ul>

<sup>132</sup> Includes Community and Allied Health Services in Richmond Clarence Health Service Group



Key Priorities for Facilities and Services	
	<ul style="list-style-type: none"> <li>Continue to develop a Health Service Group-wide bed management system to facilitate patient flow across the Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Develop Emergency Mental Health Telehealth, Telemedicine across the Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Work with NSW Ambulance Services to develop a coordinated approach to inter-hospital transport process between Lismore Base Hospital, MPS Network and other hospitals in the Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a clinical governance model for the Richmond Network of services</li> </ul>
	<ul style="list-style-type: none"> <li>Review surgical service provision in the Richmond Clarence Health Service Group and create a network of surgical services across the Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Strengthen Grafton Base Hospitals role in the surgical network and maximise the use of available surgical infrastructure</li> </ul>
	<ul style="list-style-type: none"> <li>Integrate services between hospital, community health, general practice, other government, non-government and community agencies</li> </ul>
	<ul style="list-style-type: none"> <li>Increase ambulatory care, acute/post-acute care, ComPacks, HITH and chronic disease management to reduce avoidable admissions and readmissions across the Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a Plan in consultation with Staff Specialists to increase outreach specialist clinics across the Health Service Group</li> </ul>
Lismore Base Hospital	
	<ul style="list-style-type: none"> <li>The staged implementation of Lismore Base Hospital Clinical Services Plan 2012</li> </ul>
	<ul style="list-style-type: none"> <li>Develop and operationalise new models of care for the redevelopment of Lismore Base Hospital Stage 3A</li> </ul>
	<ul style="list-style-type: none"> <li>Develop and operationalise new models of care for the interim redevelopment of Lismore Base Hospital ED (including the EMU), GEM and Dementia Units</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a specialist Stroke Unit and model of care at Lismore Base Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Develop models of care that better manage the patient journey across the care continuum including the provision of the right type/level of treatment at the most appropriate time as close to the patient's home as possible</li> </ul>
	<ul style="list-style-type: none"> <li>Continue to implement Patient Flow Systems and Predictive Capacity Planning – effective implementation, monitoring and maintenance to ensure improved access to ED care and to reduce ED Access Block</li> </ul>
	<ul style="list-style-type: none"> <li>Improve bed availability by reducing inappropriate admissions, expanding community health, ambulatory and HITH support services; addressing delays in transfer to rehabilitation and other sub-acute services, reducing rates of unplanned and unexpected hospital readmissions</li> </ul>
	<ul style="list-style-type: none"> <li>Continue the development of multidisciplinary models of hospital substitution and chronic disease management</li> </ul>
	<ul style="list-style-type: none"> <li>Develop and enhance clinical pathways, case management and shared care services for older people and people with chronic and complex care issues</li> </ul>
	<ul style="list-style-type: none"> <li>Work more closely with RACFs to prevent avoidable admissions and presentations to the ED and admissions</li> </ul>

## key priorities

Key Priorities for Facilities and Services	
Ballina District Hospital	
	<ul style="list-style-type: none"> <li>Develop a Clinical Services Plan for Ballina District Hospital inclusive of networking with Lismore Base Hospital to ensure optimal health care is provided to the catchment population</li> </ul>
	<ul style="list-style-type: none"> <li>Examine options to meet increasing demand at the Ballina Satellite Renal Dialysis Unit</li> </ul>
	<ul style="list-style-type: none"> <li>Further develop links between Ballina District Hospital and Lismore Base Hospital to ensure complementary service provision and a smooth flow of patients through the system; increasing networking of surgical services</li> </ul>
	<ul style="list-style-type: none"> <li>Provide short term paediatric care for minor surgical procedures at Ballina District Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Continue to improve clinical governance and medical cover for Ballina District Hospital and ED</li> </ul>
	<ul style="list-style-type: none"> <li>Consider provision of enhanced Medical Imaging (CT scan and ultrasound on-site) to provide more timely diagnostics and treatment for patients at Ballina District Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Consider options for reducing GP type presentations to the ED including an ECCC model to be developed in consultation with GP and Nurse Practitioner model</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a dispensing pharmacy at Ballina District Hospital and improving access to clinical pharmacy in the Hospital and for clients of the Community Health Service</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to Child and Family Mental Health Services at Ballina</li> </ul>
Casino and District Memorial Hospital	
	<ul style="list-style-type: none"> <li>Define the role of Casino and District Memorial Hospital within the context of the complementary role of Lismore Base Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Develop new models of medical staffing at Casino and District Memorial Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>With the close of Casino and District Memorial Hospital Birthing Service define a new model of ante-natal and post-natal care and develop service networking with Lismore Base Hospital and other partners in service provision</li> </ul>
	<ul style="list-style-type: none"> <li>Develop strategies to improve access to Child and Family Therapy Services to Casino and outlying areas including Bonalbo</li> </ul>
	<ul style="list-style-type: none"> <li>Collaborate with RACFs in the provision of additional support to fill the gap in GP cover and examine the potential for improving service provision through a Nurse Practitioner in Aged Care position</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to Medical Specialist Outpatient Services ; access to a Respiratory Physician is a high priority</li> </ul>
	<ul style="list-style-type: none"> <li>Continue the development of multidisciplinary models of hospital substitution and chronic disease management with consideration of the role of the Day Therapy Unit</li> </ul>
	<ul style="list-style-type: none"> <li>Increase collaboration between Casino and District Memorial Hospital, Community and Allied Health Services, North Coast NSW Medicare Local and Casino AMS in the provision of services to the Aboriginal community</li> </ul>
	<ul style="list-style-type: none"> <li>Strengthen the relationships between Casino Community Health and general practice through increasing partnership with North Coast NSW Medicare Local</li> </ul>
Bonalbo District Hospital	
	<ul style="list-style-type: none"> <li>Define the role of Bonalbo District Hospital within the context of the complementary role of Casino and District Memorial and</li> </ul>

Key Priorities for Facilities and Services	
	Lismore Base Hospitals
	<ul style="list-style-type: none"> <li>Progress the preferred option for future development detailed in the Bonalbo District Hospital Feasibility Study</li> </ul>
	<ul style="list-style-type: none"> <li>Work in partnership with North Coast NSW Medicare Local to attract a GP to Bonalbo</li> </ul>
	<ul style="list-style-type: none"> <li>Collaborate with Casino Community and Allied Health Services and Casino AMS to improve home based services and service coordination to the local Aboriginal community and to decrease avoidable admissions</li> </ul>
	<ul style="list-style-type: none"> <li>Collaborate with Riverlands Drug and Alcohol Centre to improve care for Aboriginal people with alcohol use and dependence disorders</li> </ul>
Clarence Network of Services <sup>133</sup>	
	<ul style="list-style-type: none"> <li>Develop Medical Specialist Outreach services from Lismore Base Hospital to provide services at Grafton Base Hospital especially in the areas of cardiology, respiratory and urology</li> </ul>
	<ul style="list-style-type: none"> <li>Provide out of hours community health services across the Network</li> </ul>
	<ul style="list-style-type: none"> <li>Develop new models of care for the Rehabilitation and Palliative Care Services currently under development at Maclean District Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>As part of network surgical services planning expand surgical services at Grafton Base Hospital in line with flow reversal models from Lismore Base, Casino and District Memorial Hospital and Coffs Harbour Health Campus</li> </ul>
	<ul style="list-style-type: none"> <li>Develop HDU at Grafton Base Hospital to meet increasing demand for surgical services and increasing medical complexity</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to a Palliative Care Clinical Nurse Consultant across the Clarence Network of services</li> </ul>
	<ul style="list-style-type: none"> <li>Work more closely with RACFs to prevent avoidable admissions and presentations to the ED and admissions</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a network model of service provision for Rehabilitation and Palliative Care Services to ensure a smooth patient journey between services with the opening of the Sub-acute Unit at Maclean District Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Continue the development of multidisciplinary models of hospital substitution and chronic disease management with consideration of increasing out of hours access to Community Health Services</li> </ul>
	<ul style="list-style-type: none"> <li>Further develop links between Maclean District Hospital and Grafton Base Hospital to ensure complementary service provision and a smooth flow of patients through the system</li> </ul>
Grafton Base Hospital	
	<ul style="list-style-type: none"> <li>Further develop HITH at Grafton Base Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Enhance on-site medical cover to support Medical Specialists at Grafton Base Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Increase the number of General Physicians at Grafton Base Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Reconfigure ambulatory services and Specialist Medical Outpatients into an integrated service provision model. Future services could include: psychogeriatrics, palliative care, rehabilitation services (cardiac, respiratory), vascular services including stroke clinics,</li> </ul>

<sup>133</sup> Includes Community and Allied Health Services in Clarence Network of Services

## key priorities

Key Priorities for Facilities and Services	
	ENT and urology
	<ul style="list-style-type: none"> <li>Develop outreach services from Lismore Base Hospital to provide Specialist services at Grafton Base Hospital especially in the areas of cardiology, respiratory and urology</li> <li>Collaborate with RACFs in the provision of additional support to fill the gap in GP cover and build on the existing Nurse Practitioner model</li> </ul>
Maclean District Hospital	
	<ul style="list-style-type: none"> <li>Continue to define the role of Maclean District Hospital within the context of the complementary role of Grafton Base Hospital</li> <li>Improve the range of Diagnostic Services and CMO cover to reduce the movement of patients from Maclean District Hospital to Lismore Base and Grafton Base Hospitals</li> <li>Develop new models of care for the Rehabilitation and Palliative Care Services currently under development at Maclean District Hospital</li> <li>Develop strategies to improve access to patient transport</li> <li>In preparation for the Yamba Community Health Centre, Maclean District Hospital, Community and Allied Health Services to collaborate with North Coast NSW Medicare Local and Bulgarr Ngaru in the provision of services to the Aboriginal community</li> <li>Collaborate with Mental Health Services to improve Acute Mental Health Service response time to Maclean ED</li> </ul>
MPS Network of Services	
	<ul style="list-style-type: none"> <li>Work in partnership with North Coast NSW Medicare Local to identify investment opportunities to increase the GP workforce at Nimbin and Urbenville</li> <li>Expand the Nurse Practitioner model in ED/inpatients at Nimbin MPS and consider progressing to other sites</li> <li>Develop an Education Plan for the three MPS sites and examine options to upgrade and maintain staff skills</li> <li>Expand chronic and complex care provision and improve access to an Aboriginal Health Worker with appropriate clinical skills across the Network</li> <li>Assess the need for an Aged Care Nurse Practitioner position to cover the three MPS sites</li> <li>Improve the Pathology Courier Service to provide more timely access</li> <li>As part of IT planning, provision of Tablet technology to aged care facility residents at the three MPSs to enhance communication with families</li> <li>Negotiate with the NSW Ambulance Service to provide more timely access to patient transport</li> <li>Work in partnership with Casino AMS to provide more integrated services to local Aboriginal communities particularly in relation to the Muli Muli community</li> <li>Collaborate with RACFs in the provision of additional support to fill the gap in GP cover and build on the existing Nurse Practitioner model</li> </ul>

Key Priorities for Facilities and Services	
6.3 Clinical Support	
6.3.1 Medical Imaging	
	<ul style="list-style-type: none"> <li>Implement The Tweed Hospital and Lismore Base Hospitals Clinical Services Plans in relation to Medical Imaging</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a plan for the replacement of equipment across the District</li> </ul>
	<ul style="list-style-type: none"> <li>Focus on the strength, robustness and speed of the information system architecture to ensure timely delivery of critical clinical information</li> </ul>
	<ul style="list-style-type: none"> <li>Monitor KPIs across the LHD to ensure that reporting times on examinations are met</li> </ul>
	<ul style="list-style-type: none"> <li>Improve integration between inpatient and outpatient Medical Imaging services</li> </ul>
	<ul style="list-style-type: none"> <li>Review radiological services provided at Grafton Base Hospital to best make use of the capacity of the Department to meet the future needs of the local community</li> </ul>
6.3.2 Pharmacy	
	<ul style="list-style-type: none"> <li>Implement Clinical Services Plans for The Tweed, Lismore Base and all other hospitals in NNSWLHD in relation to Pharmacy Services</li> </ul>
	<ul style="list-style-type: none"> <li>Explore opportunities associated with the development of a centralised purchasing system for Pharmacy Services and continue to implement pharmacy provision from Lismore Base and The Tweed Hospitals to the smaller sites</li> </ul>
	<ul style="list-style-type: none"> <li>Investigate and implement a model of supply where products are delivered direct from supplier to ward, thus reducing double handling and reducing stock holdings at Pharmacy Department level. Lismore Base Hospital is currently using this for some wards</li> </ul>
	<ul style="list-style-type: none"> <li>Plan for the introduction of Robotics and other computer controlled drug storage and delivery options</li> </ul>
	<ul style="list-style-type: none"> <li>Develop Pharmacy Services across the LHD to meet the mandatory requirements of the National Safety and Quality Health Standards:               <ul style="list-style-type: none"> <li>Develop pharmacy programs to assist patients and carers to improve patient medication safety, reduce medication errors and comply with the National Safety and Quality Standards and the Quality Use of Medicine</li> <li>Establish a post discharge contact service which would provide support to patients with discharge medications and reduce possible drug interaction side effects. The National Safety and Quality Health Standards, consolidate this perceived need into a mandatory requirement from NSW Health</li> <li>Implement medication reconciliation from admission through inpatient stay and at separation from the health facility for The Tweed Hospital, Lismore Base Hospital and District Hospitals as per the mandatory requirements of the National Safety and Quality Health Standards</li> <li>Expand clinical pharmacy across the LHD to support more effective models of care across a range of specialties and improve patient medication safety</li> <li>Enhance Clinical Pharmacy across the Health Service Groups to provide additional support to inpatients and community clients as required, according to the National Safety and Quality Health Standards</li> </ul> </li> </ul>
6.3.3 Pathology	
	<ul style="list-style-type: none"> <li>Implement The Tweed and Lismore Base Hospitals Clinical Services Plans in relation to Pathology Services</li> </ul>

## key priorities

Key Priorities for Facilities and Services	
	<ul style="list-style-type: none"> <li>• Improve after-hours Pathology service availability at The Tweed and Lismore Base Hospitals to support timely clinical management of patients</li> </ul>
	<ul style="list-style-type: none"> <li>• Relocate and expand Pathology at Grafton Base Hospital per NNSW LHD Asset Strategic Planning</li> </ul>
	<ul style="list-style-type: none"> <li>• Review the requirement for Pathologists across NNSW LHD</li> </ul>
	<ul style="list-style-type: none"> <li>• Consider the requirement for a Microbiologist/Infectious Diseases Physician in NNSW LHD</li> </ul>
	<ul style="list-style-type: none"> <li>• Review the future requirements for haematology, anatomical pathology, clinical chemistry and microbiology considerate of technology advances and increasing automation and broadening of test base</li> </ul>
Central Sterile Supply Service	
	<ul style="list-style-type: none"> <li>• Invest in an electronic tracking system for surgical equipment and instrumentation</li> </ul>
6.4 Pain Management	
Pain Management	<ul style="list-style-type: none"> <li>• Establish Tier 1 Pain Management Programs at The Tweed Hospital, Grafton Base Hospital, Casino and District Memorial Hospital and Ballina District Hospital to further develop a network of pain management services across NNSW LHD</li> </ul>
	<ul style="list-style-type: none"> <li>• Progress development of pain management services to a Tier 2 Pain Management Service at The Tweed Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>• Plan for the expansion of acute pain management services at Lismore Base Hospital and The Tweed Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>• Work towards accreditation of the Lismore Base Hospital Pain Management Clinic to a Tier 3 service <ul style="list-style-type: none"> <li>○ Further training and recognition of the Medical Director of Lismore Base Hospital Pain Management Clinic as a specialist in pain medicine and</li> <li>○ Further development of the pain management service to achieve Tier 3</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Provide education to GPs, allied health and nursing on the management of chronic, non-cancer pain with the use of up to date evidence based medicine</li> </ul>
	<ul style="list-style-type: none"> <li>• Continue to focus on improving the standardisation of how chronic pain is assessed, referred and treated across NNSW LHD</li> </ul>
Anaesthetics	<ul style="list-style-type: none"> <li>• Plan and implement new models of care including Pre-Procedural Preparation (PPP) Toolkit 2007 incorporating clinical governance for Perioperative Services</li> </ul>
	<ul style="list-style-type: none"> <li>• Continue to focus on the Anaesthetic clinical workforce to support expanding services with improved education and training opportunities. Recognition of non-clinical workload of specialist anaesthetists including administration, teaching, training, audit and research</li> </ul>
	<ul style="list-style-type: none"> <li>• The provision of Anaesthetic services in the new MRI Unit at The Tweed Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>• Plan for the additional demand for anaesthetic services once the MRI unit is functional at Lismore Base Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>• Increase Specialist input to acute pain rounds and work towards 7 day a week staffing by a Nursing Specialist at The Tweed Hospital.</li> </ul>

### 13.3 KEY PRIORITIES FOR DISTRICT-WIDE CLINICAL STREAMS

The following key priorities apply to Facilities and Services that are managed as a District-wide Clinical Stream or where District-wide strategic leadership is provided.

Key Priorities for Clinical Streams	
7.1 Cancer Care	
	<ul style="list-style-type: none"> <li>• Develop an LHD Cancer Care Committee governance structure to support a coordinated approach to development and provision of cancer services on a District-wide basis</li> </ul>
	<ul style="list-style-type: none"> <li>• Implement a standard data collection system for Medical Oncology and Haematology</li> </ul>
	<ul style="list-style-type: none"> <li>• The staged implementation of The Tweed Hospital and Byron Shire Central Hospital Clinical Services Plans including but not limited to:               <ul style="list-style-type: none"> <li>○ Improve access and waiting times for radiation oncology for Tweed Byron residents and delivery of radiotherapy services locally</li> <li>○ Provision of accommodation for families, relatives and carers</li> <li>○ Establish a designated ambulatory care centre within The Tweed Hospital where a range of ambulatory interventions can be delivered</li> <li>○ Plan for the provision of stereotactic core biopsy (diagnostic radiology) and stereotactic hookwire localisation (therapeutic radiology) as part of Breast Cancer Services at The Tweed Hospital</li> <li>○ Expand the satellite Chemotherapy Unit at Murwillumbah District Hospital and develop this service in the new Byron Shire Central Hospital</li> <li>○ Establish a BreastScreen Assessment Clinic at The Tweed Hospital</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Review the staffing resources for the provision of chemotherapy services at The Tweed Hospital and Lismore Base Hospital to ensure operations can be expanded to meet increasing demand either locally or through enhancement to satellite services</li> </ul>
	<ul style="list-style-type: none"> <li>• Review the staffing resources for the provision of diagnostic services e.g. Pathologists, Haemato-pathology and Clinical Haematologists to meet growing demand</li> </ul>
	<ul style="list-style-type: none"> <li>• Review the staffing resources for the provision of Allied Health support to Cancer Care Services including Lymphodema</li> </ul>
	<ul style="list-style-type: none"> <li>• Expand Cancer Care Coordinator and Educator positions to meet the current and projected patient needs and emerging technologies</li> </ul>
	<ul style="list-style-type: none"> <li>• Re-establish a complete Haematology Service at Grafton Base Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>• Expand Nurse Practitioner positions in Cancer Care with the highest priority being Clarence Valley to be followed by Tweed Byron Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop a Geriatric Oncology and Geriatric Assessment Service</li> </ul>
7.2 BreastScreening Services	
	<ul style="list-style-type: none"> <li>• Identify strategies in consultation with Universities to increase the skill set among health professionals to support them to work in the BreastScreen program</li> </ul>
	<ul style="list-style-type: none"> <li>• Replace the BreastScreen mobile unit to allow digital imaging with the capacity to send images electronically to Lismore for</li> </ul>



## key priorities

Key Priorities for Clinical Streams	
	reporting and archiving
	<ul style="list-style-type: none"> <li>Develop an interface between BreastScreen PACS and PACS in the Lismore Base and The Tweed Hospitals to streamline the referral process</li> </ul>
	<ul style="list-style-type: none"> <li>Develop an interface between BreastScreen PACs and GPs/Surgeons systems to support the sending of images electronically to facilitate streamlined processes for referring women for further review/treatment</li> </ul>
7.3 Mental Health and Drug and Alcohol Services	
7.3.1 Mental Health Services	
	<ul style="list-style-type: none"> <li>Develop a Clinical Services Plan for Mental Health and Drug and Alcohol Services including planning for the provision of specialist mental health services</li> </ul>
	<ul style="list-style-type: none"> <li>Develop an improved clinical governance structure</li> </ul>
	<ul style="list-style-type: none"> <li>Develop Community Mental Health Services to meet the needs of a growing population</li> </ul>
	<ul style="list-style-type: none"> <li>Develop non-acute beds to meet the current and projected demand from NNSW LHD residents</li> </ul>
	<ul style="list-style-type: none"> <li>Develop MHSOP services including acute inpatient capacity</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a Mental Health Consultation Liaison model for the Major Non Metropolitan Referral Hospitals</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a Mental Health Service that places the patient at the centre of care with a single care plan and electronic file that is current where ever the patient is located in the service</li> </ul>
	<ul style="list-style-type: none"> <li>Implement Clinical Services Plans for Byron Shire, Lismore Base and The Tweed Hospitals in relation to Mental Health Services</li> </ul>
	<ul style="list-style-type: none"> <li>Implement the Grants Management Improvement Program in relation to Mental Health NGOs</li> </ul>
	<ul style="list-style-type: none"> <li>The possible application of the Nimbin Integrated Service model to other parts of the LHD and expansion of the role to include pathology prescribing rights</li> </ul>
	<ul style="list-style-type: none"> <li>Enhance staffing capacity, particularly in Community Mental Health Services which has not increased in the past 10 years, commensurate with population and demand growth</li> </ul>
	<ul style="list-style-type: none"> <li>Collaborate with North Coast NSW Medicare Local and other service providers to develop new models such as Headspace</li> </ul>
	<ul style="list-style-type: none"> <li>Look at opportunities to establish Nurse Practitioner positions in Mental Health and Drug and Alcohol</li> </ul>
7.3.2 Drug and Alcohol Services	
	<ul style="list-style-type: none"> <li>Maintain and increase the availability of private prescribers and pharmacies to service the increase in demand from OTP clients</li> </ul>
	<ul style="list-style-type: none"> <li>Develop an improved clinical governance structure for Drug and Alcohol Services</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a Plan for Drug and Alcohol Services to identify future service needs and priorities across the District</li> </ul>
	<ul style="list-style-type: none"> <li>Enhance and expand existing Drug and Alcohol Services to young people</li> </ul>
	<ul style="list-style-type: none"> <li>Further develop and enhance Drug and Alcohol Liaison Consultation services to public hospitals in the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Develop evidence based drug and alcohol and prevention and treatment programs for Aboriginal people</li> </ul>
	<ul style="list-style-type: none"> <li>Provide specialist support to nurses and doctors managing drug and alcohol clients with complex needs and challenging behaviours</li> </ul>

Key Priorities for Clinical Streams	
7.4 Oral Health Services	
	<ul style="list-style-type: none"> <li>Develop oral health presence on the Lismore Base Hospital campus with timely capacity to provide emergency/trauma and inpatient dental treatment at Lismore Base Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Focus on reducing the gap in oral health between the general population and some of the most disadvantaged groups in the community in particular establishing stronger links with the Aboriginal community and its existing service providers</li> </ul>
	<ul style="list-style-type: none"> <li>Maintain health promotion and disease prevention initiatives within available resources in the context of increasing demand for individual treatments</li> </ul>
	<ul style="list-style-type: none"> <li>Efficient and effective use of Commonwealth funding initiatives</li> </ul>
	<ul style="list-style-type: none"> <li>Ensure Oral Health and Oral Health Services are recognised and considered in health service and facility planning, oral health services operate across facilities and boundaries and a multidisciplinary approach is required to provide high quality dental care</li> </ul>
	<ul style="list-style-type: none"> <li>Continue to support fluoridation of water supply across the LHD.</li> </ul>

## 13.4 KEY PRIORITIES FOR DISTRICT-WIDE CLINICAL NETWORKS

The following key priorities apply to Facilities and Services that are managed as a District-wide Clinical Network or where District-wide strategic leadership is provided.

Key Priorities for Clinical Networks	
8.1 Aged Care	
	<ul style="list-style-type: none"> <li>Develop a Strategic Plan for Aged Care, to ensure LHD strategic directions enable Aged Care Services to consistently and effectively meet the needs of an ageing population</li> </ul>
	<ul style="list-style-type: none"> <li>Establish a Geriatric/Psychogeriatric Assessment and Care Unit in each Health Service Group catchment, based on models of best practice and resourced with a multidisciplinary skilled workforce and appropriate medical staffing</li> </ul>
	<ul style="list-style-type: none"> <li>Enhance Dementia Services through improved access to Psychogeriatric Services including Telehealth programs</li> </ul>
	<ul style="list-style-type: none"> <li>Develop dementia specific services at The Tweed Hospital to support the Tweed Byron Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>Increase access to specialist Geriatrician and Psychogeriatrician assessment and diagnosis in inpatient, outpatient and community settings in the Tweed and Clarence Valleys</li> </ul>
	<ul style="list-style-type: none"> <li>Establish communication and networking arrangements to enable greater collaboration between the LHD and other key stakeholders working with the older population e.g. RACFs, GPs, NSW ADHC and providers of community aged care</li> </ul>
	<ul style="list-style-type: none"> <li>Increase Nurse Practitioner positions in Aged Care and Psychogeriatrics to meet increasing demand</li> </ul>
	<ul style="list-style-type: none"> <li>Work in collaboration with Health Promotion to ensure that an effective Falls Prevention Strategy is in place</li> </ul>
	<ul style="list-style-type: none"> <li>Collaborate with tertiary institutions to actively build a sustainable Aged Care workforce and graduate/post graduate programs in Aged Care consistent with making Aged Care a specialty area in education</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a single point of coordination throughout the patient's journey which incorporates the key factors outlined by the Australian Health Ministers' Advisory Council as a requirement for good case coordination to occur</li> </ul>
	<ul style="list-style-type: none"> <li>Work towards implementation of the NSW Health Guidelines for using Advance Care Directives</li> </ul>
	<ul style="list-style-type: none"> <li>Enhance the Acute to Aged Related Care Service (AARCS) Team which would provide streamlined outreach from Lismore Base and The Tweed Hospitals</li> </ul>
	<ul style="list-style-type: none"> <li>Continue development of the eight bed GEM Unit and associated models of care and plan for future expansion to meet the needs of an ageing population at Lismore Base Hospital and continued planning for development of an eight bed GEM Unit at The Tweed Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Increase Community Dementia Clinical Nurse Consultant positions to provide clinical advice, consultation, professional support and education to others such as generic health workers in the community so that they monitor health and are alert to possible acute illness, delirium or medication issues that may precipitate a hospital admission. Increase Dementia /Delirium Clinical Nurse Consultant /Nurse Practitioner positions in hospitals</li> </ul>
	<ul style="list-style-type: none"> <li>Increase Aboriginal Liaison Officers in NNSW LHD hospitals to be responsive to local community needs with relevant dementia care training</li> </ul>

Key Priorities for Clinical Networks	
	<ul style="list-style-type: none"> <li>Implement the National Delirium Guidelines and Pathway</li> </ul>
	<ul style="list-style-type: none"> <li>Transition to the new Aged Care Reforms that are being rolled out nationally should include those outside the hospital, strategies within EDs, strategies within the hospital, cross-sectoral strategies and environmental strategies</li> </ul>
	<ul style="list-style-type: none"> <li>Strategies that are multifaceted and integrated between hospital, mental health, residential aged care and community services is most likely to ensure that dementia care is delivered in the most appropriate and beneficial setting for the patient</li> </ul>
8.2 Rehabilitation	
	<ul style="list-style-type: none"> <li>Implement improved pathways between acute hospitals and community based rehabilitation services</li> </ul>
	<ul style="list-style-type: none"> <li>Work towards improving accommodation options for relatives and carers of patients at both Rehabilitation Units</li> </ul>
	<ul style="list-style-type: none"> <li>Adopt the model of care contained in the Rehabilitation Redesign Project Report &amp; continue implementation across NNSW LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Explore options to implement Rehabilitation in-reach services at acute hospitals</li> </ul>
	<ul style="list-style-type: none"> <li>Expand community based Rehabilitation and Day Therapy Services across the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Develop workforce skills and competencies to reflect new models of rehabilitation care across the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a governance structure for Rehabilitation across the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Negotiate with Gold Coast Hospital and Health Service with regard to taking back patients who require surgery</li> </ul>
	<ul style="list-style-type: none"> <li>Review the current practice of neurological and spinal injuries patients being transferred to Sydney and identify options for service provision in Queensland</li> </ul>
8.3 Critical Care and Emergency Services	
Emergency Department	
Governance	<ul style="list-style-type: none"> <li>Establish an LHD wide Critical Care Governance Committee</li> </ul>
	<ul style="list-style-type: none"> <li>Implement Clinical Service Plans for The Tweed and Lismore Base Hospitals, plan to improve the functionality, patient flow and provide greater capacity to manage increasing demand for ED</li> </ul>
	<ul style="list-style-type: none"> <li>Develop an equipment technology program for critical care areas to progressively replace critical care equipment with new technologies and consider interfaces and compatibility with emerging ICT technologies</li> </ul>
	<ul style="list-style-type: none"> <li>Formalise a LHD-wide clinical network for ED services to provide:               <ul style="list-style-type: none"> <li>Set standards and facilitate benchmarking across the LHD</li> <li>Plan workforce, develop multidisciplinary teams and required skills to meet the needs of patients with increasing acuity and complexity</li> <li>Develop consistent approach to developing models of care to improve access and patient flows</li> <li>Share knowledge and resources that maximise the strengths of both Health Service Groups and benefits the LHD e.g. successful models of care and lessons learnt, sharing data management and education and training resources and skills</li> </ul> </li> </ul>

## key priorities

Key Priorities for Clinical Networks	
	<ul style="list-style-type: none"> <li>Further develop governance structures and models of care to improve patient access including: <ul style="list-style-type: none"> <li>A whole of hospital process to support the achievement of the NEAT targets<sup>134</sup></li> <li>Models of care that ensure intervention by senior clinicians in the patient journey, clinical decision making and disposition</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Strengthen systems to monitor and feedback service activity data and patient flow indicators</li> </ul>
Promoting improved Flow of Patients through EDs	<ul style="list-style-type: none"> <li>Greater investment in models of care that target rapid assessment of Triage 1, 2 and 3 patients with earlier intervention by senior medical staff</li> </ul>
	<ul style="list-style-type: none"> <li>Greater investment in Emergency Medicine Education Training (EMET) programs for medical and nursing staff at Base and District Hospital EDs to support increased acuity and complexity of ED patients and to further develop emergency management skills in trauma, paediatric, cardiology and respiratory conditions</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to radiography and pathology services at Lismore Base, The Tweed, Grafton Base, Maclean and Murwillumbah District Hospitals with staff on-site</li> </ul>
	<ul style="list-style-type: none"> <li>Investigate paediatric specific models of care for hospitals with role delineation level 4 paediatric services to provide acute inpatient bed capacity to support the safe delivery of NEAT targets</li> </ul>
Management of Lower Acuity Presentations	<ul style="list-style-type: none"> <li>The volume of acute, non-urgent ED presentations requires further investment in: <ul style="list-style-type: none"> <li>Developing alternative to ED models of care including ambulatory care services such as HITH and specialist, medical outpatient clinics with greater investment in District Hospitals where there is a need to manage lower acuity ED presentations</li> <li>Improving the effectiveness of existing HITH models of care by strengthening clinical governance of these services and improve service integration between ED and HITH services</li> <li>Further negotiating and undertaking joint planning with North Coast NSW Medicare Local to assist in extending operating hours of GP practices and collocation with NNSW LHD hospitals</li> <li>Investing in Aged Care Nurse Practitioner roles to improve collaboration with RACFs and address the increasing numbers of nursing home patient presentations to ED</li> <li>Investing in ED Nurse Practitioner roles in smaller hospital EDs to provide clinical governance and alleviate pressure on limited GP VMO workforce, support ambulatory care services and provide a service integration with HITH</li> <li>Promoting GP after-hours helpline</li> </ul> </li> </ul>
Intensive Care and High Dependency Unit	
LHD-wide Clinical Stream	<ul style="list-style-type: none"> <li>Formalise a LHD-wide clinical stream for ICU/HDU services to provide: <ul style="list-style-type: none"> <li>Set standards and facilitate benchmarking across the LHD</li> <li>Plan workforce, develop multidisciplinary teams and required skills to meet the needs of patients with increasing acuity and complexity</li> <li>Develop consistent approach to developing models of care to improve access and patient flows</li> </ul> </li> </ul>

<sup>134</sup> Whole of Hospital Ref to add

Key Priorities for Clinical Networks	
	<ul style="list-style-type: none"> <li>○ Share knowledge and resources that maximise the strengths of both Health Service Groups and benefits the LHD e.g. successful models of care and lessons learnt, sharing data management and education and training resources and skills</li> </ul>
<b>Data Management</b>	<ul style="list-style-type: none"> <li>● Strengthen data management systems to support effective monitoring and feedback on service activity and patient flow indicators</li> </ul>
	<ul style="list-style-type: none"> <li>● To support LHD-wide approach to ICU/HDU data management and benchmarking, consider the appointment of an LHD data officer to report on ICU/HDU activity and performance of Critical Care Services to track:               <ul style="list-style-type: none"> <li>○ ICU Central Line Associated Bloodstream (CLAB) Infections</li> <li>○ Unplanned and emergency re-presentations to the same ED within 48 hours</li> <li>○ Presentations staying in ED more than 24 hours</li> <li>○ Emergency Admission Performance – patient admitted to an inpatient bed within 8 hours of arrival in ED</li> <li>○ ICU and HDU transfer of care performance</li> </ul> </li> </ul>
<b>Service Development</b>	<ul style="list-style-type: none"> <li>● Increase access to HDU beds at The Tweed Hospital through the provision of additional HDU beds to manage demand in the short to medium term</li> </ul>
	<ul style="list-style-type: none"> <li>● Develop robust clinical networking between Rural Referral Hospitals ICU/HDU and Health Service Group District Hospitals and enhanced telemedicine and patient transport systems addressed in section 11.4 of this Plan</li> </ul>
	<ul style="list-style-type: none"> <li>● Consider alternate models of care to improve the detection and intervention in the management of deteriorating patients</li> </ul>
	<ul style="list-style-type: none"> <li>● Consider alternate models of care to improve liaison between ICU/HDU services, inpatient units and smaller hospitals</li> </ul>
	<ul style="list-style-type: none"> <li>● Develop an equipment technology program for critical care to progressively replace critical care equipment with new technologies and consider interfaces and compatibility with emerging ICT technologies</li> </ul>
	<ul style="list-style-type: none"> <li>● Improve access to Allied Health staff, in particular Social Workers out of hours through</li> </ul>
	<ul style="list-style-type: none"> <li>● Enhance HDU at Grafton Base Hospital commensurate to increasing demand for HDU services</li> </ul>
	<ul style="list-style-type: none"> <li>● Development of nursing HDU skills at Grafton Base Hospital HDU including:               <ul style="list-style-type: none"> <li>○ Rotation of HDU staff between Grafton and Lismore Base Hospitals</li> <li>○ Greater access to Nurses Educator hours</li> <li>○ Development of nursing leadership for HDU</li> </ul> </li> </ul>
Trauma Services	
	<ul style="list-style-type: none"> <li>● Negotiate with NSW MoH for the development of State-wide medical retrieval policy and procedures and education packages for rural LHDs</li> </ul>
	<ul style="list-style-type: none"> <li>● To ensure more equitable and accessible care for all persons sustaining trauma across the spectrum from injury to rehabilitation the following is required:               <ul style="list-style-type: none"> <li>○ Improved and formalised network arrangements to support the transfer of patients for ongoing care and rehabilitation back to NNSW LHD</li> <li>○ Service development in adolescent/younger adult neuromedical/neurosurgical and orthopaedic rehabilitation services so patients can be treated closer to home</li> </ul> </li> </ul>

## key priorities

Key Priorities for Clinical Networks	
Emergency Retrieval and Transfer	
	<ul style="list-style-type: none"> <li>• Negotiate with NSW MoH to develop a State-wide medical retrieval policy, procedures and education package for rural LHDs</li> </ul>
	<ul style="list-style-type: none"> <li>• Governance of the medical retrieval system and clinical decision making for the best disposition to involve both the NSW Ambulance Service and LHDs including:               <ul style="list-style-type: none"> <li>○ Primary retrievals from within the Tweed Byron Health Service Group region who are transported past The Tweed Hospital to Queensland Tertiary Referral Hospitals</li> <li>○ Joint clinical decision making, better communication and coordination between the NSW Ambulance Service and The Tweed Hospital</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Staffing of medical retrieval teams at the two LHD Regional Trauma Centres to be formalised and funded commensurate with demand</li> </ul>
	<ul style="list-style-type: none"> <li>• Work with NSW Ambulance to expand the Regional Retrieval Service based at Lismore to include 24/7 medical cover</li> </ul>
8.4 Palliative Care	
	<ul style="list-style-type: none"> <li>• Increase Medical Specialist hours and investigate sustainable options to secure specialist medical services for Palliative Care Services</li> </ul>
	<ul style="list-style-type: none"> <li>• Improve resourcing of palliative care services to meet growing demand as the population ages and to improve patient care options</li> </ul>
	<ul style="list-style-type: none"> <li>• Appointment of a Palliative Care Specialist at The Tweed Hospital to improve access to residents in the Tweed Byron Health Service Group to specialist palliative care services</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop models of care which achieve a smoother, more seamless transition for patients between multiple care settings</li> </ul>
	<ul style="list-style-type: none"> <li>• Design programs which increase awareness of quality end of life care, both in the general community and amongst health professionals</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop community and staff awareness of Advanced Care Planning</li> </ul>
	<ul style="list-style-type: none"> <li>• Design and implement new models of care which include the local GP as case manager</li> </ul>
	<ul style="list-style-type: none"> <li>• Increase Nurse Practitioner positions to provide palliative care services in the community and in-reach palliative care into acute facilities</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide ongoing education to palliative care staff on new models of care and to all staff on the care of palliative patients</li> </ul>
	<ul style="list-style-type: none"> <li>• Implement the clinical redesign program for Palliative Care</li> </ul>
8.5 Renal Services	
	<ul style="list-style-type: none"> <li>• Establish a NNSW LHD Renal Services Committee to provide leadership and governance for Renal Services across the two NNSW LHD Health Service Groups</li> </ul>
	<ul style="list-style-type: none"> <li>• Continue implementation of the NNSW LHD <i>Supporting Home-Based Dialysis Implementation Plan 2009-2014</i></li> </ul>
	<ul style="list-style-type: none"> <li>• Establish a Renal Management Assessment Team in the Tweed Byron Health Service Group</li> </ul>
	<ul style="list-style-type: none"> <li>• Increase access to dialysis-related vascular access radiology and surgical services and peritoneal dialysis catheter surgical services</li> </ul>
	<ul style="list-style-type: none"> <li>• Review outcomes of the NNSW LHD <i>Supporting Home-Based Dialysis Implementation Plan 2009-2014</i> and consider outcomes into</li> </ul>



Key Priorities for Clinical Networks	
	the next stage of home dialysis service planning
	<ul style="list-style-type: none"> <li>• Increase the focus on preventative renal care models through the development of programs focusing on early diagnosis, intervention, care and education</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop and implement a Clinical Pathway for end stage renal failure patients that includes a supportive conservative care model</li> </ul>
	<ul style="list-style-type: none"> <li>• Plan to increase dialysis capacity in the Tweed Byron Health Service Group including the feasibility of developing a Satellite Dialysis Unit at Murwillumbah District Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>• Plan to increase dialysis capacity for Ballina residents</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop strategies to attract and retain specialist renal medical and nursing staff</li> </ul>
	<ul style="list-style-type: none"> <li>• Improve the renal health of Aboriginal people through partnerships developed, and consulted with local Aboriginal communities and chronic care providers</li> </ul>
	<ul style="list-style-type: none"> <li>• Work with other service providers to improve the integration and coordination of care to people with chronic health problems</li> </ul>
	<ul style="list-style-type: none"> <li>• Assess the feasibility of developing local renal services for adolescents, children and paediatric patients with appropriate links to specialist metropolitan paediatric renal services</li> </ul>
	<ul style="list-style-type: none"> <li>• Improve access to non-emergency health related transport for renal dialysis patients in NNSW LHD with a focus on flexible and innovative service provision</li> </ul>
8.6 Cardiology	
	<ul style="list-style-type: none"> <li>• The staged implementation of the Lismore Base Hospital and The Tweed Hospital Clinical Services Plans in relation to Cardiology including the integrated cardiac care centre model (cardiac zone); development of Diagnostic and Interventional Cardiology Services at The Tweed Hospital is a high priority for the service</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop dedicated Medical Specialist Outpatient and Ambulatory Cardiology Clinics at both Lismore Base Hospital and The Tweed Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>• Assess the need for expansion of the Interventional Cardiology Service at Lismore Base Hospital to a 5 day/week service</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop a Plan to improve access to a full-time service for outpatient and inpatient Echocardiography and exercise stress testing at Lismore Base and The Tweed Hospitals</li> </ul>
	<ul style="list-style-type: none"> <li>• Improve access to Echocardiography at Grafton Base Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>• Improve access to clinical pharmacology to support cardiac inpatients and discharge medication lists at The Tweed, Grafton Base, Ballina and Murwillumbah District Hospitals</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide Telehealth services at Lismore Base Hospital and The Tweed Hospital to support peripheral hospital management of cardiology patients</li> </ul>
	<ul style="list-style-type: none"> <li>• Improve access to cardiac services training for staff throughout the LHD including pacemaker, exercise stress testing and interventional cardiology</li> </ul>
	<ul style="list-style-type: none"> <li>• Up-skill new staff to achieve competency in provision of cardiac and heart failure rehabilitation within existing programs and</li> </ul>

## key priorities

Key Priorities for Clinical Networks	
	provide ongoing staff education in relation to new technologies and care models
8.7 Surgical Services	
	<ul style="list-style-type: none"> <li>Implement The Tweed and Lismore Base Hospital Clinical Service Plans in relation to Surgical Services</li> </ul>
	<ul style="list-style-type: none"> <li>As part of surgical service planning for the Tweed Byron Health Service Group consider opportunities to expand surgical service at Murwillumbah and Byron Bay District Hospitals</li> </ul>
	<ul style="list-style-type: none"> <li>Provide a dedicated surgical services planning process consistent with recommendations from the Rural Surgical Futures Final Report<sup>135</sup> identifying at speciality level the preferred configuration of surgical services in the short to medium term</li> </ul>
	<ul style="list-style-type: none"> <li>Develop The Tweed Hospital and Lismore Base Hospitals as Regional Resource Centres that network with surrounding hospitals consistent with the Rural Surgical Futures Final Report</li> </ul>
	<ul style="list-style-type: none"> <li>Expand Richmond Valley surgical planning and waiting list management process to align with the boundaries of the Richmond Clarence Health Service Group to include Grafton Base Hospital and Maclean District Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>As part of surgical service planning for the Richmond Clarence Health Service Group consider opportunities to expand surgical service at Grafton Base and Casino and District Memorial Hospital to reduce demand on Lismore Base Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Develop surgical services at Grafton Base Hospital to increase access to services locally and reduce demand at Lismore Base Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Review the future demand for interventional radiology services within the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Provide improved Geriatrician support to older patients following orthopaedic surgery</li> </ul>
	<ul style="list-style-type: none"> <li>Provide timely and efficient data management to support Surgical Services</li> </ul>
	<ul style="list-style-type: none"> <li>Establish formal agreements and documented processes with tertiary referral centres to facilitate timely and appropriate specialist consultation and inter hospital transfers</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a planned approach for the progressive replacement of surgical equipment</li> </ul>
	<ul style="list-style-type: none"> <li>Improve service integration between surgical services and Pain Management services to improve post-operative patient journey</li> </ul>
	<ul style="list-style-type: none"> <li>Consider opportunities provided by new technologies (medical devices) to manage patient's pain at home. In particular, patients staying in hospital primarily for analgesia e.g. Hernia repairs</li> </ul>
8.8 Women's Care and Neonates	
Maternity Services	<ul style="list-style-type: none"> <li>The staged implementation of Clinical Services Plans for Byron Shire, Lismore Base Hospital and The Tweed Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Continued implementation of the NSW Health Policy Directive 2009_003 Maternity Clinical Risk Management Program and NSW Health Policy Directive 2010_045 Maternity - towards normal birth in NSW</li> </ul>
	<ul style="list-style-type: none"> <li>Develop strategies for supporting women to have a vaginal birth after a previous caesarean</li> </ul>
	<ul style="list-style-type: none"> <li>Develop strategies to ensure an appropriate level of access to culturally appropriate services for the Aboriginal community</li> </ul>

<sup>135</sup> Rural Surgery Futures 2011 – 2021, NSW Ministry of Health

Key Priorities for Clinical Networks	
	<ul style="list-style-type: none"> <li>Continued expansion of midwifery continuity of care models across the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Work with the Agency for Clinical Innovation to introduce effective technological advances in birthing</li> </ul>
	<ul style="list-style-type: none"> <li>Develop antenatal and post-natal outpatient services at The Tweed, Grafton Base, Casino and Murwillumbah District Hospitals</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a Day Stay Unit within the Tweed Byron Health Service Group and Clarence Valley</li> </ul>
	<ul style="list-style-type: none"> <li>Review the need to expand the geographic area for the Early Discharge Program with a view to including residents outside the current boundaries for Lismore Base Hospital and The Tweed Hospital; including residents of South East Queensland who birth at The Tweed Hospital</li> </ul>
Neonatal Services	<ul style="list-style-type: none"> <li>Consider the impact of the requirement that there will be a person trained in advanced neonatal resuscitation on-call for low-risk births and in attendance for all high-risk births</li> </ul>
8.9 Children's Health Services	
	<ul style="list-style-type: none"> <li>Implement Clinical Services Plans for Lismore Base Hospital, The Tweed Hospital and Byron Shire in relation to Children's Health Services</li> </ul>
	<ul style="list-style-type: none"> <li>Develop an LHD-wide Paediatric Stream which works within the anticipated framework of the NSW Kids and Families rollout</li> </ul>
	<ul style="list-style-type: none"> <li>In conjunction with NSW Kids and Families, Northern Child Health Network, Clinical Excellence Commission, and the Agency for Clinical Innovation, work towards the standardisation of policies and procedures, guidelines, health records and review processes across NNSW LHD Children's Health Services</li> </ul>
	<ul style="list-style-type: none"> <li>Develop an LHD Children's Health Services Strategic Plan in line with the NSW Kids and Families strategic directions once finalised</li> </ul>
	<ul style="list-style-type: none"> <li>Investigate new models of care at all level 4 paediatric medical service facilities to improve acute inpatient bed capacity</li> </ul>
	<ul style="list-style-type: none"> <li>Review the model of paediatric inpatient care at Murwillumbah District Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Develop an escalation plan for paediatric inpatient services for NNSW LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Plan for the establishment of paediatric outpatient and outreach services across the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Expand the use of Telemedicine for Paediatric Services at The Tweed, Lismore and Grafton Base Hospitals</li> </ul>
	<ul style="list-style-type: none"> <li>In consultation with Paediatricians investigate the formal designation of a single paediatric HDU bed at both The Tweed and Lismore Base Hospitals</li> </ul>
	<ul style="list-style-type: none"> <li>Further develop and expand existing HITH services for the paediatric population</li> </ul>
	<ul style="list-style-type: none"> <li>Assess current staffing resources within Child and Family Health Services and plan to address resourcing to meet current and increasing demand</li> </ul>
	<ul style="list-style-type: none"> <li>Investigate options for increased access to paediatric specific services for children with chronic and complex diseases and other conditions, in particular Diabetes and Dietetics services</li> </ul>
	<ul style="list-style-type: none"> <li>Establish formal consultation mechanisms in order to plan for the integration of the northern sector paediatric services within the Queensland Children's Hospitals outreach and referral network</li> </ul>
	<ul style="list-style-type: none"> <li>Actively work with North Coast NSW Medicare Local to maximise access to primary care services for children</li> </ul>

## key priorities

Key Priorities for Clinical Networks	
8.10 Primary and Chronic Care	
	<ul style="list-style-type: none"> <li>Develop the Community and Allied Health workforce to prevent unnecessary hospital admissions, readmissions and presentations to ED</li> </ul>
	<ul style="list-style-type: none"> <li>Improve networking between Community health Services and acute facilities to facilitate timely and appropriate discharge</li> </ul>
	<ul style="list-style-type: none"> <li>Develop partnerships between NNSW LHD Community Health Services and the North Coast NSW Medicare Local and identify opportunities to better integrate and coordinate service provision</li> </ul>
	<ul style="list-style-type: none"> <li>Identify operational priorities for the Community Health Service in consideration of the range of services provided by North Coast NSW Medicare Local, General Practise and Practise Nurses, NGOs and AMSs</li> </ul>
	<ul style="list-style-type: none"> <li>Expand access to new models of care in the community as alternative options to hospital admission and provision of appropriate training</li> </ul>
	<ul style="list-style-type: none"> <li>The staged implementation of afterhours and weekend Community and Allied Health Services across the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Investigate prevention and early intervention models of care in aged populations</li> </ul>
	<ul style="list-style-type: none"> <li>Provide an integrated electronic medical record for community health staff with capacity to communicate with acute facilities and GPs</li> </ul>
	<ul style="list-style-type: none"> <li>Provide mobile devices and tablet based tools to support access to assessment tools and timely information for care of patients in the community</li> </ul>
Connecting Care	
	<ul style="list-style-type: none"> <li>Develop a Strategic Plan for chronic disease management incorporating the continuum of care for Diabetes, Heart Failure, Coronary Artery Disease and Chronic Pulmonary Disease. An integrated Plan for provision of services to Aboriginal and non-Aboriginal people is required</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a governance structure for delivery of Chronic Care that includes key partners such as North Coast NSW Medicare Local, Private Service Providers and Department of Veterans Affairs</li> </ul>
	<ul style="list-style-type: none"> <li>Develop models of care that reflect evidence based care, integrated with General Practice and other chronic care service providers</li> </ul>
	<ul style="list-style-type: none"> <li>Ensure the chronic care workforce utilises an appropriate skill mix and a full range of professional workforce to meet the complex needs of chronic care patients</li> </ul>
	<ul style="list-style-type: none"> <li>Utilise new technology to improve access to chronic care programs and provide services in the client's home environment. Example being; expanding access to internet/smartphone/Skype-based risk factor management for cardiac rehabilitation to provide access to on-line cardiac rehabilitation programs</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to physiotherapy or exercise physiology as part of the cardiac and pulmonary rehabilitation programs, and plan to enhance the service to meet increasing demand</li> </ul>
	<ul style="list-style-type: none"> <li>Improve clinical pharmacology to support cardiac inpatients and discharge medication lists</li> </ul>
	<ul style="list-style-type: none"> <li>Improve communication between inpatient, Community Health and General Practice through integrated medical records, the provision of an improved electronic discharge system and improved utilisation of the Personnel Held Medical Record</li> </ul>

Key Priorities for Clinical Networks	
	<ul style="list-style-type: none"> <li>Plan for recruitment of an Endocrinologist at The Tweed and Lismore Base Hospitals</li> </ul>
Chronic Care for Aboriginal People	
	<ul style="list-style-type: none"> <li>Participation of Chronic Care for Aboriginal People Program in a NNSWLHD Chronic Care Governance structure</li> </ul>
	<ul style="list-style-type: none"> <li>Develop an electronic means of identifying inpatients registered with the Chronic Care for Aboriginal People Program and new referrals to the service</li> </ul>
	<ul style="list-style-type: none"> <li>Improvement in pathways with Aboriginal Liaison Officers including early notification of GPs and AMSs of admission of patients to hospital or presentation to ED</li> </ul>
	<ul style="list-style-type: none"> <li>Develop the clinical assessment skills of the Aboriginal Liaison Officers and ensure Aboriginal Liaison Officers have access and skills to use new technologies that assist with clinical care</li> </ul>
	<ul style="list-style-type: none"> <li>Improve communication systems and processes to ensure that Chronic Care for Aboriginal People, Connecting Care, North Coast NSW Medicare Local, GPs and AMSs work collaboratively to reduce duplication and fill gaps in care for Aboriginal people with a chronic disease.</li> </ul>

## 13.5 KEY PRIORITIES FOR POPULATION HEALTH AND OTHER SERVICES

The following key priorities apply to Services which generally have a population focus or where strategic leadership is provided across the District.

Key Priorities	
9.1 Aboriginal Health and Wellbeing	
Aboriginal Health Plan 2013-2023 Requirements	<ul style="list-style-type: none"> <li>Implement the NSW Health Aboriginal Health Plan 2013-2023</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a NNSW LHD Aboriginal Health Strategic Plan including:                             <ul style="list-style-type: none"> <li>Evaluation of the effectiveness of existing Programs and develop effective models of care in partnership with AMSs and communities</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Develop formal partnership agreements between NNSW LHD and Aboriginal Community Controlled Health Services, NGOs and North Coast NSW Medicare Local for the provision of coordinated care</li> </ul>
	<ul style="list-style-type: none"> <li>Develop structures which link internal and external service providers for effective and coordinated discharge and management of health services provided to Aboriginal people across the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Consider the role of Aboriginal Liaison Officers to improve access to acute services such as Cardiology, Cancer Care and Renal Dialysis for Aboriginal people</li> </ul>
	<ul style="list-style-type: none"> <li>Develop joint programs with internal units such as Health Promotion, BreastScreening and Cancer Care</li> </ul>
	<ul style="list-style-type: none"> <li>Provide community forums through the Ngayundi Aboriginal Health Council, that encourage local community participation in the development of programs and decision making processes</li> </ul>
	<ul style="list-style-type: none"> <li>Continued development of consultation structures which enhance Aboriginal community involvement in decision making</li> </ul>
	<ul style="list-style-type: none"> <li>Focus on prevention, screening and early intervention and build stronger links with programs that focus on health promotion, disease prevention, promoting healthy lifestyles, nutrition and environments</li> </ul>
9.2 Public Health	
	<ul style="list-style-type: none"> <li>Expand efforts to increase childhood vaccination rates through collaborative efforts with Aboriginal Medical Services, North Coast NSW Medicare Local, individual GPs, Community Health services and community organisations</li> </ul>
	<ul style="list-style-type: none"> <li>Expand and consolidate collaborative partnerships with key local, state and federal government agency partners</li> </ul>
	<ul style="list-style-type: none"> <li>Extend partnerships between the Public Health Unit and research organisations</li> </ul>
	<ul style="list-style-type: none"> <li>Rebuild epidemiological capability in Public Health</li> </ul>
	<ul style="list-style-type: none"> <li>Maintain the Held Service Agreement for delivery of public health services to ensure availability of critical mass, skill breadth and depth of experience</li> </ul>
9.2.2 HIV AIDS and Related Programs (HARP)	
	<ul style="list-style-type: none"> <li>Consider the impact of ABF funding model on HARP services</li> </ul>

Key Priorities	
	<ul style="list-style-type: none"> <li>Continue to prioritise and support prevention and early intervention activities such as sexual health education, health promotion and targeted social marketing programs in order to create and maintain conducive environments for priority populations to access HARP services and maintain healthy behaviours</li> </ul>
9.3 Health Promotion	
	<ul style="list-style-type: none"> <li>Identify opportunities to deliver services through contractual arrangements with the non-government sector</li> </ul>
	<ul style="list-style-type: none"> <li>Work collaboratively with other partners to deliver priority programs to increase efficiency and sustainability of health promotion activities</li> </ul>
	<ul style="list-style-type: none"> <li>Identify opportunities to apply for additional grants for new and innovative programs in our priority areas or to enhance existing programs</li> </ul>
9.3.1 Falls Prevention and Management	
Falls Prevention	<ul style="list-style-type: none"> <li>Develop a Plan to implement Prevention of Falls and Harm from Falls Among Older People 2011-2015-NSW Ministry of Health</li> </ul>
	<ul style="list-style-type: none"> <li>Develop strategies collaboratively between medical and allied health staff and other service providers to ensure the best possible outcome for an older person at risk of falls</li> </ul>
	<ul style="list-style-type: none"> <li>Develop specific strategies to reduce the risk to people with dementia who are at risk of falling</li> </ul>
	<ul style="list-style-type: none"> <li>NNSW LHD Falls Prevention Coordinator to work with NNSW LHD staff to ensure falls prevention for older people is a priority and to ensure the provision of safer environments for older people to reduce falls within the three settings of Acute Care, Residential Aged Care and in the community</li> </ul>
	<ul style="list-style-type: none"> <li>Continue to develop low cost exercise programs through Community Health Education Groups (CHEGS) and Stepping On programs</li> </ul>
Sexual Assault Services	
	<ul style="list-style-type: none"> <li>Implement Clinical Service Plans for Lismore Base Hospital, The Tweed Hospital and Byron Shire in relation to facilities for victims of sexual assault</li> </ul>
	<ul style="list-style-type: none"> <li>Include in all facility planning the provision for access to appropriately designed facilities for acute counselling and medical and forensic services in EDs as well as follow up services through local community health centres</li> </ul>
	<ul style="list-style-type: none"> <li>Increase the number of Aboriginal sexual assault workers across the LHD to meet current and future demand for services in a culturally sensitive way</li> </ul>
	<ul style="list-style-type: none"> <li>Increase the number of participating doctors in the provision of medical and forensic services in order to ensure that Sexual Assault Services are able to meet their accountabilities particularly in Grafton and increase capacity for leadership of this aspect of service development</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access for children and young people to specialist services to address sexualised and sexually harmful or abusive behaviours</li> </ul>
9.4 Women's Health	
	<ul style="list-style-type: none"> <li>Plan for the implementation of the NSW Health Framework for Women 2013 and develop a NNSW LHD Women's Health Plan in line</li> </ul>



## key priorities

Key Priorities	
	with the NSW Health Framework for Women 2013 and the National Women's Health Policy
	<ul style="list-style-type: none"> <li>• Develop and strengthen partnerships with key internal and external partners, in particular the non-government sector including North Coast NSW Medicare Local to identify and address gaps in women's health service provision across the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>• Implement Domestic Violence screening, policy and procedures across mandated services within NNSW LHD and where appropriate Health funded non-government organisations</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop appropriate hospital protocols to support women who have had a medical abortion and require follow up hospital care</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop options to provide public access to termination of pregnancy and dilatation and curettage in Lismore</li> </ul>
	<ul style="list-style-type: none"> <li>• Work with the Family Planning Service to increase access to this service across the LHD</li> </ul>
9.5 Men's Health	
	<ul style="list-style-type: none"> <li>• Develop a Men's Health Strategy for NNSW LHD in line with future NSW Ministry of Health plans or strategies</li> </ul>
	<ul style="list-style-type: none"> <li>• Conduct evaluation of current Men's Health initiatives in NNSW LHD</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop a submission for a dedicated Aboriginal Men's Health Coordinator position</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop a support structure for Men's Health Coordinators</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop links and partnerships with services such as: Networks/Divisions of General Practice/Medicare Local, schools and relevant social services.</li> </ul>

## 13.6 KEY PRIORITIES FOR SERVICE ENABLERS AND OTHER CORPORATE SERVICES

The following key priorities apply to Services which support the provision of clinical services across the District.

Key Priorities for Service Enablers	
10.1 Workforce	
<b>Workforce Strategy</b>	<ul style="list-style-type: none"> <li>Develop a coherent, integrated approach to workforce strategy over the next 2 years that will ensure the local implementation of key elements of the NSW Health Professionals Workforce Plan 2012-2022 including a range of specific recruitment and retention strategies</li> </ul>
	<ul style="list-style-type: none"> <li>Work towards the development of workforce strategies to meet the major challenges facing all jurisdictions, including NNSW LHD in relation to new service models of care that reflect the changing nature of health provision and shifts in the burden of disease including:               <ul style="list-style-type: none"> <li>Increased focus on ambulatory care services delivered in primary care or home settings</li> <li>Increased use of multidisciplinary team management approach to delivering care</li> <li>Increased need for services tailored to the wholistic needs of people with chronic and co-morbid conditions</li> <li>Development of new health care worker roles (e.g. Nurse Practitioner, Hospitalist)</li> <li>Increased use of Telehealth to support the provision of clinical advice, consultation, education and training services to remote locations</li> </ul> </li> </ul>
<b>Recruitment</b>	<ul style="list-style-type: none"> <li>Develop an integrated approach to workforce planning that will support the identification of current and anticipated gaps in the medical, nursing and allied health workforce and develop plans for addressing these gaps</li> </ul>
	<ul style="list-style-type: none"> <li>Continue the transition to greater use of staff specialists</li> </ul>
	<ul style="list-style-type: none"> <li>Grow Nursing and Midwifery and Allied Health workforce in line with targeted areas of deficit</li> </ul>
	<ul style="list-style-type: none"> <li>Create opportunities for entry level Aboriginal health professionals</li> </ul>
	<ul style="list-style-type: none"> <li>Up skill local health professional managers in effective recruitment practices</li> </ul>
	<ul style="list-style-type: none"> <li>As vacancies arise review Aboriginal Health Education Officer positions to expand the skill mix amongst Aboriginal Health Workers</li> </ul>
	<ul style="list-style-type: none"> <li>Develop strategies to grow the number of clinicians who are of Aboriginal and/or Torres Strait Islander descent across the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Make efforts to increase the number of Medical Specialists to fill identified gaps and to meet the demands of an ageing population and associated burden of disease profile for the LHD including cardiology, palliative care, geriatrics, neurology, psycho-geriatrics, infectious diseases, geriatric oncology and microbiology</li> </ul>
	<ul style="list-style-type: none"> <li>Provide additional support for the recruitment and retention of JMOs at The Tweed Hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Explore options for further development of registrar places at The Tweed and Lismore Base Hospitals; additional places could be further progressed in consultation with Queensland Health</li> </ul>
	<ul style="list-style-type: none"> <li>Investigate best fit staffing models for medical cover and quality control in smaller rural hospitals, including clinical redesign options</li> </ul>
<b>Retention</b>	<ul style="list-style-type: none"> <li>Ensure health professionals have relevant access to ongoing clinical education support, up-skilling and continuing professional</li> </ul>

## key priorities

Key Priorities for Service Enablers	
	development
	<ul style="list-style-type: none"> <li>Implement the Nursing Succession Planning Program across NSW LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Further strengthen current successful mentoring programs for nursing, allied health and medical students and graduates</li> </ul>
	<ul style="list-style-type: none"> <li>Ensure a commitment to redesign workflows and change skill mix as needed to better align available staff skills with patient needs</li> </ul>
	<ul style="list-style-type: none"> <li>Continue to assess and develop as relevant, opportunities for attractive and flexible employment arrangements to respond to the needs and demands of the changing composition of the health workforce including:               <ul style="list-style-type: none"> <li>Scope and variety of work and application of flexible work practices</li> <li>Professional support and clinical networks if working in isolated/solo practice</li> <li>Manage after-hours and on-call commitments</li> <li>Locum relief and backfill</li> <li>Access to continuing education and professional development</li> <li>Opportunities to undertake research</li> <li>Adequate and appropriate remuneration particularly if working in isolated/solo practice</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Provide the option of seasonal contracts for GP VMOs to retain these skilled practitioners within the acute health system. This will require negotiation with the Rural Doctors Agreement (RDA)</li> </ul>
	<ul style="list-style-type: none"> <li>Address practical issues for rural professionals such as access to locums, accommodation for trainees in all disciplines and support for fly-in practitioners</li> </ul>
	<ul style="list-style-type: none"> <li>Improve access to relevant professional development to support retention of Registered Nurses and Medical Officers in isolated rural areas such as Urbenville and District MPS</li> </ul>
<b>Mental Health</b>	<ul style="list-style-type: none"> <li>Develop an approach to support the Mental Health workforce which includes a review of the staffing to population ratio (MHCCP data) across the District</li> </ul>
<b>Maternal and Child Health</b>	<ul style="list-style-type: none"> <li>Develop an approach to support the Maternal and Child Health workforce which includes:               <ul style="list-style-type: none"> <li>Provision of training to maintain the Midwifery Led Model of Care workforce</li> <li>Improved support to undergraduate student Midwives, Medical Students and Registrars</li> <li>Planning to address the shortage of GP Obstetricians</li> <li>Succession planning for replacement of Specialist Obstetricians at Grafton Base Hospital</li> <li>Provision of additional Clinical Midwifery Education resources to support new graduate Midwives and to support and supervise an increasing number of student Midwife placements</li> <li>Development of a reconnect program to support Midwives who have been out of the workforce for greater than 5 years to regain registration as a Midwife with the Australian Health Practitioner Regulation Agency</li> <li>Ensure that there is staff with an adequate skill mix to improve and maintain the flexibility of the workforce within the Women's Care Unit</li> </ul> </li> </ul>
<b>Children's Health</b>	<ul style="list-style-type: none"> <li>Support the delivery of comprehensive Paediatric Services through planning for an adequate number of Clinical Nurse Educators and additional Registrars and Paediatricians at Lismore Base Hospital and The Tweed Hospital</li> </ul>

Key Priorities for Service Enablers	
	<ul style="list-style-type: none"> <li>Investigate succession planning options within Paediatric and Child Health services across the LHD e.g. secondments, mentoring programs and backfilling</li> </ul>
Emergency Department	<ul style="list-style-type: none"> <li>Medical workforce planning to support existing GP VMOs and manage the anticipated reduction in GP VMO in EDs with greater investment in CMOs, Hospitalists and ED Nurse Practitioner roles to support ambulatory care and provide clinical governance in smaller rural hospital EDs</li> </ul>
ICU	<ul style="list-style-type: none"> <li>Prepare an approach to support the Critical Care workforce to plan for:               <ul style="list-style-type: none"> <li>A skilled critical care workforce to manage increasing demand for critical care services, increasing acuity and complexity of patients and the role of Allied Health professionals</li> <li>Succession planning for clinical leadership and development of specialist medical and nursing roles</li> </ul> </li> </ul>
Aboriginal Health Workforce	<ul style="list-style-type: none"> <li>Progress an approach to support the development of the NNSW LHD Aboriginal workforce including consideration of:               <ul style="list-style-type: none"> <li>Examination of all positions prior to advertising to determine the potential to target positions for affirmative action</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Define the scope of practice of Aboriginal Health Education Officers and reviewing all Aboriginal Health positions as they become vacant with a view to increasing clinical skills amongst the Aboriginal Health workforce</li> </ul>
	<ul style="list-style-type: none"> <li>Define Aboriginal Health Worker competencies and support skills development</li> </ul>
	<ul style="list-style-type: none"> <li>Develop strategies to increase the number of clinical staff of Aboriginal or Torres Strait Islander descent across the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>Develop a professional and effective cross-cultural awareness framework that would support non-Aboriginal staff working with and delivering service to Aboriginal individuals and communities. This framework has contributed to the development of a State-wide framework</li> </ul>
	<ul style="list-style-type: none"> <li>Develop supportive networks that provide a number of options, enabling individuals to retain cultural safety and raise issues to be addressed</li> </ul>
	<ul style="list-style-type: none"> <li>The development and application of a New Entrant Traineeship model in line with NNSW LHD and NSW Ministry of Health guidelines</li> </ul>
	<ul style="list-style-type: none"> <li>Participation in the Bachelor of Nursing cadetship program for Aboriginal people</li> </ul>
	<ul style="list-style-type: none"> <li>Implement, monitor and report on Good Health-Great Jobs, the Aboriginal Workforce Strategic Framework 2011–2015:               <ul style="list-style-type: none"> <li>Implement monitoring and reporting on provision of cultural awareness training to NNSW LHD staff</li> <li>Continued development of staff awareness of the need to identify Aboriginal people on admission to hospitals</li> <li>Review the systems, policies and processes for governance in NNSW LHD and identify opportunities to strengthen responsibility and accountability for Aboriginal health</li> <li>Identify opportunities for Aboriginal people to work across NNSW LHD including provision of traineeships</li> </ul> </li> </ul>
10.2 Teaching and Research	
10.2.1 Teaching	
	<ul style="list-style-type: none"> <li>Work with HETI in the development of training modules designed to address current and future skills and competencies</li> </ul>

## key priorities

Key Priorities for Service Enablers	
	<ul style="list-style-type: none"> <li>Consolidation of the processes and structures in place to support the ongoing relationship with the LHDs key education provider, Health and Education Training Institute (HETI) as supported by the internal Executive Sub-Committee for Education and Training to improved coordination of the activities from both HETI and other providers of education and training to NNSWLHD employees</li> </ul>
	<ul style="list-style-type: none"> <li>Develop further existing partnerships with Southern Cross University, the University Centre for Rural Health North Coast and affiliated universities, Bond University and Griffith University for nursing, allied health and medical training currently in place</li> </ul>
	<ul style="list-style-type: none"> <li>Partner with external agencies such as University Departments of Rural Health and Clinical Schools to ensure education and research are linked so that there is an integrated approach to workforce development</li> </ul>
	<ul style="list-style-type: none"> <li>Expand the range of clinical placements that are offered with a clear focus on teaching and training in rural clinical settings</li> </ul>
	<ul style="list-style-type: none"> <li>Expand the number of medical and nursing graduate places</li> </ul>
	<ul style="list-style-type: none"> <li>Continue development of new, and more flexible, models of care that utilise new professional roles with scope of practice that reflects the level of education and level of competence required, as agreed with relevant professional associations including:               <ul style="list-style-type: none"> <li>Hospitalists</li> <li>Nurse Practitioners</li> <li>Allied Health Assistants</li> <li>Aboriginal Health Workers</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Continue to implement the Hospital Skills Program</li> </ul>
	<ul style="list-style-type: none"> <li>Continue involvement in NSW Clinical Leadership Program</li> </ul>
	<ul style="list-style-type: none"> <li>Support Proceduralists skills maintenance and development</li> </ul>
	<ul style="list-style-type: none"> <li>Work with training partners to support a medical and nursing workforce which is skilled across a range of specialties including but not limited to: respiratory, diabetes, renal, geriatrics, general medicine, cardiology, gynaecology, obstetrics, women's health and paediatrics</li> </ul>
	<ul style="list-style-type: none"> <li>Work with training partners to build a medical and nursing workforce which is skilled in the delivery of in-reach and outreach models of care for ICU and HDU</li> </ul>
	<ul style="list-style-type: none"> <li>Expand Nurse Educator resources, in particular education and training in triaging, paediatric, respiratory and cardiology emergency management</li> </ul>
	<ul style="list-style-type: none"> <li>Source opportunities to support the provision of training at the range of teaching facilities supporting allied health professionals, nurses and doctors in partnership with the University Centre for Rural Health North Coast, Southern Cross University, Newcastle University, University of New England, North Coast Institute of Technical and Further Education, University of Sydney, Bond University and Griffith University</li> </ul>
	<ul style="list-style-type: none"> <li>Develop strategies to maintain the skill mix required to deliver services safely in more isolated facilities particularly in relation to recognising and managing the deteriorating patient in the MPS Network</li> </ul>

Key Priorities for Service Enablers	
10.2.2 Research	
	<ul style="list-style-type: none"> <li>• Ensure that research ethics and research governance requirements are met as mandated by policy, but without impeding conduct of quality research</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop a research strategy for the LHD in collaboration with University Centre for Rural Health North Coast</li> </ul>
	<ul style="list-style-type: none"> <li>• Foster applied research and transfer findings into health care delivery practice and policy</li> </ul>
	<ul style="list-style-type: none"> <li>• Support clinicians to undertake research, and medical registrars to conduct the research projects required as a part of specialist training with appropriate resourcing</li> </ul>
	<ul style="list-style-type: none"> <li>• Collaborate with universities, medical research institutes and other centres of research excellence including the University Centre for Rural Health and Southern Cross University</li> </ul>
	<ul style="list-style-type: none"> <li>• Establish mechanisms for research collaboration with the North Coast NSW Medicare Local, in partnership with the University Centre for Rural Health and Southern Cross University</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop capacity to effectively manage the participation of sites in clinical trials</li> </ul>
	<ul style="list-style-type: none"> <li>• Further develop capacity to conduct population health, epidemiological and health services research for the benefit of the LHD and its population</li> </ul>
10.3 Clinical Governance	
	<ul style="list-style-type: none"> <li>• Invest in community-based services (outpatients and community health services) which are targeted to reduce unplanned hospital readmissions</li> </ul>
	<ul style="list-style-type: none"> <li>• Resource at site level to facilitate collection, analyse and report clinical audit data required under the new National Safety and Quality Health Service Standards</li> </ul>
	<ul style="list-style-type: none"> <li>• Resource at site level to complete the education/training and competency assessment of staff required under the new National Safety and Quality Health Service Standards</li> </ul>
	<ul style="list-style-type: none"> <li>• Implement an LHD-wide Antimicrobial Stewardship Framework with timely access to Infectious Diseases Physician and Clinical Microbiologist expertise</li> </ul>
	<ul style="list-style-type: none"> <li>• Resourcing at site level to achieve compliance with NSW Health Policy Directive 2012_061 Environmental Cleaning</li> </ul>
	<ul style="list-style-type: none"> <li>• Enhance clinical pharmacy capacity at facility level</li> </ul>
	<ul style="list-style-type: none"> <li>• Continued roll out and embedding of the Clinical Excellence Commissions Sepsis Pathway across all LHD sites</li> </ul>
	<ul style="list-style-type: none"> <li>• Continued roll out of the Clinical Governance Units Medical Retrieval and Patient Transfer Education Program to all sites in the LHD</li> </ul>
	<ul style="list-style-type: none"> <li>• The LHD Obstetrics and Gynaecology Services work towards the adoption and implementation of the NSW Health Policy Directive 2009_003 Maternity - Clinical Risk Management Program and the recommendations from the latest Clinical Excellence Commissions Clinical Focus Report <i>Fetal Monitoring: Are we getting it right?</i></li> </ul>
	<ul style="list-style-type: none"> <li>• Invest in further education for staff on suicide risk assessment and strengthening of multi-disciplinary lines of communication within the LHD Mental Health Services</li> </ul>

## key priorities

Key Priorities for Service Enablers	
10.4 Health Related Transport	
	<ul style="list-style-type: none"> <li>Further investment into the development of an LHD based patient transport service to support inter-hospital patient transport is required to support effective networking of services, responsive and timely patient transport based on clinical and better utilisation of bed assets within the Health Service Groups</li> </ul>
	<ul style="list-style-type: none"> <li>Develop capacity to transport acutely unwell mental health patients from small rural hospitals which are not equipped to treat and manage these patients to Rural Referral Hospitals as part of an LHD based patient transport system</li> </ul>
	<ul style="list-style-type: none"> <li>Provide greater investment in non-emergency related transport to better manage the regular transport of Ballina District Hospital ED patients to Ballina CBD to access private radiology services to reduce delays associated with relying on the NSW Ambulance Service</li> </ul>
	<ul style="list-style-type: none"> <li>Consider transport requirements for bariatric patients</li> </ul>
	<ul style="list-style-type: none"> <li>Continued improvement in the transport of Aboriginal patients particularly in relation to Renal Dialysis Services</li> </ul>
	<ul style="list-style-type: none"> <li>Provision of greater investment in non-emergency health related transport</li> </ul>
10.5 Carer Support	
	<ul style="list-style-type: none"> <li>Ensure compliance with the NSW Carer Recognition Act through implementation of NNSW LHD Carer Recognition Act Implementation Plan</li> </ul>
	<ul style="list-style-type: none"> <li>Develop strategies which ensure NNSW LHD meets the requirements of Standard 2 of the National Safety and Quality Health Service Standards in relation to Carers</li> </ul>
	<ul style="list-style-type: none"> <li>Monitor how the LHD responds to carers in all health care settings and in the planning and delivery of services, and measure consistency with Standard 2 “Partnering with Patients” of the National Safety and Quality Health Service Standards</li> </ul>
	<ul style="list-style-type: none"> <li>Implement NSW Health and Ageing Disability and Home Care (ADHC) Joint Guideline; supporting residents of ADHC operated and funded accommodation supported services who present to a NSW public hospital</li> </ul>
	<ul style="list-style-type: none"> <li>Implement and monitor the NNSW LHD Carer Consultant Model of consultation with carers</li> </ul>
	<ul style="list-style-type: none"> <li>Develop the knowledge and skills of NNSW LHD managers and staff to ensure the LHD is working in partnership with carers in the provision of care</li> </ul>
10.6 ICT including Telehealth	
Infrastructure	<ul style="list-style-type: none"> <li>Enhance the existing information infrastructure to provide a secure, reliable and highly available computing environment by:               <ul style="list-style-type: none"> <li>Participating in NSW Health State-based initiatives including the Health Wide Area Networking (HWAN), network remediation and State Wide Infrastructure Services (SWIS) directory and messaging work programs</li> <li>Providing support for mobile computing through the introduction of facility-wide wireless networking and delivery of virtualised clinical desktops</li> <li>Delivery of a unified communications environment integrating voice, instant messaging and videoconferencing to enhance clinician communication and collaboration</li> <li>Identifying opportunities and benefits that can be gained as the National Broadband Network is rolled out to consumers across</li> </ul> </li> </ul>

Key Priorities for Service Enablers	
	NNSW LHD
<b>ICT Support</b>	<ul style="list-style-type: none"> <li>• Maintain staffing and skill mix to ensure the appropriate numbers and skills to support enhanced clinical service delivery by:               <ul style="list-style-type: none"> <li>○ Ensuring that the implications for ICT team resourcing are considered and addressed in all business cases and project plans for new technology and systems acquisition and implementation and where possible, consider backfill of operational ICT staff to enable work on project-based assignments and deployments</li> <li>○ Completing a review of the existing ICT organisation structure, functions, roles and responsibilities to develop a new ICT organisation that is structured to effectively support the Rural and Regional e-Health Framework and the ICT Strategy and the introduction and uptake of new clinical applications</li> <li>○ Undertake a benchmarking exercise with other NSW Health organisations to ensure staffing and skill mix is consistent with the environment to be supported</li> <li>○ Develop a plan for ICT staff technical training to increase ICT staff capability in all service areas</li> <li>○ support for a prompt response to manage disruptions to “real-time” clinical systems such as eMR and FirstNet which cannot sustain delays</li> </ul> </li> </ul>
<b>Enhancing the Patient Journey</b>	<ul style="list-style-type: none"> <li>• Enhance the patient journey by:</li> <li>• Optimising the existing eMR to include:               <ul style="list-style-type: none"> <li>○ Rapid response team data collection</li> <li>○ Paediatric data collection</li> <li>○ Multidisciplinary electronic discharge reporting</li> <li>○ Past medical history</li> <li>○ Introducing electronic medication management</li> <li>○ Implementing the Community Health component of the eMR</li> <li>○ Facilitating improved clinical information sharing with clients by participating in the National Personally Controlled Electronic Health Record Initiative</li> <li>○ Supporting new models of clinical care by working with Medicare Locals to manage the health of clients with chronic conditions</li> <li>○ Implementing clinical analytics and reporting from the eMR</li> <li>○ Implementing the Enterprise Imaging Repository that will allow medical imaging studies from across NSW to be visible locally</li> <li>○ Deploying the Connecting Critical Care ED system to the Lismore Base Hospital in March 2014</li> <li>○ Developing new models of care that support “point of care” service delivery using unified communications technology</li> <li>○ Expanding the functionality of the “Electronic Discharge Summary” to provide capacity to send to multiple users</li> </ul> </li> </ul>
<b>Enhancing Communication and Collaboration</b>	<ul style="list-style-type: none"> <li>• Enhance communication and collaboration by:               <ul style="list-style-type: none"> <li>○ Implementing collaboration and unified communication tools to support the work of individual teams/unit and to reduce travel and maximise engagement for meetings, training and communication</li> <li>○ Further develop mobile ICT capacity to provide clinicians with devices that support timely assessment and communication and interaction with people with disabilities</li> <li>○ Developing collaboration portals and workflows to support LHD-wide policy and procedure document life-cycle management</li> </ul> </li> </ul>



## key priorities

Key Priorities for Service Enablers	
	<ul style="list-style-type: none"> <li>○ Providing a consistent approach to telephony and paging and inter-operability/integration opportunities available through the use of Voice technology</li> <li>○ Taking advantage of mobile devices to provide access to key information systems at the point of care</li> <li>○ Working with external care providers to implement appropriate models of care that include Telehealth technologies to better support clients with chronic conditions</li> </ul>
<b>Skilled Workforce</b>	<ul style="list-style-type: none"> <li>● Improve business intelligence capability by:               <ul style="list-style-type: none"> <li>○ Developing new reporting portals to meet the information needs of service groups across the organisation</li> <li>○ Collaborating with other LHDs to develop and implement new reporting dashboards</li> <li>○ Undertaking a skills assessment to assess staff capabilities in relation to effective delivery and utilisation of reports and information</li> <li>○ Continuing to work with all staff to ensure they understand the requirements for accurate data entry</li> <li>○ Utilising data held in the eMR and the enterprise data warehouse to enhance quality and safety of clinical service delivery through the development of clinical analytics capabilities</li> </ul> </li> </ul>
<b>Implementation of NSW Initiatives</b>	<ul style="list-style-type: none"> <li>● Participate in the development of the forthcoming NSW Health Rural e-Health Strategy, the elements of which are presented in this document through the NSW Health Rural and Regional e-Health Framework               <ul style="list-style-type: none"> <li>○ Continue to seek opportunities to enhance and expand information infrastructure through participation in NSW Health State-based initiatives including the HWAN, network remediation and SWIS directory and messaging work programs</li> <li>○ Balance resource requirements to support and maintain existing infrastructure with those required to expand and enhance service delivery</li> <li>○ Provide recurrent resources to ensure a cycle of regular technology refresh, and additional skills and expertise to accommodate infrastructure expansion and a changing technology environment</li> <li>○ Ensure effective change management and the availability of ongoing clinician training and support</li> </ul> </li> </ul>
10.7 Key Partnerships	
<b>NGOs</b>	<ul style="list-style-type: none"> <li>● In consultation with the NSW Ministry of Health support Health funded NGOs to capture their activity in alignment with activity based funding</li> </ul>
	<ul style="list-style-type: none"> <li>● Consult with NGOs on the implementation of the NDIS and its impact on health services particularly in relation to mental health services</li> </ul>
	<ul style="list-style-type: none"> <li>● In consultation with the NSW Ministry of Health develop robust consultation processes to support Health funded NGOS during implementation of the Grants Management Improvement Program</li> </ul>
	<ul style="list-style-type: none"> <li>● Inclusion of all relevant Health funded NGOs in Health Planning processes so that funding can be aligned with current and future identified priorities of the health system</li> </ul>
<b>Aboriginal Community Controlled Health Services</b>	<ul style="list-style-type: none"> <li>● Formalise the interim Partnership Agreement between NNSW LHD, Aboriginal Controlled Health Services and the North Coast NSW Medicare Local</li> </ul>
<b>Medicare Locals</b>	<ul style="list-style-type: none"> <li>● Continue to develop formal Partnership Agreements with North Coast NSW Medicare Local.</li> </ul>

## 14 APPENDICES

14.1.1 ROLE DELINEATION OF NNSW LHD FACILITIES

14.1.2 CONSULTATION SUMMARY

14.1.3 ABORIGINAL HEALTH IMPACT STATEMENT

## appendices

### 14.1.1 ROLE DELINEATION OF NNSW LHD FACILITIES

Source: NNSW LHD Role Delineation Review 2012 and consistent with NSW MoH Data Base

Role Delineation of Hospitals - Northern NSW Local Health District August 2012														
No.	Service	Lismore	Tweed	Grafton	Murwillumbah	Ballina	Casino	Maclean	Mullumbimby	Byron	Kyogle	Bonalbo	Nimbin	Urbenville
<b>SUPPORT SERVICES</b>														
1	Pathology	5	5	4	3	3	3	3	1	1	2	1	1	2
2	Pharmacy	5	5	4	3	3	3	3	2	2	2	1	1	1
3	Diagnostic Image.	5	5	4	3	3	3	3	3	2	2	2	1	1
4	Nuclear Medicine	5	5	3	3	0	0	0	0	0	0	0	0	0
5	Anaesthetics	5	5	4	3	3	3	3	1	2	1	1	1	1
6	Intensive Care	5	5	4	3	3	3	3	0	2	0	0	0	0
7	Coronary Care	5	5	3	3	3	3	3	1	1	1	1	1	1
8	Operating Suites	6	6	4	4	3	3	3	0	2	0	0	0	0
<b>CORE SERVICES</b>														
9	Emergency Med.	5	5	3	3	3	3	3	2	2	2	2	2	2
<b>Medicine</b>														
10	General Medicine	5	5	3	3	3	3	3	2	2	2	1	1	1
11	Cardiology	5	5	3	3	3	3	3	2	2	2	1	1	1
12	Dermatology	4	4	3	2	2	3	3	2	2	2	1	1	1
13	Endocrinology	4	5	3	3	2	3	3	2	2	2	1	1	1
14	Gastroenterology	5	5	4	3	2	3	3	2	2	2	1	1	1
15	Haematology-Clin	5	4	3	3	2	3	3	2	2	2	1	1	1
16	HIV/AIDS	4	5	3	3	2	3	3	2	2	1	1	1	1
17	Immunology	4	3	3	3	2	3	3	2	2	2	1	1	1
18	Infectious Dis.	4	4	3	3	2	3	3	2	2	1	1	1	1
19	Medical Oncology	4	5	3	3	3	3	3	2	2	2	1	1	1
20	Neurology	4	4	3	3	2	3	3	2	2	2	1	1	1
21	Radiation Oncol.	5	0	0	0	0	0	0	0	0	0	0	0	0
22	Renal Medicine	5	5	3	2	3	3	3	2	2	2	1	1	1
23	Respiratory Med.	5	5	3	3	3	3	3	2	2	2	1	1	1
24	Rheumatology	4	4	3	3	3	3	3	2	2	2	1	1	1
<b>Surgery</b>														
25	General Surgery	5	5	4	3	3	3	3	1	2	0	1	1	1
26	Burns	3	4	3	2	2	2	2	2	2	0	1	0	0
27	Thoracic/Car. Su.	1	1	0	0	0	0	0	0	0	0	0	0	0
28	Day Surgery	4	4	3	3	2	3	3	0	2	0	0	0	0
29	Ear, Nose & Throat	4	4	4	3	1	3	3	1	1	0	0	0	0
30	Gynaecology	5	5	4	3	2	3	3	1	2	1	0	0	0
31	Neurosurgery	4	4	1	0	1	1	0	0	0	0	0	0	0
32	Ophthalmology	3	3	3	3	0	1	0	0	0	0	0	0	0

Role Delineation of Hospitals - Northern NSW Local Health District August 2012														
No.	Service	Lismore	Tweed	Grafton	Murwillumbah	Ballina	Casino	Maclean	Mullumbimby	Byron	Kyogle	Bonalbo	Nimbin	Urbenville
33	Orthopaedics	5	5	3	3	2	3	3	1	2	1	0	0	0
34	Plastic Surgery	1	1	1	1	1	1	1	0	0	0	0	0	0
35	Urology	5	5	3	3	3	3	1	0	0	0	0	0	0
36	Vascular Surgery	5	4	1	2	2	2	1	0	0	0	0	0	0
<b>Maternal and Child Health</b>														
37	Maternity	5	5	4	3	0	3	1	2	0	0	0	0	0
38	Neonatal	4	4	3	2	0	2	1	2	1	0	0	0	0
39	Paediatric Medic.	4	4	3	3	1	2	1	1	1	1	1	1	1
40	Paed Surg	4	4	3	1	1	3	1	1	1	1	1	1	1
41	Family & Child	4	4	3	3	2	3	2	2	2	2	1	1	1
<b>Integrated Community and Hospital</b>														
42	Adolescent H	4	4	3	2	2	2	2	2	1	1	1	1	1
43	Adult Mental Inpa.	5	5	3	1	1	2	1	1	1	1	1	1	1
44	Adult Mental Com	5	4	0	0	0	2	0	0	0	0	0	0	0
45	Child/Adol. M. In.	5	3	3	2	0	2	1	1	1	1	1	1	1
46	Child/Adol. M. C.	5	4	0	0	0	2	0	0	0	0	0	0	0
47	Older Adult. M. In.	1	1	1	1	1	1	1	1	1	1	1	1	1
48	Older Adult. M. C.	3	3	0	0	1	1	0	0	0	0	0	0	0
49	Child Protection	4	3	3	3	3	3	3	3	3	1	1	1	1
50	Drug and Alcohol	5	4	3	3	1	2	2	2	2	1	1	1	1
51	Geriatrics	4	4	1	1	3	3	2	1	1	2	1	1	1
52	Health Promotion	5	5	3	3	3	3	3	2	3	2	1	1	1
53	Palliative Care	4	5	4	3	1	3	3	1	1	1	1	1	1
54	Rehabilitation	5	4	4	4	3	1	3	1	1	1	1	1	1
55	Sexual Assault	5	4	3	3	3	1	1	1	1	1	1	1	1
<b>Community Based Services</b>														
56	Aboriginal Health	3	3	3	1	3	3	3	1	1	3	1	1	1
57	Comm. H. Gen.	6	6	4	4	4	4	3	4	4	4	1	1	1
58	Community Nurs.	5	5	4	5	4	5	4	4	4	3	2	2	1
59	Genetics	4	4	0	0	1	1	1	0	0	0	0	0	0
60	Multicultural Hth.	1	1	1	1	1	1	1	1	1	1	1	1	1
61	Oral Health	5	5	5	1	3	3	1	3	3	1	0	1	0
62	Sexual Health	5	4	1	4	1	1	1	1	1	1	1	1	1
63	Women's Health	4	3	3	3	2	2	3	2	2	2	1	1	1

## 14.1.2 CONSULTATION SUMMARY

### 1. BACKGROUND TO CONSULTATION PROCESS

The NNSW LHD Board has been tasked by Government with completion of a 5 year Health Care Services Plan which will provide future directions for NNSW LHD health services over the next 5 years. This is the first LHD-wide Health Care Services Plan to be developed since NNSW LHD came into being in January 2012.

Development of the Health Care Services Plan involves a comprehensive needs analysis process to inform future service development and investment across NNSW LHD based on sound evidence and locally identified need. It involves the gathering and analysing of a broad range of data, reports and information from service providers and the community to identify health and wellbeing priorities.

### 2. OVERVIEW OF CONSULTATION PROCESS

Consultation occurs before a draft plan is developed and presents participants with demographic data and service activity information and seeks their input into key issues and future directions to be included in the Plan. It is important that clinicians, service managers and community representatives are involved in development of the Health Care Services Plan. A Consultation Plan is also developed and endorsed by the Steering Committee at the beginning of the planning process.

The Steering Committee is central to the consultation process. The role of the Steering Committee is to oversee the development of the NNSW LHD Health Care Services Plan. The Plan is developed in consultation with key stakeholders so that services will meet the needs of the Northern NSW population and network of services and the NNSW LHD and other associated LHDs and jurisdictions.

A Steering Committee was established at the beginning of the planning process. The Steering Committee was chaired by Ms Hazel Bridgett, NNSW LHD Board Member and co-chaired by Dr Ian Fielding, Executive Medical Director NNSW LHD. The Steering Committee has broad representation by Senior Executive Members and Clinicians, community and non-government agency representation and a range of key stakeholders. The Steering Committee also included the Chief Executive officer, Casino AMS and Strategic Development and Performance Coordinator, Aboriginal Health Strategic Unit.

Consultation sessions were conducted over a 16 week period between 8 April and 7 August 2013, at times and in locations accessible to the majority of clinicians. Consultation schedules were prepared detailing consultation sessions to be held at each facility. Service Managers were engaged in preparing the schedules and flyers detailing consultation themes, target groups, venues and times. The flyers were circulated through email, hard copies to Wards and Units and via Directors of Medical Staff to Medical Staff Councils. Ms Hazel Bridgett, Chair of the Steering Committee attended the majority of consultation sessions. Dr Ian Fielding Executive Director Medical Services attended Critical Care and Surgery consultations.

Consultations were organised so that those attending had common interests. They were conducted using a consistent approach that reflected and built upon the outcomes of the needs analysis and the review of activity data. Consultation sessions focused on gathering information from participants in relation to:

- Current service issues and gaps
- Clinical relationships and referral pathways
- Current and future models of care

- Future service directions.

At the sessions presentations were conducted as 'conversations', to ensure all participants had an opportunity for input, with findings recorded in a standard format and subsequently analysed to identify:

- Specific information relevant to particular clinical services, networks and or support services
- Health Service Group or LHD-wide themes including feedback on service enablers and matters relating to the LHD as a whole.

Over 50 consultation sessions have been held with over 400 attendees at the sessions. Across the sessions there was the following mix of participants:

- Clinical Managers/ Department or Program Managers
- Management
- Staff Specialists
- Medical Staff Councils
- Visiting Medical Officers
- Craft Groups
- Nursing Staff
- Community Health Staff
- Allied Health Staff
- Aboriginal Health Workers
- Program Staff e.g. HIV AIDS and Related Diseases
- Service Support Personnel
- Non-government organisations (NGOs)
- North Coast NSW Medicare Local Representatives
- NSW Ambulance Service.

There has also been extensive consultation with Clinical Leaders and Program Managers through attendance at their governance meetings and individual discussions. Consultation sessions were also held with:

- Aboriginal Health and Aboriginal Chronic Care Teams
- Connecting Care staff
- Casino Aboriginal Medical Service
- North Coast NSW Medicare Local
- Rekindling the Spirit
- Paediatric Network
- Surgical Teams
- Critical Care (including ED, ICU/HDU and Medical retrieval staff)
- Women's Health Network

- Senior Clinicians Oral Health
- Senior Managers Mental Health
- Senior Managers Workforce
- Senior Pharmacists, Pathologists and Medical Imaging Departments
- NGO Forum
- Richmond Clarence and Tweed Byron Health Service Group Executive
- Hospital Executives
- Clinical Engagement Advisory Council
- LHD Clinical Council
- Executive Medical Staff Council
- Senior Manager's Forum.

Key issues raised at the consultation meetings have been presented to the Steering Committee and included in the Health Care Services Plan Volume 1. These issues have been integrated into the Key Priorities section of the Plan.

There were a range of common themes identified at consultations. It is not possible in this summary report to itemise all issues in detail. The purpose of this Report is to summarize common themes and a range of issues and concerns highlighted at the consultation sessions.

The draft NSW LHD Health Care Services Plan 2013-2018 was made available for broad consultation on the NSW LHD Intranet from 19 July to 7 August. An email was sent to all staff and copies of the draft Plan were forwarded to key stakeholders including Casino AMS, Health funded NGOs, North Coast NSW Medicare Local and NSW Ambulance Service. Over sixty responses were received, followed up and respondents advised of the outcome. All responses and changes were then reviewed and endorsed by the Steering Committee.

### 3. CLINICAL NETWORKING AND AN LHD-WIDE APPROACH

There is a widely expressed view that more effective LHD-wide clinical leadership across a range of specialist services is required. This would provide appropriate clinical governance and continuous improvement in the quality of services, more efficient use and sharing of resources. More effective networking within the LHD would support complementary service development, standardisation of care and development of appropriate policies, procedures and protocols for the delivery of care. This would also support the provision of training and development for clinicians within the LHD. Service networking arrangements also enable services to provide higher level care through linking clinical expertise to the smaller rural hospitals. The need for an LHD Cancer Care governance structure and coordinated approach to development and provision of cancer services on a District-wide basis was seen as apriority given the increasing demands on these services.

Networking although well-developed across the Health Service Groups needs to continue to be strengthened particularly in relation to medical leadership across a range of sites and services. Where services are shared such as in the MPS Network staff raised concerns about the impact on local service provision of extended staff vacancies. This also impacts on smaller facilities such as Bonalbo Hospital. Concerns were also raised in Clarence Valley around the large distances the Acute Care Team need to travel from their base in Grafton and the time that is taken to respond resulting in extended stays in Maclean Hospital Emergency department (ED).

The Connecting Critical Care Program promises improved clinical safety and patient care. There are concerns that the additional workload on the Hub sites has not been factored in. Staff expressed their commitment to ongoing improvements in networking of services, particularly in relation to the provision of critical care and surgical services. The need for the development and networking of Stroke Services and for expansion of Outpatient services was highlighted during consultation.

#### 4. SERVICES NEED TO BE BETTER COORDINATED

NNSW LHD staff, North Coast NSW Medicare Local and non-government agencies raised concerns about a lack of coordination between Hospitals, Mental Health Inpatients, Aboriginal Health, Community Health, General Practice, Aboriginal Medical Services (AMS), Ambulance Services, North Coast NSW Medicare Local, NGOs and other Government agencies and the impact of poor communication on the patient journey. Information Communication Technology (ICT) is considered integral to the delivery of health care services and critical to improving communication between services. Clinicians are committed to a more integrated patient journey, to working in partnership and to minimising the confusion that a multitude of service providers can have on patients, particularly the elderly.

#### 5. MANAGING INCREASING DEMAND FOR ACUTE AND SUB-ACUTE SERVICES

The challenges associated with an ageing population and increasing number of patients with cognitive impairment were highlighted at a range of consultations. Increasing demand for, and limited availability of specialist services to support these patients include specialist Allied Health Teams, Nurse Practitioners, Geriatricians, Psychogeriatricians, Specialist Mental Health Services for Older Persons (SMHSOP) Neurologists, Palliative Care and Infectious Diseases Specialists are seen as critical to managing increasing demand for services.

It is recognised that there is a need to integrate and consolidate the range of access and patient flow strategies/models of care under the Whole of Hospital Program.

New models of care such as Hospital in the Home (HITH), Chronic Care for Aboriginal People and Connecting Care are seen as positive steps in reducing presentations to ED however there is a need to ensure that these models are further developed, coordinated and integrated to minimise need for admission and readmission. Improving the availability of clinical pharmacy is also seen as critical to reducing falls and a range of avoidable hospital admissions and improving patient care.

There is increasing demand for Allied Health services in the community and a need to focus on multidisciplinary models of care which is placing additional demands on these services. Vacancies in Allied Health positions and the long term closure of services such as the Day Therapy Unit at Casino are reported to be reducing the capacity of these services to support early intervention models of care for older people such as community based rehabilitation and falls prevention and to provide support to early discharge. Improved Allied Health resourcing and the perceived need for a greater recognition of the capacity for Allied Health staff to contribute to streamlined patient discharges or transfers to less intensive/less costly models of care was raised repeatedly throughout the consultation.

The absence of out of hours Community Health Services and lack of availability of other government and non-government services limits capacity to discharge patients over the weekend. The need to work in partnership with Residential Aged Care Facilities (RACFs), North Coast NSW Medicare Local the non-government sector and an ever increasing range of service providers is seen as essential but challenging.



While the availability of Medicare funding for primary care is seen as positive, particularly in relation to Allied Health services, in some areas there are very limited private therapy services available and the lower socio-economic status of many North Coast communities means that these services are out of reach of many residents. Lack of Social Work and Psychology services particularly in the more isolated areas was raised.

Cancer Services are in high demand. The need for additional resourcing to expand the Chemotherapy Satellite Unit at Murwillumbah District Hospital (currently 1 day per week) is seen as critical to improving local access to patients and to reducing demand on The Tweed Hospital. Re-establishment of a complete haematology service at Grafton Base Hospital is seen as a priority and the limited access for cancer patients to Allied Health services (including dietitians and physiotherapists) across the District was highlighted. Medical Specialists such as the new Gynae-Oncologist position at The Tweed Hospital increases demand for a range of services and these impacts need to be assessed and planned for. Limited access to local public radiotherapy services for residents of the Tweed and Byron LGAs remains an important issue for clinicians.

Poor access to Palliative Care Specialists, particularly in the Tweed Valley is seen as a barrier to service provision. Lack of access to specialist palliative care support was also raised in the Clarence Valley and at consultations in Murwillumbah. The need for an LHD-wide approach to development and coordination of these services was stressed.

While Inpatient Rehabilitation Services have developed substantially, staff at Ballina raised concerns about the lack of availability of community rehabilitation, citing this as a reason for unnecessary admission of some patients.

Clinicians in the Tweed Byron Health Service Group raised concerns about the lack of availability of a Renal Dialysis Satellite Unit and the increasing pressure this is placing on the Unit at The Tweed Hospital.

Growth in acuity and complexity of patients in ED and increasing demands on Intensive Care Services is a challenge particularly when working in older facilities with poor functionality. Delays in retrieving and transferring critical care patients to Queensland and NSW Tertiary Referral Hospitals especially patients requiring higher level specialist neurology services was highlighted. There is growing demand to expand the role of ICU/HDU and increasing demand from an aging population.

Mental Health and Drug and Alcohol services continue to be in high demand and the need to improve access to the Aboriginal community was highlighted at a number of consultations.

### 6. SUPPORTING WOMEN'S CARE AND CHILDREN'S HEALTH SERVICES

The Tweed Hospital has experienced a large increase in demand for maternity care from the local community, a large proportion of which are residents of southern Queensland. Further development of midwifery continuity of care models at Murwillumbah District Hospital and Mullumbimby and District War Memorial Hospital is seen as critical to reducing demand at The Tweed Hospital. The need to plan for the introduction of the publically funded Outpatient Clinics for Obstetrics and Gynecology also raised the need for the provision of appropriate facilities at both Grafton Base and Murwillumbah District Hospitals for these services.

Staff reported that Child and Family Health Services are experiencing sustained clinical demand for programs and services which is not being met due to limited clinical resources. There are long waiting lists for most services and current staffing resources are unable to meet demand. There is a lack of Tresillian services and planning for Paediatric HITH programs is needed.

Although the Acute Care Teams provide an initial response to children with mental health problems aged 0-12 years, this varies depending on the skill of the worker involved and ongoing care of these children is reliant on the availability of services within Community Health. There are also concerns about the limited access to Child and Adolescent Mental Health Services. Mental health support for patients with eating disorders and for those with post-natal depression was also reported as being needed. At a meeting with Ngayundi the need for services to prevent youth suicide was raised.

## 7. A FOCUS ON SERVICES TO ABORIGINAL PEOPLE

Clinicians from NNSW LHD and Casino AMS raised concerns about the lack of coordination of services to Aboriginal people. While much has been gained with the development of new models of care such as the Chronic Care Programs for Aboriginal People there needs to be an increasing focus on shared care and working in partnership.

Access to Aboriginal Liaison Officers was raised repeatedly as key to improved engagement of Aboriginal people. Access to Aboriginal Liaison Officers is limited and there are perceived gaps particularly at Byron Bay where it was reported that there are no services available. There is also an Aboriginal Liaison Officer position at The Tweed Hospital which has been vacant for some time which limits capacity for 48 hour follow up of Aboriginal people with chronic conditions.

Other issues for the Aboriginal community include poor access to oral health services particularly in isolated communities such as Jubullum. Casino AMS raised the need for improved Health Post facilities at Jubullum. Casino AMS has recently submitted to the Commonwealth Government for funding to construct a new facility at Tabulum.

Aboriginal leaders emphasised the need for improved access to Mental Health and Drug and Alcohol Services and to focus on the prevention of youth suicide.

## 8. PROVIDING TRANSPORT AND ACCOMMODATION TO MEET THE NEEDS OF OUR RESIDENTS

Limited access to inter-hospital patient transport services are considered to be impediments to effective networking of services across the Health Services Groups, barriers to implementing hub and spoke models, and resulting in delays in transferring patients to higher level care and patients staying longer in EDs awaiting transport for diagnostics.

Access to health related transport remains a critical issue for the Aboriginal community particularly those living in isolated areas. This issue was raised at the recent Ngayundi meeting and at other meetings with service providers including the AMS. Patient transport across the LHD is particularly important given the low socio-economic status of many residents.

In Lismore and Tweed Heads the need for local affordable accommodation for families who live in remote locations and have limited access to transport was highlighted, particularly for those receiving cancer treatments. Accessing affordable and convenient transport options for families who live in the more remote locations of NNSW LHD is a challenge. For many people the Isolated Patients Travel, Accommodations and Assistance Scheme (IPTAAS) is not considered helpful given the limitations on conditions of eligibility.

## 9. ACQUIRING THE RIGHT SKILL MIX TO MEET FUTURE CHALLENGES

Improved education opportunities including post graduate training for Allied Health staff in relation to aged care as a specialty will need to focus on the skills required to provide appropriate care to an ageing population. There is a need for improvement in staff knowledge in the early recognition of delirium/dementia risk factors and appropriate management for the confused/disoriented older

patient. The additional support and training to better understand patient-centred care approaches, and its relevance to the needs of patients with cognitive impairment is essential to providing better outcomes for these patients. There is a need for ongoing staff education in relation to new models of care and new technologies including Telehealth.

Ageing of our workforce is an important issue for staff and they highlighted the need for an increased emphasis on succession planning across all professions.

There was considerable concern expressed about lengthy delays in recruitment especially non front line Allied Health staff. There is also number of Allied Health students across the facilities and it was reported that extended vacancies are impacting on capacity to support these students. Staff recruitment processes need to be more responsive. It was suggested that there is a need to improve advertising and provide incentives for staff to work in more isolated locations.

There is a need to define the scope of work for Aboriginal Health Education Officers and to embed recruitment of Aboriginal people in all clinical areas across the LHD. There is also a need to increase traineeships for Aboriginal people and to provide a more diverse clinical skill mix among Aboriginal Health Workers.

It was raised that there are risks in relation to specialisation to rural health LHDs and in particular the continued need for generalist surgeons and physicians.

There are shortages in the GP workforce and resultant service reduction e.g. Bonalbo Hospital inpatient service is currently not operating. This requires succession planning for General Practice in the MPS Network and smaller rural facilities. The decline in the number of GP Obstetricians practicing in NNSW LHD over the past 10 years and their numbers is an increasing challenge

### 10. STAFF COMMITMENT TO IMPROVING PERFORMANCE

A number of important issues were raised in relation to improving performance. Staff requested there be a greater focus on systems of feedback to individual clinicians about service performance or indicators and structured feedback processes regarding proposals submitted for new models of care. There are perceived barriers to service/model innovations. In order to maintain a focus on service quality and improvement, communication regarding the progress or otherwise of proposals submitted for new models of care and other clinical service developments needs to be strengthened.

The need for greater recognition of the key role played by administrative personnel in support of quality patient outcomes and the achievement of clinical care targets was raised by clinicians.

### 11. IMPROVING INFORMATION COMMUNICATION TECHNOLOGY (ICT)

Staff recognises that ICT is integral to the delivery of health care services and that a strong ICT network enables the delivery of contemporary models of care and appropriate sharing of clinical information. There is a strong commitment to Telemedicine and to emerging technologies across a range of services. Although improvements are planned there continues to be problems with bandwidth and ICT capacity and reliability. Services are reliant on Telemedicine, videoconferencing and the electronic Medical Record (eMR). Each new technology adds to the burden on out of date infrastructure and often causes systems to crash. Lack of an integrated eMR, electronic referral and/or electronic discharge and referral systems between services including Hospitals, Community Health Services, General Practice, non-government agencies and the Ambulance Service is seen as a key issue effecting patient care. WiFi access is very limited and Net-based links such as Skype and face-time are not available.

There is a perceived lack of planning to ensure that new technologies such as iPad and/or tablet based therapeutic tools are available for use by Visiting Medical officers (VMOs), hospital based clinicians and Community and Allied Health staff. The provision of remote access to a range of communication and information systems such as patient monitoring, review of pathology and radiology reports, assessment and educational tools and access to electronic information which support high quality patient care is seen as essential to providing the best care to our patients now and in the future. These systems also reduce duplication, support service integration and care coordination, are effective and have the potential to reduce costs.

## 12. CONCLUDING COMMENTS

Staff are to be commended for their hard work and commitment to providing high quality health services. Their energy and commitment in pursuit of high-quality care to their patients/clients is evident. There is clearly a culture which values positive patient outcomes and focuses on minimising clinical risks. They are also aware that resources are limited and they have shown a real commitment to doing things better and smarter.

Staff brought to the consultations a wealth of experience, dedication to patient/client care, lots of ideas for how to do things better and a positive commitment to future service provision and emerging models of care. Consultations highlighted the need to work in partnership within and outside the LHD and the increasing need for new technologies to support improved communication between services.

The consultation process has enabled the active engagement of clinicians and managers in decision making about the planning and delivery of future health care services across the LHD.

The Planning and Performance Unit would like to take this opportunity to thank everyone who participated in the consultation process. In particular, we would like to acknowledge the supportive assistance of the Chair and Co-Chair of the Steering Committee, Service and Program Managers and Senior Clinicians. Their help with the distribution of flyers and completion of questionnaires was invaluable and their assistance with scheduling and organising the consultation sessions was very effective.

In conclusion, it is clear that clinicians, nursing teams, allied health practitioners and clinical support departments are striving to address ongoing service provision challenges within the context of growing community demands and expectations.

### 14.1.3 ABORIGINAL HEALTH IMPACT STATEMENT



## Aboriginal Health Impact Statement Declaration

This Statement and the following Checklist will accompany new initiatives submitted for approval to the Northern NSW Local Health District (NNSW LHD) Executive Meeting and/or the relevant committees at a network/local level. This Statement and Checklist aims to ensure that the health needs and interests of Aboriginal people have been considered, and where relevant, appropriately incorporated into health policies. Note that as well as health policies and policy initiatives, this Statement should be used in relation to major health strategies and programs.

THE ABORIGINAL HEALTH IMPACT STATEMENT DECLARATION	
Title of the policy/ initiative:	NNSW LHD Health Care Services Plan
Please complete the Declaration below and the <b>Checklist if required</b> .	
<b>Please tick relevant boxes:</b>	
<input checked="" type="checkbox"/>	The health* needs and interests of Aboriginal people have been considered, and appropriately addressed in the development of this initiative.
<input checked="" type="checkbox"/>	Appropriate engagement and collaboration with Aboriginal people has occurred in the development and implementation of this initiative.
<input checked="" type="checkbox"/>	Completed Checklist attached.
<b>OR</b>	
<input type="checkbox"/>	The health* needs and interests of Aboriginal people have been considered, in the development of this initiative.
<input type="checkbox"/>	The Aboriginal Health Impact Statement Checklist does not require completion because there is no direct or indirect impact on Aboriginal people. (Please provide explanation).
Manager of the Unit: Maureen Lane	
Unit Name: Chief Executive Unit - Planning and Performance	
Local Health District or other body: NNSW LHD	
Signature:	Date: 10 July 2013
Contact phone no: 02 6620 2897	Email address: <a href="mailto:Maureen.lane@ncahs.health.nsw.gov.au">Maureen.lane@ncahs.health.nsw.gov.au</a>
Registration no: CE/2013/01	Signature:
	Signature:
	Manager Aboriginal Health

\* For Aboriginal people, health is defined as not just the physical well-being of the individual but the social, emotional and cultural well-being of the whole community.



## Aboriginal Health Impact Statement Checklist

This Checklist should be used when preparing an Aboriginal Health Impact Statement for new health policies, as well as major health strategies and programs. To complete the checklist and to fully understand the meaning of each checklist item, it is essential to refer to *How to Use the checklist* in Part 3 of the Aboriginal Health Impact Statement.

### Development of the policy, program or strategy

1. Has there been appropriate representation of Aboriginal stakeholders in the development of the policy, program or strategy? ☒ Yes ☐ No

2. Have Aboriginal stakeholders been involved from the early stages of policy, program or strategy development? ☒ Yes ☐ No

Please provide a brief description

- The Aboriginal Strategic Development and Performance Coordinator Aboriginal Health Strategic Unit, was a member of the Steering Committee (delegated by Aboriginal Health Program Manager)
- Specific meetings were held with Aboriginal Health staff and AMS representatives to elicit their views on key issues and priorities for NNSW LHD
- A Non-Government Forum was held and AMS representatives participated in the Forum

3. Have consultation/negotiation processes occurred with Aboriginal stakeholders? ☒ Yes ☐ No ☐ N/A

4. Have these processes been effective? ☒ Yes ☐ No

Explain

Consultation sessions were conducted as conversations and all participants were encouraged to join in. Individual sessions were well attended and the Strategic Development and Performance Coordinator, Aboriginal Health attended meetings of the Steering Committee and participated in discussion and decision making.

5. Have links been made with relevant existing mainstream and/or Aboriginal-specific policies, programs and/or strategies? ☒ Yes ☐ No ☐ N/A

6. How does the initiative meet the objectives of the NNSW LHD Aboriginal Workforce Development Strategy?

Explain

The NSW Aboriginal Health Plan 2013-2023 outlines key areas of focus to strengthen the Aboriginal workforce by attracting, developing and sustaining more Aboriginal people to work in health. Strengthening the Aboriginal workforce in the health system is seen as critical to improving services. Good Health-Great Jobs, the Aboriginal Workforce Strategic Framework 2011-key priorities have been detailed and considered in the Plan. Key issues in relation to Aboriginal workforce raised at consultation sessions have also been considered in the Plan.

### Contents of the policy, program or strategy

7. Does the policy, program or strategy clearly identify the effects it will have on Aboriginal health outcomes and health services?

☒ Yes ☐ No

Comments

There are specific sections of the Plan devoted to relevant health issues for Aboriginal people. The burden of disease, gaps in health status and specific population and demographic trends in relation to the Aboriginal population of NSW LHD have been detailed in the Plan. The effect of priority services changes workforce strategies and the benefits of cultural sensitivity in health services are clearly outlined in the Plan.

8. Have these effects been adequately addressed in the policy, program or strategy?

☒ Yes ☐ No

Explain

Specific sections in the Plan detail key issues and priorities around the full range of Aboriginal Health perspectives including for example rural isolation, community dislocation and levels of disadvantage.

9. Are the identified effects on Aboriginal health outcomes and health services sufficient for Aboriginal people (compared to the general population) to warrant the development of a separate policy, program or strategy?

☒ Yes ☐ No ☐ N/A

Explain

A specific Aboriginal Health and Wellbeing Plan will need to be developed at a later time.

### Implementation and evaluation of the policy, program or strategy

10. Will implementation of the policy, program or strategy be supported by an adequate allocation of resources specifically for its Aboriginal health aspects?

☐ Yes ☐ No ☐ N/A  
☒ To be advised

Describe

The Plan is strategic and each action will be part of a business planning process.

11. Will the initiative build the capacity of Aboriginal people/organisations through participation?

☒ Yes ☐ No ☐ N/A

In what way will capacity be built?

Key priorities in the Plan include those focused in increasing participation in the workforce of Aboriginal people and improving the cultural sensitivity of the Health Service as a whole. Ngayundi will also be consulted on outcomes of the planning process.

12. Will the policy, program or strategy be implemented in partnership with Aboriginal stakeholders?

☒ Yes ☐ No ☐ N/A

*Briefly describe the intended implementation process*

Implementation will involve developing related Strategic and Business Plans. Aboriginal people will be involved in these planning processes.

13. Does an evaluation plan exist for this policy, program or strategy?

☒ Yes ☐ No ☐ N/A

14. Has it been developed in conjunction with Aboriginal stakeholders?

☒ Yes ☐ No ☐ N/A

*Explain*

Plans are evaluated through the NNSW LHD Health Services Development Committee. Aboriginal people are represented on this Committee.

