A coherent system of care for Western NSW Local Health District

CLINICAL SERVICES FRAMEWORK

- Aboriginal medical services
- Aged care services
- Multipurpose service (MPS)
- Health related services
- Rural referral hospital
- Community health services
- Mental health drug and alcohol services
- Telehealth services
- District hospital
- Specialist metropolitan services
- Aborigional medical services
- NSW Government
- Living Well Together
- Western NSW Local Health District
Revision History

<table>
<thead>
<tr>
<th>Date Issued</th>
<th>Version</th>
<th>Changes incorporated</th>
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<tbody>
<tr>
<td>15 March 2015</td>
<td>1.1</td>
<td>First version</td>
</tr>
<tr>
<td>24 March 2015</td>
<td>1.2</td>
<td>Comments Steering Committee</td>
</tr>
<tr>
<td>30 April 2015</td>
<td>1.3</td>
<td>Feedback from Executive Team</td>
</tr>
<tr>
<td>9 June 2015</td>
<td>1.4</td>
<td>Updated data for 2013/14</td>
</tr>
<tr>
<td>12 June 2015</td>
<td>1.5</td>
<td>Second round of clinical stream consultation</td>
</tr>
<tr>
<td>28 July 2015</td>
<td>1.6</td>
<td>Data projections included</td>
</tr>
<tr>
<td>31 August 2015</td>
<td>1.7</td>
<td>Updated data for 2014/15</td>
</tr>
<tr>
<td>21 October 2015</td>
<td>2.0</td>
<td>Feedback from circulation of V 1.7</td>
</tr>
<tr>
<td>November 2015</td>
<td>2.1</td>
<td>Feedback from Clinical Council Consultations</td>
</tr>
<tr>
<td>December 2015</td>
<td>2.2</td>
<td>Endorsed Aboriginal Health Impact Statement</td>
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Document Approval

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Content within this publication was accurate at the time of publication …. 2015
The Board of the Western NSW Local Health District (LHD) is genuinely committed to improving the health of the people in our region by delivering the right services at the right time and place and as close to home as possible.

Our region has some of the most vulnerable population in NSW and even Australia with the lowest socio economic status, the lowest life expectancy rates at birth than any other Local Health District and the highest percentage of people with at least one of the risk factors of smoking, harmful use of alcohol, obesity and lack of physical activity. For this reason, we have a burning platform to configure our services in the right way to improve the health of our people and provide them access to the right care and in particular, for Aboriginal people who make up 11% of our population.

The Clinical Services Framework 2015 – A coherent system of care for Western NSW Local Health District is the LHD’s guide for ensuring the delivery of safe, accessible and equitable services for our people to 2020. The Western NSW Local Health District Strategic Health Services Plan, launched in 2013 identified the need for the Framework and we are delighted to be able to deliver it following extensive consultation with clinicians, staff and other stakeholders.

The purpose of this Framework is to describe the current roles of health services in the District, provide agreed rules and guidelines for the planning of health services, and align the future role of hospitals and health services with both the strategic directions of the District and the health needs of the population they serve.

It is with great pleasure that the Board presents the Framework with the aim of delivering a more consistent and evidence based approach to providing health services in our region.

We sincerely appreciate the contributions of everyone involved in the development of the Framework.

Dr Robin Williams
Chair Western NSW LHD Board
Supporting Foreword by Chair of Clinical Council

The District Clinical Council is particularly committed to discussion on developing strategic practices that will result in closing the Aboriginal health gap, improving quality and safety in our health services, and developing innovative solutions that best address the needs of local communities.

The role of the District Clinical Council is to provide a forum for discussing strategic planning, priorities for service development, resource allocation, clinical policy development and providing professional (expert) clinical guidance, where appropriate and when needed.

The Council is supportive of the Clinical Services Framework 2015. We are looking forward to playing a key role in listening to issues raised by the clinical streams and especially representatives from Aboriginal health and remote sites on how we deliver on making our system of care more coherent and taking these to the Chief Executive and the LHD Board.

Dr Ray Parkin, Chair of the District Clinical Council.
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Glossary

Activity
A broad term describing what health services do - usually measured by occasions of service, separations and bed days

AIM2012
Acute Inpatient Modelling Tool developed by Statewide Services, NSW Department of Health. It is a medium to long-term projection tool to model future demand for acute inpatient care.

Bed occupancy
Average proportion of beds occupied for a defined period of time

Catchment
A defined geographic area from which a facility/facilities attract patients

Clinical support service
A set of departments organised around several clinical and support professions, including pharmacy, pathology, patient transportation, medical records and medical imaging.

Demand
Use of health services by residents of a defined geographical area

Flowinfo v14
NSW Health planning tool containing data on numbers of admitted patients treated in public and private facilities

Framework
Provides broad directions for service delivery in the future

In Safe Hands Program
Provides a platform for building and sustaining efficient and effective healthcare teams within a complex healthcare environment

Network
Linked services that provide services to a wider population

Outflows
The number of occasions of service provided by a local health district (LHD) other than the LHD in which a patient resides

Projection
Estimate of future health service activity, based on historical trends of hospital utilisation and population growth

Role delineation
In NSW, role delineation forms part of service planning to assist in describing the complexity of services require for the needs of the population.

Separation
An occasion where a patient completes a period of inpatient care

Service related group (SRG)
A classification method for grouping hospital inpatient episodes into categories of clinical services
Executive summary

Acknowledgement of Country

The District acknowledges the traditional owners of Country throughout Western NSW, and their continuing connection to land and community. We pay our respect to them and their cultures, and to the elders both past and present.

The Clinical Services Framework 2015 – A coherent system of care for Western NSW Local Health District, will guide the delivery of safe, accessible and equitable services for people living in western NSW. The Framework will be the foundation for providing clinical services to 2020. Clinical services based on community need, will have a positive impact on the health of communities, improve the peoples’ experience of health care and demonstrate a good use of available resources. The Western NSW Local Health District Strategic Health Services Plan, launched in 2013, identified the need for this framework.

The purpose of this Framework is to describe the current roles of health services in the District, provide agreed rules and guidelines for the planning of health services, and align the future role of hospitals and health services with both the strategic directions of the District and the health needs of the population they serve. This Framework supports the District’s commitment to evidenced based service delivery. Evidenced based and integrated hospital prevention and substitution models of care and patient referral pathways, will mean that when possible and clinically appropriate, people will be treated in the ‘right place, at the right time, by the right team, first time’.

The District is dedicated to closing the gap in Aboriginal health. The health needs of Aboriginal people and their families have been considered in the development of this framework. It is the responsibility of all employees of the District to ensure the needs and interests of Aboriginal people are embedded into the development, implementation and evaluation of all initiatives.

The underlying principles of the Triple Aim Framework, developed by the Institute for Health Care Improvement, has been adopted to guide decisions on optimising health system performance and to provide a balanced approach to health system planning. The following service planning principles provide a local context to the overarching Triple Aim Framework and ensure a practical and sustainable approach to developing health services that respond to the issues affecting local health care delivery.

- Services will be person centred, integrated and informed by contemporary evidenced based models of care and service delivery policies
- All service planning will consider the health needs of Aboriginal people and the cultural responsiveness and capability of services
• A range of service threshold requirements need to be met within a community to ensure there is sufficient population demand to support the range of services to be delivered
• Services will be networked with interdependent components to address the health needs of aggregate populations and improve their sustainability
• Networking arrangements for general services will reflect natural catchment and communities of interest
• People requiring specialist public services available within the District will be managed within the District
• There will be access to appropriate services ‘close to home’ when supported by sufficient demand
• All communities will have local access to timely emergency care, primary care, health promotion and health maintenance, community nursing and community support services

A steering committee with representation from the Executive, senior managers and clinicians, has overseen the development of this Framework. Consultation has occurred with the Western NSW LHD Board, the Executive Leadership Team, the Aboriginal Health Team, clinical streams, general managers, Bathurst, Dubbo and Orange Clinical Councils and the newly formed Western NSW LHD Clinical Council. Many people have provided valuable feedback.

Several District clinical services planning activities have informed this Framework. These include the Lachlan and Dubbo hospital redevelopments, the current Multi Purpose Service (MPS) Program (Molong, Rylstone, Coolah and Cobar MPS redevelopment planning) the Bathurst Health Service Clinical Services Plan, the Palliative Care and End of Life Plan, the Renal Services Plan, the Non-Surgical Cancer Services Framework and the Aboriginal Health Plan.

The current health care delivery approach will not address current and future demographic, technological, social and economic challenges or the escalation of health care costs. The development of innovative solutions for providing health services, informed by evidenced based practice and supported by agencies, including the Agency for Clinical Innovation (ACI), is the core component of improving the health of our communities. Decision making criteria have been developed within the Triple Aim Framework to provide a consistent approach to service planning, service realignment, procurement of services and technology and resource allocation.

The District’s residents are some of the most vulnerable people in the state. They are socioeconomically disadvantaged and have poorer health, including a higher risk of dying prematurely and a greater prevalence of chronic illness. They are also more likely to engage in behaviours that contribute to poorer health. Addressing these disparities in health status, and reducing the associated increased demand for health services, hinges on investment in ‘upstream’ approaches to improving health, including health promotion, illness prevention, early identification and intervention and rehabilitation.
The District will work in partnership with community groups, the Western NSW Primary Health Networks, Aboriginal community controlled health services and other government and non-government agencies, to reduce risk related behaviours, better integrate the care of people with chronic illnesses and build capacity within community groups and individuals to improve and 'self-manage' their health in community settings. This will involve collaborative strategies to address the social and behavioural determinants of health and close an unacceptable Aboriginal health gap.

A shift to activity based funding (ABF) provides a catalyst to analyse the cost implications of providing services. The District’s projected average cost per national weighted activity unit (NWAU) is higher than the State funded price. The District is currently in receipt of a significant transition grant (a temporary funding measure) to maintain current service delivery and minimise disruptions. Transition grants will be reduced over time. Any future service developments or expansions of services, along with shifts and increases in activity, changes in models of care, or the location of services must be considered in line with the District’s ability to manage the current transition grant and their impact on ABF and population based funding.

Increased technological advances and an increased demand for technology will continue to shape the way health services are delivered. Embracing this dynamic technological age will increase the capability of the District to provide quality, virtual advisory services and clinical treatments, including hospital substitution services and other services, closer to where people live.

The Framework provides broad directions for service delivery in the future and identifies the proposed roles of the different hospitals and health services in the District. Acute inpatient care requiring specialist medical and surgical oversight is increasingly the role of the rural referral hospitals, which have better access to diagnostic equipment and specialist expertise. This is resulting in a reduced requirement for acute inpatient capacity in district and small rural hospitals. The role of district and small rural hospitals will primarily be the short-term management and observation of people with higher acuity medical conditions prior to their transfer to the rural referral hospitals for definitive care. Their role in providing acute inpatient care should be limited to short stays for people with general medical conditions, who are of low acuity, stable and do not require on site specialist intervention. The role of small hospitals in the provision of low complex, elective surgery will be explored as part of District wide surgical services planning.

The current levels of general and specialist medicine services provided by the rural referral hospitals and health services are unlikely to change. With the development of specialist cardiac services at Dubbo and Orange hospitals, it is likely that there will be fewer outflows of patients to metropolitan centres for inpatient care. Similarly, there is increased capacity within the District to provide medical oncology and radiation oncology services. The recruitment of local medical oncologists to Dubbo will further enhance these services. The District will continue to build a locally based workforce to reduce the reliance on 'fly in/fly out' specialists and increase its ability to provide specialist outreach services to smaller communities. The feasibility of establishing an enhanced specialist respiratory medicine service, including a public sleep laboratory will be examined.
Given the geography of the District, district and small rural hospitals will continue to play a key role in supporting early discharge and transfer from the rural referral hospitals and providing care ‘close to home’ for people requiring post-surgical care and sub-acute care including rehabilitation and palliative care. Strengthening of the role of general practitioners (GPs) in the management of people post acute specialist care will include a collaborative generalist and specialist shared care model.

The District will focus on shifting appropriate activity from hospital inpatient to ambulatory care and community settings and improving the management of people with chronic diseases within their communities. The expansion of integrated primary care services in partnership with Aboriginal community controlled health services, GPs, the Western NSW Primary Health Network and other primary health care providers, will provide sustainable primary and community services that focus on priority health needs and reduce acute care demand. This will include increasing the availability of specialist support for primary care. A decreasing reliance on inpatient care will reduce bed requirements and allow the shifting of resources to ambulatory and community settings in some centres.

Future directions for core District services including acute inpatient services, aged care services, cancer services, cardiovascular services, emergency services, kids and families’ services, mental health and drug and alcohol services, oral health services, palliative and end of life services, primary, community, ambulatory services and health promotion, rehabilitation services and renal services are outlined. Common themes for all services are working in partnership with other health and health related providers, growing capacity to provide high quality care within the District, reducing the unnecessary transfers of people outside of the District and the networking of services to sustain services into the future. High-level patient journeys guide the delivery of care at the right place, right time and where possible first time, by the right time.

Appendix 1 provides a summary of future directions for these key service areas. The development of service specific plans and implementation plans will translate these directions into action.
2. Introduction

This Framework will guide the Western NSW Local Health District (‘the District’) in delivering safe, accessible and equitable services for people living in western NSW. It provides a practical approach that is sustainable and responds to the issues affecting local health care delivery. The Framework provides a foundation for providing clinical services responsive to community need and service demand. Services will have a positive impact on the health of communities, improve people’s experience of health care and demonstrate a good use of available resources.

Like all health organisations, the District is operating in a difficult environment, with intensifying demand pressures and constrained supply. The District also faces some unique challenges. We are responsible for service delivery to a large and sparsely populated geographic area comprising many small rural and remote communities with high health needs, and a relatively high proportion of Aboriginal people. Future proofing of the Western NSW health system requires adoption of new ways of working that make access and outcomes more equitable and make better use of the available workforce and funding.

The Western NSW Local Health District Strategic Health Services Plan 2013 – 2016

The Framework also provides a transparent coordinated approach to planning and delivering quality, efficient services and aligns future services with the District’s strategic directions. The Framework also describes the delivery of key clinical services and provides broad directions for future service delivery.

2.1 Purpose

The purpose of this Framework is to:
- Provide agreed rules for the planning of health services
- Describe the current roles of health services
- Define the future roles of hospitals and health services in relation to key service areas
- Develop patient journeys for key service areas that take into account acuity, time to definitive care and where appropriate the provision of services ‘close to home’

2.2 Scope

This Framework provides high-level directions for the planning and development of health services within the District. It provides an overview of the roles of existing health facilities and recommends future roles for these services. Key service areas at a District level are described, drivers for change identified and future directions outlined.
Generic ‘patient journeys’ have been developed for a number of the key service areas. The key service areas are not inclusive of all services provided within the District, focusing primarily on areas considered core services. The core service groupings (listed alphabetically) are:

- Acute inpatient services – (surgery and general medicine)
- Aged person services
- Cancer services
- Cardiovascular services
- Emergency services
- Intensive care services
- Kids and families’ services
- Mental health and drug and alcohol services
- Oral health services
- Palliative and end of life services
- Primary, community, ambulatory services and health promotion
- Rehabilitation services
- Renal services

‘The Triple Aim’ Framework guides future planning for clinical services within the District. This Framework informed criteria for prioritising and planning future service development and delivery. Specific criteria or ‘rules’ are provided in Appendix 2.

### 2.3 The health landscape

Poorer health status of the District’s residents, the higher prevalence of chronic illness, and higher rates of health risk related behaviours, demands a greater emphasis on promoting health and prevention of illness. This includes building capacity within communities and the development of partnerships to address the social and behavioural determinants of health and close an unacceptable Aboriginal health gap.

The District is dedicated to improving the health of Aboriginal people. The health needs of Aboriginal people and their families have been considered in the development of this Framework. It is the responsibility of all employees of the District to ensure the needs and interests of Aboriginal people are embedded into the development, implementation and evaluation of all services and initiatives.

Technological advances and an increased demand for technology will continue to shape the delivery of health services. Embracing this dynamic technological age will increase the capability of the District to provide ‘virtual’ advisory services and clinical treatments to the widely dispersed population. Electronic medical records and test results and improvements in remote consultation are increasing our ability to provide services ‘close to home’.

The emergence of smartphones and tablets has facilitated a medical application revolution. Applications including blood sugar level monitoring, medication reminders and animated surgery education resources are ‘enhancing how we take care of ourselves – all in the palm of our hands’.
Rural communities are passionate about and committed to their local health services. They expect access to high-quality health care as close as possible to where they live. They need to be engaged in the planning of health services. Integral to effective community engagement is awareness and an understanding of what is safe and appropriate to provide locally, and what is best provided at another facility. Increasing health literacy and the use of technology by community members, creates potential for their greater involvement in self-management and allows a wider range of service provision in local communities and towns, including ‘virtual hospital’ services within the home.

State and Commonwealth policies and directions encourage the integration of Government and non-government agencies to provide increased access to public services. This is particularly relevant in this District, where several organisations provide health and health related services. True integration provides an opportunity to address the social and economic determinates of health, better utilise our limited workforce, reduce duplication of services, improve access to services, and provide a range of sustainable services in rural communities.

A ‘more of the same’ health care delivery approach will not address current and future demographic, technological, social and economic challenges or the escalation of health care costs. Innovative solutions for providing health services, informed by evidenced based practice and supported by agencies such the ACI, are core components of improving the health of our communities.

Other government services including disability services and home and community care are currently realigning their core functions and funding arrangements. This is likely to have a flow on effect for the District with an expectation that services no longer provided by these organisations will be ‘picked up’ by the health sector. The introduction of future services requires consideration within an agreed framework that defines what is the District’s core business and guides decisions in relation to additional services.

A shift to activity based funding (ABF) provides a catalyst to analyse the cost implications of providing services. The District’s projected average cost per national weighted activity unit (NWAU) is higher than the State funded price.

The District is currently in receipt of a significant transition grant (a temporary funding measure) to maintain current service delivery and minimise disruptions. Transition grants will be reduced over time. Local Health Districts are required to improve counting, coding, costing processes and assess inefficiencies in order to address the need for a transition grant. Any future service developments or expansions, shifts and increases in activity and changes in models of care or the location of services must be considered in line with the District’s ability to manage within the current transition grant and their impact on ABF and population based funding.

2.4 Strategic context

The documents informing this Framework are the Western NSW Local Health District Strategic Health Services Plan (SHSP), the NSW State Plan – 2021, the NSW State Health Plan and the Rural Health Plan. The Western NSW Local Health District Strategic Health
Services Plan, informed by the Western NSW Health Needs Assessment and launched in 2013, has a five to ten year horizon. Its development was a joint initiative of the District and the former Medicare Locals.

The District’s strategic priorities are:

Priority 1. Develop a coherent Western NSW system of care
Priority 2. Support high performing primary health care
Priority 3. Close the Aboriginal health gap
Priority 4. Improve the patient experience
Priority 5. Living within our means

The District’s priorities are consistent with the NSW State Plan, the NSW State Health Plan, Towards 2021 NSW and the NSW Rural Health Plan: Towards 2021.

Western NSW LHD Hierarchy of Plans

- State Plan
- State Health Plan
- Rural Health Plan
- Relevant National Plans

Performance Agreement

WNSWLHD Strategic Health Services Plan

Clinical Services Framework
A coherent system of care for Western NSW LHD

Enabling Plans
- Aboriginal Health
- Workforce
- Pop health
- Asset
- IM&T
- Financial

Clinical Services Plans
- Cancer
- Palliative Care
- Renal
- Facility plans
- Other clinical services

Operational – Annual and 90-Day Plans
- Directorate Plans
- Facility Plans
- Department Managers Plans
- Other clinical services
The NSW State Plan has set two overarching goals for health care services in NSW:

1. Keep people healthy and out of hospital
2. Providing world class clinical services with timely access and effective infrastructure

The NSW State Health plan provides directions and strategies to deliver these State health goals.

**Figure 1: The State Health Plan**

*The NSW Rural Health Plan: Towards 2021* was developed to strengthen the capacity of NSW rural health services to provide connected and seamless care, as close to regional, rural and remote NSW communities as possible.

**Figure 2: The Rural Health Plan**
2.5 Consultation

A steering committee with representation from the Executive, senior managers and clinicians, has overseen the development of this Framework. Consultation has occurred with the Western NSW LHD Board, the Executive Leadership Team, the Aboriginal Health Team, clinical streams, general managers, Bathurst, Dubbo and Orange Clinical Councils and the newly formed Western NSW LHD Clinical Council. Many people have provided valuable feedback.

The Framework has been informed by several District clinical services planning activities. These include the Lachlan and Dubbo hospital redevelopments, the current Multi Purpose Service (MPS) Program (Molong, Rylstone, Coolah and Cobar MPS redevelopment planning), the Bathurst Health Service Clinical Services Plan, the Palliative Care and End of Life Plan, the Renal Services Plan, the Non-Surgical Cancer Services Framework and the Aboriginal Health Plan.
3. Planning principles and guidelines

The District has developed guidelines underpinned by the following principles to guide the planning and delivery of health services.

Service planning principles

- Services will be person centred, integrated and informed by contemporary evidenced based models of care and service delivery policies
- All service planning will consider the health needs of Aboriginal people and their families and the cultural integrity of services
- A range of service threshold requirements need to be met to ensure sufficient population to support the range of services required
- Services will be networked, with interdependent components, to address the health needs of aggregate populations and support the sustainability of services. This particularly relates to specialist services such as renal, interventional cardiology, radiation oncology, intensive care, sub speciality surgery and mental health. These services cannot be provided independently in each of the rural referral centres
- Referral networking arrangements for general services will reflect natural catchment and communities of interest
- People requiring specialist public services available within the District will be managed within the District
- Where appropriate services will be provided ‘close to home’
- All communities will require local access to timely emergency care, primary care, health promotion and health maintenance, community nursing and community support services

The underlying principles of the *Triple Aim Framework*, developed by the Institute for Health Care Improvement, have been adopted by the District to guide decisions on optimizing health system performance and to provide a balanced approach to health system planning.
Figure 3: The Triple Aim Framework

![The Triple Aim Framework](image)

Source: Institute for Health Care Improvement

**Triple Aim quality improvement**

The Triple Aim Framework considers the impact of services and service developments within each of the framework accountability dimensions of:

- Best value for public health system resources (system)
- Improved quality, safety and experience of care (individual)
- Improved health and equity for all populations (populations)

**Methodology for prioritising service developments and enhancements**

Prioritisation guidelines were developed to align with the dimensions of the Triple Aim Framework. These have also been informed by a review of priority setting methods conducted by the Sax Institute on behalf of the Agency for Clinical Innovation and a draft version of Strengthening Health Care in the Community, a guide to decision making.³⁴

The rule set and process for prioritising service developments and enhancements is included as Appendix 2 of this document.
4. Our people and their health

4.1 Our people

The District provides health services to an estimated resident population of 277,768 people living in a large geographic area of 246,676 square kilometres or 31 per cent of NSW. The District includes 23 local government areas (LGAs). Eight of these are remote. Most of the population is concentrated in the larger cities and towns in the Bathurst Regional, Cabonne, Orange, Dubbo, Mid-Western Regional, Parkes, Forbes and Cowra LGAs.

The District’s population has a similar age structure to the rest of NSW. The District has 21 per cent of its population aged 0-14 years (compared with 19 per cent for NSW). At the other end of the age scale, 16 per cent of the population are aged 65 or over, compared with 15 per cent for the State. The District has a slightly higher proportion of people who are dependent on services or carers. The District also has a significantly lower proportion of people in the 20-34 years age groups. This is a well-recognised phenomenon in rural areas, as young adults head to larger cities for tertiary education opportunities and to 'see the world', then job seeking and returning with families.

Compared with other local health districts, Western NSW has the highest proportion of Aboriginal people in NSW, representing 11.1 per cent of the total estimated resident population. This is significantly higher than the NSW average. The proportion of Aboriginal people varies significantly when looking at individual LGAs. The LGAs with the highest proportions of Aboriginal people are those in the northwest and remote areas of the District - Brewarrina (59%), Bourke (30%), Walgett (28%) and Coonamble (29%).

Socio-Economic Indexes for Areas (SEIFA) is a product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The indexes are based on information from the five-yearly Census. A score of 1000 is set to the average for Australia. In the Western NSW Local Health District, most LGAs have scores below 1000, which indicates relative disadvantage. Socioeconomic status follows a declining trajectory from the eastern to northwest and remote areas of the District. Bathurst Regional LGA has the highest score (1004.1) and Brewarrina LGA has the lowest score (788.4). Aboriginal people continue to show disadvantage across all social determinants - education, employment, housing, household income, and incarceration. Their health outcomes remain unacceptably low compared to those of non-Aboriginal people.

The District’s population is projected to increase slightly over the next 20 years. The most significant growth will occur in the Bathurst Regional, Dubbo, Orange, Blayney and Oberon LGAs. The greatest population decline will occur in the Warren, Coonamble, Bogan and Brewarrina LGAs.

The following map illustrates the many Aboriginal nations and language groups that exist within the District’s boundary. The District provides services to people living in nine
Aboriginal Countries including Barindji, Barrinbinja, Barundji, Gunu, Kamilaroi, Muruwari, Wailwan, Wiradjuri and Wongaibon.

**Figure 4: Western NSW Aboriginal Nations**

![Western NSW Aboriginal Nations](image)

Source: NSW Health Aboriginal Nations, Greater Western AHS map (extracted) and http://archives.samuseum.sa.gov.au/tribalmap/index.html

### 4.2 The health of our people

People living in rural and remote areas generally have worse health than people living in metropolitan areas do. The reasons for this health differential include geographical isolation, socio-economic disadvantage, shortage of health care providers, lower levels of access to health services, greater exposure to injury risks and poor health among Aboriginal people.

Compared with people who live in ‘major cities’, people who live in ‘remote’ areas:

- Can expect to live fewer years
- Are more likely to die prematurely and from causes classified as ‘potentially avoidable’
- Report greater difficulties in getting health care when they need it
- Are more likely to be hospitalised for conditions for which hospitalisation can be avoided through prevention and early intervention
- Are more likely to be overweight and obese
- Are more likely to die in motor vehicle crashes
- Are more likely to be hospitalised for heart disease

People living in our District have the shortest life expectancy at birth when compared to other LHDs, the exception being Far West LHD. Although life expectancy has steadily increased in

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1 The map of Western NSW Aboriginal Nations has been developed by the Aboriginal Health Team and indicates the approximate locations of larger groupings. These groupings may include smaller groups. These boundaries are not intended to be exact. This map is not suitable for use in native title claims or other land claims.
the District between 1973 and 2007, the current life expectancy of 76.5 years for men and 81.9 years for women is 2.5 years below the NSW average life expectancy. The District also has a higher premature mortality rate than other rural NSW Areas (325 per 1,000 people compared to 311 per thousand people). Premature mortality rises with increasing socio-economic disadvantage.

Aboriginal life expectancy at birth is not available at the local health district level. Estimates at a state level, indicate that Aboriginal people die eight years earlier than non-Aboriginal people do. Aboriginal males have a larger gap of 8.8 years compared to the Aboriginal female gap of 7.5 years. There has been a significant decline in mortality for non-Aboriginal people between 1998 and 2007. Unfortunately, there has been little change for Aboriginal people. Mortality rates were 1.6 times higher in 1998 for males and 1.6 times higher for Aboriginal women. These rates rose to 2.3 times higher for males and 2.7 times higher for females in 2007. Hence, the ‘gap’ is widening.

Whilst high levels of chronic disease (including cardiovascular disease, diabetes and respiratory disease) and risk factors for chronic disease are prevalent throughout the region, those communities with higher Aboriginal population proportions tend to have significantly higher rates. Diabetes is a major factor in the excess burden of disease among Aboriginal people and a contributor to 12 per cent of the health gap between Aboriginal and non-Aboriginal people. The onset of diabetes occurs earlier among Aboriginal people and they are more than three times as likely as non-Aboriginal people to die because of diabetes. Based on the estimated diabetes prevalence, 10.7 per cent of the population in the northwest area of western NSW identify as having diabetes. This is significantly higher than the rest of NSW and Australia.

Over a third (36 per cent) of premature mortality (deaths of people less than 75 years) in the District is due to cancer. Figures available for cancer incidence on the NSW Health Statistics website, show the incidence of prostate, breast, bowel and lung cancer in the District is similar to other districts in rural NSW, but significantly higher than the incidence in Sydney. Diabetes and cardiovascular disease are the other major contributors to premature mortality.

For more information on the population and their health status refer to the Western NSW Health Needs Assessment. Some of the priority areas identified by the Health Needs Assessment where health care interventions are likely to give the greatest benefits to the District's population include:

- Smoking prevention and cessation
- Nutrition and physical activity interventions, including obesity prevention
- Diabetes prevention and management
- Well child care, particularly for Aboriginal children - the first 1000 days
- Mental health - continuing and strengthening the current community services
5. Health services within the District

The District operates a significant number of health services including 38 inpatient facilities with over 1,500 beds, including acute and residential aged care beds. The location of many of these facilities and the services they provide have been the result of historical and political factors rather than the product of needs based planning.

The District provides approximately 65 per cent of all inpatient services required by its residents. Of the total public acute hospitals admissions, 86 per cent were to facilities within the District. The majority of people receiving care outside of the District live closer to major centres in other LHDs or states require specialist care not provided within the District or access private health facilities.

There are 50 community health centres located within the District, which provide access to a wide range of multidisciplinary primary, and community health services.

Figure 5: The location of hospital facilities within the Western NSW LHD

Source: NSW Ministry of Health

For defining the roles of hospitals and health services within the District, this Framework uses the following ‘local’ categorisation of services.

- Rural referral hospitals and health services
- District hospitals and health services
- Small rural hospitals and health services
- Primary and community health centres and HealthOne NSW services
Rural referral hospitals and health services are located in large rural centres and provide a wide range of specialist inpatient and community services for a large catchment population. Some centres provide tertiary level or inter district services such as interventional cardiology and comprehensive cancer care.

District hospitals and health services are located in large towns and provide emergency, acute medical, surgical, maternity and subacute inpatient services and a range of primary, ambulatory and community services for their local community and people from neighbouring villages. They do not have on site specialist services.

Small rural hospitals and health services are located in smaller towns, providing emergency services, acute and sub-acute medical inpatient services and primary and community health services. They may provide elective surgery and procedures and birthing services dependent upon the availability of required support services and their geographical location. Many of these facilities are multipurpose services (MPSs) providing integrated acute and subacute inpatient services, primary and community health services, health related services, and residential aged care under one organisational structure as agreed by the State and Commonwealth. Some of these services do not provide acute inpatient services (Eugowra, Gulargambone MPSs).

Lourdes Hospital and Health Service in Dubbo is an affiliated health service operated by Catholic Healthcare that provides a range of subacute inpatient services and community services under a service level agreement with the District. Inpatient services include palliative care, rehabilitation and geriatric evaluation management. Community health services include allied health, specialist palliative care and nursing services. Lourdes Hospital and Health Service also provide aged care assessment services.
### Figure 6: Western NSW LHD hospital and health services – local classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Peer Group Name</th>
<th>Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rural referral hospitals and health services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Hospital Group 1</td>
<td>Orange Hospital and Health Service – Bloomfield Campus</td>
<td></td>
</tr>
<tr>
<td>Major Hospital Group 2</td>
<td>Dubbo Hospital and Health Service</td>
<td></td>
</tr>
<tr>
<td>District group 1</td>
<td>Bathurst Hospital and Health Service</td>
<td></td>
</tr>
<tr>
<td><strong>District Hospitals and Health Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District group 2</td>
<td>Cowra Hospital and Health Service</td>
<td></td>
</tr>
<tr>
<td>District group 2</td>
<td>Lachlan Health Service (Forbes and Parkes Hospitals and Health services)</td>
<td></td>
</tr>
<tr>
<td>District group 2</td>
<td>Mudgee Hospital and Health Service</td>
<td></td>
</tr>
<tr>
<td><strong>Small Rural Hospitals and Health Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multipurpose Service</td>
<td>Baradine MPS</td>
<td></td>
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<tr>
<td>Multipurpose Service</td>
<td>Blayney MPS</td>
<td></td>
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<tr>
<td>Multipurpose Service</td>
<td>Bourke MPS</td>
<td></td>
</tr>
<tr>
<td>Multipurpose Service</td>
<td>Brewarrina MPS</td>
<td></td>
</tr>
<tr>
<td>Community Hospital without surgery</td>
<td>Canowindra Memorial Hospital and Health Service</td>
<td></td>
</tr>
<tr>
<td>Community Hospital without surgery</td>
<td>Cobar Hospital and Health Service</td>
<td></td>
</tr>
<tr>
<td>Multipurpose Service</td>
<td>Collarenebri MPS</td>
<td></td>
</tr>
<tr>
<td>Community Hospital without surgery</td>
<td>Condobolin Hospital and Health Service</td>
<td></td>
</tr>
<tr>
<td>Multipurpose Service</td>
<td>Coolah MPS</td>
<td></td>
</tr>
<tr>
<td>Community Hospital without surgery</td>
<td>Coonabarabran Hospital and Health Service</td>
<td></td>
</tr>
<tr>
<td>Multipurpose Service</td>
<td>Coonamble MPS</td>
<td></td>
</tr>
<tr>
<td>Multipurpose Service</td>
<td>Dunedoo MPS</td>
<td></td>
</tr>
<tr>
<td>Multipurpose Service</td>
<td>Eugowra MPS</td>
<td></td>
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<tr>
<td>Multipurpose Service</td>
<td>Gilgandra MPS</td>
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<tr>
<td>Multipurpose Service</td>
<td>Grenfell MPS</td>
<td></td>
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<tr>
<td>Multipurpose Service</td>
<td>Gulargambone MPS</td>
<td></td>
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<tr>
<td>Multipurpose Service</td>
<td>Gulgong MPS</td>
<td></td>
</tr>
<tr>
<td>Multipurpose Service</td>
<td>Lightning Ridge MPS</td>
<td></td>
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<tr>
<td>Community Hospital without surgery</td>
<td>Molong Hospital and Health Service</td>
<td></td>
</tr>
<tr>
<td>Community Hospital without surgery</td>
<td>Narromine Hospital and Health Service</td>
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<tr>
<td>Multipurpose Service</td>
<td>Nyngan MPS</td>
<td></td>
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<tr>
<td>Multipurpose Service</td>
<td>Oberon MPS</td>
<td></td>
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<tr>
<td>Multipurpose Service</td>
<td>Peak Hill MPS</td>
<td></td>
</tr>
<tr>
<td>Multipurpose Service</td>
<td>Rylstone MPS</td>
<td></td>
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<tr>
<td>Multipurpose Service</td>
<td>Tottenham MPS</td>
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<tr>
<td>Multipurpose Service</td>
<td>Trangie MPS</td>
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<tr>
<td>Multipurpose Service</td>
<td>Trundle MPS</td>
<td></td>
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<tr>
<td>Multipurpose Service</td>
<td>Tullamore MPS</td>
<td></td>
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<tr>
<td>Multipurpose Service</td>
<td>Walgett MPS</td>
<td></td>
</tr>
<tr>
<td>Multipurpose Service</td>
<td>Warren MPS</td>
<td></td>
</tr>
<tr>
<td>Community Hospital without surgery</td>
<td>Wellington Hospital and Health Service</td>
<td></td>
</tr>
</tbody>
</table>
The following table shows the bed occupancy trends for the procedural hospitals from 2011/12 to 2014/15. Occupancy rates are relatively high at the referral centres, particularly Orange and Dubbo. The district hospitals have lower occupancies indicating excess bed capacity.

**Figure 7: Bed occupancy rate 2011/12 – 2014/15**

The occupancy rate is calculated using NSW Ministry of Health definitions whereby the following bed types are excluded: residential aged care, emergency department - level 3 and above, Hospital in the Home and respite care.

**Primary and community health services**

The District’s primary and community health services operate across the district from 50 centres, the majority of which are co-located with hospital services. A hub and spoke delivery structure is in place with hubs located in the towns with rural referral and district hospitals. The services provided include nursing and allied health services, maternal child and family health services, violence prevention and response services and programs targeting priority populations including Aboriginal health, chronic disease and older people programs. The District also delivers a range of more specialised community based services including mental health and drug and alcohol, oral health, renal, palliative care and cancer services.

St Vincent’s Outreach Service at Bathurst is an affiliated health service operated by Catholic Healthcare, which provides a range of community services for the District. Services include community nursing, dietetics, diabetes education and aged care (including aged care assessment).

Recent years have seen the development of several Health One NSW services in the District. These services co-locate GPs, nurses, allied health clinicians and other health providers, to foster a ‘team health’ and integrated approach to primary and community health services.
### Figure 8: Western NSW LHD – primary and community health / HealthOne centres

<table>
<thead>
<tr>
<th>No.</th>
<th>Facility</th>
<th>Co-located with a Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Baradine Multi-Purpose Service</td>
<td>Yes</td>
</tr>
<tr>
<td>2.</td>
<td>Bathurst Community Health Centre</td>
<td>Yes</td>
</tr>
<tr>
<td>3.</td>
<td>Binnaway Community Health Clinic</td>
<td>No</td>
</tr>
<tr>
<td>4.</td>
<td>Blayney HealthOne Service</td>
<td>Yes</td>
</tr>
<tr>
<td>5.</td>
<td>Bourke Community Health Centre</td>
<td>Yes</td>
</tr>
<tr>
<td>6.</td>
<td>Brewarrina Community Health</td>
<td>Yes</td>
</tr>
<tr>
<td>7.</td>
<td>Canowindra Community Health Centre</td>
<td>No</td>
</tr>
<tr>
<td>8.</td>
<td>Cobar Community Health Service</td>
<td>No</td>
</tr>
<tr>
<td>9.</td>
<td>Collarenebri Community Health</td>
<td>Yes</td>
</tr>
<tr>
<td>10.</td>
<td>Condobolin Community Health Centre</td>
<td>Yes</td>
</tr>
<tr>
<td>11.</td>
<td>Coolah Community Health Service</td>
<td>Yes</td>
</tr>
<tr>
<td>12.</td>
<td>Coonabarabran Community Health Service</td>
<td>Yes</td>
</tr>
<tr>
<td>13.</td>
<td>Coonamble HealthOne Service</td>
<td>Yes</td>
</tr>
<tr>
<td>14.</td>
<td>Cowra Community Health Service</td>
<td>Yes</td>
</tr>
<tr>
<td>15.</td>
<td>Cudal Community Health Centre</td>
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<tr>
<td>16.</td>
<td>Cumnock Community Health Centre</td>
<td>No</td>
</tr>
<tr>
<td>17.</td>
<td>Dubbo Community Health Centre</td>
<td>Yes</td>
</tr>
<tr>
<td>18.</td>
<td>Dunedoo Community Health Centre</td>
<td>Yes</td>
</tr>
<tr>
<td>19.</td>
<td>Forbes Community Health Centre</td>
<td>Yes</td>
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<td>20.</td>
<td>Gilgandra Community Health</td>
<td>Yes</td>
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<td>21.</td>
<td>Goodooga Health Service</td>
<td>No</td>
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<td>22.</td>
<td>Gooloogong Community Health Centre</td>
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</tr>
<tr>
<td>23.</td>
<td>Grenfell Community Health Centre</td>
<td>Yes</td>
</tr>
<tr>
<td>24.</td>
<td>Gulargambone Community Health Service</td>
<td>Yes</td>
</tr>
<tr>
<td>25.</td>
<td>Gulgong HealthOne Service</td>
<td>Yes</td>
</tr>
<tr>
<td>26.</td>
<td>Hill End Community Health Centre</td>
<td>No</td>
</tr>
<tr>
<td>27.</td>
<td>Kandos Early Childhood Centre</td>
<td>No</td>
</tr>
<tr>
<td>28.</td>
<td>Lightning Ridge Community Health</td>
<td>Yes</td>
</tr>
<tr>
<td>29.</td>
<td>Manildra Community Health Centre</td>
<td>No</td>
</tr>
<tr>
<td>30.</td>
<td>Mendooran Community Health Centre</td>
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</tr>
<tr>
<td>31.</td>
<td>Molong HealthOne Service</td>
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</tr>
<tr>
<td>32.</td>
<td>Mudgee Community Health Centre</td>
<td>Yes</td>
</tr>
<tr>
<td>33.</td>
<td>Narromine Community Health Centre</td>
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</tr>
<tr>
<td>34.</td>
<td>Nyngan Community Health Centre</td>
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</tr>
<tr>
<td>35.</td>
<td>Oberon Community Health Centre</td>
<td>Yes</td>
</tr>
<tr>
<td>36.</td>
<td>Orange Community Health Centre Bloomfield campus</td>
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</tr>
<tr>
<td>37.</td>
<td>Orange Community Health Centre Kite Street</td>
<td>No</td>
</tr>
<tr>
<td>38.</td>
<td>Parkes Community Health Service</td>
<td>Yes</td>
</tr>
<tr>
<td>39.</td>
<td>Peak Hill Community Health Centre</td>
<td>Yes</td>
</tr>
<tr>
<td>40.</td>
<td>Quandialla Community Health Centre</td>
<td>No</td>
</tr>
</tbody>
</table>
Women’s health services

Across Western NSW LHD there are approximately 10 women’s health nurses providing women’s health services. These services are responsible for delivery of the key priorities of the NSW Health Women’s Health Framework – 2013. The priorities include:

- Ensuring culturally appropriate access to and delivery of health information and services
- Provision of a range of health promotion programs and projects that are evidenced-based, focus on a partnership approach and developed within a health outcomes approach
- Increase the access to cervical screening by unscreened and under screened women
- Increase the access to Women’s Health services for identified target groups including Aboriginal women, culturally and linguistically diverse (CALD) women, women with a disability and rural and isolated women.
- Ongoing implementation of Domestic Violence Routine Screening in target programs

In 2014, there was a major review of Women’s Health services in Western NSW LHD and this identified a significant number of gaps in service provision; over screening non-target priority population; and clustering of Women’s Health Nurses to the southern sector. This afforded the opportunity to negotiate and realign positions to the northern sector with an evidence based approach. The gradual realignment and recruitment to these positions is occurring.

5.1 Aboriginal community controlled health services

Aboriginal community controlled health services are health care partners with the District, and are committed to closing the gap between Aboriginal and non-Aboriginal health outcomes. The Aboriginal community controlled health services that collaborate with the District are:

- Bourke Aboriginal Health Service
- Brewarrina Aboriginal Health Service
- Orana Haven Aboriginal Corporation
- Orange Aboriginal Health Service
- Dubbo Aboriginal Medical Service
- Walgett Aboriginal Medical Service
- Wellington Aboriginal Corporation Health Service
- Coonamble Aboriginal Health Service
- Yoorana Gunya Family Healing Centre, Jemalong Regional Health Centre
- Peak Hill Aboriginal Medical Service
- Condobolin Aboriginal Health Service

5.2 Sector referral networks

Informal and formal referral networks exist between both intra-district services and tertiary services. These have largely evolved from the geographical proximity of services, historical patient flows and clinician preferences. There are two distinct referral networks within the District based on usual flows of people from smaller towns to larger towns and cities for generalist and specialist services. These are the Southern Sector Referral Network and the Northern Sector Referral Network. These flow patterns are not the same for some specialty services. State pathways, including acute coronary syndrome, stroke and severe trauma pathways, influence them.

Southern Sector Referral Network

The Southern Sector of the District includes the Bathurst, Blayney, Cabonne, Cowra, Forbes, Lachlan, part of the Mid-Western Regional, Oberon, Orange, Parkes and Lachlan LGAs. The Sector incorporates the Bathurst and Orange hospitals and health services that are rural referral centres and the Cowra and Lachlan district hospitals and health services. Lachlan Health Service includes the Forbes and Parkes hospitals and health services. Smaller hospitals included in the sector are Blayney MPS, Canowindra Memorial Hospital, Condobolin Hospital and Health Service, Eugowra MPS, Grenfell MPS, Molong Hospital and Health Service, Oberon MPS, Rylstone MPS, Trundle MPS and Tullamore MPS.
People living in the Southern Sector access their local hospitals and health services for the majority of their community, ambulatory and inpatient services. Those living in the Bathurst Regional and Oberon LGAs requiring higher levels of generalist or specialist care usually receive this care at Bathurst Hospital and Health Service. People living in the Blayney LGA requiring higher-level services, access health services at Bathurst and Orange. People living in the Mid-Western Regional LGA access higher level services at Bathurst, Dubbo, Mudgee and Orange. People living in the Cowra, Weddin, Parkes, Forbes and Lachlan LGAs generally receive higher level services at Orange. Adults requiring tertiary level services not available at Orange are frequently referred to Royal Prince Alfred, Nepean or Westmead hospitals. The Children's Hospital at Westmead provides the majority of specialist services required by children.

**Northern Sector Referral Network**

The Northern Sector of the District includes the Bogan, Bourke, Brewarrina, Coonamble, Dubbo, Mid-Western Regional, Narromine, Walgett, Warrumbungle and Wellington LGAs. Dubbo Hospital and Health Service is the sector's main referral hospital and Mudgee Hospital and Health Service is the only district hospital in the sector. Smaller hospitals that are part of the sector include Bourke MPS, Brewarrina MPS, Cobar Hospital and Health Service, Collarenebri MPS, Coolah MPS, Coonabarabran Hospital and Health Service, Coonamble MPS, Dunedoo MPS, Gilgandra MPS, Gulargambone MPS, Gulgong MPS, Lightning Ridge MPS, Narromine Hospital and Health Service, Nyngan MPS, Peak Hill MPS, Tottenham MPS, Warren MPS and Wellington Hospital and Health Service.

People living in the Northern Sector access their local hospitals and health services for the majority of their community, ambulatory and inpatient services. People requiring higher levels of generalist or specialist care are generally referred to health services at Mudgee or Dubbo. Adults requiring services not available at Dubbo are frequently referred to Royal Prince Alfred Hospital and a small number are referred to Westmead and Nepean hospitals. Children requiring tertiary level care are generally transferred to the Children's Hospital Westmead.
The establishment of interventional cardiology services and radiation oncology services at Orange has resulted in increased referrals from the Northern Sector to Orange Hospital and Health Services for sub specialist services. People from Mid-Western Regional LGA are referred to Orange for some orthopaedic surgery. The Bloomfield Campus at Orange is also the District hub for sub specialist mental health services including child and adolescent mental health, psychogeriatric services, forensic services and high acuity mental health inpatient care.

5.3 Clinical streams

Seven clinical streams are operational within the District. These are Cancer, Cardiology, Rural Generalist, Kids and Families, Intensive Care, Palliative Care and Renal streams. Each stream has an executive sponsor. The clinical streams provide a District-wide peer framework and serve to advise the District Executive on clinical matters, engage in the planning and development of services and review key elements of clinical risk. The streams also have an important role in identifying and addressing areas of unwarranted clinical variation.

5.4 Patient Flow Transport Unit

An estimated $22 Million is spent per annum on internal patient transport, NSW Ambulance/NETS and Tier 2 Contractors. A Patient Flow Transport Unit, established in 2006 has improved the operational effectiveness of patient flow and transport across the District. The Unit, which runs out of Dubbo, coordinates the transfer of people requiring treatment in a referral or tertiary hospital. It aims are to ensure people are provided with the right care, at the right time, and in the right place.

Evidence based approaches are implemented to improve people’s experience of the service and ensure timely access to safe quality care. There has been a steady increase in demand for the services provided by the Unit since its inception, resulting in an extension of its operating hours in 2013.
The recent engagement of medical officers has increased the capability of the unit. The medical officer is a key facilitator for accessing time appropriate specialist care. The medical officer also has responsibilities, in partnership with the Unit’s manager, to manage resources in a cost effective way and support the business processes of the unit. Over the coming years the Unit will strengthen its capacity and capability to meet the clinical needs of people requiring transport and improve transport timeframes.

Future directions for the District’s Patient Flow Transport Unit will include:

- Extended operating hours
- Implementation of State referral pathways
- Implementation of District patient pathways informed by the this Framework and pathways developed by Clinical Streams
- Establishment of patient flow networks with other local health districts
- Roll out of the Patient Flow Portal for all inter facility transfers as a means of matching demand and capacity planning
- Greater use of telehealth to coordinate and support sub acute inpatient care requiring medical input in the absence of local general practitioner visiting medical officers
- Remote patient rounding to better meet clinical needs of people admitted to small rural hospitals
- Greater use of technology to improve response to transport requests
6. Future Directions

The Strategic Health Services Plan challenges the District to refocus on achieving a sustainable service base, improving health outcomes, providing person and carer centred care and closing the Aboriginal health gap. The District also needs to focus on designing care models to match levels of need and shifting service demands to lower cost community-based settings, ensuring high cost hospital services are available for people who need high levels of acute care. The Plan also presents broad options for future service configuration including:

- Clarifying the roles and configuration of rural referral hospital services, to inform distribution of specialist resources
- Matching facility capacity and capability with the core services required by local communities and catchment populations
- Strengthening health referral networks to provide better support for district and rural hospitals and smoother patient journeys and flows
- Developing district-wide clinical streams, with membership from primary care (and links with Sydney-based services where appropriate)
- Integrating primary care services in partnership with Aboriginal community controlled health services, general practitioners and other primary health care providers
- Enhancing specialist support for primary care to provide sustainable primary and community services that focus on priority health needs and reduce acute care demand
- Strengthening partnerships with the community and community organisations
- Improving the cultural competency of the health professionals within the District to provide quality services to Aboriginal people and their families
- Defining and implementing a quality and safety framework for rural and district emergency departments
- Designing, implementing and monitoring person-centred care pathways for priority conditions, with a focus on improving care quality, efficiency and equity of access

Acute inpatient care requiring specialist oversight is increasingly the role of the rural referral hospitals, which have better access to diagnostic equipment and specialist expertise. This is resulting in a reduced requirement for acute inpatient capacity in district and small rural hospitals. The role of these services in providing acute inpatient care should be limited to short stays for people with general medical conditions, who are of low acuity, stable and do not require on-site specialist intervention. The district hospitals and some small hospitals and MPSs will also have a role in providing non-complex elective surgery and procedures.

Given the geography of the District, these hospitals will continue to play a key role in supporting early discharge and transfer from the rural referral hospitals and providing care ‘close to home’ for people requiring post-surgical care, sub-acute care including rehabilitation and palliative care. The focus of the district and small rural hospitals must include a greater emphasis on integrated primary, community and ambulatory care within a multi-disciplinary...
team approach. The implementation of initiatives recommended in the *NSW Rural Health Plan: Towards 2021* will also shape future services.

**Referral networks**

Providing health care in the District that meets the standard of ‘right time, right place, by the right team, first time’ for people is a significant challenge for the District. Networked systems of care, supported by real time telehealth consultation and liaison services will allow the delivery of services that efficiently and effectively respond to the acuity of the conditions people present with and the complexity of care required.

Historical referral networks within and outside of the District require review and formalisation. This will include consideration of ‘pulling back’ unnecessary transfers outside of the District and streamlining referral processes. The aim of establishing efficient and effective referral networks is to:

- Improve patient/client care in terms of quality, safety, access, convenience and coordination
- Provide a virtual ‘district wide’ service with several points of entry, where quality care is available and systems are in place to facilitate a coordinated and timely ‘patient journey’ to the required level of care
- Coordinate appropriate patient/client care across the continuum of care including prevention, early intervention, primary care, acute and sub-acute care, rehabilitation, continuing care and end of life care
- Integrate and coordinate clinical services within and across health facilities and services - so that people can be in the ‘right place, for the right treatment at the right time’ when intervention is required
- Allow the maximum range of suitable services to be provided, including specialist consultation/liaison services for sites without these services
- Identify referral pathways for Aboriginal people to access culturally appropriate service providers including Aboriginal community controlled health services where possible

The construct of referral networks within the District requires flexibility and cross-network linkages to allow the people of western NSW greater access to specialist services within the District, including intensive care, interventional cardiology, specialist surgical services and cancer care services. Section 7 provides additional information on patient flows for key service areas. The Patient Flow Unit will have a prime role as ‘gatekeeper’, directing transfers to the most appropriate centre and limiting the ‘out of district’ transfer of people that can be managed within the District.

**Clinical service streams**

District wide services will be strengthened through the continued development of clinical service streams. The establishment of emergency care, surgical (perioperative) and rehabilitation services streams will be a priority in the short term.

The formalisation and further development of referral networks and clinical streams in the District require robust clinical governance and accountability mechanisms to monitor clinical
care and patient outcomes across the care continuum and address clinical incidents, risks and clinical variance.

**Clinical Council**

The Western NSW Local Health District Clinical Council convened in October 2015. The Clinical Council will bring senior doctors, nurses and allied health clinicians together on a regular basis to advise the Chief Executive on clinical matters affecting the District.

The role of the Clinical Council is to provide a forum for discussing strategic planning, priorities for service development, resource allocation, clinical policy development and providing professional (expert) clinical guidance, where appropriate and when needed. The Clinical Council will play a key role in listening to issues raised by the clinical streams, representatives from Aboriginal health and clinicians working in remote sites and taking them to the Chief Executive with advice. The Council in partnership with the District Executive will develop innovative strategies and solutions to close the Aboriginal health gap, improve quality and safety and deliver services that address the needs of local communities.

**Growing a skilled workforce**

‘General physicians’, surgeons, general practitioners, nurses and allied health clinicians have traditionally been the providers of health services in rural areas. However, Australian healthcare is increasingly embracing a ‘sub specialist model’. In rural areas this model has the potential to reduce access to services. Frequently there is insufficient local demand to support a critical mass of sub specialists at each of the referral centres.

Future proofing of inpatient and community specialist services in rural areas requires a networked approach between rural referral centres, the introduction of complementary service arrangements and the strengthening of generalist services. This may include the development of service hubs that provide a specific service for the entire LHD.

Resurgence and strengthening of a ‘generalist’ model of care is also required. This can be achieved through establishing formalised consultation and liaison services that support generalists to provide the majority of clinical care and increase access to the expertise of our limited specialist medical, nursing and allied health clinicians. Triage processes direct those people with higher acuity, complex care needs to specific specialist care.

A reduction in the current reliance on locums and agency staff will be achieved through progressive recruitment of locally based specialists, general practitioner visiting medical officers and nursing and allied health clinicians. This will include growing the subspecialty workforce and developing a local critical mass of clinicians where sufficient demand exists. Where there is insufficient demand to sustain a critical mass of specialists, intra-district networking arrangements including cross facility appointments will be strengthened.

Improving the health of our people requires an investment in education and training to maximise the knowledge and skills of the workforce. Partnerships with education providers including the Health Education Training Institute (HETI), TAFE NSW and universities have strengthened the education and training capability within the District and embedded a
learning culture. These partnerships will be strengthened to increase access to locally based and flexible training programs for clinicians and health staff. There will be a greater focus on multidisciplinary team learning, continued streamlining of mandatory training and increased use of simulation for skills acquisition.

Opportunities to expand the number of locally based undergraduate and post graduate education programs will also be explored. Registrar training will be enhanced through a collaborative approach between Bathurst, Orange and Dubbo hospitals. This will help to sustain registrar training into the future, include shared teaching sessions and provide more educational opportunities.

The ageing of the workforce will challenge maintaining a skilled workforce into the future. Targeted recruitment strategies, increased access to locally based education programs, and the promotion of District clinical placements to metropolitan health trainees will help grow our workforce. A focus on increasing the proportion of employees who identify as Aboriginal and/or Torres Strait Islanders will improve the cultural responsiveness of services and help close the Aboriginal health gap.
7. Key service areas

7.1 Acute inpatient services – surgery and general medicine

7.1.1 Surgery

Current Services

Rural referral hospitals, district hospitals and some small rural hospitals provide surgical services. Orange Hospital has level five capabilities, providing a comprehensive range of elective and emergency surgery and major diagnostic and treatment procedures on people assessed as good, moderate, or bad risk. Specialist and general surgeons perform regular surgery supported by specialist anaesthetists, skilled nursing staff and surgical registrars.

Bathurst and Dubbo hospitals provide level four services, performing elective and emergency intermediate surgery and selected major surgical procedures on people assessed as good or moderate risk. Specialist and general surgeons perform regular surgery, supported by specialist anaesthetists, GP anaesthetists, skilled nursing staff and registrars. District hospitals at Cowra, Parkes, Forbes and Mudgee provide level three services with capability to provide elective and urgent intermediate surgery and some major surgery and procedures on people assessed to be of good or moderate risk. Bourke MPS provides limited surgical services including eye surgery, gastroscopy and colonoscopy procedures. Coonabarabran Hospital also provides endoscopy services. Generally surgery requiring day only stays is performed. Visiting general surgeons and GP proceduralists perform surgery, supported by visiting anaesthetists, GP anaesthetists and skilled nursing staff.

In 2013/14, the District supplied 79 per cent of a total 15,155 acute surgical admissions (counted as separations) in public hospitals, required by its adult residents. The greatest areas of demand were for orthopaedics, gynaecology, ophthalmology and non-subspecialty surgery. The District provided 87 per cent of the demand for orthopaedic surgery, 86 per cent of the demand for gynaecology, 84 per cent of the demand for ophthalmology and 86 per cent of the demand for non-subspecialty surgery. This indicates a high level of self-sufficiency within the District for the four highest volume surgical service groups. The number of acute surgical adult inpatient separations from private hospitals for the District’s residents in 2013/14 was 11,541. The greatest activity in private hospitals was for orthopaedics, ophthalmology and gynaecology. These three service related groups accounted for 55 per cent of the private hospital supply to the District’s residents.

In 2013/14, there were 1,417 separations from public hospitals of people identifying as being of Aboriginal or Torres Strait Islander descent. They accounted for 9 per cent of the total number of District residents admitted to public hospitals, and utilised 9.9 per cent of total bed days (5,187 bed days). The majority of Aboriginal people (78%) received treatment in the District’s hospitals. The services most commonly accessed by Aboriginal people were orthopaedics, gynaecology, non-subspecialty surgery and ophthalmology. The District
provided 89 per cent of the adult Aboriginal people’s demand for orthopaedic surgery, 82 per cent of their demand for gynaecology, 93 per cent of their demand for non-subspecialty surgery and 78 per cent of their demand for ophthalmology.

The Sydney LHD (Royal Prince Alfred Hospital) supplied approximately 7 per cent of our District resident’s demand for surgery in public hospitals. Services most commonly accessed outside of the District were orthopaedics, interventional cardiology, cardiothoracic surgery, neurosurgery and vascular surgery. Residents also accessed surgical services in neighbouring LHDs that are in close proximity. Outflows to Hunter New England and Nepean Blue Mountains LHDs accounted for approximately 4 per cent of District residents’ acute surgical public hospital inpatient demand in 2013/14.

Each year almost 8,000 adults aged over 15 years have booked (elective) surgery in the District’s hospitals. Highest volume elective surgical groups (greater than 500 separations) are orthopaedics, ophthalmology, gynaecology, non-subspecialty surgery, plastic and reconstructive surgery, urology and colorectal surgery. Orange Hospital provided 34 per cent of this activity, Dubbo Hospital provided 32 per cent and Bathurst Hospital provided 16 per cent. Cowra Hospital (5 per cent), Mudgee Hospital (5 per cent), Forbes Hospital (4 per cent), Parkes Hospital (3 per cent) and Bourke MPS (1 per cent) provided the remaining activity.

The Elective Surgery Access Targets (ESAT) are components of the National Performance Agreement and aim to ensure that elective surgical patients receive treatment within the recommended clinical priority period. The District’s rural referral hospitals and district health services have consistently improved performance. In 2014/15, all hospitals within the District met and or exceeded the target in all categories.

The number of admissions for urgent surgery within the District in recent years has been over 3,000 per year. In 2013/14, there were 3,070 admissions for urgent surgery. Emergency surgery is a major component of surgery activity and is often more complex and surgically challenging than elective surgery. The majority of emergency surgery is provided at Orange Hospital (48 per cent), followed by Dubbo Hospital (41 per cent). Bathurst Hospital provides 9 per cent of the emergency surgery performed in the District.

Future projections for adult surgical activity indicate that residents of the District will have an 18 per cent increased demand for services between 2011 and 2032. The greatest growth in demand will be for ophthalmology (a 66 per cent increase from 1,388 inpatient separations in 2011 to 2,299 in 2032) and orthopaedic surgery (a 15 per cent increase from 3,373 inpatient separations in to 2011 to 3,887 in 2032). This is consistent with the ageing of the population.

Historically, procedural services have been provided from the three rural referral hospitals, the four district hospitals, Bourke MPS and Coonabarabran Hospital. In 2013/14, the District’s hospitals provided 6,245 procedures to the District’s residents aged over 15 years of age. The majority of procedural activity is provided by Orange Hospital (33%), Dubbo Hospital (28%), and Bathurst Hospital (13%). Cowra and Mudgee Hospitals provided approximately 7 per cent of the activity each, with Coonabarabran, Forbes and Parkes each providing 4 per cent.
The District residents’ demand for procedural services is also projected to increase. General demand is projected to increase by 25 per cent between 2011 and 2032. The greatest increase in demand being for interventional cardiology (projected to increase from 862 procedures in 2011 to 1,167 by 2032 - a 35 per cent increase). Other procedural increases for gastroenterology (increasing from 2,083 procedures in 2011 to 3,113 by 2032 - a 49 per cent increase), urology (increasing from 698 procedures in 2011 to 996 by 2032 - a 43 per cent increase) and diagnostic gastrointestinal endoscopy (increasing from 6,011 procedures in 2011 to 7,050 by 2032 - a 17 per cent increase).

Figure 11: Operating theatre utilisation

<table>
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<tr>
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<td>73</td>
<td>77.5</td>
<td>76.3</td>
<td>73.3</td>
</tr>
</tbody>
</table>

Data source: LHD Organisational Performance Management

Operating theatre utilisation targets for the rural referral hospitals and district health services have been set at 80 per cent. Dubbo Hospital has consistently improved operating theatre utilisation between 2011/12 and 2014/15, exceeding the target in 2014/15. The other rural referral and district hospitals within the District have variable results.

Drivers for change

Historical District referral patterns and patient flows for surgery are in some cases no longer fit for purpose. The location of surgical services within the District requires review to determine where services are best located and if flows can be redirected to ensure a sustainable distribution of services. Contemporary models of care need to be implemented to meet both the increasing demand for surgical services and to improve timely access to services.

The introduction of Activity Based Funding for the district hospitals and health services will also affect decisions in relation to what surgical services they will provide into the future. The location of surgical services is also contingent on sufficient catchment demand to deliver quality and efficient services at an acceptable cost.

The Surgical Services Taskforce (SST) was established to optimise access to elective surgery for patients within the NSW Health System and in conjunction with Local Health
Districts, is examining ways to improve surgical service provision and develop new models of care. Areas of focus have been the management of people with hip fractures, improvements in operating theatre efficiency and the surgical management of rare and complex cancers.

Meeting and maintaining the National elective surgery targets will continue to be a challenge in light of projected increasing demands for surgery and the reversal of unnecessary surgical flows to public hospitals outside of the District. This will particularly affect Dubbo Hospital, which is currently increasing its local supply of surgery. The completion of the current redevelopment of the facility will provide additional operating room and bed capacity for an increase in activity into the future.

A significant number of people living in the Bathurst LGA have their surgery at either Orange Hospital or at hospitals outside of the District. Orange Hospital provides 46 per cent of the LGA’s total demand for orthopaedic services (approximately 190 admissions per year). Orthopaedics is also one of the main reasons for outflows to public hospital outside the District (448 separations or 6.1 per cent of outflow in a five-year period. Orthopaedics is also the leading service group for emergency (urgent) surgery outflows from Bathurst Hospital and Health Service. The recent review of Bathurst Hospital (‘the Review’) conducted by Dr Hoyle et al, recommended a change in orthopaedic services provided at Bathurst Hospital. These recommendations were made in the context of service delivery options of increasing funded service volumes for improved efficiency. The Review considered elective orthopaedic flows and identified strong potential synergies in orthopaedic surgery between Bathurst and Orange Hospitals.

Operating theatres depend on the provision of high quality anaesthetic services, and hence, all planning for future surgical services must take into account the anaesthesia and perioperative care systems. An increasing number of procedures are now being performed outside of operating rooms without an anaesthetist (for example interventional cardiology, endoscopy, interventional radiology and dental procedures). The Surgical Futures: Background Paper emphasises the importance of ensuring ‘clinical services are provided safely and are appropriately supported’. There is a need to ensure that interventional procedures performed outside of operating rooms are appropriately resourced for the provision of sedation and an appropriate number of staff available for each procedure. Retention and recruitment of a critical mass of GP proceduralists, GP anaesthetists, and skilled nursing and allied health clinicians is required to maintain a sustainable surgical service in the district health services.

Future directions for services

Surgery Futures was undertaken in 2010 to guide the development of surgical services across the breadth of Greater Sydney (including Central Coast and Illawarra) over the next decade. Its primary aim was to better position the Ministry of Health, local health districts and surgical services professional bodies to undertake informed and strategic, site-specific clinical service planning for surgery. The recommended directions for the future development of surgical services that emerged throughout the project included the development of high volume short stay centres, greater separation of emergency and planned surgery and the development of specialty centres.
The *Rural Surgery Futures Report 2011-2021* outlines a framework for public sector surgery (both elective and emergency) in rural NSW for the next 5-10 years. The goal of the project that led to this report was to build upon initiatives and innovative models of care identified through the Surgery Futures Report to improve access to surgical services for people across rural NSW, improve safety and accountability, improve sustainability of the peri-operative workforce and promote clinical leadership and collaboration.

A key recommendation for the future sustainability of rural surgical services is the development of regional surgical networks. This network model has a regional resource centre – a rural referral hospital that networks with surrounding district hospitals. Within this District, this could be achieved through the collaboration of existing resources at Bathurst, Dubbo and Orange hospitals to develop a district wide surgical service or network.

The network provides the services required by the local community with an agreed sharing of services. The sharing of services is particularly relevant for the District where rural referral hospitals, such as Bathurst, Dubbo and Orange are located in relatively close proximity. Benefits of a networked model of service delivery in this District would include:

- The sharing of workforce and promotion of collegiality
- Supporting surgical services in district and smaller procedural hospitals (for example Bourke and Coonabarabran) through an outreach shared care model
- Strengthened continuing professional development and training across the network
- Improved processes for inter-hospital transfers
- Standardisation of equipment
- Avoidance of inappropriate duplication of services

Formal agreements and documented processes with rural referral hospitals will be established to facilitate timely and appropriate specialist consultations and inter hospital transfers. This will include the development of a directory describing the location and clinical capabilities of the District facilities.

A detailed District Surgical Services Clinical Service Plan will be developed and reviewed each five years to inform the future directions for surgical services in the District. The establishment of a Surgical Services Stream will support service planning. The engagement of clinicians through a Surgical Services Stream will provide expert advice in relation to evidenced based models of care, emerging technology, future workforce requirements and succession planning.

Models identified in the *Rural Surgery Futures Report 2011-2021*, including high volume, short stay surgical services, the identification of specialty centres and the separation of emergency and elective surgery will be adapted for implementation at Bathurst, Orange and Dubbo hospitals. The redistribution of some services will be explored to provide a sufficient volume of activity at each of the sites. Stages 1 and 2 of the redevelopment of Dubbo Hospital and Health Service, which includes the redevelopment of perioperative services, will deliver capacity to meet the increasing demand for surgical services and the infrastructure to support the implementation of the high volume, short stay model.
Repatriation of elective public orthopaedic activity currently flowing out of Bathurst will be the first step in addressing low surgical volumes affecting efficiency. This will provide sufficient activity to support an increased orthopaedic service at Bathurst. The service will be strengthened through the integration of services provided at Bathurst and Orange including the cross appointment of staff and a single governance structure. Two orthopaedic surgeons have recently been recruited to work in partnership with existing orthopaedic surgeons in Orange to establish an enhanced orthopaedic service at Bathurst Hospital.

The role of district and small rural hospitals in the provision of surgery will be examined. Capacity exists at each of the district hospitals to increase their throughput of elective, non-complex surgery. This may include redistribution of some activity from Dubbo and Orange hospitals. However, any change in surgical supply at the district hospitals requires an analysis of its impact on activity based funding.
Figure 12: Western NSW LHD surgical services pathway

Proposed Western NSW LHD surgical services pathway

Elective

Low Complexity

Higher Complexity

LHD capability

No

Specialist State services

Post Acute Care

Yes

Rural Referral centre

Bathurst Health Service

Dubbo Health Service

Orange Health Service

Post Acute Care

Local Hospital

Rehabilitation

Community Ambulatory Care

Post Tertiary Care

Specialist State services

No LHD capability

LHD capability

Bathurst Health Service

Dubbo Health Service

Orange Health Service

*Proceduralist Facilities
Bathurst
Orange
Dubbo
Mudgee
Parkes
Forbes
Cowra

Elective

Emergency

Nearest Proceduralist with capability**

Proposed Western NSW LHD surgical services pathway
7.1.2 General Medicine

Current services
The District provides inpatient and non-admitted general medicine services at all of its hospitals. A range of general and specialist physicians, supported by 24 hour on call medical registrars, nursing and allied health clinicians provide level five general inpatient services and some level 5 specialist services at Dubbo and Orange hospitals and health services. General physicians and a smaller range of specialist physicians, registrars, nurses and allied health clinicians provide level four services general and specialist inpatient services at Bathurst Hospital and Health Service. Clinical support services commensurate with the level of service delivery are also available at these sites.

Cowra, Forbes, Parkes and Mudgee district hospitals provide level 3 general medicine services. General practitioners provide 24 hour on call services and are supported by nursing staff and allied health clinicians. Small rural hospitals provide level one and two services, supported by local general practitioners and nursing staff. Consultation channels, including the Remote Medical Consultation Service and the Critical Care Advisory Service are currently in place.

The District provides most of the inpatient services required by its population for medical conditions. In 2013/14 there were 35,319 acute admissions (counted as separations) of resident adults (over 15 years of age) to public and private hospitals. Only a small number (3,153) were to private facilities. Of the total public acute inpatient activity for medical conditions, hospitals within the District provided 92 per cent (29,540 separations) and 91 per cent (104,565 bed days) of the total bed days (115,142). High volume activity areas (greater than 1,000 separations per year) were for cardiac, respiratory, gastrointestinal, non-subspecialty medicine, neurology and orthopaedic services. The top outflows to private hospitals were for respiratory medicine, non-subspecialty medicine, urology, acute psychiatry, gastroenterology, oncology and cardiology services.

In 2013/14, there were 4,406 acute medical separations of Aboriginal people living in the District from public hospitals. This accounted for 12 per cent of the total adult medical separations and 10.6 per cent of the total bed days. Ninety one per cent of these separations were from hospitals within the District. The main service groups assigned to Aboriginal people requiring hospitalisation were non-subspecialty medicine, respiratory medicine, cardiology, gastroenterology and neurology. These groups are similar to the higher activity service groups for the total District adult population. Of the residents accessing acute public inpatient services for medical conditions outside of the District (2,626 separations), 19 per cent received treatment in the Sydney LHD (Royal Prince Alfred Hospital), 11 per cent received treatment in the Hunter New England LHD and 10 per cent received treatment in the Nepean Blue Mountains LHD. The highest volume outflows (greater than 100 separations per year) were for cardiology, non-subspecialty medicine, neurology, respiratory medicine, gastroenterology, oncology, haematology and non-procedural orthopaedics.

The demand for adult acute medical inpatient care by District residents is projected to increase by 22 per cent between 2011 and 2032. This is well in excess of the projected population growth of 8 per cent for the same period. The highest increases in activity are
projected for gastroenterology (34 per cent), non-sub-specialty medicine (31 per cent), cardiology (27 per cent), neurology (26 per cent) and respiratory medicine (16 per cent).

**Figure 13: Avoidable admissions to District hospitals – all ages 2012/13 – 2014/15**

![Avoidable admissions to District hospitals – all ages 2012/13 – 2014/15](image)

Source: Organisational Performance Management

There has been a decrease in the total number of avoidable admissions between 2011/12 and 2013/14 at the rural referral hospitals and some of the district hospitals. However, the number of avoidable admissions at the small rural hospitals is increasing.

**Figure 14: District avoidable admissions by 15+ age group**

![District avoidable admissions by 15+ age group](image)

Source: Organisational Performance Management

In 2013/14, there were 3,491 avoidable admissions of District residents aged 15 years and over to public hospitals. For the same period, there were 3,363 avoidable admissions to hospitals within the District. Aboriginal people over the age of 15 years are over represented
for avoidable admissions accounting for 15 per cent of the total avoidable admissions in 2013/14.

**Drivers for change**

Population ageing is driving an increased demand for general and specialist medicine services. General medicine is challenged by increasing numbers of patients who are presenting with multiple comorbidities and a decline in numbers of suitably trained personnel to manage these patients, specifically GPs, GP proceduralists and general physicians. Neurology and respiratory medicine are two inpatient services where projected increased demand means that acute care, rehabilitation pathways and chronic disease management programs need to be in place to prevent hospitalisation, improve outcomes for people and manage demand from an ageing population.

With the exception of Dubbo Hospital, the District’s built bed capacity is sufficient to accommodate the increasing demand for inpatient services. Dubbo Hospital currently struggles to manage its demand for inpatient care, resulting in access block, emergency department inefficiencies and medical outliers throughout the hospital. This has been compounded by the recent closure of the Medical Assessment Unit to accommodate stages one and two of the Dubbo Hospital and Health Service Redevelopment. Stages 3 and 4 of the Redevelopment have factored in projected future bed requirements. Access to rehabilitation and delayed aged care assessment are also considered factors impeding effective bed management at Dubbo Hospital.

Benchmarking illustrates specific drivers for change. Respiratory disease generates high volume inpatient and non-admitted activity in the District. There is a higher prevalence of disease and a higher rate of hospital admissions for respiratory disease when compared to the State. Lack of services to address an identified need also drive service change. For example, sleep disorders; affect approximately 6 per cent of the population. However, public overnight sleep monitoring laboratories are not available within the District.

**Future directions for services**

Reducing the incidence of diseases and the demand for health services hinges on investment in ‘upstream’ approaches to improving health, including health promotion, illness prevention, early identification and intervention and rehabilitation. The District will work in partnership with community groups, the Western Primary Health Network, Aboriginal community controlled health services and other government and non-government agencies to reduce risk related behaviours, better integrate the care of people with chronic illnesses and build capacity within community groups and individuals to improve and ‘self-manage’ their health in community settings.

The current levels of general and specialist medicine services provided by the rural referral hospitals and health services are unlikely to change. With the development of specialist cardiac services at Dubbo and Orange Hospitals, it is likely that there will be fewer outflows of people to metropolitan centres for inpatient care. Similarly, there is increased capacity within the District to provide medical oncology and radiation oncology services. These services have been further enhanced through the recent recruitment of local medical oncologist to Dubbo.
The District will continue to build a locally based workforce to reduce the reliance on ‘fly in, fly out’ specialists and increase its ability to provide specialist outreach services to smaller communities. The feasibility of establishing an enhanced specialist respiratory medicine service, including a public sleep laboratory requires examination.

Service delivery models for cardiology, neurology and respiratory services are changing with focus on managing acute and chronic conditions and providing access to rehabilitation services. Contemporary models of care promote streamlined protocol driven management in the acute phase and effective management of patient flow. They also feature timely access to ambulatory, inpatient rehabilitation, allied health support, and usage of new therapies and interventional diagnostic and treatment services. As well as multidisciplinary care in the acute phase, access to timely sub-acute care targeting improvements in functional capacity and activities of daily living, is essential for best practice management of stroke and other neurological conditions.

The role of district and small rural hospitals will primarily be the short-term management and observation of people with higher acuity medical conditions that present to the services prior to their transfer to the rural referral hospitals for definitive care. The role of GPs in the management of people following acute specialist care will be strengthened through a collaborative generalist and specialist shared care model.

There will be an increasing focus on reducing lengths of hospital stay and avoiding unnecessary admissions. This will be achieved through increased access to alternative low acuity care pathways and will be supported by the rollout of integrated primary care models addressing chronic diseases and an expansion of ambulatory care and hospital in the home services. A multidisciplinary team approach to inpatient and community care will be strengthened by the progressive implementation of the ‘In Safe Hands Program’ throughout the District, including structured multidisciplinary team rounding and case conferencing.

A Western Australian study has highlighted the importance of ensuring that clinical services match clinical demand. This study included the categorisation of people presenting to emergency departments according to their basic clinical needs. The categories were ‘acute correctable illnesses’, ‘exacerbation of chronic illness’, ‘the non-acute patient with urgent needs’ and ‘palliative care’. These categories had relevance to the optimum care environment for people and helped to predict length of stay. A deductive strategy to match local service provision with local clinical demand was recommended by the researchers. The introduction of a needs-specific triage system, ‘rather than a triage system that is focused on organ involvement’ has potential to improve patient flow. A needs specific triage system informs decisions in relation to what care is provided, where, and in what setting. It identifies people that need on-site specialist care and people who generalists can manage in the district and small rural hospitals.  

An area for consideration is whether generalists or specialists are better suited to caring for acutely unwell patients who present at the hospital ‘front door’. The initial management of people with a wide variety of acute medical conditions is largely non-specific, requiring expertise in areas such as airway management, respiratory failure, haemodynamic compromise and sepsis. People with acute medical conditions may be better cared for by a
generalist with acute-care competencies, rather than by a specialist who spends significant time doing non-emergency work.

Existing models within the District’s rural referral hospitals, where a range of specialist physicians provide care on a 24-hour model, will be reviewed in light of alternative models of initial management. Generalist care, with collaboration between generalists and specialists, offers a means of successfully managing people who present to district and small rural hospitals with acute medical conditions and providing ‘close to home’ care for people requiring post-acute and long term care.
Figure 15: Western NSW LHD medical services pathway

- Lower acuity pathway:
  - Local Hospital/MPS
  - GP on-call
  - Community/Ambulatory Setting

- Higher acuity pathway:
  - Requires Specialist Physician Care
  - Nearest Hospital/Rural Referral Service
  - Bathurst Health Service
  - Dubbo Health Service
  - Orange Health Service
  - Specialist State Services

- Decision points:
  - Does the person require ongoing care?
    - Yes: Residential Aged Care Facility
    - No: Continue with lower acuity pathway
  - Does the person require specialist care?
    - Yes: Proceed with higher acuity pathway
    - No: Proceed with lower acuity pathway
7.2 Aged care services

Current services

Older people are the main users of acute and sub-acute inpatient, ambulatory and community care services provided by the District. In 2013/14, there were 57,584 adults over 15 years of age admitted (counted as separations) to hospitals within the District, including mental health services. Of these admissions, 44 per cent were people 65 years of age or older who accounted for 53 per cent of total adult bed days, 41 per cent of total adult intensive care hours and 58 per cent of total adult high dependency hours. Services most commonly required (greater than 100 separations per year) were cardiology, respiratory medicine, non-subspecialty medicine, gastroenterology, orthopaedics, neurology, non-sub specialty surgery, diagnostic gastrointestinal endoscopy and ophthalmology. The highest utilisation of bed days (more than 5,000 per year) were for rehabilitation, respiratory medicine, non-subspecialty medicine, cardiology, orthopaedics, maintenance care, neurology and gastroenterology.

Older people are admitted to hospitals are under the care of general practitioners, general and specialist physicians and surgeons. They are cared for in general wards according to the nature and acuity of their conditions. Designated geriatric evaluation and management beds are available at Lourdes Hospital in Dubbo, which is an affiliated health service. The District does not have resident geriatricians. However, rehabilitation physicians at Bathurst, Dubbo and Orange are skilled in providing geriatric evaluation and rehabilitation services for the elderly. Geriatric medicine in the District is provided in an outpatient model of care involving telehealth and face to face consultation, in partnership with Concord and Westmead hospitals.

There have been recent changes in how senior people access community and support services. ‘My Aged Care’ is the new national central online intake point for older people, their families and carers to access aged care services. The Commonwealth Government My Aged Care service provides support for people to stay independent in their own home and community with more home care packages to meet their need. Services provided by My Aged Care include the Commonwealth Home Support Program, home care packages, residential respite and permanent residential care. The Regional Assessment Service has been introduced by the NSW Government to assess older people in their homes for eligibility to receive low-level home support services. Referral or enquiry about these aged care services can be made by accessing My Aged Care at http://www.myagedcare.gov.au.

People requiring access to geriatric medicine consultations, dementia support services and the Transitional Aged Care Program (TACP) can be referred to the District’s Aged Care Access Centre.

The District has 24 MPS facilities, which house 401 residential aged care beds (280 high care and 121 low care). Non-Commonwealth funded residential aged care type beds are also provided at Molong (16 beds) and Narromine (eight beds) hospitals. Planning for the redevelopment of Molong Hospital to become an MPS has commenced.
Drivers for change

In ten years’ time (2026), 16 per cent of the District’s total population will be 70 years and older compared to 11 per cent in 2011. Those 65 years and older will make up 22 per cent of the total population compared to 15 per cent in 2011. Whilst many of our older residents are living a healthy and productive life and enriching our communities, there is unfortunately an increasing incidence of a number of chronic conditions including dementia. This is an even greater problem amongst our Aboriginal population who are develop chronic diseases more frequently and at a younger age and are three times more likely to develop dementia and have an earlier onset of dementia.\(^9\)

The ageing of the population and the higher prevalence of dementia will be key demand drivers for acute and sub-acute health services and community and residential aged care services. More than 30 per cent of older people present with or develop confusion during their admission to a hospital, most commonly because of dementia and delirium. There is strong evidence that poor prevention and treatment of delirium and inappropriate care of people with dementia, leads to avoidable functional decline, increased morbidity and adverse events. This in turn results in prolonged hospitalisation and a higher risk of admission to residential care and mortality.\(^9\)

The number of older Aboriginal people (50 years and over) is growing in Australia. However, they represent a relatively small proportion of the total Aboriginal population (12 per cent) compared with the proportion of 50 years and older people in the non-Aboriginal population (31 per cent). Due to their poorer health status and higher levels of socioeconomic disadvantage, the health care and support needs of older Aboriginal Australians differ from those of other Australians, and they use these services at both higher rates and younger ages. Dementia is also emerging as a significant problem for Aboriginal people at comparatively young ages.\(^10\)

The community and residential TACP which focuses on avoiding functional decline, conditioning people for their return to independent community living and reducing the need for residential care, has not been implemented to its full potential. The residential places are poorly utilised, partly due to their geographical location. Access to community places needs improving. Changes to the model of delivery and the employment of TACP clinical coordinators have improved collaboration with residential TACP providers. This has streamlined the transition of people from acute inpatient services to residential and community places by enabling timely discharge at the conclusion of their acute admission. This approach has resulted in significant improvements in package occupancy. However, the inpatient packages are still underutilised.

Occupancy of residential aged care beds in the District is almost at capacity and there are few facilities able to accommodate people with high care dementia. Managing future demand will necessitate strategies to support elderly people with lower care needs to maintain independent living in the community and reduce the need for residential aged care. This will allow transitioning of existing low care places to high care places.

The MPS program has resulted in a large investment in infrastructure within the District and has allowed people in small communities to grow old in their local communities. However,
the model of care implemented within the MPSs has reflected a medical sickness model where people are cared for as patients, rather than a model where the independence of residents is maximised within a homelike environment.

**Future directions for services**

The avoidance of unnecessary hospitalisations of older people is pivotal in preventing their functional decline, reducing the incidence of iatrogenic harm, and managing the future demand for inpatient services. For those people requiring admission, early identification of confusion, treatment of the underlying cause and management of symptoms can prevent adverse effects. The implementation of systems to facilitate improved identification and management, informed by the *Care of the Confused Older Persons (CHOPs) Program*, will improve the experiences and outcomes of confused older people in hospital.\(^9\)

A person and needs based model of care will progressively replace the historical organ/illness focus of inpatient care, with consideration of establishing older person units in the rural referral hospitals. In the district and small rural hospitals where older people are admitted for longer periods for lower acuity conditions or rehabilitation, contemporary aged care inpatient models will be adopted. This will promote early mobilisation, including communal dining, to reduce functional decline and reconditioning to optimise independence. Increased access to specialist geriatric consultation will be achieved through an expansion of the current outpatient based service. An increase in the Aboriginal health workforce is required to better support older Aboriginal people, their carers and families, in both the inpatient and community settings. This will facilitate the communication of a person’s required health care experience and assist in tailoring services to individual needs.

Acute care services will engage with NSW Ambulance and residential aged care services to reduce the unnecessary transfer of older people to emergency departments and hospitals. This will include programs such as ‘hospital in the nursing home’ and upskilling of staff employed in aged care facilities in procedures such as catheter changes, administration of intravenous antibiotics and the management of complex dressings.

The location and uptake of TACP places will be monitored to ensure the service is aligned to community needs. A focus will be on providing services where possible in the community and transitioning some inpatient packages to community packages that can be used flexibly throughout the District.

The demand for high care residential beds in MPS facilities is outstripping the supply of beds. Consistent with current trends in aged care, the District will work with partner organisations to increase the availability of community services and support more people to remain in their own homes. The next five to ten years will see the transitioning of all low care beds in MPSs to high care beds.

The current institutional model of residential aged care within our MPSs will be transformed to one that encourages independence and places decision making as close as possible to the resident. This will be informed by contemporary thinking including the Eden Alternative \(^{TM}\), a culture change model that aspires to promote autonomy and self-determination, and emotional and social wellbeing in an atmosphere reminiscent of home.\(^{11}\) However, a ‘one
model fits all’ approach to residential aged care infrastructure and models of care within MPSs may not provide a culturally appropriate environment for Aboriginal residents. Aboriginal people will be engaged in all planning for redevelopments and refurbishments of MPS facilities to provide advice on specific aspects of the facility design and care models that will make it more ‘home like’ for their elders.
Figure 16: Western NSW LHD aged care services pathway

Aged person needs a service

1. Does the person need acute inpatient care?
   - Yes
     - Nearest hospital with appropriate clinical capability
     - Rural referral centre
   - No
     - MY Aged Care Online intake point
     - Aged Care Access Centre Online link

2. Does the person need sub acute inpatient care?
   - Yes
     - Community programs including:
       - Geriatric medicine consultation
       - Allied health service
       - Dementia support services
     - Does the person require further support to prevent decline of function?
     - Yes
       - Home care packages
         - Residential respite
         - Permanent residential care
     - No
   - No
     - Does the person need sub acute inpatient care?
7.3 Cancer services

Current services

The Central West Cancer Care Centre in Orange offers a comprehensive range of locally based services including radiation and medical oncology, haematology and palliative care. The Oncology Unit has nine chemotherapy treatment chairs and one bed. In Bathurst, cancer services are provided out of Daffodil Cottage, a purpose-built facility with five chemotherapy treatment chairs. The service is coordinated by locally based oncology nurses and supported by regular clinics conducted by visiting medical oncologists, radiation oncologists and a haematologist from Orange. A clinical trials unit has been established in 2014. Seven active cancer trials involving 35 patients are currently underway.

Cancer services in Dubbo are provided at the Alan Coates Cancer Centre, a purpose-built facility within the grounds of Dubbo Hospital with eight treatment chairs. This service is coordinated and provided by locally based oncology nurses and a local haematologist and is supported by visiting medical oncologists and radiation oncologists from Orange and the Chris O’Brien Lifehouse, Camperdown and haematologists from Royal Prince Alfred Hospital in Sydney who hold regular outpatient clinics. A local medical oncologist has recently been recruited.

Outreach chemotherapy treatment clinics are held in Mudgee, Parkes and Cowra district hospitals, where oncology nurses administer chemotherapy and supportive treatments weekly. Nurses from the satellite chemotherapy units (Parkes, Mudgee, Cowra) engage in a rotation program at the Bathurst, Dubbo and Orange units that provide on the job training and education.

Haematology specialist services are available at Dubbo and Orange and outreach services are provided to Bathurst, Mudgee and Cowra. Visiting haematologists from Royal Prince Alfred Hospital also support the service.

An analysis of Western NSW residents access to cancer treatment services was undertaken to assess the degree of equity, particularly for Aboriginal and remote populations. There were no major differences in the rate of registrations per persons across LGAs. There were also no significant differences when comparing Western NSW to NSW as a whole.

Chemotherapy treatments in the District are increasing at Bathurst, Dubbo and Orange. This reflects the increasing incidence of cancer, increased availability of treatments, the recruitment of local medical oncologists, radiation oncologists and haematologists over recent years, improved self-sufficiency within the district, and a reduced reliance on tertiary centres. However lower radiotherapy treatment access is evident for residents of Dubbo and the northwest areas of the District.

Aboriginal people have a seven per cent higher incidence of cancer than the NSW population overall. Cancers with significantly higher incidence rates in both Aboriginal men and women include head and neck, lung, oesophagus and liver cancers. Aboriginal men also have
significantly higher rates of cancers of the stomach and pancreas and unknown primary cancers, while Aboriginal women have much higher rates of cervical cancer.

Drivers for change

Cancer is a major cause of illness, with a significant impact on individuals and families and on the demand for health services. Despite a decline in cancer mortality and an increase in survival over time, one in two Australians will develop cancer and one in five will die from it before the age of 85. Projected increases in demand will necessitate streamlining of cancer services to lessen the impact of cancer and meet the needs of people as close to home as possible.

Key strategic issues facing cancer services in the District are interrelated and include:

- The increasing incidence of cancer and associated increase in demand for surgical, medical and radiation oncology services
- The higher incidence of cancer amongst our large Aboriginal population and the need to provide culturally responsive services
- The sparse distribution of the population and associated issues in accessing services, particularly radiotherapy services

People frequently travel long distances within and outside of the District to access specialist, cancer services. Whilst there has been a recent increase in Isolated Patient Transport and Accommodation Scheme (IPTAAS) funding, the financial and social burden associated with accessing treatment is high.

Future directions for services

There are many known preventable risk factors for cancer such as smoking, unhealthy eating, obesity, alcohol consumption, physical inactivity and ultraviolet exposure. Between 20-30 per cent of all cancers are linked to tobacco, including lung, pancreas, bladder, kidney and cervical cancer. To reduce the incidence of cancer there has to be a substantial investment in health promotion and risk reduction. The District will work in partnership with Government and non-government agencies and community groups to build capacity within communities to improve their health and to increase access to evidenced based programs targeting smoking cessation, diet and alcohol consumption and physical inactivity.

Capacity development, including a review of current resources, will be required to meet the demand associated with the forecast 33 per cent increase in cancer incidence between 2008 and 2021. There will be an increased demand on both surgical and non-surgical cancer services, chemotherapy services and radiation oncology services. Planning to meet this demand will include consideration of the model for cancer services, the location and degree of centralisation of services and increasing access to services where appropriate ‘close to home’.

The need for development of a coherent District model of care for cancer treatment services is an important challenge facing the District and its primary care partners. The preferred model of care for specialist cancer services in Western NSW is a hub and spoke approach. Hub services at Bathurst, Orange and Dubbo will support satellite chemotherapy services
and provide increased outreach consultation services to people living in smaller communities.

A key component of demand management will be workforce planning. The progressive appointment of locally based staff specialists in medical oncology, radiation oncology and haematology to Orange and Dubbo, will allow transition to a greater capacity within the District to provide cancer services. Building a locally based workforce will reduce the dependency on ‘fly in fly out’ services, improve the integration of services and increase capacity to provide outreach services.

Greater use of telehealth will increase access to specialist advice and support, from both metropolitan tertiary centres and rural referral hospitals, for clinicians working in district and rural hospitals and community settings. This has the potential to reduce travel (required by both people with cancer and specialist staff) and support shared care models.

Explicit clinical pathways will be developed for each major tumour group and will be promoted to District staff, visiting medical officers, primary care providers and the community. Compliance with pathways will be monitored. Metropolitan tertiary centres and the Cancer Institute of NSW will be engaged in the process of pathway development.

The implementation of a medical oncology electronic medical record, currently underway, presents a major opportunity to strengthen District wide cancer services planning, delivery and monitoring. The system will support shared repositories for accessing imaging and laboratory results and allow sharing of client records in real time across hospital sites and with general practice. Capturing and reporting on key performance indicators will enable the District to better measure cancer outcomes and evaluate care.
Figure 17: Western NSW LHD non-surgical cancer services pathway

A coherent system of care for Western NSW Local Health District

Proposed Western NSW LHD non-surgical cancer services pathway

Person diagnosed with cancer

Specialist surgical services

Specialist medical services

Medical oncology consultation

Radiation oncology consultation

Haematology

Chemotherapy treatment

Radiation oncology treatment

Bathurst Daffodil Cottage

Orange Central West Cancer Care Centre

Dubbo Alan Coates Cancer Centre

Outreach

Outreach

Cowra chemotherapy clinics Visiting haematology services

Parkes chemotherapy clinics Breast care nurse

Mudgee chemotherapy clinics Visiting haematology services Visiting radiation oncology services breast care nurse

Local community support

All Western NSW LHD facilities provide local community support and palliative care
7.4 Cardiovascular services

7.4.1 Cardiology

Current services

All health facilities within the District provide services to people with chronic and acute cardiac conditions either on an ambulatory or inpatient basis. Common conditions treated include acute coronary syndromes, heart failure, cardiac rhythm abnormalities, valvular heart disease and cardiomyopathies. Bathurst, Dubbo and Orange hospitals provide specialised coronary care services in designated coronary care units (CCUs).

Dubbo and Bathurst Hospitals provide level four services with coronary care trained nursing staff and general physicians and some cardiologists supervising the management of people with acute cardiac disorders in combined coronary care and intensive care units. Dubbo Hospital has a specialist cardiologist. Coronary care staff monitor telemetry beds located on the medical ward. The Bathurst Unit also oversees six telemetry beds in the medical ward, where many of the people admitted with cardiac conditions are managed.

Orange Hospital provides level five services. Nurses trained in coronary care and cardiologists oversee patient care in a separate cardiovascular unit. An interventional cardiology service, including ‘rescue’ angiography, is also available at Orange Hospital. Consistent with contemporary practice, cardiac rehabilitation programs provide secondary prevention and chronic disease management services for people with cardiovascular disease at most sites within the District.

The district hospitals provide level 3 coronary care services and have 24 hour access to on-call general practitioners. The small rural hospitals and health services provide level one services, involving the initial management of people presenting with acute cardiac conditions prior to their referral to higher level centres. NSW Ambulance also plays a pivotal role in the management of people with cardiac conditions prior to their admission to hospitals and during their transfer to higher level services.

Demand for inpatient cardiology services (excluding interventional cardiology) by residents of the District has remained constant over the last five years, ranging from 5,438 to 6,088 admissions per year. At least 99 per cent of admissions are aged over 15 years. In 2013/14, 93 per cent of admissions (5,054 separations) were to public hospitals and 10 per cent of admissions were people identifying as being of Aboriginal or Torres Islander descent. People aged 65 years and over accounted for 60 per cent of admissions. Less than three per cent (2.7 per cent) of admissions in this age group were Aboriginal people, demonstrating their earlier onset of chronic illness and shorter life expectancy.

The District provided 92 per cent of the total public hospital admissions for cardiac conditions. This demonstrates that most people living in the District who require inpatient care receive treatment in the District's hospitals.
Orange Hospital hosts the District’s interventional cardiology. Services provided are diagnostic angiography and procedural angiography. The demand for interventional cardiology services by District residents has increased by 20 per cent since 2009/10 (1,651 to 1,975 separations per year). During the same period, the District (Orange Interventional Cardiology Service) has increased its supply of services from 40 per cent in 2009/10 to 49 per cent in 2013/14. This does not include interventional cardiology services provided on an outpatient basis. In 2013/14, private facilities provided 29 per cent of the District residents’ demand. The greatest numbers of people accessing private services were from the Dubbo, Mid-Western Regional, and Orange LGAs.

In 2013/14, there were 1,975 separations of District residents for interventional cardiology. This service related group includes invasive cardiac investigative procedures, percutaneous coronary angioplasty, pacemaker procedures, and cardiac valve procedures. The Orange service provided 959 separations or 49 per cent of the total District residents’ demand for all interventional cardiology services, 66 per cent of the District residents’ demand for percutaneous coronary angioplasty, and 56 per cent of the District residents’ demand for invasive cardiac investigative procedures. Of the total people receiving services, 54 per cent were less than 70 years of age and nine per cent were people identifying as being of Aboriginal or Torres Strait Islander descent. This may indicate an unmet demand for our Aboriginal population who make up 11.1 per cent of our total population and have a higher incidence and earlier onset of heart disease. Only five per cent of the total separations for interventional cardiology were people identifying as Aboriginal or Torres Strait Islanders.

Orange Hospital provided 77 per cent of the Southern Sector residents’ demand for inpatient percutaneous coronary angioplasty and 54 per cent of their demand for inpatient invasive cardiac investigative procedures. Orange Hospital only provided 53 per cent of the Northern Sector residents’ demand for inpatient percutaneous coronary angioplasty and 38 per cent of
their demand for inpatient invasive cardiac investigative procedures. Outflows are primarily to private hospitals and day procedure centres, and hospitals in Sydney Local Health District. Cardiologists from metropolitan and other areas outside of the District providing visiting consultation services influence the flow of people to hospitals outside of the District. People requiring interventional cardiology are sometimes referred to the cardiologist’s hospital of origin rather than to Orange.

In 2013/14, 11 per cent of District residents less than 65 years of age who received interventional cardiology services (public and private) were Aboriginal.

**Figure 19: Western NSW LHD interventional cardiology outpatient activity**

![Bar chart showing outpatient activity from 2010 to 2014]


Data source: Manual extraction

Annual Interventional cardiology activity supplied by the District on an outpatient basis has been constant between 2010 and 2014. The percentage of people requiring percutaneous coronary intervention has been variable ranging from 17 per cent in 2010 and 2011 to 34 per cent in 2013 and 21 per cent in 2014.
By 2032, the District’s adult resident population demand for interventional cardiology services is projected to increase from 1,612 in 2011 to 2,385 in 2032, an increase of 48 per cent. For invasive cardiac investigative procedures, the District’s adult resident population demand is projected to increase by 35 per cent (862 episodes in 2011 to 1,167 episodes by 2032). The District’s adult resident population demand for percutaneous coronary angioplasty is projected to increase from 465 episodes in 2011 to 681 episodes by 2032, an increase of 46 per cent.

Bathurst’s catchment adult population demand for invasive cardiac investigative procedures and percutaneous coronary angioplasty is projected to increase by 54 per cent to 314 episodes per year by 2032. Orange’s catchment adult population demand is projected to increase by 53 per cent to 753 episodes and Dubbo’s catchment adult population demand is projected to increase by 24 per cent to 782 episodes. Lower projected activity for the Dubbo catchment population is likely the result of status quo projections and does not take into account current unmet need.

**Drivers for change**

The District has a high incidence of cardiovascular disease compared to NSW as a whole. A focus on prevention, early detection and secondary prevention must prevail if the burden of cardiac disease is to be reduced. Patient centred models empowering people to work with clinicians and other care providers to manage their conditions are required to maintain optimal health and reduce avoidable hospital admissions.

Contemporary models of care promote streamlined protocol driven management of people with cardiac conditions in the acute phase. Geographic distances within this District challenge the delivery of timely acute care.
Preliminary findings on the burden of ischaemic heart disease and provision of cardiac revascularisation procedures in western NSW (Chief Health Officer 2014), indicates the burden of ischaemic heart disease in residents of western NSW is similar to or higher than that of the rest of NSW, for non-Aboriginal and Aboriginal people, respectively. This report also indicated there may be an unmet need in the provision of definitive revascularisation procedures for patients who first present to Dubbo Hospital with ischaemic heart disease, for both Aboriginal and non-Aboriginal people, in comparison to those who present to Orange Hospital, and in comparison to the rest of the state. This analysis only provides information on procedures that were performed on people admitted to hospital. Some revascularisation procedures are performed on an outpatient basis. Higher rates of revascularisation procedures for people presenting to Orange may also be due the referral to Orange of people from regional centres who have been assessed and screened and have a higher risk of having coronary artery disease. Relative utilisation rates for the District’s LGAs indicate that residents have lower rates of interventional cardiology than the rest of the state.

A significant number of people from the Dubbo catchment area access interventional cardiology services at Orange Hospital, Sydney tertiary hospitals, private hospitals or hospitals outside of the District. Interventional cardiology services are not available at Dubbo but have been included in planning for stages three and four of the redevelopment of Dubbo Health Service. The establishment of interventional cardiology services at Dubbo will allow a significant volume of this projected activity to be undertaken at Dubbo. An examination of Diagnostic Related Groups, day only and overnight activity and natural flows based on current activity (FlowInfo 14), indicates that most of the activity occurring at Orange for Dubbo catchment residents could be done at Dubbo Hospital if a service was available. This would include at least 65 percent of overnight activity, 90 per cent of day only activity occurring at public hospitals outside of the District, and 80 to 90 per cent of private activity. However, other services including intensive care and coronary care will need to have sufficient clinical capacity to support the service.

Pacemaker implantation is a relatively common procedure, particularly for older people. People currently have to access this service in metropolitan centres. Data suggests there is a sufficient volume of activity to support a locally based service.

**Future direction for services**

The District will work collaboratively with other government departments and service related organisations to reduce the social, economic and behavioural factors contributing to our higher incidence of cardiovascular disease. Initiatives to reduce smoking, overweight and obesity and inactivity rates will be evidence based and successful programs conducted by external providers will be supported.

The District Integrated Care Strategy will pave the way for improved chronic care services, including services for people with cardiac disease. Integrated care models will provide ‘team’ care across the continuum, streamline referral processes, reduce duplication of effort and result in a wider range of locally available services.

All people with suspected acute coronary syndromes can benefit from early access to specialist medical advice and appropriate treatment. The State Cardiac Reperfusion Strategy
SCRS) is currently being implemented throughout NSW. This system of care for people with suspected acute coronary syndromes (ACS) involves physicians, visiting medical officers, nurses and paramedics working collaboratively to deliver person centred care tailored to different clinical settings.

Stage two of the SCRS, the establishment of 12 lead electrocardiogram (ECG) reading services in rural local health districts is in place in the District. Its aim is to facilitate clinical support models for small rural hospitals and allow the introduction of alternative reperfusion models including paramedic administered pre hospital thrombolysis and nurse-administered thrombolysis in small rural hospitals without 24-hour medical cover.

People with acute coronary syndromes accessing Ambulance services will be screened prior to transfer for suitability for primary angioplasty. To date this has focused on transferring people directly to designated tertiary centres able to provide 24-hour access to primary angioplasty. This service is now available at Orange Hospital and is provided by two interventional cardiologists. Workforce and succession planning will be undertaken to ensure the sustainability of this service into the future.

The Pre-hospital Assessment for Primary Angioplasty model has been implemented for people with acute coronary syndromes who access Ambulance Services and are located within a 45-minute safe travel radius (road or air) from Orange Hospital. The impact of this strategy on the health of the wider population is dependent upon active and effective community education programs to increase the use of Ambulance services by people with chest pain. Pre-hospital thrombolysis and nurse-administered thrombolysis will provide an alternative strategy for people outside of this 45-minute travel radius.

Demand for interventional cardiology to 2016 for the Northern Network was originally factored into the planning for the Orange Hospital and Health Service. However, interventional cardiology services will be required at Dubbo to meet both unmet need and the increasing demand for services into the future. Stages 3 and 4 of the redevelopment of Dubbo Hospital and Health Service will see the establishment of a cardiovascular unit and an interventional cardiology service. The redevelopment also includes a cardiac investigation laboratory (including echocardiography). The projected timeframe for the establishment of this service is three years (2018).

A diagnostic coronary angiography service will be established. This will operate for 12 months. The service will be evaluated to assess clinical capability prior to commencing a coronary interventional program. Approval to initiate an interventional program will be contingent upon site evaluation by an appointed representative of the Interventional Council of the Cardiac Society of Australian and New Zealand.

Clinical and support capacity to provide this service will be developed in partnership with Orange Hospital to ensure quality and sustainable services at both Orange and Dubbo. This may include the dual appointment of interventional cardiologists to Dubbo and Orange hospitals to provide a District service delivered at two campuses. This model would provide a critical mass of clinicians within the District, sustain the current ‘rescue coronary intervention’ service at Orange and provide sufficient activity to meet quality and training requirements.
The viability of providing a pacemaker implantation service within the District requires consideration. The availability of a local service would decrease the requirement for people to access this service outside of the District.

Whilst this document and the following pathway focus on acute coronary syndrome and future directions for acute services, the spectrum of cardiac conditions is large. A District Cardiac Services Plan is required to inform the delivery of other services, including access to diagnostic services and rehabilitation. Pathway development for different cardiac conditions will facilitate ‘right place, right time, right team, and when possible first time’ treatment. This plan will be linked to the Integrated Care Strategy and chronic disease management planning.
Figure 21: Western NSW LHD chest pain pathway adapted from the NSW Health's State-wide Cardiology Project Model of Care

- Person presents directly to hospital with no cardiac catheter laboratory
- Person called 000
- Ambulance with 12 lead ECG responds
- Transmit data and if ordered ambulance commence treatment if part of protocol
- Proposed Western NSW LHD chest pain pathway
- Hospital to conduct chest pain evaluation. Positive ST elevation - mandate transmission of ECG to Reading Service. Negative ST elevation - GP consult with Reading Service if required.
- Does the person require definitive emergency cardiac care?
- Yes
- Person to be transported to hospital with cardiac catheter laboratory or the nearest coronary care unit
- Chest pain evaluation
  - Cardiology bed
  - Coronary care unit
  - Cath lab
  - 23 hour bed
  - Elective procedure
- No
- Referral to GP/Specialist/Outpatient clinic. Rehabilitation. May require booked procedure per risk stratification.
- Yes
- Referral to GP/Specialist/Outpatient clinic.
- Rehabilitation.
- May require booked procedure per risk stratification.
7.4.2 Stroke services

Current services

Enhancement funding from the Ministry of Health in 2007 enabled the development of a hub and spoke model of care in the District, for the management of people experiencing an acute stroke. The three hubs services at Bathurst, Dubbo and Orange hospitals provide a primary stroke service as described by the National Acute Stroke Services Framework 2015.16

Primary stroke services have a dedicated stroke unit with clinicians who have stroke expertise, written stroke protocols for emergency services, acute care and rehabilitation, CT/CT angiography capability and ability to offer thrombolytic therapy at least during normal business hours and preferably 24/7 (supervised by an onsite specialist or supported by telehealth). Other elements of the service include protocols to transfer people to a comprehensive stroke service as needed, timely neurovascular imaging and timely access to expert interpretation, telemedicine services and coordinated processes for patient transition to ongoing rehabilitation and secondary prevention services. Depending on local factors, including previous and existing services and geography, these services may have some of the additional elements of comprehensive stroke services and responsibility for regional coordination of stroke services.17

In 2013/14, there were 540 district residents were treated in hospitals following a stroke who required 2,883 bed days. People identifying as being of Aboriginal or Torres Strait Islander descent accounted for 11.5 per cent of these inpatient episodes (380 bed days). District facilities supplied 90 percent of its residents’ inpatient treatment. The hub services at Bathurst, Dubbo and Orange hospitals supplied 75 per cent of the services provided within the District. Activity at the district and small rural hospitals has declined over the last five years. This is probably a result of the adoption of stroke pathways.

Figure 22: District facilities - inpatient stroke activity 2009/10 – 2013/14

Data source: Flowinfo v14
People presenting to facilities other than these hubs are transferred as soon as possible for this expert, coordinated care, which has been proven to decrease morbidity and mortality by up to 20 per cent.\textsuperscript{18} The aims of a Primary Stroke Service are to:

- Protect the brain tissue by managing haemorrhagic stroke and preserving the ischaemic penumbra
- Assess and manage the consequences of stroke
- Prevent complications
- Provide early rehabilitation
- Address secondary prevention

Bathurst and Dubbo provide stroke unit care in an allocated room within their medical wards. Orange provides stroke unit care in rooms within the Cardiovascular Unit. All people admitted with acute stroke to any of these centres are provided contemporary evidenced based care by a multidisciplinary team under the supervision of a physician or cardiologist. Stroke coordinators are employed for the Bathurst/Orange stroke services and the Dubbo stroke service. These coordinators work closely with the Rural Stroke Network and ACI Stroke Network.

In 2013, the Stroke Reperfusion Project was launched. The aim of this project was to shorten the patient journey to definitive thrombolysis for stroke. Orange and Bathurst hospitals were two of only four rural sites included in this project. The Ambulance stroke recognition education and assessment tool were rolled out. People with stroke symptoms who meet the time criteria, are transferred directly to the nearest thrombolysis centre. Dubbo Hospital currently offers stroke thrombolysis and is building capacity to be included in program.

Bathurst, Orange and Lourdes hospitals provide intensive inpatient rehabilitation for people following stroke. Increasing evidence in the area of neuro-rehabilitation addresses physical, cognitive and psychosocial recovery following stroke. Generic programs including the Get Healthy, Quitline and smoking cessation and cardiac rehabilitation programs also provide community based secondary prevention education and cardiac fitness, which contributes to stroke recovery.

Ongoing review for patients with chronic stroke symptoms is sometimes available with a limited period of rehabilitation to address specific goals. This is not however available on a consistent basis to all people throughout the District.

Drivers for change

The findings of the \textit{National Stroke Foundation Acute Stroke Services Audit}, conducted in 2013, resulted in the following recommendations: \textsuperscript{17}

- The development of improved systems to:
  - Ensure greater access to stroke unit care as well as ensuring people receive the majority of their care on the stroke unit
  - Increase the number of patients who get thrombolysis and to reduce door-to-needle time, particularly in large centres
The development of strategies to improve early management of stroke, focussing particularly on continence management and management of fever and abnormal blood glucose levels
The improved transition of people from the acute setting by ensuring more people receive a care plan on discharge and education about lifestyle modification to prevent stroke recurrence
The introduction of systems for sustainable national data collection, together with quality improvement mechanisms to ensure best practice care is realised across the country

**Future directions for services**

There will be a District approach to improving pathways so that people are urgently transferred to a primary stroke services. Where distance and time permit these services should be the primary destination. Pathways will include the identification of people who are potential thrombolysis candidates.

Neuro-radiologist intervention (thrombectomy) for clot retrieval has an improved evidence base and is a developing treatment option. Pathways and protocols will include the transfer of people from the District to comprehensive stroke centres offering this intervention.

Further development and review of stroke unit care within the District is required to ensure adequate staffing (medical, nursing and allied health) to deliver a level of care to maintain access to locally based primary stroke services. Early discharge programs and community based rehabilitation options will also be explored to reduce the current reliance on inpatient care and improve the integration of people back into to community following stroke.

The District approach to stroke management, facilitated by stroke coordinators at Bathurst/Orange and Dubbo hospitals will be strengthened through the engagement of physicians and general practitioners. A District stroke stream or working group will assist in the future planning of stroke services, the development and validation of District guidelines for managing stroke, the identification of education needs of staff working at all facilities within the District and the monitoring of clinical outcomes.

Methods of providing consistent follow up and ongoing rehabilitation for people in the community with chronic stroke symptoms will be explored. This will include increasing access to psychological support to address the high incidence of depression post stroke.

A stroke pathway is currently being built in to eMR2 Release C. Utilisation of this within the primary stroke service sites will improve implementation of evidence-based practice and improved patient care.
7.5 Emergency care services

Current services
The District operates 38 inpatient facilities – three rural referral hospitals, four district hospitals and 31 small rural hospitals (24 of which are multipurpose services). All facilities provide some level of emergency care.

Figure 23: Western NSW LHD ED presentations 2014/15

In 2014/15, there were over 124,027 emergency department presentations to the rural referral hospitals and district health services. During the same period there were over 46,080 emergency presentations (excluding outpatient clinic visits) to small rural hospitals. This demonstrates a large number of people (27% of District presentations) are attending small rural hospital emergency departments for treatment. This activity is inflated at some sites by current coding practices where outpatient attendances are included in the emergency activity.

In 2014/15, 16.7 per cent (20,723 presentations) of emergency department presentations to the District’s referral and district hospitals were admitted to the hospitals. This is slightly (1.4%) less than during the previous year. Bathurst Hospital admitted 13.9 per cent of emergency presentations, Dubbo admitted 22.6 per cent of emergency presentations and Orange admitted 24.2 per cent of emergency presentations. The lower rates of admissions to Bathurst Hospital may reflect a smaller proportion of higher acuity presentations, a higher proportion lower acuity presentations and transfers or people requiring some specialised services (in particular orthopaedics) to higher level services.
Triage is the process of determining the priority of a person’s treatment based on the severity of their condition. Emergency departments in Australia use the Australasian Triage Scale, which has been adapted from the National Triage Scale. Triage category 1 is assigned to people with immediate life threatening conditions who need to be seen within minutes. Triage category 2 is assigned to people with serious conditions that need to be seen within 10 minutes. Triage category 3 indicates the person has an urgent condition that needs to be seen within 30 minutes. Triage categories four and five indicate the person has a semi-urgent or non-urgent condition that is not time critical, but should be seen within one and two hours respectively.

Of the total emergency department presentations in 2014/15 to rural referral and district hospitals, 0.4 per cent were categorised as Triage 1, 8.8 per cent were categorised as Triage 2 and 25.6 per cent were categorised as Triage 3. The majority (65.2 per cent) were categorised as Triage 4 and 5. When compared to the rural referral hospitals, the district hospitals have a smaller proportion of triage 2 and 3 presentations and a much higher proportion of triage 5 presentations.

Emergency department presentations to the rural referral hospitals have been constant over the last five years with small increases at Bathurst and Dubbo hospitals. The categorisation of people over the period has demonstrated changes, with an increasing number of category 1 and 2 presentations at Orange, an increase in category 2 and 3 at Bathurst and a small increase in triage 2 presentations at Dubbo Hospital. Triage 5 presentations have decreased at all sites, which may reflect a change in triage practices and increased referral to ambulatory care services.

There has been an increase in emergency presentations at both Cowra and Mudgee hospitals, primarily in triage categories 3 and 4. There has also been a decrease in the number of triage 5 presentations at these sites. Insufficient data is available to determine trends at Parkes and Forbes hospitals.
Drivers for change

Demand for emergency department services is expected to increase over the next ten years. Based on population growth and historical trends, Bathurst Hospital is predicted to have the largest increase in demand, increasing from a baseline of 23,876 in 2012 to 26,200 presentations in 2017 and 29,500 presentations in 2022 (2.2% growth per year). The highest growth (4.3% per year) will be in the number of people requiring admission (3,717 in 2012 to 4,606 in 2017 and 5,682 in 2022). Dubbo Hospital will have a 1.7 per cent annual increase in demand with approximately 30,300 presentations in 2017 and 33,200 in 2022. There will be a small decrease in the number of people requiring admission, the result of a predicted decrease in the admission of children.

Orange Hospital is predicted to have a 1.8 per cent annual increase in demand (from 27,394 presentations in 2012 to 30,260 in 2017 and 35,646 in 2022. There will also be a growth in the number of adults requiring admission to hospital (1.7% per year). Emergency department presentations are predicted to decline at Forbes Hospital (-1.3% per year) and Cowra Hospital (-1.6%). The proportion of admissions will increase at both sites. Demand will increase at both Mudgee (0.9% per year) and Parkes (1% per year) hospitals and an increased proportion of these people will require admission.

The implementation of State care pathways (including for acute coronary syndromes, stroke and severe trauma) are redirecting the transfer of some people with time critical illnesses from smaller centres to referral centres with capability to provide specialist treatment. As these pathways increase to include other critical illnesses, there is likely to be a further increase in primary emergency presentations to the rural referral hospitals and a reduction in at the district and rural hospitals.

Increasing activity will challenge existing demand and bed management strategies to achieve emergency performance targets (EPT). These include ‘fast track’ models of care and the ‘whole of hospital’ program. The rural referral hospitals struggle to meet the current EPT target of 81 per cent. The extended time spent in emergency departments by people requiring admission is of particular concern. The district health services are meeting the EPT targets. However, given the relatively small volume of presentations to these centres and their low bed occupancy rates, waits longer than four hours should be rare.

People with conditions that may be better managed in a primary care setting, continue to present to all emergency services within the District. This results in an unnecessary use of available resources. Several initiatives have been introduced at the rural referral hospitals including ‘hospital in the home’ programs, after hours GP clinics and referral to ambulatory care services. Opportunities exist to increase access to primary and ambulatory care services in the district and small rural hospitals and health services.

All 31 small rural hospitals within the District have historically provided a level of emergency care. Twenty-four are MPSs where emergency services have been included as part of the model. Currently some primary and community health centres in remote areas, including Goodooga, also provide emergency services.
Small rural hospitals vary considerably in their need and capacity to provide emergency care. Many do not have 24-hour medical cover and the small volume of presentations makes skills maintenance difficult. The provision of formalised emergency services at all sites can result in time delays to higher levels of care (where more specialised treatment is available), and poorer health outcomes.

Various community consultations within the District have revealed how much communities value their local ‘emergency department’. There is an expectation that these centres should be resourced to provide 24-hour medical and nursing care. Any change in service delivery models is reliant on upon effective community engagement.

**Future directions for services**

Each of the rural referral hospitals will continue to provide formalised emergency department services at role levels of four or five. Whilst Orange Hospital is the nominated trauma centre for the District, capacity will be built at Dubbo Hospital to provide this service for its catchment population.

The district health services will continue to have a major role in the provision of emergency care, supported by formalised consultation liaison services provided by the Patient Flow Unit and the rural referral hospitals. A ‘one service two campus’ model at Parkes and Forbes Hospitals (Lachlan Health service) will improve the sustainability of these services and provide opportunities to introduce initiatives such as the rotation of after hour’s services between the sites and sharing of on call medical and clinical support services.

Many small rural hospitals will also be required to provide formalised emergency care services. They will need the clinical capability to provide initial stabilisation and management of critically ill or injured people prior to their referral to definitive care. They will also provide short-term observation of people not requiring immediate transport. Established consultation/liaison services with referral health services will be strengthened and supported by the Remote Medical Consultation Service, the Critical Care Advisory Service and metropolitan retrieval and consultation services.

Models of emergency care suitable for small rural hospitals will be explored with consideration of factors such as safety and quality, remoteness, distance to a larger centre, the catchment population they support and the availability of supporting services such as general practitioner services and NSW Ambulance services. People with signs and symptoms suggesting a stroke, fractured neck of femur, acute coronary syndrome and severe trauma, if possible, will be transported to the nearest centre with capability to provide definitive care.

Primary and community health centres also require capability to provide basic life support and ‘first aid’ for people presenting with acute medical and mental health conditions whilst arranging referral to a higher level of care. Primary and community health centres in remote areas need to be able to provide initial care for people with life threatening illnesses and injuries, prior to retrieval to definitive care.
The transitioning of some small rural hospital emergency services to ‘walk in health clinics’ over the next five years will provide continued local access to an appropriate range of lower acuity services in small towns and allow investment in additional primary and ambulatory care services. These clinics are similar to the ‘urgent care centre’ models, implemented in NSW and other States, and the ‘walk in health clinic’ models operational in Canberra, America and the United Kingdom. Initially in NSW, the model was introduced as a demand management strategy. A dedicated area in hospitals was established to complement emergency department services by streamlining and treating people with lower acuity and non-complex conditions.

The model has been introduced in some rural hospitals as an alternative to a formalised emergency department service. Models throughout the State vary in terms of hours of operation and have been adapted to suit local community needs. The service targets people with lower acuity conditions including otitis media, mild asthma, acute back or neck pain, tonsillitis, mild headaches, sinusitis, infections, strains and sprains and minor eye injuries. The service is for people who either do not require or are unable to access a timely GP service. People requiring treatment for higher acuity injuries and illnesses will be encouraged to call an Ambulance who will provide initial treatment and transport them to the nearest higher-level service. Fundamental to the successful establishment of walk in health clinics is community engagement and education about the role of the centres.

Partnerships with Ambulance Services and the introduction of emerging models of care including Paramedic Assist, and Authorised Care Plans will complement the Walk in Health Clinic Model, provide more care in the community and reduce unnecessary transportations. The Ambulance Clinical Emergency Response Assistance initiative (CERS Assist) will be employed to assist in the initial resuscitation and management of critically ill and injured people that self-present to these centres.

The Critical Care Clinical Advisory Service currently does not operate overnight. This service requires enhancement to provide a 24-hour service. The possibility of achieving this through a partnership with other LHDs requires consideration. This would provide a larger pool of intensive care/emergency specialists available for consultation.

Demand management strategies including redirecting people with lower acuity conditions to alternative ambulatory and primary care settings will require ‘ramping’ up. A continuing emphasis on reducing unnecessary presentations and representations to emergency departments is required to reduce the demand on these services. This will include an expansion of ambulatory care services throughout the District and the development of integrated primary care services in partnership with General Practitioners, Primary Health Networks, Aboriginal community controlled health services and other health related services.

The District will work towards implementing the Rural Health Plan strategies by working in partnership with NSW Ambulance to provide high quality emergency care and retrieval services, including fostering integration across key areas such as emergency care, urgent care and health and community support. This partnership will be central to ensuring quality and sustainable emergency services in rural towns and villages, the establishment of walk in health clinics and the provision of a wider range of ambulatory and community based services.
Primary and community health services will be strengthened and enhanced in partnership with general practitioners and other health related services to reduce the demand on emergency services. This will include prevention and early intervention strategies and community capacity building to improve the health of individuals and ultimately communities.
Figure 25: Western NSW LHD small rural hospital and community health services emergency care pathway

1. **Person presents to a health service for unplanned care**
   - **Walk in health clinics**
     - These services provide unplanned care for people with minor illnesses and injuries.
   - **Small rural hospital emergency care service**
     - These services require first line emergency care capability, including initial stabilisation, short term critical care management capability.
   - **Primary and community health service**
     - These centres have basic life support and first aid capability only.

2. **Does the person have a serious illness or injury?**
   - Yes: **Refer to GP and or provide primary and community health services and support**
   - No: **Nurse initiated care supported by clinical pathways and guidelines Consult with GP or the Remote Medical Consultation Service if required**

3. **Does the person have a serious illness or injury?**
   - Yes: **Nursing staff provide first line care in consultation with CCAS if required Call 000 to activate Ambulance who will stabilise and transfer to nearest district health service or rural referral centre**
   - No: **Consult with GP on call when available or the Remote Medical Consultation Service. May be admitted for observation if on call GP available**

4. **District and Rural Referral Health Services**
   - These services provide emergency care per their role delineation and critical care service networks

5. **Specialist Statewide Services**
   - Person requiring a service from NSW Ambulance should be transported directly to the appropriate level of emergency care.
Figure 26: Western NSW LHD walk in health clinic pathway

Person presents for unplanned care

Walk in Health Clinics
These services provide unplanned care for people with minor illnesses and injuries

Does the person have a serious illness or injury?

Yes
Nursing staff provide first line care in consultation with CCAS if required
Call 000 to activate Ambulance who will stabilise and transfer to nearest district health service or rural referral centre

No
Nurse initiated care supported by clinical pathways and guidelines. Consult with GP or the Remote Medical Consultation Service if required

Follow up advice/referral to other provider as required

District and Rural Referral Health Services
These services provide formalised emergency care per their role delineation

Specialist Statewide Services
7.6 Intensive care services

Current services

Intensive care services are provided at the three rural referral hospitals in the District. Bathurst and Dubbo intensive care units (ICU) are Level 4 services, as delineated by the current Guide to the Role Delineation of Health Services. These services have the capability of providing short-term ventilation and invasive cardiovascular monitoring. There are three ICU beds at Dubbo Hospital and one ICU bed at Bathurst Hospital. Orange ICU is a Level 5 ICU with the capability of providing mechanical ventilation, extracorporeal renal support services and invasive cardiovascular monitoring for a period of several days. Currently there are five designated intensive care beds. Bathurst and Dubbo ICU services have an open model of care in a combined intensive care, coronary care and high dependency unit. Orange ICU is a closed model of care in a standalone unit where intensive and high dependency services are co-located. There is a separate cardiovascular unit.

During the five-year period from 2009/10 to 2013/14, there were 8,166 admissions of District residents to Intensive Care Units, who needed 689,791 intensive care hours. Of these ICU admissions 481 (6%) were neonates and children 15 years of age or less. Twenty four per cent of these children were of Aboriginal or Torres St Islander descent. Of the total number of children requiring intensive care, 84 per cent were admitted to Sydney Children’s Hospital and the Children’s Hospital Westmead. Collectively these hospitals provided 85 per cent of the total ICU hours required by the District’s children.

Figure 27: ICU separations Western NSW residents (> 15 yrs)

Between 2008/09 and 2013/14, the District’s ICUs supplied 44 per cent of the total admissions to public hospital ICUs required by District residents and 35 per cent of their total bed days. The number of adult residents requiring treatment in ICU has steadily increased.
from 1,372 in 2009/10 to 1,754 in 2013/14. At the same time, the District is providing fewer of the public intensive care hours required by its adult residents. There has been a decline from 34,094 hours (35% of total public demand) in 2009/10 to 27,418 hours (30% of total public demand) in 2013/14. Of the adult ICU hours provided within the District, Orange Hospital provides 55 per cent.

Figure 28: ICU hours Western NSW residents (> 15 yrs) – all hospitals

The outflow of District residents for ICU treatment has been variable between 2009/10 and 2013/14. A majority of these people are transferred from other hospitals, most likely hospitals within the District. This trend appears to be increasing with a 26 per cent increase in referrals between 2008/09 and 2012/13. The other significant referral type for the District’s residents to ICUs outside of the District was by ‘emergency department’ and ‘medical practitioner’, however the level of these referrals have remained constant.

In 2013/14, 33 per cent of residents requiring time in an ICU were cared for in the District. District ICUs provided only 21 per cent of the total intensive care hours. Of the total ICU activity provided by the District to its residents, 61 per cent of separations and 56 per cent of ICU hours were provided by Orange Hospital. Eleven 11 per cent of separations and nine per cent of ICU hours were provided by Bathurst Hospital and 28 per cent of separations and 36 per cent of ICU hours were provided by Dubbo Hospital. There has been an increase in admissions to Orange ICU between 2012/13 and 2013/14. Activity at Dubbo Hospital has remained static following a decline in 2011/12 and activity at Bathurst Hospital has decreased. The financial year 2013/14 saw a decline in ICU hours at Orange, an increase at Dubbo and a small decrease at Bathurst.
Figure 29: Western NSW residents (>15 years) admitted to Western NSW ICU units

Data source: Flowinfo v14. Excludes SRGs Chemotherapy, renal dialysis, qualified neonates, 0 days designated mental health bed

Figure 30: Western NSW Residents (>15 years) ICU hours in Western NSW ICU units

Data source: Flowinfo v14. Excludes SRGs Chemotherapy, renal dialysis, qualified neonates, 0 days designated mental health bed

The highest volume of separations (greater than 20 per year) were for the service related groups respiratory medicine, cardiology, tracheostomy, non subspecialty medicine, orthopaedics, colorectal surgery, non subspecialty surgery, neurology, upper Gastro-intestinal (GIT) surgery and gastroenterology. The service related groups requiring the greatest number of ICU hours (> 400 hours) were tracheostomy, respiratory medicine, neurology, non subspecialty medicine, colorectal surgery, cardiology, non subspecialty
surgery, gastroenterology, upper gastrointestinal tract (GIT) surgery, orthopaedics, urology and renal medicine and immunology and infections.

**Figure 31:** District adult residents receiving services in ICUs outside of the District by source of referral

The most common reasons people are being transferred outside of the District for ICU services is listed under the enhanced service related group (ESRG) tracheostomy or ventilation greater than 90 hours (50% of all transfers). Analysis of this data using principle diagnoses and primary procedures categories indicates that some of these transfers could be managed within the District, whilst others are people requiring tertiary level care for neurological, cardiothoracic and oncology conditions. More information is required about transfers for ventilation and tracheostomy to allow better a better understanding of the exact portion of these transfers suitable for management within the District.
There is often a crossover between high dependency and intensive care data. The classification of people is often according to the bed they occupy rather than the acuity of their condition and the complexity of their treatment. The majority of people recorded as receiving high dependency care in the District have medical conditions. A significant number of people with surgical conditions also require high dependency care. High dependency care has increased by 36% between 2009/10 and 2013/14. This is consistent with trends in other LHDs and most likely reflects the ageing of the population, the prevalence of chronic disease and multiple co-morbidities and the increasing number of complex procedures and surgery being performed.

High dependency care for the District’s residents over 15 years is increasingly the role of the District’s rural referral hospitals. High dependency hours for medical conditions increased by almost 52 per cent between 2009/10 and 2013/14. Surgical high dependency activity increased in the same period by 23 per cent. Orange Hospital has had the biggest increase in high dependency activity (almost 65%), followed by a 30 per cent increase at Dubbo Hospital and a 10 per cent increase at Bathurst Hospital.
The most common reasons for high dependency care at the District’s rural referral hospitals in 2013/14 were respiratory medicine, colorectal surgery, orthopaedics, non-subspecialty surgery, non-subspecialty medicine, cardiology, gastroenterology and neurology. These service related groups accounted for 73% of the high dependency activity.

Drivers for change

The District has a dispersed ageing population with a relatively low socioeconomic and health status and an increased prevalence of chronic illnesses. Currently Orange Hospital has the only ICU equipped to provide complex multisystem life support for an extended period. Not all specialist services are provided within the District and some people will continue to require transfer for tertiary services. However, the District can become more self-sufficient in the management of adults requiring intensive care. Initiatives to increase the District’s self-sufficiency must be reviewed within an ABF framework to determine their affordability.

The provision of increasingly complex surgery within the district and the prevalence of chronic illnesses will see a growth in the demand for high dependency services. Close observation of people with co-morbidities post-surgery in a high dependency unit rather than on a general ward can reduce the requirement for emergency responses and improve patient outcomes through earlier detection of deterioration.

Future directions for services

Intensive care services in the District will be networked and include formalised links with level 6 tertiary services to provide timely access to consultation liaison services, improve patient flow and reduce unnecessary transfers outside of the District.
A District Intensive Care Plan will be developed to guide service delivery into the future. The Plan will look at District wide intensive care services and contemporary models of service delivery including those developed by the Agency of Clinical Innovation (ACI). The ACI Intensive Care service Network has developed a model for level 3 and 4 ICUs that incorporates a framework for standardised service delivery, governance, care provision and the management of critically ill people across NSW. This includes integrated networks within and across LHDs. Planning will include examination of potential for flow reversals and building capacity to sustain services into the future.

Improved data integrity will be achieved through a review of current coding practices and the development of remedial systems. The aim is to provide reliable data at a level of detail required to guide service planning and performance monitoring.

Clinical services planning for stages three and four of the redevelopment of Dubbo Health Service indicates the need to increase the capacity and capability at Dubbo Hospital to provide a level 5 intensive care service. The rationale for this increase in role is Dubbo’s large catchment area, the poorer health status of the population in the north west and remote areas, the distance of remote centres from Orange Hospital, the increasing complexity of surgery, the level 5 maternity services provided and the future introduction of interventional cardiology services.

The sustainability of two stand-alone level 5 intensive care units in the District requires sufficient activity, including more than 200 mechanically ventilated patients per annum to require four to six staffed and equipped intensive care beds at each site to adequately discharge clinical and teaching functions. Based on current activity levels this would require an increase in District self-sufficiency to provide approximately 70 per cent of the intensive care hours required by its adult residents (13 beds based on 80% occupancy). Whilst raw data indicates that there is potential to reverse some of the flows outside of the district, an in depth analysis of local data is required to accurately estimate the actual volume of flow reversal and model its impact on future service delivery.

Bathurst Hospital will continue to provide level 4 services and partnerships with Orange Hospital will be strengthened to support clinical practice, manage demand and reduce unnecessary transfers out of the District. The feasibility of developing a virtual District wide intensive care unit will be explored. This may include the cross appointment of intensivists and could be supported by telehealth consultation services with tertiary services and between District referral centres, including virtual multidisciplinary rounds.

The review of models for high dependency services and admission criteria will flag people requiring close observation, better support surgical services in the referral centres and reduce transfers out of the District of people requiring surgery that is more complex. The role of district hospitals in providing ‘close observation’ for at risk patients will be evaluated and supported by a formalised consultation/liaison service and competency based clinician training. Clinical support services including the Critical Care Advisory Service will be utilised to provide real time consultation.
The Development of an ICU workforce plan will include exploring cross facility appointments of intensive care specialists, clinician training and supervision requirements and career pathways to retain and recruit a skilled intensive care and high dependency workforce.
Figure 34: Western NSW LHD intensive care services pathway

Proposed Western NSW LHD intensive care services pathway

Referral for ICU bed

Post elective surgery ICU bed request

Is the admission planned?

Unplanned

Pre admission referral?

Yes

No

Pre admission clinic

Surgeon request

Anaesthetists request

Pre admissions anaesthetists review

Consultation with intensivist / medical officer in charge

Intensivist / medical officer in charge acceptance

Day of surgery Request

Consultation referral with ICU Intensivist / Medical officer in charge

Bed available?

Yes

No

Elective surgery cancelled

Intra facility capacity?

Yes

No

Intra district ICU referral

Can the person be managed in a District ICU bed?

No

Tertiary ICU request and transfer

Yes

Intra facility intensivist / medical officer in charge acceptance

Intra district intensivist / medical officer in charge acceptance

Tertiary ICU acceptance
7.7 Kids and Families

7.7.1 Maternity Services

Current services

The role of maternity services in the District is to provide safe and appropriate services for women and babies requiring pre pregnancy care, pregnancy care, birthing, postnatal and neonatal care. The level of care provided at individual facilities is aligned to their role delineations, service delivery capability and the availability of clinical support services. Maternity services in the District rely on well skilled intra and inter agency multidisciplinary teams working collaboratively to provide appropriate, accessible maternity care, which prepares a woman and her family for pregnancy, birth and parenting.

Antenatal, intrapartum, postnatal and neonatal/infant care services are provided at Bathurst, Dubbo, Orange, Parkes, Forbes, Cowra and Mudgee hospitals. These services have varying levels of capacity to manage pre-existing and pregnancy related conditions. Referral pathways are in place to provide access to higher levels of care. Several small rural hospitals and MPSs in the District operate Level 1 maternity services and may provide mothers and babies delivered elsewhere post-natal care, provided there are no complications. Some MPSs do not have the capability to provide antenatal or postnatal care.

District hospitals at Cowra, Lachlan (Forbes and Parkes), Bathurst and Mudgee provide Level 3 maternity services and Level 2 neonatal services. They provide care for women who have selected moderate risk pregnancies and have babies of greater than 36 weeks gestation. Orange Hospital, a level 4 birthing service with a level 3 special care nursery, provides care for women and babies greater than 34 weeks gestation at moderate risk. Obstetricians, paediatricians and specialist anaesthetists are on call 24 hours. Dubbo Hospital provides the same services as Orange but operates at a level 5 role and has the capability to manage women with selected high-risk pregnancies from 32 weeks gestation. It has a designated level 4 special care nursery. Established midwifery group practice models are in place at both Dubbo and Orange hospitals. These models are well supported by communities. They provide continuity of care in line with the Ministry of Health Towards Normal Birth policy directive.\(^{20}\)

The Aboriginal Maternal and Infant Health Service (AMIHS) is a well-established community based antenatal and postnatal care service within the District. The service has resulted in measurable improvements in the health of Aboriginal mothers and their babies. It provides high quality maternity care that is responsive to the needs of Aboriginal people and their communities. The service model is tailored to the specific needs of each community. The AMIHS service delivery model also provides antenatal and postnatal care to non-Aboriginal mothers with Aboriginal partners, and their infants. The service involves a midwife working in partnership with an Aboriginal health worker to provide culturally appropriate care to pregnant Aboriginal women, new mothers and their babies, in a safe environment. The duration of care extends from conception to eight weeks postpartum. The presence of AMIHS principles within communities has the potential to influence some of the social,
economic, and political determinants of health and improve the health and wellbeing of Aboriginal mothers and babies.

Community development is integrated into the AMIHS service delivery model. A holistic approach is undertaken to improve the health and wellbeing of the women, families and their communities. Working with Aboriginal Women’s groups provides insight into the needs of the local community and an avenue to provide health-promoting information to all age groups, including preconception advice. The foundations of this service incorporate the principles of primary health care, which is guided by the local Aboriginal women in collaboration with other service providers. The collaborative approach provides opportunities to access vulnerable Aboriginal women and their families. Not all Aboriginal women and their families will want to access AMIHS. A woman can choose which service will best support her and her family.

**Figure 35: Western NSW LHD resident births (all hospitals) 2009/10 – 2013/14**

In 2013/14, there were 3,783 births to women living in the District. Of those births, 3,416 were in the District’s health facilities (90% self-sufficiency). The majority of outflows for birthing services were to neighbouring LHD facilities that are considered natural flows for a number of the District’s communities. Almost 3 per cent of the total births occurred in private hospitals. Between 2009/10 and 2013/14 there has been very little variance in the number of vaginal births. There was also little variance in the number of caesarean births for women living in the District.

In 2013/14, almost 31 per cent of all births by women who reside in the District were by caesarean section. In District facilities, approximately 29 per cent of total births were by caesarean section. This is a high proportion when compared to NSW as whole. Aboriginal women have fewer caesarean sections than non-Aboriginal women (21% compared to 29% of births). This has been a consistent finding over the last ten years.

Despite the higher fertility rates of women living in the District and the high proportion of Aboriginal women, the number of births is projected to decrease by 11 per cent between
2011 and 2032 (a decrease from 3,612 births to 3,213 births). The higher fertility rates of Aboriginal women are likely to be offset by the outmigration of younger non-Aboriginal women and the general decline in the younger population.

Drivers for change

The National Maternity Services Capability Framework describes the minimum service capability requirements for both public and private maternity services across rural, regional and metropolitan settings. The clear objectives are:

- **Service Safety** – defining the minimum standards for maternity services at each complexity level to ensure safe, efficient, sustainable and equitable care
- **Service Quality** - allowing national benchmarking of clinical indicators and meaningful comparison of perinatal and maternal morbidity and mortality
- **Service Planning** - providing the framework to assist in planning of local and national maternity systems that safely and appropriately meet the needs of the community with clear and agreed escalation strategies between different levels of maternity care
- **Service Coordination** - Improving service coordination through describing and standardising service linkages for referral, back transfers and escalation of care

This framework reasserts the National Midwifery Guidelines for Consultation and Referral – adopted by NSW Ministry of Health, the Critical Care Referral Networks (Perinatal) Policy Directive 2010_069, and the Ministry of Health – Maternity and Neonatal Capability Framework which is due to be released late 2015. These documents are key drivers for Maternity service provision in the District.

NSW Kids + Families A Strategic Health Plan for Children, Young People and Families 2014-24 has set four major objectives to make sure there is the creation of the best opportunities for healthy mothers and babies in NSW. These include better access to care with a focus on:

- Women-centred care from early in pregnancy
- Evidence based options for birth
- Improved transition from postnatal to parenthood services
- Preparing for pregnancy and promoting parental health and wellbeing

This Plan recognises that some families require extra attention. Mothers from rural or remote areas, teenagers, culturally diverse communities, Aboriginal people, the homeless, or those experiencing domestic or family violence, mental health and or substance abuse issues, can have poorer pregnancy and perinatal health outcome and may need customised targeted care. Western NSW LHD has developed a localised first triennium, 2015-2018 implementation plan to address key areas and identified gaps to meet the requirements of the NSW Kids + Families A strategic Health Plan for Children, Young People and Families 2014 – 24.

Many women and their families live outside of larger cities and towns in Australia and New Zealand. Most will wish to have their pregnancy and birth managed safely and as close to home as possible. To allow this, everybody involved in pregnancy and birth care need to work together to provide women with the safest and most pleasant environment possible. Some women will have risk factors that mean safety is best assured if their care is managed
at a larger centre. For this reason, assessment of each individual woman and her own circumstances is important, and should be undertaken by experienced and skilled carers as early as possible. For the benefit of all women and their families, every effort should be made by authorities to promote and sustain safe conditions for care in smaller communities.  

The District covers a large geographical area with large regional centres and towns. Depending on the individual needs of pregnant women living in the District, it is not possible to provide safe quality maternity services in every town. Small towns do not have the volume of activity that maintains skill capability of the maternity workforce. Furthermore, small towns in the District do not have the medical officer, anaesthetic capability to provide the required surgical support services for birthing. However, there is community expectation that the District provides low risk antenatal, birthing and postnatal care as close to home as possible. Access to specialist child and family nursing services in rurally remote areas is also problematic due to the challenges of having a sufficient number of specialised nurses to follow up mothers and children following their discharge from maternity services.

**Future directions for services**

Communities need to be well informed with regard to the level of maternity and anaesthetic care services available locally, and how these services are supported at regional and tertiary levels. Women and their health carers must be cognisant of the possible limitations of local services if unexpected complications arise. A number of strategies are required to deliver safe and quality maternity services within the challenging geography of the District. These include strengthening services at Bourke MPS based on a group practice model to support antenatal and post-natal care. Collaborative models of obstetric care in rural referral hospitals for low risk patients will be established. Implementation of combined medical and midwifery obstetric outreach services from the District’s rural referral hospitals and district health services will provide support for smaller sites that provide ante and post-natal services.

Further enhancements identified through clinician consultation include, strengthening of the state wide perinatal advice line (PAL) service to support smaller sites with pre term presentations and the enhancement of telehealth for consultation and video assessment to support women and services at endorsed smaller sites. Maternal and neonatal special care services will also be enhanced at Orange, Bathurst and Dubbo hospitals. This will be informed by the *Maternity Neonatal Capability Framework* and undertaken using a risk management process.

To ensure continued delivery of safe and quality services, the District will formalise governance for smaller sites to prevent individual clinicians introducing services based on their qualifications rather than the role delineation of the service. The introduction of any new service must be evidenced based, improve the health of the community, be sustainable, and represent good value for money. Authority will be obtained prior to commencement and include a risk assessment of the proposed service.

District processes to identify and address unwarranted clinical variations and the subsequent cost variances and monitor service delivery and outcomes will be established. The Kids and Families Clinical Stream will oversee this work.
The changes to registration of midwives will affect both nursing and maternity services. A specific and dedicated midwifery workforce will remove the option of health service management to flex midwives into general duties in the future. The registration of midwives in the future will require expanding models of women centred midwifery care while allowing the midwife to work within the full scope of their professional practice. There will be further implementation of midwifery group practice models across all birthing sites. This will support the maintenance of requirements for Midwifery registration, provide alternative models of midwifery care for women and families provide options for outreach to smaller communities and decrease service provision costs. Processes are underway to commence midwifery group practice in Forbes and Parkes hospitals before the end of 2015.

Caesarean sections and pre-labour induction of labour will be examined to determine the appropriateness or not of current clinical practices and inform strategies to increase the proportion of normal birthing in accordance with the policy directive Toward Normal Birth.20
Figure 36: Western NSW LHD maternity pathway

- Has the woman identified risk factors?
  - No
  - Yes: Women's choice.

- Risk factors identified and woman less than 32 weeks gestation?
  - No: Nearest facility with capability
  - Yes: Tertiary Hospital

- Rural Referral Centre
- District Health Services
- Shared Obstetrician/GP Obstetrician/Midwife ante natal post natal care

All families referred to local Child and Family Health Nurse service
7.7.2 Child and family health services

Current services

Early childhood services in the District provide mothers and babies support following birth. Child and family health nurses are located in, or outreach to most communities within the District. Other programs and service arrangements relating to child and family health include the Statewide Eyesight Preschool Screening (StEPS) Program, the Statewide Infant Screening – Hearing (SWISH) Program and the Aboriginal Otitis Media Program.

The Child and Family Health Nursing Service forms an integral part of primary health care. It aims to maintain, improve and promote the optimal health and wellbeing of children up until the age of five years and their families. Services provided include assessment, social support, education, supportive counselling and appropriate referral. The Service acts as an entry point into the community health care system and occurs in multiple settings within the community. A child and family health nurse will visit every newborn within two weeks of the birth if accepted by the mother.

There is an established standard model of care for child and family health services, which has been in place for some time. This model is based on the NSW Ministry of Health Maternal Child Health Care Policy.

The Statewide Eyesight Preschool Screening Program provides visual acuity screening to all four year olds in the District. The program is a collaborative process with program staff and other agency staff such as the Department of Education, preschools and others. The program is currently provided on a hub and spoke basis across the District. The level of compliance for the program is high.

The Statewide Infant Screening – Hearing is provided to all newborns born within the District and is undertaken generally prior to discharge from a maternity service, shortly after birth. The program assesses the hearing of the newborn. The level of compliance with the program is currently 98 per cent.

The Aboriginal Otitis Media Program assesses the hearing and ear health of targeted Aboriginal children from birth to four years of age. In 2011, the Ministry of Health revised the program with the release of the NSW Health Aboriginal Ear Health Guidelines. Transitioning from a blanket screening model to a targeted screening model was recommended with increased emphasis on:

- A range of risk factors which directly contribute to the higher rates of infection in Aboriginal children
- Providing practical public health strategies around prevention, awareness, early identification, treatment and support

Drivers for change

The child and family health workforce is ageing and the availability of specialised nursing staff is challenging District wide access to services. This has seen the implementation of processes such as employing registered nurses as child and family health nurses and supporting, and mentoring them to attain the qualifications through the NSW College of
Nursing. This has seen some success in small communities ‘growing their own’ skilled clinician base.

**Future directions for services**

The District will continue to develop strategies to sustain access to specialised child and family health services, particularly in remote rural communities. This will include growing the capability of the generalist nursing workforce through mentoring, providing specialist liaison services, and working in partnership with general practitioners to integrate and coordinate care.

Telehealth will be increasingly used to provide access to paediatrician and child and family nursing consultation services and to support generalist clinicians providing front line care in remote communities.

Future directions for the Statewide Infant Screening – Hearing Program will be guided by the findings and recommendations of a review currently being conducted.

**7.7.2 Paediatric services**

**Current services**

Level four medical and surgical paediatric services are provided at Bathurst, Dubbo and Orange hospitals. These services operate within a ‘care centre’ model with integrated inpatient, specialist consultation, non-admitted and community health services for most paediatric medical conditions. They have designated adolescent areas and a specialist paediatrician on call 24 hours. Moderate and selective major surgical procedures are performed by surgeons credentialed in paediatric surgery assisted by specialist anaesthetists with appropriate paediatric anaesthetic experience and/or qualifications.

District hospitals and health services provide emergency and primary care services for children. They provide limited inpatient medical care following consultation with specialist paediatricians and provide limited endorsed elective surgery. Small rural hospitals and health services (including MPSs) provide emergency and primary care services for children and short term treatment and observation in consultation with a paediatrician. Small rural hospitals and health services provide urgent and primary care services for children and may provide short-term treatment/observation of children when clinically appropriate in consultation with a paediatrician.

Demand for inpatient care by the 0-15 year age group living in the District was constant between 2009/10 and 2013/14. The District has consistently supplied around 79 per cent of the public hospital demand. Of the total inpatient occasions of service provided by the District in 2013/14, 72 per cent was for medical care. Paediatric surgical and procedure inpatient services provided by the District to this age group have also seen very little historical variance.
Figure 37: District resident 0 – 15 years demand for acute medical inpatient care

Data source: Flowinfo v14

Children from the District receiving acute medical inpatient treatment in other LHD facilities in 2013/14 accounted for 918 separations, approximately 17 per cent of public hospital demand. In 2013/14, the District's self-sufficiency (excluding private facility supply) for acute medical inpatient care in this age group was approximately 83 per cent. The most significant outflow destination for the 0–15 year age group was Sydney Children’s Network (63 per cent of outflows to other LHD facility / 536 separations). Services most commonly accessed outside of the District by this age group were non-subspecialty medicine (154 separations), neurology (93 separations) and neonatal care (69 separations).

Projections to the year 2027 for medical inpatient care in the 0–15 year age group indicate there will continue to be a decreasing demand for inpatient services.

In 2013/14, the proportion of the District's children requiring acute medical inpatient care who identified as Aboriginal or Torres Strait Islander was 24 per cent. The main reasons for medical admission to hospital for Aboriginal and Torres Strait Islander children are general medical conditions, respiratory disorders, and neonates requiring specialised care. These conditions accounted for 61 per cent of Aboriginal children’s admission to hospital for acute medical conditions.
In 2013/14 there were 262 potentially avoidable admissions of children 15 years and younger to public hospitals. The majority of these admissions (236) were hospitals within the District. Although there has been a steady decline of avoidable admissions in this age group since 2010/11, Aboriginal children continue to be over represented. In 2013/14, Aboriginal children living in the District accounted for 34 per cent of the total number of avoidable admissions to all public hospitals.

The demand for public hospital acute surgical / procedural inpatient care by children living in the District increased between 2009/10 and 2013/14. The main increases in demand have been for ear nose and throat surgery and orthopaedic surgery. District facilities provided 70
per cent of public hospital services in 2013/14, which was similar to previous years. Hospitals outside of the District where children were most frequently admitted were within the Sydney Children’s Network. This group of hospitals provided 23 per cent of total public hospital demand. Surgical/procedural activity projections to the year 2027 in this age group have a similar decreasing trend as the projected medical inpatient care activity.

Of the total children living in the District admitted for surgical conditions, 22 per cent were Aboriginal. The main reasons for their admissions were ear nose and throat, dental and orthopaedic conditions that accounted for 60 per cent of their admissions.

Drivers for change

According to the NSW Ministry of Health Guidelines for the Care of Children and Adolescents in Acute Care Settings, best practice paediatric care should include community-based services, hospital in the home programs and other ambulatory care/outreach services. Senior clinicians within the District in line with the guidelines have identified a need for paediatric specific ambulatory care service delivery models for the District that include designated child and adolescent ambulatory care clinics, day programs and ‘hospital in the home’ programs.\(^\text{25}\)

Clinicians also highlighted a lack of child appropriate settings in the District for children with greater care needs. Children not requiring tertiary referral but requiring high dependency care are sometimes admitted to the District’s intensive care units, as there are currently no appropriate child friendly inpatient settings for seriously unwell children not requiring tertiary referral.

Future directions for services

To meet the standards of the Guidelines for the Care of Children and Adolescents in Acute Care Settings and provide best practice care models for children and their families, the District will expand paediatric ambulatory care services, specifically tailored to the child and adolescent requirements.

The placement of children and adolescents into adult settings for higher complexity care will be reviewed and options for managing these children in the referral hospital paediatric units explored. To better provide services that support children and adolescents with mental health disorders the District will implement formalised consultation and liaison systems between mental health providers and paediatricians.

The Supporting NSW Paediatric Service Capability Project will have several implications for service provision in the District. This Project aims to optimise access to safe, sustainable and appropriately supported public sector paediatric services for children as close to home as possible, no matter where they live. Achieving this aim requires a combination of services, links, and multidisciplinary collaboration across all levels of service provision. It also requires that families and communities are aware of the level, scope and limitations of services available in proximity to their homes.\(^\text{26}\)
Service capability describes the scope of services as well as the level of acuity and/or complexity of care that can be delivered at each designated level of paediatric service. This is based on the arrangement and mix of a suite of factors including workforce availability, clinical policy, access to a range of required clinical support services, and integration of the service within a wider health care network. The aim is to have safe, sustainable, and appropriately supported paediatric services. The geographical location of a service and timely escalation and/or transfer in the event of a child requiring a higher level of care is an important consideration in the provision of safe care.
Figure 40: Western NSW LHD paediatric pathway
7.7.3 Violence prevention and child at risk of harm services

Current services

Along with mandatory child protection for all staff in the District a number of violence prevention services and services for children at risk of harm are operational within the District. These are summarised below.

The Integrated Violence Prevention Program is responsible for leading key priorities of the NSW Health Policy for Identifying and Responding to Domestic Violence and the NSW Governments ‘It Stops Here’ – Standing together, to end domestic and family violence in NSW. The Program provides direction for integrated violence prevention strategies within the District to ensure appropriate service responses for victims who experience domestic and family violence. The program aims to:

- Ensure culturally appropriate access to and delivery of health information and services relating to domestic and family violence
- Provide programs and strategies to improve service response for victims who experience violence and abuse, that are evidenced-based, focus on a partnership approach and are developed within a health outcomes approach
- Implement domestic violence routine screening in target programs, including the provision of training of staff within target programs
- Participate on interagency projects and initiatives to improve response and referral/access to appropriate services for victims of domestic violence
- Resource health staff with appropriate information on crisis and non-crisis intervention, appropriate counselling information and referral services

Key objectives of the program include:

- Implementation of the It Stops Here: Safer Pathways strategy across identified sites within the District. This strategy sits within the current NSW Government’s domestic and family violence framework.
- Ongoing implementation and monitoring of Domestic Violence Routine Screening (DVRS) in target programs within the District
- Participation on interagency projects and initiatives to improve response and referral/access to appropriate services for victims of domestic violence
- Education and resourcing of health staff with appropriate information on crisis and non-crisis intervention, relating to domestic and family violence
- Facilitation and provision of advice and response to requests for information on issues relating to domestic and family violence, including health policy initiatives, health impact and service delivery
- Assistance in the development and support of networks across the District that link together health and non-government agencies working together to support women and families affected by domestic and family violence
- Establishment and maintenance of partnerships with key service providers, government and non-government services to promote an early intervention, prevention and best practice approach to domestic and family violence
The Western Child Wellbeing Unit commenced operation in Dubbo in January 2010 as a key strategy of the NSW Governments’ *Keep Them Safe* action plan. The plan was developed in response to the recommendations from the Special Commission of Inquiry into Child Protection Services in NSW. The Western Child Wellbeing Unit is aligned with the Western Child Health Network. The network encompasses Far West and Western NSW, Central Coast, Nepean Blue Mountains, Western Sydney LHDs and part of North Sydney and South Western Sydney LHDs. The Western Child Wellbeing Unit also provides support for the Greater Eastern, Southern and the Northern Child Wellbeing Units.

The Child Wellbeing Unit functions to:

- Assist staff to identify whether concerns about a child meets the new risk of significant harm threshold and ensure these matters are reported to the Child Protection Helpline
- Assist staff to identify potential responses by the health worker and/ or advise on referral to appropriate services where the threshold is not met
- Drive better alignment and coordination of agency service systems, to enable better responses to children and families in need of assistance

Out of Home Care is also a key strategy of the NSW Governments *Keep Them Safe* action plan. NSW Health coordinates health assessments, reviews and interventions for children and young people who entered statutory out of home care prior to July 2010. This service is a critical health intervention for children who have significant health care needs including poor mental and physical health. LHDs and specialty networks provide health assessment services for children referred by the NSW Department of Community Service.

The Rural New Street Western has been funded by the Ministry of Health to provide specialist counselling services in the District as part of Government initiatives under the *Keep Them Safe* action plan. The Service works with children and young people (ages 10 to 17 years) who have sexually harmed others and includes their families. Priority is given to children aged 10 to 14 years as these children are least likely to receive any counselling services. There is an emphasis on working with families and carers especially in the area of safety planning. Half of all clinical activity and/or community development are targeted at assisting Aboriginal families and communities.

The service operates from Dubbo and provides counselling services to Dubbo residents and outreaches to other towns across the District as required. Services are child focused, holistic and employ an interagency approach underpinned by the following principles:

- Fundamental respect for all people regardless of their age or behaviour
- The right of all children and young people to be protected from harm
- The importance of the development of a positive identity for children and young people
- The belief that sexual abuse is not a preferred way of being or behaving for children and young people
- Commitment to social justice, especially for Aboriginal people
- Commitment to the facilitation of restitution processes where appropriate

Child protection counselling services provide dedicated medium to long term therapeutic counselling and case work services to support children and young people who are at risk of significant harm or where physical abuse, neglect or domestic violence has occurred.
Parents and carers are included in counselling. The service also provides a role in educating other agencies and professionals both internally and externally. Counsellors are located at community health centres in Orange, Forbes, Bathurst, Dubbo, Mudgee and Bourke.

The Central Contact Point is located at Dubbo Hospital in the Medical Records Department. The department processes and distributes ‘high risk birth alerts’ and Chapter 16A information exchange requests that relate to the safety, welfare and wellbeing of children and young people across the District.²

The Western NSW LHD Sexual Assault Service utilises a client centred model where staff focus on the client’s needs, safety and wellbeing. The service provides integrated child and adult sexual assault counselling and medical services.

Twenty four hour crisis medical and counselling services operate from Bourke MPS and the referral hospitals at Orange, Bathurst and Dubbo. Child victims (under 14 years) requiring forensic/medical services are transported to the nearest rural referral hospital. Follow up counselling services for victims are provided by counsellors based at Orange, Bathurst, Dubbo, Lightning Ridge, Coonamble, Cowra, Mudgee, Bourke, Coonabarabran, Parkes and Forbes.

The program aims to:
- Improve outcomes for clients recovering from sexual assault
- Provide crisis and counselling services that are accessible and appropriate
- Increase safety awareness for community members
- Ensure that staff are skilled and competent
- Ensure evaluation of services occurs within a best practice framework

The Bathurst, Dubbo and Bourke Joint Investigative Response Team’s (JIRT) senior health clinicians are situated in co-located offices with Police and Community Services in these communities. The senior health clinicians are responsible for managing all health components of the Joint Investigation Response Team in partnership with JIRT Interagency partners, NSW Police and Community Services. The senior health clinician is an equal partner in JIRT and is involved in representing health in local planning and response meetings, liaising with sexual assault services and ensuring that children are referred to appropriate counselling services.

Drivers for change

NSW Kids and Families strategic document Healthy, Safe and Well. A Strategic Health Plan for Children, Young people and Families 2014-24 identifies the need to change the way we care for mothers, babies, children and young people. The drivers for change were identified in the Garling and Wood inquiries and the NSW Kids and Families strategic plan provides the way forward for improving services for children, young people, mothers and families, keeping

² Chapter 16A allows the exchange of information between prescribed bodies despite other laws that prohibit or restrict the disclosure of personal information, such as the Privacy and Personal Information Protection Act 1998, the Health Records and Information Privacy Act 2002 and the Commonwealth Privacy Act 1988.
them healthy, safe and well and ensuring that the most vulnerable in our community have the care they need.

All Health staff have a mandatory responsibility to identify, respond and report child protection risks and concerns. Increasing the knowledge and skill base of Health staff is critical to ensure that an appropriate response to vulnerable families is paramount and that all staff recognise that child protection is everyone business.

The NSW Government *It Stops Here: Standing together to end domestic and family violence in NSW* is a whole of government response to domestic and family violence. It provides a framework for reform in addressing the prevalence of domestic and family violence and ensuring improved outcomes for the victims and their children. Through improved referral pathways and the establishment of a coordinated service delivery response to victims and their children who experience domestic violence.

The Ministry of Health Policy Directive *Domestic Violence - Identifying and responding*, articulates the role of NSW Health and LHDs in recognising and responding to domestic violence. The policy provides direction on domestic violence routine screening in services where significant numbers of women have found to be at risk. The aim of screening is to reduce the incidence of domestic violence through primary and secondary prevention approached and minimise the trauma that people living with domestic violence experience. Services mandated to undertake DVRS for women attending antenatal and early childhood health services, women aged 16 years and over attending mental health and drug and alcohol services. In addition to these services, the women’s health program also undertakes routine domestic violence screening.

**Future directions for services**

Future directions for services in the District are identified in the Western NSW Local Health District Health, *Safe and Well: A Strategic Health Plan for Children, Young People and Families 2014-24 Implementation Plan*.

The future directions for child protection and violence prevention services in the District include:

- Boosting community capacity to pursue good health by promoting healthy eating and active lifestyles in families, schools and communities (a Kids and Families Council identified strategic priority) and encouraging a whole-of-government approach to better health for children, young people and families.
- Improving health literacy and knowledge of parents, carers and schoolchildren about available health services (a Kids & Families Council strategic priority) - this includes communicating effectively so parents, carers, children and young people make healthy life choices and assisting schools and local communities to create age-appropriate health promotion programs.
- Reducing risk taking and minimising harm by better identifying and addressing risk-taking behaviours and psychological distress among parents, children and young people - parents and carers will be better supported to prevent and/or intervene in behaviours that are detrimental to their children’s health. There is also a need to strengthen early intervention services to address sexual and reproductive health, drug
and alcohol misuse, and psychological distress in young people (a Kids and Families Council strategic priority).

- Increasing awareness of violence, abuse and neglect on health over time by building public awareness of the long-term impact of adverse events on children and young people (a Kids and Families Council strategic priority) - parents and schools need support to reduce peer-to-peer abuse among young people. Professionals need to recognise signs of violence, abuse and neglect (a Kids and Families Council strategic priority).

- Improving identification and triage care for those at risk of harm by reinforcing the roles and responsibilities of health workers to screen, report and triage care for those at risk. Improvement requires embedding a trauma-informed approach to identifying and assessing those harmed or those who are at risk of harm (a Kids and Families Council strategic priority). Improved identification also requires working with partner agencies to better care for those at risk of domestic and family violence, sexual assault, or child abuse and neglect.

- Building greater capacity to respond to victims of violence, abuse and neglect by adopting appropriate psychosocial, medical and forensic responses for sexual assault, child abuse and neglect - this will require working with government and community partners to develop integrated care pathways (a Kids & Families Council strategic priority).

- Reducing the incidence and health impact of accidents, injuries and self-harm by working with partners to investigate evidence-based interventions that reduce intentional and non-intentional injury (a Kids and Families Council strategic priority). The District will adopt best-practice health strategies to mitigate harm and better treat and protect young people from intentional self-harm, psychosocial disorders and suicidal behaviour.
7.8 Mental health and drug and alcohol services

Current services

Mental health and drug and alcohol services (MHDA) have been structured as a clinical stream for a number of years, maintaining a District-wide approach to clinical and corporate governance, service development, policy formulation, and workforce planning and recruitment. The service provides secondary and tertiary psychiatric services for the District’s local population and is a major referral centre for patients needing more specialised care and treatment from the rest of NSW.

Currently the service is divided into two regions, with hubs in Dubbo and Orange, loosely aligned with the northern and southern sector structure that has developed for the District’s health services. Previously one of a handful of stand-alone psychiatric hospitals in NSW, Bloomfield in Orange continues to have a full complement of specialist and sub-specialist acute and non-acute inpatient services. Dubbo Hospital has both acute and sub-acute adult inpatient units, and a sub-acute unit is located at Bathurst Hospital. Community services are provided through mental health drug and alcohol teams located throughout the District. A long-standing residential care program, the Satellite Housing Integrated Programmed Support (SHIPS), operates in Orange, and there are residential places in Dubbo and Bathurst provided through the NSW Housing and Accommodation Support Initiative (HASI). SHIPS provide crisis respite, satellite housing, and ambulatory care services for people who have moved out of the SHIPS-staffed residential facilities. Residential services are provided in partnership with Department of Housing and non-government organisations. Collaborative arrangements with local non-government organisations assist in helping to meet the disability and other support needs for individuals with more severe illness or higher support needs.

There are currently 80 acute inpatient beds in the District, with 10 child and adolescent, 44 adult, and 12 older person’s beds in Orange, and 14 adult beds in Dubbo. There are 10 adult sub-acute beds in both Bathurst and Dubbo. The Dubbo sub-acute unit is operated as a partnership with a non-government organisation. Murrumbidgee and Nepean Blue Mountains regularly send overflow adults requiring acute admissions to Bloomfield. Three of the adolescent beds are designated for patients from Murrumbidgee and Southern LHDs. Occasionally there are referrals from other LHD’s admitted to the adolescent or adult inpatient beds. Overall occupancy for the acute units is highly variable over time, with an average of approximately 75 per cent. Electroconvulsvive therapy is provided in theatres in the Orange Health Service.

There are 20 adult extended-care beds in Orange, and 16 beds allocated for older persons’ rehabilitation, most of who have been in extended-care. Non-acute psychiatric rehabilitation beds number 72, with a forensic unit, medium secure unit, and two individual units for male and female medium term rehabilitation. These units have a ‘statewide’ brief, and are open to referral from any Local Health District in NSW. The forensic unit is operated in a partnership with the Justice Health and Forensic Mental Health Network, and links are established with the sending services for the other rehabilitation units to ensure most referred patients are returned to their District of origin when the rehabilitation episode is completed. An eight bed
involuntary drug and alcohol rehabilitation unit, one of two such units in NSW, also operates on the Bloomfield campus as a statewide referral centre.

The Mental Health and Drug and Alcohol Service is unique among specialist services in having a significant arm of its service located in various community locations throughout the District. Community-based teams link with hospital services (general inpatient and emergency departments) to provide consultation and improve continuity of care across settings. Mental health teams are often co-located but usually separately managed from drug and alcohol teams at the local level, and there is co-location of some teams with community health services. Community-based teams with mental health and drug & alcohol treatment services are located in Orange, Bathurst and Dubbo, with smaller teams in Cowra, Parkes, Forbes, Mudgee, Bourke, and Lightning Ridge. Services provided include psychiatric assessment and review, case management and continuing care, acute response to crisis, and consultation to emergency departments, general practitioners, and other service providers as appropriate. In most teams there is some capacity to meet the needs of children/adolescents and older individuals in addition to adults, although smaller teams may have limitations in this regard. Larger teams often provide outreach services to smaller centres, and to more remote areas without dedicated staff.

Specialized drug and alcohol services include the Opioid Treatment Program, the Magistrates Early Referral into Treatment Program (MERIT), the Cannabis Clinic and the Drug and Alcohol Help Line.

A dedicated psychiatric consultation and liaison service is provided for the Orange Health Service, and consultation is provided to Bathurst and Dubbo Hospitals on an as needed basis by specialist mental health staff with input from psychiatrists working in inpatient or community settings.

The Mental Health Emergency Care-Rural Access Program (MHEC-RAP) was established in 2008 and provides telephone and telepsychiatry services to support mental health assessment and care across the District. Originally established to provide assessment and consultation for acute presentations to small emergency departments with limited or no access to specialist mental health input, the program has expanded to provide support to mental health community teams, police and ambulance, and general practitioners. The program coordinates patient transfer and retrieval between sites, incorporates the Mental Health Emergency Access Line, and provides mental health support 24/7 with the assistance of the on-call psychiatrist.

There are significant initiatives that operate District-wide, including the Aboriginal Mental Health and Workforce Training programs, the Family and Carer Mental Health Program, consumer participation, and a range of partnership programs such as the Arts and Health Strategy Program, an Integrated Employment Project, the Rural and Remote Mental Health Project (RAMHP) and other rehabilitation and partnership initiatives with non-government organisations.
Drivers for change

The drivers for change in specialist mental health and drug and alcohol services mirror many of the priorities of the larger health system. There will be a reduced need for acute hospital services. This will be achieved by intervening early and making available more community-based care options, better integrating primary and specialist care, focussing on the needs of Aboriginal and other Indigenous people, and involving individuals more fully in their care and treatment decisions are key aspects of change that will support recovery and improvement in overall well-being for those with mental illness.

Two recent reports have reviewed the broader mental health services landscape. The Report of the National Review of Mental Health Programmes and Services from the National Mental Health Commission, and Living Well – A Strategic Plan for Mental Health in NSW 2014-2024, from the Mental Health Commission of NSW, outline recommendations to improve the health and well-being of individuals with mental illness. The NSW Commission report underscores community as a source of resilience and locally driven solutions for those with mental health problems, particularly for Aboriginal people. Prevention and early intervention, person-centred approaches to engagement and recovery, and inclusiveness and recognition of the needs of a highly diverse population are key drivers for change, as is better coordination and integration of public health and human services, non-government organisations, and other support resources. The report calls attention to workforce shortages in the clinical professions, which are more severe in rural areas such as Western NSW, and calls for development of a plan to address the needs for both professional and non-professional aspects of the workforce crucial to improving mental health care and support.

The report projects an increase in demand for some mental health professional services of between 135 and 160 per cent over the next 15 years. This presents a challenge for the public-specialist health component of these services, particularly in relation to the ability to recruit appropriately trained clinical staff.

The National Disability Insurance Scheme (NDIS) will influence mental health services, particularly rehabilitation and support services for individuals with severe mental illness and disability. The scheme will commence in Western NSW in June 2017. The non-government sector in rural NSW will need to expand to meet current and future demand for non-clinical support services, particularly for individuals with more complex or severe mental illness and in anticipation of new paradigms for disability support services with the rollout of the NDIS.

An external review of the District’s mental health services was conducted between December 2013 and April 2014. The reviewers made a number of recommendations in relation to community service models. These included reducing demand for hospital-based and more restrictive types of care, the distribution of services in the District with attention to the needs of the Aboriginal population, use of evidence based treatments and multidisciplinary team-based care, increased consumer involvement in the service, and effective use of resources to improve the health of the population of the District. These recommendations are consistent with those arising from the NSW Mental Health Commission, and have informed development of a Service Transformation Project.
Future directions for services

A number of changes will occur in the coming period for mental health and drug and alcohol services, including through a Service Transformation Project that sits under a Steering Committee chaired by the WNSW LHD Director of Operations. Structurally, specialist mental health and drug and alcohol services will be re-organised from two to three regions, with Bathurst joining Orange and Dubbo as dedicated “hubs” providing integrated services across the age spectrum. Smaller community teams at Lightning Ridge, Mudgee, Forbes, etc. (“nodes”) will be supported by the hubs, and both hubs and nodes will outreach services to the remote sites with sole clinicians or no dedicated staff. The need for more equitable distribution of resources was noted in the service review, and the development of a centre in Bathurst and planning for more clinicians, including allied health, in hubs and nodes with dedicated time for outreach and remote work are important areas to be addressed in the Transformation reforms.

Providing better access to specialist care in remote areas is one way of contributing to “Closing the Gap” in health outcomes for the Aboriginal population. Another is the long-standing investment the Mental Health and Drug and Alcohol Service has in training and educating members of the Aboriginal community interested in careers in health, an effort that has successfully placed a number of graduates of the program in our services.

Utilisation of tele psychiatry will assist expansion of treatment and services for the population outside of the regional centres. As noted earlier, use of video consultation and support via mental health emergency care (MHEC) has developed since 2008 to include support to community mental health and drug and alcohol teams by nurses and medical specialists. Further enhancement and development will include video sessions with the visiting psychiatrist for teams and clinicians in remote and “node” sites on weeks when the designated psychiatrist is not visiting in person. The centralised capability of MHEC and “reach” potential of telepsychiatry also lends itself to development of sub-specialty treatment services. These might include more perinatal psychiatry across the District, psychiatrist involvement in first-episode psychosis, and psychiatrist consultation to the broader provider community involved in adolescent services.

Research has demonstrated an association between the availability of psychiatrist consultation and lower lengths of stay in general hospital settings, and there is potential to increase the availability of this beyond Orange Hospital via the central MHEC service and/or on-site psychiatry enhancement. In line with recommendations in the recently released District Telehealth Strategy, a collaborative Specialist to GP project will develop capacity of our visiting psychiatrists to provide direct consultation to GP practices in the region. These models hold potential to further the integration of specialist and primary care services in these difficult to reach areas of the District.

Consultation psychiatry is an important link between the general hospital wards and emergency departments, mental health inpatient units, and community. Good integration between these components of the health system help the patient journey to be more therapeutic and less confronting, particularly when involuntary care is necessary. The Mental Health and Mental Health (Forensic Provisions) Acts govern the assessment and treatment of presentations requiring both voluntary and involuntary care, with a focus on the latter.
The Mental Health and Drug and Alcohol Service and emergency department medical and nursing staff often collaborate to assess people brought to the facility by Police, Ambulance, and when ordered by Local Court Magistrates. The capacity under the regulations to assess and admit patients needing involuntary treatment is present in Dubbo and Orange, each of which has "declared" facilities under the Mental Health Act. Two additional emergency departments, at Mudgee and Bathurst, are identified as sites for declaration under the Act in 2016, and without this assessment capacity will need to be developed in those locations with the involvement of the local mental health and drug and alcohol community teams, emergency department and hospital staff, mental health emergency care, and mental health inpatient units. The dedicated consultation-liaison team at the Orange Hospital will continue, and if resources allow the capacity to provide a team approach with dedicated psychiatrist time at Dubbo and Bathurst Hospital may be realised.

The Mental Health and Drug and Alcohol Service will improve its' capacity to provide multidisciplinary, team-based care. Shifting a proportion of the workforce to allied health positions will be needed as a first step, to re-balance the ratio of allied health to nursing staff that has historically been lower than ideal. This includes the traditional allied health disciplines involved in mental health services (occupational therapy, social work, and psychology) but access to dieticians, physiotherapy and exercise physiology, and speech pathology are also needed, and pharmacists are essential members of the team in monitoring and maintaining the quality of psychopharmacological treatments, in the community as well as the hospital.

Re-organisation of community staff to incorporate more structured approaches to team-based care will support adoption of more comprehensive approaches to treatment, particularly for individuals with complex conditions, co-morbid disorders, and greater disability. Closer working relationships between mental health and drug and alcohol clinicians will be fostered by combining practices in single teams, and will improve work with individuals suffering from mental and addictive disorders. Structured approaches to acute and continuing treatment will build on current services. This will include refining practice in, and expanding capacity to provide, acute care in the community; continuing care coordination will be better defined in its' role and more appropriately aligned with existing and future non government organisation (NGO) support providers; and the capacity to respond to crises and acute issues in the community will be more formalised and expanded to cover out-of-hours periods.

One of the most extensively evaluated approaches to care of more severe and chronically ill patients in the community is known as Assertive Community Treatment. This model has been used in a number of jurisdictions since the 1980’s, and is targeted at high users of hospital care. Abundant evidence supports its' efficacy in reducing frequency and length of admissions, and overall costs. Aspects of this model currently exist in the SHIPS program in Orange, and further development of the capacity there and similar but smaller capacities in Dubbo and Bathurst are planned.

Better integrating care across hospital and community is a primary objective as noted earlier, and the service review emphasised the desirability of providing care in the least restrictive manner. Having options for treatment and support that is intermediate in intensity between
A coherent system of care for Western NSW Local Health District

hospital and community care levels is a way of achieving this. This “step-up/step-down” care model allows increased intensity of care in less institutional, more community-oriented environments for someone at the early stage of becoming unwell and less intensive care for someone ready to leave the hospital but needing a transitional period to consolidate recovery before return to the home. Sub-acute services currently operating in Bathurst and Dubbo will be modified and re-structured to better align with this model, and a similar service will be developed in Orange.

Integrated care also encompasses more direct collaboration between primary care and specialist providers; the mental health and drug and alcohol teams, psychiatrists, and GPs. MHDA is a participant in the District’s Integrated Care Strategy and pilot projects, and has pioneered an innovative integrated mental and physical health model in Mudgee.

Further efforts to work more closely with GPs are important to address the significantly poorer health outcomes of those with mental illness, particularly those with severe and complex disorders. The vast bulk of treatment for mental disorders in the community is carried out in GP practices, without specialist involvement. Population measures to improve overall health outcomes will benefit from enhancing psychiatrist consultation to GPs, and ensuring access to GPs for care of physical health problems in individuals managed primarily by public specialist services.

Inpatient services will remain an essential and important component of the service continuum. Improving therapeutic standards of care, reducing critical incidents through quality improvement and monitoring, and promoting person-centred practices will enhance therapeutic outcomes and make best use of resources for those in the acute phase of illness. Reducing the need for acute inpatient services is a goal for the Service, and following enhancement and restructuring of community services along the lines described above it is anticipated this lower demand and enable a staged decrease in bed numbers.

Non-acute hospital rehabilitation will remain an important component of the District’s services, with strong collaborative links to the Ministry of Health, other local health districts, and the Justice Health Network. Benchmarking through InforMH (the Mental Health performance data analysis unit in the MoH) across all inpatient domains (including child/adolescent and old age) reveals for the Executive both problems and exemplars in comparison with like services across NSW, and in the case of forensic services, nationally.

A further reduction in hospital services is occurring with the gradual relocation to alternate settings of patients who have been in long-term inpatient care at Bloomfield. These efforts have resulted in a number of transfers to more appropriate settings over the last several years. It is anticipated that there will be further transition of hospitalized patients to the community through a new state-initiated program, Pathways to Community Living. This initiative will assist a number of individuals across NSW who have been hospitalised for more than one year to move to more appropriate non-hospital living environments that are better integrated with local communities and afford more choice and opportunities for their residents.

Collaborative relationships with NGOs and other government agencies and human service providers will be a strong focus for the future. One impetus for this is to support a person-
centred recovery orientation for care that seeks to address as many of the social determinants of mental health as possible. These determinants include adverse childhood experiences, poor education, housing instability, un- and under-employment, poverty, discrimination, and poor access to services. “Recovery” is conceptualised as the unique journey for an individual towards living a satisfying, hopeful and contributing life even with limitations caused by the illness. Peer workers, individuals who have experienced mental illness, will be recruited to support recovery of individuals in care.

Collaborative care arrangements are also needed to move away from fragmented, poorly coordinated services that recent reports (see above) have described as of limited effectiveness in meeting demand and need. The Mental Health and Drug and Alcohol Service has developed a number of relationships with NGOs, Family and Community Services, Department of Housing, and other groups. These relationships are slated to grow and deepen, with emphasis on better definition of roles and responsibilities, building in greater accountability to funding and service agreement protocols, and focusing on health outcomes rather than process or output measures in evaluating what we do. An example of such arrangements is a Ministry of Health-led partnership linking the District with an NGO to bring together specialist and primary care health providers, Housing, vocational and various disability support providers under one roof. New models like these will increasingly define the environment within which mental health care and support services are provided.
7.9 Oral health services

Current services

Oral Health Services in each LHD are accessed by a ‘single point of entry 1300 number’. Oral Health Services in this District can be accessed by calling 1300 552 626. In NSW, public dental services are provided to children (0-17 years) and to eligible adults. For adults, this eligibility means the person must have one or more of the following cards: Commonwealth Seniors Health Card, Health Care Card, or Pensioner Concession Card. A co-payment is not charged in NSW for people accessing public oral health services.

The range of oral health services provided through the NSW public health system broadly includes dental services to children and eligible adults according to criteria. These criteria prioritise emergencies, those people in most need and at highest risk of disease and dental education and oral health promotion services.

Operationally in NSW, these services are delivered by each of the LHDs. They are predominantly delivered in dental clinics based in community health centres and hospitals. Services include general dentistry such as examinations, preventive dental care, fillings, tooth extraction and dentures. Services are also provided via the Oral Health Fee for Service Scheme (OHFFSS), which enables public oral health services to provide funded care through a private practitioner using a voucher system.

Across the District, there are multi-chair community dental clinics providing both adult and child dental services and which are capable of supporting some specialist services. These clinics are based at Bathurst, Orange, Mudgee and Dubbo. There are also a range of smaller staffed clinics, usually for children only, and a range of outreach clinics.

Priority groups for oral health services in the District include early childhood, children and adults with special needs, Aboriginal and Torres Strait Islander people, older people and rural and remote communities. A Mobile Oral Health Centre operates across the District focused on smaller communities without local services and with high Aboriginal populations. Staff from Dubbo Community Dental Clinic usually operates the Mobile Oral Health Centre. Oral Health Clinics with permanent staffing include Bathurst Community Dental Clinic, Condobolin Child Dental Clinic, Cowra Child Dental Clinic, Dubbo Community Dental Clinic, Forbes Child Dental Clinic, Mudgee Community Dental Clinic, Orange Community Dental Clinic, and Parkes Child Dental Clinic. Visiting public oral health clinics and other oral health service arrangements meet the demand in other areas of the District.
Table: Visiting oral health clinics

<table>
<thead>
<tr>
<th>Visiting oral health clinics</th>
<th>Service type</th>
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<tbody>
<tr>
<td>Cobar Hospital and Health Service dental clinic</td>
<td>Visiting child dental service</td>
</tr>
<tr>
<td>Coonabarabran Hospital and Health Service dental clinic</td>
<td>Visiting child dental service</td>
</tr>
<tr>
<td>Dunedoo MPS dental clinic</td>
<td>Visiting private dental practitioner</td>
</tr>
<tr>
<td>Gilgandra MPS dental clinic</td>
<td>Visiting public and private dental practitioner</td>
</tr>
<tr>
<td>Gulalong MPS dental clinic</td>
<td>Visiting dental service</td>
</tr>
<tr>
<td>Lightning Ridge MPS dental clinic</td>
<td>Visiting dental service by Royal Flying Doctor Service &amp; private practitioner</td>
</tr>
<tr>
<td>Goodooga Community Health Centre</td>
<td>Visiting service by Royal Flying Doctor Service</td>
</tr>
<tr>
<td>Collarenebri MPS dental clinic</td>
<td>Visiting service by Royal Flying Doctor Service</td>
</tr>
<tr>
<td>Nyngan Public School dental clinic</td>
<td>Visiting child dental service</td>
</tr>
<tr>
<td>Oberon Shire dental clinic</td>
<td>Visiting child dental service</td>
</tr>
<tr>
<td>HealthOne Rylstone dental clinic</td>
<td>Visiting public and private dental practitioner</td>
</tr>
<tr>
<td>Tottenham MPS dental clinic</td>
<td>Visiting dental service</td>
</tr>
<tr>
<td>Trundle Central School</td>
<td>Fixed dental van</td>
</tr>
<tr>
<td>Wanaaaring dental clinic</td>
<td>Visiting service by Royal Flying Doctor Service</td>
</tr>
<tr>
<td>Warren Shire Medical Centre</td>
<td>Visiting child dental service</td>
</tr>
<tr>
<td>Wellington Hospital and Health Service dental clinic</td>
<td>Visiting dental service</td>
</tr>
</tbody>
</table>

Services are also provided through local partnerships at Bourke Aboriginal Health Service Dental Clinic, Walgett Aboriginal Medical Service Dental Clinic, Coonamble Aboriginal Medical Service Dental Clinic, Orange Aboriginal Medical Service Dental Clinic and Brewarrina Shire Dental Clinic. Additional dental clinic services are being placed at Peak Hill, Grenfell and Blayney MPSs.

Figure 42: Current District Oral Health Service sites
Drivers for change

Dental services, unlike other health services, are not covered by the principle of universal access. However, a significant proportion of the adult population and all children in the Local Health District are eligible. This equated to 78,604 adults and 66,546 children in 2013, or 54 per cent of the total population.

The goals of Oral Health 2020: A Strategic Framework for Dental Health in NSW include:
1. Improve access to oral health services in NSW
2. Reduce disparities in the oral health status of people in NSW
3. Improve the oral health of the NSW population through primary prevention

Figure 43: District’s Oral Health Service wait list and non-admitted occasions of service

Demand for services for adults far outstrips the capacity of the service to deliver clinical care. Inadequate infrastructure is a barrier to improving timely access to services within the District.

A range of chronic dental disorders is now emerging. Complete and significant tooth loss remains high among both younger and older populations in rural areas, and there is still strong demand for full dentures. Aboriginal populations continue to experience poorer oral health compared to the non-Aboriginal population. There are also strong indicators that dental caries and periodontal diseases are more prevalent and more severe for residents in aged care facilities. This needs to be a particular focus for the District because of its commitment to the high number of aged care residents residing in our MPSs.

Water fluoridation programs are still not present in all towns across the Local Health District. For many smaller communities (<500 people) community water fluoridation is not feasible. The incidence of tooth loss and dental caries is more prevalent in non-fluoridated areas. The National Partnership Agreement on Treating More Public Dental Patients (the Dental NPA) was a joint Commonwealth and NSW state initiative that aimed to deliver additional public
dental services to eligible patients. The Dental NPA focused on providing additional services to patients who were Aboriginal, at high risk of major dental problems, and patients who resided in rural and remote areas. Ongoing NPA initiatives are dependent on future Commonwealth funding.

**Future direction for services**

The Oral Health 2020: A Strategic Framework for Dental Health in NSW identifies reducing disparities in oral health status of people in NSW. The frameworks aim is to improve access to dental services for Aboriginal people, and patients living in rural and regional NSW, including the participation of a number of Aboriginal community controlled health services in the NSW Oral Health Fee for Service Scheme in areas of NSW where there are provider shortages.

The recommended model for service delivery for oral health services is a District wide clinical program with all staff reporting through a single point of accountability. This continues to ensure that the oral health service is responsive to the needs of the population living in the District. It also provides support for the oral health workforce by ensuring the dental team is not fragmented and that a critical mass of staff is maintained under each reporting structure.

Specific future directions include development of additional mobile dental services, progression of the water fluoridation program, enhancement of primary care strategies and closer integration of oral health services with other chronic care programs, such as the Connecting Care Program. The District will reorientate services to have greater focus on the ageing population, oral health promotion, and population health initiatives that have the capacity to reduce the burden of oral health disease in the community.

To meet disparities in local service delivery within the District, enhancement of current oral health services will include development of the Lachlan Health Service Oral Health Network, which will outreach to Condobolin, Trundle, Tottenham and Peak Hill. Subject to funding, the District will work toward establishing a dental officer position in the Lachlan network, based at Parkes and/or Forbes.

The District needs to be well placed with infrastructure and dental chair development to take advantage of increased oral health professional training programs and to respond to funding opportunities. Increasing training placement positions for students and new graduates provides opportunity to increase the local oral health workforce to meet current and future public dental clinic demand. The District will also continue to work, together with partner organisations, to increase participation of Aboriginal people in the oral health workforce.

The District’s approach for improving access to oral health services for people living in the District’s residential aged care facilities will be to assist their registration with the District’s Oral Health Service for assessments and to determine treatment options. Options may include referral to one of the District’s dental clinics or allocation of vouchers so a local private dentist can see them. The District will investigate the appropriateness of portable equipment to take to facilities for assessment sessions, however due the specialty nature of this service, residents of our residential aged care will still be required to have treatment conducted either at one of the District’s dental clinics or a private dental practices.
Figure 44: Western NSW LHD oral health services pathway

Contact Oral Health Contact Centre
Ph: 1300552626

Is the person eligible?

Person triaged by phone

Voucher for private provider issued or appointment made for treatment. Urgent/emergency condition managed.

Urgent/emergency condition managed.

Person requiring routine treatment is placed on the ‘wait list’ for assessment appointment where treatment is prioritised by a dentist/therapist

Person advised re private provider services

Yes

No

Person is either placed on ‘wait list’ or immediately managed by treatment appointment or voucher to private provider.

Course of care completed. Person may request further care via Ph: 1300552626
7.10 Palliative and end of life services

Current services

Generalist clinicians who are supported by specialist palliative care teams based in a range of locations across the District generally provide palliative and end of life services. Specialist palliative care services operate within a consultative model of care and are coordinated, predominantly, by specialist palliative care nurses. The degree of specialist support currently provided to generalist clinicians is variable across the District.

Specialist palliative care nurses and generalist clinicians are supported by two palliative care clinical nurse consultants (CNCs) based in Bathurst and Dubbo. The CNC at Bathurst supports specialist palliative care nurses in Bathurst, Orange, Parkes and Forbes. The CNC at Dubbo supports specialist palliative care nurses in Dubbo, Mudgee, Walgett and Bourke. In addition to their clinical leadership role, the CNCs are available for direct support to generalist clinicians.

Specialist palliative care medical support in Dubbo is provided by a ‘fly in – fly out’ service. People are able to access a monthly specialist outpatient clinic and consultations via telehealth to more rural locations. This service, from Royal Prince Alfred Hospital in Sydney, also provides telephone support for the specialist palliative care nurses in Dubbo and the region. Specialist palliative care medical support is provided five days per fortnight to the Orange region by a locally based clinician. This is complemented by a long-standing relationship with Sacred Heart Palliative Care Service in Sydney who provides ‘fly in – fly out’ monthly clinics. The Orange based physician also provides outreach services to Bathurst, Forbes and Parkes.

There are five allocated palliative care beds located at Lourdes Hospital in Dubbo. All other facilities within the District have a number of single rooms that provide a suitable environment for people requiring end of life care. Many small hospitals in the region have rooms with specific equipment that has been donated by the local community to support people towards the end of life. Recent years have seen number of allied health professionals employed specifically in Palliative Care. Palliative care social workers provide services in Bathurst and Orange and occupational therapists provide services in Bathurst, Orange, and Parkes/Forbes. Where access to these professionals is not available, generalist clinicians provide services.

People receiving palliative care services within much of the District can receive additional support at home towards the end of their life. The Ministry of Health as part of a three-year initiative have provided additional community support for people who wish to die at home. These ‘packages’ of care complement and link with the specialist Palliative Care Services and aim to reduce hospital admissions. The Hammond Care Consortium (comprising Hammond Care, Sacred Heart Health and Calvary Health Care Sydney) successfully tendered to provide the packages. These care packages are available to seven Local Health Districts in NSW including Western NSW LHD. Use of the packages commenced in January
2014 in the Bathurst and Orange areas and to the end of May 2015, 58 packages had been deployed in the District.

The specialist palliative care nurses in partnership with generalist clinicians provide bereavement support. In the more isolated, western region of the District, a trained volunteer provides general support by telephone from Dubbo on average one day per week. This position is supported by the palliative care CNC based in Dubbo. People identified as experiencing complicated grief are referred to appropriate, available services including professional counsellors, mental health services and National Government Organisations including National Association for Loss and Grief. The Palliative Care Service is also supported by small groups of volunteers in a range of locations across the District.

Figure 45: Western NSW LHD resident separations for palliative care 2009/10 – 2013/14

A vision for NSW Health is that every child in NSW has access to appropriate, high quality, co-ordinated and culturally appropriate palliative care that meets its physical, psychological, social, and spiritual needs, and their family are supported through the course of the illness and after the death of the child.30 Enabling this care ‘close to home is a challenge for the District. The Paediatric Palliative Care Pop Up Team has been implemented in NSW to support families and children with life limiting illnesses.

Most children with life limiting illnesses spend most of their time at home, and the role of parents and other family members is pivotal in achieving this. For parents to be able to care for children they need to be supported by their GPs, community nurses, specialist palliative care services and Aboriginal health services. They also need access to respite services (in home or hospice). The only paediatric hospice is Bear Cottage is located in Sydney. Generalist and specialist palliative care clinicians who mainly provide care to adults, require timely support from specialist paediatric palliative care services.
Typically, the Pop Up team will consist of a GP, community nurse and other health care providers such as paediatricians, allied health clinicians, Aboriginal health services, the NSW Ambulance Service and Government and non-government community services. Specialist metropolitan based paediatric palliative care services provide education and advice to the health care providers and the family. This model can be activated in both community and hospital settings.

Drivers for change

The complexity of palliative and end of life care is influenced to a large degree by the fact that death and dying is the core business of multiple professional and non-professional stakeholders who at times may have conflicting views on what constitutes good end of life care and who requires specialist palliative care services. These issues can be exacerbated within a rural setting because of the siloing of care across settings (primary care, health care facilities, government and non-government agencies and communities). The sharing of information between providers is also difficult due to the fragmented data systems currently in place.

The lack of access to 24-hour support services, difficulties accessing GP services and the trend away from general practitioner home visits to surgery consultations, has resulted in emergency departments becoming defacto primary care services for people in many rural areas. Acute care services with emphasis on patient flow and acute disease management and cure are not always ‘palliative friendly.’ Staff are not always aware of contemporary end of life care including advance care planning and may be uncomfortable with talking about dying with patients and carers. Failure of acute care staff to identify people requiring palliative and end of life care may prevent appropriate referral to specialist Palliative Care services. Historically services and facilities within the District have not had a specific focus on the cultural needs of its large Aboriginal population and have provided a 'one service fits all' approach.

Anecdotal information from clinicians within the District suggests that people living in small communities often consider dying within their local hospital as ‘dying at home’. Many small rural hospitals within the District have rooms that have been furnished and decorated by the community to provide a comfortable end of life environment. The extensive use of inpatient services and emergency departments in the last year of life by people, whose deaths are clinically expected, is particularly relevant in rural areas where access to supportive services, is at times prohibited, due to geographic and social factors. A recent report from the Bureau of Health Information found that when comparing the percentage of the population who attend an emergency department at least once a year, people with a cancer diagnosis in the last 12 months, did so at double the rate (39 per cent) than the general NSW population (19 per cent). Anecdotally, clinicians report that people with non-cancer chronic illnesses are also more frequent attenders at emergency departments.

Future directions for services

A good death meets a person’s physical, psychological, social and spiritual needs and provides support for the carers and family. People generally want to die comfortably at home or in a home-like environment. As death approaches, some people may change their mind, preferring to die in a hospital. What is critical is that people have a choice. Dying well is
dependent upon the quality of life experienced as a person’s health deteriorates and good end of life care.

A Palliative and End of Life stream has been established to guide the future development of services. A networked and integrated model that is based on an agreed understanding of the needs of people approaching the end of life and provides accessible and timely specialist support for the generalists and informal primary carers will be developed. This will include working in partnership with non-government community providers to allow people to choose their preferred place of death and avoid unnecessary hospitalisation.

Specialist palliative care services will support and complement the care provided by primary care services on a needs-basis. The specialist service will provide expert advice in a ‘shared care’ arrangement with primary care teams for people who have complex or unstable symptoms or those who have high-level needs. Access to services will be improved through early recognition that a person may be approaching the end of life. Barriers to early assessment and referral of people to Palliative and End of Life services will be examined and strategies will be developed to overcome these barriers.

One key to good end of life care is advanced care planning. Processes for lodgement of advanced care plans will be implemented to allow the sharing of information between primary care, Ambulance Services and inpatient services. General practitioner engagement will be strengthened and care pathways will direct access to care at the right place, right time and by the right team.

Partnerships with government and non-government agencies will allow better integration and coordination of services and maximise use of available resources for people requiring end of life and palliative care. This will include working with Aboriginal community controlled health services to reduce duplication of service, increase the range of available services and simplify referral processes. Support for families and carers will be increased through establishing linkages between local carer programs, palliative care volunteers and palliative care champions and advocates.

Services will be culturally responsive, support the beliefs and practices of Aboriginal people, and where possible aid their return to home to pass with connection to land and be ‘laid in community’. This will be strengthened through the engagement of Aboriginal health workers in both specialist and general team care planning.

The paediatric Pop Up model will be strengthened with the support of specialist paediatric palliative care services provided by the Sydney Children’s Network. This will allow greater access to team based care and support children with life limiting illnesses and their carers, to spend as much time as possible at home.
Figure 46: Western NSW LHD palliative and end of life services pathway

Proposed Western NSW LHD Palliative and end of life services pathway

- Person has life limiting illness and/or carer has identified needs that are not being adequately addressed by current services
  - Patient presents with an advanced cancer (recurrent, locally extensive, metastatic)
  - Patient presents with a significant deterioration of a life limiting non cancer illness
  - Patient is in need of complex and rapidly changeable symptom management

Primary care providers complete the Western NSW LHD Palliative Care Needs Assessment Tool

Are the persons needs being managed by current primary care providers?

- Yes: Primary Care Providers
  - Continues with care and reassess when needs or condition deteriorates
  - Have relationship with designated specialist Palliative Care service, makes referrals according to the level of need.
  - Have education to provide persons care with palliative approach

- No: Referral to Palliative Care Service
  - Conducts comprehensive assessment and recommends degree of specialist team involvement based on level of person/caregiver need and availability of other support services

Referral to Palliative Care Service

- Level 4
  - Confirmation of primary care approach
  - No ongoing PCS involvement
  - Primary Care provider to Continue

- Level 3
  - Short term PCS consultation & interventions
  - involvement with continuing care from primary care provider

- Level 2
  - Consultation with intermittent interventions and follow up by Palliative Care Services

- Level 1
  - Ongoing, high level involvement of Palliative Care Services until death

Low needs of patient, family/caregiver or service provider is determined

High
7.11 Primary, community and ambulatory care and health promotion

7.11.1 Primary, community and ambulatory care

Current services

Improving the health of individuals and communities and meeting the demand for acute care services into the future is dependent upon growing our primary, community and ambulatory care services. This must be done in partnership with general practitioners, the Western NSW Primary Health Care Network, Aboriginal community controlled health services, and Government and non-government care providers.

Primary health care is the first level of contact individuals, families and communities have with the health care system. Primary health care encompasses an understanding of the social, economic, cultural and political determinants of health gives priority to those most in need; addresses health inequalities; maximises community and individual self-reliance, participation and control; and includes principles of equity, access, empowerment, community self-determination and inter-sectoral collaboration.

Community health provides a range of services in the community. The core functions of the District’s primary and community health services are:

- Health promotion – to those in the community who are not at risk
- Prevention and early intervention – to those in the community who are at risk of developing a health problem
- Assessment and investigation
- Community treatment - to those with a confirmed problem
- Continuing care – care of those with chronic and complex conditions
- Community development and advocacy

Ambulatory care is a broad term that can be used to describe care that takes place as a day attendance at a health care facility, at a person’s home or at another setting (for example, school or workplace). Ambulatory care services range from preventative and primary care through to specialist and tertiary level services and are collectively referred to as ‘non-inpatient’ care.

Hospital in the Home (HITH) services provide acute, subacute and post-acute care to children and adults residing outside hospital, as a substitution or prevention of in-hospital care. A person may receive their care at home (including residential aged care facility) or in an outpatient clinic in a hospital or health centre. HITH care is short-term and preferably interdisciplinary. For certain conditions, these services result in equivalent or better outcomes for people at better value, are preferred by patients and carers and are evidence based.

There are 50 community health services in the District, some of which are co-located with hospital services. Over recent years HealthOne NSW services, which aim to integrate general practitioners and community health staff have been established at Blayney, Coonamble, Molong and Rylstone MPSs. Partnership arrangements are in place with
Aboriginal community controlled health services, general practice through HealthOne NSW and Connecting Care models to better integrate primary and community health services.

Community services include, nursing, allied health services, maternal, child and family services, violence prevention and response, mental health and drug and alcohol, oral health, chronic care, cancer and palliative and end of life care. Rural referral and district health services include some specialist services and a range of allied health services. They provide outreach services to smaller communities. Some small rural health services have access to locally based allied health services and all communities have access to generalist community nurses.

**Figure 47: Community health and ambulatory care activity 2013/14 – 2014-15**

The District is determined to shift more activity into the community and reduce unnecessary reliance on inpatient services. Annual increases in ambulatory care, acute and post-acute care in the community and hospital in the home activity are included as performance targets for health services. In 2014/15, the District provided 333,955 community health and ambulatory care occasions of service, similar to the activity of the previous financial year.

The District's total community health activity in 2014/15 was a little less than the previous year. However, ambulatory care activity increased by 29 per cent. The greatest increase in activity occurred in Dubbo and Orange hospitals, the Southern Sector and the Northern Sector. Bathurst Hospital maintained ambulatory care activity achieved in the previous year.

The District is currently establishing integrated care models at demonstration sites. These are targeting chronic and aged care at Cobar, chronic disease management at HealthOne Molong and Wellington Aboriginal Medical Service, chronic disease mental health and mental health services at Cowra and diabetes at Dubbo. This new model of care is about better connection and resourcing of our highly skilled health network (GPs, nurses, specialists, allied health providers) to provide care that responds to all of a person’s health needs, physical and mental, in partnership with patients, carers and family.
Drivers for change

Looking forward to 2030, if current clinical practice continues, there will be an expected increase of 21 per cent in hospitalisations and a 33 per cent increase in bed-days. Only a small shift in utilisation rates and length of stay would change these projections significantly. A reduction in average length of stay and potentially preventable hospitalisations to benchmark levels would remove the need for any increases in inpatient capacity.

Hospitals do not necessarily improve a person’s health. Evidence demonstrates the risks of unnecessary hospitalisations and extended hospital stays. These include functional decline, iatrogenic injury, hospital acquired infections and falls. Alternative models of care are required to reduce these risks. Despite the implementation of some initiatives to implement, an integrated primary and community health service in the District though the introduction of HealthOne NSW services, a model of co-location rather than true integration has evolved at some sites.

Communication between primary, community health and inpatient services is significantly improved through the Connecting Care strategy. However, there is still much scope to better integrate these services, reduce duplication of services and provide communities with better access to a wider range of services, particularly in rural towns and villages.

Future directions for services

The future will see a change of mindset to see the community or appropriate ambulatory site as the natural setting for health care. Hospital admission will be the exception if the person’s illness is severe, requires surgery, the use of complex technology or requires rapid and/or intensive assessment and therapy, which cannot be provided in the community or ambulatory setting.

The District will focus on shifting appropriate activity from hospital settings to ambulatory and community settings and improving the management of people with chronic diseases within the community to prevent hospitalisations. Maintaining the status quo is neither possible nor desirable. A decreasing reliance on inpatient care will reduce bed requirements and allow resources to be shifted to ambulatory and community settings in some centres.

The District, with a focus on acute care, plays a smaller part in the overall provision of primary and community care. At times, over-expenditure and budget shortfalls in the acute sector result in a contraction of community health services. Into the future, innovative primary and community health care models will evolve that will include the development of new funding and governance structures.

Best practice integrated healthcare models currently being established in the District will be expanded in partnership with the Western NSW Primary Health Network, general practitioners and visiting specialists. Of particular importance, will be the strengthening of collaborative partnerships with Aboriginal community groups, Aboriginal Controlled Community Health Services and other stakeholders to agree on frameworks and models of care to close the unacceptable gap in Aboriginal Health.
Evaluation of initiatives at the current demonstration sites will provide learnings to enable the roll out of services to other sites. Opportunities to integrate health services with other sectors in rural communities, such as education, housing, disability and community services will also be explored. This will include shared service planning and delivery and improved referral pathways. In partnership with NSW Ambulance and primary health organisations, alternative referral pathways outside of the traditional model of transport to emergency departments will be developed. These include treatment on site without transport for chronic and lower acuity illnesses and injuries.

The Integrated Ambulatory Care/HITH District Initiative currently occurring in all district and small rural hospitals and health services will expand the scope of ambulatory service provision aligned to population needs and workforce capacity. Many conditions can be safely managed by home and ambulatory care services and efficiencies of service delivery can be made without loss of quality. However, the key criterion for evaluating the effectiveness of HITH programs is that they provide at least the same level of care as routine hospital care. This requires sufficiently supported and networked resources, care coordination and governance and site-specific workforce redesign of the acute and community workforce, as well as engagement and partnership with the medical workforce.

Hospital in the home and ambulatory services will be considered in all clinical service planning. Technological advances including telehealth and clinical developments will provide opportunities to increase the type of home based and ambulatory services that can be provided into the future. The provision of strong and integrated ambulatory care services to complement inpatient services, will improve health of local communities and increase the viability of rural facilities.
Figure 48: Western NSW LHD ambulatory care pathway

Proposed Western NSW LHD ambulatory care services pathway

Emergency Department / Inpatient Ward / General Practice / Private facilities

- Does the person meet criteria for ambulatory care?
  - No
    - GP referral
    - Other service referral including Compacks, community health
  - Yes
    - Person registration
      - Care plan development and initiation

- Hospital admission
  - Does the person need hospital readmission?
    - No
      - Continue with daily or intermittent ambulatory care
    - Yes
      - Persons acute or post-acute care requiring substitution or prevention of in-hospital care resolved

Community referral
7.11.2 Health promotion

Current services

The District Health Promotion Service focuses on the health of populations with an emphasis on promotion of health and protection and prevention of illnesses. It responds to priority population issues and determinants of common to people living in the District. The Health Promotion team work to implement the NSW Ministry of Health and the Western NSW and Far West LHD population level prevention strategies in line with the priority areas of healthy eating and active living, tobacco control and falls prevention. Team members are located at Dubbo, Orange, Broken Hill, Forbes, Mudgee and Coonabarabran.

Health promotion activity provides a primary service to improve the health at the population level. Economic appraisals have shown that health promotion activities are effective disease prevention strategies and are cost effective. Health promotion strategies implemented within the Districts are based on the following principles:

- Strategies are focussed on prevention and aimed at populations
- Strategies are underpinned by an understanding of the social, economic, biological, genetic, environmental and cultural determinants of health of whole populations
- Projects are planned, implemented and evaluated in a structured way. The bulk of the work is proactive rather than reactive and practice is informed by evidence
- Health promotion strategies must involve the Ottawa Charter fields
- Understanding that the most effective strategies are not always popular strategies, and may involve confronting profit motives or existing social norms e.g. prosecuting tobacco retailers, banning smoking in public places, random breath testing, insisting on responsible service of alcohol

Figure 49: Selected health behaviours and risk factors by percent of population, (2013)

Most of the preventable death and chronic disease burden in Australia can be attributed to a small number of activities, including tobacco smoking, physical inactivity, obesity, fall injury among older people, lack of fruit and vegetables in the diet, alcohol and illicit drugs.

The NSW Tobacco Strategy 2012-17 identifies eight priority areas for action. The District’s Health Promotion Tobacco Group has several projects that cover these areas. They are:

1. Cessation services
2. Second-hand Smoke
3. Advertising and promotion
4. Public education
5. Quit 4 New Life

As part of the National Partnership Agreement on Preventive Health and then with State funding, the NSW Ministry of Health (MOH) has provided additional funding through the NSW Healthy Children Initiative to deliver key obesity programs. These programs will support primary schools and early childhood services across Western NSW and Far West LHDs to meet agreed benchmarks relating to physical activity and healthy eating. The range of programs includes:

- Healthy Children’s Initiative – Live Life Well @ School including Crunch & Sip to increase physical activity and healthy eating in primary school children
- Healthy Children’s Initiative – Munch & Move to increase children’s healthy eating and physical activity and limit small screen recreation in Early Childhood Education and Care
- Aboriginal Go4Fun – program is being developed which will be rolled out across LHDs

In addition to the NSW Health Children Initiative, there are Healthy Eating and Active Living (HEAL) initiatives supported by the Ministry of Health and locally developed strategies that address obesity for the broader population. They include:

- Get Healthy Information and Coaching Service - free coaching service to assist people to healthy health food and increase physical activity
- Get Healthy @ Work- businesses can register for screening and health coaching for their employees
- Make Healthy Normal - a communication strategy including social media and digital promotion to support obesity prevention
- Marang Dhali Eating Well (MDEW) - capacity building of Aboriginal Health Workers to deliver nutrition and cooking programs to Aboriginal people to improve food knowledge, budget shopping & cooking skills
- Physical Activity Programs including Tai Chi, Community Exercise Leader program, Aqua Fitness, Pole Walking and Physical Activity Network. These activities contribute to building the capacity of staff and volunteers to run safe, effective physical activity groups in their communities and assists in prevention and treatment of chronic conditions, sarcopenia, obesity and falls

A staff member supports falls prevention strategies in both Western NSW and Far West LHDs. The role of this position is to focuses on policy and practice. A project officer supports
the Stepping On program. They facilitate the provision of community based falls prevention initiatives throughout western NSW. They also contribute to building the capacity of staff and non-government organisations to run safe and targeted falls prevention programs within their communities.

Other District health promotion activities provided by other Units include:

- HIV & Related Programs (HARP) Unit Health promotion programs - Going Viral NSW – which aims to prevent hepatitis C and increase access to hepatitis C primary prevention information and support for at risk young people
- HARP Unit - promotion of Community Sharps NSW to Local Councils within the Western NSW and Far West NSW LHDs and seeking opportunities to create partnerships in the management of community sharps
- Youth Week and Sexual Health Partnership- aims to increase community awareness of sexually transmitted infections and condom use through statewide social marketing, health promotion and information campaigns specifically targeting children and young adults (12 to 24 years of age)
- Ending HIV - aims to intensify HIV prevention strategies in populations at greatest risk in partnership with the HIV & Related Programs Unit, Population Health Unit, NSW Ministry of Health, sexual health services, Aboriginal community controlled health services and primary health networks

Drivers for change

Tobacco smoking is the greatest single cause of premature death and is a leading preventable cause of morbidity in New South Wales. Smoking rates remain unacceptably high, particularly among Aboriginal people and people who are socioeconomically disadvantaged. Smoking rates within the District continue to be significantly higher the NSW State rate. In 2013, the number of smokers in the District was over 48,000. The smoking rate for the District was 17.4 per cent of the population, compared to 16.4 per cent for the total State. National Aboriginal and Torres Strait Islander Social Survey (NATSISS) results for NSW indicated 48 per cent of Aboriginal people (15+ years) were current smokers. Work in remote western NSW communities has identified smoking rates as high as 70 per cent.33

The number of people who are overweight or obese is continuing to grow. Like other developed countries, Australia is experiencing an increase in the problem of unhealthy weight. The NSW Government has nominated the reduction of obesity as a State priority. Western NSW obesity rate is similar to the other rural NSW areas, but is significantly heavier than the State average of 18 per cent. Based on modelled data from the Health Survey, 43,000 or 21 per cent of the District’s resident adults aged 18+ are obese, having a BMI of 30 or more.

The ageing population in western NSW will see an increasing need to focus on falls prevention to reduce the health impact for people in their older years and the social and health service costs associated with inpatient care, rehabilitation and reduced functionality for individuals.
Any decrease in Federal funding for health promotion will provide challenges for the District in providing comprehensive primary interventional and illness prevention strategies into the future.

**Future directions for services**

Prevention will be the key to improving the health of our ageing population into the future. Health is influenced by many interrelated social, environmental and economic factors. These include income and social status, social support networks, education and literacy, employment/working conditions, social environments, physical environments, personal health practices and coping skills, healthy child development, health services, gender and culture. If resources are to be used effectively, the District needs to take advantage of strategic opportunities when they arise, including identifying, influencing and working collaboratively with key internal and external partners. Health promotion and prevention must be considered ‘everyone’s business’.

Future priority strategies will continue to target preventable illnesses that cause substantial mortality or morbidity in significant proportions of the population in the Districts. This will rely on good knowledge about preventable factors that are amenable to intervention and available evidence on population based strategies likely to have a significant impact on health status. Greater efficiencies and reduced duplication across service providers will be achieved through greater collaboration with the District’s service partners including, Aboriginal community controlled health services, the Western NSW Primary Health Networks, general practitioners and government and non-government agencies.

In general, National, State, and local priorities are similar, particularly for health related issues around tobacco control, preventing obesity in children and adults, and preventing and reducing fall-related injury in the elderly. Other future health promotion priority areas for the District include overweight and obesity in children and adults, mental health, Aboriginal health, youth health, multicultural health, nutrition, sexual health and women’s and men’s health.

Priority areas and focus for health promotion activity will change as needs change over time. New priority areas will become apparent which will influence practice and resource allocation. Community capacity building will be important to achieve changes in poor choices that adversely affect a person’s health.
Current services

Rehabilitation care in NSW is defined as the provision of care that aims to restore functional ability for a person who has experienced an illness or injury. It enables people to regain function and self-sufficiency to the level prior to their illness or injury within the constraints of the medical prognosis for improvement and develop functional ability to compensate for irreversible deficits. The Inpatient rehabilitation journey most often commences with an acute presentation related to acute illness (eg stroke), trauma (eg fracture), elective surgery (eg joint replacement) or significant functional debilitation (eg decreased mobility due to chronic disease or ageing). This journey continues through to transfer of care to an alternate setting or discharge from rehabilitation either with or without further support services.34

Specialised rehabilitation units are located at Bathurst, Orange and Lourdes (Dubbo) hospitals that provide both inpatient and non-admitted patient services. Generalist inpatient and non-admitted patient rehabilitation services are also provided by district and some small rural hospitals.

Figure 50: District resident demand for inpatient rehabilitation 2009/10 – 2013/14

Data source: Flowinfo v14.

Total resident demand for rehabilitation services has increased by 36% since 2009/10. In 2013/14, 2,089 residents were admitted for rehabilitation services, using 30,516 bed days. The greatest demand was for rehabilitation following joint replacements (23%), fractures (19%), ‘other’ rehabilitation including fractured neck of femur, musculoskeletal disorders and prosthesis implants (13%) and stroke (10%). In 2013/14, the District provided 59 per cent of this activity and 35 per cent was supplied by private hospitals. The most common reason people accessed private inpatient services was for rehabilitation post joint replacements (46% of private hospital supply).
In 2013/14, 1,243 residents required rehabilitation services in District facilities, utilising 21,860 bed days. Aboriginal and Torres Strait Islander people accounted for 115 inpatient episodes (9%) and 1,471 (6.7%) bed days. This seems to be an underrepresentation given their higher incidence of chronic disease, specifically cardiovascular disease, but may reflect lower rates of joint replacements, particularly elective procedures.

Bathurst, Orange and Lourdes (Dubbo) hospitals provided 68 per cent of the total care occurring within the District. With clinical support from the specialist centres at Bathurst, Dubbo and Orange, inpatient rehabilitation activity is increasingly the role for the district health services and smaller health services and MPSs.

Rehabilitation activity has increased substantially at these sites between 2009/10 and 2013/14. In 2013/14, rehabilitation accounted for 6,734 bed days, which is more than double the number of bed days supplied by district health services and smaller health sites in 2009/10. Whilst some of the increased activity may be due to improved coding there has been a greater reliance on transferring people post-acute care to these sites to address bed management challenges at the referral centres.
Rehabilitation following fractures, stroke, joint replacements and other orthopaedic conditions not involving fractures were the main services accessed (accounting for 80% of separations and 85% of bed days).

**Drivers for change**

The *NSW Health Rehabilitation Redesign Project* provided the following directions for rehabilitation services in NSW. Rehabilitation care requires considering within the context of the overarching health system and its future evolution. 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.

There is increased risk of deconditioning patients within the current siloed approach to services. Rehabilitation services are not always engaged until a person is ready to be transferred from the acute setting. Acute care inpatient services require adjustment to practices to meet the needs of patients requiring rehabilitation. Acute care and rehabilitation services need to work collaboratively throughout the entire journey and apply a holistic approach that places more emphasis on avoiding functional decline in patients regardless of their inpatient setting.

Community expectation is that rehabilitation services are provided as close to home as possible and the District considers the maintenance of family and community connection is vital to good outcomes for people. Realignment of current rehabilitation services is required. Services are predominantly inpatient based. There are minimal community based services available.

**Future directions for services**

Best practice pathways for people requiring rehabilitation services are driving changes in the way services will be provided into the future.
Emerging models of care include:

- A philosophy of care incorporating “in reach” to an acute ward and “outreach” to an ambulatory, community or smaller hospital setting
- Community based rehabilitation programs and investment in innovative treatment options including home-based services and programs
- The musculoskeletal model of care for people with fractured necks of femurs developed by the Agency of Clinical Innovation. This model involves pre-surgical management and shared care between surgeons, geriatricians, and rehabilitation physicians
- A pre-hospital rehabilitation preparation program – a program initiated six weeks prior to elective joint replacement surgery to maximise conditioning
- An osteoporotic model of care to identify at risk patients at first fracture and prevent further fracture
- Review of the existing rehabilitation inpatient services to aid the further reduction in inpatient rehabilitation length of stay, waiting lists, and readmissions 59

Ambulatory rehabilitation services offer service efficiencies through preventing unnecessary inpatient treatment and reducing lengths of stay. A review of the roles and operations of rehabilitation services and the introduction of alternate models of care (including outpatient clinics, day programs, and rehabilitation in the home) will reduce the current overreliance on inpatient rehabilitation services. The district and smaller rural health services will have a greater role in providing both inpatient and community based rehabilitation services with the support of specialist outreach services.

There will be greater coordination between the hub services at Lourdes, Orange and Bathurst hospitals. A collaborative approach by the District’s three specialist rehabilitation services will improve the continuity of care during transition from acute care to rehabilitation and back to the community. This will also increase timely access to inpatient beds, particularly in the Northern Sector.

The establishment of a rehabilitation stream to provide expert advice will assist in establishing a District wide rehabilitation service with linkages between the smaller hospitals and health services and specialist services. A review of the workforce structure will ensure the provision of the right services in the right place, based on patient and community need rather than historical positioning.

The rollout of telehealth technology will support sub-acute care in the smaller facilities, general practice, community services and ambulatory care and provide specialist consultation and review. This will result in shorter lengths of hospital stay and lessen deconditioning and loss of independent living skills.
Figure 53: Western NSW LHD rehabilitation services pathway

Proposed Western NSW LHD rehabilitation services pathway

Person requires rehabilitation

- Specialist Rehabilitation services – Brain injury, spinal injury
  - Does the person require specialist tertiary inpatient care? Yes → Tertiary Centres
  - No → Community Health Services – supported by Brain Injury Rehabilitation Teams or district rehabilitation outreach services

- Rehabilitation Services, stroke, fractures, joint replacements, reconditioning
  - Does the person require intensive services with on site specialists? Yes → Bathurst Hospital and Health Service
  - No → Does the person require inpatient care? Yes → District or small rural health service ‘close’ to home’ supported by ‘outreach services’
  - No → Lourdes Hospital, Dubbo
7.13 Renal services

Current services

Renal disease is the progressive loss of kidney function. It is a significant and growing public health problem, responsible for substantial burden of illness and premature mortality. The kidney disease continuum ranges from mild kidney damage through to end stage kidney disease. End stage kidney disease is treated by renal replacement therapies including haemodialysis, peritoneal dialysis or transplantation. These therapies can be delivered by different methods and locations, ranging from intensive care in-hospital care to independent home self-care.

The District’s renal services are subdivided into two service networks, the Northern Sector Renal Service and the Southern Sector Renal Service. The profile of services within each sector includes hospital based haemodialysis units, accompanied by pre-dialysis services including renal outpatient clinics, access surgery and home training. Renal outreach services are also provided to support people living in the community with chronic kidney disease and people who are dialysing at home.

Two Level 5 haemodialysis units (commonly known as in-centre units) provide hospital-based haemodialysis services in the District. These are located at Dubbo and Orange. A Level 4 haemodialysis unit is located at Bathurst, a Level 3 haemodialysis unit (commonly known as a satellite unit) is located at Forbes Hospital and 10 facility-based (self and/or non-self-care) units are located at Bourke, Brewarrina, Coonamble, Gilgandra, Mudgee, Narromine, Nyngan, Walgett, Warren and Wellington.

The Dubbo Renal Unit provides pre-dialysis services for the Northern Sector Renal Service. The Orange Renal Unit provides pre-dialysis services for the Southern Sector Renal Service. The Home Dialysis Training Unit for the northern sector is located at Dubbo. The Sydney Dialysis Centre at the Royal North Shore Hospital in Sydney currently performs home dialysis training for people from the Southern Sector catchment. Dialysis access surgery is available at both the Dubbo and Orange Health Services.

Other renal services provided in the District include the provision of outreach services to support people dialysing at home; renal dietician outreach clinics; and away from home haemodialysis. Services provided in partnership include health promotion and illness prevention; pre and post phase care of renal transplantation; medical imaging and pathology; paediatric renal service; renal transport; and end of life care.

There were 158 people receiving renal dialysis within the District at Oct 2015. Over one third (35%) identified as being of Aboriginal or Torres Strait Islander descent and 31.6 per cent of were 70 years and older. The percentage of people in the District receiving hospital-based dialysis is 68 per cent of the dialysis dependent population, which is above the NSW target of 50 per cent. The number of people receiving home-based dialysis therapies is significantly below the 50 per cent State benchmark, currently 32% of the dialysis population.
Drivers for change

Renal dialysis, is the most common reason for hospitalisation in Australia, and consequently is responsible for a large amount of health expenditure. Moreover, it greatly affects the quality of life of patients. In 2012, the primary causes of end stage renal disease in Australia were diabetic nephropathy (36%), glomerulonephritis or inflammation of the kidney (19%) and hypertension (12%). The National mortality rate per 100 patient years was 12.7 for people dependent on dialysis and 1.8 for those with a functioning kidney transplant. The high mortality rate for people dependent upon dialysis highlights the importance of holistic multidisciplinary care and the management of existing co-morbidities.

The number of people in NSW requiring dialysis and kidney transplant services over the past decade has grown significantly and this increase in demand is projected to continue. An ageing population, increasing diabetes prevalence and the heavy burden of chronic disease (especially in Aboriginal and Torres Strait Islander people) are placing renal services under intense demand and capacity pressure.

The Australian Institute of Health and Welfare predict that the number of new cases of people requiring treatment for end stage kidney disease will continue to rise over the next decade at the national and state/territory levels. The increase will include both males and females and include most age groups. The incidence of people with treated end stage kidney disease in NSW and the ACT is projected to reach 18 per 100,000 population in 2020. The NSW Ministry of Health predict an average annual increase of 4.7 per cent across NSW of the prevalence of people receiving dialysis. This is likely to be higher (6% per annum) for people living in rural and remote areas.

The number of District residents requiring dialysis and kidney transplant services over the past decade has significantly increased and demand is projected to continue. Factors influencing the higher prevalence of renal disease in the District include an ageing population, the lower socioeconomic status of our communities, the high proportion of Aboriginal people and the higher prevalence of risk factors such as smoking, obesity, cardiovascular disease and diabetes. These factors combine to place the District renal services under increasing demand and capacity pressure. In some centres (Nyngan MPS and Mudgee Hospital, services are already at capacity and unable to accommodate some people requiring treatment. Other sites such as Cowra Hospital do not provide services meaning people are required to access services at Orange or Forbes hospitals.

There is emerging evidence that people who are able to dialyse at home have an improved quality of life and better outcomes. Home based therapies within the District are below State benchmark. Currently only 33% of people in the District' dialysis population have dialysis at home. This is well below the NSW target of 50%. Anecdotal information indicates that the requirement to travel to Sydney for education/training is a disincentive for the uptake of home haemodialysis in the Southern Sector.

The two District renal services (Northern and Southern Sector) vary in both areas of clinical practice including community support for people with kidney disease and funding mechanisms. There are also variations in workforce profiles for each of the Level 5 units and different nurse to patient ratios are in place.
There are limited transport options for people travelling greater than one hour one way for dialysis treatment. This is compounded by the lower socio-economic status of the population and difficulties accessing transport.

Non-admitted patient activity is under captured, and reporting and coding methods are inconsistent. This impacts on activity analysis and future demand projections and has funding implications.

**Future directions for services**

The District Renal Services Stream has been operational for several years and has representation from clinicians throughout the District. The stream has developed a clinical services plan to guide services into the future and identify sites requiring capacity enhancement. The stream is now developing District wide guidelines based on evidenced based guidelines, including a ‘home first’ approach to dialysis. Guideline development will also address areas of unwarranted clinical variation.

Future renal services models will include well-defined governance structures, with consistent operating policies, funding mechanisms and pathways to support people through predialysis education and support, dialysis training and renal replacement therapy. Partnerships will be strengthened with primary care providers, including general practitioners, Aboriginal Controlled Community Health Services (ACCHSs) and other government and non-government providers to collaboratively prevent kidney disease and detect and manage people with kidney disease in the community. Identifying barriers to accessing services and increasing the cultural capability of renal services will increase the uptake of renal replacement therapy by Aboriginal people.

Models of care will promote client independence (self-care) and limit the impact of the disease on the client and their family. Client education and the provision of renal outreach services will foster client independence and increase the capacity to treat people at or close to their home. A ‘home therapies first’ policy that minimises dependence on inpatient services and assumes clinically suitable people will dialyse at home unless they choose to opt out, will be in place. Local access to education for people requiring dialysis and their carers will be increased through the operationalization of training facilities located at Orange Hospital.

Where possible hospital based services will be available within an hour’s drive from home for people who are not clinically suitable for home based dialysis. Future redevelopment of haemodialysis services will be within the context of a hub (in-centre service) and spoke (satellite service) framework rather than the inclusion of one or two chairs in each small health service. Priorities sites for the development of satellite services are Cowra Hospital, Nyngan MPS and Mudgee Hospital. Planning for the Cowra service is underway with commissioning scheduled for early 2016. Planning for the Mudgee service will be included in the proposed redevelopment of the Mudgee Hospital. A source of funding will be sought for the expansion of the Nyngan service.
A coherent system of care for Western NSW Local Health District

A review of existing data systems will result in improved capture of inpatient, outpatient and home based treatments, assist in planning for demand management, allow the monitoring of clinical outcomes and assist in identifying areas of unwarranted clinical variation.

Figure 55 provides a general overview of the pathway for a person with renal disease. Renal services in the District endorse the use of Kidney Health Australia’s, Kidney Check Australia Taskforce *Chronic Kidney Disease Management in General Practice (3rd Edition)* handbook. The handbook contains an algorithm for initial detection of chronic kidney disease (CKD). It dictates the clinical action plan or pathway (including referral to nephrologist, renal replacement therapy, non-dialysis supportive care, and/or end of life care) dependent on the person’s ongoing Kidney Health Check results (which includes urine albumin creatinine ratio, the estimated glomerular filtration rate [eGFR], and blood pressure). The handbook also includes management plans for the treatment of CKD complications such as hypertension, acidosis and albumin.
Figure 54: Western NSW LHD renal services pathway

Proposed Western NSW LHD renal services pathway

1. Does the person have end stage kidney disease (ESKD)?
   - Yes: GP Referral to nephrologist
   - No: LHD Prevention and Early intervention strategies

2. If no to LHD Prevention and Early intervention strategies:
   - Does the person have end stage kidney disease (ESKD)?
     - Yes: Commenced renal replacement therapy
     - No: Palliative Care Renal Supportive Care

3. If no to Palliative Care Renal Supportive Care:
   - Has the person agreed to renal replacement therapy?
     - Yes: Timely access surgery
     - No: Has the person 'opted out' of home therapy or is not clinically suitable for home therapy?
       - Yes: Home dialysis training
       - No: Hospital based dialysis at service commensurate with clinical need as close as possible to home

4. If no to Timely access surgery:
   - Has the person agreed to renal replacement therapy?
     - Yes: Commenced renal replacement therapy
     - No: Has the person 'opted out' of home therapy or is not clinically suitable for home therapy?
       - Yes: Home dialysis training
       - No: Hospital based dialysis at service commensurate with clinical need as close as possible to home
8. The way forward

This Framework describes the current and future roles of health services in the District and provides agreed rules and guidelines for the planning of health services. It is aligned to the State Health Plan, the Rural Health Plan and the strategic directions of the District. It supports the District’s commitment to evidence based service delivery and the principle of treating people where possible in the ‘right place, at the right time by the right team, first time’. Appendix 1 provides a summary of the future directions for key service areas.

The Framework is intended to be a fluid document that will be reviewed annually and amended to reflect emerging models of care and advances in technology. It will be communicated widely to both internal and external stakeholders and provide a platform for the planning of clinical services and future service developments.

The Framework will also guide the distribution of resources and inform the level of health services provided for different communities. However, the specific social, demographic and health issues of individual communities will continue to be primary determinants of the type of health services provided. The challenge of providing health services that meet local community needs will be approached collaboratively through the engagement of key partners. These partners include the community, local clinicians and managers and health related organisations including the Primary Health Network, Aboriginal community controlled health services, private health care providers, non-government community service providers, government departments and local government.
### Appendix 1. Future Directions for clinical services in Western NSW Local Health District - Summary

<table>
<thead>
<tr>
<th>Key service area</th>
<th>Future directions</th>
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| Acute inpatient services surgery / general medicine | **Surgery:** Future directions for surgical services include:  
  - Development of high volume short stay centres, greater separation of emergency and planned surgery and the development of specialty centres identified in Rural Surgery Futures 2011–2021  
  - Development of Regional Surgical Networks  
  - The establishment of formal agreements and documented processes with tertiary referral centres to facilitate timely and appropriate specialist consultations and inter hospital transfers  
  - Development of a District Surgical Services Clinical Service Plan  
  - Repatriation of elective public orthopaedic activity currently flowing out of Bathurst  
  - Examination of the role of district and remote rural hospitals and MPSs in the provision of surgery  

  **General medicine:** Future directions for medical services include:  
  - An increased focus on reducing risk related behaviours  
  - Better integration of care for people with chronic illnesses  
  - Development of enhanced specialist cardiac services  
  - Increased capacity within the District to provide medical oncology and radiation oncology services  
  - Concentration of acute medical inpatient services at rural referral centres  
  - Strengthening the role of GPs in the management of people post-acute specialist care though a collaborative generalist and specialist shared care model  
  - Increased access to alternative low acuity care pathways supported by the roll out of integrated primary care models and an expansion of ambulatory care and hospital in the home services.  
  - Progressive implementation of the 'In Safe Hands Program' throughout the District, including structured multidisciplinary team rounding and case conferencing  
  - Introduction of a needs-specific triage system, rather than a triage system for people with acute correctable illness, 'exacerbation of chronic illness, non-acute Illness with urgent needs and palliative care'  

| Aged services | Future directions for aged care services include  
  - The implementation of systems to facilitate improved identification and management informed by *The Care of the Confused Older Persons (CHOPs)* Program  
  - Introduction of a person and needs based model of care, with consideration of establishing older person units in the rural referral |
### Key service area | Future directions
--- | ---
**Hospitals** | - Introduction of contemporary aged care inpatient models – early mobilisation to reduce functional decline along with reconditioning to optimise independence  
- Increased access to specialist geriatric consultation through expansion of the current outpatient based service  
- An increase in the Aboriginal health workforce to improve communication with carers, family and improve the health care experience of Aboriginal and Torres Strait Islander people  
- Greater engagement with residential aged care services to reduce the unnecessary transfer of older people to emergency departments and hospitals for treatments that can be provided in aged care facilities.  
- Greater engagement with partner organisations to increase the availability of community services to support more elderly people to remain in their own homes  
- Transformation of residential aged care within our MPSs that aspire to promoting autonomy, self-determination, emotional and social wellbeing in an atmosphere reminiscent of home  
- Transitioning of low care places in MPSs to high care places

**Cancer services** | Future directions for cancer services include:  
- Developing the capacity within communities to improve their health and to increase access to evidenced based programs targeting smoking cessation, diet and alcohol consumption and physical inactivity  
- Progressive appointment of locally based staff specialists in medical oncology, radiation oncology and haematology  
- Increased use of telehealth to increase access to specialist advice for clinicians working in district and rural hospitals and community settings  
- Development of explicit clinical pathways for each major tumour group  
- Implementation of a medical oncology electronic medical record

**Cardiovascular services** | Future directions for cardiology services include:  
- A collaborative approach to reduce the social, economic and behavioural factors contributing to our higher incidence of cardiovascular disease including smoking, obesity and inactivity  
- Implementation of the District’s Integrated Care Strategy  
- Implementation of the State Cardiac Reperfusion Strategy  
- Implementation of the Pre-hospital Assessment for Primary Angioplasty model  
- Implementation of alternative reperfusion models including paramedic administered pre hospital thrombolysis and nurse administered thrombolysis in small rural hospitals without 24-hour medical cover.  
- Establishment of a cardiovascular unit and an interventional cardiology service at Dubbo Hospital and Health Service  
- Networking of specialist cardiac services to develop a ‘District Wide’ service to sustain ‘rescue angioplasty’ services and quality interventional cardiac services - this may include strategies such as the cross appointment of interventional cardiologists

Future directions for stroke services include:  
- A District approach to improve and formalise pathways to ensure urgent transfer of people with acute stroke symptoms to primary stroke services
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<th>Key service area</th>
<th>Future directions</th>
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<tbody>
<tr>
<td></td>
<td>▪ The development of pathways to ensure transfer of people suitable for neuro-radiologist intervention (thrombectomy) for clot retrieval to comprehensive stroke centres</td>
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<td>▪ Early discharge programs and community based rehabilitation options</td>
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<td>▪ A District approach to planning and monitoring stroke services including establishing a stroke services working group or stream</td>
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<td>▪ Consistent follow up of people in the community with chronic stroke symptoms, and providing rehabilitation, including access to psychological services to address the high prevalence of depression</td>
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<td>▪ Implementation of the stroke pathway currently being built in to eMR2 Release C</td>
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<th>Emergency services</th>
<th>Future directions for emergency services include:</th>
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<td></td>
<td>▪ A continued focus on redesigning services to manage demand and performance, including the introduction of new models of care</td>
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<td>▪ Enhancement of the Critical Care Clinical Advisory Service to provide a 24-hour service</td>
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<td>▪ Expansion of ambulatory care services throughout the District, and the development of integrated primary care services in partnership with General Practitioners, Primary Health Networks, Aboriginal community controlled health services and health related services</td>
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<td></td>
<td>▪ Implementation of the <em>Rural Health Plan</em> strategies through working in partnership with NSW Ambulance to provide high quality emergency care and retrieval services, including fostering integration across key areas such as emergency care, urgent care and health and community support.</td>
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<td>▪ The transitioning of some small rural hospital emergency services to ‘walk in health clinics’ over the next five years to provide local access to an appropriate range of unplanned treatment services</td>
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<th>Intensive care services</th>
<th>Future directions for intensive care services include:</th>
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<td></td>
<td>▪ Networking of intensive care services in the District, including formalised links with level 6 tertiary services</td>
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<td>▪ Development of a District Intensive Care Plan - the Plan will look at District wide intensive care services and will be informed by contemporary models of service delivery including those currently being developed by the Agency of Clinical Innovation. Planning will include examination of potential for flow reversals and determination of future roles of the Bathurst, Dubbo and Orange intensive care services</td>
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<td>▪ Models for high dependency services and admission criteria will be reviewed to flag people requiring close observation, better support surgical services in the referral centres and reduce transfers out of the District of people requiring surgery that is more complex</td>
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<td></td>
<td>▪ The role of district hospitals in providing ‘close observation’ for at risk patients will be evaluated and supported by formalised consultation/liaison service and competency based clinician training.</td>
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<td>▪ Clinical support services including the Critical Care Advisory Service will be utilised to provide real time consultation</td>
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<td>▪ Development of an ICU Workforce Plan</td>
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<td>▪ A review of current coding practices and development of systems to provide reliable data at a level of detail required to guide service planning and performance monitoring</td>
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<td>Key service area</td>
<td>Future directions</td>
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<tr>
<td>Kids and Families</td>
<td>Future directions for maternity services include:</td>
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<td></td>
<td>▪ Strengthening of services at Bourke MPS based on a group practice model to provide antenatal and post-natal care</td>
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<td></td>
<td>▪ Establishing collaborative models of obstetric care in rural referral hospitals for low risk patients</td>
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<td>▪ Implementation of combined medical / midwifery obstetric outreach services from the District’s rural referral hospitals and district health services to provide support for smaller sites that provide ante and post-natal services</td>
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<td></td>
<td>▪ Strengthening of the state wide perinatal advice line (PAL) service to support smaller sites with pre term presentations</td>
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<td>▪ Enhanced telehealth for consultation and video assessment to support women and services at endorsed smaller sites</td>
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<td>▪ Enhancement of maternal and neonatal special care services at Orange, Bathurst and Dubbo hospitals within a risk management framework</td>
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<td>▪ Development of formalised governance to ensure any proposed introduction of services is evidenced based and has processes to deliver maternity care safely</td>
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<td>▪ Expanding models of midwifery care that are women centred and allow the midwives to work within the full scope of their professional practice</td>
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<td>▪ Analysis of the number of caesarean sections and pre-labour inductions in the District to determine the appropriateness of current clinical practices and inform strategies to increase the proportion of normal birthing</td>
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<td>Future directions for child and family health services include:</td>
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<td>▪ The development of strategies to sustain access to specialised child and family health services, particularly in remote rural communities. This will include growing the capability of the generalist nursing workforce through mentoring, providing specialist liaison services, and working in partnership with general practitioners to integrate and coordinate care</td>
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<td>▪ The use of telehealth will to provide access to paediatrician and child and family nursing consultation services and to support generalist clinicians providing front line care in rural communities</td>
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<td>Future directions for paediatric services include:</td>
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<td>▪ The expansion of paediatric ambulatory care services to meet the standards of the Guidelines for the Care of Children and Adolescents in Acute Care Settings and provide best practice care models for children and their families</td>
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<td>▪ Consideration of the establishment of high dependency or close observation areas in the referral hospital paediatric units to provide age appropriate care for children with higher complexity conditions either awaiting transfer of remaining in the hospital</td>
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<td>▪ The implementation of formalised consultation/liaison structures between mental health providers and clinicians looking after children to improve the treatment of children with mental health conditions</td>
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<td>▪ Optimising access to safe, sustainable and appropriately support paediatric services for children as close to home as possible through a multidisciplinary, intersectorial and collaborative approach. This will be informed by the Supporting NSW Paediatric Service Capability Framework.</td>
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<td>Key service area</td>
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| Future directions for violence prevention and child at risk of harm service include: | - Boosting community capacity to pursue good health  
  - Improving health literacy by improving health promotion knowledge  
  - Reducing risk taking and minimising harm  
  - Increasing awareness of violence, abuse and neglect on health  
  - Improving identification and triage care for those at risk of harm  
  - Building capacity to appropriately respond to victims of violence, abuse and neglect  
  - Reducing the incidence and health impact of accidents, injuries and self-harm  
  - Providing earlier intervention to prevent poorer health, growth and development for children at risk |
| Mental health and drug and alcohol services | The MHDA Service Transformation Project was initiated to facilitate service planning in order to re-design the future service model in response to the recommendations of the Mental Health Review. Key directions have been identified and a planned and staged implementation process will take place over the next three to five years. The key elements of the MHDA future service model are:  
  - Hub, Node and Spoke Model  
  - Multidisciplinary MHDA Teams  
  - Extended hours acute care function in hubs  
  - Assertive Community Treatment Function in Hubs  
  - MHEC - Enhance centralized acute function  
  - Rural and Remote Support Strategy  
  - Step up Step Down Model  
  - Comorbidity service focus  
  - Integration Focus  
  - NSW Hospital to Community Initiative |
| Oral health services                     | Future directions for oral health services include:  
  - Improved access to dental services for Aboriginal people, and people living in rural and regional NSW  
  - Continuance of the District wide clinical program with all staff reporting through a single point of accountability  
  - Development of additional mobile dental services  
  - Progression of the water fluoridation program  
  - Enhancement of primary care strategies and closer integration of oral health services with other chronic care programs, such as the Connecting Care Program  
  - Reorientation of services to have greater focus on the ageing population, oral health promotion, and population health initiatives, which have the capacity to reduce the burden of oral health disease in the community  
  - Enhancement of current oral health services to meet disparities in local service delivery within the District  
  - Consider infrastructure and dental chair development when planning for service redevelopments to take advantage of increased oral health professional training programs and to respond to funding opportunities  
  - Working together with partner organisations, to increase participation of Aboriginal people in the oral health workforce |
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| Palliative and end of life services                 | Future directions for palliative and end of life services include:  
  - Planning and development of services guided by the Palliative and End of Life Stream  
  - A networked and integrated model that is based on an agreed understanding of the needs of those approaching the end of life and provides accessible and timely specialist support for the generalists and informal primary carers who deliver most of the care will be developed.  
  - Improved early recognition approach to people’s end of life  
  - Improving the uptake and sharing of advanced care planning  
  - 24 hour on call specialist palliative care consultation/liaison services for general practitioners.  
  - Greater collaboration between agencies to better integrate and coordinate services for people requiring end of life and palliative care  
  - Greater support for families and carers through establishing linkages between local carer programs, palliative care volunteers and palliative care champions and advocates |
| Primary, community & ambulatory services and health promotion | Future directions for primary, community and ambulatory care services include:  
  - A decreased reliance on inpatient care by shifting appropriate activity from hospital settings to ambulatory care and community settings  
  - Improved management of people with chronic diseases within the community to prevent hospitalisations  
  - The development of best practice integrated healthcare models in partnership with the Primary Health Care Network, general practitioners, visiting specialists and Aboriginal Controlled Community Organisations  
  - A focus on developing integrated models of care to close the unacceptable gap in Aboriginal people’s health  
  - Alternative referral pathways and models of care for people with chronic and lower acuity illnesses and injuries to reduce presentations to emergency departments  
  - Expansion of the Integrated Ambulatory Care District Initiative  
 Future directions for health promotion services include:  
  - Seeking opportunities when they arise, including identifying, influencing and working collaboratively with key internal and external partners  
  - Making health promotion and prevention ‘everyone’s business’  
  - Targeting preventable illnesses that cause substantial mortality or morbidity in a significant proportion of the population in partnership with other government and non-government agencies  
  - Continued investment in smoking cessation and early intervention programs |
| Rehabilitation services                             | Future directions for rehabilitation services include  
  - Adoption of emerging models of care such as:  
    - In reach to acute wards and outreach to ambulatory, community or smaller hospital settings  
    - Community based rehabilitation programs and investment in innovative treatment options including home-based services and programs  
    - The musculoskeletal model of care for people with fractured necks of femurs developed by the Agency of Clinical Innovation |
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<td>- A pre-hospital rehabilitation preparation program initiated six weeks prior to elective joint replacement surgery to maximise conditioning</td>
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<td>- An osteoporotic model of care to identify at risk patients at first fracture and prevent further fracture</td>
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<td>▪ Greater coordination between the hub services at Lourdes (Dubbo), Orange and Bathurst hospitals to improve the continuity of care during transition from acute care to rehabilitation and back to the community.</td>
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<td>▪ Establishment of a Rehabilitation Stream to provide expert advice and assist in establishing a District wide rehabilitation service with linkages between the smaller hospitals and health services and specialist services</td>
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<td>▪ Reviewing the workforce structure to ensure the right services are being provided in the right place, based on patient and community need rather than historical positioning</td>
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<td>▪ Reducing an overreliance on inpatient rehabilitation services through reviewing the roles of current services and introducing alternative models of care including outpatient clinics, rehabilitation day programs and sub-acute care in the home programs</td>
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<td>▪ Creating a greater role for district and smaller rural health services role in providing both inpatient and community based rehabilitation services with the support of specialist outreach services</td>
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<td>▪ Development of telehealth technology to support rehabilitation in the smaller facilities, general practice, community services and ambulatory care</td>
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<td>Renal services</td>
<td>Future directions for renal services include:</td>
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<td>▪ Well-defined governance structures, with consistent operating policies, funding mechanisms and pathways to support people through predialysis education and support, dialysis training and renal replacement therapy</td>
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<td>▪ Strengthening of partnerships with primary care providers, including general practitioners, Aboriginal Controlled Community Health Services (ACCHSs) and other government and non-government providers to collaboratively prevent kidney disease, detect, and manage people with kidney disease in the community.</td>
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<td>▪ Increasing the uptake of dialysis services by Aboriginal people by identifying barriers to access and increasing the cultural capability of renal services</td>
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<td>▪ Models of care that promote client independence (self-care) and limit the impact of the disease on the client and their family Client education and the provision of renal outreach services will foster client independence and increase the capacity to treat people at or close to their home.</td>
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<td>▪ Introduction of a 'home therapies first' policy that minimises dependence on inpatient services and assumes clinically suitable people will dialyse at home unless they choose to opt out.</td>
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<td>▪ Increased local access to home dialysis education for people and their carers through the operationalisation of training facilities located at Orange Hospital.</td>
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<td>▪ Where possible, the availability of hospital based services within an hour’s drive from home for people who are not clinically suitable for home based dialysis. Future redevelopment of haemodialysis services will be within the context of a hub (in-centre service) and spoke (satellite service) framework Priorities sites for the development of satellite services are Cowra Hospital, Nyngan MPS, and Mudgee Hospital.</td>
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<td>▪ A review of existing data to improve the capture of inpatient, outpatient and home based treatments, assist in planning for demand management, allow...</td>
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<td>the monitoring of clinical outcomes and assist in identifying areas of unwarranted clinical variation.</td>
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Appendix 2. Methodology for prioritising service developments and enhancements

Prioritisation guidelines have been developed to align with the dimensions of the Triple Aim Framework. These have also been informed by a review of priority setting methods conducted by the Sax Institute on behalf of the Agency for Clinical Innovation and a draft version of Strengthening Health Care in the Community, a guide to decision making.

There are general background criteria that need to be met if any prioritisation process is to be successful. These include:

- Acceptance of the need to prioritise - if those involved in the process do not accept the need for prioritisation, progress may not be possible
- Incentives for change - to allow changes in behaviour to take place
- Leadership and championing for prioritisation - strong leadership or a champion (especially amongst clinicians) has been shown by numerous studies to make the process more viable

Prioritisation is a continuous process. Initial prioritisation is a filtering process determining whether proposed service developments or enhancements warrant consideration. A further prioritisation process will be required when planning for the implementation of proposed service developments or enhancements. This process will timeline strategies, key milestones and deliverables relating to the agreed priority developments and enhancements.

There are four stages in the initial prioritisation process: screening, clarifying, defining the criteria, assessing, and deciding. Although these steps form a natural sequence (figure 1), the process is flexible. In clarifying the issue, for example, you may reconsider whether a systematic appraisal is warranted, and the process of assessing and deciding may highlight further criteria that need to be considered.
Summary of the prioritisation process

Screening
Confirming that the proposal warrants a systematic appraisal

Screening Criteria
- Is the proposal a Policy Directive?
- Is the proposal core business?
- Is the proposal within the role delineation of the Health Service?
- Is the proposal aligned to the strategic directions of the Western NSW LHD Strategic Health Services Plan?

Output: Identification of proposals for further appraisal (all Policy Directives require further appraisal)

Clarifying
This step includes clarifying the proposals and determining how the assessment will be undertaken and assessing affordability - Is funding allocated for the proposal/can the proposal be funded within existing resources?

Outputs:
- Identification of proposals requiring business case development
- A clear understanding of the task
- Selection of participants involved in prioritisation process

Determining the criteria
Developing criteria against which to appraise a proposal or a service (consideration of draft criteria)

Output: Agreed criteria with which to assess the proposals

Assessing and Deciding
Assessing the proposals against the criteria, and making an informed decision

Output: Prioritised proposals
The following criteria, grouped under the three dimensions of the Triple Aim framework, will provide a starting point for discussion when developing specific criteria for prioritising of service developments and enhancements. These criteria will be refined, localised, weighted and applied to the prioritisation process. Each of the three dimensions will have equal weighting. For example if a scale of 90 points is used, each dimension will have a weighting of 30 and the criteria within each dimension will be weighted to add up to a 30 points. The higher the number of points a proposal scores the higher the priority of the proposal.

**Preliminary criteria for prioritisation development**

**Best value for public health system resources (30 points)**
- Is there sufficient demand to provide the service at an efficient cost?
- Will there be a reduction in health costs per capita? (For example hospital avoidance, reduction in unplanned readmissions, enhanced primary care, improved self-management)
- Is their capacity to staff and resource the service within existing resources?
- Are the benefits of providing this service greater than the opportunity costs? (Are the benefits greater than those associated with an alternative use of resources?)
- Is this proposal the best use of available resources? (Considers changes ‘on the margin’ - a bit more of this at the expense of a bit less of that). If additional funds are available, is this the best buy for the additional money?

**Improved quality, safety and experience of care (30 points)**
- Is the proposal based on contemporary evidence and agreed best practice?
- Is there any local (rural) evidence of improved outcomes?
- Is there capability and capacity (including infrastructure) within the Health Service to support the proposal?
- Is there sufficient demand to provide a quality service?
- Does the proposal support integrated care and continuity of care?

**Improved health and equity for all populations (30 points)**
- Does the service address the priority health needs of the community?
- Will the service improve the health status of the community?
- Is the service culturally appropriate for Aboriginal people?
- Is there improved access to care that will ‘make a difference’?
- Will the community support and engage in the proposal?

Proposals that cannot be funded within existing resources but are agreed to be priorities for progression, will require a further layer of analysis and prioritisation. This will include the development of a business case, including cost benefit analysis.

The Sax Institute recommends the Program Budgeting and Marginal Analysis (PBMA) approach when considering proposals for funding within existing budgets. This approach includes providing an information framework (the program or service budget) to demonstrate where resources are currently going. The impact of moving resources from program A to program B can be examined to determine what might increase total benefits (marginal analysis). This approach can also be used to provide a basis for judging where to allocate new money or resources.
Appendix 3. Aboriginal Health Impact Statement

Aboriginal Health Impact Statement Declaration

An Aboriginal Health Impact Statement Declaration (and a completed Checklist where necessary) will accompany new policies and proposals for major health strategies and programs submitted for Executive or Ministerial approval. This will ensure that the health needs and interests of Aboriginal people have been considered, and where relevant, appropriately incorporated into health policies.

THE ABORIGINAL HEALTH IMPACT STATEMENT DECLARATION

Title of the policy/initiative: Western NSW Local Health District Clinical Services Framework 2015

Please complete the Declaration below and the Checklist if required.

Please tick relevant boxes:

- The health* needs and interests of Aboriginal people have been considered, and appropriately addressed in the development of this initiative.
- Appropriate engagement and collaboration with Aboriginal people has occurred in the development and implementation of this initiative.
- Completed Checklist attached.

OR

- The health* needs and interests of Aboriginal people have been considered, in the development of this initiative.
- The Aboriginal Health Impact Statement Checklist does not require completion because there is no direct or indirect impact on Aboriginal people. (Please provide explanation.)

Head of Unit Name and Title: Anne Lea, Manager, Planning and Service Development.

Unit Name: Planning and Service Development, Western NSW Local Health District

Area Health Service/NSW Health Branch: Western NSW Local Health District

Signature: [Signature]

Date: 20/10/15

Contact phone no: 036980888

Email address: Anne.Lea@health.nsw.gov.au

*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.

NSW Health | Aboriginal Health Impact Statement Declaration
References


10 Australian Institute of Health and Welfare. Older Aboriginal and Torres Strait Islander people, Cat. no. IHW 44. Canberra: AIHW, 2011.


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18 NSW Agency for Clinical Innovation. Overview intensive care service model; NSW level 4 and 5 units, 2014.


33 Western NSW Local Health District & Western NSW Medicare Local. Western NSW Health needs assessment, 2013.
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