



Australian Government
Department of Health



An Australian Government Initiative

Nepean Blue Mountains Primary Health Network

Needs Assessment

Compiled November 2018



Table of Contents

SECTION 1 - NARRATIVE	4
Introduction.....	4
Summary of the process.....	4
Summary of key issues	6
Additional data needs and gaps	17
SECTION 2 – OUTCOMES OF THE HEALTH NEEDS ANALYSIS	19
General Population Health	19
Theme 2 – Cancer Screening and Prevention.....	19
Theme 3 – Chronic and Preventable Conditions	25
Theme 4 – Cultural and Demographic Factors Influencing Health Status	48
Theme 5 – End of Life Care	59
Theme 6 – Older Persons.....	60
Primary Mental Health Care (including Suicide Prevention).....	66
Suicide Prevention	65
Mental Health.....	87
Psychosocial Needs.....	134
Alcohol and Other Drugs	141
Substance Use (Population Prevalence and Risk Factors)	141
Substance Use (Aboriginal People).....	185
Indigenous Health (including Indigenous Chronic Disease)	197
SECTION 3 – OUTCOMES OF THE SERVICE NEEDS ANALYSIS	205
General Population Health	205
Theme 1 – Access to Health Services.....	205
Theme 2 – Cancer Screening and Prevention.....	241
Theme 3 – Chronic and Preventable Conditions	253
Theme 4 – Cultural and Demographic Factors Influencing Health Status	264
Theme 5 – End of Life Care	266
Theme 6 – Older Persons.....	269
Primary Mental Health Care (including Suicide Prevention).....	274
Suicide Prevention	274
Mental Health (Adults with Moderate to Severe Mental Illness).....	283

Mental Health (Mental Health of Aboriginal People).....	312
Mental Health (Rural and Remote Areas and Other Underserviced and/or Hard to Reach Populations).....	320
Mental Health (Children and Youth).....	334
Mental Health (Low Intensity)	344
Psychosocial Needs.....	347
Alcohol and Other Drug Treatment Needs.....	351
Alcohol and Other Drugs (General Population)	351
Alcohol and Other Drugs (Aboriginal People).....	376
Indigenous Health (including Indigenous Chronic Disease)	384

Section 1 – Narrative

Introduction

The 2018 needs assessment encompasses the health and service needs of the Nepean Blue Mountains region covering the **general population; primary mental health and suicide prevention; national psychosocial support; indigenous health (including indigenous chronic disease) and; alcohol and other drugs.**

The needs assessment consists of two key components – a systematic **analysis** of the health and service needs of our local population, and an **assessment** of the gaps and relative priorities that will support planning opportunities within primary health to address unmet needs in the Nepean Blue Mountains region.

The needs assessment has been underpinned by observing the PHN objectives of efficiency and effectiveness of health services for patients, particularly those at risk of poor health outcomes, and considering opportunities to improve coordination of care. The PHN key priority areas of mental health, Aboriginal and Torres Strait Islander health, population health, health workforce, digital health and the needs of older persons have been encompassed within all components of this needs assessment within key outcome themes.

The 2018 iteration of the needs assessment has been informed by previous needs assessments' and the outcomes of the monitoring and evaluation of previous activities and investments by NBMPHN, captured within our annual activity plans and reports. As time is required to effect change, the priority themes identified within this current 2018 needs assessment have largely remained unchanged over the last two years.

Summary of the process

The health and service needs **analysis** component of this needs assessment involved two key processes:

Data collection and analysis

- The comprehensive needs assessment undertaken in 2015 by the then NBM Medicare Local provided a baseline of local data about the region, which has been built upon over the last 3 years through successive refreshments.
- A wide range of demographic and epidemiological data, along with the social and economic determinants of health, have been consulted to form the basis of our data collection and analysis. These have included National, State and local data reports and other sources of information including recent demographic and epidemiological information identified in the ABS 2016 Census Community Profiles; 2016 Census of Population and Housing: Socio-economic Indexes for Areas, ABS 2016-17 Patient Experience Survey, ABS 2016 Coordination of Health Care Study, AIWH Healthy communities report - specifically, Out-of-pocket spending on Medicare Services 2016-17, MBS GP and Specialist attendances and expenditure in 2016-17, Incidence of selected cancers in 2009-2013 and Immunisation rates for children 2016-17, HPV immunisation rates 2015-16. Additionally MBS, PBS, PIP, Health Statistics NSW and Cancer Institute NSW Reporting Better Cancer Outcomes Performance Report 2018.
- Chronic and preventable disease de-identified data extracted from general practices in our local region has been aggregated and used to identify key population health gaps in primary care that may benefit from improvement. Key data sets include diabetes, CVD, COPD, asthma, and cancer screening, as well as aligned MBS and PIP service utilisation.
- The National Mental Health Services Planning Framework – Planning Support Tool was utilised for the first time to identify population needs and service demand in our region for individually

tailored mental health service responses, by severity level according to the mental health stepped care framework. MBS primary care data aligned to the tool by AIHW, was also used to identify potential areas of unmet need for NBM primary mental healthcare services delivered by primary healthcare providers, GPs, specialists and for specific population groups such as Youth.

- Data on publicly funded specialist drug and alcohol treatment services in the NBM region was accessed for the first time at a regional level via the AIHW AOD Treatment Services National Minimum Data Set (AODTS-NMDS). Key data was utilised to identify regional utilisation of AOD treatment services, client principal drugs of concern for seeking treatment, and trends in main types of AOD treatment received, treatment delivery setting and source of referral.
- MBS data for use with the Indigenous Health Check item (715) and de-identified and aggregated data extracted from general practice, has been used to identify service gaps in primary care relating to the use of preventive health assessments for chronic disease and absolute cardiovascular risk for Aboriginal populations.
- Service and workforce mapping has considered the primary health workforce and type and linkages across health services within the region. Services considered include general practice, after-hours GP services, specialists, allied health, mental health, and alcohol and other drug services. Workforce considerations targeted local primary healthcare professionals (with a focus on general practitioners, general practice nurses and allied health professionals), Aboriginal and Torres Strait Islander Health Workers and specialists. Additionally access, equity, quality and appropriateness of services have been encompassed within the scoping of need.
- Current integrated care services in the region have been assessed to identify the need for care coordination and linkages between health and social services on discharge from hospital. This specifically impacts readmission rates to hospital and affects people with chronic conditions including diabetes, CVD, obesity, COPD, dementia; mental illness (for who are at high risk of suicide); older persons and those approaching end of life. The parallel development of localised NBM Health Pathways facilitates connectivity between primary and secondary specialist services and continues to identify gaps in the coordination of services across sectors most recently addressing obesity, COPD, gastroenterology, falls prevention, antenatal shared care and end of life care.
- A local electronic storage solution was needed to manage the plethora of growing data sets which resulted in the development of a local NBMPHN Data wiki. This innovative and secure storage solution has enabled the needs assessment to become a living, dynamic platform of iterative information, readily updated and accessible by PHN staff involved in planning and commissioning activities.

Consultations with key stakeholders

- The PHN has a strong commitment to engagement and consultation with consumers. Local communities have been consulted to provide essential qualitative insights on the health needs of the region and how they affect the quality of life of consumers. Four regional Community health forum reports, conducted by the NBML in 2013, remain relevant baseline references. More recent consultations have encompassed representative stakeholders of the six key priority areas of PHNs and included vulnerable/disadvantaged communities including Aboriginal and Torres Strait Islander persons, persons from a CALD community and young people. The joint NBMLHD and NBMPHN Community Advisory Committee identified a range of key concerns including access to GPs and other health services; transport to health services; a lack of hospital inpatient services for mental health patients; gaps in consumer health literacy; consumer assistance needed in developing advanced care directives and uploading and viewing in My Health Record; improved support post discharge including quality of communication and navigating of services. These consultations have provided consumers with an essential voice in the planning of primary health services within the NBM region.

- Consultations with targeted populations at risk of poorer health outcomes, and the organisations that currently provide services in these areas, have been a large part of the mental health, NPS and AOD components of the needs assessment. The qualitative feedback has compensated for a lack of current and available quantitative data in these areas.
- Consultations with health professionals, including GPs, Allied Health and practice nurses in the NBM region have provided the clinicians perspective of health service gaps. These have included consultations with the PHN Integrating Care Clinical Council, the PHN GP Clinical Council and the PHN Allied Health Clinical Council. Leading concerns relate to: long-term case management for vulnerable patients with a mental illness; clinical governance across sectors relating to the safe transfer of care between hospital and primary health systems; digital health communication between tertiary services and primary health, including the quality of discharge summaries and advance care directives; high rates of opioid use and substitution therapies; coordinated approaches between services for patients with complex needs, comorbid mental health and drug and alcohol conditions and psychogeriatric issues; generic communication templates to support end of life wishes of consumers across health sectors i.e. Advanced Care Plans.
- Consultation with the NBM Local Health District Planning Directorate and Integration sponsor has enabled alignments with regional health needs and joint priorities and provided an understanding of how each entity may develop complementary services and avoid duplication to support continuity of care across sectors.
- Consultation with the NBM Local health district mental health directorate has similarly enabled joint identification of regional mental health and suicide prevention needs, and provided an improved baseline for future joint service planning to improve coordination of care across sectors.
- Consultation with other government bodies, such as the Cancer Institute NSW, local Councils and local schools, and key non-government organisations including the Lung Foundation, Improvement Foundation, local health interagency groups and current commissioned service providers has enabled specific feedback on population health and or service gaps affecting the local region.

The **Assessment** component of the needs assessment has synthesised the main themes, identified consistently throughout the analysis process, and triangulated these with available evidence to identify key opportunities, priorities and options for the 2018-19 annual plan for the region.

Summary of Key Issues

1. General Population

The broader wellbeing of the general population within the Nepean Blue Mountains (NBM) region is impacted by the geography, demographics, social determinants and cultural aspects, economy, population health and access and availability of local health services.

NBM is a geographically diverse region with isolation, poor access to public transport and health services in some parts of the region. The current population of 372,199 people living in the region is expected to increase by 25%, or 466,650 people, by 2036. Of this population, 3.7% are Aboriginal and Torres Strait Islander which is higher than the NSW state average of 2.9%. People aged 65 years and older comprise 14.1% and this is expected to rise to 20.7% by 2036.

The NBM region also demonstrates significant cultural diversity, in particular the Penrith LGA. In 2016, 24% of the NBM population were born overseas and 11.9% spoke a language other than English at home. Major issues impacting NBM CALD communities include low and poor health literacy levels; problem gambling and misuse of alcohol and other drugs; increasing levels of obesity and chronic disease; and poor access to interpreter services.

Wide disparities in levels of socio-economic advantage and disadvantage are experienced within NBM LGAs with **Lithgow LGA** having high levels of disadvantage and some areas of extreme disadvantage. Populations with special needs include persons who are a victim of domestic violence, in particular in Penrith which had the highest number in the NBM region and higher incidence of domestic violence assaults compared to NSW. Persons from the Samoan community demonstrate high prevalence of overweight, obesity, type 2 diabetes and hypertension, with associated high rates of hospital admissions related to diabetes and renal dialysis. Syrian refugees demonstrate high cultural diversity and complex mental and physical health needs.

The development of the new Badgerys Creek Aerotropolis over the next 10 years is expected to have a bearing on the health and service needs of the greater Western Sydney region. Major infrastructure development will have an impact on the environment, economy and the health and social needs of the local population which are yet to be fully determined.

Cost is a barrier to accessing healthcare services for NBM residents. Eight percent (8%) of NBM residents delayed or did not see a medical specialist, GP, get an imaging test or pathology test due to cost in the 12-months prior to 2016-17 (Australia 6.5%). Low health literacy is a risk factor for poor health and an estimated 59% of adult Australians have an inadequate level of health literacy to meet the complex demands of everyday life. Local consumer feedback confirms health literacy as a gap in the NBM region.

Health and Service needs

Service Integration and coordination of care between primary and secondary services is a significant need within the NBM region, impacted by the rising prevalence of chronic conditions and people presenting to hospital with chronic conditions. Chronic conditions contribute significantly to premature mortality and morbidity in Australia. Rates of chronic conditions and their associated risk factors are increasing locally and nationally, impacting on health care systems, as well as individuals who often have complex health needs, die prematurely and have poorer overall quality of life.

The top three health conditions in the NBM region relate to Circulatory diseases – with **Cardiovascular disease (CVD)** as the leading cause of death (649 deaths in 2016) in females and second leading cause of death in males, and accounting for the second highest rate of death among 10 PHN regions in NSW; **Overweight and obesity** with 64% of adults being overweight (31.4%) or obese (32.6%) and the region ranking as the highest amongst the 10 PHNs in NSW (NSW 53.5%). Increasing rates of obesity are escalating at a faster rate than NSW rates, with eight out of 10 adults having one or more risk factor for obesity. The projected future rate increases in obesity and severe obesity are most alarmingly amongst children as well as adults. Lithgow and Penrith LGAs have the highest rates of obesity; and **Diabetes**, with the prevalence amongst adults rising rapidly, from 7.6% in 2012 to 10.9% in 2017, which is higher than the NSW average (8.4% to 10.1%). Diabetes prevalence for Aboriginal and Torres Strait Islander people is 3.5 times higher with rates of potentially preventable hospitalisations for diabetes complications being 4.1 times higher.

Potentially preventable hospitalisations (PPHs) within NBM region are above the NSW state average for **COPD, kidney and urinary tract infections, acute dental conditions, and congestive heart failure**, COPD continues to be the leading cause of PPHs (1,197 in 2015-16) with Hawkesbury LGA having the highest PPH COPD rates and length of stay, which are impacted by limited respiratory support services outside of the acute setting. Other **respiratory diseases** including influenza and pneumonia and asthma also account for high death and hospitalisation rates in our region compared to the NSW average. **Influenza and pneumonia** occurrence in the NBM region triggered the highest hospitalisation rates for children aged 0-4 year among 10 PHNs in NSW. **Asthma** accounts for the highest prevalence in the NBM region amongst NSW metropolitan PHN regions and has higher rates than the NSW average for children and adults. **Dialysis** was the leading cause of hospitalisations (13,753 hospitalisations in 2016-17) overall.

Cancer as a group (all cancers combined) is the leading cause of death in males and second leading cause in females in the NBM region with the incidence rate for all cancers steadily increasing. Cancer incidence rates for specific cancer types including **breast, colorectal, skin melanoma, prostate** and **lung cancer**, are higher than the national average in some smaller areas in the NBM region.

In keeping with NSW trends, participation in **breast and bowel cancer screening** amongst age-eligible persons in the NBM region has continued to increase, however **cervical screening** has continued to decline in recent years. NBM screening participation rates for breast (48.4%), cervical (52.1%) and bowel cancer (35.2%) remain lower than NSW state averages (53.1%, 55.9% and 36.8% respectively), with NBMPHN ranked 8/10, 8/10 and 7/10 among NSW PHNs. Lowest participation rates within NBM LGAs observed for breast and cervical screening are in Lithgow (42.9% breast, 50.8% cervical) and Penrith (44.3% breast, 48.1% cervical) and for bowel screening in Penrith (33%) and Hawkesbury (34.7%) LGAs. Common barriers to engaging patients in cancer screening in general practice include: poor standardisation and integration of systems for reporting breast, cervical and bowel cancer screening results electronically within patient reminder systems in general practice clinical software; and a disconnect between the National Bowel Cancer Screening Program and general practice.

Tobacco smoking is known to be the greatest preventable cause of cancer. While similar **rates of smoking** are seen among NBM adults and in NSW (15% each), a higher proportion of NBM women (12%) smoked during pregnancy compared to NSW (8.3%). This difference however is attributed to a higher proportion of non-Aboriginal women who smoked during pregnancy (NBM 11.0% vs. NSW 6.9%). Despite having the lowest rates in NSW (NBM 34.5% vs. NSW 45%), a significant proportion of NBM Aboriginal women smoked during pregnancy.

Childhood immunisation rates are above average compared to national rates, however variation exists across the LGAs and for postcode groups there are lower rates specifically in Katoomba and Blackheath possibly due to conscientious objection.

The growing needs of the ageing population are also increasing existing pressure on primary care services, particularly the need for coordinated care and services to keep people at home longer. Residential Aged Care Facility (RACF) places are limited to **2,420** places, which will need to increase to meet the predicted growth in the ageing population. There is a high prevalence of chronic conditions and multi-morbidity among older persons and **falls** are the leading cause of injury and hospitalisations amongst older persons in the NBM region.

Dementia is the third leading cause of death in the NBM region and its prevalence is projected to increase from 1.0% in 2011 to 1.9% by 2031, with the highest prevalence in Lithgow (3.0%) and; Blue Mountains LGAs (2.3%). Dedicated services for people with dementia are limited outside of the Penrith LGA and impacted by geographical distance and transport to Penrith. Aboriginal and LGBTI persons with dementia also have poorer access to services, both in general and those that are culturally appropriate.

There is increasing need for **end of life care (EoLC)** and the services that will allow people to die in their place of choice. Regional opportunities exist with increasing consumers and carers death literacy and connectivity to EoLC services, and primary care initiating end of life discussions and developing advance care plans with patients. Access to Advance Care Plans through the My Health Record by patients, GPs, RACFs and hospitals is universally needed.

Access to comprehensive primary healthcare services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and promoting health equity for all Australians. Major access barriers reported by consumers include poor knowledge of local health services, difficulties in obtaining information, and difficulties travelling for health care due to inadequate transport options.

Access to general practice services for NBM residents also remains a challenge in some areas. 3.6% NBM general practice patients don't have a usual GP or a usual place of care (Australia 2.5%). Accessing a GP and maintaining continuity of care with the same GP is increasingly difficult in the Blue Mountains, where extended waits times to access a GP exist.

There are identified **general practice workforce shortages** in parts of every LGA in the NBM region. The GP to population ratio in the region (130 GP per 100,000 people) is relatively lower compared to the national (145) and NSW average (139). Only 53% of NBM general practices employ at least one nurse (Australia 63%). Predicted future shortages in the General Practice nursing workforce in Australia is likely to impact the quality and costs of patient care. Inadequate data, such as FTE or FSE (rather than headcount) to estimate capacity of the NBM General Practice workforce, Nurses working in general practice and other primary healthcare professionals limits the effectiveness of current regional planning for the primary care workforce.

There is a significant demand for health advice and access to a doctor in the **after-hours** period. 73% of the 19,065 calls to the HealthDirect helpline telephone triage and advice service by NBM residents in 2017-18 occurred in the after-hours period. 35%, or 6,653 callers to the service, were advised to see an after-hours GP or to see a doctor within the next 2-12 hours. High demand for after-hours primary care is also seen for RACF residents. Workforce shortage of GPs and National policy changes in March 2018, regarding the use of urgent after hours MBS items, have impacted local after-hours and Medical Deputising Services in the NBM region.

2. Primary Mental Health Care

The geography, demography and economy of the NBM region, as described within the general population section, applies to all components of the primary mental health care needs section.

Suicide prevention

Health Needs Analysis

Individuals and populations most at risk of poor health outcomes in relation to suicidality have been determined across broad categories. People living with mental illness, suffering socio-economic disadvantage and /or those who are unemployed (particularly male cohorts) and people who have a personal or family history of suicide attempts have been highlighted as most at risk. Further conflagrating factors include separation from partner/family, addiction issues and sexuality (particularly younger adults). Men are 3.1 times more likely to commit suicide than women. More generally people aged 25-34 and those who live in more remote area are at greater risk. Once an attempt has been made further increased risk has been highlighted to those recently discharged from hospital.

A large number of suicides within the NBMPHN region are by hanging, followed by firearms and poisons. 80% of suicide deaths were associated with mental health and substance use disorder comorbidities

In terms of geography, suicide rates/hospitalisations are notably higher in the Penrith LGA, Springwood and Winmalee. There were greater rates of self-harm hospitalisation in Penrith, Hawkesbury and Lithgow (most notably female).

Social determinants of health

The cumulative burden of negative situational life events are significant contributors to heightened risk of suicide are among men. 80% of suicide deaths are associated with mental health and substance use disorder comorbidities. In the NBM region death rates by intentional self-harm (suicide) remained the third highest in 2017 (NSW) compared to the previous 10-year period. There were 3.1 times higher rates of suicide among men as opposed to women.

The region displays significantly higher rates of hospitalisation due to self-harm compared to the NSW state average. Findings describe increasing rates of suicide ideation and behaviour, and self-harm among young people, particularly amongst young women. Interventions to address community

awareness of suicide, suicide risks and opportunities to support people who are at risk are perceived to be inadequate.

Populations with special needs

It is of significant concern that;

- Suicide rates for Aboriginal and Torres Strait Islander people are more than double than that for non-Indigenous people. In 2017, suicide was the second leading cause of death for Aboriginal and Torres Strait Islander males, and the seventh leading cause of death for Aboriginal and Torres Strait Islander females. Deaths due to suicide also accounted for a higher proportion of all deaths among Aboriginal and Torres Strait Islander people (5.5%) compared to non-Indigenous Australians (2.0%).
- Approximately 6.4% of the NBMPHN population identify as a LGBTI person. Young people identifying as LGBTI are five times more likely to have attempted suicide than other young people. To date, there is no local data available to correlate this research
- There has been a recent surge in suicides and self-harm reported among young people in the Pacific Islander community in Western Sydney, including Penrith LGA.
- The largest difference between Indigenous and non-Indigenous suicide rates occurred at younger ages, at a rate more than 3 times higher for 15-24 and 25-34 year olds

Service Needs Analysis

Overall hospitalisations due to intentional self-harm are significantly higher in NBM region compared to the NSW state average. The highest rates and rate of growth in presentations to NSW emergency departments between 2010 and 2014 was for suicidal ideation and behavior, and self-harm were among young people 10-19 yrs. Hospitalisation rates in Penrith and Lithgow were higher for females than males and the prevalence of self-harm hospitalisations for young females in the NBMPHN region is almost three times the rate for males and is the highest rate among NSW metropolitan PHN areas.

Our findings highlight the need for a focus on people who have attempted, or are at risk of suicide, their families and friends. Evidence shows us that they experience difficulties navigating referral and care pathways, including accessing appropriate services and timely referral to a full range of supports. Concerns remain around the continuity and transfer of care for people who have made an attempt on their life after discharge from hospital; including support available for family members. There a higher risk of suicide following hospital discharge and or a reduction in treatment post discharge within the first day and week heightening the need for care coordination.

Mental health

Health Needs Analysis

Individuals and populations at risk of poor health outcomes

There are a high prevalence of mental health needs and service demand among young people 12-17 years. This is evidenced by the nature of presentations to Emergency Departments for mental health related issues.

Social determinants of health

The impact of homelessness remains significant, particularly in relation to people's physical and mental health; affecting their ability to adequately access suitable service provision, further compounding issues experienced.

Health status and behaviours

Regionally, Communities have experienced significant increases in the level of high or very high psychological distress among people 16 years and older, in particular amongst females. There remains a high prevalence of mental disorders among adults 18-64 years, including people with mild, moderate and severe mental health needs in the NBM when compared to other regions. As experienced elsewhere there is a significant gap in life expectancy, reduced functional status and reduced quality of life among people with mental health conditions. This is due in part to a higher prevalence of co-existing chronic physical health conditions (in particular cardiovascular disease, cancer, diabetes, asthma,

COPD, back problems and arthritis). The resultant higher prevalence of chronic disease risk factors (smoking, alcohol, physical activity, obesity and high cholesterol) among persons with mental health conditions further impacts the quality of life of people living with mental illness in the region.

The NMB region is currently experiencing the highest rates of mental health-related hospitalisations in New South Wales.

Populations with special needs

As is the experience across our needs assessment activity, the mental health needs of Aboriginal and Torres Strait Islander people are of particular concern. This population continues to experience a high proportion of psychological distress, attributable to greater physical morbidity and disability. There is an increased prevalence of long-term mental health conditions among Aboriginal people with disproportionately high incidence of hospitalisation due to mental ill health.

There is similarly significant and disproportionate prevalence of people living with mental health issues across CALD and LGBTI populations.

Service Needs Analysis

Due to the challenging geography of the region, relative to the ability to fund adequate service provision across its breadth, some Communities experience inadequate access to psychiatric services. In spite of the clear need within the Community, psychological and psychiatric services are accessed by a relatively low proportion of Aboriginal people.

Coordination and integration

Service coordination, continuity and transfer of care are reoccurring themes. People moving to primary care and/or community service providers after discharge from acute mental health services are of particular concern. Challenges exist around effective care coordination, referral pathway coordination, case management and follow up between acute and primary mental health services, and between clinical and non-clinical services. This impacts the ability to support consumer-centred care and the seamless stepping up or down in the levels/type of care received.

The community describes a need for better connections for young people in and out of Home Care, Juvenile Justice, FACS, Health and NGOs, through sharing data, information and communication feedback loops so as to support integrated care with clinical in-reach.

Opportunities for improvement

Service providers need to ensure as a priority, that all people with severe, persistent and complex mental illness are connected to a regular GP.

Collaboration, communication and an agreed functional framework for responsible providers / commissioners is required enable consumers and carers to have a clear understanding of pathways and related service information. This will enable greater understanding and visibility of service provision across the treatment 'system', and help to reduce barriers to access.

A significant volume of work needs to be done to increase the provision of, and active participation in, culturally safe mental health services for Aboriginal people. This must be done collectively, and in collaboration with the community it intends to service. Developing the cultural competence of mainstream mental health services is recommended as a good starting point from which to improve and promoting positive mental health among Aboriginal people.

Psychosocial support

Many of the trends described in the mental health and suicide prevention analysis were confirmed on conducting the needs assessment in relation to the National Psychosocial Support Measure (NPS).

Health Needs Analysis

Individuals and populations at risk of poor health outcomes

The social and/or geographic isolation of particular groups remains a major factor in the exclusion of NBM consumers from community participation and results in poorer outcomes for people with regard to their mental health. Groups of specific concern include:

- *Aboriginal and Torres Strait Islander Communities:* There remains a lack of dedicated Aboriginal mental health clinicians and targeted psychosocial programs for Aboriginal and Torres Strait Islander Communities. This impacts negatively on engagement with regional mental health services and positive outcomes for the communities involved.
- *CALD Communities:* There is an identified need for different avenues from which to promote access to mental health services, psychosocial groups and appropriate referral pathways in the NBM region across CALD community groups.
- *Homeless Populations:* People with housing instability experience difficulties with NDIS applications, making this group likely to be eligible for the National Psychosocial Support Measure. The High prevalence of mental illness and comorbid physical health conditions among homeless people, alongside poor engagement with mainstream services are compounded by a lack of coordination between homelessness and mental health services in the NBM region. As a result this cohort has been found to have increasingly poor outcomes. There is also a limited capacity amongst the homeless sector services to respond to client mental health needs due to lack of mental health first aid training.

Health status and behaviours

Communities describe poor mental health literacy, poor knowledge of local psychosocial services available, and a lack of education on how to navigate mental health service systems across NBMPHN. There is a high prevalence of co-morbid mental health, AOD and physical health conditions amongst this NPS eligible cohort.

Service Needs Analysis

Coordination and integration

There are significant opportunities for system reform to assist health professionals and consumers to identify appropriate psychosocial referral options. For example the simplification of referral criteria and the creation of a central triage point with system expertise and reach could dramatically reduce barriers to access. There is a clear and identified need to create consumer-oriented pathways to accessing services, such as a soft entry hub model / drop in centre.

Opportunities for improvement

The Identified need for mental health awareness training among local employers and volunteer organisations in the NBM region is an initiative that can have a wide impact with relatively little resource. This activity could be supported by the adequate resourcing of peer support initiatives. Historically there has been a lack of strategic investment in peer work from statutory organisations and community managed organisations in the region. The benefits of investment in this model are exponential in terms of service user outcomes and community education/stigma and capacity building.

Further opportunities for improvement include:

- Sustained investment in Aboriginal staff in both clinical settings and psychosocial services is needed to improve outcomes.
- Mental health support services - Improve resourcing of and/or development of strategies to improve demand management for psychosocial programs.
- Access to GP care - identified need to improve consumer access to GP clinical care, in particular for those who may be in mental health crisis, such as bulk-billing, flexibility for walk-in appointments, and/or increased options for after-hours services.
- Mental health capacity building and education - Identified need for basic mental health training for mainstream services, including Centrelink, Housing, Police, employers and community organisations.

- Creating volunteering opportunities in the NBM region would significantly benefit people with a lived experience of mental health to increase social and economic benefits, life skills and connection to community.

3. Alcohol and Other Drugs

The geography, demography and economy of the NBM region, as described within the general population section, applies to all components of the Alcohol and Other Drugs treatment needs section.

The identified health and service needs and priorities in this 2018 update of the needs assessment have not changed substantially since the first comprehensive needs assessment was conducted in May 2016, which was then followed by further updates in November 2016 and November 2017.

Stakeholder consultation

A key to AOD assessment in the region has been derived from a significant number of stakeholder consultations. These consultations have been key to identifying AOD needs within the NBM region. A wide range of stakeholder consultations have progressed over the last three years with the following groups, organisations and individuals and have often been repeated to substantiate changes. These have included:

- 180TC residential rehabilitation provider Yarramundi for men and Kurmond for women
- Aboriginal community coalitions Blue Mountains, Penrith, Hawkesbury and Lithgow as part of ongoing communication and as part of 2015 Sharing Learning Circles conducted in each of the four LGAs during 2015
- Aboriginal Health and Medical Research Council NSW
- Adele House residential men's program Werrington and Coffs Harbour
- Barnardo's Penrith
- Blue Mountains Drug and Alcohol Recovery Services Inc. as part of Project Skylight (2010). This project consulted with local general practice, specialist AOD and community based service providers, and conducted focus groups with youth groups
- CEO, Deputy CEO and Program Manager, 180TC Kurmond
- Community Drug Action Team (CDAT) Blue Mountains, including representatives from Police youth liaison, Department of Education, Blue Mountains Council Youth Services Development and a range of service providers
- Dianella Cottage, Katoomba (as part of Lyndon Community)
- Family Drug Support Australia, Leura
- General Manager, Lyndon Community
- Intensive Drug and Alcohol Program, Corrective Services NSW Department of Justice
- Koolangara Aboriginal Centre, Cranebrook
- Marrin Weejali Aboriginal Corporation, Emerton
- MYST (Mountains Youth Services Team)
- NADA CEO, deputy CEO and Clinical Director
- NBMLHD General Manager Drug and Alcohol Services
- NBMLHN AOD Strategic Planning Forum, February 2016 involving NGOs, Aboriginal health representatives, NBMLHD AOD personnel and consumer representatives
- NBMPHN Mental Health Forum, 23 February 2016 and structured telephone interviews with stakeholders selected from NBM general practitioners and allied health professionals for mental health and AOD feedback concerning health and service needs (referred to throughout the Needs Assessment as NBMPHN Preliminary Stakeholder Consultations for Drug and Alcohol
- NBMPHN programs and services including - Blue Mountains Healthy for Life program, Closing the Gap Care Coordination and Supplementary Services (CCSS), ATAPS, PIR Regional Manager
- Penrith Neighbourhood Centres
- St John of God Hospital Windsor, Hawkesbury Health Service.

- The Lyndon Community at Orange
- WHOs Penrith

Limitations

Further consultations with these stakeholders, and including the commissioned NGO service providers, have provided the following limitations in service provision across the NBM region.

- Youth services for AOD do not meet needs. They are difficult to access and often service design is a barrier to engaging with local young people.
- There is currently no capacity for new clients to receive community based opioid substitution therapy (OST) within the NBM region.
- There is an over-reliance on residential rehabilitation services primarily delivered outside of the NBM region, creating barriers to access because of the need to travel outside of the region and often delaying treatment for people with substance use problems
- There are very few local AOD services that provide in-reach services into community based organisations, creating barriers to assertive follow up of individuals who have received AOD treatment and require ongoing support to achieve full recovery.
- There is a lack of community-based rehabilitation services (including day stay rehabilitation programs) available to both men and women. No such options currently exist for men's rehabilitation services in the region and the only service currently available for women (Dianella cottage) is restricted to women in the Upper Blue Mountains and Lithgow with a dual diagnosis.
- While there is international evidence and recognition for enhanced recovery outcomes available through delivery of Peer to Peer treatment service delivery models, currently this approach has not been adopted within any AOD community based rehabilitation / treatment service within the NBM region, representing a significant gap in service provision for the region

Key health and service needs - May 2016 to Nov 2018

As a result of key stakeholder engagement and the review of limited data, the following key priorities continue in 2018 to be identified as needing to **improve coordination, integration and direct service delivery** in the following areas:

- Risky substance behaviour including risky drinking, poly-drug use (especially methamphetamine use) among youth
- Local early intervention programs targeted at youth
- Education to support workforce capacity building and improved response to increasing demand for AOD services and increasing complexity of AOD problems including professional and non-specialist health and community workers
- Education to build capacity within the broader community and better equip community members to respond to increasing substance use, particularly methamphetamine use
- Local non-residential rehabilitation programs for men and women
- Local residential rehabilitation programs for men and women
- Extended treatment hours for existing AOD (including counselling)
- Improved aftercare within existing treatment models
- Improved support of people with dual diagnosis (mental health and AOD problems).
- Increased capacity and development of the NGO sector to provide enhanced and additional local AOD services.

Similarly, the needs for Aboriginal and Torres Strait Islander people, have remained the same for 2018, as follows:

- Enhanced service provision to support complex needs such as dual diagnosis (mental health and AOD problems)
- Improved assessment of people with complex problems that include AOD
- Case management for people with complex AOD problems
- Culturally secure service provision for youth with AOD problems

- Culturally secure service provision of non-residential rehabilitation programs.

The needs of Aboriginal and Torres Strait Islander people will be discussed further under *populations at risk of poorer outcomes*.

While alcohol continues to be the primary drug of concern for those seeking AOD treatment, increasing use and frequency of use of **crystalline methamphetamine** (ice) was observed within the population. There were associated increases seen in methamphetamine hospitalisations among NBM residents, and growing concern about amphetamine use among the Australian population. For the first time, funded programs reported that methamphetamine substance use was perceived to be the drug most likely to be associated with a 'drug problem'. Consultations also indicate that methamphetamine substance use is of most concern for the community, and more people thought methamphetamines were of greater concern than alcohol.

Ongoing consultations with regional stakeholders and commissioned service providers continue to indicate the high prevalence of **problem substance** use among young people. Young people in the NBM region are consistently reported to be under-serviced, have high needs in relation to AOD services and are increasingly presenting with greater (moderate to high) complexity to local AOD services. **Young Aboriginal men** in custody with a history of illicit drug use at Cobham Juvenile Justice Centre (local NBM service) are the focus of a newly funded program expansion by the commissioned Blue Mountains Aboriginal Cultural Resources Centre (ACRC) Young Strong and Deadly initiative. This early intervention service focuses on connection to culture, suicide prevention and better choices concerning substance use. Early reporting indicates positive feedback by the participating young Aboriginal men in custody as well as correctional staff working at the facility.

Codeine misuse is an emerging priority and young people at risk of harm from substance use have been highlighted by ongoing consultations with key stakeholders as an increasing priority. Harm from **misuse of prescription Codeine** continues to be a national priority for drug treatment and of concern to local service providers. Consultation with local pharmacy stakeholders reported potentially higher levels of codeine misuse than occurred prior to the scheduling of codeine in February 2018. Among persons who are able to get a prescription, local pharmacy stakeholders report concerns that many are taking higher levels of codeine due to doctors frequently prescribing a higher dose than was previously being dispensed¹. Further, data pertaining to overdose deaths in Australia demonstrate consistent increases in drug-related deaths from opioid use over the past 15 years, in particular from pharmaceutical opioids (including codeine, oxycodone, morphine and fentanyl). Future developments in Shared Care initiatives will also address codeine misuse and strategies to increase the number of Opioid Treatment Program (OTP) prescribers in NBM region. Current levels both accredited and non-accredited are low and unlikely to meet future demands for OTP supporting codeine misuse.

Access to treatment for the **Hepatitis C virus** (HCV) through the new direct acting antiviral (DAA) drugs listed on the PBS within outpatient settings, GP offices, drug and alcohol services and prison settings is a recent and continuing priority. While it is now possible to eliminate Hepatitis C as a public health concern, treatment coverage among persons living with HCV in the Nepean Blue Mountains region was lower than compared to most other NSW Local Health Districts (LHDs) to 31 December 2017. Positively however, was that the proportion of people who initiated Hepatitis C treatment and were prescribed a DAA by their GP was highest in the Nepean Blue Mountains region, compared to all other NSW LHDs to 31 December 2017. NBMPHN will continue to recommend that the treatment uptake of DAAs needs to be increased or at least maintained at current

Populations at risk of poorer outcomes

Aboriginal and Torres Strait Islander populations

The Aboriginal population within the NBM region comprise 3.7% of the total population, which is higher than the NSW state average of 2.9%. As such, consultation with this significant portion of the

local population is an integral part of this component of the needs assessment in shaping priorities for AOD services in the region.

Community consultation forums conducted in each of the four LGAs between September-October 2017 indicated that a wide range of service gaps experienced by Aboriginal people across the spectrum of AOD service provision. A range of socioeconomic and cultural barriers to access were commonly described by NBM Aboriginal community representatives during these forums. Together these barriers can be described as preventing Aboriginal people from contacting AOD service providers for voluntary access to preventative education, voluntary assessment and early intervention, as well as other treatment related to AOD.

There are indications that Aboriginal people in the NBM region may regard providers of AOD services with even greater mistrust and fear, and consequently may avoid seeking assistance for emerging or long standing dependence on substances. There is long standing mistrust of health services providers by Aboriginal people because of their history of personal or family and community experience. In addition the experience of some Aboriginal people is that access to AOD services may be due to a mandated requirement through child protection and justice services. Consultations with Aboriginal people and service providers identified similar concerns and strongly identified the need for more Aboriginal people to be trained to facilitate and support access to AOD treatment on behalf of others because for many Aboriginal people self-referral is not considered

In August 2016 it was reported by NSW Bureau of Health Information that NBM Aboriginal people perceived a poorer experience of hospitalization compared to Aboriginal people for NSW and compared to non-Aboriginal people. Only 48% of adult admitted Aboriginal patients in NBMLHD rated the care they received in hospital as 'very good'. Consultation with local Aboriginal community controlled AOD service providers indicated that Aboriginal people often present for AOD treatment when they are in crisis. This was believed to be due to a range factors including longstanding substance dependence, polydrug use, intergenerational and lived trauma, At these times, Aboriginal people present with multiple problems such as drug induced psychosis, acute physical illness and justice orders. Moreover, the complexity of these problems often mean that a single treatment provider is unable to provide the support and treatment that clients require and multiple transfers of care may occur. Consultations with ACCHOs and the recently established Joint NBMLHD and NBMPHN Aboriginal Advisory Committee indicate that Aboriginal AOD clients with complex needs are experiencing an unsatisfactory and circular journey among multiple service providers, as well as poor outcomes.

The Penrith Neighbourhood Centre reported in their Yarn Up conducted in 2016, a range of barriers related to access of services for Aboriginal people in the Penrith LGA. The study findings were consistent with preliminary analysis of community consultations undertaken by NBMPHN during September/October 2016. The barriers to access identified were: that racism was a primary barrier preventing access to services.

Prison populations

There are four prisons within the NBM region. As such the need continues to identify former correctional centre inmates as being at high risk for harm from substance use along together with high risk of relapse from AOD treatment on release from detention in the region These facilities included: Dillwynia medium and minimum security for women collocated with John Morony compulsory drug treatment centre at Berkshire Park; Lithgow Correctional Centre, maximum security for men; Emu Plains minimum security for women; Cobham Juvenile Justice Centre St Mary's for young men. Anecdotal information indicates that local support services are required for new releases from detention who remain in the region and who may be particularly vulnerable to relapsing into risky substance use.

The prisoner population is predominantly male at 92% (compared with 49% of general adult population), and relatively young with 68% aged under 40 years (compared with 39% of the general

adult population). Aboriginal and Torres Strait Islander people are significantly over-represented in the prison population. Indigenous people represent approximately 2% of the general adult population and on 30 June 2014, represented 27% of the prisoner population.

The health of Australia's prisoners 2015 reported the following key indicators:

- One in four (25%) were homeless in the four weeks before entering prison
- One in three prison entrants have a chronic health condition. Asthma was the most common condition.
- Three in four prison entrants are smokers which is over 5 times the rate of the general population.
- Two in three (67%) prison entrants used illicit drugs in the 12 months prior to prison.
- Two in five prison entrants drank alcohol at risky levels before prison. This was more than half for Indigenous entrants
- One in four prisoners received medication for mental health related issues while in prison.

Other key indicators for prison population included:

- 49% of prison entrants have been told by a doctor, psychiatrist, psychologist or nurse, that they have a mental health disorder which may include drug and alcohol abuse is.
- 10% reported using illicit drugs while in prison with 6% reporting injecting drugs while in prison
- 7% of entrants to prison reported being on pharmacotherapy medication for opioid dependence
- 3% of prisoners in custody received medication for opioid dependence
- 8% of prison discharges on an opiate substitution program while in prison with a plan to continue after release
- 39% of prison entrants reported a high risk of alcohol-related harm in the last 12 months (measure by the AUDIT-C)
- 58% of prison discharges reported a high risk of alcohol-related harm prior to current incarceration (measure by the AUDIT-C)
- 8% of prison discharges accessed an alcohol treatment program in prison.

Three newly commissioned services for AOD treatment and support following rehabilitation or detoxification (Aftercare) include targets for ex-prisoners. Early reporting indicates that these Aftercare programs are able to fill gaps in existing service provision, and provide much needed support to prevent relapse after initial treatment. Rates of relapse are conservatively regarded as 40-60% and some studies indicate that relapse following rehabilitation may be as high as 90%.

A range of commissioned services have been executed over the last three years in response to the key identified priorities. These services require time to show an impact on the regions AOD needs. It is envisaged that follow on needs assessments will take into account the outcomes and evaluation of these commissioned activities.

Additional Data Needs and Gaps

There are a range of data sources and analysis tools that have recently become available to the NBMPHN that require further investigation/utilisation. Future analysis as part of ongoing needs assessment will include the following:

- Potentially Preventable Hospitalisations including a review of hospital discharge data from the LHD to better understand both the impact and opportunities for primary care.
- ED data from private hospitals in our region is not yet available but consultations continue to progress access these data sets.
- Current after-hours data relating to emergency department presentations will support more detailed investigation around gaps in after hours and deputising service provision across the region.

- MBS item utilisation data analysis will further consider the correlation with general practice chronic conditions management and PIP MBS services.
- Further detailed service mapping will establish baseline data for regional planning in Mental Health, Drug and Alcohol and Aboriginal health services. This will include geo-spatial illustration of key indicators relevant to demand for services and socioeconomic and behavioural factors.
- A more concerted utilisation of Qlik Sense will support data visualization where required.
- General practice, de-identified, aggregated clinical data e.g. diabetes, asthma, cervical screening, COPD, is currently incorporated into some aspects of the needs assessment. Further analysis, integrated with local population health data, will more fully support assessment of local needs with primary care service provision, both individually at a practice level, and collectively across the region's population.

Service data

The service component of the needs assessment identifies the absence of certain services or inappropriate service models of care. Typically this arises when the region does not have sufficient capacity (workforce, funding, points of service) or capability (appropriate skills) to deliver these services. The response to identify such needs is generally through further investigations of options and contextual statistics that may either modify existing models of care, or identify new service providers to fill in gaps for services. Both directions demand substantial capacity building efforts from PHNs, and are difficult to measure outcomes rather than outputs, in the short to medium term. An example of applies to primary care workforce data for NSW and the NBM region, which is currently not maintained by a central authority. Although the National Health Services Directory (NHSD) maintains a repository of health organisations (not individuals) across all four NBM LGAs, it is not comprehensive enough to support a gap analysis and is reliant on NBMPHN and self-reporting to maintain currency.

Similarly, NBMPHN regularly surveys general practices and pharmacies to collect workforce data however these surveys are limited to organisations, not individuals, and do not thoroughly indicate FTEs for any workforce category. National sources of data such as APHRA have limited application for regional planning purposes. Apart from General Practitioners and Practice Nurses working in General Practice, it is not currently possible to establish health workforce levels for primary healthcare professionals per LGA or for the region. This prevents the analysis of trends and development of strategies for support in all areas including: Aboriginal Health, Mental Health and Suicide Prevention, Drug and Alcohol Services, chronic conditions, older adults, care coordination, workforce needs applying to general practice, nurse practitioners, and allied health professionals.

Obtaining up-to-date regional workforce data through the Department of Health's online data tabulation tool is problematic. Data is currently only available for the NBM region for 2013-2016. The Department of Health's Workforce section have advised NBMPHN that the 2017 data will be released in late 2018. Headcount of GPs is also not an effective measure because a significant number of GPs work part time. Full Time Equivalency or Full Service Equivalency is a better measure, however PHNs don't have access to this data.

AOD data - Of significant ongoing concern is the inability to analyse local service data other than high level AODTS-NMDS. As a consequence NBMPHN continues to rely heavily upon anecdotal feedback from ongoing stakeholder consultations to inform needs analysis. Similar problems exist with mental health data.

Section 2 – Outcomes of the health needs analysis

This section summarises the findings of the health needs analysis in the table below.

General Population Health

General population health needs analysis is encompassed within six key theme areas of:

- Theme 1 - ACCESS TO HEALTH SERVICES is addressed fully within Section 3 – Outcomes of service needs analysis
- Theme 2 - CANCER SCREENING AND PREVENTION
- Theme 3 - CHRONIC AND PREVENTABLE CONDITIONS
- Theme 4 - CULTURAL AND DEMOGRAPHIC FACTORS INFLUENCING HEALTH STATUS
- Theme 5 - END of LIFE CARE
- Theme 6 - OLDER PERSONS

CANCER SCREENING AND PREVENTION

Outcomes of the health needs analysis – General Population Health, Priority Theme 2: <i>Cancer Screening and Prevention</i>		
Identified Need	Key Issue	Description of Evidence
Cancer screening and prevention performance indicators	<p>Poor performance of key cancer screening and prevention indicators for smoking, bowel, breast and cervical screening is evidenced by:</p> <p>Higher proportion compared to NSW state average:</p> <ul style="list-style-type: none"> • 12.1% women who smoked during pregnancy (NSW, 8.3%) 	<p>The NSW Cancer Institute 2018 performance snapshot for the NBM region lists the following indicators:</p> <ul style="list-style-type: none"> - 15.2% smoking prevalence in adults, 2017 (equal to NSW state average) - 12.1% proportion of women who smoked during pregnancy, 2016 (higher than NSW state average, 8.3%) - 11.0% prevalence of smoking in pregnancy for non-Aboriginal women, 2016 higher than NSW state average, 6.9%) - 34.5% proportion of Aboriginal women who smoked during pregnancy, 2016 (lower than NSW state average, 41.3%; and lowest among 10 NSW PHNs) - 0.52% proportion of smokers who called NSW Quitline, 2017 (lower than NSW state average, 0.77%)

Outcomes of the health needs analysis – General Population Health, Priority Theme 2: Cancer Screening and Prevention

	<ul style="list-style-type: none"> • 11.0% non-Aboriginal women who smoked during pregnancy (NSW, 6.9%) <p>Lower proportion compared to NSW state average:</p> <ul style="list-style-type: none"> • 0.52% of smokers called NSW Quitline (NSW, 0.77%) • 0.1% referrals to NSW Quitline (NSW, 0.31%) • 35.2% bowel screening participation rate (NSW, 36.8%) • 52.1% cervical screening participation rate (NSW, 55.9%) • 48.4% breast screening participation rate (NSW, 53.1%) • 35.5% breast screening participation for Aboriginal women (NSW, 41.7%) • 41.5% breast screening participation for CALD women (NSW, 46.3%) 	<ul style="list-style-type: none"> - 0.1% proportion of smokers who were referred to NSW Quitline, 2017 (lower than NSW state average, 0.31%) - 35.2% annual bowel screening participation rate, 2017 (lower than NSW state average, 36.8%) - 52.1% biennial cervical screening participation rate for women aged 20-69, July 2015 to June 2017 (lower than NSW state average, 55.9%) - 48.4% biennial breast screening participation rates for women aged 50-74, 2016-17 (lower than NSW state average, 53.1%) - 24.0% proportion of women aged 50-74 never screened by BreastScreen NSW, 2017 (higher than NSW state average, 19.2%) - 35.5% biennial breast screening participation rate for Aboriginal women, 2016-17 (lower than NSW state average, 41.7%) - 41.5% biennial breast screening participation rate for CALD women, 2016-17 (lower than NSW state average, 46.3%) <p><i>Cancer Institute NSW Report – Reporting for Better Cancer Outcomes Performance Report 2018: Nepean Blue Mountains Primary Health Network</i></p> <p><i>Health Statistics NSW portal - Smoking at all during pregnancy among Aboriginal and non-Aboriginal mothers, by Primary Health Network, NSW 2016 [Accessed 5 November 2018]</i></p>
<p>Preventable cancer deaths</p>	<p>753 preventable cancer deaths are projected for the NBM region in 2021</p>	<p>The number of preventable cancer deaths for the NBM regions is expected to increase alongside population increases. In 2016, 670 preventable cancer deaths were predicted for the region. This figure is projected to rise to 753 in 2021.</p> <p><i>Cancer Institute NSW Report – Reporting for Better Cancer Outcomes Performance Report 2018: Nepean Blue Mountains Primary Health Network</i></p>
<p>Smoking prevalence</p>	<p>Highest rates among NSW metropolitan PHNs for:</p>	<p>The impact of national, state and local smoking cessation strategies has been demonstrated by a reduction in smoking prevalence among NBM residents from 20.5% in 2008 to 15.2% in 2017. However, among metropolitan PHNs in NSW, the NBM region has the highest current</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 2: *Cancer Screening and Prevention*

	<ul style="list-style-type: none"> • 15.2% current smoking prevalence among adults • 12.1% proportion of women who smoked during pregnancy • Lowest proportion (50.7%) of adults who have never smoked <p>High rate of smoking during pregnancy for Aboriginal (34.5%) compared to non-Aboriginal women (11.0%), but lowest rate in NSW.</p>	<p>smoking prevalence among adults (15.2%), lowest rates for the proportion of adults who have never smoked at 50.7%, and the highest proportion of women who smoked during pregnancy at 12.1%.</p> <p>34.5% of Aboriginal women in NBM smoked at all during pregnancy compared with 11.0% for non-Aboriginal women in 2016, representing a very high risk group and priority for smoking cessation strategies. This was however significantly lower than the NSW state average (45.0%) and the lowest among 10 NSW PHNs).</p> <p>Regional priorities for tobacco control are:</p> <ul style="list-style-type: none"> - Engaging primary healthcare professionals to provide brief, simple advice about quitting smoking and encourage referrals to NSW Quitline. - Accessing opportunities for brief interventions to support smoking cessation - Identifying teachable ‘moments’ for pregnant women or women planning to get pregnant who smoke with a priority on interventions involving Aboriginal women. <p><i>Cancer Institute NSW Report – Reporting for Better Cancer Outcomes Performance Report 2018: Nepean Blue Mountains Primary Health Network</i></p> <p><i>Health Statistics NSW portal - Smoking at all during pregnancy among Aboriginal and non-Aboriginal mothers, by Primary Health Network, NSW 2016 [Accessed 5 November 2018]</i></p>
Bowel Screening		
Bowel Screening rates	<p>NBM bowel screening participation rate (35.2%) lower than the NSW state average (36.8%) and 7/10 NSW PHNs.</p> <p>Penrith (33.0%) and Hawkesbury LGA (34.7%) report the lowest bowel screening rates among LGAs within the NBM region.</p>	<p>Latest figures from the Cancer Institute NSW and AIHW show an increase in bowel screening rates for the NBM region from 34.1% to 35.2% from 2015 to 2017. Similarly across NSW bowel screening rates increased from 36.0% in 2015 to 36.8% in 2017. The NBMPHN ranking against NSW PHN remains unchanged at 7/10.</p> <p>Penrith and Hawkesbury LGAs continue to have the lowest bowel screening participation rates in the NBM region. In 2017, bowel screening rates were 33.0% for Penrith LGA and 34.7% for Hawkesbury LGA. Among smaller NBM geographical areas, St Marys (30.8%) then</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 2: Cancer Screening and Prevention

	<p>Lowest NBM bowel screening rates are within the St Marys and Richmond-Windsor SA3 smaller geographical areas.</p>	<p>Richmond-Windsor (33.3%) SA3 areas had the lowest bowel screening participation rates in 2015-16.</p> <p>There is no data available to show variations for CALD persons or for Aboriginal persons.</p> <p><i>Cancer Institute NSW Report – Reporting for Better Cancer Outcomes Performance Report 2016: Nepean Blue Mountains Primary Health Network</i></p> <p><i>Australian Institute of Health and Welfare 2017: Cancer Screening in Australia by small geographic areas 2015-16</i></p>
<p>Breast Screening</p>		
<p>Breast Screening rates</p>	<p>NBM breast screening participation rate (48.4%) lower than the NSW state average (53.1%) and 8/10 NSW PHNs.</p> <p>Lithgow (42.9%) and Penrith LGA (44.3%) report the lowest breast screening rates among LGAs within the NBM region.</p> <p>Lowest NBM breast screening rates are within the St Marys and Penrith SA3 smaller geographical areas.</p>	<p>Breast screening participation rates among age-eligible women 50-74 years has been increasing steadily over the past few years in line with NSW rates. NBMPHN region’s latest results show an increase in breast screening rates from 45.7% in 2014-15 to 48.4% in 2016-17. Across NSW the state average increased from 50.8% to 53.1%. These results place the NBMPHN 8/10 across the 10 NSW PHNs.</p> <p>Lithgow and Penrith LGAs continue to have the lowest breast screening participation rates in the NBM region. In 2016-17, breast screening rates were 46.4% for Lithgow and 47.4% for Penrith, however screening rates for both LGAs have been increasing over the past few years (from 42.9% for Lithgow and 44.3% for Penrith in 2014-15), Among smaller NBM geographical areas, St Marys (46.6%) then Penrith SA3 (48.8%) areas had the lowest breast screening participation rates in 2015-16.</p> <p><i>Cancer Institute NSW Report – Reporting for Better Cancer Outcomes Performance Report 2018: Nepean Blue Mountains Primary Health Network</i></p> <p><i>Australian Institute of Health and Welfare 2017: Cancer Screening in Australia by small geographic areas 2015-16</i></p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 2: Cancer Screening and Prevention

<p>- Breast Screening In Aboriginal Women</p>	<p>Breast screening rates for NBM Aboriginal women (35.5%) remain well below the NSW state average (41.7%), with lowest rates in the Lithgow and Penrith LGAs.</p>	<p>The breast screening participation rate for Aboriginal women in the NBM region has progressively increased over recent years, in line with NSW trends, from 30.6% in 2014-15 to 35.5% in 2016-17. However, breast screening rates for NBM Aboriginal women remain well below the state average at 41.7% in 2016-17. The rates across LGAs varies with Lithgow reporting the lowest at 33.3% (however doubling from 14.7% in 2014-15 to 33.3% in 2016-17), followed by Penrith LGA at 34.9%.</p> <p><i>Cancer Institute NSW Report – Reporting for Better Cancer Outcomes Performance Report 2018: Nepean Blue Mountains Primary Health Network</i></p>
<p>- Breast Screening In CALD Women</p>	<p>CALD communities in the NBM region demonstrate lower breast screening participation rates (41.5%) than the NSW state average (46.3%), with lowest rates in the Blue Mountains and Penrith LGAs.</p>	<p>The breast screening participation rate for CALD women in the NBM region has similarly progressively increased over recent years, in line with NSW trends, from 39.2% in 2014-15 to 41.5% in 2016-17. Breast screening rates for NBM CALD women also remain below the state average at 46.3% in 2016-17.</p> <p>Breast screening rates for NBM CALD women were lower in all LGAs compared to NSW in 2015-17, with the lowest rates in Blue Mountains LGA (33.4%) followed by Penrith LGA (42.3%).</p> <p><i>Cancer Institute NSW Report – Reporting for Better Cancer Outcomes Performance Report 2016: Nepean Blue Mountains Primary Health Network</i></p>
<p>- Women who have never attended a BreastScreen</p>	<p>Higher proportion of age-eligible women in NBM (24.0%) have never attended a BreastScreen compared with the NSW state average (19.2%).</p>	<p>Although the proportion of age-eligible women in the NBM region who have never attended a BreastScreen has marginally decreased from 25.8% in 2014 to 24.0% in 2017, this rate remains significantly higher than the NSW state average (19.2% in 2017). Further research is needed to explore potential barriers or disincentives to breast screening in particular among NBM women who have never attended a BreastScreen.</p> <p><i>Cancer Institute NSW Report – Reporting for Better Cancer Outcomes Performance Report 2016: Nepean Blue Mountains Primary Health Network</i></p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 2: *Cancer Screening and Prevention*

Cervical Screening

Cervical Screening rates

Declining NBM cervical screening participation rate (52.1%), in keeping with but lower than the NSW state trend (55.9%), and 8/10 NSW PHNs.

Penrith (48.1%) and Lithgow (50.8%) demonstrate the lowest cervical screening rates among LGAs within the NBM region.

Lowest NBM cervical screening rates are within the St Marys and Penrith SA3 smaller geographical areas.

Latest data from the Cancer Institute NSW and AIHW show a decline in cervical screening rates in NBM among age-eligible women 20-69 years from 53.4% in 2013-15 FY to 52.1% in 2015-17 FY, with NSW state averages also declining from 56.0% to 55.9% in this period. NBMPHN ranking across NSW PHNs remained at 8/10. Cervical screening participation declined in all NBM LGAs from 2013-15 FY to 2015-17 FY.

Penrith and Lithgow LGAs continue to have the lowest cervical screening participation rates in the NBM region. In 2015-17 FY, cervical screening rates were 48.1% for Penrith LGA and 50.8% for Lithgow LGA. Among smaller NBM geographical areas, St Marys (44.5%) then Penrith (49.7%) SA3 areas had the lowest cervical screening participation rates in 2015-16.

This data does not include participation rates in the new National Cervical Screening Program (CSP), which tests for the presence of the HPV virus and commenced on 1 December 2017. It is anticipated that participation data for the 2018-19 calendar year in 2020 will allow for regional comparisons in participation between the National CSP and previous NSW cervical screening program.

There is no data available to show variations in cervical screening participation for CALD women or for Aboriginal women.

Cancer Institute NSW Report – Reporting for Better Cancer Outcomes Performance Report 2016: Nepean Blue Mountains Primary Health Network
Australian Institute of Health and Welfare 2017: Cancer Screening in Australia by small geographic areas 2015-16

CHRONIC AND PREVENTABLE CONDITIONS

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: <i>Chronic and Preventable Conditions</i>		
Identified Need	Key Issue	Description of Evidence
Cancer mortality		
Cancer mortality	<p>Cancer was the leading cause of death in males and the second leading cause of death in females in the NBM population in 2016.</p> <p>The long-term mortality rate for all cancers for males and females in the NBM region is slowly declining.</p> <p>Lung, breast and colon cancers were the top three causes of cancer deaths in the NBM population (2010-2014).</p>	<p>There were 346 male and 268 female deaths due to malignant neoplasms (cancers), placing cancer as the leading cause of death in males and second leading cause of death in females in the NBM region in 2016. The population rate of cancer deaths in the NBM region (155.6 per 100,000 persons) was similar compared to the NSW state average (157.6 per 100,000 persons).</p> <p><i>Health Statistics NSW online portal: Deaths by category of cause and Primary Health Network, NSW 2016 [Accessed 23 October 2018]</i></p> <p>The long-term mortality rate for all cancers in the NBM region for males and females is slowly declining. The age-standardised mortality rate per 100,000 population for males 185.9 in 2014 compared to 208.3 in 2004 and 274.7 in 1994. For females, mortality rates for all cancers were: 147.1 in 2014, 157.0 in 2004 and 167.8 in 1994.</p> <p>The leading causes of cancer deaths in the NBM region from 2010-2014, in order and by cancer type/site were: lung (567 deaths), breast (231 deaths), colon (206 deaths), unknown cancers (164 deaths) and pancreatic (161 deaths).</p> <p><i>Cancer Institute NSW Cancer statistics NSW – Cancer Incidence, mortality and survival for Nepean Blue Mountains LHD [Accessed 23 October 2018]</i></p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

<p>Cancer incidence</p>	<p>The long-term incidence rate for all cancers for males and females in the NBM region is steadily increasing.</p> <p>Prostate cancer, breast cancer and melanoma of the skin were the top three types of new cancer cases in the NBM population (2010-2014).</p> <p>Incidence rates for all cancers in the NBM region are highest in the Lithgow and Hawkesbury LGAs and significantly higher than the NSW state average.</p> <p>Incidence rates are higher than the national average in smaller areas in the NBM region for the following cancers:</p> <ul style="list-style-type: none"> • Breast cancer • Colorectal cancer • Skin melanoma • Prostate cancer • Lung cancer 	<p>The long-term incidence rate for all cancers in the NBM region for males and females however is steadily increasing. The age-standardised incidence rate per 100,000 population for males for all cancers were: 614.3 in 2012, 575.2 in 2004 and 556.7 in 1994. For females, mortality rates for all cancers were: 445.0 in 2014, 389.1 in 2004 and 389.5 in 1994.</p> <p>The most common cancer types for new cancer cases (incidence) in the NBM region from 2010-2014, in order and by cancer type/site were: prostate (1,520 new cases), breast (1,166 new cases), melanoma of the skin (851 new cases), lung (781 new cases), and colon (692 new cases).</p> <p>Analysis of regional variation in cancer incidence for all cancers, indicates that Lithgow and Hawkesbury LGAs had cancer incidence rates significantly higher than the NSW state average for 2010-2014. The age-standardised incidence ratio for Lithgow LGA was 1.10 (times higher than the NSW average) and for Hawkesbury LGA was 1.09.</p> <p>Analysis of regional variation in cancer incidence by cancer type also highlights smaller areas in the NBM region which had a higher incidence rate compared to the national average from 2009-2013:</p> <ul style="list-style-type: none"> • Blue Mountains SA3 – breast cancer (1.1 times higher than national average) • Richmond-Windsor SA3 – breast cancer (1.1 times higher), colorectal cancer (1.07 times higher), melanoma (1.21 times higher), prostate cancer (1.03 times higher) • Hawkesbury SA3 – colorectal cancer (1.1 times higher), melanoma (1.19 times higher), prostate cancer (1.17 times higher) • Lithgow-Mudgee SA3 – colorectal cancer (1.18 times higher), lung cancer (1.19 times higher), prostate cancer (1.05 times higher) • St Marys SA3 – colorectal cancer (1.12 times higher), lung cancer (1.45 times higher) • Penrith SA3 – colorectal cancer (1.07 times higher), lung cancer (1.16 times higher).
--------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		<p><i>Cancer Institute NSW Cancer statistics NSW – Cancer Incidence, mortality and survival for Nepean Blue Mountains LHD [Accessed 23 October 2018]</i></p> <p><i>The Conversation – Interactive: We mapped cancer rates across Australia – search for your postcode here [Online], Accessed [23 October 2018]. Available at: http://theconversation.com/interactive-we-mapped-cancer-rates-across-australia-search-for-your-postcode-here-102256</i></p>
<p>Cardiovascular Disease (CVD)</p>		
<p>CVD prevalence</p>	<p>Circulatory disease was the leading cause of death in females and the second leading cause of death in males in the NBM population in 2016.</p> <p>Second highest rates of death for circulatory disease compared to 10 Primary Health Network regions in NSW.</p> <p>Hospitalisations due to circulatory disease are lower in the NBM region compared to NSW</p>	<p>In 2011, cardiovascular diseases accounted for 15% of the total disease burden in Australia. This was second only to the disease burden for cancer. <i>AIHW – Australia’s Health 2016</i></p> <p>In 2016, circulatory disease was the leading cause of death in females (141.0 per 100,000) in the NBM region 2016 and was the second leading cause of death in males (197.9 per 100,00). In 2015-16, there were 655 deaths at a rate of 173.7 per 100,000 persons. This was significantly higher than the death rate due to circulatory disease in NSW, which was 147.9 per 100,000 persons. 2014-15 cardiovascular death rates were significantly higher for NBM males and females compared to the NSW population and the second highest among PHN regions in NSW.</p> <p><i>Health Statistics NSW online portal: Deaths by category of cause, Nepean Blue Mountains PHN, NSW 2016 [Accessed 18 October 2018]</i> <i>Health Statistics NSW online portal: Circulatory disease deaths by Primary Health Network, NSW 2015-16 [Accessed 18 October 2018]</i></p> <p>There were 6,416 hospitalisations due to circulatory disease in the NBM region in 2016-17, at a rate of 1,540 per 100,000 persons. This was lower than the NSW state average at 1,766 per 100,000 persons.</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

	<p>Highest rates of hospital admissions due to circulatory disease in the Penrith and Lithgow LGAs.</p>	<p><i>Health Statistics NSW online portal: Circulatory disease hospitalisations by Primary Health Network, NSW 2016-17 [Accessed 18 October 2018]</i></p> <p>In 2015-17, admissions to hospital due to circulatory disease were variable across LGAs in the NBM region and were highest in the Penrith and Lithgow LGAs compared to other LGAs in the NBM region. Admissions due to circulatory disease per 100,000 persons were: 1,675 in Penrith; 1,668 in Lithgow 1,617 in Hawkesbury and 1,371 in Blue Mountains. This compares to 1,719 admissions per 100,000 persons in NSW.</p> <p><i>Health Statistics NSW online portal: Circulatory disease hospitalisations by Local Government Area, NSW 2001-03 to 2015-17 [Accessed 18 October 2018]</i></p> <p>Behavioural risk factors including tobacco smoking, physical inactivity, poor diet, and risky alcohol consumption – lead to the physiological risk factors in cardiovascular disease. These are high blood pressure, elevated blood lipids, diabetes mellitus, and overweight or obesity.</p> <p>Psychological and social risk factors additionally contribute to the risk of developing coronary heart disease as well as the worsening of clinical course and prognosis. These factors include: low socio-economic status; lack of social support; stress at work and family life; depression or anxiety; and hostility. These factors may act as barriers to treatment adherence and efforts to improve life-style in patients and populations.</p>
<p>Childhood Immunisation</p>		
<p>Immunisation rates for children</p>	<p>Above average childhood immunisation rates in NBM compared to NSW</p>	<p>Immunisation rates for the NBM region in 2016-17 are above the national average for all children and for Aboriginal and Torres Strait Islander children at 1, 2 and 5 years of age.</p> <p>For all children:</p> <ul style="list-style-type: none"> • 1 year of age – 94.4% (above national average 93.8%) • 2 years of age – 91.5% (above national average 90.9%) • 5 years of age – 94.7% (above national average 93.5%)

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		<p>For Aboriginal and Torres Strait Islander children:</p> <ul style="list-style-type: none"> • 1 year of age – 94.0% (above national average 92.2%) • 2 years of age – 92.5% (above national average 88.6%) • 5 years of age – 98.0% (above national average 95.7%) <p><i>Australian Institute of Health and Welfare, 2018 – MyHealthyCommunities: Immunisation rates for children 2011-12 to 2016-17</i></p>																																
	<p>Lowest immunisation rates in the NBM region observed in the Blue Mountains LGA.</p>	<p>Blue Mountains LGA has consistently under performed in childhood immunization rates compared to the other LGAs, across all age groups.</p> <p>Data for immunisation rates across the region in 2016-17 by SA3 small areas are tabled below.</p> <p>SA3 by age group</p> <table border="1"> <thead> <tr> <th></th> <th>1 year</th> <th>2 years</th> <th>5 years</th> </tr> </thead> <tbody> <tr> <td>Blue Mountains</td> <td>92.1%</td> <td>90.1%</td> <td>91.8%</td> </tr> <tr> <td>Hawkesbury</td> <td>95.6%</td> <td>90.5%</td> <td>92.7%</td> </tr> <tr> <td>Richmond-Windsor</td> <td>94.5%</td> <td>92.6%</td> <td>95.3%</td> </tr> <tr> <td>Lithgow-Mudgee</td> <td>94.9%</td> <td>90.2%</td> <td>96.5%</td> </tr> <tr> <td>Penrith</td> <td>95.6%</td> <td>92.7%</td> <td>96.2%</td> </tr> <tr> <td>St Marys</td> <td>93.3%</td> <td>90.4%</td> <td>94.7%</td> </tr> <tr> <td>Total</td> <td>94.4%</td> <td>91.5%</td> <td>94.7%</td> </tr> </tbody> </table> <p>Conscientious objector data from ACIR indicate high representation across the mid-upper Blue Mountains, peaking at Katoomba (2780) and Blackheath (2785). Similar pockets of conscientious objectors for the Hawkesbury LGA however with small numbers.</p> <p><i>Australian Childhood Immunisation Register</i></p>		1 year	2 years	5 years	Blue Mountains	92.1%	90.1%	91.8%	Hawkesbury	95.6%	90.5%	92.7%	Richmond-Windsor	94.5%	92.6%	95.3%	Lithgow-Mudgee	94.9%	90.2%	96.5%	Penrith	95.6%	92.7%	96.2%	St Marys	93.3%	90.4%	94.7%	Total	94.4%	91.5%	94.7%
	1 year	2 years	5 years																															
Blue Mountains	92.1%	90.1%	91.8%																															
Hawkesbury	95.6%	90.5%	92.7%																															
Richmond-Windsor	94.5%	92.6%	95.3%																															
Lithgow-Mudgee	94.9%	90.2%	96.5%																															
Penrith	95.6%	92.7%	96.2%																															
St Marys	93.3%	90.4%	94.7%																															
Total	94.4%	91.5%	94.7%																															

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

	<p>Recent improvements in immunisation rates observed for Upper Blue Mountains for children 1, 3 and 5 years of age.</p>	<p>The upper Blue Mountains, an area recognised for pockets of vaccine hesitancy however showed improvements in immunisation coverage for children aged 1, 2 and 5 years between 2015-16 and 2016-17:</p> <ul style="list-style-type: none"> • 1 year of age – 90-92.4 in 2016-17 (vs. 85-89.9 in 2015-16) • 2 years of age – 75-79.9 in 2016-17 (vs. 80-84.9 in 2015-16) • 5 years of age – 80-84.9 in 2016-17 (vs. 85-89.9 in 2015-16) <p><i>Australian Institute of Health and Welfare, 2018 – MyHealthyCommunities: Immunisation rates for children 2011-12 to 2016-17</i></p>
<p>Human Papillomavirus (HPV) Vaccination among Adolescents</p>	<p>HPV vaccination rates for boys and girls in the NBM region are lower than the national average, however rates are improving.</p> <p>Variation in uptake of HPV vaccination among adolescent males and females across the NBM region</p>	<p>Registrations on the National HPV Vaccination Program Register in 2016 show that nearly 8 out of 10 (77.4%) NBMLHD female adolescents and 7 out of 10 (71.2%) NBMLHD male adolescents aged 13 to 14 years received 3 doses of human papillomavirus vaccine by 2016.</p> <p>Immunisation coverage rates against HPV in the NBM region were lower than the national average for girls and boys, however showed significant improvement, especially for boys. Rates of immunisation against HPV in girls increased from 76.9% in 2014-15 to 77.4% in 2015-16. In boys, coverage rates for HPV increased from 59.3% in 2014-15 to 71.2% in 2015-16</p> <p>Uptake of HPV vaccination amongst adolescent males and females was variable across the NBM region. Specifically:</p> <ul style="list-style-type: none"> • Penrith LGA (78% of female target group) and Blue Mountains LGA (76%), had significantly lower rates of HPV vaccination of females than NSW (83%). • Blue Mountains LGA (62%) and Hawkesbury LGA (65%) had significantly lower rates of HPV vaccination of males than NSW (70%). • Blue Mountains male immunisation rate was ranked in the lowest 12% among NSW LGAs. <p><i>Epidemiological Profile of Local Government Areas populations in NBMLHD 2017</i></p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		<i>Australian Institute of Health and Welfare, 2018 – MyHealthyCommunities: HPV immunisation rates in 2014-15</i>
Chronic Kidney Disease (CKD)		
Chronic kidney disease (CKD) prevalence	The prevalence of CKD in the NBM region is the lowest among 10 PHN regions in NSW.	PHN-level data indicates the prevalence of CKD was 9.2% among adults aged 18 years and older in 2011-12, with prevalence rising dramatically with age (NBM CKD prevalence was 12.7% among adults 55-74 years and 42.1% among persons 75+ years). This was the lowest population prevalence among 10 PHN regions in NSW, and lower than the NSW state average (10.6%). <i>Australian Institute of Health and Welfare, 2018 – Geographical variation in chronic kidney disease prevalence data tables (data obtained from the Australian Bureau of Statistics Australian Health Survey 2011-12)</i>
CKD Hospitalisations	Lower rate of hospitalisations due to or associated with CKD in the NBM region compared with national and NSW state rates.	There were 3,254 hospitalisations in the NBM region in 2014-15 that had a principal or associated diagnosis of CKD. The associated age-standardised rate (877.1 per 100,000 persons) was 0.72 times lower than the rate of CKD hospitalisations in Australia and 0.80 times lower than the rate for NSW. Similarly, hospitalisations in the NBM region that had a principal diagnosis of dialysis were 0.66 times lower than the Australian rate and 0.78 times lower than for NSW. <i>Australian Institute of Health and Welfare, 2018 – Geographical variation in chronic kidney disease hospitalisations and dialysis data tables</i>
CKD Deaths	Lower rate of deaths in the NBM region where CKD was the underlying or an associated cause compared with national rates.	There were 183 deaths in the NBM region in 2011-15, where CKD was the underlying or an associated cause. The associated age-standardised rate (52 per 100,000 persons) was 0.92 times lower than the rate of deaths associated with CKD in Australia for the same time period. <i>Australian Institute of Health and Welfare, 2018 – Geographical variation in chronic kidney disease death data tables</i>
Chronic Pain		

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		being prescribed for chronic non-cancer pain. Current evidence does not support the long term efficacy and safety of opioid therapy for chronic non-cancer pain
Diabetes		
Diabetes prevalence	Trend of increasing prevalence of diabetes in the NBM region with higher rates compared to the NSW average.	<p>The estimated prevalence of diabetes among persons aged 16 years and over increased overall in the NBM region from 7.6% in 2012 to 10.9% in 2017, and was higher than the NSW average (10.1% in 2017). The estimated prevalence of diabetes in NSW also increased during this timeframe from 8.4% in 2012 to 10.1% in 2017.</p> <p><i>Health Statistics NSW online portal – diabetes prevalence in adults: NBMLHD and all NSW LHDs [Accessed 18 October 2018].</i></p> <p>It is likely the true population prevalence of diabetes in the NBM region is higher than the above estimates obtained via self-reported data from the NSW population health survey. The reason is that self-reported data is likely to underestimate diabetes prevalence. Analysis of measured diabetes data from 2011-12 has shown that for every 4 adults with diagnosed diabetes, there is 1 with undiagnosed diabetes.</p> <p><i>AIHW Australia’s Health 2018</i></p> <p>85% of people with diabetes had two or more chronic diseases. The reason for this is that people with diabetes tend to be older and the likelihood of having multiple chronic diseases increases with age. <i>AIHW Australia’s Health 2016</i></p>
	The prevalence of diabetes in Lithgow and Penrith local government areas (LGAs) is higher than the state average. Blue Mountains and Hawkesbury are below the state average.	<p>National Diabetes Services Scheme (NDSS) is a voluntary scheme that people with medical practitioner or nurse diagnosed diabetes can enroll in. NDSS coverage of the population with diagnosed diabetes is about 80-90%.</p> <p>Smaller area data indicates differences in prevalence of diabetes within the region. Registrations for NDSS shows that compared to the region average of 5.6%: Lithgow is highest at 6.5%,</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		<p>followed by Penrith at 6.3%. Blue Mountains 4.4% and Hawkesbury 4.7% LGAs report less than the total for the region. In comparison, registrations for diabetes in NSW are at 5.3% of the population.</p> <p><i>National Diabetes Service Scheme – Diabetes map by Nepean Blue Mountains PHN and LGAs as at 18 October 2018: https://www.ndss.com.au/diabetes-map</i></p>
<p>Impact of diabetes among Indigenous Australians</p>	<p>Higher prevalence of diabetes among Aboriginal and Torres Strait Islander people nationally</p> <p>Higher rate of potentially preventable hospitalisations for diabetes complications in Aboriginal compared to non-Aboriginal persons nationally</p>	<p>The impact of diabetes is known to be higher among Indigenous compared to non-Indigenous Australians. The prevalence of all types of diabetes among Aboriginal and Torres Strait Islander people is reported to be 3.5 times higher compared to non-Indigenous Australians. In NSW in 2017, the proportion of Aboriginal persons aged 16 years and over with diabetes or high blood glucose was 14.0% compared to 9.9% for Non-Aboriginal persons.</p> <p><i>AIHW Australia’s Health 2018 Health Statistics Online Portal – Diabetes or high blood glucose by Aboriginality, persons aged 16 years and over, NSW 2017 [Accessed 18 October 2018]</i></p> <p>In 2014-15, there were 43,737 potentially preventable hospitalisations for diabetes complications in Australia, equivalent to 173 hospitalisations per 100,000 persons. The rate of potentially preventable hospitalisations for diabetes complications in NSW was slightly lower at 141 per 100,000 persons. The rate for Aboriginal and Torres Strait Islander Australians (668 per 100,000 people) was 4.1 times as high as other Australians (163 per 100,000 people). Rates were higher among Aboriginal and Torres Strait Islander Australians than other Australians in all states and territories.</p> <p><i>Australian Atlas of Healthcare Variation 2017: Diabetes complications</i></p>
<p>Hospitalisations for diabetes complications</p>	<p>Highest rate of potentially preventable hospitalisations for</p>	<p>The number and rate of potentially preventable hospitalisations for diabetes complications across SA3 local areas within the NBM region varied across areas in 2015-16. The age and sex-</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

	diabetes complications in the suburb of St Marys within the NBM region, with higher rates compared to the national average.	<p>standardised rate of hospitalisations for diabetes complications per 100,000 persons in order from highest to lowest was: 202 in St Marys; 160 in Penrith; 157 in Richmond-Windsor; 138 in Lithgow-Mudgee, 133 in Hawkesbury; and 81 each in Blue Mountains and Rouse-Hill-McGraths Hill. In comparison, the age-standardised rate for potentially preventable hospitalisations for diabetes complications in Australia in 2015-16 was 183 per 100,000 persons.</p> <p><i>Australian Institute of Health and Welfare, My Healthy Communities – Potentially Preventable Hospitalisations in 2015-16</i></p>
General practice systems	Primary care reporting of diabetes for the NBM region is likely to be significantly underreported due to data quality issues.	<p>Assessment of diabetes registers for 66 general practices within the region that are participating in data quality improvement activities indicate that approximately 1.86% of patients with diabetes are not accounted for in participating practice diabetes registers.</p> <p>Analysis of PEN Clinical Audit Tool aggregated the de-identified data extracted from General Practices participating in data quality improvement (N=66 or 47% of all computerised general practices) indicates that the diabetes registers included 6.5% of all patients identified in the practice populations as diagnosed with diabetes. An additional 1.86% of patients within practice clinical software were indicated as having diabetes, due to the types of medications those patients were receiving but not appropriately coded and therefore captured on their diabetes register. Of the 1.86% of patients, 61.3% were likely to have diabetes while a further 38.7% were possibly diabetic.</p> <p><i>Nepean Blue Mountains PHN: Primary Health Care Support Program – Diabetes Prevention and Management data available via the PEN Clinical Audit Tool, March 2018</i></p>
Influenza And Pneumonia		
Influenza And Pneumonia prevalence	Highest rates of hospitalisations due to influenza and pneumonia for 0-4	The rate of hospitalisations due to influenza and pneumonia in the NBM region for infants and children 0-4 years (741.8 per 100,000 persons) was the highest among 10 PHN regions in NSW.

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

	<p>year olds among 10 PHN regions in NSW.</p> <p>Highest hospitalisation rate for persons of all ages compared to metropolitan regions in NSW</p> <p>Variation in anti-microbial prescribing rates for influenza and pneumonia across the NBM region.</p>	<p>For persons of all ages, hospitalisations due to influenza and pneumonia in the NBM region (366.2 per 100,000 persons) were the highest among metropolitan regions in NSW, but were not significantly higher than the NSW average due to higher rates in regional PHNs. <i>Health Statistics NSW online portal: Influenza and pneumonia hospitalisations by PHN, 2015-16 [Accessed 23 October 2018]</i></p> <p>Recommendations arising from the Australian Atlas of Healthcare Variation (2015) relevant to Influenza and pneumonia are those concerning the prescribing rates of antimicrobials. Overall, Australia has very high overall rates of community antimicrobial use compared with some countries. In 2013–14, more than 30 million prescriptions for antimicrobials were dispensed. It is suggested that many of these were unnecessary because antimicrobials are frequently used to treat infections for which they provide little or no benefit. The rate of total antimicrobial dispensing was over 11 times more in the area with the highest rate compared to the area with the lowest rate. High community use of antimicrobials increases the risk that bacteria will become resistant to these medicines and they will cease to be effective against serious life-threatening conditions.</p> <p>Preliminary analysis of rates reported for the NBM region indicate considerable variation across SA3 locations. High prescribing rates were reported for Penrith, St Mary’s in relation to antimicrobials, amoxicillin and amoxicillin-clavulanate. Richmond-Windsor and parts of Hawkesbury also had high prescribing rates for antimicrobials. The highest age standardised rates for antimicrobials only, per 100,000 population, were St Mary’s at 168,152, followed by Penrith at 156,536. The lowest rates were Blue Mountains at 119,393 and Lithgow-Mudgee at 115,820. <i>Australian Atlas of Healthcare Variation, November 2015.</i></p>
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Obesity and Overweight

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

<p>Obesity and Overweight prevalence</p>	<p>64% of adults in the NBM region were reported to be overweight (31.4%) or obese (32.6%) in 2017.</p>	<p>In 2011, 7% of the total disease burden in Australia was due to overweight and obesity. Excess weight, especially obesity, is a risk factor for some cancers, circulatory disease, Type 2 diabetes, back pain, asthma, chronic kidney disease, dementia, gallbladder disease, gout and osteoarthritis. As the level of excess weight increases, so does the risk of developing these conditions. In addition, being overweight can hamper the ability to control or manage chronic disorders.</p> <p><i>AIHW – Australia’s Health, 2018, (AIHW Cat. N. AUS 122 1020).</i></p> <p>High body mass is estimated in a population by the number of persons with a body mass index (BMI) greater than 25 kg/m², with the degree of risk increasing exponentially above this value.</p> <p>For NBM region:</p> <p>Overweight and obesity significantly contributes to the burden of disease experienced by NBM residents. In 2011, the burden of disease attributable to overweight and obesity in NBM was: cardiovascular diseases (38%), cancers (19.3%), musculoskeletal conditions (16.7%) and diabetes (17.2%).</p> <p>The percentage of adults aged 18 years and older reported to be overweight or obese in 2017 was 61.3% (31.4% overweight, 32.6% obese). This compares to a similar prevalence of overweight (32.5%) but a significantly higher rate of obesity (21.0%) compared with NSW. The rate of obesity in the NBM region in 2017 was the highest among 10 NSW Primary Health Network regions. In addition, the rate of obesity exceeded the rate of overweight in the NBM region in 2016 and 2017; the only PHN region in NSW to date where this has occurred. This emphasises the increase in severity, not only the prevalence of obesity in the NBM region.</p> <p>Figure 1 illustrates that the prevalence of obesity and the prevalence of overweight and obesity combined was highest in the NBMPHN region compared to other NSW Primary Health Networks in 2017.</p>
-------------------------------------------------	---------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

Rates of obesity and the prevalence of overweight and obesity combined in the NBM region are the highest among 10 PHN regions in NSW.

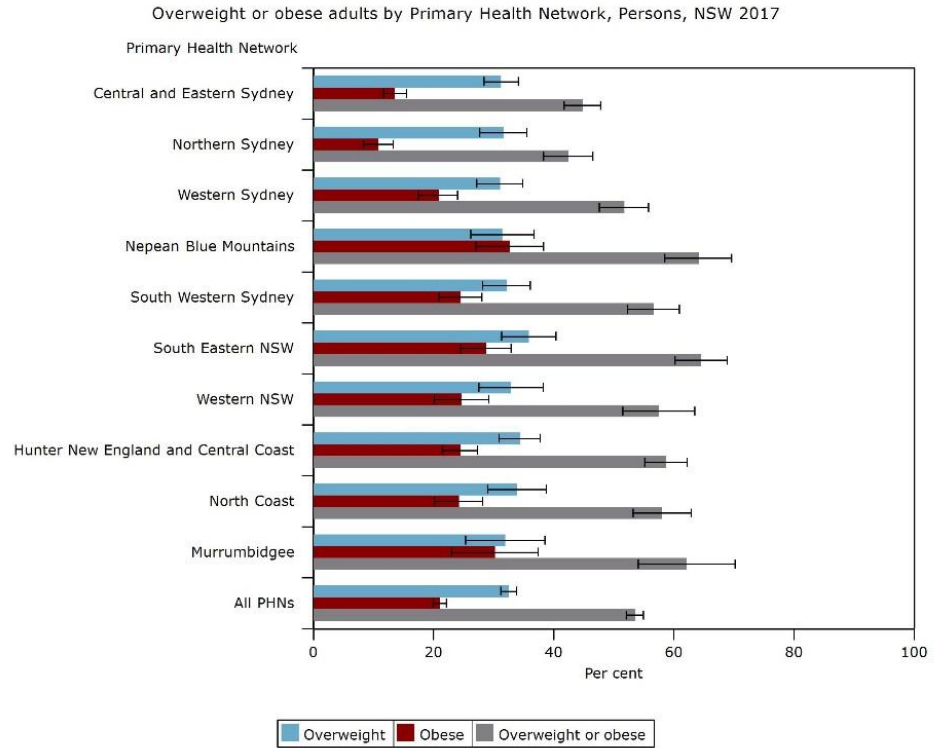
The rate of adult obesity exceeded overweight for the first time in the NBM region in 2016, indicating increasing severity of obesity

Figure 1: Overweight and obesity within Primary Health Network regions in NSW, 2017.

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

Higher levels of overweight and obesity (24.8%) among adolescents in the NBM region compared to the NSW average (20.6%).

Increasing rate of obesity prevalence in the NBM region, and at a faster rate than in NSW.



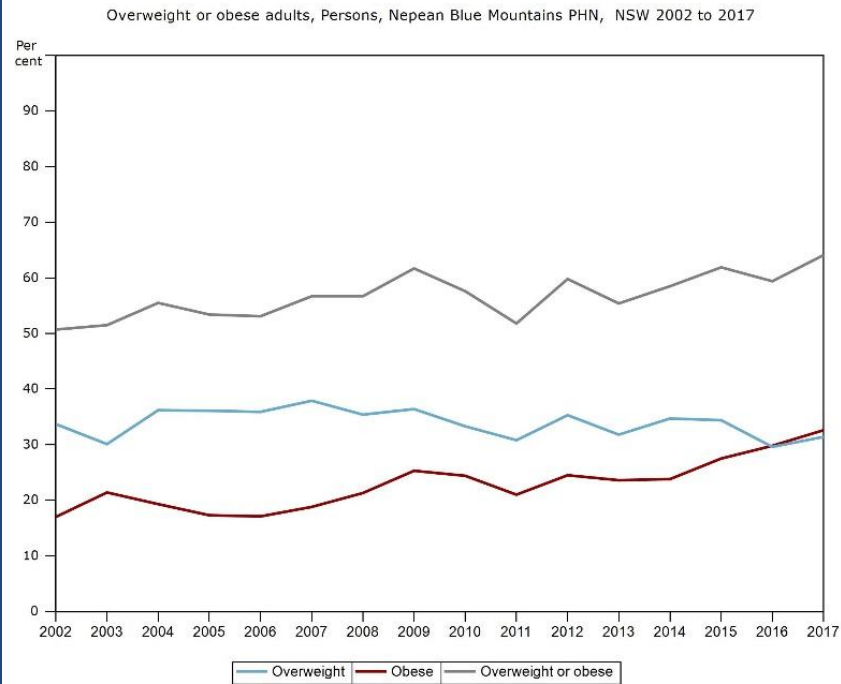
Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

Projected future increases in the prevalence of obesity and severe obesity in the NBM population among children and adults.

Regional variability in obesity rates in NBM, with the highest rates of obesity in Lithgow and Penrith.

Figure 2 illustrates that the prevalence of obesity exceeded the prevalence of overweight in the NBMPHN region for the first time in 2016 and continued this trend in 2017

Figure 2: Change in the prevalence of overweight and obesity in adults in the Nepean Blue Mountains PHN region, 2002 to 2017



The NBM region has one of the highest levels of overweight and obesity amongst adolescents in the state. In 2017, the prevalence of overweight and obesity among secondary school students in

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

	<p>High body mass contributed to 5.8% of NBM deaths.</p> <p>8 out of 10 adults have one or more risk factor for obesity in the NBM region.</p>	<p>Western Sydney and Nepean Blue Mountains Local Health Districts (LHDs) was 24.8%. This was higher than the state average (20.6%) and the third highest in NSW.</p> <p>Historical trends for the NBM region show a faster increase in obesity prevalence. Among NBM males aged 16 years and older, obesity increased from 16.6% in 2002 to 28.3% in 2016; an annual increase of 3.88% compared with the 2.77% average increase per year in NSW males. Among NBM females aged 16 years and older, obesity increased from 17.5% in 2002 to 31.2% in 2016; an average annual increase of 4.22% compared with the 2.7% average increase per year in NSW females.</p> <p>The prevalence of obesity and severe obesity in the NBM population is projected to increase. If obesity rates remain steady, in the NBM population by 2036 will include:</p> <ul style="list-style-type: none"> • 8.4% of children aged 2-15 years are projected to be obese • 42.5% of persons aged 16 years and older are projected to be obese • 2.5% of boys and 3.7% of girls aged 2-15 years are projected to be severely obese • 17.5% of persons aged 16 years and older are projected to be severely obese <p>There is some regional variability obesity rates in NBM. In 2014-15, the rate of obesity was significantly higher in the Penrith (32.8), Hawkesbury (30.5) and Lithgow (38.2) compared to NSW (28.2).</p> <p>High body mass contributed to 5.8% of NBM deaths in 2013. Deaths attributable to high body mass were not significantly different to death rates in NSW. Hawkesbury LGA had a significantly higher rate of hospitalisations attributable to high body mass in 2013/15 compared to NSW</p> <p>Males had higher proportions of overweight and obesity than females in every age group over 16 years for 2016. The prevalence of overweight and obesity increases in the NBM population with age until the 55-64 year age group.</p>
--	------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		<p>The prevalence of people with one or more risk factor for obesity is high in the NBM region. In 2014-15, 8 out of 10 people aged 18 years and older had one or more risk factors for obesity. Both males (80.6 per 100 population) and females (82.8) had significantly higher rates compared with NSW. The highest rates of risk factors were in the Penrith and Lithgow LGAs. Of these, Penrith had a significantly higher proportion of the population who were physically inactive, and who had an increased waist circumference (females) compared to NSW.</p> <p><i>Health Statistics NSW online portal: Overweight or obese adults by Primary Health Network, NSW 2017 [Accessed 18 October 2018]</i></p> <p><i>Health Statistics NSW online portal: Overweight or obese adults, Nepean Blue Mountains PHN, NSW, 2002 to 2017 [Accessed 18 October 2018]</i></p> <p><i>Health Statistics NSW online portal: Overweight and obesity in secondary school students aged 12-17 years, by Local Health District Group, NSW 2014 [Accessed 18 October 2018]</i></p> <p><i>NBMLHD Epidemiological Profile: Overweight and obesity in Nepean Blue Mountains Local Health District Population 2017.</i></p>
--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Orthopaedic related chronic conditions

<p>Hip and knee replacement procedures</p>	<p>Hip and knee replacement procedure hospitalisation rates of NBMLHD males and females hospitalisations were significantly higher than NSW rates with NBMLHD females having the highest rate among the 15 NSW LHDs</p>	<p>Hip and knee replacement procedure hospitalisation rates of NBMLHD males and females in 2013/14 (353.9 and 470.7 hospitalisations per 100,000 population) were significantly higher than NSW males and females. NBMLHD females had the highest rate among the 15 NSW LHDs.</p> <p><i>Epidemiological Profile of Local Government Areas populations in NBMLHD 2017</i></p>
---------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Potentially Preventable Hospitalisations (PPH)

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

<p>PPH Prevalence</p>	<p>Highest rates of potentially preventable hospitalisations in the NBM region in 2015-16 were due to: Chronic obstructive pulmonary disease, Kidney and urinary tract infections, Acute dental conditions, Acute cellulitis and Congestive heart failure</p> <p>PPH due to COPD in the NBM region was the highest among 10 metropolitan PHN regions in NSW.</p> <p>Highest PPH rates due to COPD in the NBM region are in the Hawkesbury and Richmond-Windsor SA3 locations, with highest hospital average length of stay in Hawkesbury.</p> <p>Highest PPH rates in the NBM region among 10 metropolitan PHNs in NSW for the following conditions:</p> <ul style="list-style-type: none"> • COPD • Kidney and urinary tract infections • Acute dental conditions • Congestive heart failure 	<p>Analysis of 2015-16 data indicates the overall NBM region has relatively low rates of total Potentially Preventable Hospitalisations (PPH) (2,452 per 100,000) compared to other Australian PHNs (2,822 per 100,000). COPD is one possible exception to this, based on preliminary analysis.</p> <p>The top five PPHs in 2015-16 for the NBM region were: Chronic obstructive pulmonary disease (1,197 hospitalisations), Kidney and urinary tract infections (1,036 hospitalisations), Acute dental conditions (1,033 hospitalisations), Acute cellulitis (903 hospitalisations), and Congestive heart failure (774 hospitalisations).</p> <p><i>AIHW – MyHealthyCommunities: Potentially preventable hospitalisations by PHN area, 2015-16</i></p> <p>PPH due to COPD in the NBM region was the highest among 10 metropolitan PHN regions in NSW, at a rate of 308 per 100,000. Analysis of PPH rates due to COPD by SA3 location highlight variation across the region. Highest PPH rates were in Hawkesbury (467), Richmond-Windsor (433) and St Marys (402) per 100,000. In addition, average length of stay in hospital due to COPD was significantly higher in the Hawkesbury region, with an average length of stay at 7.8 days. This compares to lower average length of stay in Penrith (6.2 days), St Marys (5.2 days), Blue Mountains (5.0 days) and Lithgow-Mudgee (4.8 days).</p> <p><i>AIHW – MyHealthyCommunities: Potentially preventable hospitalisations by PHN area, 2015-16 (http://www.myhealthycommunities.gov.au/interactive/potentially-preventable-hospitalisations)</i></p> <p>Analysis of 2015-16 data also indicates that PPH rates in the NBM region for 4 of its top 5 PPH conditions were the highest compared with 10 metropolitan PHN regions in NSW. These included:</p> <ul style="list-style-type: none"> • COPD – 308 per 100,000 • Kidney and urinary tract infections – 282 per 100,000 • Acute dental conditions – 284 per 100,000 • Congestive heart failure – 206 per 100,000
------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		<p>Data indicates that older persons and other vulnerable groups including CALD and Aboriginal populations may be over represented among PPH. There are also indications that chronic disease and increased use of medications are predictors for PPH.</p> <p><i>National Health Performance Authority, Potentially Preventable Hospitalisations by condition, NBM PHN, 2014-15.</i></p> <p>In Australia, the PPH rate due to COPD for Aboriginal and Torres Strait Islander Australians (1,146 per 100,000 people) was 5 times as high as the rate for other Australians (230 per 100,000 people). Rates were higher among Aboriginal and Torres Strait Islander Australians than other Australians in all states and territories.</p> <p><i>Australian Atlas of Healthcare Variation 2017: Chapter 1.1 Potentially preventable hospitalisations, COPD</i></p>
<p>Respiratory disease</p>		
<p>Respiratory disease deaths</p>	<p>Respiratory disease was the fourth leading cause of death in the NBM population in 2016. High rate of respiratory disease deaths in the NBM region compared to NSW.</p> <p>Respiratory disease hospitalisations for NBM females are the highest among 10 metropolitan PHNs in NSW.</p>	<p>There were 268 deaths due to respiratory disease, placing respiratory disease as the fourth leading cause of death in the NBM region in 2016. The population rate of respiratory disease deaths in NBM region (70.2 per 100,000 persons) was higher than in NSW (49.1 per 100,000 persons).</p> <p><i>Health Statistics NSW online portal: Respiratory disease deaths by Primary Health Network, disease type: total, NSW 2014-2016 [Accessed 18 October 2018]</i></p> <p>In 2016-17, respiratory disease accounted for 5.6% of hospitalisations and an average of 7,378 hospitalisations per year. Male respiratory hospitalisations were higher than the female rate at 1,899 compared to 1,811 per 100,000. While male hospitalisations for NBM were slightly lower than the NSW state average (1,899 vs. 1,910 per 100,000 persons), female hospitalisations rates for NBM were the highest among the NSW metropolitan PHN regions and higher than the NSW state average (1,811 vs 1,686 per 100,000 persons).</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		<p><i>Health Statistics NSW online portal: Total respiratory hospitalisations by Primary Health Network, NSW 2016-17 [Accessed 18 October 2018]</i></p>
Asthma prevalence	<p>Higher prevalence of asthma compared to the NSW state average and highest prevalence among metropolitan health regions for both children and adults.</p> <p>Similar rates of asthma hospitalisations for persons of all ages in the NBM region over the previous 5-years (2011-12 to 2016-17)</p>	<p>Asthma is a common chronic inflammatory disease of the airways and thought to be caused by a combination of genetic and environmental factors. Asthma is a significant health problem in Australia with one of the highest rates of prevalence in the world. In 2014/15 asthma was one of the most common chronic health conditions among children, affecting 479,000 children aged 0-14 (11%). <i>AIHW Australia's Health 2016</i></p> <p>For the 2-15 year old group in 2015-16, prevalence of current asthma in the NBM region (12.8% of the population age group) was the highest among the NSW metropolitan PHN regions and higher than the NSW state average (12.2%). For people 16 years and over, the prevalence of current asthma was 12.5% in 2017 and similarly highest among the NSW metropolitan PHN regions and higher than the NSW state average (10.9%).</p> <p><i>Health Statistics NSW online portal: Asthma status by Primary Health Network, children aged 2-15 years, NSW 2015-16 [Accessed 18 October, 2018]</i></p> <p><i>Health Statistics NSW online portal: Current asthma by Primary Health Network, persons aged 16 years and over, NSW 2017 [Accessed 18 October, 2018]</i></p> <p>The NBM rate of hospitalisations due to asthma for all ages remained similar between 2011-12 and 2016-17, being 197.5 in 2011-12 and 192.0 in 2016-17 per 100,000 population respectively.</p> <p><i>Health Statistics NSW online portal: Asthma hospitalisations, NBMPHN 2001-02 to 2016-17 [Accessed 22 October 2018]</i></p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

<p>Potentially preventable hospitalisations for COPD</p>	<p>COPD is the leading cause of potentially preventable hospitalisations in the NBM region.</p>	<p>COPD was the leading cause of potentially preventable hospitalisations in the NBM region in 2015/16. Persons hospitalised due to COPD had a 6.0 day average length of stay in 2015/16.</p> <p><i>AIHW – MyHealthyCommunities: Potentially preventable hospitalisations by PHN area, 2015-16 (http://www.myhealthycommunities.gov.au/interactive/potentially-preventable-hospitalisations)</i></p>
<p>COPD prevalence</p>	<p>Some people with COPD in the NBM region may not be diagnosed or adequately managed for their condition in primary care.</p>	<p>National data indicates the prevalence of COPD is approximately 5.2% among adults aged 45 years and older, with prevalence rising with age.</p> <p>Local data from 13 NBM general practices participating in a local PHN led COPD ‘Collaborative’ indicates that of the total population of 34,689 patients; of these approximately 4.5% of patients aged 35 years and older had a coded diagnosis of COPD within the patient’s electronic medical record. This compares to 3.3% of patients from 51 NBM general practices (participating in the QI Data Quality program) and 460,974 patients, not participating in the local COPD ‘Collaborative’ with a coded diagnosis of COPD within their medical record. This suggests there may be some patients within these general practices who do not have a coded diagnosis of COPD who may not be receiving targeted care for their condition.</p> <p><i>Australian Institute of Health and Welfare, 2018. Web report COPD snapshot [Online], Accessed 9th March, 2018</i></p> <p><i>Local general practice data available to the Nepean Blue Mountains Primary Health Network via the PEN Clinical Audit Tool, January 2018</i></p>
<p>Hospitalisations due to respiratory disease</p>	<p>Highest rates of hospitalisations due to respiratory disease (COPD, influenza and pneumonia, and asthma) in the Lithgow LGA, with</p>	<p>LGAs in the NBM region which had higher rates of hospitalisations per 100,000 population due to respiratory disease compared to the NSW state average in 2015-17, by disease type included:</p> <ul style="list-style-type: none"> • Chronic and Obstructive Pulmonary Disease: Lithgow (386), Hawkesbury (301) and Penrith (296 per 100,000 persons) • Influenza and pneumonia: Lithgow (444), Penrith (381) and Hawkesbury (353 per 100,000 persons)

Outcomes of the health needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

	higher rates for most NBM LGAs compared to the NSW state average.	<ul style="list-style-type: none">• Asthma: Lithgow (229), Penrith (214) and Blue Mountains (187 per 100,000 persons) <p><i>Health Statistics NSW online portal: Chronic obstructive pulmonary disease; influenza and pneumonia; and asthma hospitalisations by LGA, 2001-03 to 2015-17 [Accessed 22 October 2018]</i></p>
--	-------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

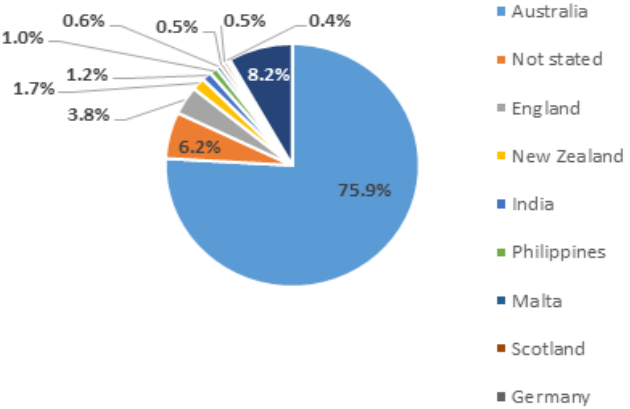
CULTURAL AND DEMOGRAPHIC FACTORS INFLUENCING HEALTH STATUS

Outcomes of the health needs analysis – General Population Health, Priority Theme 4: <i>Cultural and Demographic Factors Influencing Health Status</i>		
Identified Need	Key Issue	Description of Evidence
CALD communities		
CALD Population	<p>In 2016, 24.2% of the NBM population were born overseas and 11.9% spoke a language other than English at home.</p> <p>The highest number and proportion (16.4%) of NBM residents who speak a language other than English at home live in the Penrith LGA.</p> <p>In 2016, 1.3% of the NBMPHN population reported they spoke a language other than English at home and rated their English proficiency as 'not well' or 'not at all', impacting on poorer access to services.</p>	<p>In 2016, 24.2% of NBMPHN residents were born overseas. The eight top countries of origin for predominantly non-English speaking countries were: India, Philippines, Malta, Germany, China, Italy, Fiji and Netherlands.</p> <p>A total of 43,647 people (11.9% of the NBM population) reported speaking a language other than English at home in the 2016 Census. Penrith LGA has the largest population at 33,084 (16.4% of the Penrith LGA population), followed by the Blue Mountains LGA of 4,707 residents (6.0% of the Blue Mountains LGA population), Hawkesbury LGA with 3,857 residents (5.8% of the Hawkesbury LGA population) and Lithgow with 727 residents (3.4% of the Lithgow LGA population) who reported speaking a language other than English.</p> <p>Of the NBM residents who spoke a language other than English at home, English proficiency for 4,746 people or 10.9% (1.3% of the NBMPHN population) was rated as 'not well' or 'not at all'. The main languages spoken by this group were Mandarin (451 people), Arabic (377 people), Cantonese (342 people), Greek (198 people), and Punjabi (196 people). According to the ABS, impacts of a person's "Lack of Proficiency in spoken English" may include poorer access to: employment, education, government and non-government services.</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 4: *Cultural and Demographic Factors Influencing Health Status*

Underestimate of local CALD populations from the 2016 Census

Figure 3: Country of birth for persons residing in the NBMPHN region in 2016



Australian Bureau of Statistics, 2016 Census Community Profiles for the Local Government Areas of Penrith, Blue Mountains, Hawkesbury and Lithgow [Accessed February 2018]

.id Community Profile – Nepean Blue Mountains Primary Health Network [Accessed 24 October, 2018]. Available at: <https://profile.id.com.au/nbmphn>

Australian Bureau of Statistics, 2016. Language standards: Proficiency in Spoken English. Cat no. 1200.0.55.005, [Online]. [Accessed February 2018]

Local stakeholder consultations indicate that the change in implementation method (from paper-based to online) for the 2016 Census has had an impact upon significantly underestimating the number of persons from CALD communities in the NBM region. Local migrant support services in NBM report that significantly higher numbers of people from CALD backgrounds and with low English literacy levels sought assistance with completing the paper based Census in previous Census years compared to 2016.

NBMLHD Multicultural Health Services Unit, 2017

Outcomes of the health needs analysis – General Population Health, Priority Theme 4: *Cultural and Demographic Factors Influencing Health Status*

Diversity of high needs CALD communities

Challenges in meeting the health needs of diverse, high needs CALD communities

High diversity in the backgrounds of people intending to settle or who have recently settled in the NBM region

The refugee communities within the NBM are statistically small and diverse. There are significant challenges in meeting their health needs. Many are newly arrived refugee communities that have not yet established community structures due to their small numbers. There are new or no community elders and a lack of resources from within those communities. In general these small refugee communities lack familiar social landmarks, support structures and self-supporting mechanisms.

Previous DIAC data and local stakeholder consultations showed that the main backgrounds of people intending to settle in or who have recently settled in the NBM region are from South Sudan, Afghanistan, Syria and Tibet, and that these people have high and complex health needs. Backgrounds of other recently settled migrants include Sudan, Bhutan, Iraq, Iran, Uganda and Tanzania. Many have been away from their homeland for long periods with children born in their first country of refuge. Local settlement services indicated that approximately 45 Syrian refugee families have settled in the Penrith LGA since March 2016. Looking forward, a change in settlement providers and funding available has led to a reduction in recent intake. In 2018, the Sydney metropolitan area was expected to receive 3,350 refugees, however anecdotal evidence suggests far fewer numbers of people resettled in the NBM region. Specific data is currently not available for the actual number and background of migrants settling in the NBM region for 2018.

The Sudanese community was captured for the first time in the 2011 Census. A total of 276 persons from NBM region recorded their country of birth as Sudan. The majority of the South Sudanese community are under the age of 35 with over a third being under 11.

There is an emerging Bhutanese refugee community that was captured for the first time in the 2011 census. This community has grown in size to 2016. A total of 63 people recorded their country of birth as Bhutan. Many of these refugees lived for up to 20 years in a refugee camp in Nepal and have had children born there. There are 280 Nepal born residents in the NBM region and some of these would be children born to the Bhutanese refugees over that 20 year period. Estimates by the Bhutanese community leaders bring the figure to approximately 100 Bhutanese refugees who have recently settled in the NBM region.

Outcomes of the health needs analysis – General Population Health, Priority Theme 4: Cultural and Demographic Factors Influencing Health Status

		<p>Local stakeholder consultations indicate that other CALD groups moving to and settling in the NBM region include people from Nepal, Tibet, Iran and the Indian sub-continent. There has also been an increasing number of persons from India obtaining citizenship and moving into the NBM region.</p>
<p>Major issues impacting on the health of CALD communities</p>	<p>Low literacy levels, health literacy, gambling, alcohol and other drugs, obesity, chronic disease and access to health services including interpreters identified as major issues impacting on health</p>	<p>Local stakeholder consultations indicate that major issues increasingly impacting on the health of refugee communities in the NBM region, include:</p> <ul style="list-style-type: none"> • Low literacy levels and poor health literacy, with associated challenges in accessing timely and appropriate health services • Problem gambling and misuse of alcohol and other drugs • Increasing levels of obesity and chronic disease within local CALD communities • Access to interpreter and translation services. Local services report increases in the number of people who use AUSLAN, the second highest use of interpreters in the NBM region following Arabic. <p><i>NBMLHD Multicultural Health Services Unit, 2017</i></p>
<p>Iraqi and Syrian Refugees</p>	<p>Complex health issues including mental and physical health problems due to trauma and complex challenges with settlement, and poor engagement with local health services among Iraqi and Syrian refugees settling in the Penrith LGA.</p>	<p>Approximately 100-200 humanitarian refugees arrived in early 2016 and located in Penrith. A great proportion of these were expected to be children under 15 years of age.</p> <p><i>NBMLHD Multicultural Services Unit</i></p> <p>Focus group discussions with persons from Iraqi and Syrian refugee communities in the NBM region identified a number of significant gaps and challenges relating to their health and service needs upon settlement in the NBM region. Key findings from this research include:</p> <p>Common health needs:</p> <ul style="list-style-type: none"> • Mental health issues of sleeplessness, trauma, anxiety, depression and psychological issues • Physical health issues of high blood pressure, obesity and diabetes

Outcomes of the health needs analysis – General Population Health, Priority Theme 4: *Cultural and Demographic Factors Influencing Health Status*

		<p>Health seeking and literacy:</p> <ul style="list-style-type: none"> • Prioritisation of settlement into the new environment over health seeking • Poor awareness and understanding of general health and mental health issues and of the available health services • Social stigma around help seeking for mental health issues and help seeking not encouraged in the family or community <p>Service utilisation:</p> <ul style="list-style-type: none"> • Lack of trust in person’s General Practitioner to discuss mental health issues • Preference of having a doctor of the same sex and similar background • Lack of trust and or familiarity in the health system <p>Settlement and mental health:</p> <ul style="list-style-type: none"> • Settlement challenges and experiences linked to depression, loneliness, isolation and anxiety • Difficulties in finding employment linked to feelings of a lack of purpose and uncertainty which affects wellbeing <p>Experiences with health services:</p> <ul style="list-style-type: none"> • Long waiting times when seeking government health services and poor quality of attention and care except in an emergency • Preference not to see a General Practitioner due to the frequent experience of being referred to a specialist doctor and associated lack of affordability • Feeling that General Practitioners do not allow adequate time to discuss their problems and issues • Poor quality of service such as a lack of follow-up from General Practitioners • Expense and lack of affordability for dental and specialist services is a frequent barrier to accessing health care • Lack of availability or poor access to interpreter services with General Practitioner compared to hospital consultations
--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – General Population Health, Priority Theme 4: Cultural and Demographic Factors Influencing Health Status

		<p><i>Wentworth Healthcare Limited 2016 - Addressing the needs of Syrian and Iraqi refugees in the Nepean Blue Mountains region: a formative assessment of health and community services needs</i></p>
Obesity among refugee children	High prevalence of overweight and obesity among Refugee children	<p>Anecdotal evidence from local consultations indicates that approximately 40% of refugee children accessing the local Refugee Health Clinic primary school program are overweight or obese. These children do not meet referral eligibility criteria for the new family obesity clinic located at Nepean Hospital and are reportedly unable to access referral to specialised assessment and treatment.</p> <p><i>NBMLHD Multicultural Health Services Unit, October 2017</i></p>
Samoa Community	High prevalence of chronic disease with high number of presentations to Emergency Department among Samoan community.	<p>Analysis of hospital admissions, readmissions and chronic disease admissions during 2013-14 for people of Samoan background was undertaken by the NBMLHD Multicultural Health Service. The findings were that the Samoan speaking community was over-represented in health service utilisation compared to the size of the population. There were relatively high levels of hospital admissions related to diabetes and renal dialysis. Other problems identified were late presentations for maternal services.</p> <p>At the time of study there were 448 Samoan born people residing in the Penrith LGA and 830 people who spoke Samoan at home. There were 1,188 people who identified as having Samoan ancestry.</p> <p>The life expectancy for people with a Samoan ancestry is 72.4 years compared to 81.7 years for all Australians. Queensland Health has reported that Samoan born people have a mortality rate 1.5 times higher for total deaths, compared to the general population. Their hospitalisation rates were between two and seven times higher than the general Queensland population.</p> <p>There is limited research data available concerning the health of Samoan Australians; however indications are that Samoan born people have high rates of overweight, obesity, Type 2 diabetes and hypertension.</p> <p>The known values and behavioural norms of the Samoan community are:</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 4: *Cultural and Demographic Factors Influencing Health Status*

		<ul style="list-style-type: none"> - Family focus with communal relationships and the church - Highly structured society that emphasises obedience - Formal patriarchal structure - Emphasis on kinship, interdependence and loyalty - The church minister is highly respected and the church has considerable influence on the community. <p>Local research indicates that the health issues affecting Samoan communities are:</p> <ul style="list-style-type: none"> - Diabetes, obesity and cardiovascular disease - Disengagement from health services - Unhealthy diet and poor nutrition - Late presentation to health care often in crisis - Poor compliance with health related directives. <p>Social and psychological problems and issues identified through local research are:</p> <ul style="list-style-type: none"> - Child abuse, domestic and family violence - Mental health disorders - Socioeconomic disadvantage - Teenage pregnancy and substance abuse - High suicide rate among youth and young adults - Poor health literacy. <p><i>NBMLHD Multicultural Health Services Unit, November 2016</i></p>
Mental Health	Access to CALD youth	<p>Preliminary and ongoing investigations undertaken by the NBMLHD Multicultural Services Unit indicate that CALD youth typically do not access mental health services. The usual approach in certain CALD communities is to take care of mental health problems within the family environment. CALD youth that do seek mental health services are reported to frequently travel outside of the NBM region in order to access bi-lingual mental health services.</p> <p><i>NBMLHD Multicultural Health Services Unit, October 2017</i></p>
Other cultural and demographic factors		

Outcomes of the health needs analysis – General Population Health, Priority Theme 4: Cultural and Demographic Factors Influencing Health Status

<p>Domestic Violence</p>	<p>Higher incidence rate of domestic violence in Penrith LGA compared to the NSW state average.</p>	<p>Penrith reported the highest number (1,171) and rate (581.4 per 100,000 person) of domestic violence related assaults compared to other LGAs in the NBM region in the 12 months to June 2018. This was higher than the average rate of domestic violence related assaults in NSW (370 per 100,000 persons) <i>NSW Bureau of Crime Statistics quarterly update. June 2017</i></p> <p>Domestic violence related assaults per 100,000 population for each LGAs and rankings for the period July 2017 to June 2018 follow. Note that higher ranking indicates comparatively lower numbers of assaults:</p> <ul style="list-style-type: none"> - Blue Mountains 284.6 assaults and NSW rank 75/140 - Hawkesbury 406.7 assaults and NSW rank 62/140 - Lithgow 394.9 assaults and NSW rank 46/140 - Penrith 581.4 assaults and NSW rank 28/140 <p><i>NSW Government Bureau of Crime Statistics and Research datasets: Crime trends for major offences by LGA, Crime ranking dataset [Online]. Available at: https://www.boscar.nsw.gov.au/Pages/boscar_datasets/Datasets-.aspx [Accessed 26 October 2018]</i></p>
<p>Social Disadvantage & Equity</p>	<p>Wide disparities in levels of advantage and disadvantage in the Penrith LGA, with St Marys experiencing the highest levels of disadvantage.</p> <p>Some small pockets of high disadvantage in the Blue Mountains LGA, in particular in Katoomba.</p> <p>Some pockets of extreme disadvantage in the Hawkesbury LGA, in particular in South Windsor.</p>	<p>Socio-economic indicators are an important in understanding the health of a population. Social determinants of health are the economic and social conditions under which people live. These are generally viewed as:</p> <ul style="list-style-type: none"> - Individual and household income - Income distribution in the society - Employment and working conditions - Education and literacy, including health literacy - Housing, health and social services, including early childhood development support - Social cohesion. <p>These conditions represent the resources that a society makes available to its members to support and equip them for social wellbeing and a healthy life.</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 4: *Cultural and Demographic Factors Influencing Health Status*

	<p>Widespread higher levels of disadvantage and economic resources across the Lithgow LGA, with pockets of extreme disadvantage including: Bowenfels, Morts Estate, Oaky Park, Hermitage Flat, Vale of Clwydd.</p>	<p>Socioeconomically disadvantaged groups experience more ill health, and are more likely to engage in risky health behaviours. These inequalities are regarded as preventable and bring with them a high direct and indirect impact on the health system. In general the lower the individual’s socioeconomic position, the worse their health is likely to be.</p> <p>The ABS SEIFA Index of Relative Socio-Economic Disadvantage (IRSD) is a suite of four indexes created from social and economic Census information. The four indexes are derived from attributes that reflect disadvantage such as low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations. A higher score on the index means a <i>lower</i> level of disadvantage. A lower score on the index means a <i>higher</i> level of disadvantage.</p> <p>Penrith LGA: 2016 SEIFA IRSD data indicates a score of 999 and overall rank in the 7th decile in Australia. Penrith LGA scored lowest on the Index of Education and Occupation (5th decile), indicating that overall residents had low levels of education and employment in professional occupations. There are wide disparities with SEIFA scores across postcode areas ranging from extremely high levels of disadvantage (444, 2nd decile) to very low levels of disadvantage (1066, 9th decile).</p> <p>The most disadvantaged areas for Penrith in the 2nd decile were: Claremont Meadows, Colyton, North St Marys, Oxley Park, St Clair and St Marys. St Marys experienced the lowest SEIFA scores. Glenmore Park reported the highest SEIFA score.</p> <p>Blue Mountains LGA: 2016 SEIFA IRSD data indicates a score of 1,045 and overall rank in the 9th decile in Australia indicating low levels of disadvantage and high levels of economic resources, education and employment in professional occupations. There are however pockets of disadvantage, at times extreme, in some small areas together with low levels of education and low levels of employment in professional jobs.</p> <p>Katoomba reported the lowest SEIFA score (957) showing disadvantage in the 5th decile. The highest SEIFA scores were in Glenbrook and Mount Review at 1,104.</p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – General Population Health, Priority Theme 4: Cultural and Demographic Factors Influencing Health Status

		<p>Hawkesbury LGA: 2016 SEIFA IRSD data indicates a score of 1,028 and overall rank in the 9th decile in Australia, indicating lower levels of disadvantage and higher levels of economic resources. However, the SEIFA for Education and Occupation was in the 7th decile indicating average levels of education and professional jobs compared to other NSW LGAs.</p> <p>The lowest SEIFA scores with pockets of population in the 1st decile was South Windsor (926). The highest SEIFA score of 1,103 was for Windsor Downs.</p> <p>Lithgow LGA: 2016 SEIFA IRSD data indicates a score of 923 and overall rank in the 2nd decile in Australia. This indicates much more widespread higher levels of disadvantage along with lower levels of economic resources, education and professional jobs, compared with other NSW LGAs. Against pockets of extreme disadvantage in Lithgow, there were also small pockets of relative advantage; however the majority of the Lithgow population showed relative disadvantage and some extreme disadvantage.</p> <p>Suburbs with the lowest SEIFA score and populations within the 1st decile were Bowenfels, Morts Estate, Oaky Park, Hermitage Flat, Vale of Clwydd.</p> <p><i>Australian Bureau of Statistics 2018 – Socio-Economic Indexes for Australia (SEIFA), 2016. Cat no. 2033.0.55.001</i> <i>.id Community Profile – Nepean Blue Mountains Primary Health Network [Accessed 24 October, 2018]. Available at: https://profile.id.com.au/nbmphn</i></p> <p>Dropping Off the Edge (DOTE) 2015 Report: developed indicators to identify persistent communal disadvantage in Australia. These indicators analysed data from a range of variables including internet access; housing stress; disability support; long-term unemployment; rent assistance; education levels; child maltreatment; criminal convictions; domestic violence; prison and psychiatric admission. One important difference between SEIFA and DOTE classifications is the range. SEIFA has 10 categories and DOTE has 4. Another difference is in</p>
--	--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – General Population Health, Priority Theme 4: *Cultural and Demographic Factors Influencing Health Status*

		<p>the variables used to calculate scores. The DOTE variables include a wider range of social indicators.</p> <p>The top 40 suburbs reported in NSW as most disadvantaged did not include suburbs from the NBM region. Nearby suburbs that were included in this top 40 ranking were Mount Druitt and Cabramatta.</p> <p>Consistent with SEIFA scores, the DOTE mapping shows that Lithgow and Katoomba and outer suburbs of the Penrith LGA were among the most disadvantaged postcodes in NSW. <i>Jesuit Social Services: Dropping Off the Edge 2015.</i></p>
--	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

END OF LIFE CARE

Outcomes of the health needs analysis – General Population Health, Priority Theme 5: <i>End of Life Care</i>		
Identified Need	Key Issue	Description of Evidence
End of Life Care	Increase in projected need for end of life care in the NBM region	<p>The population in Nepean Blue Mountains region was just over 378,000 in 2016 and is estimated to grow to 441,000 by 2031. Of significance is the population under the age of 65 is expected to grow by under 2% over the next 15 years, while the population growth of those over 85 is expected to grow by over 12%.</p> <p>Deaths per year in the NBM region is expected to increase from 1,900 in 2015 to 1,969 by 2030. Estimates of the need for end of life care (EoLC), based upon modelling of mortality data and underlying cause of death codes (ICD10 codes) predicts that the number of individuals in the NBM region needing EoLC will increase from 1,370 in 2015 to 1,420 in 2030.</p> <p><i>Caring for People in Their Last Year of Life – Report for Wentworth Healthcare Limited by Synergia, November 2017</i></p>

OLDER PERSONS

Outcomes of the health needs analysis – General Population Health, Priority Theme 6: <i>Older Persons</i>		
Identified Need	Key Issue	Description of Evidence
Ageing Population	<p>The region's population is projected to increase by 24% (90,800 persons) by 2036.</p> <p>Increasing projected proportion of the population aged 65 years and older (20.7% by 2036) will significantly impact upon demand for primary care services in the NBM region.</p> <p>Highest rate of population growth (greater than the NSW state average) is projected for the Penrith LGA to 2036.</p>	<p>The NBM region population is increasing. The region's population is projected to increase by 24% between 2016 and 2036. This represents an additional 90,800 persons by 2036 and total population of 466,700 persons. This growth rate is slightly lower compared to the NSW state average, of 28% by 2036.</p> <p>The NBM region population is also ageing. In 2016, 14.1% of the NBM population was aged 65 years and older. The proportion of the NBM population aged 65 years and older is projected to increase to 18.5% by 2026 and 20.7% by 2036.</p> <p>Additionally, the most rapid increases in the population are projected for the 75-84 and 85+ year age groups. From 2016-2036, the 85+ year age group will experience the highest growth of 233% (5,600 to 16,300 persons) followed by the 75-84 years age group of 195% (14,660 to 35,470 persons).</p> <p><i>NSW Government Planning & Environment. 2016 New South Wales State and Local Government Area Population Projections. Available at: http://www.planning.nsw.gov.au/Research-and-Demography/Demography/Population-projections. [Accessed February 2018].</i></p> <p>The projected rate of population growth is variable between LGAs and between age groups in the NBM region. Penrith LGA is projected to have the highest rate of growth from 2011 to 2036 at 46.7% (higher than the NSW state average at 37.5%, followed by Hawkesbury LGA (32.2%) and Blue Mountains LGA (15.1%). Lithgow LGAs population is projected to decline by -2.0% to 2036.</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 6: *Older Persons*

		<p><i>NSW Government Planning & Environment. 2016 New South Wales State and Local Government Area Population Projections. Available at: http://www.planning.nsw.gov.au/Research-and-Demography/Demography/Population-projections. [Accessed February 2018].</i></p>
Prevalence of chronic conditions	High prevalence of chronic conditions and multi-morbidity among older persons at general practice encounters.	<p>Nearly all patients aged 65+ at a GP consultation had one or more diagnosed chronic condition. In the Australian population, 90% of this older group had a least one chronic condition, the majority (57%) had three or more (multi-morbidity), more than one-quarter (26.1%) had five or more chronic conditions (multi-morbidity) and almost one-tenth (9.4%) had seven or more diagnosed chronic conditions. For example, among general practice patients aged 65+ years diagnosed with type 2 diabetes in 2014-15, 83.8% have two or more other diagnosed chronic conditions.</p> <p><i>BEACH, University of Sydney, Care of Older People in Australian General Practice 2014-15. http://sydney.edu.au/medicine/fmrc/publications/BEACH-feature-2015.pdf</i></p>
Coordination of Services	Increasing demand on available resources and pressure on General Practice to coordinate services for older persons.	<p>Resource use by people over 65 years shows substantial increases between 2001 and 2015 in general practice. Encounters increased from 22.8% to 27.8%. GP clinical time increased from 23.9% to 28.7%. Problems managed increased from 26.9% to 35.0%. Medications increased from 28.2% to 35.8%. Tests ordered increased from 24.9% to 30.8%. Referrals made increased from 24.2% to 32.3%.</p> <p><i>BEACH, University of Sydney, Care of Older People in Australian General Practice 2014-15. http://sydney.edu.au/medicine/fmrc/publications/BEACH-feature-2015.pdf</i></p>
Falls risk and injury	Falls are the leading cause of injury and hospitalisations amongst older persons.	<p>The prevention and support of injury and falls through ongoing monitoring of medications and mobility by general practice prevents hospitalisations. The review of home medicines to prevent accidental misuse of medications is a key factor in preventing hospitalisation.</p> <p><i>2015-2016 NBMML Needs Assessment</i></p> <p>Falls were the leading cause of injury and poisoning hospitalisations in 2014/15 in the NBMLHD population, comprising 38.2% of all injury and poisoning hospitalisations. Almost one in five</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 6: *Older Persons*

	<p>High number of Ambulance NSW calls due to falls, in particular for persons in older age groups</p>	<p>(18.4%) of people aged 65 years and over were reported to have at least one fall per year in 2015. In 2016/17, the hospitalisation rate in the NBM population for persons aged 65+ years (2,264 per 100,000 persons) where the fall was the principal diagnosis was similar to the NSW rate (2,493 per 100,000 persons).</p> <p><i>NBMLHD Epidemiological Profile: Injury and poisoning deaths and hospitalisations. 2014/15 Health Statistics NSW Online portal – Fall-related injury hospitalisations by Primary Health Network, Hospital stay, NSW 2016-17 [Accessed 24 October 2018].</i></p> <p>The most common problem to which Ambulance NSW paramedics were called in 2014 were falls, with 13-14% of calls to patients who have fallen. In 2014, 3,115 recorded (approximately only 75% of activity due to electronic medical records available) Ambulance NSW calls were due to falls in Western Sydney Zone 2 (Nepean Blue Mountains). Falls cases in NSW increased dramatically with age from the age 65-69 years. The highest proportion of Ambulance NSW falls cases were in the 85-89 year age group, in females (57.0% of falls patients) and the highest falls incidence rate was in the 95-99 and 100+ age groups.</p> <p><i>NSW Ambulance Falls Patients: Evaluation of 2014 Activity. Ambulance Service of NSW, 2016.</i></p>
<p>Dementia prevalence</p>	<p>Increasing prevalence of dementia in the NBM population, among older persons.</p> <p>High prevalence of dementia amongst Indigenous Australians</p>	<p>The prevalence of dementia in the NBM population is projected to increase from 1.0% in 2011 to 1.9% in 2031, with the highest prevalence in the Blue Mountains (2.3%) and Lithgow (3.0%) LGAs.</p> <p><i>NBMLHD Epidemiological Profile: Ageing population. 2017</i></p> <p>The prevalence of dementia amongst Indigenous Australians is almost five times the rate in the general Australian population. In addition, the Indigenous Australian population is beginning to age in a manner consistent with non-Indigenous populations in Australia. In line with these trends, it is expected that the prevalence of dementia among Indigenous persons, particularly older Indigenous persons is high in the NBM region.</p> <p><i>Ageing, Cognition and Dementia in Australian Aboriginal and Torres Strait Islander Peoples: A Life Cycle Approach, June 2010</i></p>
<p>Dementia mortality</p>	<p>Poor mortality rates among persons with dementia in the NBM region:</p>	<p>Between 2012 and 2016, there were 194 male and 422 female deaths due to Dementia and Alzheimer's disease in the NBMPHN population, accounting for 3.6% and 7.8% of deaths from all causes respectively. Dementia and Alzheimer's disease was the third leading cause of death</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 6: *Older Persons*

	<p>Dementia and Alzheimer’s disease was the third leading cause of death for all persons in the NBMPHN region between 2012 and 2016.</p>	<p>by international classification of disease (ICD-10) code for all persons in the NBMPHN region during this time period.</p> <p><i>Australian Institute of Health and Welfare – Mortality over Regions and Time books by PHN, 2012-2016. Available at: https://www.aihw.gov.au/reports/life-expectancy-death/mort-books/contents/mort-books</i></p>
<p>Awareness of and Access to Services</p>	<p>Inadequate awareness of available support and services for older persons among primary care providers.</p> <p>Accessing and navigating an electronic platform of aged care service provision is problematic for older persons in particular those aged 85 yrs and over</p> <p>Primary care providers including GPs report difficulties liaising with local ACAT teams regarding their older patients’ care</p>	<p>Access to services before crisis point and after hours support is impeded by lack of awareness of services amongst health professionals, carers and older people. Consumers have identified increasing social isolation as a major and increasing risk negatively impacting on older people.</p> <p>Feedback from primary care providers in the NBM region continue to indicate the My Aged Care platform remains a significant barrier for older persons to use and navigate due to internet, computer and health literacy barriers. My Aged Care forms are reportedly difficult to fully and accurately complete, even for well-educated persons, with family members frequently required to assist completion.</p> <p>Older persons particularly those 85 years and older frequently experience poor or limited access to and use of digital platforms that provide information, access to or assist navigation of health services.</p> <p>Primary care providers including General Practitioners have limited access to up to date and comprehensive information to support directing older persons to available support and services. Highly proactive General Practitioners working in aged care in the NBM region previously reported loss of their ability to directly liaise with and exchange information with ACAT teams regarding their older patients’ care, with the introduction of the My Aged Care portal. This issue has now been rectified, however many GPs who were disengaged due to loss of contact with their ACAT team have remained disengaged.</p> <p><i>NBMPHN Aged Care Stakeholder Forum 27/8/15</i> <i>Improving Services for People with Dementia Stakeholder Workshop, NBMPHN and Synergia, 09/08/18</i></p>
<p>Aged Care</p>	<p>Issue of premature placement of older persons into residential aged care</p>	<p>An emerging issue across NSW is the premature placement of older persons in residential aged care facilities (RACFs). This is occurring due to a lack of community based aged care places to</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 6: *Older Persons*

	<p>facilities and lack of appropriate aged based care services to support independent living at home</p>	<p>support people to remain living independently at home. The result is lengthy delays on waiting lists for home based service provision. This in turn leads to carer/ family stress and older people are being prematurely placed into RACFs. <i>Meetings of the Aged Care Liaison Group NSW, 2017</i></p>
<p>Home Care</p>	<p>Increasing support needs for older persons to be cared for at home.</p>	<p>Social isolation among older persons is an increasing problem. Care for the cognitively impaired among older people is inadequate to meet present and increasing needs for home based care. Support for independent living at home is inadequate to meet present and increasing needs in primary care services. Navigating the new My Aged Care portal, for consumers and GPs, to navigate care needs has been identified as problematic. <i>NBMPHN Aged Care Stakeholder Forum 27/8/15</i> <i>Improving Services for People with Dementia Stakeholder Workshop, NBMPHN and Synergia, 09/08/18</i></p>

Primary Mental Health Care (including Suicide Prevention)

SUICIDE PREVENTION

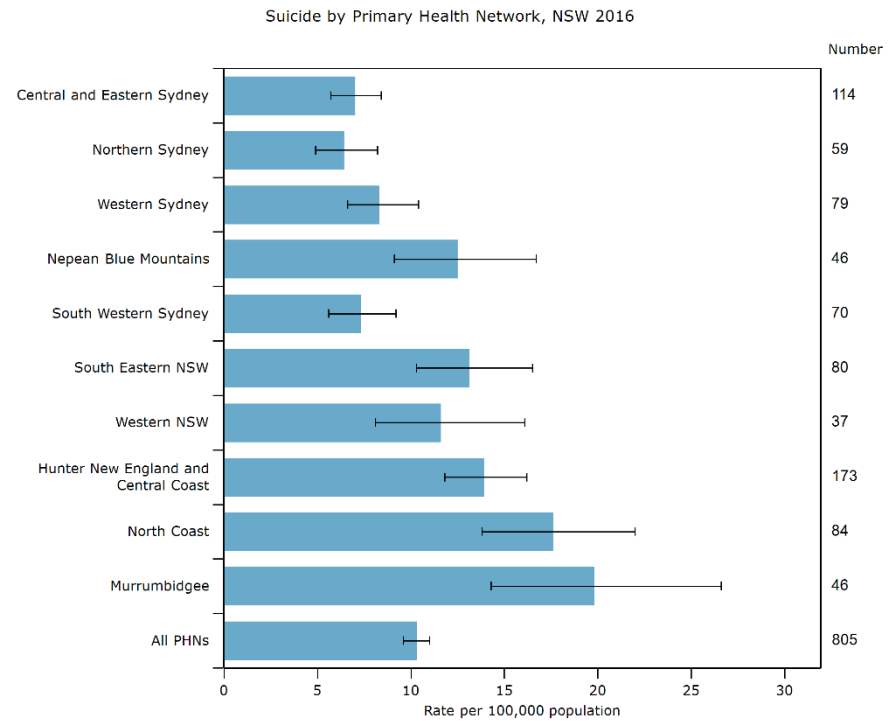
Outcomes of the health needs analysis – Primary Mental Health Care: <i>Suicide Prevention</i>		
Identified Need	Key Issue	Description of Evidence
Suicide Rates	Death by intentional self-harm has remained high in 2017 compared to the previous 10-year period.	<p>In 2017 3,128 people died from intentional self-harm (suicide) in Australia (all ages) which equates to 8.6 suicides per day. The preliminary standardised death rate for intentional self-harm in 2017 (12.6 deaths per 100,000 people) was comparable to recent years – 2016 (11.7), 2015 (12.6) and 2014 (12.1), and was equal to the highest rate recorded in the last 10 years.</p> <p>Overall suicide rates in NSW have increased over the 2008 to 2017 period from 8.8 to 10.9 standardised per 100,000 people (national rate 12.6).</p> <p>In 2017 suicide was the leading cause of death for people aged 15-44 and for people aged 45-54 it was the second leading cause. In 2017, suicide accounted for:</p> <ul style="list-style-type: none"> • More than one-fifth (21.0%) of deaths among children 5-17 years, • More than one-third (36%) of deaths among young people 15-24 years, • More than one-quarter (30.9%) of deaths among young people 25-34 years. <p>Nationally, the highest proportion of suicide deaths occurred in those aged 45-49 years for both males and females. . When expressed as an age-specific death rate, the highest rate of death due to intentional self-harm nationally occurred in males 85+ years.</p> <p><i>Australian Bureau of Statistics. (2017). Causes of Death, Australia, 2017. ABS Cat. No. 3303.0. Canberra, ACT: Australia</i></p> <p>State records indicate that There were 46 deaths from suicide in the Nepean Blue Mountains (NBM) region in 2016. This compares to 45 deaths from suicide in the NBM region in 2015.</p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

Death by intentional self-harm in the NBMPHN region is the highest among NSW metropolitan PHN regions.

In 2016, the suicide rate per 100,000 persons in the NBMPHN region (12.5) was the highest among metropolitan PHNs in NSW and higher than the state average (10.3).

Figure 4: Comparison of suicide deaths (rate per 100,000) among NSW PHNs, 2016



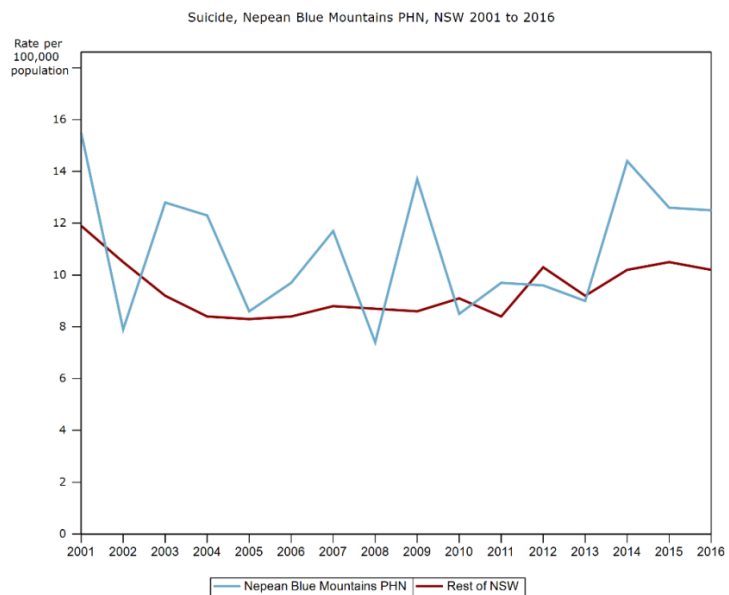
Health Statistics NSW online portal – Suicide by Primary Health Network, NSW 2016 [Accessed September 2018].

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

Deaths by intentional self-harm in the NBMPHN region are amongst the highest in the last 3 of 10 years.

Suicide rates per 100,000 in the NBM PHN region have been above the NSW average with some fluctuation between 2001 and 2016. Consistent with National and State trends, suicide rates in the NBMPHN region have been amongst the highest in the last 3 of 10 years, rising steeply in 2014 (14.3 per 100,000) and remaining high in 2015 (12.6 per 100,000) and 2016 (12.5 per 100,000).

Figure 5: Comparison in the long term trend in deaths by suicide within NBMPHN compared to NSW, 2001 to 2016



Health Statistics NSW online portal – Suicide by Primary Health Network, NSW 2016 [Accessed September 2018]

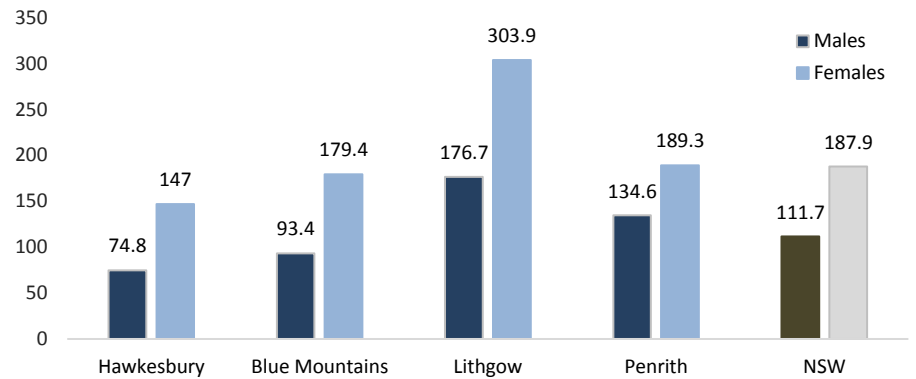
Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<p><i>Health Statistics NSW online portal – Suicide, Nepean Blue Mountains PHN, NSW 2001 to 2016 [Accessed September 2018].</i></p>
	<p>Growing economic cost of death by suicide</p>	<p>The associated economic loss in Australia from death by suicide is proportionally higher compared to those who die from ischemic heart disease. Death by suicide, where the median age is 43 years, results in significantly higher amounts of days (years) lost from the remaining lives of the affected persons.</p> <p><i>Australian Bureau of Statistics. (2016). Causes of Death, Australia, 2016. ABS Cat. No. 3303.0. Canberra, ACT: Australia</i></p>
<p>Males</p>	<p>3.1 times higher suicide rates for men than women.</p> <p>Suicide is the 8th leading cause of death for males within the NBMPHN region</p>	<p>Death from intentional self-harm is higher for males than females. In 2017 the standardised suicide rate for males was 19.1 deaths per 100,000 compared to 6.2 deaths per 100,000 for females. This is 3.1 times the age standardised rate for women.</p> <p><i>Australian Bureau of Statistics. (2017). Causes of Death, Australia, 2016. ABS Cat. No. 3303.0. Canberra, ACT: Australia</i></p> <p>Between 2012 and 2016, suicide was the 8th leading cause of death for NBMPHN males by international classification of disease (ICD-10) code. In comparison, suicide was not among the top 20 causes of death for NBMPHN females in the same time period.</p> <p><i>Australian Institute of Health and Welfare – Mortality over Regions and Time books by PHN, 2012-2016. Available at: https://www.aihw.gov.au/reports/life-expectancy-death/mort-books/contents/mort-books</i></p> <p>Men are at greater risk of death by suicide accounting for over three quarters of suicide fatalities (76%), however are less likely to seek help. An estimated 72% of males do not seek help for mental health disorders.</p> <p><i>https://www.blackdoginstitute.org.au/docs/default-source/factsheets/facts_figures.pdf?sfvrsn=8</i></p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<p><i>University of Western Sydney 2010 – Pathways to Despair: The Social Determinants of male suicide (aged 25-44), Central Coast, NSW</i></p>
<p>Comorbid Factors Associated with Suicide</p>	<p>80% of intentional self-harm (suicide) deaths are associated with mental health and substance use disorder comorbidities</p>	<p>In 2017, 80% of suicide deaths in Australia were identified as having comorbidities as co-occurring factors (but not necessarily a causal association). The top seven comorbidities identified according to the International Classification of Diseases, were related to mental health and substance use disorders. These include:</p> <ul style="list-style-type: none"> • Mood disorders – present in 43% of suicide deaths • Mental and behavioural disorders due to psychoactive substance use – present in 29.5% of suicide deaths • Other symptoms and signs involving emotional state – present in 18.1% of suicide deaths • Anxiety and stress related disorders – present in 17.5% of suicide deaths • Findings of alcohol, drugs and other substances in blood – present in 14.9% of suicide deaths • Schizophrenia, schizotypal and delusional disorders – present in 5.5% of suicide deaths • Unspecified mental disorders – present in 4.5% of suicide deaths <p><i>Australian Bureau of Statistics – Causes of Death, Australia, 2017 Cat 3303.0: Intentional self-harm, key characteristics</i></p>
<p>Hospitalisations for intentional self-harm</p>	<p>Significantly higher rate of hospitalisations due to self-harm in NBM compared to NSW state average.</p>	<p>The burden of self-harm is far greater than the overall burden of suicide. Hospitalisations for self-harm by NBM residents occurred at a rate of 174.1 per 100,000 for persons of all ages in 2016-17. This was significantly higher than the NSW rate of 149.0 per 100,000 for persons of all ages.</p> <p>Self-harm hospitalisations were higher among females than males in all four of the region’s LGAs in 2015-17, and were highest in the Lithgow LGA (Figure 2).</p> <p>Figure 6: Rate of self-harm hospitalisations by gender within NBMPHN Local Government Areas, 2015-17</p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*



Health Statistics NSW online portal – Intentional self-harm hospitalisations by Primary Health Network, persons of all ages and 15-24 years, NSW 2016-17 [Accessed September 2018]

Youth

Increasing rates of suicide ideation and behavior, and self-harm among young people particularly among young women.

The “Young Minds Matter” survey (2013–14) showed that 7.5% of 12 to 17 year-olds had seriously considered attempting suicide in the previous 12 months, 2.4% reported having attempted suicide in the previous 12 months, and 0.6% received medical treatment as a result of their injuries.

Suicidal behaviour was more common in females than males, and in 16-17 year-olds compared with younger adolescents. 15.4% of females aged 16-17 years had seriously considered attempting suicide and 4.7% had attempted suicide in the previous 12 months.

56.4% of females aged 12-17 years with major depressive disorder (based on self-report) had seriously considered suicide and 22.1% had attempted suicide in the previous 12 months. In comparison 13.8% of males aged 12-17 years with major depressive disorder (based on self-report) had attempted suicide in the previous 12 months.

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

A significant proportion of young women and men 12-17 years had contemplated suicide or had developed a suicide plan in 2017.

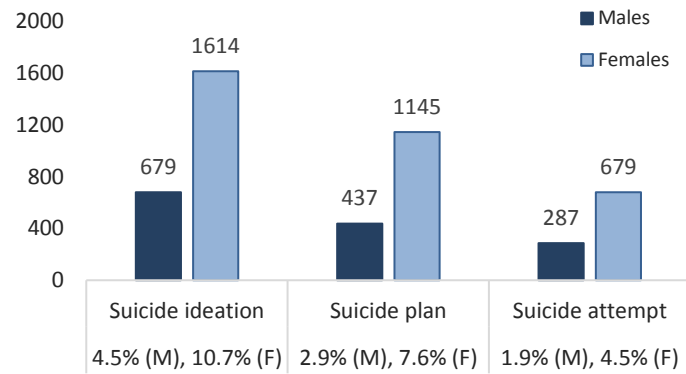
Lawrence D, Johnson S, Hafekost J, Boterhoven De Haan K, Sawyer M, Ainley J, Zubrick SR (2015) The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing. Department of Health, Canberra

Figure 1 below identifies estimates of the number of young people 12-17 years who had suicide ideation, made a suicide plan and made a suicide attempt in 2017 in the NBM population based upon the Young Minds Matter survey and 2017 population estimates for NBM LGAs. These figures are consistent with national rates and indicate that almost half (4.5%) of young males and more than one-tenth (10.7%) of young females 12-17 years had contemplated suicide or had developed a suicide-plan in 2017, while 2.9% of young males and 7.6% of young females had developed a suicide plan. This data indicates the magnitude of need for early intervention suicide prevention services within the NBM region for this cohort.

Figure 7: Estimated prevalence (number and %) of suicide behaviours among young people 12-17 years in Nepean Blue Mountains, 2017

Estimated total males 12-17 years ≈ 15,088
 Estimated total females 12-17 years ≈ 15,084

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*



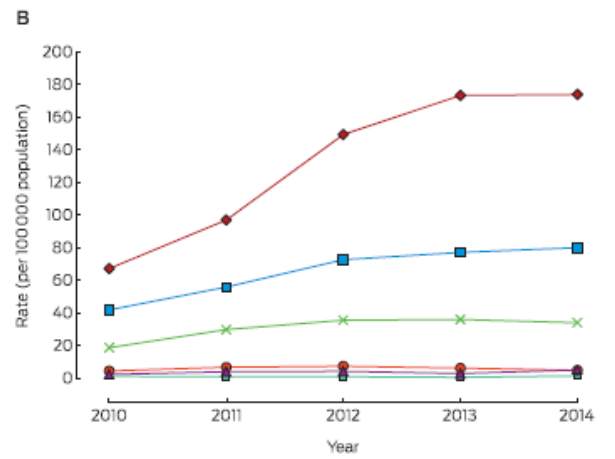
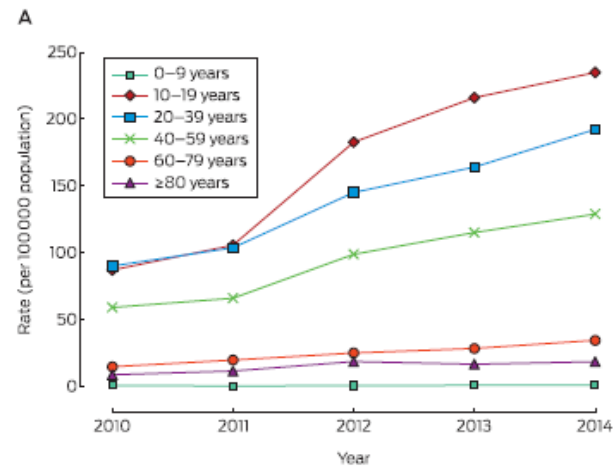
Mental Health of Nepean Blue Mountains Local Health District Population 2017

The highest rates and rate of growth in presentations to NSW emergency departments between 2010 and 2014 for suicidal ideation and behavior, and self-harm were among young people 10-19 years.

Research into population trends in presentations to emergency departments in NSW between 2010 and 2014 for patients presenting with suicidal ideation, self-harm or intentional poisoning identified that self-harm presentations were associated with young age-groups (mean 28.4 years, SD 13.87 years). The most marked increase was observed for persons aged 10-19 years (mean annual increase, 27%). Further, the total number of presentations for suicidal ideation was greater than for self-harm and intentional poisoning combined.

Figure 8: Age-specific rates of presentations to NSW emergency departments, 2010-2014, by age group, for A. suicidal ideation and behavior; b. self-harm

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

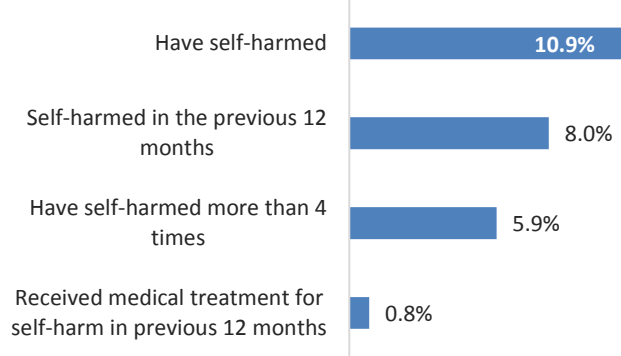


Perera J, Wand T, Bein KJ, Chalkley D, Ivers R, Steinbeck KS, Shields R and Dinh M. Presentations to NSW emergency departments with self-harm, suicidal ideation, or intentional poisoning, 2010-2014. *Medical Journal of Australia*. 2018;208(8):348-353

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

<p>Hospital Admissions - Youth</p>	<p>Prevalence of self-harm hospitalisations for young females in the NBMPHN region is almost three times the rate for males and is the highest rate among NSW metropolitan PHN areas.</p>	<p>Females aged 15-24 years had the highest self-harm hospitalisation rates in the NBMPHN region and in NSW in 2016-17, compared with males and all age cohorts. In the NBMPHN population aged 15-24 years in 2016-17, the female rate of hospitalisation for self-harm (616.4 per 100,000) was almost three times the rate of NBMPHN males (209.3 per 100,000) and increased significantly from the previous year (433.3 per 100,000 in 2015-16). This was the fourth highest rate among PHNs in NSW, and the highest among NSW PHNs in metropolitan areas.</p> <p><i>Health Statistics NSW online portal – Intentional self-harm hospitalisations by Primary Health Network, persons of all ages and 15-24 years, NSW 2016-17 [Accessed September 2018]</i></p> <p>Estimates for the prevalence of self-harm among young people aged 12-17 years in the NBM region in 2017, based on Australian prevalence estimates are:</p> <ul style="list-style-type: none"> • 10.9% (3,333 adolescents) have self-harmed • 5.9% (1,809 adolescents) have self-harmed more than 4 times • 8% (2,457 adolescents) self-harmed in the previous 12 months • 0.8% (241 adolescents) received medical treatment for self-harm in previous 12 months • Female rates of self-harm ever were twice that of males • Female rates of self-harm in the last 12 months were 3 times that of males
-------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<p>Figure 9: Estimated prevalence of self-harm among young people 12-17 years in 2017: NBMPHN</p>  <table border="1"> <thead> <tr> <th>Category</th> <th>Prevalence</th> </tr> </thead> <tbody> <tr> <td>Have self-harmed</td> <td>10.9%</td> </tr> <tr> <td>Self-harmed in the previous 12 months</td> <td>8.0%</td> </tr> <tr> <td>Have self-harmed more than 4 times</td> <td>5.9%</td> </tr> <tr> <td>Received medical treatment for self-harm in previous 12 months</td> <td>0.8%</td> </tr> </tbody> </table> <p><i>Mental Health of Nepean Blue Mountains Local Health District Population 2017</i></p>	Category	Prevalence	Have self-harmed	10.9%	Self-harmed in the previous 12 months	8.0%	Have self-harmed more than 4 times	5.9%	Received medical treatment for self-harm in previous 12 months	0.8%
Category	Prevalence											
Have self-harmed	10.9%											
Self-harmed in the previous 12 months	8.0%											
Have self-harmed more than 4 times	5.9%											
Received medical treatment for self-harm in previous 12 months	0.8%											
	<p>Increasing rates of suicide among children and young people</p>	<p>In 2016, suicide was the leading cause of death for children between 5 and 17 years of age in Australia. Suicide accounted for 20.2% of all deaths among children 5-17 years – a 29.5% increase compared to 2012 where suicide accounted for 15.6% of all deaths.</p> <p>In 2015, suicide accounted for 33.9% of all deaths in young people aged 15-24. In 2015 approximately 8 children and young people (aged 5-24) died by suicide per week in Australia - an increase of 32% since 2006.</p> <p><i>Australian Bureau of Statistics. (2017). Causes of Death, Australia, 2016. ABS Cat. No. 3303.0. Canberra, ACT: Australia</i></p>										
	<p>Young people identifying as LGBTI are five times more likely to have attempted suicide than other young people</p>	<p>Compared to the general population, young LGBTI people are more likely to attempt suicide in their lifetime, to have thoughts of suicide, and to have engaged in self-harm in their lifetime, specifically:</p> <ul style="list-style-type: none"> • LGBTI young people aged 16 to 27 are five times more likely to have attempted suicide in their lifetime. In 2013, 16% of young people identifying as lesbian, gay, bisexual, transgender, intersex or queer reported they had attempted suicide. 										

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<ul style="list-style-type: none"> Lesbian, gay, bisexual and transgender young people are nearly twice as likely to engage in self-injury. 33% of LGBTI young people aged 16 to 27 reported having self-harmed and 41% had thoughts of harming themselves. <p><i>Robinson, KH et al, 2013. Growing Up Queer: Issues Facing Young Australians Who Are Gender Variant or Sexually Diverse.</i></p> <p><i>National LGBTI Health Alliance – Snapshot of Mental Health and Suicide Prevention Statistics for Young People, July 2016.</i> Available at: https://lgbtihealth.org.au/wp-content/uploads/2016/07/SNAPSHOT-Mental-Health-and-Suicide-Prevention-Outcomes-for-LGBTI-people-and-communities.pdf</p> <p>Nationally, LGBTI people experience a rate of suicide over four times higher than people identifying as straight.</p> <p>https://www.blackdoginstitute.org.au/docs/default-source/factsheets/facts_figures.pdf?sfvrsn=8</p>
<p>Aboriginal & Torres Strait Islander People</p>	<p>High suicide rates for Aboriginal and Torres Strait Islander people – more than double that for non-Indigenous people</p> <p>Suicide is the second leading cause of death for Aboriginal and Torres Strait Islander males</p>	<p>Nationally, the aged-standardised death rate due to suicide for Aboriginal and Torres Strait Islander persons in 2017 was 25.5 per 100,000 persons, more than double that for non-Indigenous persons (12.6 deaths per 100,000 persons). Deaths due to suicide also accounted for a higher proportion of all deaths among Aboriginal and Torres Strait Islander people (5.5%) compared to non-Indigenous Australians (2.0%).</p> <p>In 2017, suicide was the second leading cause of death for Aboriginal and Torres Strait Islander males, and the seventh leading cause of death for Aboriginal and Torres Strait Islander females.</p> <p>The largest difference between Indigenous and non-Indigenous suicide rates occurred at younger ages, with the age-standardised rate more than 3 times higher for 15-24 and 25-34 year olds. .</p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<p><i>Australian Bureau of Statistics. (2017). Suicides, Australia, 2017. ABS Cat. No. 3303.0. Canberra, ACT: Australia</i></p> <p>At a state level, the rate of suicides among Aboriginal persons in NSW from 2012-2016 was 1.6 times higher compared to non-Aboriginal persons (16.3 vs. 9.9 per 100,000 persons). Young Indigenous Australians (aged 15-24) continue to have higher rates of suicide than adult Indigenous Australians (all ages), with 16.1vs 14.2 deaths per 100,000 respectively in 2011-2015and 19.2 and 16.3 respectively in 2012-2016.</p> <p><i>Health Statistics New South Wales online portal 2018</i> http://www.healthstats.nsw.gov.au/Indicator/men_suidth/men_suidth_atst_age</p>
<p>CALD Communities</p>	<p>Lack of data affects understanding of suicide risk and rates among local CALD communities.</p>	<p>Culture and ethnicity is not captured in ABS data.</p> <p><i>Australian Bureau of Statistics. (2012). Suicides, Australia, 2010. ABS Cat. No. 3309.0. Canberra, ACT: Australia.</i></p> <p>National statistics indicate lower suicide rates amongst migrants from Africa, the Middle East and Asia (about half, age standardised) but rates are comparable with the whole population for other migrant groups.</p> <p>Data on suicide behaviour amongst migrant communities in the NBM region is not collected and it is not known whether particular CALD communities face higher than average suicide risk.</p> <p><i>NBMPHN Suicide Prevention Stakeholder Consultation 24/2/16</i></p>
<p>CALD Communities</p>	<p>Recent surge in the rate of suicides and self-harm reported among the Pacific Islander community in Western Sydney</p>	<p>Anecdotal evidence from community leaders (church leaders, school counsellors and NGOs) in Western Sydney (NBMPHN and Western Sydney PHN region) has identified a potential surge in suicides and attempted suicides (self-harm) in the first 6 months of 2018 among persons from the Pacific Islander community (Cook Island, Samoa, Tonga and</p>

Outcomes of the health needs analysis – Primary Mental Health Care: <i>Suicide Prevention</i>		
		<p>Tokelau). Reportedly 12 young people between the ages 15-18 years have had their lives ended by suicide, with a further 20 attempts.</p> <p>Identified community perceptions of factors contributing to this increase in suicide deaths and suicide attempts include: family issues and expectations, sexual abuse and religious expectations.</p> <p><i>Community consultations held by Pacific Islander Communities in Western Sydney, 2018</i></p>
CALD Communities	Culture of Taboo amongst CALD may reduce risk of suicide	<p>Taboos around suicide indicate that suicide rates amongst CALD populations may be lower than general population rates.</p> <p><i>Stakeholder Consultation with Nepean Multicultural Access, October 2016</i></p>
CALD Communities	Syrian refugee intake commencing in March 2016.	<p>Syrian refugees will be resettled in Colyton, originally commencing from March 2016, but with timing unknown. This group may be at increased risk of suicide due to post-traumatic stress disorder, bereavement, physical illness, other mental health issues and social dislocation.</p> <p><i>NBMPHN Suicide Prevention Stakeholder Consultation 24/2/16</i></p>
Location	Remoteness of residence may be a risk factor for people living in outlying SA2s.	<p>National age-standardised suicide rates increase with the remoteness of the person's place of residence.</p> <p><i>AIHW: Harrison JE & Henley G 2014. Suicide and hospitalised self-harm in Australia: trends and analysis. Injury research and statistics series no. 93. Cat. no. INJCAT 169. Canberra: AIHW.</i></p> <p><i>SAPHaRI, Centre for Epidemiology and Evidence, NSW Ministry of Health 2013, obtained from http://www.healthstats.nsw.gov.au/</i></p>
Location	Penrith/Blue Mountains: The number and rate of suicide is notably higher in some NBM region SA2s of Penrith, Springwood and Winmalee.	<p>Based on a 10-year sample the highest number of suicides have been in the Lower Blue Mountains (Blaxland to Winmalee), St Marys–Colyton, Cambridge Park, Glenmore Park–Regentville, and Penrith. The highest suicide rates have been in Penrith and Springwood–Winmalee.</p> <p><i>Region specific data provided by LifeLine (unpublished data from ABS 3303.0 Causes of Death, 2013). Numbers and rates are aggregated for 2004 – 2013</i></p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

<p>Location</p>	<p>Penrith: The number of suicide related hospital admissions and death is high in Penrith</p>	<p>Information provided by the Black Dog Institute identified 25 LGAs in NSW with a high hospitalization rates for suicide related morbidity and high mortality rate during the 2005-2013 period. Penrith LGA has been identified as one of these LGA with the following rates:</p> <ul style="list-style-type: none"> • suicide related hospital admission rate is 1,725 per 100,000 - 11th out of 25 LGAs • mortality rate is 82 per 100,000 – 18th out of 25 LGAs <p><i>Black Dog Institute 2016. The systems approach to suicide prevention: site selection information</i></p>
	<p>Lithgow: High rate of suicides and self-harm among young men and women in Lithgow</p>	<p>Anecdotal evidence has identified a high number of suicides among young men and women in the Lithgow local government area between February 2016 and February 2017, with nine people having taken their lives during this period.</p> <p>Community perceptions of factors contributing to these deaths include: perceptions of diminishing employment opportunities and job security within the local area, a lack of willingness to talk about suicide and seek out support, and a lack of local mental health services available in Lithgow.</p> <p><i>Consultations with the Lithgow Mental Health Taskforce, 2017</i></p> <p><i>ABC News – ‘Coal miners and footy players don’t talk about this stuff, but they should’.</i> Available at: http://www.abc.net.au/news/2017-10-10/lithgow-suicide-crisis-in-shadow-of-springvale/9031072</p> <p><i>ABC 7.30 report – ‘Lithgow Struggles with economic decline, and a suicide spike’.</i> Available at: http://www.abc.net.au/7.30/lithgow-struggles-with-economic-decline,-and-a/9036230</p>
<p>Socioeconomic Disadvantage</p>	<p>Socioeconomic disadvantage may be a suicide risk factor in the NBM region specifically Penrith and Colyton.</p>	<p>National age-standardised suicide rates increase with socioeconomic disadvantage (particularly for males, less markedly for females).</p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<p><i>AIHW: Harrison JE & Henley G 2014. Suicide and hospitalised self-harm in Australia: trends and analysis. Injury research and statistics series no. 93. Cat. no. INJCAT 169. Canberra: AIHW.</i></p> <p>There appears to be a correlation between suicides rates and economic index in the NBM region (e.g. Penrith & Colyton) however this is not uniform across the region.</p> <p><i>Region specific data provided by LifeLine (unpublished data from ABS 3303.0 Causes of Death, 2013). Numbers and rates are aggregated for 2004 – 2013</i></p>
<p>Age and Social Risk Factors</p>	<p>Highest rates of suicide deaths nationally and also within the NBM region are among:</p> <ul style="list-style-type: none"> • Young people aged 25-34 years • Unemployed males • Those from middle or third socioeconomic (SES) quintile • Persons separated from their relationship(s). <p>Life- and circumstance-related social risk factors are important contributors to suicide risk,</p>	<p>Analysis of suicide data collected by the National Coronial Information System between 2001 and 2013 revealed that age and a number of social-factors were related to the proportion and relative risk of suicide deaths within Australia, NSW and Primary Health Network areas.</p> <p>Age: the highest proportion of suicide deaths among residents of the NBMPHN region occurred within persons aged 35-44 years (24.18%), followed by persons aged 25-34 years (21.69%) and 45-54 years (19.39%). Together, these age-groups accounted for almost two-thirds of suicides over this time period. When accounting for differences in the age-structure of the population, the relative risk of suicide was highest among young people in Australia aged 25-34 years (Relative risk of 1.30 compared to persons aged 15-24 years).</p> <p>Occupation and employment status: the highest proportion of suicide deaths among residents of the NBMPHN region occurred among workers from moderately skilled (54%) and low skilled (31%) compared to skilled (15%) occupations. When accounting for differences in employment status within the population, the relative risk of suicide was one and a half times higher among unemployed persons in Australia (Relative risk of 1.51 compared to employed persons). Within NSW, the highest population suicide rates were observed for unemployed males aged 35-44, 25-34 and 45-54 years.</p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

Table 1: Suicide crude rates (per 100,000 population) by age group, sex and employment status in NSW, 2001 to 2013.

State/territory	Age group	Male		Female	
		Employed	Unemployed	Employed	Unemployed
NSW	15-24	10.3	7.8	1.8	1.7
	25-34	16.8	47.5	3.4	5.4
	35-44	16.7	48.4	3.7	5.7
	45-54	16	31.8	3.8	5.8
	55-64	12.1	6.4	3.2	1.6
	65-74	12.1	0.6	4.7	0
	75+	23.7	0	0	0

Socio-economic status: the highest proportion of suicide deaths among residents of the NBMPHN region occurred within the middle or third socioeconomic (SES) quintile (42.29%). This was double the proportion for people in middle-high (21.14%) and high (20.57%) quintiles, and more than four times the proportion than the low (10.67%) and low-middle (5.33%) SES quintile bands.

Marital status: The relative risk of suicide among people who were separated in Australia was more than four times higher compared to married persons (Relative risk of 4.35 compared to married persons). Persons who were never married also had a higher relative risk of suicide in NSW compared to married persons (Relative risk of 1.68).

This report identifies life- and circumstance-related social risk factors as important contributors to suicide risk, deserving attention in preventative and intervention efforts comparable to the treatment of mental disorders.

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<i>Predictors of Suicide in Australia: A report for the Lifeline Foundation, 2017</i>
Risk Factors: Mental Illness and Drug & Alcohol	People with mental illness and/or D&A addictions are much more likely to die by suicide, attempt suicide or experience suicidal ideation. Rates vary according to type of illness / addiction.	<p>Suicide is the main cause of premature death among people with a mental illness. More than 10% of people with a mental illness die by suicide within the first 10 years of diagnosis.</p> <p><i>SANE Australia, 2008. Factsheet: Suicidal behaviour and self-harm.</i></p> <p>People with alcohol or drug abuse problems have a higher risk of suicide than the general population.</p> <p><i>Department of Health and Ageing, (2007) Living is for Everyone: Life Framework, Canberra</i></p> <p>Based on ABS national survey results, 72% of people experiencing suicidal ideation had a mental illness at the time.</p> <p><i>Australian Bureau of Statistics. National Survey of Mental Health and Wellbeing: Summary of Results (Cat. No. 4326.0). Canberra: Australian Bureau of Statistics, 2008</i></p> <p>Suicide attempts are highest for substance use disorders (3.1% of those affected), followed by affective and anxiety disorders (2.1% each). Suicidal ideation is highest for affective disorders (16.8%), followed by substance use disorders (10.8%) and anxiety disorders (8.9%). The comparative rate for no mental disorder is 0.8%.</p> <p><i>Beyond Blue, Intentional self-harm and suicidal behaviour in children, submission to the Australian Human Rights Commission, 2014</i></p>
Risk Factors: Prior Suicide Attempt Family History	Individuals who have previously attempted suicide, have a family history of suicide or are bereaved by a suicide have a higher risk of attempting suicide or dying by suicide themselves.	<p>People who have previously attempted suicide are at very high risk of making another suicide attempt or of dying by suicide.</p> <p><i>J Mendoza & S Rosenberg, Suicide and suicide prevention in Australia: Breaking the silence, Lifeline Australia & Suicide Prevention Australia, Sydney, 2010</i></p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<p><i>Connor, K. R., Langley, J., Tomaszewski, K. J., & Conwell, Y. (2003). Injury hospitalization and risks for subsequent self-injury and suicide: A national study from New Zealand. American Journal of Public Health, 93(7), 1128-1131</i></p> <p>As many as 42% of child and youth suicides may be due to exposure to another person's suicide.</p> <p><i>State of Queensland, Commissioner for Children and Young People and Child Guardian, Final Report: Reducing Youth Suicide in Queensland, Commissioner for Children and Young People and Child Guardian, Brisbane, 2011</i></p>
LGBTI people	<p>High rates of suicide attempts for LGBTI people</p> <p>Approximately 6.4% of the NBMPHN population (23,781 persons) identify as a LGBTI person</p>	<p>While there is currently no population-based data on deaths by suicide amongst LGBTI people in Australia, research indicates that mental ill-health, self-harm, suicide attempt and suicidal ideation rates amongst LGBTI people are disproportionately higher than the general population:</p> <ul style="list-style-type: none">• 20% of transgender Australians and 15% of lesbian, gay, and bisexual Australians report current suicidal thoughts• Lesbian, gay, and bisexual Australians have up to 14 times higher rates of suicide attempts than their heterosexual peers• Up to 50% of transgender people have attempted suicide at least once• Anecdotal evidence suggests higher rates of suicidal and self-harming behaviour among intersex people compared to the general population. <p><i>Rosenstreich, G. (2013) LGBTI People Mental Health and Suicide. Revised 2nd Edition. National LGBTI Health Alliance. Sydney</i></p> <p>LGBTI people aged 16 years and over are between 5-18 times more likely to have thoughts of suicide than the general population.</p> <p>Current research indicates that 3.4% of people in the Australian population identify as lesbian or gay, about 1% identify as bisexual, 0.3% are transgender and 1.7% are intersex. Applying these proportions to the NBMPHN population indicates that around 23,781</p>

Outcomes of the health needs analysis – Primary Mental Health Care: <i>Suicide Prevention</i>		
		<p>people in the PHN catchment area currently identify as LGBTI. Using the 2016 ERP proportions, the distribution of LGBTI people across the LGAs is therefore:</p> <ul style="list-style-type: none"> • Blue Mountains: 5,043 • Hawkesbury: 4,249 • Lithgow: 1,382 • Penrith: 13,106 <p><i>National LGBTI Health Alliance, LGBTI People: Mental Health and Suicide, Newtown, 2013</i> <i>Australian Bureau of Statistics, Estimated Resident Population by LGA, 2016</i> <i>Roy Morgan Research. (2015). http://www.roymorgan.com/findings/6263-exactly-how-many-australians-are-gay-december-2014-201506020136</i> https://oii.org.au/16601/intersex-numbers/ https://williamsinstitute.law.ucla.edu/wp-content/uploads/Gates-How-Many-People-LGBT-Apr-2011.pdf</p>
Hospital Discharge / Continuity of Care	Higher risk of suicide following hospital discharge and or a reduction in treatment post discharge.	<p>There is a higher risk of suicide after discharge from hospital or when treatment has been reduced.</p> <p><i>Martin, G., Swannell, S., Harrison, J., Hazell, P., & Taylor, A. (2010). The Australian National Epidemiological Study of Self-Injury (ANESSI). Brisbane, QLD: Centre for Suicide Prevention Studies.</i></p> <p><i>NBMPHN Suicide Prevention Stakeholder Consultation 24/2/16</i></p> <p>A UK study identified that 43% of suicide deaths occurred within a month of discharge, and 47% of those occurring before a first follow-up appointment. The first day and first week after discharge were particularly high-risk periods.</p> <p><i>Hunt, I.M., et al., Suicide in recently discharged psychiatric patients: a case-control study. Psychological Medicine, 2009. 39(03): p. 443-449</i></p>
Hospital admissions	High self-harm hospitalisation rates in Penrith, Hawkesbury and Lithgow LGA populations with a higher number of females hospitalised.	<p>In 2013/15, self-harm hospitalisation rates (referring to an episode of admitted patient care) in the NBMPHN region compared with NSW rates were:</p> <ul style="list-style-type: none"> • Significantly higher in Penrith LGA males (105.6 hospitalisations per 100,000 population) and Penrith LGA females (189.2) than NSW males and females

Outcomes of the health needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<ul style="list-style-type: none"> • Significantly higher in Lithgow LGA males (157.5 hospitalisations per 100,000 population) and Lithgow LGA females (286.5) than NSW males and females. <p>In addition, the rate of hospitalisations for intentional self-harm significantly increased in the Penrith, Hawkesbury and Lithgow LGAs for both males and females between 2001-02 and 2013-15. These increases were significantly greater compared to NSW.</p> <p><i>Mental Health of Nepean Blue Mountains Local Health District Population 2017</i></p>
Method and Means	Large number of suicides within the NBMPHN region are by hanging.	<p>A model of suicide ‘means’ developed using AIHW data and incorporating NSW data indicates that of the 46 individuals who suicided in the NBMPHN in 2016, based on 2010-11 rates, the number of suicides by means of death across the NBMPHN would be:</p> <ul style="list-style-type: none"> • Hanging: 25 • Firearms: 3 • Poisons (except gas): 6 • Gas: 4 <p>This data can inform the focus of suicide prevention activities relating to means.</p> <p><i>AIHW, Suicide and hospitalised self-harm in Australia, Canberra, 2014</i></p> <p><i>Health Statistics NSW online portal – Suicide by Primary Health Network, NSW 2016 [Accessed September 2018]</i></p>

MENTAL HEALTH

Outcomes of the health needs analysis – Primary Mental Health Care: <i>Mental Health</i>		
Identified Need	Key Issue	Description of Evidence
Impact of geography on health needs	NBM is a geographically diverse region with isolation, poor access to public transport and poor access to services in some parts of the region	<p>The Nepean Blue Mountains (NBM) region is located in NSW approximately 60 kilometres West of Sydney to its Eastern boundary. The region is comprised of urban, semi-rural and rural areas, covering almost 9,179 square kilometres and spans from St Marys in the East to Portland in the West. Three major motorways – the M4, Great Western Highway and Northern Road – provide key infrastructure support and access across the area.</p> <p>The NBM region is one of 15 State Local Health Districts (LHD) and 31 National Primary Health Networks, and provides primary, secondary and tertiary level healthcare for people living in each of the region’s four Local Government Areas (LGAs), and tertiary care to residents of Greater Western Sydney Region. Aspects of the region’s diversity in terms of population and topography provide specific challenges to delivering services by healthcare providers at both primary and tertiary care levels.</p> <p>The region’s four LGAs are described below.</p> <p>Blue Mountains</p> <p>Blue Mountains City is located at the western fringe of the Sydney metropolitan area, about 55 to 95 kilometres from the Sydney CBD. Blue Mountains City is bounded by Hawkesbury City in the north, Penrith City in the east, Wollondilly Shire in the south, and Lithgow City and the Oberon Council area in the west.</p> <p>Blue Mountains City is a residential, resort and rural area. The City encompasses a total land area of 1,432 square kilometres, of which 74% is World Heritage National Park, renowned for its forests, rock formations, bushwalks, waterfalls and lookouts. A further 14% of the City is contained in public reserves. The majority of the remaining area is residential, with most towns and villages located along the ridgelines and plateaus on the main east-west road and rail corridor. Some are small, isolated rural settlements while others are large, urbanised areas. The major population centres are Katoomba and Springwood. The primary rural area</p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<p>is the Megalong Valley. Blue Mountains City is served by the Great Western Highway, Bells Line of Road and the Western railway line.</p> <p>Among residents who were employed, the majority (57.3%) traveled outside of the LGA to work (18.4% to Penrith LGA and 6.5% to City of Sydney), while 42.7% work locally. Three-fifths (60.6%) of Blue Mountains residents in 2016 traveled to work by car, with the next most used method of transport to work by train (11.4%).</p> <p>Hawkesbury Hawkesbury City is located at the north-western fringe of the Sydney metropolitan area - about 50 kilometres from the Sydney GPO. Hawkesbury City is bounded by the Singleton Council area and Cessnock City in the north, the Central Coast Council area and The Hills Shire in the east, Blacktown City, Penrith City and Blue Mountains City in the south, and Lithgow City in the west.</p> <p>Hawkesbury City is predominantly comprised of national and state parks, with some residential, commercial, industrial and military land use. The City encompasses a total land area of about 2,800 square kilometres, of which more than 70% is National Park. The Hawkesbury is divided by 5 river systems; the Nepean, Hawkesbury, Grose, Colo and MacDonald rivers. The main population centres are Windsor and Richmond, with urban areas also in many small townships and localities. The majority of the population live in the south-eastern section of the City. Hawkesbury City is served by Bells Line of Road, Singleton Road, Wollombi Road, Richmond-Blacktown Road, and the Western railway line.</p> <p>Among residents who were employed, the majority (55.8%) traveled outside of the LGA to work (11.8% to Blacktown LGA, 9.2% to Penrith LGA and 7.6% to The Hills Shire), while 44.2% work locally. Almost three quarters of Hawkesbury residents in 2016 traveled to work by car, with the vast majority (69.5%) driving to work as a driver, and a further 4.0% as a passenger. This compares to 52.8% of persons in the greater Sydney region who traveled to work by car.</p> <p>Lithgow</p>
--	--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<p>Lithgow City is located in the Central Tablelands of New South Wales, about 140 kilometres west of the Sydney CBD. Lithgow City is bounded by the Mid-Western Regional Council area and the Singleton Council area in the north, Hawkesbury City in the east, Blue Mountains City and the Oberon Council area in the south, and the Bathurst Regional Council area in the west.</p> <p>Lithgow City is a predominantly rural area, with rural-residential and residential areas in several townships, and some industrial land use. Nearly two thirds of the City is national park or state forest. Settlement is based in the township of Lithgow, the smaller townships of Portland and Wallerawang, and numerous small villages. The City encompasses a total land area of about 4,550 square kilometres. Rural land is used mainly for farming, grazing and mining (particularly coal mining). Lithgow City is served by the Castlereagh Highway, the Great Western Highway, and the main western railway line.</p> <p>Among residents who were employed, the majority (76.3%) work locally, while 23.7% travel outside of the area to work (6.5% to Blue Mountains LGA and 5.1% to Bathurst Regional Area). More than two-thirds (68.8%) of Lithgow residents in 2016 traveled to work by car as a driver and a further 4.3% as a passenger. The next most used method of transport to work was by walking (4.8%).</p> <p>Penrith</p> <p>Penrith City is located at the western fringe of the Sydney metropolitan area - about 54 kilometres from the Sydney GPO. Penrith City is bounded by Hawkesbury City in the north, Blacktown City and Fairfield City in the east, Liverpool City and Wollondilly Shire in the south, and Blue Mountains City in the west.</p> <p>Penrith City is a residential and rural area, with most of the population living in residential areas in a linear corridor along the Great Western Highway and the Western railway. The City encompasses a land area of 407 square kilometres, of which around 80% is rural and rural-residential. Most of the urban area is residential, with some commercial areas and industrial areas, including extractive industries and manufacturing. Much of the rural area is used for agricultural purposes, including dairying, poultry farming, hobby farming,</p>
--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

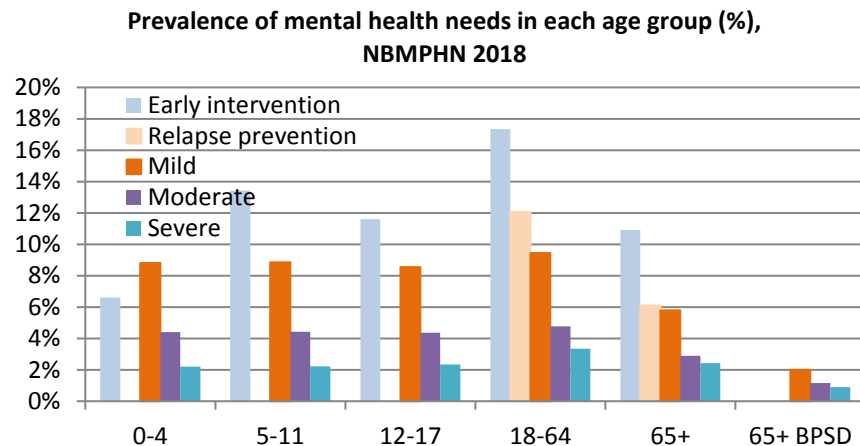
		<p>orcharding, market gardening and horse breeding. Major commercial centres are located at Penrith and St Marys. Penrith City is served by the Great Western Highway, The Northern Road, the Western Motorway and the Western railway line.</p> <p>Among residents who were employed, the majority (61.4%) traveled outside of the LGA to work (15.1% to Blacktown LGA, 8.4% to Parramatta LGA and 6.3% to City of Sydney), while 38.6% work locally. Two-thirds (66.7%) of Penrith residents in 2016 traveled to work by car as a driver and a further 4.9% as a passenger. The next most used method of transport to work was by train (10.4%).</p> <p><i>Wentworth Healthcare Limited – Needs Assessment 2016-17 Report</i></p> <p><i>.id Community Profiles for the Blue Mountains, Hawkesbury, Lithgow and Penrith Local Government Areas [Online]. Accessed October 2018.</i></p>										
<p>Population Size</p>	<p>Size of population in NBMPHN region</p>	<p>2017 Estimated Resident Population (ERP) data for NBMPHN:</p> <table> <tr> <td>Blue Mountains LGA</td> <td>78,800</td> </tr> <tr> <td>Hawkesbury LGA</td> <td>66,402</td> </tr> <tr> <td>Lithgow LGA</td> <td>21,596</td> </tr> <tr> <td>Penrith LGA</td> <td>204,784</td> </tr> <tr> <td>Total</td> <td>371,583</td> </tr> </table> <p><i>Nepean Blue Mountains Primary Health Network .id Community Profile – Estimated resident population in 2017. Available at: https://profile.id.com.au/nbmphn</i></p>	Blue Mountains LGA	78,800	Hawkesbury LGA	66,402	Lithgow LGA	21,596	Penrith LGA	204,784	Total	371,583
Blue Mountains LGA	78,800											
Hawkesbury LGA	66,402											
Lithgow LGA	21,596											
Penrith LGA	204,784											
Total	371,583											
<p>Prevalence Of Mental Health Disorders</p>	<p>Almost half of all Australians 16-65 years experienced a mental disorder during their lifetime.</p>	<p>Prevalence data from the 2007 National Survey of Mental Health and Wellbeing (NSMHWB) for the 16 to 85 age groups applied to the estimated resident population in the NBM region in 2017 provides the following estimates for the prevalence of mental disorders amongst adults in the NBM region:</p> <ul style="list-style-type: none"> • 45.5% (130,618 people) will have a mental health disorder at some point in their lifetime. 										

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

	<p>Anxiety, affective and substance use disorders are the most common conditions reported</p>	<ul style="list-style-type: none"> In the previous 12 months, 20% (58,052) had experienced a common mental health disorder, 14.4% (41,798 people) had an anxiety disorder, 6.2% (17,996 people) had an affective disorder, and 5.1% had a substance use disorder (14,803 people). <p>These three disorder groups were most prevalent in people aged 16 to 24 and decreased as age increased. Women experienced higher rates of anxiety disorders than men (18% and 11% respectively) and higher rates of affective disorders (7% and 5% respectively), but lower rates of substance use disorders (3% compared with 7%).</p> <p><i>Australian Institute of Health and Welfare 2017. Mental health services—in brief 2017. Cat. no. HSE 192 Canberra: AIHW</i></p>
	<p>Population prevalence of persons in the NBMPHN region with mental health needs for all levels of severity are highest for adults aged 18-64 years.</p> <p>The top mental health disorders in the NBM region, in line with national rates are:</p> <ul style="list-style-type: none"> Anxiety Affective disorders Substance use disorders 	<p>The National Mental Health Service Planning Framework – Planning Support Tool (NMHSPF-PST) provides modelled estimates for the population prevalence of persons with a mental health need by level of severity, based upon National prevalence surveys and research evidence. Mental health need is defined as:</p> <p><i>“A diagnosed mental illness or other indicator of need for mental health services such as subthreshold symptoms of mental illness, distress, or a past diagnosis of mental illness, within an identified 12-month period.”</i></p> <p>The estimated proportion and number of persons with mental health needs for <i>all age groups</i> in the NBMPHN region in 2018 is:</p> <ul style="list-style-type: none"> Early intervention – 14.9% or 56,943 persons Relapse prevention – 8.3% or 31,856 persons Mild mental illness – 9.0% or 34,522 persons Moderate mental illness – 4.6% or 17,510 persons Severe mental illness – 3.1% or 11,765 persons <p>It is important to note that the population estimates of mental health need vary by age group, with the highest proportion of needs for all levels of severity identified for adults aged 18-64 years (Figure 10).</p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

Figure 10: Prevalence of persons with mental health needs by age group in NBMPHN, 2018



The University of Queensland. 2016. The National Mental Health Service Planning Framework – Framework – Commissioned by the Australian Government Department of Health. Version AUS V2.1. The University of Queensland, Brisbane.

The National Mental Health Service Planning Framework also provides estimates for service demand rates for persons with an identified mental health need. The demand rate is defined as:

“The proportion of people with an identified mental health need who require an individually-tailored mental health service response.”

Service demand rates for persons with mental health needs in the NBMPHN region in 2018 indicate:

- 4.1% of the NBM population require early intervention services

The estimated service demand rates and number of people with mental health needs who require an individually-tailored mental health service response for all ages groups in the NBMPHN region in 2018, by level of severity are:

- Early intervention – 27% or 15,607 persons need services (4.1% of the NBM population)

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

- 1.6% of the NBM population require relapse prevention services
- 4.5% of the NBM population require services for mild mental illness
- 3.7% of the NBM population require services for moderate mental illness
- 3.1% of the NBM population require services for severe mental illness

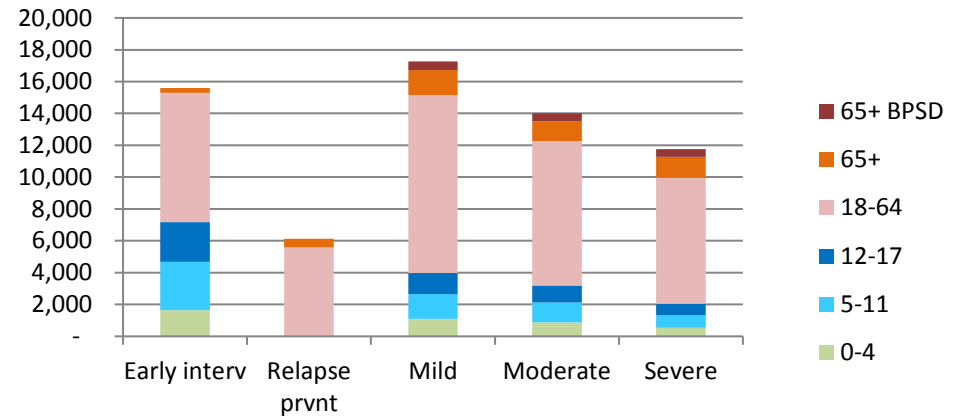
- Relapse prevention – 19% or 6,131 persons need services (1.6% of the NBM population)
- Mild mental illness – 50% or 17,261 persons need services (4.5% of the NBM population)
- Moderate mental illness – 80% or 14,008 persons need services (3.7% of the NBM population)
- Severe mental illness – 100% or 11,765 persons need services (3.1% of the NBM population)

The service demand rates are the same for all age groups except for persons requiring early intervention services. The NMHSPF-PST estimates that 100% of 0-4 year olds, 64% of 5-11 year olds, 70% of 12-17 year old, 20% of 18-64 year olds, and 5% of persons 65+ years require early intervention services within a 12-month period. The total number of persons requiring an individually-tailored mental health service response by level of severity and age group is illustrated in Figure 8.

Figure 11: Service demand rates by level of severity and age in NBMPHN, 2018

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

Service demand rate by level of severity and age group, NBMPHN 2018



The University of Queensland. 2016. The National Mental Health Service Planning Framework – Framework – Commissioned by the Australian Government Department of Health. Version AUS V2.1. The University of Queensland, Brisbane.

Levels of psychological distress in adults over 16 years has significantly increased in the NBM region from 2013 – 2017 but is aligned to NSW trends.

NBMPHN rates are third highest among 10 NSW PHNs for high or very high psychological distress.

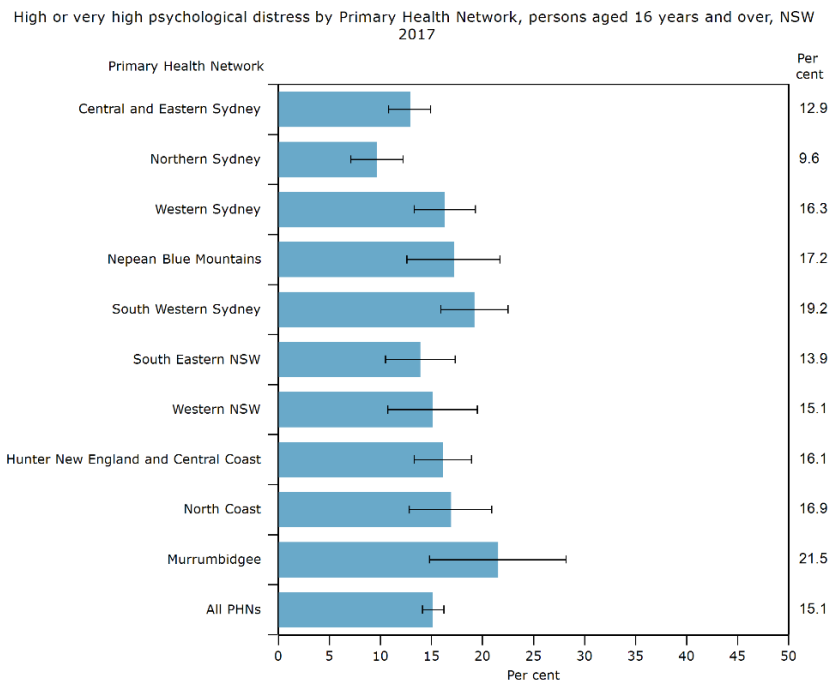
In 2017, 17.2% of the NBMLHD population aged over 16 years reported *high* or *very high* psychological distress. This was higher than the NSW rate of 15.1% and higher than previous recordings for the NBM region (14.8% in 2015 and 9.7% in 2013). In 2015 the corresponding figure for NSW was similarly lower at 11.8% indicating that the increase in psychological distress in the NBM region over the last two years is in keeping with the NSW trend.

Across all NSW PHNs, NBMPHN ranked third highest for persons with *high* or *very high* psychological distress.

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

Rates of psychological distress are highest for females, in particular young females aged 16-24 years.

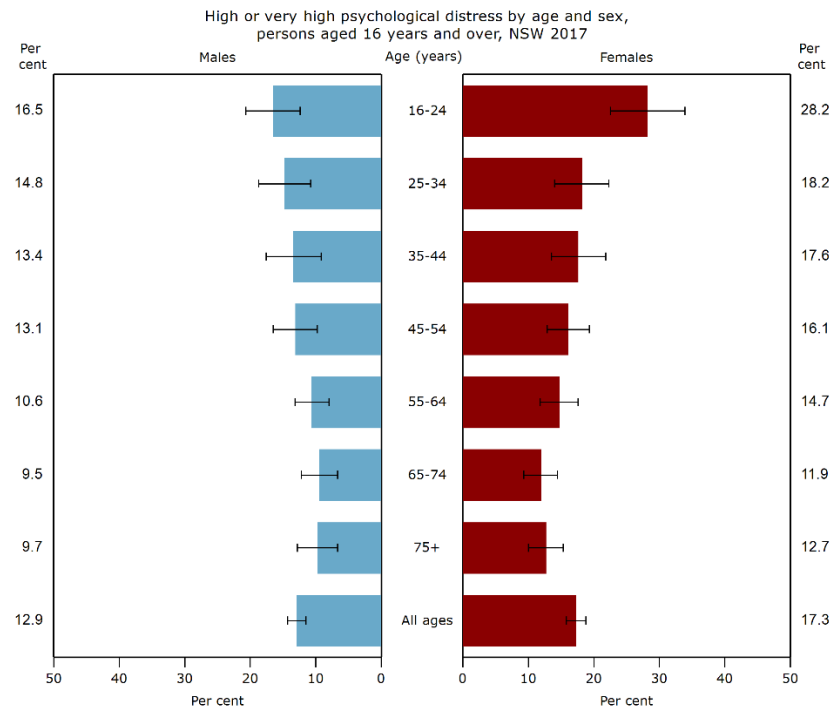
Figure 12: High or very high psychological distress by Primary Health Network, for persons aged 16-years and over, NSW in 2017



In NSW in 2017, the rates of reported high or very high psychological distress were higher for females (17.3%) than males (12.9%). The highest female rates are for 16-24 year olds (28.2%) followed by 25-34 year olds (18.2%).

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

Figure 13: High or very high psychological distress for by age-group for males and females aged 16 years and over, NSW 2017



Health Statistics NSW online portal – High or very high psychological distress by Primary Health Network, persons aged 16 years and over, NSW 2017 [Accessed September 2018]
Health Statistics NSW online portal – High or very high psychological distress by age and sex, persons aged 16 years and over, NSW, 2017 [Accessed September 2018].

0.45% Prevalence of psychotic disorders amongst adults in Australia accessing

Estimates from the 2010 NSMHWB Survey of People Living with Psychotic Illness indicated that 0.45% of the population aged 18 to 64 accessed treatment annually from public sector

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

	<p>treatment annually from public sector mental health.</p>	<p>mental health services for a psychotic disorder, with schizophrenia being the most common. About two-thirds of these people experienced their initial episode of psychotic illness before they turned 25.</p> <p><i>Morgan VA, Waterreus A, Jablensky A, Mackinnon A, McGrath JJ, Carr V et al. 2011. People living with psychotic illness 2010. Canberra: DoHA,, cited in Australian Institute of Health and Welfare 2015. Mental health services—in brief 2015. Cat. no. HSE 169 Canberra: AIHW</i></p>
<p>Prevalence of severe mental illness and service demand (need) by persons with severe mental illness</p>	<p>Estimates for the NBM population indicate that 3.1% of the total population (21% of adults with a mental health illness) had a severe mental health disorder (11,765 persons)</p>	<p>The NMHSPF-PST estimates that 3.1% of the NBMPHN population or 11,765 persons have a severe mental illness in 2018.. The estimated number of individuals with a severe mental illness by LGA in the NBMPHN region in 2018 is:</p> <ul style="list-style-type: none"> • Blue Mountains: 2,587 • Hawkesbury: 2,115 • Lithgow: 653 • Penrith: 6,425 <p>The NMHSPF-PST also estimates that all (100%) of these persons will require an individually-tailored mental health service response in 2018.</p> <p><i>The University of Queensland. 2016. The National Mental Health Service Planning Framework – Framework – Commissioned by the Australian Government Department of Health. Version AUS V2.1. The University of Queensland, Brisbane.</i></p> <p>Estimates for the NBM population indicate that 21% of adults with a mental health illness had a severe mental health disorder.</p> <p><i>Mental Health of Nepean Blue Mountains Local Health District Population, 2017</i></p>
<p>Prevalence of mental health needs and service demand by persons with mild and</p>	<p>9.0% or 34,522 persons in the NBMPHN have a mild mental illness, and 4.6% or 17,510 persons had a moderate mental illness in 2018.</p>	<p>The NMHSPF-PST estimates that 9.0% or 34,522 persons in the NBMPHN have a mild mental illness, and 4.6% or 17,510 persons had a moderate mental illness in 2018. Broken down into Local Government Areas (LGAs), the estimated number of individuals with mild and moderate mental illness in 2018 is:</p> <ul style="list-style-type: none"> • Blue Mountains:

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

<p>moderate mental illness</p>	<p>The greatest number of individuals who require an individually-tailored mental health service response have a mild mental illness</p>	<ul style="list-style-type: none"> ○ Mild illness – 7,494 persons ○ Moderate illness – 3,806 persons ● Hawkesbury: <ul style="list-style-type: none"> ○ Mild illness – 6,216 persons ○ Moderate illness – 3,153 persons ● Lithgow: <ul style="list-style-type: none"> ○ Mild illness – 1,875 persons ○ Moderate illness – 953 persons ● Penrith: <ul style="list-style-type: none"> ○ Mild illness – 18,996 persons ○ Moderate illness – 9,629 persons <p>Broken down into LGAs, the estimated number of people who require an individually-tailored mental health service response for mild and moderate mental illness in the NBMPHN region in 2018 is:</p> <ul style="list-style-type: none"> ● Blue Mountains: <ul style="list-style-type: none"> ○ Mild illness – 3,747 persons ○ Moderate illness – 3,045 persons ● Hawkesbury: <ul style="list-style-type: none"> ○ Mild illness – 3,108 persons ○ Moderate illness – 2,522 persons ● Lithgow: <ul style="list-style-type: none"> ○ Mild illness – 937 persons ○ Moderate illness – 762 persons ● Penrith: <ul style="list-style-type: none"> ○ Mild illness – 9,498 persons ○ Moderate illness – 7,703 persons
--------------------------------	------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<p><i>The University of Queensland. 2016. The National Mental Health Service Planning Framework – Framework – Commissioned by the Australian Government Department of Health. Version AUS V2.1. The University of Queensland, Brisbane.</i></p> <p>Estimates for the NBM population indicate that 46% of adults with a mental health illness had a mild mental health disorder (26,704 persons).</p> <p><i>Mental Health of Nepean Blue Mountains Local Health District Population, 2017</i></p>
	<p>Prevalence of long term mental health problems is highest in the Lithgow LGA</p>	<p>A long-term condition is defined as a condition that is current and has lasted, or is expected to last, for 6 months or more.</p> <p>In 2011-12 in the NBM population, the prevalence of people with a long-term mental health problem varied by LGA, with the highest prevalence in the Lithgow LGA. The age-standardised rate of long-term mental health conditions per 100 persons, from highest to lowest was: Lithgow (14.9), Blue Mountains (13.3), Hawkesbury (13.1) and Penrith (12.3). In addition, the prevalence of long-term mental health conditions was higher in females than males in all LGAs.</p> <p><i>Mental Health of Nepean Blue Mountains Local Health District Population, 2017</i></p>
<p>Prevalence of mental disorders amongst children and youth.</p>	<p>In the NBM population in 2016, 13.9% of children and adolescents 4-17 years (2.6% of the total NBM population) had a mental health disorder in the previous 12 months</p>	<p>The “Young Minds Matter” survey (2013–14) showed that 13.9% of 4 to 17 year olds were assessed as having mental health disorders in the previous 12 months. Males were more likely than females to have experienced mental disorders in the 12 months (16.3% compared with 11.5%). ADHD was the most common disorder (just over 7%), followed by anxiety disorders (just under 7%), major depressive disorder (3%) and conduct disorder (2%).</p> <p>When applied to the 2016 Census population data, the distribution of this cohort of young people (4-17 years) affected by a mental health disorder over 12 months is estimated as:</p> <ul style="list-style-type: none"> • Blue Mountains: 1,912 • Hawkesbury: 1,720 • Lithgow: 473

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

	<p>The majority of young people with mental health needs and who require an individually tailored mental health service response (by level of severity) are those with early intervention mental health needs and mild mental illness</p>	<ul style="list-style-type: none"> • Penrith: 5,197 • NBMPHN: 9,302 <p>In the NBM population in 2016, this is equivalent to 9,302 children and adolescents (4-17 years) who had a mental health disorder in the previous 12 months.</p> <p><i>Lawrence D, Johnson S, Hafekost J, Boterhoven De Haan K, Sawyer M, Ainley J, Zubrick SR (2015) The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing. Department of Health, Canberra.</i></p> <p><i>Australian Bureau of Statistics, Community Profiles of the Blue Mountains, Hawkesbury, Lithgow and Penrith Local Government areas, 2016.</i></p> <p><i>Mental Health of Nepean Blue Mountains Local Health District Population, 2017</i></p> <p>The NMHSPF-PST estimates that among young people aged 5-17 years in NBMPHN in 2018:</p> <ul style="list-style-type: none"> • 12.6% of young people (8,308 persons, 2.1% of the total NBM population) have early intervention mental health needs • 8.7% of young people (5,754 persons, 1.5% of the total NBM population) have a mild mental illness • 4.4% of young people (2,906 persons, 0.8% of the total NBM population) have a moderate mental illness • 2.3% of young people (1,507 persons, 0.4% of the total NBM population) have a severe mental illness • NBMPHN: A total of 28.0% of young people (18,475 persons, 4.8% of the total NBM population) have mental health needs / are affected by a mental health disorder <p>Broken down into Local Government Areas (LGAs), the estimated number of young people aged 5-17 years with mental health needs in 2018 is:</p> <ul style="list-style-type: none"> • Blue Mountains: <ul style="list-style-type: none"> ○ Early intervention – 1,713 persons ○ Mild illness – 1,184 persons
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<ul style="list-style-type: none"> ○ Moderate illness – 599 persons ○ Severe illness – 310 persons ● Hawkesbury: <ul style="list-style-type: none"> ○ Early intervention – 1,516 persons ○ Mild illness – 1,050 persons ○ Moderate illness – 530 persons ○ Severe illness – 275 persons ● Lithgow: <ul style="list-style-type: none"> ○ Early intervention – 407 persons ○ Mild illness – 281 persons ○ Moderate illness – 142 persons ○ Severe illness – 73 persons ● Penrith: <ul style="list-style-type: none"> ○ Early intervention – 4,634 persons ○ Mild illness – 3,203 persons ○ Moderate illness – 1,617 persons ○ Severe illness – 837 persons <p>Broken down into LGAs, the estimated number of young people aged 5-17 years who require an individually-tailored mental health service response in the NBMPHN region in 2018 is:</p> <ul style="list-style-type: none"> ● Blue Mountains: <ul style="list-style-type: none"> ○ Early intervention – 1,142 persons ○ Mild illness – 592 persons ○ Moderate illness – 479 persons ○ Severe illness – 310 persons ● Hawkesbury: <ul style="list-style-type: none"> ○ Early intervention – 1,011 persons ○ Mild illness – 525 persons ○ Moderate illness – 424 persons ○ Severe illness – 275 persons ● Lithgow: <ul style="list-style-type: none"> ○ Early intervention – 407 persons
--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<ul style="list-style-type: none"> ○ Mild illness – 140 persons ○ Moderate illness – 114 persons ○ Severe illness – 73 persons ● Penrith: <ul style="list-style-type: none"> ○ Early intervention – 3,087 ○ Mild illness – 1,601 persons ○ Moderate illness – 1,294 persons ○ Severe illness – 837 persons <p><i>The University of Queensland. 2016. The National Mental Health Service Planning Framework – Framework – Commissioned by the Australian Government Department of Health. Version AUS V2.1. The University of Queensland, Brisbane.</i></p>
	<p>The primary issue young people were presenting with to the Penrith headspace centre were higher than national headspace centre averages for situational issues and alcohol and other drugs.</p> <p>A higher proportion of young people attending the Penrith headspace centre in 2016/17 had ongoing severe symptoms compared to national averages</p>	<p>The age profile of Penrith headspace centre users is similar to national averages of headspace centre, as follows:</p> <ul style="list-style-type: none"> ● Under 12: 0.4% of young people (0.2% national average) ● 12-14: 22.1% of YP (21.4% national average) ● 15-17: 37.0% of YP (32.2% national average) ● 18-20: 23.1% of YP (23.7% national average) ● 21-23: 14.3% of YP (16.7% national average) ● 24-25 3.0% of YP (5.5% national average) ● Over 25: 0% of YP (0.2% national average). <p>The living situation of Penrith headspace centre users is similar to the national averages of headspace centre users, as follows:</p> <ul style="list-style-type: none"> ● Accommodation not an issue: 91.3% of YP (89.4% national average) ● Accommodation is an issue: 6.6% of YP (8.7% national average) ● At risk of homelessness: 1.3% of YP (1.4% national average) ● Homeless: 0.8% of YP (0.4% national average).

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

The primary issue young people presented with were higher than national averages for situational and alcohol or other drug issues and lower for mental health and behaviour, sexual/physical health and vocational assistance:

- Mental health and behavior issues: 75.1% of YP (76.3% national)
- Situational issues (including grief, conflict, bullying, trauma, homelessness, violence: 18.5% of YP (13.7% national)
- Alcohol and other drugs: 3.6% of YP (2.4% national)
- Physical and sexual health: 1.7% of YP (4.1% national)
- Vocational assistance: 0.5% of YP (1.6% national)
- Other: 0.8% of YP (1.8% national)

The stage of mental illness of Penrith headspace centre users is similar to national averages. The exception is *Stage 4 ongoing severe symptoms* at the Penrith centre, which is 7.8% percentage points higher than the national average. The proportions of all Penrith clients in 2016-17, by headspace stage of classification was:

- Stage 0 – No symptoms of mental disorder: 7.6% of young people (YP) (compared to 10.1% national average)
- Stage 1a – Mild to moderate general symptoms: 37.4% of YP (compared to 40.0% national average)
- Stage 1b – Sub-threshold diagnosis: 20.3% of YP (compared to 20.4% national average)
- Stage 2 – Threshold diagnosis: 15.6% of YP (compared to 17.6% national average)
- Stage 3 – Period of remission: 0.6% of YP (compared to 1.9% national average)
- Stage 4 – Ongoing severe symptoms: 4.6% of YP (compared to 3.9% national average)
- Not applicable: 13.9% of YP (compared to 6.1% national average)

headspace Penrith Centre Activity Overview Report. Financial Year 2016/17 (1 July 2016 to 30 June 2017)

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

Burden of mental ill health.

Mental ill health is a leading cause of disease burden, disability and death in Australia.

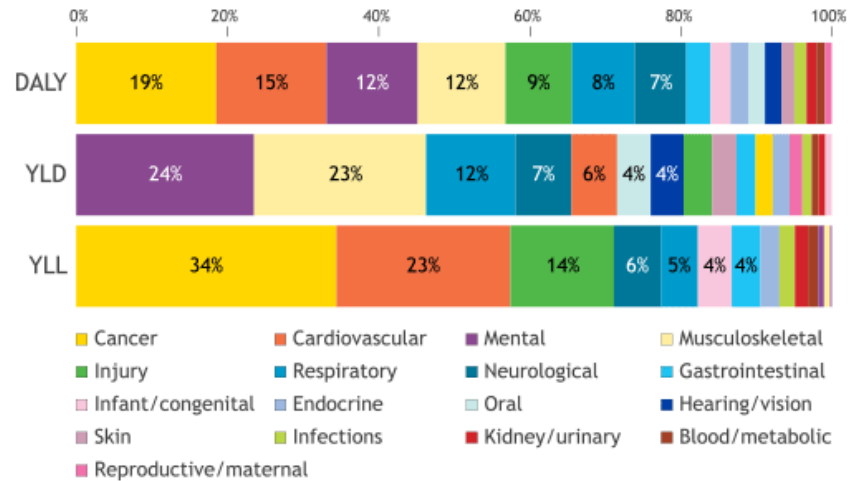
The burden of disease due to mental and substance use disorders in Australia rises dramatically from age 10 and peaks at ages 25-29 years

Data from the Australian Burden of Disease Study in 2011 indicate that mental health and substance use disorders were the third leading cause of the disease burden in Australia, accounting for 12% of the total disease burden. In addition, mental health and substance use disorders were the leading cause of the non-fatal loss of health or Years Lived with Disability (25% for males and 22% for females), and among the top two causes of total disease burden for adolescents and adults aged 15-44.

Figure 14: Representation of the proportion (%) of the total (DALY), non-fatal (YLD) and fatal (YLL) burden of disease, by disease group in Australia, 2011.

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

Proportion (%) of total, fatal and non-fatal burden by disease group, 2011

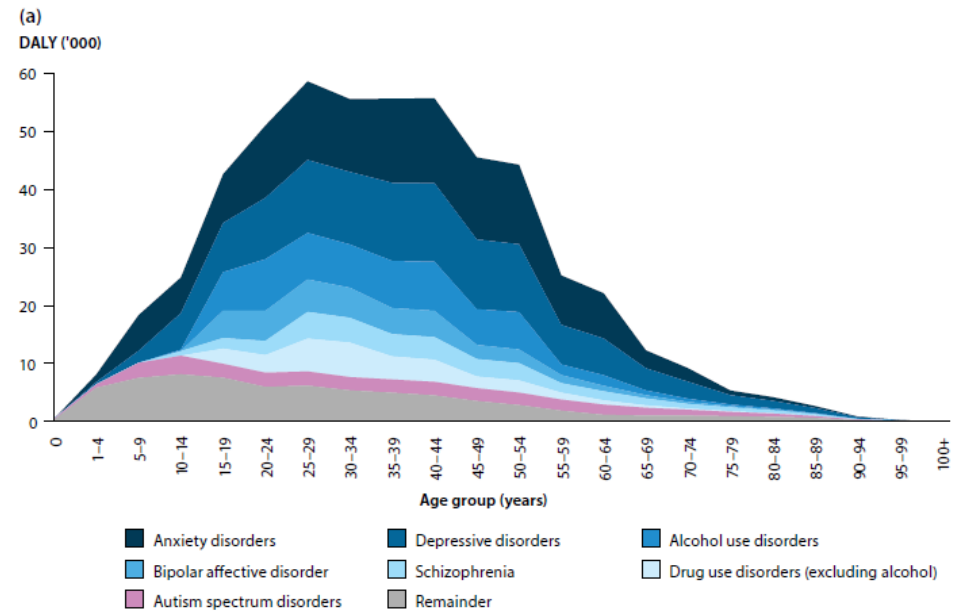


More than one-quarter (26%) of the burden of disease due to mental and substance use disorders was attributed to anxiety disorders, and a similar proportion to depressive disorders (24%). Alcohol use disorders attributed to a further 12% of the mental health and substance use disease burden.

The burden of disease due to mental and substance use disorders in Australia rises dramatically from age 10 and peaks at ages 25-29 years.

Figure 15: Representation of the total (DALY) burden of disease due to mental health and substance use disorders over the lifespan, by type of disorder in Australia, 2011

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*



Australian Institute of Health and Welfare 2016. Australian Burden of Disease Study: Impact and causes of illness and death in Australia 2011. Australian Burden of Disease Study series no. 3. BOD 4. Canberra: AIHW.

Burden of mental ill health.

Mental and behavioural disorders were the 5th leading cause of death (5.3% of all deaths) by category of cause in the NBM region in 2016.

Mental and behavioural disorders were the 5th leading cause of death by category of cause in the NBM region, accounting for 5.3% of all deaths (123 deaths) in 2016.

Health Statistics NSW: Deaths by category and cause, NBMPHN 2016

Burden of mental ill health.

Over 75% of deaths for people living with mental health are related to chronic conditions with CVD and cancer as leading causes

In Australia, people living with mental health conditions die earlier than the average Australian, with the greatest gap observed for people with severe mental illness who die 10-15 years earlier. Of particular concern is that more than three quarters (77%) of excess

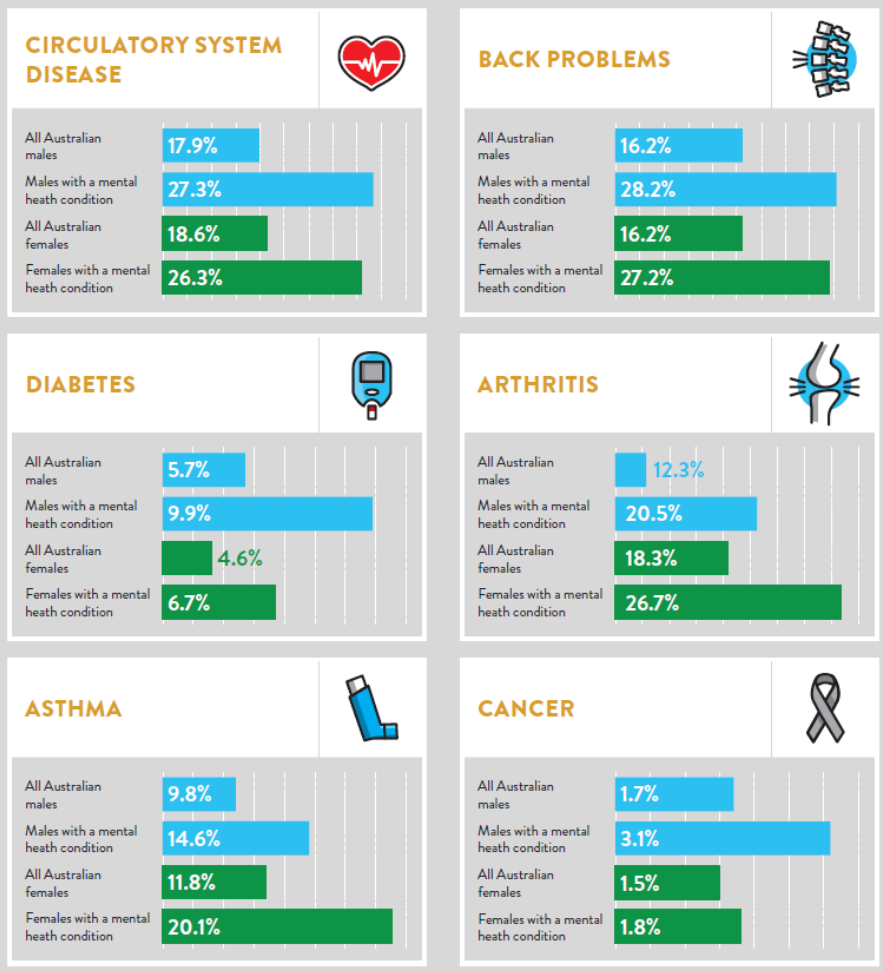
Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<p>deaths among people who access psychiatric services are due to chronic physical health conditions, with cardiovascular disease and cancer the two major causes.</p> <p><i>Lawrence D, Hancock KJ, Kisely S. The gap in life expectancy from preventable physical illness in psychiatric patients in Western Australia: retrospective analysis of population based registers. British Medical Journal. 2013; 346:f2539.</i></p> <p>While caution is urged when extrapolating the gap in life expectancy for patients of psychiatric services to all Australians living with mental health conditions, there is also convincing evidence that mental health conditions are associated with a shorter life-expectancy and increased risk of death for patients with other chronic health conditions.</p> <p><i>Harris B, Duggan M, Batterham P, Bartlem K, Clinton-Mcharg T, Dunbar J, Fehily C, Lawrence D, Morgan M, Rosenbaum S, 2018. Australia’s Mental and Physical Health Tracker: Background Paper, Australian Health Policy Collaboration issues paper no. 2018-02, Melbourne, AHPC</i></p>
<p>Burden of mental ill health.</p>	<p>Approximately 9,288 persons (3.2% of the general population and 16% of people with a mental illness) in the NBMPHN region have two or more mental health disorders.</p> <p>59% of people with a mental health condition suffer one or more chronic conditions.</p>	<p>In the NBM adult population aged 18-85 years in 2017, an estimated 9,288 persons (3.2% of the general population and 16% of people with a mental illness) had two or more mental health disorders.</p> <p><i>Mental Health of Nepean Blue Mountains Local Health District Population, 2017</i></p> <p>While about half (50%) of Australians live with one chronic condition, Australians with a mental health condition are more likely than the general population to have another chronic condition. An estimated 29.3% of Australians with a mental health condition have one other chronic condition, and a further 30.5% have two or more chronic conditions (59.8% in total).</p> <p>Further, research evidence indicates that people with a mental and physical health condition report poorer general health and ability to participate in daily activities compared to people who have a mental or physical health condition alone.</p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<p><i>Harris B, Duggan M, Batterham P, Bartlem K, Clinton-Mcharg T, Dunbar J, Fehily C, Lawrence D, Morgan M, Rosenbaum S, 2018. Australia’s Mental and Physical Health Tracker: Background Paper, Australian Health Policy Collaboration issues paper no. 2018-02, Melbourne, AHPC</i></p>
<p>Burden of mental ill health.</p>	<p>Higher prevalence of major physical conditions and reduced quality of life among people with mental health conditions.</p> <p>The highest prevailing chronic conditions in order are:</p> <ul style="list-style-type: none"> • COPD • Asthma • Back problems • Diabetes • Cancer • Circulatory diseases 	<p>Data from the National Health Survey in 2014-15 were examined to determine the association between mental and physical health conditions and presented in Australia’s Mental and Physical Health Tracker 2018 report.</p> <p>Figure 16: Infographic summary of the prevalence of chronic physical health conditions for Australian males and females with and without a mental health condition</p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

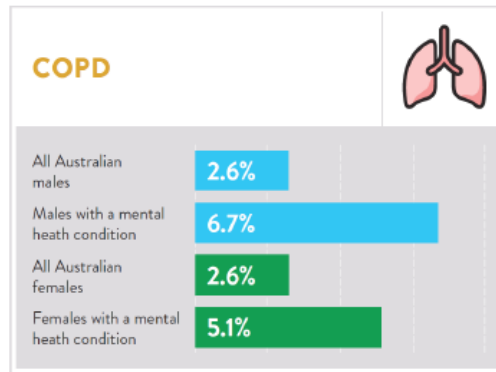


A summary of major physical conditions affecting people with mental health conditions are presented below.

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<p>Circulatory diseases: People with mental health conditions were much more likely to have circulatory system diseases compared to the general population. Males with mental health conditions were 52% more likely and females with mental health conditions were 41% more likely to report having a circulatory system disease.</p> <p>Diabetes: Males with mental health conditions were 74% more likely to report having diabetes and females with mental health conditions 46% more likely to report having diabetes compared to the general population. Research has also identified that metabolic side effects of many psychoactive medications may contribute to higher rates of obesity and diabetes among people with mental health conditions.</p> <p>Asthma: Males with mental health conditions were 49% more likely to report having asthma, while women with mental health conditions were 70% more likely to report having asthma compared to the general population.</p> <p>Back problems: Males with mental health conditions were 74% more likely to report having back pain, while women with mental health conditions were 68% more likely to report having back pain compared to the general population. It is noted that the relationship between pain and mental health conditions may be bidirectional; pain is potentially linked to poorer mental health, and poor mental health increasing vulnerability to pain.</p> <p>Arthritis: Males with mental health conditions were 66% more likely to report having arthritis, while women with mental health conditions were 46% more likely to report having arthritis compared to the general population. Similarly to back pain, it is noted that the relationship between arthritis and mental health conditions may be bidirectional.</p> <p>Chronic obstructive pulmonary disease (COPD): Males with mental health conditions were 158% more likely to report having COPD, while women with mental health conditions were 96% more likely to report having COPD compared to the general population. It is noted that in 2011, three quarters (75%) of the COPD burden was attributable to tobacco use.</p>
--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*



Cancer: Males with mental health conditions were 82% more likely to report having cancer, while women with mental health conditions were 20% more likely to report having cancer compared to the general population.

Reduced quality of life:

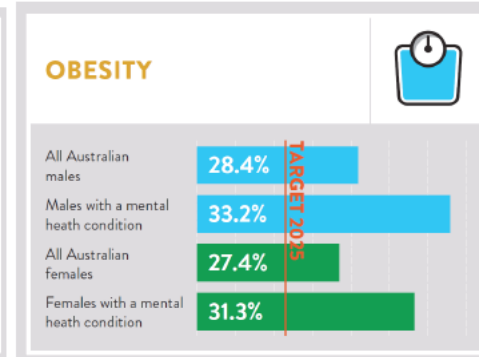
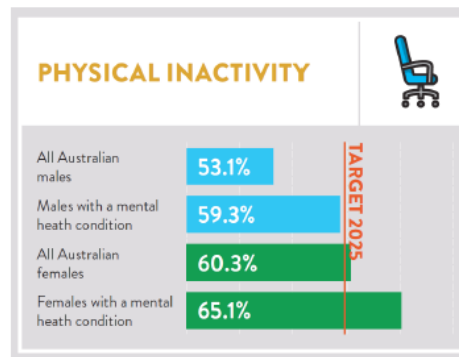
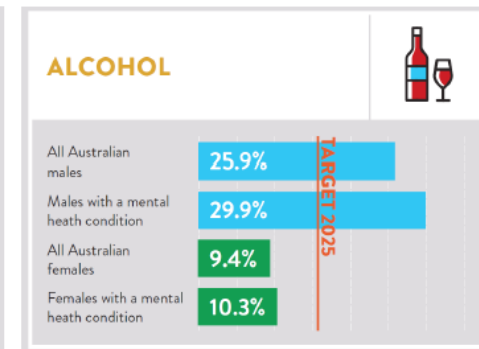
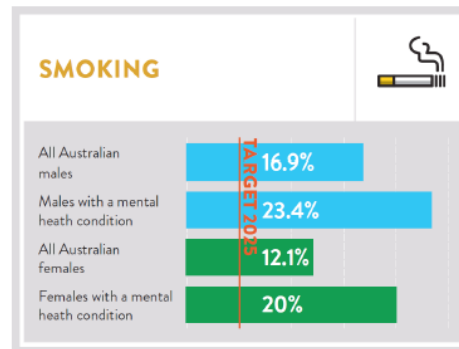
The World Mental Health Survey identifies that mental health conditions are associated with higher individual-level disability than any of the commonly occurring physical health conditions including arthritis, asthma, cancer, diabetes and heart disease, and that comorbid mental health conditions can exacerbate functional disability.

Mental and physical health problems together can have a greater impact on functional status and quality of life than physical illness alone. A significant part of the reason identified for such poorer outcomes is the impact a co-existing mental health problem may have upon a person’s ability to actively manage their other health conditions, including understanding and self-managing the conditions, attending multiple appointments, and managing complex medication regimens.

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<p><i>Harris B, Duggan M, Batterham P, Bartlem K, Clinton-Mcharg T, Dunbar J, Fehily C, Lawrence D, Morgan M, Rosenbaum S, 2018. Australia’s Mental and Physical Health Tracker: Background Paper, Australian Health Policy Collaboration issues paper no. 2018-02, Melbourne, AHPC</i></p> <p><i>Dunbar, JA, Duggan, M, Fetherston, H, Knight, A, Mc Namara, K, Banks, E, Booth, K, Bunker, S, Burgess, P, Colagiuri, S, Dawda, P, Ford, D, Greenland, R, Grenfell R, Knight S & Morgan, M. Heart Health: the first step to getting Australia’s health on track. Australian Health Policy Collaboration: Melbourne, Victoria University, October 2017</i></p> <p><i>Moussavi S, Chatterji S, Verdes E, Tandon A, Patel IV, Ustun B. Depression, chronic diseases, and decrements in health: results from the World Health Surveys. The Lancet. 2007;370(9590):851-8.</i></p> <p><i>Royal Australian College of General Practitioners. Guidelines for preventive activities in general practice. 9th edition. East Melbourne 2016</i></p>
<p>Burden of mental ill health.</p>	<p>Higher prevalence of behavioural and biomedical risk factors for chronic physical health conditions among persons with mental health conditions</p> <p>The highest prevailing risk factors among persons with mental health conditions are:</p> <ul style="list-style-type: none"> • Smoking (54% more likely to smoke) • Obesity (16% more likely to be obese) • Alcohol (12.5% more likely to report risky drinking) • High cholesterol (16% more likely to have high cholesterol) • Physical inactivity (9.5% more likely to not meet physical activity guidelines) 	<p>The prevalence of known behavioural and biomedical risk factors for chronic physical health multi-morbidities among people with mental health conditions were also quantified by the Australia’s Mental and Physical Health Tracker 2018 report, with comparisons to the general Australian population.</p> <p>Figure 14: Infographic summary of the prevalence of behavioural and biomedical risk factors for chronic physical health conditions for Australian males and females with and without a mental health condition</p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*



Smoking: People reporting mental health conditions were much more likely to smoke than the general population. Males with mental health conditions were 38% more likely to smoke and females 69% more likely to smoke than the general population.

Smoking rates have additionally been found to be particularly high among specific sub-groups with mental health conditions. The 2010 National Psychosis survey found almost two-thirds (65.9%) of respondents were current smokers. 46% of Aboriginal and Torres Strait Islander people with a mental health condition report smoking daily compared to 33% with a physical health condition and 39% with no condition. The highest smoking rates are reported

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

among patients accessing psychiatric inpatient services. Finally, unlike other sections of the Australian population, smoking prevalence among people living with mental health conditions has remained relatively unchanged rather than fallen over the past two decades.

Alcohol: People reporting mental health conditions were more likely to report risky drinking (average alcohol consumption of more than two standard drinks per day over the past year) Males with mental health conditions were 15% more likely to report risky drinking and females with mental health conditions were 10% more likely to report risky drinking than the general population.

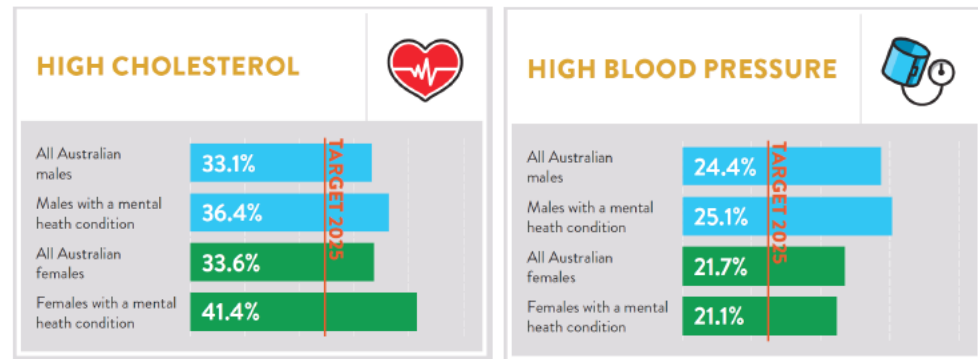
Physical inactivity: People with mental health conditions were much less likely to meet physical activity guidelines than the general population (meaning no or little exercise for fitness, recreation, sport or walking for transport in the last week). Males with mental health conditions were 11% more likely to report physical activity levels that did not meet the guidelines and females with mental health conditions were 8% more likely to report physical activity levels that did not meet the guidelines.

Obesity: People with mental health conditions were more likely to be obese than the general population. Men with mental health conditions were 17% more likely and females 14% more likely to report body measurements classifying them as obese compared to the general population.

High cholesterol: People with mental health conditions were much more likely to have high cholesterol than the general population. Men with mental health conditions were 10% more likely and females 22% more likely to have high cholesterol compared to the general population.

High blood pressure: Unlike other risk factors, there were only small differences in high blood pressure between people living with mental health conditions and the general population – slightly higher for men and slightly lower for women with mental health conditions.

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*



The report identifies that a significant proportion of the chronic disease burden can be prevented or better managed by addressing these risk factors.

Harris B, Duggan M, Batterham P, Bartlem K, Clinton-Mcharg T, Dunbar J, Fehily C, Lawrence D, Morgan M, Rosenbaum S, 2018. Australia’s Mental and Physical Health Tracker: Background Paper, Australian Health Policy Collaboration issues paper no. 2018-02, Melbourne, AHPC

Burden of mental ill health.

Highest rate of hospitalisations for mental health disorders in NBMPHN compared to 10 NSW PHN regions.

In 2016-17, there were 9,390 hospitalisations among NBM residents for mental disorders, comprising 7.1% of all hospitalisations. The NBM hospitalisation rate for mental health disorders (2,486 per 100,000 persons) was the highest in the state, and significantly higher than for all NSW PHN regions (1,894 per 100,000 persons)

Health Statistics NSW online portal – Hospitalisations by category of cause, NBMPHN and NSW, 2016-17 [Accessed September 2018].

Highest rates of mental health-related hospitalisations in the NBM region for drug

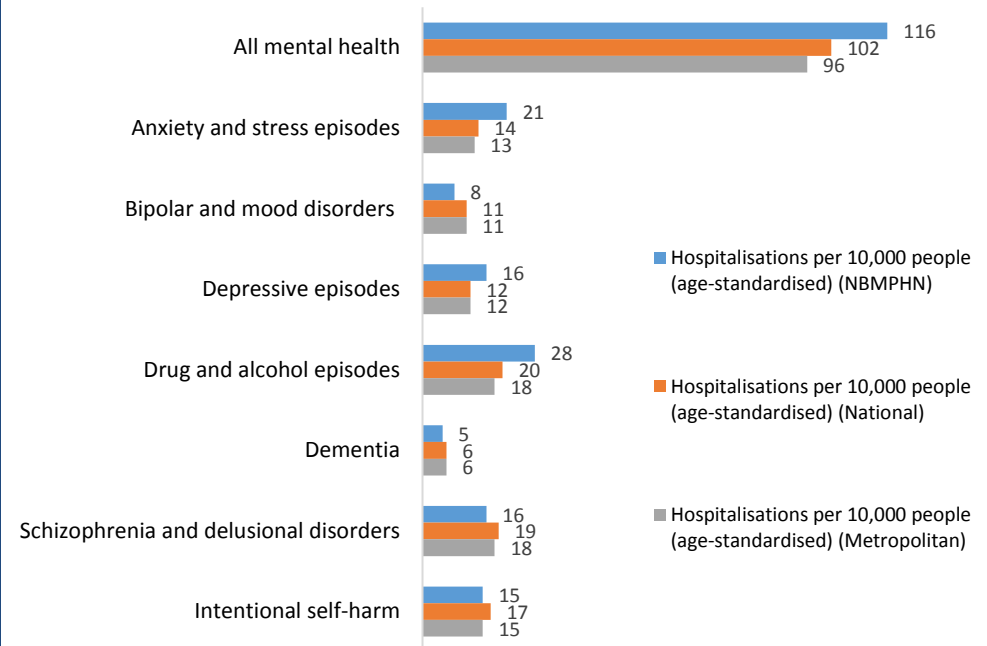
When comparing hospitalisation rates by type of mental health condition within the NBMPHN region, these were highest for drug and alcohol episodes (28 per 10,000 people),

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

	<p>and alcohol episodes, anxiety and stress, and depressive episodes.</p> <p>Highest rate of bed days for mental health-related hospitalisations in the NBM region for: schizophrenia and delusional disorders, depressive episodes and drug and alcohol episodes.</p>	<p>followed by anxiety and stress episodes (21 per 10,000 people) then depressive episodes and schizophrenia and delusional disorders (16 per 10,000 people each) (Figure 15). The rate of bed days per 10,000 people for mental health condition hospitalisations however were highest for schizophrenia and delusional disorders (453 per 10,000 people), followed by depressive episodes (248 per 10,000 people), drug and alcohol episodes (216 per 10,000 people) and anxiety and stress episodes (185 per 10,000 people) (Figure 16).</p>
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

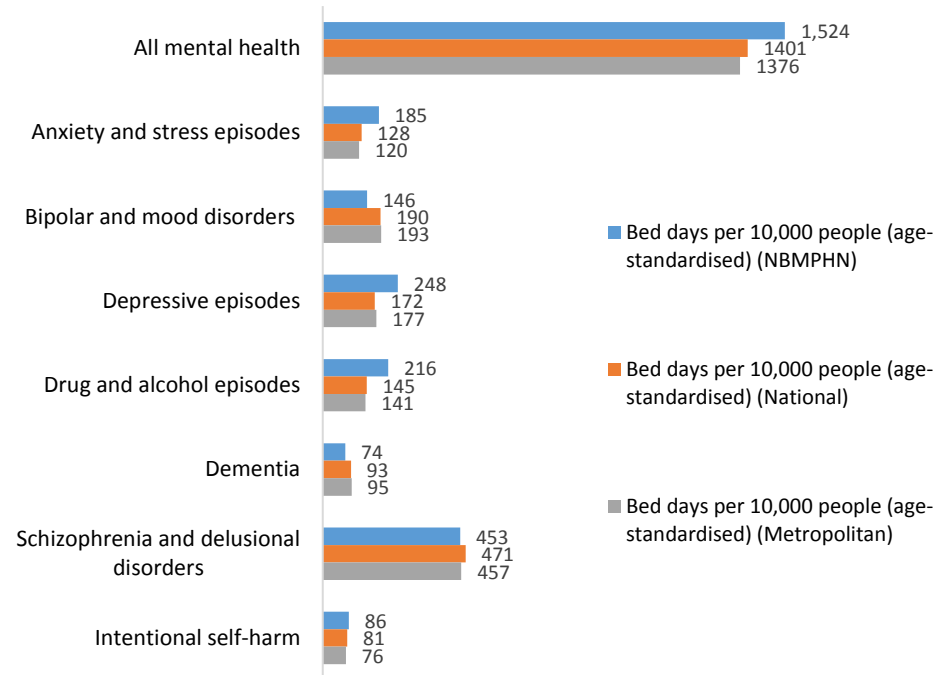
Figure 17: Hospitalisations for mental health conditions and intentional self-harm per 10,000 people (age-standardised) in 2015-16: NBMPHN vs. Australian and Metropolitan PHNs



Australian Institute of Health and Welfare 2017 – Hospitalisations for mental health conditions and intentional self-harm, 2013-14 to 2015-16

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

Figure 18: Bed days for mental health condition and intentional self-harm hospitalisations per 10,000 people (age-standardised) in 2015-16: NBMPHN vs. Australian and Metropolitan PHNs



Australian Institute of Health and Welfare 2017 – Hospitalisations for mental health conditions and intentional self-harm, 2013-14 to 2015-16

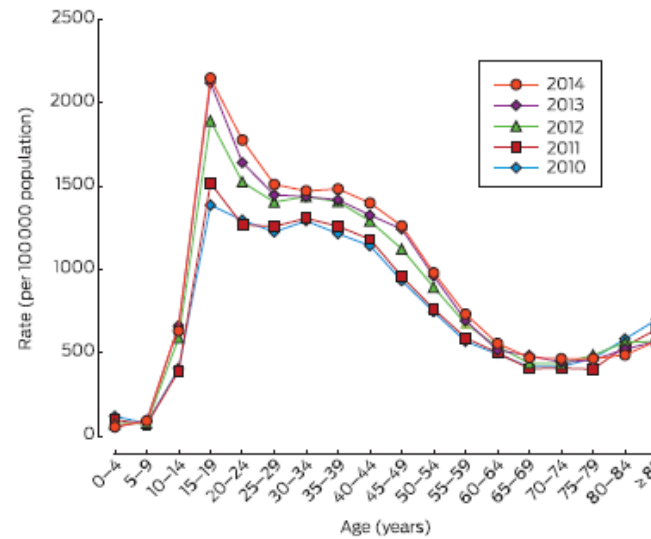
Highest rates and greatest increase in mental-health related presentations to NSW Emergency Departments are by young people with rapid increase in rates by 10-14 year olds.

Research into population trends in presentations to emergency departments in NSW between 2010 and 2014 for patients presenting with mental health problems, identified that presentations rates were highest for 15-19 year old persons (in 2014, 2167 per 100,000

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

persons). Presentation rates had grown most rapidly for 10-14 year-old children (13.8% per year).

Figure 19: Age-specific rates of presentations for mental health problems to NSW emergency departments, 2010-2014.



Perera J, Wand T, Bein KJ, Chalkley D, Ivers R, Steinbeck KS, Shields R and Dinh M. Presentations to NSW emergency departments with self-harm, suicidal ideation, or intentional poisoning, 2010-2014. Medical Journal of Australia. 2018;208(8):348-353

Risk Factors

Leading attributable risk factor for mental disorders and substance use disorders was for alcohol.

In the most recent Australian Burden of Disease study 2011 the leading attributable risk factor for mental disorders and substance use disorders was found to be alcohol (12% of attributable burden) drug use, childhood sexual abuse and intimate partner violence each contributed less than 10% of the burden.

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<p><i>Australian Institute of Health and Welfare 2016. Australian Burden of Disease Study: Impact and causes of illness and death in Australia 2011. Australian Burden of Disease Study series no. 3. BOD 4. Canberra: AIHW.</i></p>
<p>Mental Health Nurse Incentive Program (MHNIP clients)</p>	<p>Unmet need: the number of MHNIP clients in the NBMPHN region is low relative to the regional MHNIP benchmarks.</p>	<p>MHNIP MDS data indicates that there were 161 (86 being new referrals) MHNIP clients in the NBMPHN in 2017-18. The distribution of these individuals across the LGAs was:</p> <ul style="list-style-type: none"> • Blue Mountains: 59 • Hawkesbury: 52 • Lithgow: 9 • Penrith: 41 <p>The MHNIP data can also be expressed as a proportion per 100,000 people. The proportion of people accessing MHNIP in the NBMPHN was 43 per 100,000. The distribution of these individuals across the LGA was:</p> <ul style="list-style-type: none"> • Blue Mountains: 75 per 100,000 • Hawkesbury: 78 per 100,000 • Lithgow: 42 per 100,000 • Penrith: 20 per 100,000 <p>Applying the proportions specified in the <i>MHNIP Evaluation Report</i> (0.58% of the 18-64-year-old population) implies that the target MHNIP clients for the NBMPHN is 1,288. Broken down across the LGAs, the target population in each region would be:</p> <ul style="list-style-type: none"> • Blue Mountains: 270 • Hawkesbury: 230 • Lithgow: 70 • Penrith: 710 <p>The shortfall between actual clients and benchmark clients can be calculated by taking the difference between the MHNIP benchmark target clients and current MHNIP clients. The shortfall in the NBMPHN is estimated 1,127 individuals. The indicative MHNIP shortfall in each LGA would be:</p>

Outcomes of the health needs analysis – Primary Mental Health Care: <i>Mental Health</i>		
		<ul style="list-style-type: none"> • Blue Mountains: 211 • Hawkesbury: 178 • Lithgow: 61 • Penrith: 669 <p><i>Healthcare Management Advisors, Evaluation of the Mental Health Nurse Incentive Program: Final Report, Melbourne, 2012</i></p> <p><i>Australian Bureau of Statistics, Estimated Resident Population by LGA, 2016</i></p> <p><i>Department of Health, MHNIP clients; Minimum Dataset Extraction, 2016-17</i></p>
Aboriginal and Torres Strait Islander population distribution	<p>Aboriginal and Torres Strait Islander population proportion of 3.7% in the NBMPHN, with uneven distribution among the region's LGAs.</p> <p>Penrith has the highest population numbers while Lithgow has the highest proportion of Aboriginal people in the NBM region.</p>	<p>Based on 2016 census data, the number of Aboriginal and Torres Strait Islander people in the NBMPHN numbered around 13,165. The breakdown of Aboriginal and Torres Strait Islander population across the LGAs was:</p> <ul style="list-style-type: none"> • Blue Mountains: 1,823 • Hawkesbury: 2,393 • Lithgow: 1,208 • Penrith: 7,741 <p>The above figures translate to an Aboriginal and Torres Strait Islander population proportion of 3.7% in the NBMPHN. The breakdown of Aboriginal and Torres Strait Islander population proportions by LGAs was:</p> <ul style="list-style-type: none"> • Blue Mountains: 2.4% • Hawkesbury: 3.7% • Lithgow: 5.7% • Penrith: 3.9% <p><i>Australian Bureau of Statistics, Estimated Aboriginal and Torres Strait Islander Resident Population by LGA, 2016</i></p>
Aboriginal People and Prevalence of Long-	The number of Aboriginal and Torres Strait Islander people with a long-term mental	The <i>National Aboriginal and Torres Strait Islander Social Survey 2014-15</i> indicates that 29.3% of Aboriginal and Torres Strait Islander people aged 15 years and over have a long-term mental health condition. This is approximately more than twice the age-standardised rate of

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

<p>term Mental Health Condition</p>	<p>health condition in the NBMPHN is potentially large.</p>	<p>long-term mental health conditions estimated for the total population living in NBM LGAs (range from 12.3 to 14.9 per 100 persons). Applying this figure to the NBMPHN population implies that around 3,857 Aboriginal and Torres Strait Islander people in the NBM region have a long-term mental health condition. Across the PHN LGAs this would be:</p> <ul style="list-style-type: none"> • Blue Mountains: 534 • Hawkesbury: 701 • Lithgow: 354 • Penrith: 2,268 <p><i>Australian Bureau of Statistics National Aboriginal and Torres Strait Islander Social Survey: 2014-15, Canberra, 2016</i></p> <p><i>Australian Bureau of Statistics, Estimated Aboriginal and Torres Strait Islander Resident Population by LGA, 2016</i></p> <p><i>Mental Health of Nepean Blue Mountains Local Health District Population, 2017</i></p>
<p>Aboriginal People and Psychological Distress</p>	<p>The number and proportion of Aboriginal and Torres Strait Islanders with <i>high</i> or <i>very high</i> levels of psychological distress is large.</p>	<p>The <i>National Aboriginal and Torres Strait Islander Social Survey 2014-15</i> indicates that 32.8% of Aboriginal and Torres Strait Islander people have <i>high</i> or <i>very high</i> levels of psychological distress. After adjusting for differences in the age-structure of populations, Indigenous adults were 2.6 times more likely to experience high or very high psychological distress compared to non-Indigenous adults.</p> <p>Applying this figure to the NBMPHN population implies that 4,318 Aboriginal and Torres Strait Islanders experienced high or very high psychological distress in the previous four weeks. Applying LGA proportions to this total implies the number of Aboriginal and Torres Strait Islander people who experienced high or very high psychological distress in the previous four weeks by LGA would be:</p> <ul style="list-style-type: none"> • Blue Mountains: 598 • Hawkesbury: 785 • Lithgow: 396 • Penrith: 2,539

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

	<p>Higher prevalence of high or very high psychological distress in Aboriginal adults is attributable to greater physical morbidity and disability</p>	<p><i>Australian Bureau of Statistics National Aboriginal and Torres Strait Islander Social Survey: 2014-15, Canberra, 2016</i></p> <p><i>Australian Bureau of Statistics, Estimated Aboriginal and Torres Strait Islander Resident Population by LGA, 2016</i></p> <p>Recent research conducted using the Sax Institute’s 45 and Up Study cohort of NSW middle aged and older residents examined the relationship of psychological distress to socio-demographic factors, health risk factors, illness, physical disability and functional capacity among Aboriginal and Torres Strait Islander and non-Aboriginal Australians, and compared factors contributing to the difference in psychological distress between the two groups.</p> <p>The findings indicated that while the prevalence of high psychological distress was around three times higher among Aboriginal compared to non-Aboriginal participants, the major risk factors for distress were similar in both groups. These include: poorer health (multi-morbidity, physical disability and functional limitations), lower social support and lower socioeconomic status.</p> <p>Of significance was that the majority of the difference in distress prevalence was accounted for by differences in physical morbidity (the number of self-reported medical conditions) and disability (self-reported as regularly needing help with daily tasks because of long-term illness or disability). This is the first study in Australia showing that differences in the prevalence of psychological distress among Aboriginal people is attributable to greater physical ill health, combined with lower social support and lower socio-economic status.</p> <p>The authors conclude that to reduce psychological distress among Aboriginal Australians, greater attention is needed on primary prevention of the primary causes of physical morbidity, including improved screening for psychological distress and improved integration of social and emotional wellbeing in primary care and chronic disease management.</p> <p><i>McNamara BJ, Banks E, Gubhaju L, Joshy G, Williamson A, Raphael B, Eades S. Factors relating to high psychological distress in Indigenous Australians and their contribution to Indigenous–non-Indigenous disparities. Australian and New Zealand Journal of Public Health. 2018; 42:145-52</i></p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

High Burden of Mental Ill Health among Aboriginal People

Mental ill health is the leading cause of disease burden among Aboriginal people

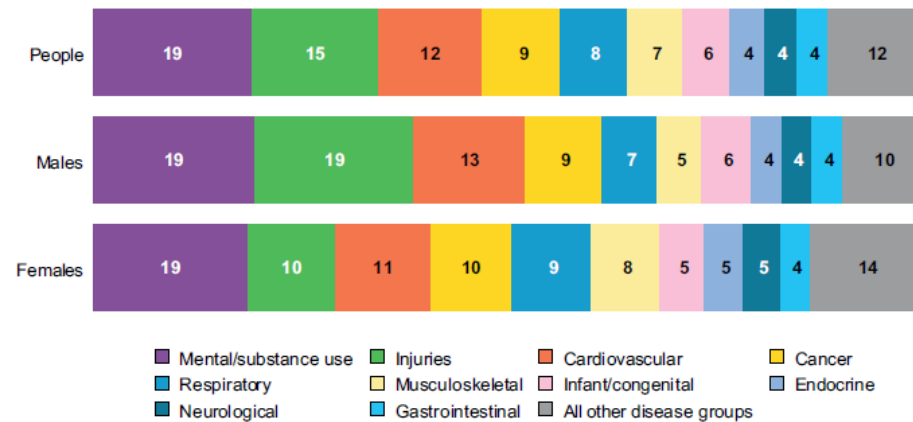
Data from the latest Australian Burden of Disease Study indicate Indigenous Australians experienced a burden of disease that was 2.3 times the rate of non-Indigenous Australians. Mental health and substance use disorders as a disease group contributed to the greatest burden (19% of the total) among Aboriginal and Torres Strait Islander Australians in 2011. In addition, mental health and substance use disorders were responsible for 14% of the total disease gap burden between Indigenous and non-Indigenous Australians.

Figure 20: Representation of the proportion (%) of the total burden of disease (DALY), by disease group for Indigenous males and females in Australia, 2011.

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

Anxiety, alcohol use and depressive disorders are among the highest contributor to the mental health and substance use disease burden among Aboriginal people.

The burden of disease due to mental and substance use disorders for Indigenous Australians peaks at ages 15-19 years



Source: Table 4.1.

Figure 4.3: Proportion (%) of total burden (DALY), by disease group and sex, Indigenous Australians, 2011

Australian Institute of Health and Welfare 2016. Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011. Australian Burden of Disease Study series no. 6. Cat. no. BOD 7. Canberra: AIHW.

Within mental health and substance use disorders, the main causes of the burden were: anxiety disorders (23% of the total burden), alcohol use disorders (22%), depressive disorders (19%), schizophrenia (8%) and drug use disorders (6%).

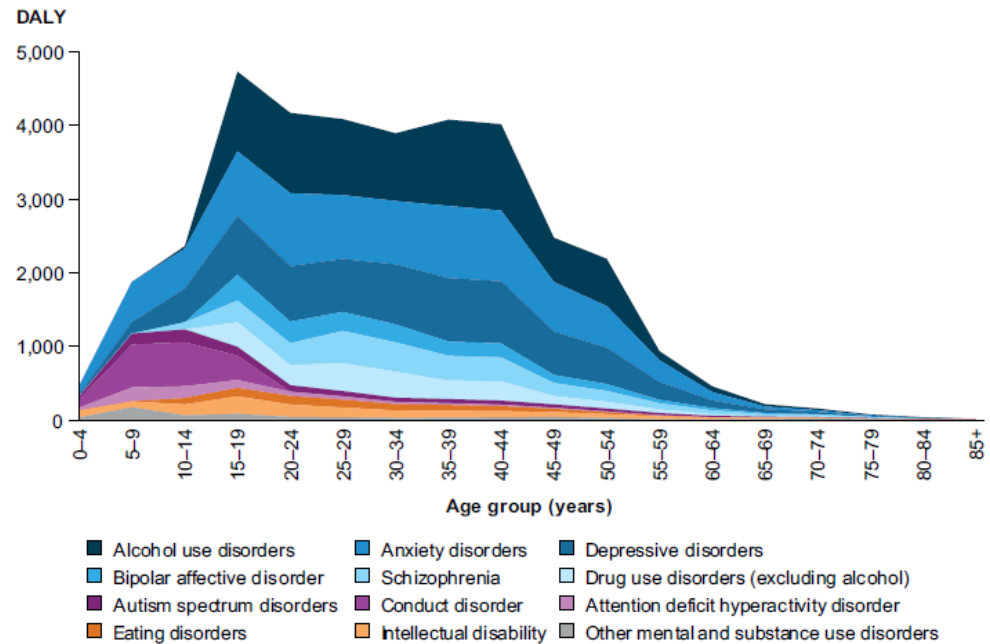
Australian Institute of Health and Welfare 2016. Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011. Australian Burden of Disease Study series no. 6. Cat. no. BOD 7. Canberra: AIHW.

The total disease burden due to mental and substance use disorders peaks at ages 15-19 years for Indigenous Australians. This is reflective of the high number of disorders estimated for this age group, including: alcohol use disorders, depressive disorders, conduct disorder, ADHD and bipolar affective disorders.

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

Identified risk factors for mental illness and substance use disorders among Indigenous Australians include: alcohol use, childhood sexual abuse, drug use and intimate partner violence.

Figure 21: Representation of the total burden of disease (DALY) due to mental health and substance use disorders over the lifespan, by type of disorder for Indigenous Australians, 2011



Australian Institute of Health and Welfare 2016. *Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011. Australian Burden of Disease Study series no. 6. Cat. no. BOD 7. Canberra: AIHW.*

The leading attributable risk factors for mental disorders and substance use disorders among Indigenous Australians were found to be: alcohol use (22.2%), childhood sexual abuse (7.7%), drug use (5.9%) and intimate partner violence (2.5%).

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<p><i>Australian Institute of Health and Welfare 2016. Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011. Australian Burden of Disease Study series no. 6. Cat. no. BOD 7. Canberra: AIHW.</i></p>
<p>Aboriginal People And Service Accessibility</p>	<p>A relatively low proportion of Aboriginal and Torres Strait Islander people access psychological and psychiatric services.</p> <p>A relatively higher proportion of Aboriginal and Torres Strait Islander people access the Access to Allied Psychological Services program</p>	<p>Based on MBS services claimed across Australia, Indigenous Australians were less likely than non-Indigenous Australians in 2015-16 to have claimed through Medicare for psychologist care (133 compared with 200 per 1,000) or psychiatric care (52 compared with 97 per 1,000).</p> <p>In comparison, Indigenous Australians across Australia utilised the Access to Allied Psychological Services program at 3.5 times the rate of non-Indigenous Australians in 2015-16, had mental health related problems managed by GPs at 1.2 times the rate compared to non-Indigenous Australians between 2010 and 2015, and accessed specialised community mental health services at 4 times the rate of contacts compared to non-Indigenous Australians in 2014-15. These findings indicate that Indigenous Australians are accessing primary care level mental health services more readily than specialist services, in comparison to non-Indigenous Australians.</p> <p><i>Aboriginal and Torres Strait Islander Health Performance Framework: 2017 Report</i></p>
<p>Aboriginal People Hospitalisation</p>	<p>The proportion of Aboriginal people hospitalised for mental health conditions is high relative to non-Indigenous Australians.</p> <p>Evidence indicates there is a strong reluctance among Aboriginal people to access hospital-based mental health care services involving psychiatric care.</p>	<p>Between July 2013 and June 2015, mental health related conditions were the principle reason for hospitalisations, excluding dialysis, for Indigenous Australians. Hospitalisations for mental health-related conditions were 2.1 times higher for Indigenous males compared with non-Indigenous males and 1.5 times higher for Indigenous females compared with non-Indigenous females.</p> <p>Between July 2013 and June 2015, hospitalisations for ambulatory community mental health care services were 0.3 times as high for Indigenous Australians than for non-Indigenous Australians when involving specialised psychiatric care; however were 3 times the rate when without specialised psychiatric care. Hospitalisations for admitted patient mental health care were twice as high for Indigenous Australians than for non-Indigenous Australians when with</p>

Outcomes of the health needs analysis – Primary Mental Health Care: <i>Mental Health</i>		
		<p>specialised psychiatric care, and were 3.2 times as high for non-Indigenous Australians when without specialised psychiatric care.</p> <p>These findings together indicate a strong reluctance by Aboriginal people to access hospital-based mental health care services involving psychiatric care.</p> <p><i>Aboriginal and Torres Strait Islander Health Performance Framework 2017</i></p>
Aboriginal People Mental Health & Social and Emotional Wellbeing	Critical importance of improving social and emotional wellbeing among Aboriginal people and Aboriginal communities	<p>The National Aboriginal and Torres Strait Islander Health Plan 2013-2023 identifies the critical importance of a positive sense of social and emotional wellbeing (connection to land, culture, cultural identity, spirituality, ancestry, family and community) as a foundation for physical and mental health among Aboriginal people.</p> <p>The Health Plan recommends promoting positive mental health among Aboriginal people by:</p> <ul style="list-style-type: none"> • Addressing the determinants and risk factors associated with poor mental health; • Recognition of the protective factors of culture and the strong connection between culture and positive wellbeing by local services; • Support for Aboriginal and Torres Strait Islander families and communities by services and programs that promote child development and effective parenting to, foster healthy and resilient children; • Building the mental health and social and emotional wellbeing workforce, including Aboriginal and Torres Strait Islander people; • Recognising that sport can play an important role in strengthening individuals' self esteem, dignity, connection to community and social and emotional wellbeing; • Developing the cultural competence of mainstream mental health services. <p><i>National Aboriginal and Torres Islanders Health Plan 2013-2023</i></p>
Poor mental health among CALD Communities	Significant presence of mental health issues within CALD communities in the NBM region.	The Breaking Barriers Bringing Understanding (3BU) project studied the mental health perspectives of CALD communities in Penrith, Hawkesbury, Blue Mountains and Lithgow between August 2015 and July 2016. The project reported a significant presence of mental

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<p>health issues in the participant CALD Communities. Depression and anxiety were the most common mental health issues related to migration and resettlement experiences.</p> <p>Other contributing causes of mental health issues among CALD communities in the region include low socio-economic status, migration, pre-migration (including traumatic events) and post-migration (financial stresses, unemployment, isolation, language barriers, family breakdown and acculturation).</p> <p><i>Breaking Barriers Bringing Understanding (3BU) Project report, Nepean Migrant Access, 2016</i></p> <p>These findings are consistent with Australian research that indicates the mental health of many migrants tends to deteriorate after the first 12 months spent in Australia. This is often linked to the stressful process of acculturation, language and social difficulties and difficulties in finding employment.</p> <p><i>Anikeeva O, Peng B, Hiller PR, Roder D, & Han GS. The Health Status of Migrants in Australia: A review. Asia Pacific Journal of Public Health. 2010;22(2):159-193.</i></p>
	<p>Mental health issues common amongst local Syrian refugee intake.</p>	<p>Local settlement services have indicated that approximately 45 Syrian refugee families have settled in the Penrith LGA since March 2016. Focus group discussions held with local Syrian refugee communities highlight common mental health issues experienced among this group include: sleeplessness, trauma, anxiety, depression, loneliness, isolation and other psychological issues affecting wellbeing.</p> <p><i>Wentworth Healthcare Limited 2016 - Addressing the needs of Syrian and Iraqi refugees in the Nepean Blue Mountains region: a formative assessment of health and community services needs.</i></p>
<p>Poor mental health among LGBTI population</p>	<p>Higher rates of poor mental health among LGBTI population.</p>	<p>Research indicates that LGBTI people in Australia experience disproportionately poorer mental health compared to their non-LGBTI peers, in particular:</p> <ul style="list-style-type: none"> • 24.4% of lesbian, gay and bisexual people and 36.2% of trans people experienced a major depressive episode in 2005, compared with 6.8% of the general population.

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<ul style="list-style-type: none"> • Lesbian, gay and bisexual people are twice as likely to have a high/very high level of psychological distress (18.2% v. 9.2%). • Greater disparity in poorer mental health for young age groups: 55% of LGBTI women aged 16-24 years compared with 18%, and 40% of LGBTI men aged 16-24 years compared with 7% experience mental health problems. • More than twice as many homosexual/bisexual Australians experience anxiety disorders as heterosexual people (31% vs 14%) and over three times as many experience affective disorders (19% vs 6%). • Rates of depression, anxiety and poor mental health in general are highest among trans and bisexual people. <p>Key causal factors contributing to such elevated risk of poor mental health among LGBTI people include: exposure to and fear of discrimination, exclusion and social isolation within families and broader society. As such LGBTI people are a marginalised group in Australia.</p> <p><i>Rosenstreich, G. (2013) LGBTI People Mental Health and Suicide. Revised 2nd Edition. National LGBTI Health Alliance. Sydney</i></p>
<p>Service Integration Prison Population Post Release</p>	<p>Correctional facilities in the NBM region.</p>	<p>4 of the 40 NSW correctional centres and 3 community corrections offices are located in the NBM region.</p> <p><i>NSW Government, Justice – Correctional Centres in NSW. Available at:</i> https://www.correctiveservices.justice.nsw.gov.au/Pages/CorrectiveServices/custodial-corrections/table-of-correctional-centres/correctional-centres.aspx</p>
<p>Access to mental health services in underserviced and / or hard to reach populations</p>	<p>The number of individuals who speak a language other than English at home accounts for a small, but notable portion of NBMPHN PIR clients.</p>	<p>Of the 365 clients registered under the NBMPHN PIR program in 2017-18, 20 clients (5.5%) spoke a language other than English at home.</p> <p>The 2011 Census found that about 34,000 people (or 11.8%) in the NBMPHN catchment spoke a language other than English, including 3,700 individuals who did not speak English well or at all. Local service provider stakeholder consultations indicate these numbers were higher than the estimates of people who spoke a language other than English in the</p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<p>NBMPHN catchment, based on the 2016 Census. This is likely due to an underestimate of CALD populations in the 2016 Census. The percentage difference (5.5% vs 11.8%) reflects the difficulty experienced by PIR in engaging members of CALD communities with mental health services.</p> <p><i>NBMPHN, Partners in Recovery program database as at 20 September 2018</i></p> <p><i>Australian Bureau of Statistics, Census 2011: Language Spoken at Home</i></p> <p><i>NBMLHD Multicultural Health Services Unit</i></p>
	<p>The number of individuals who are boarding house residents: people in homeless shelters and homeless people living in public places with a mental illness accounts for a small portion of NBMPHN PIR clients.</p>	<p>According to estimates of homelessness in Australia from the 2016 Census, there were 116,427 people who were homeless at the time of the 2016 Census, at a rate of 50 people for every 10,000. The AIHW Report <i>Australia's Welfare 2017</i> also identifies that 25.9% of all clients accessing specialist homelessness services in Australia had a current mental health issue. . Applying these proportions to the NBMPHN, the estimated numbers of people who were both homeless and experiencing mental illness in 2017 would be as follows:</p> <ul style="list-style-type: none"> • NBMPHN: 1,858 homeless (481 with mental illness) comprising: <ul style="list-style-type: none"> ○ Blue Mountains: 394 homeless (102 with mental illness) ○ Hawkesbury: 332 homeless (86 with mental illness) ○ Lithgow: 108 homeless (28 with mental illness) ○ Penrith: 1,024 homeless (265 with mental illness) <p>During the PIR program reporting period 2017-18, 30 registered clients of the NBMPHN program were homeless (n=4 boarding / rooming house / hostel or hostel type accommodation; n=5 homeless persons' shelters; n=21 public place (homeless)). Homeless clients comprised 8.2% of all PIR program clients in the NBMPHN.</p> <p>While these numbers may be slightly overstated as PIR specifically targets people with complex circumstances, including homelessness, overall the number of PIR registered clients who were homeless account for a very small proportion of people in the NBMPHN region who were both homeless and experiencing a mental illness</p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<p><i>NBMPHN, Partners in Recovery reporting template, 2017-18</i></p> <p><i>Australian Institute of Health and Welfare 2017. Australia's welfare 2017. Australia's welfare series no. 13. AUS 214. Canberra: AIHW.</i></p> <p><i>Estimated Resident Population by LGA, Australian Bureau of Statistics, 2017</i></p> <p><i>Australian Bureau of Statistics - 2049.0 - Census of Population and Housing: Estimating homelessness, 2016</i></p>
	<p>Top unmet needs identified for PIR clients include: access to other services, ongoing psychological distress, daytime activities, physical health care needs, and social life/inclusion.</p>	<p>According to data from completed Needs Assessment ratings completed by PIR Support Facilitators on intake, review &/or exit to the PIR program, the top five identified unmet needs of PIR clients in 2017-18 were:</p> <ul style="list-style-type: none"> • Other services • (Ongoing) Psychological distress • Daytime activities • Physical health care needs, and • Company (social life, due to social isolation) <p><i>NBMPHN PIR Interim Client Activity Report 01/07/17 to 30/06/18</i></p>
	<p>Significant negative impacts of homelessness upon health, mental health and mental health service use among homeless people in the NBM region.</p>	<p>A local cross-sectoral and multi-agency partnership project conducted within the Penrith, Blue Mountains and Hawkesbury LGA communities in 2016-17 identified the most vulnerable people in the region (those experiencing homelessness) as well as key issues faced by those persons, which are impacted and exacerbated by homelessness. These include:</p> <ul style="list-style-type: none"> • Dental health: 60% of persons interviewed reported having dental problems • Respiratory health: 45% of persons interviewed reported having asthma and 12% had emphysema • Mental health service use:

Outcomes of the health needs analysis – Primary Mental Health Care: *Mental Health*

		<ul style="list-style-type: none">○ 64% of persons reported they have had some type of interaction with the mental health system○ 20% reported having been taken to hospital against their will○ 29% reported they had presented to the emergency department for a mental health concern○ 59% had spoken to a mental health professional in the last six months. <p><i>Wentworth Community Housing – Heading Home: Ending Homelessness here, Stage 1 report, December 2017. Available at:</i> http://wiki.nbmphn.com.au/wiki/images/7/72/HeadingHomeReport_WEB_final_2018.pdf</p>
--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

PSYCHOSOCIAL NEEDS

Outcomes of the health needs analysis – Primary Mental Health Care: <i>Psychosocial Needs</i>		
Identified Need	Key Issue	Description of Evidence
Social Isolation	Social and geographical isolation is major factor excluding NBM consumers from community participation and is a key issue in particular during periods of poor mental health.	<p>Data sources and recent community consultations have indicated the following specific issues relating to social isolation and community participation:</p> <ul style="list-style-type: none"> • 21% lone person households in the Nepean Blue Mountains region • Stigma around mental health was reported amongst consumers as a major factor excluding them from participation in social groups • Modelling on transport apps and anecdotal feedback identifies the Nepean Blue Mountains geography as a socially isolating factor. Transport options are limited and infrequent and many mental health services, creative interest groups and social activities are located in the Penrith hub. • Consumers across all four LGAs consistently reported a lack of regional peer support groups and fun activities for people with lived experience of mental health particularly between the ages of 25 to 65. • Connection to family, friends, religion, culture all help on the recovery journey but become difficult during periods of poor mental health • Higher than national average prevalence of empty nesters and retirees from 60 -69 years 11.1 % and a trend towards an ageing population particularly in the Blue Mountains and Lithgow. Amongst the 65 + age group there is an estimated 1806 people that fall within the NPSM target cohort <p><i>Community Connections. Vulnerability and Resilience in the Blue Mountains. Charles Sturt University Research Project 2015</i></p> <p><i>Nepean Blue Mountains PHN .id profile data</i> https://profile.id.com.au/nbmphn/age-sex-pyramid</p> <p><i>Mental Health Navigation Tool accessed at:</i> https://www.mentalhealthhelp.com.au/</p> <p><i>Transport for NSW website accessed at:</i></p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Psychosocial Needs*

		<p>https://transportnsw.info/</p> <p><i>Nepean Blue Mountains PHN – Addressing the Psychosocial needs of people with severe mental illness in the Nepean Blue Mountains – community consultation report, 2018</i></p> <p><i>Graham A, Hasking P, Brooker J, Clarke D, Meadows G. Mental health service use among those with depression: an exploration using Andersen’s Behavioural Model of Health Service Use. Journal of Affective Disorders, 15 January 2017, Vol. 208, pp. 170-176</i></p> <p><i>Psychosocial Interventions for the promotion of mental health and the prevention of depression among older adults. Forsman, Nordyr and Wahlbeck.</i></p>
<p>Mental Health Literacy and system navigation knowledge</p>	<p>Poor mental health literacy, poor knowledge of local psychosocial services available and how to navigate mental health service system by consumers is reported consistently across NBMPHN.</p>	<p>Broad consultation flagged a regional theme of mental health literacy and a deficit in knowledge of how to navigate the mental health service system. Consumers reported they are not able to find psychosocial support when they need it. The mental health service sector surveys revealed very poor knowledge of psychosocial services available in the region.</p> <p>Synthesis of the data identified the priority groups for focus on improving mental health literacy:</p> <ul style="list-style-type: none"> -Consumers -General Practitioners -Human Services Sector -CMO Sector -Community and social groups -Target populations listed below in detail <p><i>Fifth National Mental Health and Suicide Prevention Plan</i></p> <p><i>Nepean Blue Mountains PHN – Addressing the Psychosocial needs of people with severe mental illness in the Nepean Blue Mountains – community consultation report, 2018</i></p> <p><i>Digital workforce surveys</i></p> <p><i>Consumer and carer digital surveys</i></p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Psychosocial Needs*

		<p><i>Blue Mountains Stronger Families Alliance Analysis Report – Harwood Community Consultation 2016</i></p>
<p>Aboriginal and Torres Strait Islander Communities</p>	<p>Lack of dedicated Aboriginal mental health clinicians and targeted psychosocial programs for Aboriginal and Torres Strait Islander communities impact negatively on engagement with regional mental health services.</p>	<p>Data sources and recent community consultations have indicated the following issues relating to psychosocial needs among Aboriginal and Torres Strait Islander communities in the NBM region:</p> <ul style="list-style-type: none"> • 3.7% or 14,128 people in NBM identify as Aboriginal and Torres Strait Islander – significantly higher than the Greater Sydney numbers of 1.5%. • Overrepresentation in mental health statistics: 30% of Indigenous adults have high or very high levels of psychological distress. • Regional clinical context flags a lack of Aboriginal workforce – there is currently only one Aboriginal identified LHD mental health clinician and no longer a targeted psychosocial program for Aboriginal and Torres Strait Islander populations. Research cites lack of culturally validated models of mental health care and this is evidenced in the low rates of engagement with mainstream youth and adult mental health service in the area. • Qualitative feedback flags a social housing deficit and low referral rates into HASI programs. <p><i>National Strategic Framework for Aboriginal and Torres Strait Islander people’s Mental Health and Social Emotional Wellbeing. – Action area 5 Care for People Living with a Severe Mental Illness: Outcome 5.2</i></p> <p><i>Psychosocial Service Provider quantitative data</i></p> <p><i>My Life My Lead. Opportunities for strengthening approaches to the social determinants and cultural determinants of Indigenous health. December 2017</i></p> <p><i>headspace HAPI data</i></p> <p><i>Addressing the Psychosocial needs of people with severe mental illness in the Nepean Blue Mountains – community consultation report</i></p> <p><i>The health and welfare of Australia’s Aboriginal and Torres Strait Islander people. Australian Institute of Health and Welfare</i></p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Psychosocial Needs*

<p>CALD Communities</p>	<p>There is an identified need for different avenues which promote access to mental health promotion, psychosocial groups and appropriate referral pathways in the NBM region across CALD community groups.</p>	<p>The following issues relating to psychosocial needs among CALD communities in the NBM region have been identified:</p> <ul style="list-style-type: none"> • 12% or 45, 823 of people living in the Nepean Blue Mountains speak a language other than English at home. This number increased by 25.5% in the last census and there are specific emerging groups in the region • Regional Clinical Context: <ul style="list-style-type: none"> - Lack of bilingual, culturally safe mental health services in the Nepean Blue Mountains. Anecdotally service providers report that people travel out of area to find an appropriate service - Lack of bilingual GPs and mental health care professionals in the region. GP mental health treatment plans are necessary for ATAPS referrals – this excludes many people in need from CALD communities from primary care mental health treatment. Young people from these communities do not present in large numbers to headspace Penrith. Statistics and qualitative feedback show these communities present at the Triage and Assessment Centre (TAC) at Nepean Hospital. - Limited use of interpreters in Primary Care settings <p>Considering the above limitations to clinical care in the CALD communities, psychosocial needs assessment raised the following gaps:</p> <ul style="list-style-type: none"> • Access to gatekeeper mental health training to improve recognition, management and knowledge of referral pathways across CALD community groups • Support for carers with different world views and consumer self-stigma around mental illness <p>Mental health promotion and advertising of psychosocial groups via different channels such as community radio for CALD populations with low English literacy and literacy in their first language.</p> <p><i>NBMPHN ATAPS data</i> <i>HAPI headspace data</i> <i>FECCA: Submission to the Senate Standing Committee on Community Affairs</i> <i>NBMPHN community consultations</i></p>
--------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Primary Mental Health Care: *Psychosocial Needs*

		<p><i>Dual vulnerabilities. Mental Illness in a culturally and linguistically diverse society. Contemporary Nurse, 01 October 2012, Vol.42(2), p.156-166</i> <i>CCNA face to face interviews with CALD service providers</i></p>
<p>Homeless Populations</p>	<p>Persons with housing instability experience difficulties with NDIS applications, making this group likely to be eligible for the NPSM.</p> <p>High prevalence of mental illness and comorbid physical health conditions among homeless persons, and poor engagement with mainstream services.</p> <p>Poor engagement between homelessness and mental health services in the NBM region.</p> <p>Potential poor capacity among homeless sector services to respond to client mental health needs due to lack of mental health first aid training.</p>	<p>The following issues relating to psychosocial needs among homeless populations in the NBM region have been identified:</p> <ul style="list-style-type: none"> • An estimated 1,351 people estimated homeless in the region according to 2016 census data • Only 7% of homelessness service providers in the region have contact with mental health services. • Particular vulnerabilities and national prevalence of mental illness and homelessness correlation amongst young people transitioning from state care systems. • Research indicates 75% of homeless populations have at least one mental illness compared to 20% in the general population. • Correlation and psychosocial causation are intertwined and difficult to unpick in this cohort as there are not enough data sets, but housing instability can make NDIS applications difficult and therefore this cohort a likely candidate for NPSM <p><i>“This included teething problems with the NDIS not adequately addressing psychosocial problems, criteria that discourages preventative mental health care, the lack of collaboration between mental health and drug and alcohol services, and the overall lack of mental health facilities and Housing and Support Initiative (HASI) packages in the Penrith region” (Heading home. Wentworth Housing)</i></p> <ul style="list-style-type: none"> • Lack of stable housing and rough sleeping exacerbates comorbid physical health conditions (a specific recommendation for collaboration in the PHI report) • Mental health consumers experiencing housing problems reported lack of engagement with mainstream services due to stigma and shame • Lack of mental health first aid training within homeless sector services as many are operated on minimal budgets and volunteer staff

Outcomes of the health needs analysis – Primary Mental Health Care: *Psychosocial Needs*

		<p><i>Heading home: Endless homelessness here. Project evaluation final report. Wentworth Community Housing</i></p> <p><i>Homelessness Australia. Homelessness and Aboriginal and Torres Strait Islanders Fact Sheet. Homelessness Australia; 2016.</i></p> <p><i>Down and Out in Sydney (Hodder, Teeson & Burich, 1998)</i></p> <p><i>Id.profile community demographic resources</i></p> <p><i>Addressing the Psychosocial needs of people with severe mental illness in the Nepean Blue Mountains – community consultation report</i></p>
<p>Comorbid mental health AOD and Physical health conditions</p>	<p>High prevalence of co-morbid mental health, AOD and physical health conditions among the NPS cohort.</p>	<p>Consultations indicate a high prevalence of co-morbid mental health, AOD and physical health conditions among the NPS cohort. Specific issues include:</p> <ul style="list-style-type: none"> • Access to mental health friendly GPs also an issue for this cohort but has particularly negative implications for people with comorbid physical health issues • GP interviews revealed financial constraints and lack of multidisciplinary case conferences to deal with co-morbidities • Lack of communication feedback loops with GP and primary care generally post discharge from acute mental health admissions were cited as a reason for deteriorating mental health and re-presentation to acute settings • Mental Health and Substance use disorders are the third largest cause of total disease burden in Australia and the leading cause of non-fatal disease burden. • In Aboriginal and Torres Strait Islander populations comorbid mental health and substance use is the leading total disease burden. Aboriginal consumer feedback also identified a lack of medical specialists who bulk bill leading to physical health complications • Local Drug Action Team consultations reiterate themes of social isolation leading to comorbid mental health and AOD issues <p><i>Australian Institute of Health and Welfare. Australian Burden of Disease Study: Impact and causes of illness and death in Australia 2011. Australian Burden of Disease Study series no. 3.BOD 4. Canberra, AIHW.</i></p> <p><i>2018 LDAT Forum Report and Action Plan</i></p>

Outcomes of the health needs analysis – Primary Mental Health Care: *Psychosocial Needs*

<p>Employment and Volunteering opportunities</p>	<p>There is a lack of volunteering opportunities in the NBM region which would significantly benefit people with a lived experience of mental health to increase social and economic benefits, life skills and connection to community.</p> <p>Identified need for mental health awareness training among local employers and volunteer organisations in the NBM region.</p>	<p>Consumer consultations highlight the need for improved opportunities among potentially eligible NPS participants to participate in volunteering opportunities.</p> <p>Specific views and concerns expressed include:</p> <ul style="list-style-type: none"> • Consumers expressed a desire to volunteer (when able to) and give back to the community rather than be perceived as a burden. Numerous studies support the benefits of volunteering amongst people with lived experience of mental health to increase social and economic participation • 17. 2% of the total Nepean Blue Mountains population report performing voluntary work. However, feedback from mental health consumers is that there is a lack of volunteering opportunities for them to enable the development of employment and life skills and to provide connection to community. • Qualitative data indicated that employers and volunteer organisations need education about mental health and how to make their workplaces and organisations more inclusive. <p><i>Nepean Blue Mountains .id Profile demographic resources</i> <i>NSW National Centre for Volunteering: National Standards</i> <i>Volunteering in middle age linked to better mental health. Nursing Standard (2014+), Aug 17, 2016, Vol.30(51), p.16</i> <i>Tabassum F et al (2016) Association of volunteering with mental well-being: a lifecourse analysis of a national population-based longitudinal study in the UK. BMJ Open. doi: 10.1136/bmjopen-2016-011327</i> <i>Addressing the Psychosocial needs of people with severe mental illness in the Nepean Blue Mountains – community consultation report</i></p>
---------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

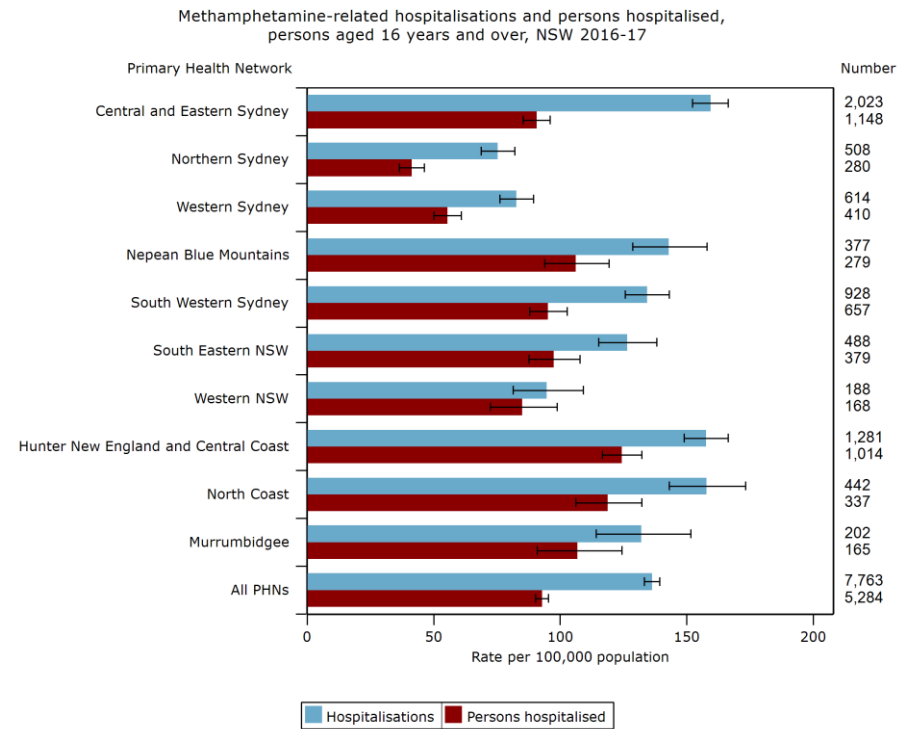
Alcohol and Other Drugs

SUBSTANCE USE (POPULATION PREVALENCE AND RISK FACTORS)

Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (<i>Population prevalence and risk factors</i>)		
Identified Need	Key Issue	Description of Evidence
2.1 Increasing demand for AOD services.	<p>Increasing recent use and frequency of use of crystal methamphetamines (ice) across the Australian population.</p> <p>Dramatic increase in hospitalisations related to methamphetamine use over the previous 5-years, with consistently higher rates than the NSW average.</p> <p>Among the Australian population in 2016, methamphetamine is perceived to be the drug most likely to be associated with a ‘drug problem’, and of most concern to the general community, more than doubling for both compared to 2013.</p>	<p>One key finding of the National Ice Taskforce that is of particular concern to regional planning was the increasing usage of crystalline form methamphetamine. This was reported to have more than doubled in the period between 2007 (100,000 surveyed users) and 2013 (over 200,000 surveyed users).</p> <p><i>Final Report of the National Ice Taskforce, 2015</i></p> <p>The 2013 and 2016 National Drug Household Surveys similarly reported a change in the main form of methamphetamine used with ice replacing powder. There was no significant rise in population recent methamphetamine use in 2013 compared to 2010, reported stable at around 2.1%, and a significant decline in recent methamphetamine use was reported from 2013 to 2016, from 2.1% to 1.4%. However, the use of powder fell from 51% in 2010 to 29% in 2013, and further to 20% in 2016. At the same time the use of ice increased more than twofold from 22% in 2010 to 50% in the 2013 survey, and to 57% in the 2016 survey. Overall, recent ice use increased across the population from 2010 to 2016, from 0.4% to 0.8%.</p> <p>Findings from the 2016 National Drug Strategy Household survey also indicate that those using meth/amphetamine, particularly crystal/ice, are doing so with increased frequency. Between 2010 and 2016:</p> <ul style="list-style-type: none"> • Daily and weekly use of meth/amphetamines more than doubled, from 9.3% to 20% • Daily and weekly use among people who reported mainly using crystal/ice was even higher in 2016, increasing from 12.4% in 2010 to 25% in 2013 and to 32% in 2016.

		<p><i>Australian Institute of Health and Welfare, National Drug Strategy Household Survey detailed report, 2013.</i></p> <p><i>Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.</i></p> <p>Increased use of methamphetamines has been associated with a range of acute and chronic physical and mental problems. Psychosis is one possible consequence of methamphetamine use. Dependent methamphetamine users are also known to suffer from a variety of comorbid health problems.</p> <p><i>Department of Health and Aging, National Mental Report 2013.</i></p> <p>NBM region hospitalisations related to Methamphetamine have increased considerably since 2010 from a rate of 4.9 per 100,000 population to 97.1 in 2015 and 106.0 in 2016-17. This rate per 100,000 has been consistently higher than the NSW state which was 13.4 in 2010, 85.5 in 2015 and 92.8 in 2016-17.</p>
--	--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Figure 22: Methamphetamine-related hospitalisations by Primary Health Network, NSW 2016-17



Health Statistics NSW online portal – Methamphetamine-related hospitalisations and persons hospitalised, persons aged 16 years and over, NSW 2016-17

Unemployed people are 3.1 times as likely to have used meth/amphetamines as employed people. As observed in data collected in 2016.

Australian Institute Of Health And Welfare <https://www.aihw.gov.au>

Methamphetamine represents 27% for the drug of choice in NSW with Crystal representing 26% overall. For this Illicit Drugs Reporting System (IDRS) 2017 sample, Methamphetamine represented 36% of the drug injected most often in the previous month with Crystal representing 35% overall. The median days of use for NSW participants who had used some form of methamphetamine was 50 days in 2017 and 48 days for crystal methamphetamine use. Availability of Crystal was regarded as very easy by 57% of NSW participants.

Figure 23: Drug of choice among people who inject drugs in NSW: 2013-2017

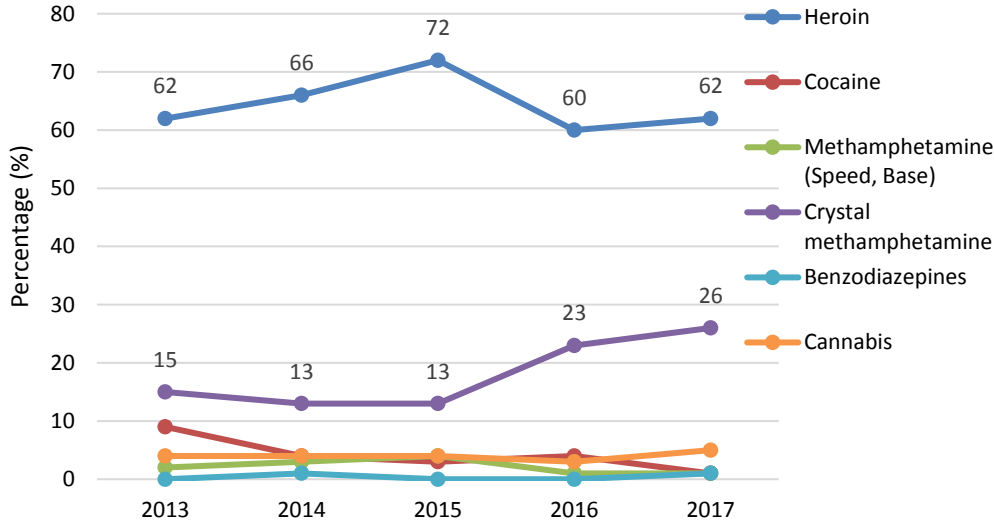
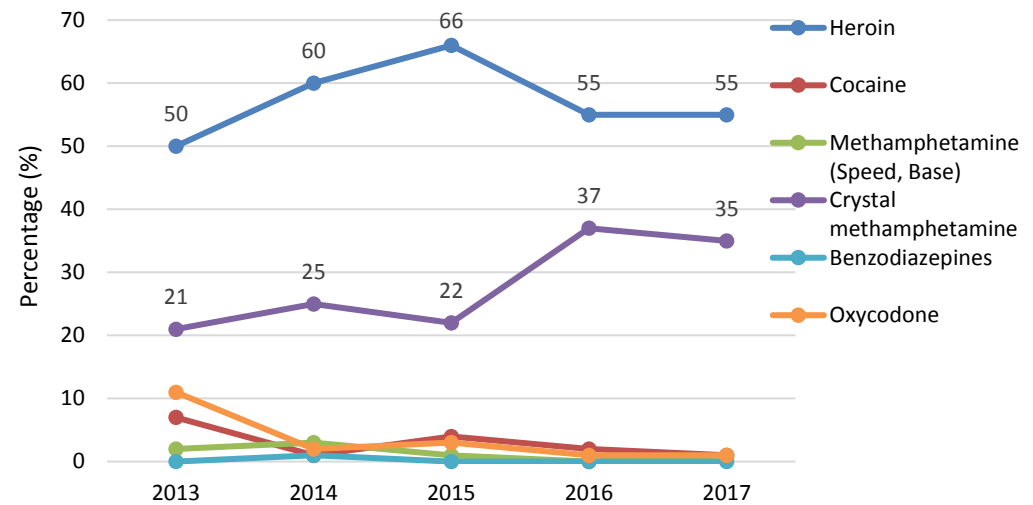


Figure 24: Drug injected most often in the last month, among people who inject drugs in NSW: 2013-2017



Data from the NSW IDRS sample participants upon trends in frequency of methamphetamine use are in keeping with national figures. Among those who reported some form of methamphetamine in the last 6 months, 16% of persons reported daily use, more than double compared to 7% of persons in 2013.

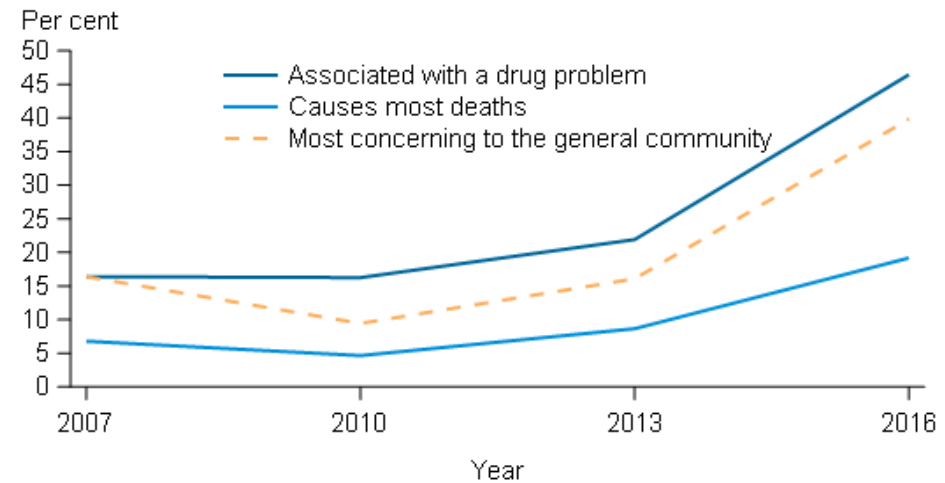
Uporova, J. (2018) New South Wales Drug Trends 2017. Findings from the Illicit Drug Reporting System (IDRS). Australian Drug Trends Series No. 182. Sydney: National Drug & Alcohol Research Centre, UNSW Australia

There is growing concern of methamphetamine use among the general Australian population aged 14 years and older. In 2016:

- Methamphetamine was perceived to be the drug most likely to be associated with a 'drug problem', was of most concern for the general community, more than doubling for both compared to 2013.

- More people thought that methamphetamines were of greater concern to the general community than alcohol.

Figure 25: Perceptions of methamphetamines among people aged 14 years and older in Australia, 2007 to 2016



Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.

Local indicators of methamphetamine use are limited. Crime statistics for the NBM region indicate that Penrith LGA has higher Amphetamines use and possession compared to the state. In the twelve months up to June 2018, Penrith LGA reported 126.1 per 100,000 population compared to 88.4 per 100,000 for the state. There was a 36.7% decrease over the previous two years. Hawkesbury LGA also had higher Amphetamines use and possession compared to the state in the twelve months to June 2018 (98.3 vs. 88.4 per 100,000). Other LGAs: Lithgow and Blue Mountains reported rates less than the state average. All LGAs reported possession/use

		<p>rates less than the state average for use/possession of Narcotics, Cannabis, Ecstasy, Cocaine and Other Drugs.</p> <p><i>Bureau of Crime Statistics & Research: Crime Tool. Accessed 27/09/18</i> http://crimetool,boscar.nsw.gov.au/boscar/</p> <p>Local key stakeholder consultation reported that increasing methamphetamine use was one of two key changes in the client population seeking treatment for AOD substance use over the twelve month period to November 2017. The other was heroin use along with illicit fentanyl use.</p> <p>Ice (methamphetamine) use was regarded as the second highest used drug after alcohol for clients seeking treatment for AOD substance use in the NBM region.</p> <p><i>NBMPHN AOD Advisory Committee meeting, October 2017.</i></p>
<p>2.2 Increasing complexity of AOD clients.</p>	<p>Polydrug use, including daily smoking, drinking alcohol at risky levels and use of illicit drugs is reported nationally. AOD clients with complex needs have become the norm</p>	<p>In the National Drug Household Survey, polydrug use is defined as the use of more than one illicit and/or licit drug (including tobacco and alcohol) during the previous 12 months, but not necessarily at the same time.</p> <p>In 2016, just under 4 in 10 (39%) of those surveyed either smoked daily, drank alcohol at risky levels or used an illicit drug in the previous year. All three behaviours were reported for 2.8% of persons surveyed. Approximately half (49%) of daily smokers consumed alcohol at quantities regarded as risky. Daily smokers reported using an illicit drug at 36% in the previous year. Nearly 6 in 10 (58%) of persons who used illicit drugs also consumed alcohol at quantities regarded as risky, and 28% were daily smokers.</p> <p>Cannabis was reported as the drug most commonly used in addition to other illicit drugs in the previous year. Cannabis was used most among users of hallucinogens (88%), followed by ecstasy (79%), synthetic cannabinoids (78%) and methamphetamines (74%). People who misused pharmaceuticals along with cannabis were most likely to use only those substances</p>

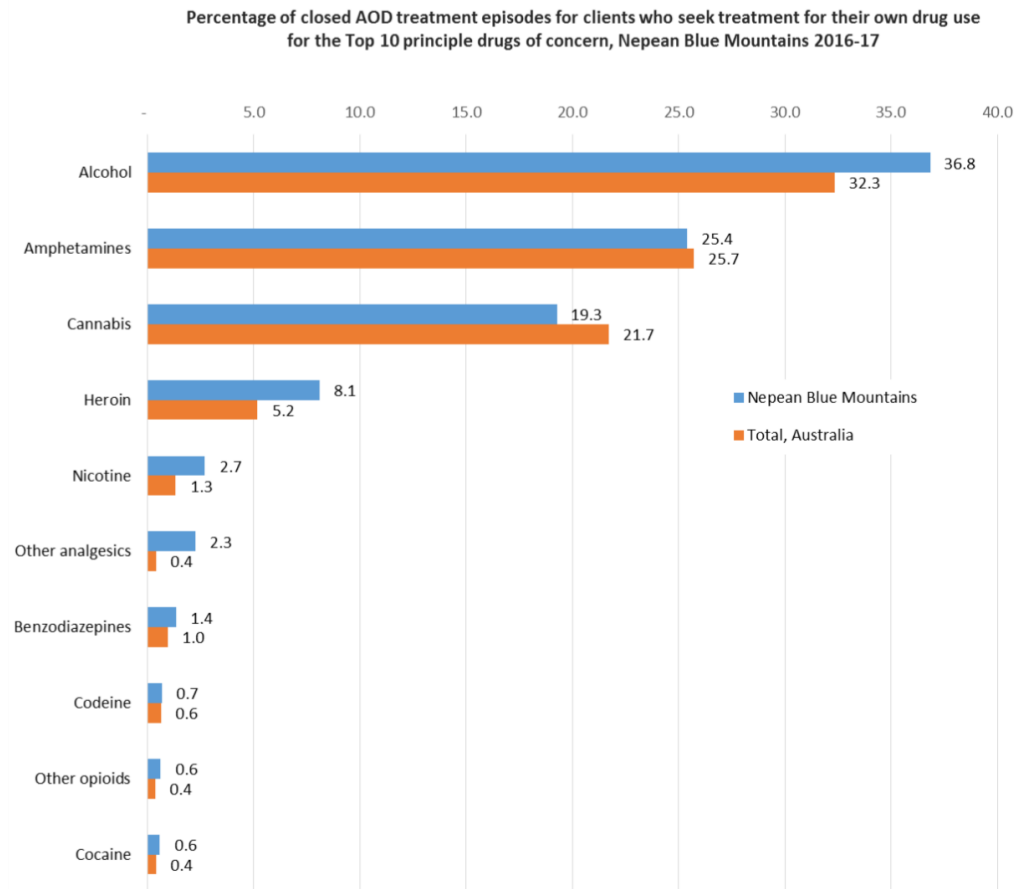
		<p>Risky drinking was highest among users of stimulants, including ecstasy (84%), cocaine (82%), hallucinogens (78%) and methamphetamines (73%); while daily smoking was highest among persons who recently used methamphetamines (52%).</p> <p><i>Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.</i></p> <p>NADA's submission (2013) to the NSW Parliament Legislative Council highlighted the increasing complexity of clients attending AOD treatment. They reported that complex clients are now regarded as the norm and not the exceptional client. The profile of typical clients supported by the NGO sectors was reported as:</p> <ul style="list-style-type: none"> - Having more than 10 years of Polydrug dependence - A history of multiple treatment episodes - A history of multiple incarcerations and multiple psychiatric admissions (generally without clear diagnosis or treatment continuity) - Undiagnosed and/or untreated PTSD - Having children removed by community services - Diagnosed with blood borne viruses - Having poor physical health including STIs - Isolated from their families and socially embedded with drug using peers - Frequently homeless - Entering treatment having used drugs during pregnancy - Not having a regular GP to support primary care - Having major dental problems - Having outstanding legal issues - A complex debt situation. <p><i>NADA. Submission to NSW Parliament Legislative Council: Inquiry into Drug and Alcohol Treatment, February 2013.</i></p>
2.3 At risk populations.	<p>Individuals and populations at risk of poor health outcomes:</p> <ul style="list-style-type: none"> • Aboriginal persons 	<p>Males are considerably more likely than females to use illicit and licit substances (except pain-killers). Females were less likely to drink alcohol at risky quantities that placed them at risk of harm. Females are also more likely to participate in strategies aimed at reducing problems</p>

	<ul style="list-style-type: none"> • People who live in remote and very remote locations • People living in areas with lowest socio-economic status • Persons who are unemployed • Persons who have been diagnosed with or received treatment for a mental illness • Persons from LGBTI communities 	<p>associated with drug use. The proportion of women consuming alcohol during pregnancy declined (from 42% in 2013 to 35% in 2016) and the proportion who abstained from alcohol increased (from 40% in 2007 to 56% in 2016). Pregnant women indicated that they tended to change their alcohol consumption and tobacco smoking when pregnant.</p> <p>Aboriginal people: High proportions of Aboriginal people smoke tobacco, abstain from drinking alcohol (but among those who do drink, use alcohol at risky levels), use cannabis and methamphetamines when compared to non-Aboriginal people according to results of the survey. After adjusting for differences in age structures and in comparison with the general population, Indigenous people in 2016 were:</p> <ul style="list-style-type: none"> • 2.3 times as likely to smoke tobacco daily • 1.4 times as likely to drink at risky levels, among those who consumed alcohol • 1.8 times as likely to use any illicit drug in the previous year • 1.9 times as likely to use cannabis • 2.2 times as likely to use methamphetamines • 2.3 times as likely to misuse pharmaceuticals <p>Remote & Regional: People who live in remote and very remote areas were reported as more likely to smoke, drink alcohol at risky levels, use cannabis and methamphetamines. However, people who live in remote and very remote areas were less likely to use illicit drugs such as cocaine and ecstasy compared with people living in major cities. The NBMPHN region is geographically diverse – while a significant proportion of the NBM population live in metropolitan areas, almost all persons living in the Lithgow LGA live in Inner Regional, and a small proportion within Outer Regional by Remoteness Area (by Remoteness Area geographical classification). A small proportion of persons living in the Blue Mountains and Hawkesbury LGAs also live within Inner Regional areas by Remoteness Area classification.</p> <p>Socioeconomic status: people living in areas with lowest socioeconomic status (SES) were 2.7 times more likely to smoke compared to people in the highest SES. However, people living in the lowest SES areas were more likely to abstain from alcohol, consume alcohol at risky levels and less likely to use ecstasy and cocaine than those with high SES rates. Refer to pages 50-51 for a summary of the most disadvantaged suburbs within each LGA in the NBMPHN region.</p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<p>Unemployment: Unemployment represents a major risk factor for substance use and the development of substance-use disorders. Daily smoking and illicit drug use were more prevalent among people who were unemployed. They were 1.8 times more likely to have smoked daily, 1.5 times more likely to have used cannabis, and 3.1 times more likely to have used methamphetamines, compared to people who were employed. The unemployment rate for the NBMPHN region according to the 2016 Census was 5.3%, with 3.1% of persons in the labour force looking for full-time work and 2.3% looking for part-time work. The highest levels unemployment by LGA in NBMPHN were: Lithgow (7.8% unemployed), Penrith (5.7% unemployed), Blue Mountains (4.7% unemployed) and Hawkesbury (4.3% unemployed).</p> <p>Mental illness: There is a strong relationship between illicit drug use and poor mental health, however it is not clear the extent to which drug use causes mental health problems and to what extent mental health programs gives rise to drug use. The later often occurs in the context of self-medication. Almost twice as many recent illicit drug users (26.5%) compared to non-users of illicit drugs (13.9%) have been diagnosed with, or received treatment for a mental illness. Illicit drug users were more than twice as likely to report high or very high levels of psychological distress in the month prior to the survey (22.2% compared with 9.7%). Risky use of alcohol and daily smoking were also linked to higher rates of diagnosed or treated mental illness or high/very high psychological distress. Refer also to Comorbidity with mental disorders. In 2017, 17.2% of the NBMLHD population aged over 16 years reported <i>high or very high</i> psychological distress. This was higher than the NSW rate of 15.1% and higher than previous recordings for the NBM region (14.8% in 2015 and 9.7% in 2013). In 2016-17, the NBM region had the highest rate of mental health-related hospitalisations in NSW.</p> <p>LGBTI groups: measured by survey include people who identified as lesbian, gay or bisexual. Overall consumption of alcohol in risky quantities, daily smoking, illicit drug use and misuse of pharmaceuticals were more common among this group than those of the heterosexual population. The largest differences reported were for use of ecstasy and methamphetamines which was 5.8 times greater than for heterosexual people for both. Cannabis use was 3.2 times greater and cocaine use 3.7 times greater than for heterosexual people.</p>
--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<p><i>Australian Institute of Health and Welfare, National Drug Strategy Household Survey detailed report, 2016.</i></p> <p><i>.id Community profile – Nepean Blue Mountains Primary Health Network. Available at: https://profile.id.com.au/nbmphn</i></p> <p><i>Health Statistics NSW online portal 2018 – High or very high psychological distress by Primary Health Network, persons aged 16 years and over, NSW 2017</i></p> <p><i>Health Statistics NSW online portal 2018 – Hospitalisations by category of cause, LHDs in NSW, 2016-17.</i></p>
<p>2.4 Substance and drug use: major categories</p>	<p>Trends in substance and drug use.</p> <p>The leading principle drugs of concern among NBM residents who sought treatment for their drug use in 2016-17 were:</p> <ul style="list-style-type: none"> • Alcohol • Amphetamines • Cannabis <p>Prevalence of chronic excessive alcohol consumption among adult patients presenting to General Practice in Australia is highest among: men, persons aged 45-64 years, Aboriginal and Torres Strait Islander patients, and those from disadvantaged socioeconomic areas.</p> <p>Concerns regarding potentially higher levels of codeine misuse in the NBM population than occurred prior to the scheduling of codeine in February</p>	<p>It was estimated in 2010 that 2.6% of the total burden of disease and 0.5% of deaths can be attributed to illicit drug use. In 2016, around 4 in 10 (43%) of people had ever used an illicit drug and 1 in 7 (15.6%) people had used an illicit drug in the previous 12 months.</p> <p>The data below compares the 2016 National Drug Household Survey with the approximate primary drug of concern in Nepean Blue Mountains Primary Health Network (NBMPHN) NGO's providing publicly funded treatment services for substance use.</p> <ul style="list-style-type: none"> - Alcohol: The survey lifetime risk of harm from alcohol use is 17.1% and has declined significantly in recent years from 18.2% in 2013. In 2016 alcohol was the second main drug of concern for the general community by household survey respondents at 28.4%. 1 in 7 (13%) of people in Australia reported they drank at risky levels on a weekly basis. <ul style="list-style-type: none"> ○ Alcohol use as the primary concern represents 36.8% of NBMPHN AOD treatment episodes and was the highest reason for seeking treatment. NGO's also report an increase in alcohol use. ○ Rates of alcohol attributable deaths in the NBM PHN area were 16.5 per 100,000 population in 2012-13. This was the ranked fifth among all NSW PHNs and the highest among metropolitan based NSW PHNs. ○ Alcohol attributable hospitalisations for the NBM PHN in 2014-15 were 754.5 per 100,000 population, compared with 671.6 per 100,000 population for all NSW PHNs. This was the second highest rate among NSW PHNs.

	<p>2018, due to higher dose prescriptions than was previously dispensed.</p>	<ul style="list-style-type: none"> - Cannabis: Survey use of cannabis in the last 12 months was 10.4% and the highest proportion among illicit drugs. Only a small proportion (2.6%) of survey respondents ranked cannabis as the drug of most serious concern for the general community. Among persons who recently used cannabis, 14.4% used cannabis every day and 79.0% used with alcohol. Males are more likely to use cannabis. - Cannabis use as the primary concern represented 19.3% of NBMPHN AOD treatment episodes and was the third highest reason for seeking treatment. - Methamphetamine: Survey use of methamphetamine in the last 12 months was 1.4% and showed some decline from earlier surveys. In 1998 methamphetamine use was reported at 3.7%. In 2016, methamphetamine was the highest ranked drug perceived as the drug of most serious concern for the general community (39.8% of respondents). The median age was 34 years, 73.2% used with alcohol and 20.3% used daily or weekly. Males are more likely to use methamphetamines and the average age group of users is increasing from 24 in 2001 to 34 in 2016. - Methamphetamine use as the primary concern represented 25.4% of NBMPHN AOD treatment episodes and was the second highest reason for seeking treatment. NADA also reported an increase in client complexities and usage related to methamphetamine. <p>Figure 26: Percentage of closed AOD treatment episodes for clients who seek treatment for their own drug use for the Top 10 principle drugs of concern, NBMPHN 2016-17.</p>
--	------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



- **Ecstasy:** was the second most commonly used illicit substances during a person's lifetime at 11.2% of the population, and the third most commonly used illicit substance in the last 12 months (2.2% of the population). The majority of users took ecstasy once or twice a year at 51% and the median age of ecstasy users was 28 years.

		<ul style="list-style-type: none"> - Ecstasy use as the primary concern represented a small proportion (0.7%) of NBMPHN AOD clients seeking treatment for their own drug use and was the tenth (lowest) reason for seeking treatment. - Heroin: recent use of heroin represented 0.2% of the surveyed population and the fourth highest drug perceived as the drug of most serious concern (7.5% of respondents). - Heroin use as the primary concern represented 8.1% of NBMPHN AOD treatment episodes and was the fourth highest reason for seeking treatment. - Misuse of pharmaceuticals: painkillers, analgesics &/or opioids represented 2.0% of the drug of most serious concern for survey respondents, while. Methadone or buprenorphine represented 0.5% and steroids represented 0.3% of the drug of most serious concern for survey respondents. Almost 1 in 20 people (4.8%) misused a pharmaceutical in the previous 12 months to 2016, similar to 2013 (4.7%), however after rising from 3.7% in 2007. The class of pharmaceuticals most commonly misused were pain-killers/analgesics and opioids (3.6%). The proportion who had ever misused a pharmaceutical drug increased to 12.8% in 2016, up from 11.4% in 2013 and 7.4% in 2010, Pharmaceuticals were the second most frequently misused illicit drugs in 2016, with 28% using daily or weekly. Pain killers were mostly commonly misused and these were primarily over-the-counter (OTC) products containing codeine (75% of users), followed by prescription codeine products such as Panedeine Forte (40%) and Oxycodone (Endone, OxyContin at 39.6%). People aged between 20-29 years and between 40-49 years were most likely to have misused pharmaceuticals in the previous 12 months, both at 5.7%. - Emerging psychoactive substances (EPS): These are drugs with mind-altering effects and relatively new to the recreational drug market. EPS generally mimics the effects of other illicit psychoactive drugs including cannabis, ecstasy and hallucinogens. Indications for usage are likely to be under reported due to the rapid rate at which new chemical formulas are developed. Although lifetime use of synthetic cannabis more than doubled from 1.3% to 2.8%, recent use decreased from 1.2% to 0.3%. Similarly,
--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<p>lifetime use of other psychoactive substances increased from 0.4% to 1.0%, but recent use remained close to 0.3%. The most likely age groups using synthetic cannabis is 14-19 years at 2.8% followed by people between 20-29 years at 2.5%. The most likely group to have used other psychoactive substances is people between 20-29 years at 1.3%. In addition to increases in methamphetamine use, NADA reported increased use of 'harder' drugs other than heroin in adults.</p> <p><i>Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.</i></p> <p><i>Australian Institute of Health and Welfare – Alcohol and Other Drug Treatment Services in Australia 2016-17: Primary Health Network (PHN) Analysis</i></p> <p><i>Network of Alcohol and Other Drugs Agencies (NADA), A Planning Tool for NGO Alcohol and Other Drugs Treatment Services, March 2016.</i></p> <p><i>NADA, Responding to alcohol and drug related harms in NSW, November 2014.</i></p> <ul style="list-style-type: none"> - Other trends related to alcohol use: <ul style="list-style-type: none"> o The top 10% of Australian heavy drinkers are responsible for over half of the national alcohol intake. o Men were more likely to drink alcohol daily in contrast to women surveyed. <p>Around 40% of drug and alcohol treatment episodes in 2014-2015 were related to alcohol use. <i>Trends in alcohol and health-related harms in NSW. Report of the Chief Health Officer 2016 (NSW Health)</i></p> <p>Local key stakeholders identified alcohol as the most common primary drug of concern for people seeking treatment for AOD substance use in the NBM region. <i>NBMPHN AOD Advisory Committee meeting, October 2017.</i></p> <ul style="list-style-type: none"> - Prevalence of chronic excessive alcohol consumption at general practice encounters: <ul style="list-style-type: none"> o The prevalence of chronic excessive alcohol consumption among adult patients presenting to General Practice in Australia was highest among men, persons aged 45-64 years, Aboriginal and Torres Strait Islander patients, and those from disadvantaged socioeconomic areas.
--	--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<ul style="list-style-type: none"> ○ For some patients – females, younger persons, those who identify as Aboriginal and Torres Strait Islander, advantaged, or from a non–English speaking background – had higher management rates of chronic alcohol abuse relative to their prevalence of chronic excessive alcohol consumption ○ Overall, treatments recorded for chronic alcohol abuse problems were reported to be consistent with the New South Wales Department of Health’s Drug and alcohol withdrawal clinical practice guidelines. <p><i>Harrison C, Charles J, Miller GC and Britt H, 2016. Chronic alcohol abuse. Australian Family Physician; 45(12):858-860.</i></p> <ul style="list-style-type: none"> - National Wastewater Drug Monitoring Program Report 1 (03/2018) <ul style="list-style-type: none"> ○ This study reported that alcohol and nicotine remained consistently the highest consumed drugs in all states and territories. ○ Methamphetamine remained the highest consumed illicit drug observed in tests across all regions in Australia, a finding consistent with previous reports. ○ In NSW, use of oxycodone and fentanyl, which are both prescription pharmaceutical substances with abuse potential, had elevated consumption levels within regional area sites in comparison to capital city sites. ○ Global comparisons indicate that Australia has the second highest methamphetamine usage as observed compared to international wastewater analysis 2016-17. <p><i>Australian Criminal Intelligence Commission - National Wastewater Drug Monitoring Program Report, March 2018</i></p> <p>Codeine:</p> <ul style="list-style-type: none"> - Scheduling of Codeine from February 2018 - Misuse of pharmaceuticals has been identified as an increasing problem nationally. Recent data indicates that 1 in 20 people misused a pharmaceutical in the past 12 months and 1 in 8 has misused a pharmaceutical in their lifetime. - 3 in 4 (75%) of recent pain-killer/opioid misusers had misused an over-the-counter codeine product in the last 12 months - 29% used pain-kills/opioids weekly or more often
--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<ul style="list-style-type: none"> - 1 in 10 (10.7%) misusers could not stop using or cut down even though they wanted to - Males and females misuse pharmaceuticals at similar rates (4.9% for males and 4.6% for females) - Pain-killers/opioids are the most commonly misused pharmaceutical, followed by tranquilisers/sleeping pills <ul style="list-style-type: none"> o 3.6% pain-killers/opioids o 1.6% tranquilisers/sleeping pills - Local pharmacy stakeholders have identified potentially higher levels of codeine misuse than occurred prior to February 2018. Among those who are able to get a prescription, many are taking higher levels of codeine due to Doctors frequently prescribing a higher dose than was previously being dispensed. - In addition, other drugs taken to replace Codeine, including ibuprofen and paracetamol, are being used in higher doses, which may lead to other consequences or harm in particular for older people or those with compromised liver function. <p><i>Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.</i></p> <p><i>NBMPHN Alcohol and Other Drugs Advisory Committee, August 2017</i></p>
2.5 Substance use in young people.	<p>National trends, factors associated with substance and drug use in youth and local reports of substance and drug use by youth.</p> <p>High prevalence of problem substance use among young people. Young people in the NBM region are consistently reported to be under-served, have high needs in relation to AOD services and are increasingly presenting with greater (moderate to high) complexity to local AOD services.</p>	<p>Adolescence is commonly regarded as a period of rapid physical and psychological transition with experimentation and risk-taking behaviours. This may include illicit drug use with associated short and long term health and other problems. People who initiate drug use early are at greater risk of future illicit and problematic drug use.</p> <p>Young people show a declining rate of smoking uptake. The proportion of youth aged 12-17 who have never smoked increased from 95% in 2013 to 98% in 2016, and those aged 20-29 also show decreasing uptake with those reporting daily smoking at 14.8% in 2016 compared to 15.2% in 2013. Overall smoking is declining according to uptake and numbers of young people who smoke daily.</p> <p>Fewer young people also appear to be engaging in risky drinking. The proportion of persons who consumed 5 or more drinks at least monthly decreased significantly from 25% in 2013 to 18% for 14-19 year olds, and declined from 41.7% in 2013 to 39.9% for 20-29 year olds. . Despite</p>

	<p>Identified importance of building peer to peer connections, and adopting a harm-minimisation approach for any local strategy seeking to target young people.</p>	<p>these declining rates, alcohol consumption rates did not show changes between surveys and young people were still far more likely to drink alcohol in risky quantities than all other age groups.</p> <p>Comparative Household Survey data indicates that substance use among 14-29 year olds has declined over time.</p> <ul style="list-style-type: none"> - Risky drinking (consuming 5 or more drinks at least monthly) was 39% in 2001 and declined to 18% in 2016 for 14-19 year olds, and was 50.3% in 2001 and declined to 39.9% in 2016 for 20-29 year olds. The average age at which you people first tried alcohol was 17.3 in 2016. - The age when people first tried an illicit drug was 19.8 in 2016. Among those aged between 14-29 years, the age of initiation into illicit substances was 16.7 in 2016. - Use of amphetamines was 6.2% in 2001 and reduced to 0.8% in 2013 for 14-19 year olds. Use of amphetamines among 20-29 year olds was 11.2% in 2001 and 2.8% in 2016. - Cannabis is the most commonly used illicit drug across all age groups however cannabis users were more likely to first try cannabis in their teens, with the average age of initiation 18.7 years in 2016. There are indications that cannabis use precipitates psychotic symptoms, as well as exacerbate the symptoms of schizophrenia. Cannabis use also increases the risk of later depression and suicide. <p>The main substances that are regarded as contributing to mental illness in young people are alcohol, cannabis and methamphetamine.</p> <p><i>Department of Health and Aging, National Mental Report 2013.</i> <i>Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.</i></p> <p>In 2009, the Mountains Youth Services Team (MYST) undertook detailed analysis of issues around the mental health of young people in the Blue Mountains LGA. The study reported that substance use by young people was a significant mental health issue, particularly in regard to comorbidity with substance use. The study suggested possible high prevalence of depression in</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<p>Blue Mountains young people, which when considered alongside preconditions for cannabis use strongly indicated high priority need for effective early intervention services. <i>Mountains Youth Services Team, Blue Mountains Youth Mental Health Study, 2009.</i></p> <p>Another Blue Mountains study (Project Skylight) in 2010 reviewed alcohol use in the LGA and reported that young people were impacted significantly by alcohol use with binge drinking rates in young males well above the NSW average.</p> <p>This study consulted extensively with service providers throughout the Blue Mountains LGA and reported that:</p> <ul style="list-style-type: none"> - Providers of youth and family support services (State and NGOs) confirmed the prevalence of alcohol use among young people. Of considerable concern was binge (high risk) drinking among young people, the social consequences, some of which included violence, sexual assault, unsafe sex, malicious damage, school failure and unemployment. - Stakeholders described the prevalence of cannabis use along with poly drug use mixing alcohol and cannabis use, and alcohol in conjunction with ecstasy and other drugs. - Service providers working with young people identified alcohol as the substance of choice for males who were under 24 years of age. Girls between 14-16 years were identified as more likely to choose alcohol as the primary substance in contrast to 17-18 year old who were more likely to use cannabis. Particular concerns were expressed in relation to the Upper Mountains (Blackheath and Mount Victoria) where there were fewer transport options and fewer options for socializing and entertainment. <p>Project Skylight (2010) conducted a focus group with a small group (5) of students and teachers (3) from the Lawson Campus of Blacktown Youth College. The College provides an alternative School Certificate program for at risk students aged 15-16 years. These students typically came from unstable family situations including violence and substance abuse, homeless or involved with juvenile justice. Some key findings from this groups were:</p> <ul style="list-style-type: none"> - Unwillingness to seek help from authority figures such as general practitioners and police - Expressed mistrust of psychiatrists and counsellors based on their own experiences
--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<ul style="list-style-type: none"> - Willingness to trust youth workers from a local youth centre - Emphasized the interconnectedness of substance abuse with grief and trauma - Related the onset of their substance dependence and that of family members to traumatic events including childhood sexual abuse, suicide of a family member, and the death of a child. - Raised issues concerning intergeneration substance misuse in families and their predisposition to substance dependence. <p><i>Project Skylight - Blue Mountains Drug and Alcohol Recovery Services Inc., Report 2: Alcohol and other drugs in the Blue Mountains, 2010.</i></p> <p>November 2017 Update Ongoing consultations with key regional stakeholders together with early indications from newly commissioned services indicate high prevalence of problem substance use among young people.</p> <p><i>NBMPHN AOD Advisory Committee 2017</i></p> <p>November 2018 Update Ongoing consultations with regional stakeholders and commissioned service providers continue to indicate the high prevalence of problem substance use among young people. Young people in the NBM region are consistently reported to be under-serviced, have high needs in relation to AOD services and are increasingly presenting with greater (moderate to high) complexity to local AOD services.</p> <p><i>NBMPHN AOD Advisory Committee 2018</i></p> <p>Discussions held by the Blue Mountains 2018 Local Drug Action Team (LDAT) forum identified young people as a focus for the next LDAT action plan, as well as groups within the local youth population who are at a higher risk of substance misuse than others. These included:</p> <ul style="list-style-type: none"> • Young people in out-of-home care • Lesbian, gay, bisexual, transgender, intersex and queer (LGBTIQ) young people • Young people who have survived abuse • Young people with anxiety, depression and mental illness • Young Aboriginal people
--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<ul style="list-style-type: none"> • Young people from culturally and linguistically diverse communities • Young people who 'hang out' on the streets after hours • Young people who work in hospitality <p>Drugs identified by AOD and youth workers as the most likely to be misused among young people in the Blue Mountains included alcohol, cannabis, pills, ice, prescription drugs (e.g. Xanax) and 'shrooms' (psilocybin or psychedelic mushrooms).</p> <p>Major factors identified to be of influence upon young people relating to drug use included:</p> <ul style="list-style-type: none"> • Significant 'alternative lifestyles' and a comparatively permissive attitude towards drug use across the Blue Mountains • Exposure of young people to drug use at home (in particular cannabis), • Social isolation (in particular those not engaged in mainstream schooling), and • Emphasized the importance of building peer to peer connections, and adopting a harm-minimisation approach for the local strategy seeking to target young people <p><i>2018 Blue Mountains Local Drug Action Team (LDAT) Forum Report and Action Plan</i></p> <p>Among young people in custody, the mean age of first being drunk on alcohol was 13.6 years in 2015. By comparison, the average age of Australians first alcohol use reported in 2016 was 17.3 years. Two-fifths (41.8%) of survey participants reported that they were drunk at least weekly in the year before coming into custody, with one-tenth reporting this daily or almost daily (10.1%).</p> <p>AUDIT scores (Alcohol Use Disorders Identification Test): Use of age-appropriate AUDIT score cutoffs revealed that 86.3% of those 18 years and over and 97.8% of young people under 18 years met or exceeded the threshold for hazardous and harmful use of alcohol or "risky" drinking in the year preceding custody. This compared to 13.5% past year prevalence of risky drinking among Australian adolescents in 2013. In addition, more than half (51.6%) of participants reported hazardous or and harmful use of alcohol in the year prior to custody which caused them problems with their health, parents, friends, school or police.</p> <p>A history of illicit drug use is almost universal among young people in custody. 92.5% or more than nine out of ten young people in custody surveyed had used illicit drugs at some time in the</p>
--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<p>past, and 81.5% had use illicit drugs weekly or more frequently in the 12 months prior to custody . The main drug of concern was cannabis with 90% reporting having ever used cannabis. The rate of cannabis use was similar to that of nicotine and alcohol, making these the three substances most frequently ever used by young people in custody.</p> <p>After cannabis the second most common (55%) illicit drug ever used by 2015 survey participants was “crystal methamphetamine (ice)” followed by “ecstasy” (42%), cocaine (32%) and hallucinogens (LSD, magic mushrooms) (23%).</p> <p>Among the young people in custody who had used illicit drugs, 65.2% experienced consequent problems with their health, school, friends, parents or police.</p> <p><i>Justice Health and Forensic Mental Health Network - 2015 NSW Young People in Custody Health Survey</i></p>
<p>2.6 Substance use presentations to general practice and community centres.</p>	<p>Feedback from consultations with general practice and neighbourhood centre managers.</p>	<p>A survey conducted in 2010 of 19 general practitioners (primary health care) and Neighbourhood Centre managers (community services) by Project Skylight was undertaken in the Blue Mountains LGA and reported the following:</p> <ul style="list-style-type: none"> - Only a small proportion of patients presented with AOD issues as their primary health concern although a significant proportion had an underlying problem with substance use. - Alcohol was identified as the most prevalent problem substance, followed by benzodiazepines and other prescription drugs, and cannabis. - GPs identified young people and people with dual diagnosis as the groups most in need of services. - Centre managers identified young people as those most in need of AOD services. - There were differences between the Upper and Lower Mountains: <ul style="list-style-type: none"> o Substance use was more common among the 30-50 year old group in Upper Mountains o Substance use was common in 20-40 year old group in Lower Mountains. - Substance use was prevalent among disadvantaged clients and their families.

		<ul style="list-style-type: none"> - The groups identified as highest priority amongst service providers were women with children; young people, particularly those from disadvantaged families; people with dual diagnosis and Aboriginal people. <p><i>Project Skylight - Blue Mountains Drug and Alcohol Recovery Services Inc., Report 2: Alcohol and other drugs in the Blue Mountains, 2010.</i></p>
<p>2.6.1 Priorities identified in Blue Mountains 2010 community consultations.</p>	<p>Barriers to effective service provision and community priorities.</p>	<p>Community consultations in 2010 involved community forums, individual interviews and a focus group with young people. Refer to substance use in young people for results of community consultations.</p> <p>Those who were regarded as needing AOD treatment or support most were (not in order of priority) young people; single mothers; people on methadone; men; and, families. The biggest problem substances in the Mountains were firstly alcohol and secondly cannabis.</p> <p>The main barriers people encountered when trying to deal with drug and alcohol problems were:</p> <ul style="list-style-type: none"> - Denial - Lack of information - Fear of losing children - Access and transport problems - Lack of choice in type of service - Shame - Fear of withdrawal - Waiting lists - Unwillingness to join self-help groups - Peer pressure to use substances. <p>The kind of services that people wanted or needed were:</p> <ul style="list-style-type: none"> - Flexible counselling to support attitude change over a longer term - More GPs with skills and understanding of addiction issues - Day centre offering support and activities - Crisis accommodation

		<ul style="list-style-type: none"> - Information about needle exchange programs - More community support for men - Case management - Exit strategies for people on methadone programs - Soft entry programs such as outreach - Education for prevention. <p>A mix of access was identified with location based services together with central telephone intake and referral, as well as effective website access to services.</p> <p><i>Blue Mountains Drug and Alcohol Recovery Services Inc., Report 2: Alcohol and other drugs in the Blue Mountains, 2010.</i></p>
<p>2.7 Characteristics of substance and drug users: local and national.</p>	<p>Apparent high prevalence of illicit drug use supported by prevalence of drug related crime.</p>	<p>The National Drug Strategy Household Survey 2016 indicates that 15.6% of people had used illicit drugs in the previous year. Based on 2016 census data, more than 57,000 people in the NBM region may be involved in the illicit use of drugs.</p> <p>During 2016, cannabis was the most common of illicit drugs used with 10.4% of the population over 14 years of age reporting use in the previous 12 months and 35% reporting lifetime use. Cannabis and methamphetamine users are also more likely to use frequently – 36% of cannabis users and 20% of methamphetamine users aged 14 or older used as often as weekly or more. <i>Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.</i></p> <p>NBM primary care providers report presentations and referrals for drug and alcohol services in relation to:</p> <ul style="list-style-type: none"> - Often the first contact with the primary care provider is through the family seeking advice regarding another family member. - Cannabis is the leading drug used. This cohort ranges from long term heavy use to recreational use. Long term users were often regarded as using to self-medicate (possibly 20-30%). - Users of ICE rarely attended primary care providers. Those that attend are young to middle aged.

		<ul style="list-style-type: none"> - Abuse of prescription and other medications. - Young people are the main group presenting with issues concerning drug use. <p><i>NBMPHN Preliminary Mental Health and Drug and Alcohol Stakeholders. 2016</i></p> <p>November 2018 Update:</p> <p>Most recent Bureau of Crime Statistics data for drug offences indicate that in the previous 24 months there has been modest growth in observed data for some drug offences over the LGAs in NBM region.</p> <p>Hawkesbury has higher than state averages for amphetamine use or possession at 98.3 per 100,000 population in 2017-18 (up 6% from 2015-16) compared to 88.4 per 100,000 for the state (2017-18). Cocaine use or possession was up 12% in 2017-18 to 12.1 per 100,000 population, compared to 10.6 per 100,000 in 2015-16, but was lower than the state. Hawkesbury has the highest rates of narcotics use or possession at 7.6 per 100,000 population, when compared to the other LGAs in the region (State average 11.1 per 100,000 people).</p> <p>Penrith LGA also has higher than state averages for amphetamine use or possession at 126.1 per 100,000 population (down 7.8% from 2015-16 to 2017-18) compared to 88.4 per 100,000 for the state. Ecstasy use or possession was lower at 24.3 per 100,000 population from 2015-16 to 2017-18 (up by 2.5%) compared to 36.9 per 100,000 for the state. Cocaine usage is down 17.3% from 2015-16 to 2017-18, or 13.4 per 100,000 population. Penrith has the highest rates of cannabis use or possession at 232.9 per 100,000 population, when compared to the other LGAs in the region (State average 228.6 per 100,000 people).</p> <p>Amphetamine use or possession for Lithgow LGA was 74.4 per 100,000 population (up 23% from 2015-16 to 2017-18) however was lower than the state average of 88.4 per 100,000 population. Cannabis use for Lithgow LGA was 167.3 per 100,000 population (up 28% from 2015-16 to 2017-18) however was also lower than the state average of 228.6 per 100,000 population.</p> <p><i>NSW Bureau of Crime Statistics and Research, 2018</i></p>
--	--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

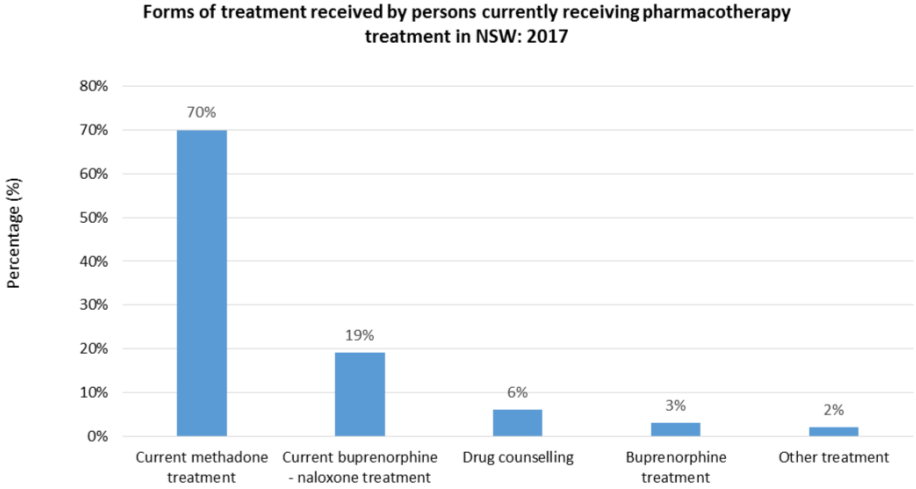
<p>2.7.1 Characteristics of substance and drug users: local and national.</p>	<p>Apparent high prevalence of risky alcohol use supported by prevalence of alcohol related crime.</p>	<p>Alcohol is consumed widely in Australia and harmful levels of consumption are a major health issue associated with increased risk of alcohol-related disease, illness or injury and premature death. Alcohol is also recognised to have negative impacts upon other people around the drinker. <i>Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.</i></p> <p>Blue Mountains and Lithgow LGAs reported the highest levels of crime involving alcohol in 2017-18. For the Blue Mountains LGA in 2017, domestic violence related assault involving alcohol was at 38.7% of cases (compared to 31.2% for the state) and non-domestic violence related assault was at 33.0% (compared to 31.6% for the state). Lithgow LGA reported domestic violence related assault involving alcohol at 23.5% and non-domestic violence related assault at 30.1%. <i>NSW Bureau of Crime Statistics and Research, 2018</i></p> <p>NBM primary care providers identified alcohol as a substance use problem across all ages. This included alcohol abuse and addiction, often requiring medicated detoxification support. Longer term users were often regarded as using to self-medicate (possibly 20-30%). <i>NBMPHN Preliminary Mental Health and Drug and Alcohol Stakeholders. 2016</i></p>
<p>2.8 Characteristics of substance and drug users: local and national.</p>	<p>Indications of prevalence of misuse of prescription medications.</p>	<p>Misuse of pharmaceutical medications had increased from 4.7% in 2013 to 4.8% in 2016, according to the National Drug Strategy Household Survey. <i>Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.</i></p> <p>NBMPHN preliminary stakeholder consultations with NBM primary care providers indicate high prevalence of abuse of prescription medications. <i>NBMPHN Preliminary Mental Health and Drug and Alcohol Stakeholders. 2016</i> <i>NBMPHN Alcohol and Other Drugs Advisory Committee, 2018</i></p>
<p>2.9 Characteristics of substance and drug users: local and national.</p>	<p>Prevalence of mental health and drug and alcohol diagnosis (dual diagnosis)</p>	<p>Illicit drug use is a major risk factor for mental illness, suicide, self-inflicted harm and drug overdose.</p>

		<p>There is a strong association between illicit drug use and mental health issues. In the context of self-medication, it is difficult to isolate to what degree drug use causes mental health problems, or to what degree mental health problems give rise to drug use.</p> <p>People using meth/amphetamines in the past 12 months were more likely than any other drug users to report diagnosis or treatment for a mental illness at 42.3% compared to 15.5% for non-users. People using methamphetamines also report high or very high psychological distress at 3.3 times the rate (37.2% compared to 11.2% for non-users). The greatest increase in high or very high psychological distress was for people who had used ecstasy in the last 12 months, increasing from 18% to 27% between 2013 and 2016.</p> <p>The rate of mental illness almost doubles with illicit drug use. Almost twice as many recent illicit drug users (26.5%) compared with non-users (13.9%) have been diagnosed with, or treated for a mental illness. Illicit drug users reported being more likely to experience high or very high levels of psychological distress in the four weeks before participating in the National Drug Strategy Household Survey (NDSHS) (22.2% compared with 9.7%). <i>Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.</i></p> <p>Among persons who inject drugs who participated in the 2017 NSW Illicit Drug Reporting System sample, 42% reported experiencing a mental health problem in the preceding six months (an increase from 35% in 2016). Among those who had suffered from a mental health problem, the most commonly reported mental health problems were: depression (75%), and anxiety (53%). Among those who had experienced a mental health problem in the last 6-months, 72% reported that they had attended a professional for such problems, including: a psychiatrist (42%), a GP (39%), a psychologist (33%), a counsellor (18%), or community-health nurse (15%). Just under two-thirds of the IDRS sample (64%) was assessed as having 'high' to 'very high' levels of psychological distress. This was much higher than what has been reported among the general population (11%). <i>Uporova, J. (2018) New South Wales Drug Trends 2017. Findings from the Illicit Drug Reporting System (IDRS). Australian Drug Trends Series No. 182. Sydney: National Drug & Alcohol Research Centre, UNSW Australia</i></p>
--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

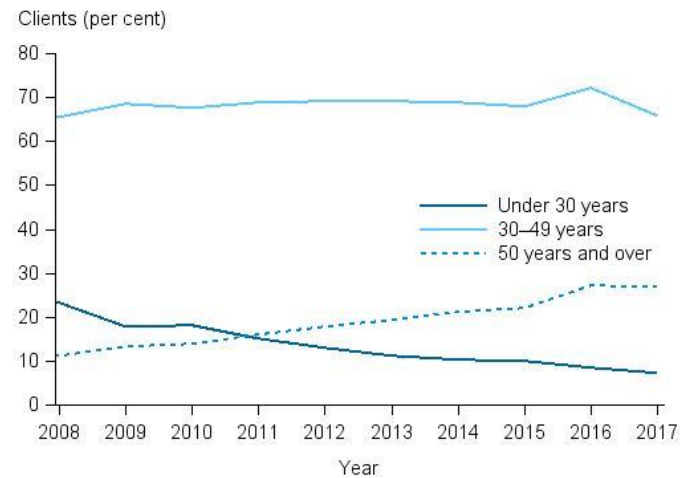
		<p>NBM PIR clients with complex and severe mental illness report high prevalence of comorbidity with drug use. <i>NBM PIR Program</i></p> <p>NBMLHD Drug and Alcohol regional planning has prioritised treatment of co-morbid conditions in mental health and drug and alcohol treatment alongside new models of integrated care that support: Whole of Family Teams; and co-located service provision. <i>NBMLHD Drug and Alcohol Draft Regional Plan 2016</i></p> <p>Consultations undertaken by Project Starlight 2010 reported a strong theme from interviews with service providers concerning the interrelationship of substance use and mental health issues. Some respondents reported that 50% of their current client group (mostly men between 16-26 years) were dual diagnosis, with anxiety as the most common mental health issue. It was noted that clients with complex chronic conditions and psychosis were more likely to be referred to the Mental Health Team than AOD counsellors. A prevalence of trauma histories amongst clients who are substance users was also reported. One psychologist reported that among people attending the local methadone program approximately 60-70% of clients had a diagnosis of borderline personality disorder, post-traumatic stress disorder, dissociative identity disorder considered to be outcomes of childhood histories of neglect and physical and/or sexual abuse. <i>Project Skylight - Blue Mountains Drug and Alcohol Recovery Services Inc., Report 2: Alcohol and other drugs in the Blue Mountains, 2010.</i></p>
2.10 Characteristics of substance and drug users: local and national.	Prevalence of health disorders among alcohol and drug users reflected in shorter than average life expectancy.	<p>Alcohol is consumed widely in Australia and harmful levels of consumption are a major health issue associated with increased risk of alcohol-related disease, illness or injury and premature death. <i>Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.</i></p> <p>Studies have shown that chronic substance users have a shorter life expectancy compared to the general population, of approximately 15-20 years.</p>

		<p>NBMLHD has identified co-existing physical disorders as a major contributor to early death among chronic substance users. There is an increasing need for drug and alcohol services to address a range of comorbid physical health including diabetes, circulatory diseases, blood borne viruses, as well as mental health, depression and neurocognitive deficit disorders. This population group have poor access to preventative health services and high rates of admission to hospital for a range of health issues, in addition to drug and alcohol use.</p> <p><i>NBMLHD Drug and Alcohol Service Planning Consultation, 2016.</i></p>
<p>2.11 Characteristics of substance and drug users: local and national.</p>	<p>Other health problems arising from use of substances:</p>	<p>Non-fatal burden of disease (Years Lived with a Disability):</p> <ul style="list-style-type: none"> Mental and substance use disorders was the leading cause of non-fatal burden of disease in Australia in 2011, accounting for 24% of Years Lived with a Disability. Of these, 12% was attributed to alcohol use disorders and 5.9% attributed to drug use disorders (excluding alcohol). <p><i>Australian Institute of Health and Welfare 2016. Australian Burden of Disease Study: Impact and causes of illness and death in Australia 2011. Australian Burden of Disease Study series no. 3. BOD 4. Canberra: AIHW.</i></p> <p>Elevated cancer risk:</p> <ul style="list-style-type: none"> It has been estimated that 5% of all cancers diagnosed each year are attributed to long term alcohol use. Even low levels of alcohol consumption is associated with a greater risk of cancer development. <p>Opioid dependence:</p> <ul style="list-style-type: none"> Findings from the NSW Illicit Drug Reporting System 2017 report indicate of those who recently used an opioid drug, the median Severity Dependence Scale (SDS) score was eight, with the majority (74%) scoring five or above, indicative of opioid dependence. Of those who scored five or above, 77% reported specifically attributing responses to heroin, 13% to methadone, 3% to morphine, 3% to buprenorphine and 1% to oxycodone. <p>Stimulant dependence:</p> <ul style="list-style-type: none"> Findings from the NSW Illicit Drug Reporting System 2017 report also indicate of those who recently used a stimulant drug and commented, the median SDS score was five,

		<p>with more than half (59%) scoring four or above, indicative of stimulant dependence. Of those who scored four or above, 90% reported specifically attributing responses to methamphetamine, 12% to cocaine, and <1% reported attributing their response to pharmaceutical stimulants.</p> <p>Overdose:</p> <ul style="list-style-type: none"> • Among the NSW IDRS participants who had a lifetime use of heroin, 53% reported that they had overdosed on heroin at least once in their lifetime. 14% had overdosed in the past 12 months and 3% of participants had overdosed in the past month. • 15% of the NSW sample participants reported that they had accidentally overdosed on another drug (not including heroin, morphine, methadone or oxycodone) within their lifetime, and they had done so on a median of two occasions. Of these, 31.6% had overdosed on another drug in the past 12 months, and 5.3% had overdosed in the last month. <p>Drug Treatment:</p> <ul style="list-style-type: none"> • 44% of the NSW IDRS sample reported being in drug treatment and they had been in treatment for a median of 24 months. The predominant form of treatment being received was maintenance pharmacotherapy treatment. • Among participants currently receiving treatment, the following treatment forms were methadone treatment (70%), followed by buprenorphine-naxalone treatment (19%) and drug counselling (6%). • 6% of the sample reported hospital admission for methamphetamine psychosis on a median of one occasion in the past year, while 4% reported admission to hospital for other methamphetamine related issues on a median of one occasion in the past year. • 19% of participants had tried to access treatment over the preceding six months but were unable to. Of these, 59% had tried to access treatment for heroin use and 24% ad tried to access treatment for methamphetamine use.
--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<p>Figure 27: Forms of treatment received by persons receiving pharmacotherapy treatment in NSW, 2017</p>  <p>Forms of treatment received by persons currently receiving pharmacotherapy treatment in NSW: 2017</p> <table border="1"> <thead> <tr> <th>Form of treatment</th> <th>Percentage (%)</th> </tr> </thead> <tbody> <tr> <td>Current methadone treatment</td> <td>70%</td> </tr> <tr> <td>Current buprenorphine - naloxone treatment</td> <td>19%</td> </tr> <tr> <td>Drug counselling</td> <td>6%</td> </tr> <tr> <td>Buprenorphine treatment</td> <td>3%</td> </tr> <tr> <td>Other treatment</td> <td>2%</td> </tr> </tbody> </table> <p><i>Uporova, J. (2018) New South Wales Drug Trends 2017. Findings from the Illicit Drug Reporting System (IDRS). Australian Drug Trends Series No. 182. Sydney: National Drug & Alcohol Research Centre, UNSW Australia</i></p>	Form of treatment	Percentage (%)	Current methadone treatment	70%	Current buprenorphine - naloxone treatment	19%	Drug counselling	6%	Buprenorphine treatment	3%	Other treatment	2%
Form of treatment	Percentage (%)													
Current methadone treatment	70%													
Current buprenorphine - naloxone treatment	19%													
Drug counselling	6%													
Buprenorphine treatment	3%													
Other treatment	2%													
2.12 Characteristics of substance and drug users: local and national	Characteristics of people receiving opioid pharmacotherapy treatment	<p>Findings from the National Opioid Pharmacotherapy Statistics Annual Data Collection 2017 report, which collects data from a snapshot day in June 2017 reveal the following:</p> <ul style="list-style-type: none"> • The number of people (49,792) and the rate of people per (20 clients per 10,000 people) receiving pharmacotherapy treatment have remained relatively stable since 2010. • NSW remained the state with the highest rate of people receiving opioid pharmacotherapy treatment (26 clients per 10,000 people). • Almost two-thirds (66%) of clients in 2017 were aged 30–49 years. The proportion of clients aged under 30 has declined each year since 2006 (28% of clients in 2006 falling to 7% of clients in 2017). This continues the trend of an ageing cohort in opioid pharmacotherapy treatment and is consistent with the pattern observed in other drug treatment services. 												

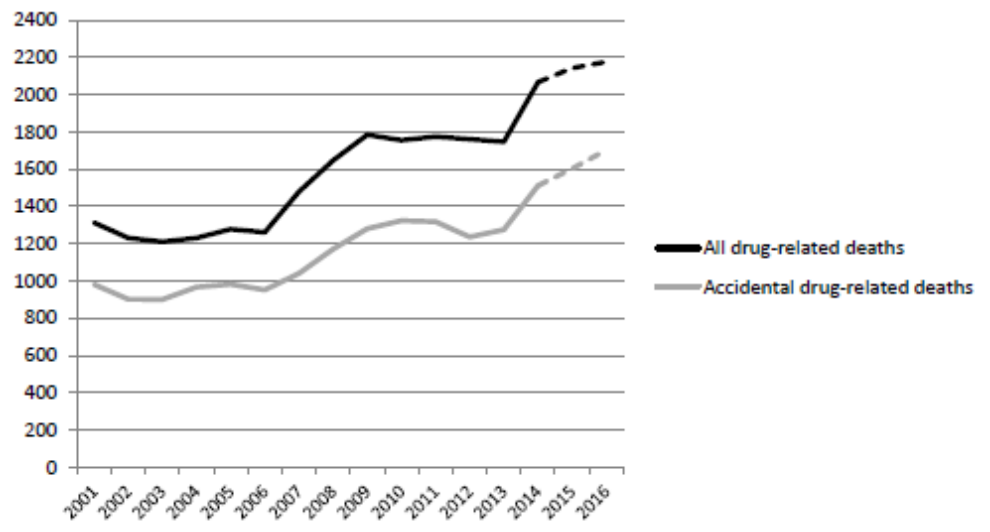
Clients receiving pharmacotherapy treatment on a snapshot day, by age group, 2008 to 2017



- Around two-thirds (66%) of clients receiving pharmacotherapy on the snapshot day in 2017 were male.
- Almost 1 in 10 (9% in 2017) of clients identified as being Aboriginal and/or Torres Strait Islander, with Indigenous Australians around 3 times as likely to have received pharmacotherapy treatment as non-Indigenous Australians.
- Methadone continued to be the most commonly prescribed pharmacotherapy type across all age groups, followed by buprenorphine-naloxone and buprenorphine.
- 38% of clients reported heroin as their opioid drug of dependence. Oxycodone (5%) was the next most commonly reported drug of dependence followed by morphine, codeine and methadone (all 4%).

		<p>Clients receiving pharmacotherapy on a snapshot day, by age group and pharmacotherapy type, 2017</p> <table border="1"> <caption>Estimated data from the stacked bar chart</caption> <thead> <tr> <th>Age group (years)</th> <th>Methadone (%)</th> <th>Buprenorphine (%)</th> <th>Buprenorphine-naloxone (%)</th> </tr> </thead> <tbody> <tr> <td>Under 30</td> <td>50</td> <td>30</td> <td>20</td> </tr> <tr> <td>30-39</td> <td>60</td> <td>20</td> <td>20</td> </tr> <tr> <td>40-49</td> <td>65</td> <td>15</td> <td>20</td> </tr> <tr> <td>50-59</td> <td>70</td> <td>15</td> <td>15</td> </tr> <tr> <td>60 and over</td> <td>75</td> <td>15</td> <td>10</td> </tr> </tbody> </table> <p><i>Australian Institute of Health and Welfare – National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD), 2017</i></p>	Age group (years)	Methadone (%)	Buprenorphine (%)	Buprenorphine-naloxone (%)	Under 30	50	30	20	30-39	60	20	20	40-49	65	15	20	50-59	70	15	15	60 and over	75	15	10
Age group (years)	Methadone (%)	Buprenorphine (%)	Buprenorphine-naloxone (%)																							
Under 30	50	30	20																							
30-39	60	20	20																							
40-49	65	15	20																							
50-59	70	15	15																							
60 and over	75	15	10																							
<p>2.13 Characteristics of substance and drug users: national</p>	<p>Increasing trends in accidental drug-related deaths due to opioids, benzodiazepines, amphetamines, cannabinoids and alcohol</p>	<p>Findings from Australia’s annual overdose report indicate that the number of drug-related deaths in Australia, including accidental drug-related deaths has increased consistently over the past 15 years. There were 2,177 drug-related deaths in Australia in 2016 (up 77% from 1,231 in 2002) and of these, 1,704 were accidental (up 89% from 903 in 2002). By way of comparison, accidental drug-related deaths overtook the road toll in Australia for the first time in 2014.</p> <p>Local rates and growth in accidental drug-related deaths within the Nepean Blue Mountains PHN region are broadly reflective of those seen for Australia. In 2012-16, the NBMPHN rate of accidental drug-related deaths (7.1 per 100,000) was 5/10 highest among NSW PHNs, and 10/31 highest among PHNs in Australia. Between 2007-11 and 2012-16, the rate of accidental drug-related deaths increased from 6.4 per 100,000 persons to 7.1 per 100,000 persons.</p>																								

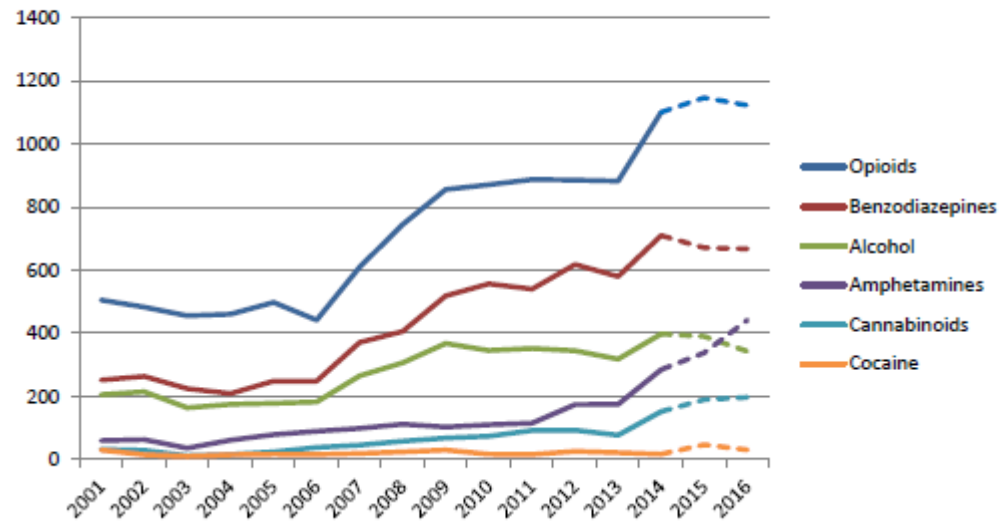
Graph 1: All drug-related deaths in Australia vs. all accidental drug-related deaths 2001-2016, Number of deaths



Opioids, in particular pharmaceutical opioids (including codeine, oxycodone, morphine and fentanyl) contributed the most to fatal overdose deaths in Australia. From 2001-2006, accidental deaths involving opioids were relatively stable at 450-500 per year, however have increased every year since to over 1,100 per year since 2014. Of significant concern is the strong association observed between increases in prescription of opioids and increased mortality. Overall, the following increases in accidental drug-related deaths involving opioids were observed between 2002-2006 and 2012-2016:

- The rate of accidental deaths involving heroin increased 1.8 times
- The rate of accidental deaths involving oxycodone, morphine or codeine increased 2.0 times
- The rate of accidental deaths involving methadone doubled increased 2.0 times
- The rate of accidental deaths involving fentanyl, pethidine or tramadol increased 7.0 times

**Graph 4: Accidental drug-related death by drug class 2001-2016,
Number of deaths**



Detections of other drugs in accidental deaths is also increasing. Benzodiazepines, in-particular involving poly drug use, were the second most common drug class detected in accidental drug-related deaths. Detections of amphetamines (the third most common substance detected in accidental drug-related deaths in Australia, surpassing alcohol – likely driven by increased availability of ‘ice’), cannabinoids and alcohol have all increased over the previous 15 years.

Comparing the time period 2012-2016 to 2002-2006:

- The rate of accidental drug-related deaths involving benzodiazepines increased 2.4 times
- The rate of accidental drug-related deaths involving amphetamines increased 3.7 times
- The rate of accidental drug-related deaths involving cannabinoids increased 5.0 times
- The rate of accidental drug-related deaths involving alcohol increased 1.7 times

		<p>Population groups identified as those bearing the greatest burden of drug-related mortality include:</p> <ul style="list-style-type: none"> • Men: twice as many men died from overdose than women in 2016 (1,453 compared to 724 drug-related deaths) • Middle aged Australians: persons aged 30-59 years contribute almost 70% of the accidental drug-related deaths in Australia annually • Aboriginal and Torres Strait Islanders: in 2016, accidental drug-related deaths among Aboriginal persons were at more than 3.0 times higher as for non-Aboriginal persons (20.7 vs. 6.4 per 100,000 persons) <p><i>Pennington Institute 2018. Australia's Annual Overdose Report, August 2018</i></p>
<p>2.14 Characteristics of substance and drug users: local and national.</p>	<p>Prevalence of socioeconomic disadvantage and high risk groups.</p>	<p>Studies have found clear links between socioeconomic disadvantage and the risk of dependence on alcohol, nicotine and other drugs. In Australia the high risk population groups are: socioeconomically disadvantaged, those living in rural and remote areas, Aboriginal people, pregnant women, the unemployed, people who identify as homosexual or bisexual, people diagnosed with or treated for mental illness and those with high or very high levels of psychological distress.</p> <p><i>Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.</i></p> <p>Refer also to Socioeconomic Disadvantage and Equity for details of levels of disadvantage within the NBM region. In summary:</p> <ul style="list-style-type: none"> - Penrith LGA reflects wide disparities of advantage and disadvantage. The most disadvantaged areas were in St Marys, North St Marys, Claremont Meadows and Colyton. - Blue Mountains LGA reflects relative advantage among the broader population with pockets of extreme disadvantage in Katoomba. - Hawkesbury LGA reflects relative advantage among the broader population. Pockets of disadvantage has been identified in outlying areas including Wisemans Ferry, St Albans and Putty.

		<ul style="list-style-type: none"> - Lithgow LGA broadly reflects high levels of disadvantage with extreme pockets of disadvantage in Bowenfels, Hermitage Flat, Vale of Clwydd, Cullen Bullen, Portland and Wallerawang. <p><i>NBMLHD: Socio-economic Indexes For Areas of NBMLHD in 2016 Census.</i></p>
2.15 Risk Factors	Identified risk factors for mental illness include alcohol and drugs.	<p>In the most recent Australian Burden of Disease study the leading attributable risk factors in mental and substance use disorders were found to be the harmful effects of alcohol (12.0% of attributable burden). Illicit drug use, child sexual abuse and intimate partner violence also contributed but each less than 10% of the attributable burden.</p> <p><i>Australian Institute of Health and Welfare 2016. Australian Burden of Disease Study: Impact and causes of illness and death in Australia 2011. Australian Burden of Disease Study series no. 3. BOD 4. Canberra: AIHW.</i></p>
2.16 High risk populations	Release from regional correctional facilities.	<p>Consultations to date indicate that inmates released from correctional facilities in the region are at high risk of risky substance use. There are also suggestions that inmates who have undergone drug treatment have difficulty receiving necessary support services to maintain abstinence or low risk substance use on release. Further research is required to establish any links between the number of correctional facilities, inmates released and needs that may be relevant to AOD treatment provision in the region.</p> <p>NSW inmates census 2016 reports the following data that may be relevant to NBM region. There are four adult and one juvenile correctional facilities:</p> <ul style="list-style-type: none"> - Lithgow maximum security for men reporting 410 inmates. 75 or 18% were Aboriginal men during that period. - John Morony & Dillwynia facilities (co-located at Berkshire Park): John Morony reporting 399 male inmates. 86 or 22% were Aboriginal men during that period. Dillwynia medium and minimum correctional facility for women reporting 227 inmates. 76 or 33% were Aboriginal women during that period. - Emu Plains minimum security for women reported 176 inmates. 46 or 26% were Aboriginal women during that period.

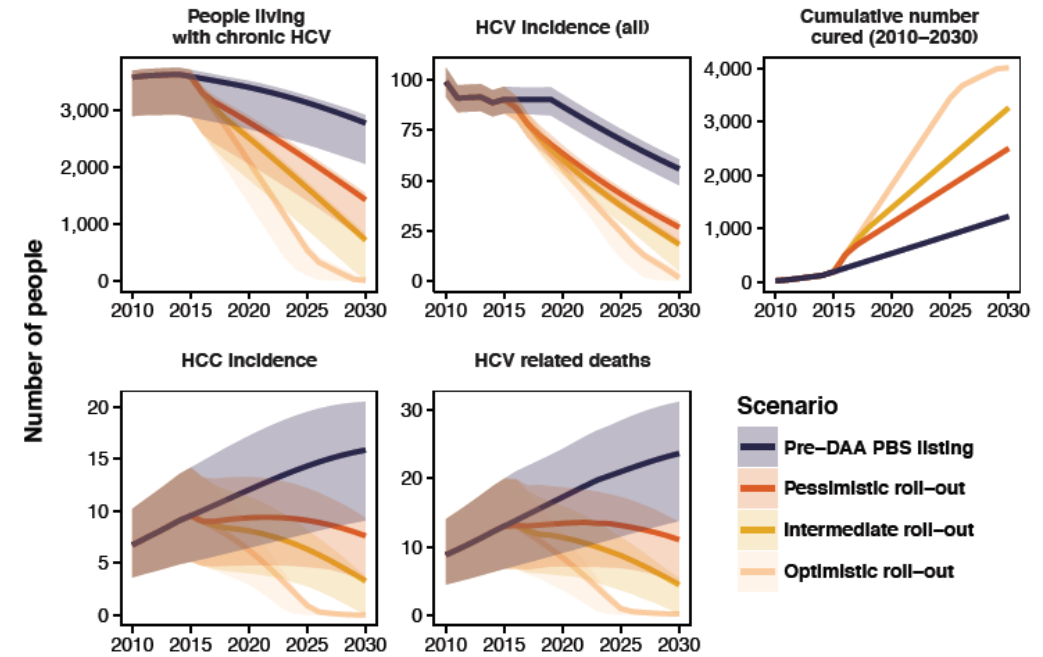
		<ul style="list-style-type: none"> - Cobham juvenile remand centre for young men at St Marys. No data was reported for this facility. <p>The statistical area of last known address reported in 2014 indicates that inmates from the NBM region represented approximately 5.0% of the prison population and 580 inmates, from the location categories: Baulkham Hills and Hawkesbury; and, Outer West and Blue Mountains.</p> <p><i>NSW Justice Corrective Services. Statistical Publication. NSW Inmate Census 2016.</i></p>
2.17 Prison population risks	Health of Prisoners	<p>The prisoner population is predominantly male at 92% (compared with 49% of general adult population), and relatively young with 68% aged under 40 years (compared with 39% of the general adult population).</p> <p>Aboriginal and Torres Strait Islander people are significantly over-represented in the prison population. Indigenous people represent approximately 2% of the general adult population and on 30 June 2014, represented 27% of the prisoner population.</p> <p>The health of Australia’s prisoners 2015 reported the following key indicators:</p> <ul style="list-style-type: none"> - One in four (25%) were homeless in the four weeks before entering prison - One in three prison entrants have a chronic health condition. Asthma was the most common condition. - Three in four prison entrants are smokers which is over 5 times the rate of the general population. - Two in three (67%) prison entrants used illicit drugs in the 12 months prior to prison. - Two in five prison entrants drank alcohol at risky levels before prison. This was more than half for Indigenous entrants - One in four prisoners received medication for mental health related issues while in prison. <p>Other key indicators:</p> <ul style="list-style-type: none"> - The proportion of prison entrants who have ever been told by a doctor, psychiatrist, psychologist or nurse, that they have a mental health disorder which may include drug and alcohol abuse is 49%.

		<ul style="list-style-type: none"> - 10% reported using illicit drugs while in prison with 6% reporting injecting drugs while in prison - 7% of entrants to prison reported being on pharmacotherapy medication for opioid dependence - 3% of prisoners in custody received medication for opioid dependence - 8% of prison discharges on an opiate substitution program while in prison with a plan to continue after release - 39% of prison entrants reported a high risk of alcohol-related harm in the last 12 months (measure by the AUDIT-C) - 58% of prison discharges reported a high risk of alcohol-related harm prior to current incarceration (measure by the AUDIT-C) - 8% of prison discharges accessed an alcohol treatment program in prison. <p>In 2015, methamphetamine was the most commonly reported illicit drug used by 50% of entrants as having used this drug in the previous 12 months. 41% reported using cannabis. Prescription medications was the third most commonly reported drug. 13% of entrants reported illicit use of analgesics or painkiller and 11% reported illicit use of tranquilizers or sleeping pills. 9% reported using heroin and 7% ecstasy during the previous 12 months.</p> <p>Use of these substances was similar for males and females except for illicit use of analgesics and tranquillizers. Women reported 27% compared to 11% for men concerning analgesics, and 26% compared to 9% for men concerning tranquillizers.</p> <p>Indigenous entrants appear less likely to use methamphetamine compared to non-Indigenous entrants at 38% compared to 54%.</p> <p>The highest usage rates by age group was the 18-24 year entrants with 53% for cannabis and 59% for methamphetamine.</p> <p>Entrants reporting that they were receiving methadone through opioid substitution programs was 47% and this dropped to 28% for prison discharges which may suggest that access to methadone among the prison population is more restricted.</p>
--	--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<p>Risky alcohol consumption is strongly linked to a range of adverse psychosocial outcomes that affect health and mental health including family violence, relationship instability, sexual risk-taking and consequences, unemployment, violence victimization and criminal offending.</p> <p>Alcohol was consumed at risky levels by 39% of prison entrants during the previous 12 months. Low risk drinkers represented 27%. Indigenous entrants were the group most likely to be at risk of alcohol related harm. 54% reported risky drinking compared with 33% of non-Indigenous entrants.</p> <p>Young men (18-24) reported the highest percentage of more than 7 drinks on a usual day of drinking at 41%, compared to 35% for both 25-35 years and 35-44 years.</p> <p><i>AIHW. The health of Australia's prisoners, 2015</i></p>
<p>2.18 Treatment and prevalence of Hepatitis C Virus</p>	<p>Predicted decline in Hepatitis C incidence, people living with chronic Hepatitis C, and associated liver morbidity</p>	<p>Key messages from a NSW Health report card on Hepatitis C in NSW, 2017 include:</p> <p>It is now possible to eliminate hepatitis C as a public health concern</p> <ul style="list-style-type: none"> • In March 2016, new treatments for Hepatitis C were listed on the PBS. The new direct acting anti-viral hepatitis C treatments (DAAs) are cost effective, safe, and highly effective with a cure rate of greater than 95 per cent. • From March 2016 to December 2017, 26% (21,346) of the people in NSW living with hepatitis C had initiated treatment, an increase from 24% (19,700) in the March 2016 to September 2016 period. • In August 2018, a new direct acting antiviral drug, MAVIRET, additionally became available on the PBS to provide access to a new class of hepatitis C treatment. The measure was announced as part of the Commonwealth government's investment to help meet the World Health Organisation's target of eliminating hepatitis C by 2030. <p>Treatment is cost effective and the Commonwealth Government provides funding for outpatient, GP and prison settings (with exclusions for inpatients)</p>

		<ul style="list-style-type: none"> • Viral hepatitis is the leading cause of liver cancer and the most common reason for liver transplantation in Australia. Treatment of affected populations will improve health outcomes and prevent transmission. <p>Accessing high quality hepatitis C treatment in primary care is required</p> <ul style="list-style-type: none"> • Increased access in primary care will improve equity by allowing the public health system to focus on more complex people who inject drugs. <p>Strengthening treatment efforts for people who inject drugs is critical</p> <ul style="list-style-type: none"> • A focus on key settings including prisons, drug and alcohol services, Needle and Syringe Programs and Aboriginal community controlled health services will improve access to treatment for people who inject drugs who are most vulnerable to infection. <p>Achieving hepatitis C elimination requires adequate treatment coverage in every local health district</p> <ul style="list-style-type: none"> • Hepatitis C elimination in NSW by 2028 requires every local health district (LHD) to treat all their residents with hepatitis C infection. To avoid delays in the achievement of the elimination target, it is vital to monitor treatment uptake and coverage in every LHD. <p>Access to sterile needle and syringes and opioid treatment programs continue to be important in the prevention of hepatitis C transmission</p> <p><i>NSW Health, Hepatitis C LHD Report Card, 2017</i> <i>The Hon Greg Hunt, Minister for Health Media Hub: New diabetes and hepatitis C medications available to patients this week</i></p> <p>Modeling undertaken in 2016-17 projects hepatitis C virus (HCV) prevalence, incidence and HCV-morbidities in NSW and Local Health District regions over 2016-2030, with coverage of HCV treatment a key input into the model. Assuming an intermediate roll-out scenario, by 2030 the model projects there will be a large reduction in chronic HCV and associated disease within the NBM region due to DAA treatment roll-out.</p>
--	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

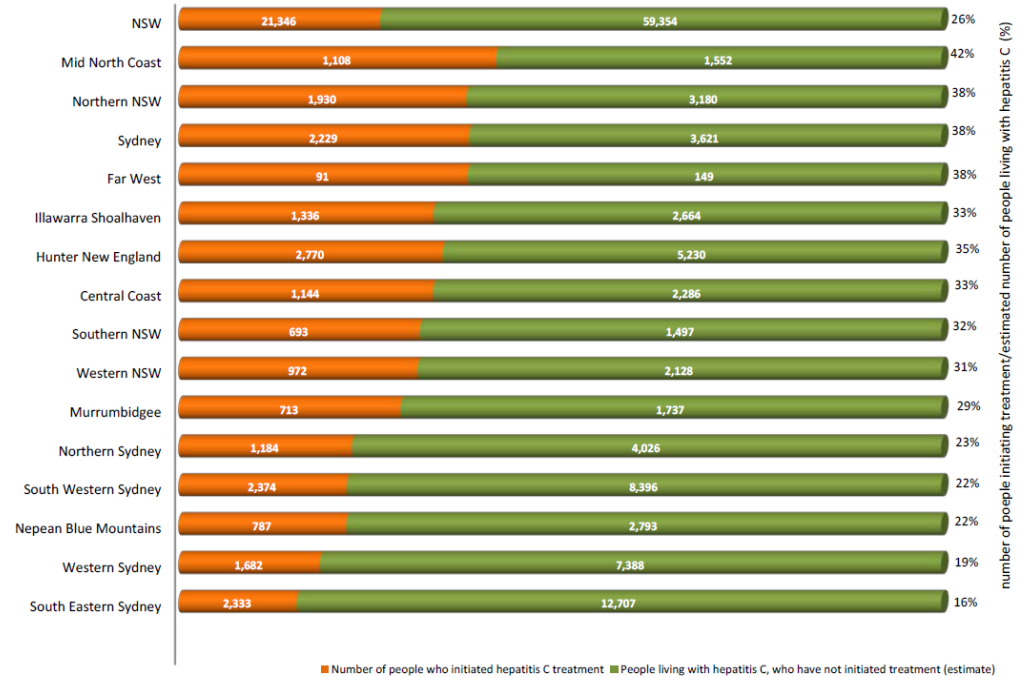
Figure 15.1 Annual change in key HCV and Hepatocellular carcinoma indicators in the Nepean Blue Mountains (2010-2030): best estimate (solid line) and 95% confidence intervals (shading)



Since DAA treatment coverage in 2016 was less in the NBM region (10%) compared to the NSW average (14.1%), the model predicts the NBM region will reach World Health Organisation (WHO) targets by 2031, 5-years later than for NSW. It was recommended that the roll-out of DAAs needs to be increased or at least maintained at current treatment dispensing coverage levels to ensure WHO targets are met in the shortest time in NBM region.

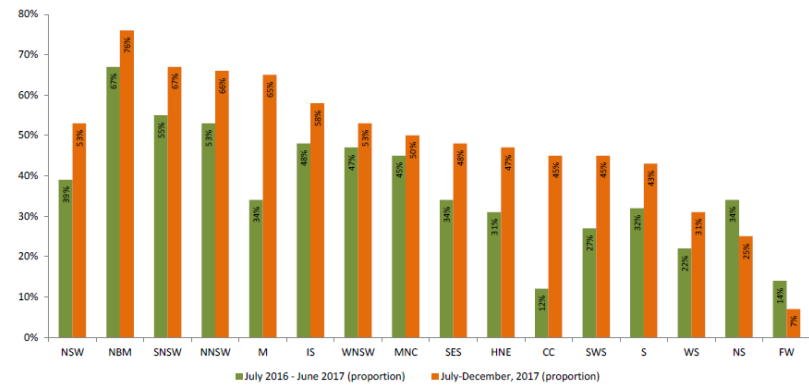
The Kirby Institute. 2017 Estimates and Projections of the Hepatitis C Virus Epidemic in NSW: Summary Report. The Kirby Institute, UNSW Sydney, Sydney NSW 2052

Between 1 March 2016 and 31 December 2017, 787 persons residing in the Nepean Blue Mountains initiated hepatitis C treatment. This was equal to 22% of the total number of people estimated to be living with chronic hepatitis C in NBM (compared to 26% in NSW):



In NBM, 76% of residents initiated hepatitis C treatment with a general practitioner. This compares to 53% for people initiating treatment in NSW. NBM had the highest proportion of residents among NSW LHDs who initiated hepatitis C treatment prescribed by a GP between July 2016 and December 2017.

The figure below illustrates the proportion of NSW residents initiating hepatitis C treatment by a general practitioner by LHD, comparing the July - December 2017 proportion with 1 July 2016 to 30 June 2017. It reflects access to hepatitis C treatment in general practice.



NSW Health, Hepatitis C LHD Report Card, 2017

Alcohol and Other Drugs: Aboriginal people

Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (<i>Aboriginal people</i>)		
Identified Need	Key Issue	Description of Evidence
2.19 Population characteristics.	High proportion of Aboriginal people living in NBM region, compared to proportion of population for other metropolitan health districts.	<p>According to the 2016 Census, the population who identified as Aboriginal comprised 3.7% of the total population, representing 13,165 people. This represents 6.09% of the NSW population of Aboriginal people. As a proportion of the total population, NBM region reports the third highest among the eight NSW metropolitan LHDs.</p> <p><i>Epidemiological Profile of NBMLHD, 2017</i> <i>.id Community Profile Nepean Blue Mountains Primary Health Network.</i></p> <p>Lithgow LGA had the highest proportion of Aboriginal residents and lowest number of Aboriginal people at 1,208, representing 5.7% of the total Lithgow population. Penrith LGA had the highest number of Aboriginal residents at 7,740 and 3.9% of the total Penrith population. Hawkesbury LGA reported 2,395 Aboriginal residents and 3.7% of the total Hawkesbury population. Blue Mountains LGA reported 1,821 Aboriginal residents and 2.4% of the total Blue Mountains population.</p> <p>Indigenous population estimates across Australia are widely regarded as underestimated. There was an 18.4% increase in the estimate of the Indigenous population across Australia between the 2011 and 2016 Censuses.</p> <p><i>Australian Bureau of Statistics, Census Community Profiles for Australia, 2011 and 2016</i></p>
2.20 Population characteristics.	NBM region is made up three different Aboriginal Nations as identified by traditional lands and language.	<p>There is considerable diversity of Aboriginal peoples in the NBM region.</p> <p>There are three Aboriginal nations represented in the NBM region that roughly equate to our LGAs. The people of the Nepean and Hawkesbury LGAs are living on the land of the Dharug people. The Blue Mountains roughly equates to the land of the Gandangara people. The Lithgow LGA is part of the Wiradjuri peoples land which extends through central NSW.</p>

Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (<i>Aboriginal people</i>)		
		<i>NBM Aboriginal Sharing and Learning Circles, Blue Mountains LGA, Hawkesbury LGA, Penrith LGA, Lithgow LGA, 2015</i>
2.21 Population characteristics.	Young and growing population of Aboriginal residents in NBM	The median age of Aboriginal residents in the region was 21 years in 2015. NBM Aboriginal people under 25 years of age represent 54.6% of the total Aboriginal population, compared to 33.0% of people under 25 years of age in the non-Aboriginal population. The age group 20-24 years is the largest percentage of the population at 11.2%. <i>Epidemiological Profile of Nepean Blue Mountains Local Health District Local Government Areas, 2017</i>
2.22 Population characteristics.	Aboriginal people have poorer socio-economic status compared to non-Aboriginal people	Selected socioeconomic indicators from the 2016 Census demonstrate the relative disadvantage in NSW of the Aboriginal population when compared with the non-Aboriginal population. In NSW, and compared with the non-Aboriginal population - larger percentages of Aboriginal people were: unemployed; had no post-school qualifications; had no household internet connection; had a weekly household income less than \$500; rented housing; lived in multi-family households; and resided in dwellings with 7 or more people. Of these the largest categories of disparity were: unemployment, no post-school qualifications and rental accommodation. <i>Australian Bureau of Statistics, Census Community Profiles for New South Wales, 2016</i>
2.23 Population characteristics.	NBM Aboriginal residents have a higher prevalence of smoking compared to non-Aboriginal people.	In 2017, almost double the proportion of Aboriginal people in NSW smoked (28.5% of Aboriginal persons) compared to the non-Aboriginal population at 14.7%. <i>Health Statistics NSW Online Portal – Current smoking in adults by Aboriginality, NSW 2017</i> 2014-15 hospitalisation rates that may be attributed to smoking show that Aboriginal people in NSW have a rate of 1,436 hospitalisations per 100,000 population, compared to 524 per 100,000 for non-Aboriginal residents admitted to hospital. <i>Epidemiological Profile of Nepean Blue Mountains Local Health District Local Government Areas, 2017</i>
2.24 Population characteristics.	NBM Aboriginal people experience a significantly higher rate of hospitalisation	2014-15 rates of hospitalisation attributable to alcohol in NSW shows that Aboriginal people had more than double the rate of alcohol attributable hospitalisations, at a rate of 1,390

Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (Aboriginal people)

	<p>that is attributable to alcohol, compared to non-Aboriginal people.</p>	<p>hospitalisations per 100,000 population. The rate for non-Aboriginal people was 639 hospitalisations per 100,000.</p> <p><i>Epidemiological Profile of Nepean Blue Mountains Local Health District Local Government Areas, 2017</i></p>
<p>2.25 Substance use.</p>	<p>Prevalence of drug use in Aboriginal communities.</p>	<p>Overall Indigenous Australians were more likely to abstain from drinking alcohol than non-Indigenous Australians (31% compared with 23% respectively). However among those who did drink alcohol, risky drinking levels represented a higher proportion.</p> <p>Excluding ecstasy and cocaine, Indigenous Australians use illicit drugs at a higher rate than the general population. In 2016, Indigenous Australians were: 1.8 times more likely to use any illicit drug in the previous 12 months; 1.9 times more likely to use cannabis; 2.2 times more likely to use meth/amphetamines; and 2.3 times more likely to misuse pharmaceuticals, compared to non-Indigenous people. These differences were still apparent after adjusting for differences in age structure of both populations. There were no significant changes in illicit drug use among Indigenous Australians between 2013 and 2016.</p> <p><i>Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings.</i></p> <p>Preliminary consultation with Aboriginal stakeholders indicate:</p> <ul style="list-style-type: none"> - NBM Aboriginal residents are generally reluctant to discuss drug and alcohol uses due to shame and fear of stigma. The importance of working with a trusted service provider who can take the necessary time to discuss how the person is feeling has been emphasised. - Barriers to access include a lack of culturally safe drug and alcohol services for Aboriginal residents. - Prevalence of cannabis use and emerging problems with use of meth/amphetamines among Aboriginal communities in the region. - The need for outreach services into Aboriginal NGOs in the region. <p><i>NBMPHN Preliminary Stakeholder Consultations for Drug and Alcohol, 2016</i></p>

Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (*Aboriginal people*)

		<p>NBM Aboriginal Sharing and Learning Circles identified drug and alcohol issues as a priority. The concerns raised across four LGAs were:</p> <ul style="list-style-type: none"> - High risk of substance use among a younger population. Approximately 55% of NBM Aboriginal people are under 25 years of age - The need for early intervention to reduce harm from alcohol and drugs - There is a high prevalence of cannabis use - The need for more Aboriginal health workers in the region to be trained to provide support for drug and alcohol issues - Access to culturally relevant information about alcohol and drugs - The need for an Aboriginal detoxification unit. <p><i>NBM Aboriginal Sharing and Learning Circles, Blue Mountains LGA, Hawkesbury LGA, Penrith LGA, Lithgow LGA, 2015.</i></p>
<p>2.26 Aboriginal Youth and Substance Use</p>	<p>Indigenous Youth are identified as a priority area for substance use and mental health</p>	<p>Ongoing consultations among key members of the Aboriginal community across the region in 2018 identified young Aboriginal people as a priority area within Aboriginal communities. Important issues identified to be impacting on young Aboriginal people include:</p> <ul style="list-style-type: none"> • The critical importance of identify and cultural connection (and impacts where knowledge of identity and culture is lacking) • The presence of pressures including peer-pressures and bullying, including via social media and electronic communications • Diverse perspectives: lack of support of diversity and diverse cultures in communities today • The critical importance in ensuring cultural competence and cultural safety of services, including those accessed by young Aboriginal people <p><i>NBMPHN and NBMLHD Joint Aboriginal Advisory Committee for Mental Health and AOD, 2018</i></p> <p>Findings from the 2016 NSW inmates census reveal the disproportionately high representation of young Aboriginal persons within NSW prisons and correctional facilities. In 2016, 23.5% of 18-24 year old male prisoners and 21.0% of 18-24 year old female prisoners</p>

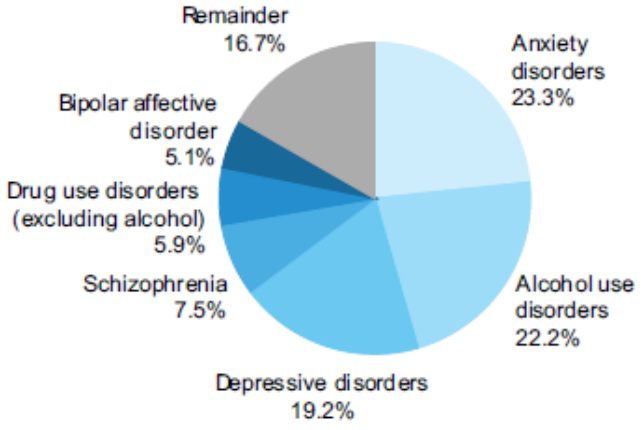
Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (Aboriginal people)

		<p>were Aboriginal. A further 41.4% of 25-34 year old male prisoners and 43.4% of 25-34 year old female prisoners identified as Aboriginal people. Given consultations for the general population indicate that inmates released from correctional facilities in the NBM region are at high risk of risky substance use, or have difficulties receiving necessary support to maintain abstinence or low risk substance use on release, this population group (Young Aboriginal people within &/or on release from correctional facilities) likely represents a high-risk group in high need of support.</p> <p><i>NSW Justice Corrective Services. Statistical Publication. NSW Inmate Census 2016.</i></p> <p>November 2018 Update</p> <p>Blue Mountains Aboriginal Culture and Resource Centre (ACRC) has been commissioned by NBMPHN to deliver Young Strong and Deadly events (an early intervention service focusing on connection to culture, suicide prevention and understanding risky substance use) to all LGAs within the NBM region in 2018. The client focus of existing services is young people who: attend high school, are referred by other service providers, are referred by other ACRC programs; and who self-refer. An additional population group, specifically adolescents and young men who are currently in custody at Cobham Juvenile Justice Centre, Werrington Park was proposed in May 2018 and has recently commenced operation.</p> <p>The proposed Cobham extension to the ACRC service will aim to work with Cobham Juvenile Justice to:</p> <ul style="list-style-type: none">• Reduce the number of young people who progress to regular AOD use, especially ice• Encourage current users to minimize or reduce risky patterns of use• Reduce the number of young people that progress to complex mental health issues and/or suicidal ideation• Increase knowledge and connection to Aboriginal culture• Positively impact on the likelihood of recidivism through improved understanding of the link between substance use and returns to custody.
--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (Aboriginal people)

		<p><i>Wentworth Healthcare Limited, Blue Mountains Aboriginal Cultural Centre and Wellington Aboriginal Corporation Health Service – Young Strong and Deadly Youth Program Proposal for Juvenile Justice Expansion of Current Program, May 2018</i></p>
2.27 Aboriginal People And Mental Health	A high proportion of Aboriginal and Torres Strait Islander people experience psychological distress.	<p>The <i>National Aboriginal and Torres Strait Islander Social Survey 2014-15</i> indicates that 32.8% of Aboriginal and Torres Strait Islander people have <i>high</i> or <i>very high</i> levels of psychological distress. After adjusting for differences in the age-structure of populations, Indigenous adults were 2.6 times more likely to experience high or very high psychological distress compared to non-Indigenous adults.</p> <p>Applying this figure to the NBMPHN population implies that 4,318 Aboriginal and Torres Strait Islanders experienced high or very high psychological distress in the previous four weeks. Applying LGA proportions to this total implies the number of Aboriginal and Torres Strait Islander people who experienced high or very high psychological distress in the previous four weeks by LGA would be:</p> <ul style="list-style-type: none"> • Blue Mountains: 598 • Hawkesbury: 785 • Lithgow: 396 • Penrith: 2,539 <p><i>Australian Bureau of Statistics National Aboriginal and Torres Strait Islander Social Survey: 2014-15, Canberra, 2016</i></p> <p><i>Australian Bureau of Statistics, Estimated Aboriginal and Torres Strait Islander Resident Population by LGA, 2016</i></p>
2.28 Aboriginal People: Mental Health, Drug & Alcohol	Substance abuse is a high risk factor for development of mental disorders in Aboriginal communities.	<p>Mental and substance use disorders was the leading cause (19% of the disease burden) of the total burden of disease experienced by Indigenous Australians in 2011. It was also the leading cause of the non-fatal burden of disease, accounting for 39% of all Years Lived with a Disability. More than one-fifth (22.2% of the total burden from mental and substance use</p>

Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (Aboriginal people)

		<p>disorders) of the burden was due to alcohol use disorders, while 5.9% was due to drug use disorders (excluding alcohol).</p>  <table border="1"> <caption>Disorder Distribution Data</caption> <thead> <tr> <th>Disorder</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Anxiety disorders</td> <td>23.3%</td> </tr> <tr> <td>Alcohol use disorders</td> <td>22.2%</td> </tr> <tr> <td>Depressive disorders</td> <td>19.2%</td> </tr> <tr> <td>Remainder</td> <td>16.7%</td> </tr> <tr> <td>Schizophrenia</td> <td>7.5%</td> </tr> <tr> <td>Drug use disorders (excluding alcohol)</td> <td>5.9%</td> </tr> <tr> <td>Bipolar affective disorder</td> <td>5.1%</td> </tr> </tbody> </table> <p><i>Australian Institute of Health and Welfare 2016. Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011. Australian Burden of Disease Study series no. 6. Cat. no. BOD 7. Canberra: AIHW.</i></p>	Disorder	Percentage	Anxiety disorders	23.3%	Alcohol use disorders	22.2%	Depressive disorders	19.2%	Remainder	16.7%	Schizophrenia	7.5%	Drug use disorders (excluding alcohol)	5.9%	Bipolar affective disorder	5.1%
Disorder	Percentage																	
Anxiety disorders	23.3%																	
Alcohol use disorders	22.2%																	
Depressive disorders	19.2%																	
Remainder	16.7%																	
Schizophrenia	7.5%																	
Drug use disorders (excluding alcohol)	5.9%																	
Bipolar affective disorder	5.1%																	
2.29	High prevalence of methamphetamine use.	<p>In 2016-17 the population rate of methamphetamine-related hospitalisation amongst Aboriginal males in NSW was approximately 6 times higher than non-Aboriginal males. Among Aboriginal females, the rate was just under 8 times higher.</p> <p><i>Health Statistics NSW Online Portal – Methamphetamine related hospitalisations and persons hospitalised by Aboriginality, persons aged 16 years and over, NSW 2016-17</i></p> <p>November 2018 Update:</p>																

Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (Aboriginal people)

		<p>Methamphetamine related hospitalisations in NSW of Aboriginal persons has nearly doubled from 673 to 1201 persons in the past 24 months (2014/15 to 2016/17). With a rate per 100,000 population observed increase from 431.9 persons per 100,000 to 750.9 persons per 100,000.</p> <p><i>Methamphetamine-related hospitalisations and persons hospitalised by Aboriginality, persons aged 16 years and over, Aboriginal, NSW 2009-10 to 2016-17</i> http://www.healthstats.nsw.gov.au</p> <p>AATSIHS 2012-2013 identified amphetamines as the third most ‘recently used’ illicit drugs among the Aboriginal and Torres Strait Islanders by people ages 15 and over.</p> <p><i>Review of illicit drug use among Aboriginal and Torres Strait Islander people No. 18 March, 2016</i></p>
2.30	Local barriers to accessing services.	<p>Nepean Community Neighbourhood Centres, funded by NBM Partners in Recovery, conducted a Yarn Up based on the Collective Impact Model identified barriers to culturally appropriate mental health services. The findings of this study are relevant to an understanding of AOD treatment barriers in NBM region.</p> <p>Barriers were:</p> <ol style="list-style-type: none"> 1. Racism 2. Cultural Safety 3. Flexibility of services 4. Stigma 5. Support for Aboriginal staff. <p>Barriers perceived by the group included lack of resources, an unwillingness to learn and be educated from non-Aboriginal staff and community, ignorance, inflexibility of services, resourcing issues, perceptions about what an Aboriginal person should sound like and a lack of cultural pride.</p>

Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (Aboriginal people)

		<p><i>Nepean Community & Neighbourhood Services, and NBM Partners in Recovery (June 2016) Yarn Up Report.</i></p> <p>Patient perspectives among Aboriginal people admitted to hospital in the NBM region in August 2016 were reported by NSW Bureau of Health Information. Overall this report indicates that NBM Aboriginal people perceived a poorer experience of hospitalization compared to Aboriginal people for NSW and compared to non-Aboriginal people. In NBMLHD Aboriginal patients were less positive than non-Aboriginal patients by 10+ percentage points for more than a third of the survey questions (19 questions). Only 48% of adult admitted Aboriginal patients in NBMLHD rated the care they received in hospital as ‘very good’. This was the lowest proportion in NSW. Key areas of difference concerned whether Aboriginal people felt they were given enough privacy when examined or treated and whether they ‘always’ got the opportunity to talk to a nurse when needed.</p> <p><i>NSW Bureau of Health Information (2016) Adult Admitted Patient Survey 2014 – Hospital care for Aboriginal People. NBMLHD Profile.</i></p> <p><i>NSW Bureau of Health Information (2016) Patient Perspectives: Hospital care for Aboriginal People.</i></p>
2.31	Community perceptions of health needs concerning substance use (Alcohol and Other Drugs)	<p>Aboriginal consultants were engaged to conduct community forums in each of the LGAs as follow up from the Sharing and Learning Circles conducted during 2015 and to focus more specifically on Alcohol and Other Drugs, as well as Mental Health issues. Both these topics were identified as high priorities during the 2015 consultations.</p> <p>Forums were held in Blue Mountains, Penrith, Hawkesbury and Lithgow LGAs during September and October 2016.</p> <p>The strongest themes to come from the forums were constellated around:</p> <ul style="list-style-type: none"> - The governance, accountability and congoing communication between the local Aboriginal Communities and services

Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (*Aboriginal people*)

		<ul style="list-style-type: none"> - Lack of access to appropriate services - Coordination of services. <p>All topics raised were underpinned by a lack of understanding from the services about Aboriginal People and the complex issues Aboriginal people are dealing with.</p> <p>The experience of some Aboriginal people is that access to AOD services may be due to a mandated requirement through child protection and justice services, rather than in response to health needs.</p> <p>In addition to long standing Aboriginal community mistrust of health services providers, because of personal or family and community experience, Aboriginal people in the NBM region may regard providers of AOD services with even greater mistrust and fear, and consequently may avoid seeking assistance for emerging or long standing dependence on substances.</p> <p>In response to these issues local service providers involved in the consultations and Aboriginal people, strongly identified the need for more Aboriginal people to be trained to facilitate and support access to AOD treatment on behalf of others because for many Aboriginal people self-referral is not considered.</p> <p>Consultation with local Aboriginal community controlled AOD service providers during 2016 indicates that due to a range factors including longstanding substance dependence, polydrug use, intergenerational and lived trauma, Aboriginal people often present for AOD treatment when they are in crisis. At these times, Aboriginal people present with multiple problems such as drug induced psychosis, acute physical illness and justice orders. Moreover, the complexity of these problems often means that a single treatment provider is unable to provide the support and treatment that clients require. Consultations with ACCHOs and the recently established Joint NBMLHD and NBMPHN Aboriginal Advisory Committee have indicated that these complex Aboriginal clients are experiencing an unsatisfactory and circular journey among multiple service providers, as well as poor outcomes.</p>
--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (*Aboriginal people*)

		<p>A constant theme and important message to health providers was that consultation processes aligned with funding or organizational agendas are irregular and may not effectively support Aboriginal people to provide needed feedback to commissioning agents or service providers. Communities consistently pointed to the need to develop better mechanisms to engage with local Aboriginal Communities in a more holistic way and more regularly. There is a need to engage with Aboriginal people in a way that values their lives as whole and listens to their perspectives on the relationship between factors in their lives and the complexities of dealing with their issues.</p> <p>Recommendations concerning improving future engagement of Aboriginal communities include:</p> <ul style="list-style-type: none"> - Better alignment of Community and Service expectations to ensure appropriate communication and accountability - Alternative, complimentary programs that build on cultural strengths to engage people in developing positive coping strategies; - Provision of services to be person centered to find appropriate solutions; - Develop partnerships and pool resources with other government sectors/agencies e.g. Police, education, housing, sport and recreation, environment; CentreLink; to help develop appropriate solutions - Solutions focused approach i.e. act at the causes of the issues rather than the symptoms - Update communication mediums to integrate social networking - Investigate the use of Cultural Mentors to help develop an additional layer of support for Aboriginal People; - Intergenerational trauma needs to be recognised and addressed through innovative, locally developed and coordinated programs; - Assistance needed to strengthen Aboriginal Community and family structures and protocols
--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – Alcohol and Other Drugs: Substance Use (*Aboriginal people*)

- Explicit acknowledgement of the prevalence of systemic racism in health services and find ways to eradicate it – this will help develop trust with the Aboriginal Community
- Find ways to develop and communicate a long term commitment to improving Aboriginal health outcomes
- Services need to better cater for the fact that community needs may fall outside regular business hours
- Integrate services better to hold the client at the centre of service provision i.e. different services need to help clients to navigate the system to get the best care
- Increase the number preventative services available to address the underlying issues/considerations before people reach crisis
- Ensure that services are free from judgment and trustworthy
- Increase cultural knowledge/competency of service staff to reduce inappropriate service/care
- Increase the numbers of Aboriginal workers in these services to reduce high burn out rates
- Properly recognise the role of culture, family and community in healing.

Shared Path Aboriginal and Torres Strait Islander Corp. Draft Report: Community Forums. NBMPHN, November 2016

Indigenous Health (including Indigenous chronic disease)

Outcomes of the health needs analysis – Indigenous Health (including Indigenous chronic disease)		
Identified Need	Key Issue	Description of Evidence
Aboriginal Health		
Population	<p>High proportion of Aboriginal people living in the NBM region (3.7%), compared to the proportion of the Aboriginal population in NSW (2.9%) and other NSW metropolitan areas.</p> <p>The highest proportion (5.7%) of Aboriginal residents in the NBM region live in the Lithgow LGA, while the highest number (7,740) of Aboriginal residents live in the Penrith LGA.</p> <p>There was significant growth (43%) in the estimated Indigenous population in the NBM region between 2011 and 2016.</p>	<p>According to the 2016 Census, in 2016 the population who identified as Aboriginal comprised 3.7% of the total population, representing 13,165 people. This compares to 2.9% of Aboriginal persons in NSW and 1.5% of Aboriginal persons in NSW major urban areas. As a proportion of the total population, NBM region reports the 3rd highest among the eight NSW metropolitan LHDs.</p> <p><i>.id Community Profile – Nepean Blue Mountains Primary Health Network [Accessed 24 October, 2018]. Available at: https://profile.id.com.au/nbmphn</i></p> <p><i>Epidemiological Profile of Local Government Areas populations in Nepean Blue Mountains Local Health District</i></p> <p>The number of Aboriginal residents in 2016 for the Penrith LGA was 7,740 or 3.9% of total population, Blue Mountains 1,821 or 2.4% of total population, Hawkesbury 2,395 or 3.7% of total population and Lithgow 1,208 or 5.7% of total the population.</p> <p>Indigenous population estimates across Australia are widely regarded as underestimated. There was a 30% increase in the estimate of the Indigenous population across Australia between the 2006 and 2011 Censuses. In the NBM region, there was a 43% increase in the estimate of the Indigenous population between the 2011 and 2016 Censuses, from 9,212 to 13,165 persons. This may be due to an increase in the local population formally identifying as an Aboriginal person at the time of the 2016 Census, real population growth for Aboriginal persons or a combination of both factors.</p> <p><i>Aboriginal and Torres Strait Islander Health Performance Framework 2014 Report</i></p>

Outcomes of the health needs analysis – Indigenous Health (including Indigenous chronic disease)		
		<i>id Community Profile – Nepean Blue Mountains Primary Health Network [Accessed 24 October, 2018]. Available at: https://profile.id.com.au/nbmphn NBMPHN workforce consultations, 2015</i>
Diverse nations	NBM region is made up three different Aboriginal nations as identified by traditional lands and language.	There is considerable diversity of Aboriginal peoples the region. There are three Aboriginal nations represented in the NBM region that roughly equate to LGAs. The people of the Nepean and Hawkesbury LGAs are living on the land of the Dharug people. The Blue Mountains roughly equates to the land of the Gandangara people. The Lithgow LGA is part of the Wiradjuri people’s land which extends through central NSW. <i>NBM Sharing and Learning Circles, 2014</i>
Age profile for NBM Aboriginal people	Aboriginal residents in NBM demonstrate a younger age profile compared to non-Aboriginal residents	The median age of Aboriginal residents in the region was 21 years in 2016, compared with 36 years for the total NBM population. NBM Aboriginal people under 25 years of age represent 54.6% of the total Aboriginal population, compared to 33% of people under 25 years of age in the non-Aboriginal population. <i>Epidemiological Profile of Local Government Areas populations in Nepean Blue Mountains Local Health District 2014</i>
Social determinants of health	Greater socio-economic disadvantage among Aboriginal people compared to the total population in NSW, in particular: unemployment, overcrowded accommodation and no internet access at home.	Selected socioeconomic indicators from the 2016 Census demonstrate the relative disadvantage in NSW of the Aboriginal population when compared with the non-Aboriginal population. In NSW, and compared with the non-Aboriginal population - larger percentages of Aboriginal people were: unemployed (15.3% vs. 6.0%); had no post-school qualifications (66.9% vs. 48.7%); had no household internet connection (22.5% vs. 14.6%); had a weekly household income less than \$500 (15.4% vs. 13.6%); lived in multi-family households (5.4% vs. 3.3%); and resided in dwellings with 6 or more people (8.4% vs. 3.7%). Of these the largest categories of disparity were: unemployment, resided in dwelling with 6 or more people and had no household internet connection.

Outcomes of the health needs analysis – Indigenous Health (including Indigenous chronic disease)		
		<i>Australian Bureau of Statistics – 2016 Census Community Profiles for New South Wales: General Community Profile and Aboriginal and Torres Strait Islander Peoples Profile [Accessed 24 October 2018]</i>
Chronic and preventable conditions	<p>Aboriginal and Torres Strait Islander Australians experience high rates of chronic and preventable disease than non-Indigenous Australians, in particular including:</p> <ul style="list-style-type: none"> • Respiratory diseases • Circulatory diseases • Diabetes • Chronic kidney disease • Cancer 	<p>The health of Aboriginal and Torres Strait Islander Australians is improving on a number of measures, including trends of significant declines in avoidable and preventable death rates, chronic disease mortality rates, infant and child mortality, low birth weight and increases in life expectancy at birth.</p> <p>Despite these improvements, significant disparities persist between Indigenous and non-Indigenous Australians. Indigenous Australians continue to have lower life expectancy, increasing hospitalisation rates for mental health conditions, higher rates of chronic and preventable illnesses including respiratory diseases, circulatory diseases, diabetes, chronic kidney disease and cancer, poorer self-reported health, and a higher likelihood of being hospitalized than non-Indigenous Australians.</p> <p><i>Australian Institute of Health and Welfare 2015. The health and welfare of Australia’s Aboriginal and Torres Strait Islander peoples 2015.</i></p> <p><i>Australian Institute of Health and Welfare 2017. Aboriginal and Torres Strait Islander Health Performance Framework [Accessed 26/10/18]</i></p>
	<p>Aboriginal people in NSW demonstrate a higher prevalence of behavioural risk factors for chronic conditions compared to non-Aboriginal persons, including:</p> <ul style="list-style-type: none"> • Smoking • Inadequate fruit intake • Consumed alcohol at risky levels • Insufficient physical activity • Overweight and obesity 	<p>Despite trends of improvements in many of these areas, Aboriginal people in NSW continue to have a higher prevalence of most behavioural risk factors for chronic conditions compared to non-Indigenous persons. These include:</p> <p>Smoking: Higher prevalence of current smoking among Aboriginal adults in 2017 compared to non-Aboriginal persons (28.5% vs. 14.7%)</p> <p>Nutrition: Lower proportion of Aboriginal persons aged 16-years and older did not eat recommended daily amounts for vegetables (91.6% vs. 93.4%), however a higher proportion did not eat recommended daily amounts for fruit (59.0% vs. 53.4%) compared to non-Aboriginal persons.</p>

Outcomes of the health needs analysis – Indigenous Health (including Indigenous chronic disease)

		<p>Alcohol: Higher proportion of Aboriginal persons aged 16-years and older in 2017 consumed alcohol at levels posing long-term risk to their health compared to non-Aboriginal persons (41.3% vs. 30.7%)</p> <p>Physical activity: A slightly higher proportion of Aboriginal persons aged 16 years and older in 2017 were insufficiently physically active – did not meet physical activity guidelines compared to non-Aboriginal persons (42.0% vs. 41.7%)</p> <p>Overweight and obesity: A significantly higher proportion of Aboriginal adults in 2017 were obese (30.3% vs. 20.6%), or overweight or obese combined (61.0% vs. 53.2%) compared to non-Aboriginal persons</p> <p><i>Health Statistics NSW online portal [Accessed 26 October 2018], including:</i></p> <ul style="list-style-type: none"> • <i>Current smoking in adults by Aboriginality, NSW 2017</i> • <i>Fruit and vegetables: recommended daily consumption by Aboriginality, persons aged 16 years and over, NSW 2017</i> • <i>Alcohol drinking in adults, by Aboriginality, NSW 2017</i> • <i>Physical activity in adults, by Aboriginality, NSW 2017</i> • <i>Overweight or obese adults by Aboriginality, NSW 2017</i> 																				
<p>Immunisation rates</p>	<p>Immunisation rates for Aboriginal children in the NBM region are increasing and at higher than national average rates.</p>	<p>Recent strategies implemented by the NBMLHD to target an increase in Aboriginal children’s immunisation rates have proved successful. NBM Immunisation rates for 1, 2 and 5-year old Aboriginal children have been increasing over the last 5-year period and are outlined in the table below:</p> <p>Immunisation rates by age-group and year</p> <table border="1"> <thead> <tr> <th></th> <th>1 year</th> <th>2 years</th> <th>5 years</th> </tr> </thead> <tbody> <tr> <td>2016-17</td> <td>94.0%</td> <td>92.5%</td> <td>98.0%</td> </tr> <tr> <td>2015-16</td> <td>92.5%</td> <td>89.0%</td> <td>97.5%</td> </tr> <tr> <td>2014-13</td> <td>88.5%</td> <td>87.2%</td> <td>94.7%</td> </tr> <tr> <td>2013-14</td> <td>86.6%</td> <td>92.8%</td> <td>93.5%</td> </tr> </tbody> </table>		1 year	2 years	5 years	2016-17	94.0%	92.5%	98.0%	2015-16	92.5%	89.0%	97.5%	2014-13	88.5%	87.2%	94.7%	2013-14	86.6%	92.8%	93.5%
	1 year	2 years	5 years																			
2016-17	94.0%	92.5%	98.0%																			
2015-16	92.5%	89.0%	97.5%																			
2014-13	88.5%	87.2%	94.7%																			
2013-14	86.6%	92.8%	93.5%																			

Outcomes of the health needs analysis – Indigenous Health (including Indigenous chronic disease)

		2012-13	87.8%	88.0%	93.3%
Hospitalisation rates	Hospitalisations from all causes have increased rapidly in the NBM Aboriginal compared to non-Aboriginal population over the previous 5-years, and are higher than the general population.	<p>Immunisation rates for NBM Aboriginal children in 2016-17 were higher than the national average rates for 1, 2 and 5-year olds:</p> <ul style="list-style-type: none"> • 1 year of age – 94.0% (above national average 92.2%) • 2 years of age – 92.5% (above national average 88.6%) • 5 years of age – 98.0% (above national average 95.7%) <p><i>Australian Institute of Health and Welfare, 2018 – MyHealthyCommunities: Immunisation rates for children 2011-12 to 2016-17</i></p> <p>The hospitalisation rate from all causes in the NBM region has increased at a faster rate over the previous 5-years (since 2011-12) in the Aboriginal compared to the non-Aboriginal population.</p> <p>The hospitalisation rate among Aboriginal persons increased by 20.7%, from 38,339 per 100,000 persons in 2011-12 to 46,276 per 100,000 persons in 2016-17. This compared to lower hospitalisation rates among non-Aboriginal persons during this timeframe, which only increased by 2.7%, from 31,957 per 100,000 persons in 2011-12 and 32,809 per 100,000 persons in 2016-17.</p> <p><i>NSW Health Online Statistics module 2018 – Hospitalisations for all causes by Aboriginality and Primary Health Network, NSW 2011-12 and 2016-17 [Accessed 26 October 2018]</i></p> <p>The highest numbers of Aboriginal hospitalisations in 2016-17 were for: Dialysis (796); maternal, neonatal and congenital causes (574); injury and poisoning (420); symptoms and abnormal findings (410) and digestive system diseases (354).</p> <p><i>NSW Health Online Statistics module 2018 – Hospitalisations by cause and Aboriginality, NBMPHN 2016-17</i></p>			

Outcomes of the health needs analysis – Indigenous Health (including Indigenous chronic disease)		
<p>Potentially preventable hospitalisations (PPHs) for chronic conditions</p>	<p>More than double the rate of PPHs due to chronic conditions among NBM Aboriginal residents compared to non-Aboriginal population.</p> <p>Leading PPHs due to chronic conditions among Aboriginal people in NSW include:</p> <ul style="list-style-type: none"> • COPD • Diabetes complications • Congestive heart failure 	<p>PPHs for chronic conditions provide an indication of the effectiveness of chronic disease management in a population – they are those which could have been prevented if earlier and effective preventative care and chronic disease management had been provided.</p> <p>There were 143 PPHs among NBM Aboriginal residents in 2016-17 due to chronic conditions, at a rate of 1,985 per 100,000 persons. This was more than double the rate of PPHs due to chronic conditions for non-Aboriginal people in the NBM region (918 per 100,000 persons), but lower than the rate for all Aboriginal people in NSW (2,826 per 100,000 persons). <i>NSW Health Online Statistics module 2018 – Potentially preventable hospitalisations by Aboriginality and Primary Health Network, Chronic conditions, NSW 2016-17</i></p> <p>The leading PPHs due to chronic conditions among Aboriginal persons in NSW in 2016-17 were: COPD (1,325 PPHs), diabetes complications (704) and congestive heart failure (368). <i>NSW Health Online Statistics module 2018 – Potentially preventable hospitalisations by condition, Aboriginal, NSW 2016-17</i></p>
<p>Hospitalisation rates attributable to alcohol</p>	<p>Aboriginal people in NSW experience a significantly higher rate of hospitals that is attributable to alcohol, compared to non-Aboriginal people.</p>	<p>Rates of hospitalisations attributable to alcohol for Aboriginal people in NSW in 2015-16 are more than double compared to the rate for non-Aboriginal persons (1,390 vs. 639 per 100,000 persons), however appear to be stable or have decreased slightly over the previous 5-years (1,417 per 100,000 persons in 2011-12).</p> <p><i>NSW Health Online Statistics module 2018 – Alcohol attributable hospitalisations by Aboriginality, NSW 2001-02 to 2014-15</i></p>
<p>Maternal and infant health</p>	<p>NBM Aboriginal mothers have only a slightly higher proportion (6.9%) of births that are low birth weight compared to non-Aboriginal mothers (6.5%).</p>	<p>During 2016, the proportion of low weight births to Aboriginal mothers in NBM was 6.9% This was only slightly higher than the proportion of low birth weight births to non-Aboriginal mothers at 6.5% of births, and decreased sharply from the previous year (12.6% in 2015). <i>NSW Health Online Statistics module 2018 – Low birth weight babies by mother’s Aboriginality, NBMPHN, 2001 to 2016</i></p>

Outcomes of the health needs analysis – Indigenous Health (including Indigenous chronic disease)

	<p>Aboriginal perinatal mortality rates in NSW are higher than the non-Aboriginal rate.</p> <p>Smoking during pregnancy is significantly higher for Aboriginal mothers.</p> <p>Fewer Aboriginal mothers have their first antenatal visit before 14 weeks gestation.</p>	<p>In 2017, the Aboriginal perinatal mortality rate in NSW was 12.7 deaths per 1,000 live births. This was higher than the non-Aboriginal rate of 8.2 deaths per 1,000 live births. In NSW, the perinatal mortality rate is highest among teenage mothers and up to five times higher when comparing Aboriginal teenage mothers to non-Aboriginal teenage mothers. <i>NSW Health Online Statistics module 2018 – Low birth weight babies by mother’s Aboriginality, NBMPHN, 2001 to 2016</i> <i>Epidemiological Profile of NBMLHD, 2014</i></p> <p>In 2016, the proportion of NBM Aboriginal women who smoked during pregnancy was 34.5%. Despite an ongoing downward trend (53.1% of NBM Aboriginal women smoked during pregnancy in 2011), smoking rates during pregnancy remain significantly higher than 11.0% for non-Aboriginal NBM mothers. <i>NSW Health Online Statistics module 2018 – Smoking at all during pregnancy among Aboriginal and non-Aboriginal mothers, NBMPHN, 2001 to 2016</i></p> <p>The percentage of women whose first antenatal visit occurred before 14 weeks gestation was lower for Aboriginal women. In 2016 49.1% of NBM Aboriginal women achieved this benchmark and for non-Aboriginal women the rate was 58.9%. <i>NSW Health Online Statistics module 2017: Antenatal care by gestational age, NBMPHN 2016</i></p>
Life expectancy	<p>Aboriginal males and females have lower life expectancy than the general population living in the NBM region.</p>	<p>In 2012, NSW Aboriginal males had a life expectancy of 71 years. This was 9.3 years lower than the life expectancy for the male general population living in the NBM region.</p> <p>In 2012, NSW Aboriginal females had a life expectancy of 76.4 years. This was 8.5 years lower than for all female residents of the NBM region. <i>Epidemiological Profile of NBMLHD, 2016</i></p>
Causes of death	<p>Higher rate of deaths among Aboriginal compared to non-Aboriginal people in NSW for the leading categories:</p> <ul style="list-style-type: none"> • Circulatory diseases 	<p>Causes of death for all NSW residents between 2012 and 2016 show that Aboriginal people have a higher rate of deaths compared to non-Aboriginal persons for the following leading categories of cause:</p> <ul style="list-style-type: none"> • Circulatory diseases (238 vs. 153 per 100,000 persons);

Outcomes of the health needs analysis – Indigenous Health (including Indigenous chronic disease)

	<ul style="list-style-type: none"> • Malignant neoplasms • Respiratory system diseases • Injury and poisoning; and • Endocrine diseases <p>Injury and poisoning has a higher rate of death for Aboriginal people than for the general population.</p>	<ul style="list-style-type: none"> • Malignant neoplasms (cancers) (213 vs. 160 per 100,000 persons); • Diseases of the respiratory system (100 vs. 47 per 100,000 persons). • Injury and poisoning (67 vs. 34 per 100,000 persons); • Endocrine, nutritional and metabolic diseases (including diabetes) (56 vs 21 per 100,000 persons); <p>The proportion of deaths occurring due to injury and poisoning were 13.6% for NSW Aboriginal population of NSW, compared to 5.5% for the non-Aboriginal population. This category includes suicide and trauma.</p> <p><i>NSW Health Online Statistics module 2018 – Deaths by category of cause and Aboriginality, NSW 2012 to 2016</i></p>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Section 3 – Outcomes of the service needs analysis

This section summarises the findings of the service needs analysis in the table below. For more information refer to Table 2 in ‘5. Summarising the Findings’ in the Needs Assessment Guide on www.health.gov.au/PHN.

Additional rows may be added as required.

General Population Health

General population service needs analysis is encompassed within six key theme areas of:

- Theme 1 - ACCESS TO HEALTH SERVICES is addressed fully within Section 3 – Outcomes of service needs analysis
- Theme 2 - CANCER SCREENING AND PREVENTION
- Theme 3 - CHRONIC AND PREVENTABLE CONDITIONS
- Theme 4 - CULTURAL AND DEMOGRAPHIC FACTORS INFLUENCING HEALTH STATUS
- Theme 5 - END of LIFE CAE
- Theme 6 - OLDER PERSONS

ACCESS TO HEALTH SERVICES

Outcomes of the health needs analysis – General Population Health, Priority Theme 1: Access to Health Services		
Identified Need	Key Issue	Description of Evidence
Geographical, social and economic barriers to accessing services		
Diverse geography impacts access to health services	NBM is a geographically diverse region with isolation, poor access to public transport and poor access to services in some parts of the region. Use of public transport infrastructure in each of the region’s LGAs is low,	The Nepean Blue Mountains (NBM) region is located in NSW approximately 60 kilometres West of Sydney to its Eastern boundary. The region is comprised of urban, semi-rural and rural areas, covering almost 9,179 square kilometres and spans from St Marys in the East to Portland in the West. Three major motorways – the M4, Great Western Highway and Northern Road – provide key infrastructure support and access across the area.

Outcomes of the health needs analysis – General Population Health, Priority Theme 1: *Access to Health Services*

	<p>evidenced by high proportions of residents who travel to work by car or as a car passenger compared to NSW, including:</p> <ul style="list-style-type: none"> • Blue Mountains LGA – 63.9% • Hawkesbury LGA – 73.5% • Lithgow LGA – 73.1% • Penrith LGA – 71.6% • NSW state average – 62.1% 	<p>The NBM region is one of 15 NSW State Local Health Districts (LHD) and 31 National Primary Health Networks, and provides primary, secondary and tertiary level healthcare for people living in each of the region’s four Local Government Areas (LGAs), and tertiary care to residents of Greater Western Sydney Region. Aspects of the region’s diversity in terms of population and topography provide specific challenges to delivering services by healthcare providers at both primary and tertiary care levels.</p> <p>The region’s four LGAs are described below.</p> <p>Blue Mountains LGA</p> <p>Blue Mountains City is located at the western fringe of the Sydney metropolitan area, about 55 to 95 kilometres from the Sydney CBD. Blue Mountains City is bounded by Hawkesbury City in the north, Penrith City in the east, Wollondilly Shire in the south, and Lithgow City and the Oberon Council area in the west.</p> <p>Blue Mountains City is a residential, tourist and rural area. The City encompasses a total land area of 1,432 square kilometres, of which 74% is World Heritage National Park, renowned for its forests, rock formations, bushwalks, waterfalls and lookouts. A further 14% of the City is contained in public reserves. The majority of the remaining area is residential, with most towns and villages located along the ridgelines and plateaus on the main east-west road and rail corridor. Some are small, isolated rural settlements while others are large, urbanised areas. The major population centres are Katoomba and Springwood. The primary rural area is the Megalong Valley. Blue Mountains City is served by the Great Western Highway, Bells Line of Road and the Western railway line.</p> <p>Among residents who were employed, the majority (57.3%) traveled outside of the LGA to work (18.4% to Penrith LGA and 6.5% to City of Sydney), while 42.7% work locally. Three-fifths (60.6%) of Blue Mountains residents in 2016 traveled to work by car, with the next most used method of transport to work by train (11.4%).</p> <p>Hawkesbury LGA</p> <p>Hawkesbury City is located at the north-western fringe of the Sydney metropolitan area - about 50 kilometres from the Sydney GPO. Hawkesbury City is bounded by the Singleton</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – General Population Health, Priority Theme 1: Access to Health Services

		<p>Council area and Cessnock City in the north, the Central Coast Council area and The Hills Shire in the east, Blacktown City, Penrith City and Blue Mountains City in the south, and Lithgow City in the west.</p> <p>Hawkesbury City is predominantly comprised of national and state parks, with some residential, commercial, industrial and military land use. The City encompasses a total land area of about 2,800 square kilometres, of which more than 70% is National Park. The Hawkesbury is divided by 5 river systems; the Nepean, Hawkesbury, Grose, Colo and MacDonald rivers. The main population centres are Windsor and Richmond, with urban areas also in many small townships and localities. The majority of the population live in the south-eastern section of the City. Hawkesbury City is served by Bells Line of Road, Singleton Road, Wollombi Road, Richmond-Blacktown Road, and the Western railway line.</p> <p>Among residents who were employed, the majority (55.8%) traveled outside of the LGA to work (11.8% to Blacktown LGA, 9.2% to Penrith LGA and 7.6% to The Hills Shire), while 44.2% work locally. Almost three quarters of Hawkesbury residents in 2016 traveled to work by car, with the vast majority (69.5%) driving to work as a driver, and a further 4.0% as a passenger. This compares to 52.8% of persons in the greater Sydney region who traveled to work by car.</p> <p>Lithgow LGA</p> <p>Lithgow City is located in the Central Tablelands of New South Wales, about 140 kilometres west of the Sydney CBD. Lithgow City is bounded by the Mid-Western Regional Council area and the Singleton Council area in the north, Hawkesbury City in the east, Blue Mountains City and the Oberon Council area in the south, and the Bathurst Regional Council area in the west.</p> <p>Lithgow City is a predominantly rural area, with rural-residential and residential areas in several townships, and some industrial land use. Nearly two thirds of the City is national park or state forest. Settlement is based in the township of Lithgow, the smaller townships of Portland and Wallerawang, and numerous small villages. The City encompasses a total land area of about 4,550 square kilometres. Rural land is used mainly for farming, grazing and mining (particularly coal mining). Lithgow City is served by the Castlereagh Highway, the Great Western Highway, and the main western railway line.</p>
--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – General Population Health, Priority Theme 1: Access to Health Services

		<p>Among residents who were employed, the majority (76.3%) work locally, while 23.7% travel outside of the area to work (6.5% to Blue Mountains LGA and 5.1% to Bathurst Regional Area). More than two-thirds (68.8%) of Lithgow residents in 2016 traveled to work by car as a driver and a further 4.3% as a passenger. The next most used method of transport to work was by walking (4.8%).</p> <p>Penrith LGA Penrith City is located at the western fringe of the Sydney metropolitan area - about 54 kilometres from the Sydney GPO. Penrith City is bounded by Hawkesbury City in the north, Blacktown City and Fairfield City in the east, Liverpool City and Wollondilly Shire in the south, and Blue Mountains City in the west.</p> <p>Penrith City is a residential and rural area, with most of the population living in residential areas in a linear corridor along the Great Western Highway and the Western railway. The City encompasses a land area of 407 square kilometres, of which around 80% is rural and rural-residential. Most of the urban area is residential, with some commercial areas and industrial areas, including extractive industries and manufacturing. Much of the rural area is used for agricultural purposes, including dairying, poultry farming, hobby farming, orcharding, market gardening and horse breeding. Major commercial centres are located at Penrith and St Marys. Penrith City is served by the Great Western Highway, The Northern Road, the Western Motorway and the Western railway line.</p> <p>Among residents who were employed, the majority (61.4%) traveled outside of the LGA to work (15.1% to Blacktown LGA, 8.4% to Parramatta LGA and 6.3% to City of Sydney), while 38.6% work locally. Two-thirds (66.7%) of Penrith residents in 2016 traveled to work by car as a driver and a further 4.9% as a passenger. The next most used method of transport to work was by train (10.4%).</p> <p><i>Wentworth Healthcare Limited – Needs Assessment 2016-17 Report</i></p>
--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – General Population Health, Priority Theme 1: Access to Health Services		
		.id Community Profiles for the Blue Mountains, Hawkesbury, Lithgow and Penrith Local Government Areas [Online]. Accessed October 2018.
Impact of distinctly different remoteness classifications on access to health services	NBM region demonstrates wide geographical variability, with remoteness classifications including: <i>Major Cities of Australia, Inner Regional Australia, and Outer Regional Australia.</i>	<p>A summary of the Australian Bureau of Statistics Remoteness Areas for LGAs in the NBM region is as follows:</p> <ul style="list-style-type: none"> • Penrith LGA: entirely classified as – <i>Major Cities of Australia</i> • Blue Mountains LGA: mostly classified as – <i>Major Cities of Australia</i>, with Medlow Bath and Blackheath classified as <i>Inner Regional Australia</i> • Hawkesbury LGA: has a mix of remoteness areas, including – <i>Major Cities of Australia, Inner Regional Australia, and Outer Regional Australia.</i> • Lithgow LGA: has a mix of remoteness areas – <i>Inner Regional Australia, and Outer Regional Australia.</i> <p><i>Australian Bureau of Statistics 2018, ABS Maps [Online]. Available at: www.stat.abs.gov.au/itt/r.jsp?ABSMaps [Accessed 24 October 2018]</i></p>
Impact of Badergys Creek Aerotropolis	Impact of changing environment and population on health services in the region	<p>The development of the new Badgerys Creek Aerotropolis is expected to impact both health and service needs in the NBM area. Major infrastructure development will have an environmental impact and there are as yet unknown health impacts. There are 13,000 new jobs also predicted in aviation, aerospace, Defence industries and advanced manufacturing. These factors will substantially affect both health access and health workforce in the region. A number of Council led initiatives will partner with NBM PHN and SWS PHN and corresponding Local Health Districts to develop a local Health Alliance to address local needs over the development period.</p> <p><i>Commonwealth of Australia. Western Sydney City Deal. Vision Partnership Delivery. March 2018.</i></p>
Barriers reported by consumers in accessing health services	<p>Major barriers to accessing health services previously reported by consumers include:</p> <ul style="list-style-type: none"> • Availability of transport • Difficulty accessing specialist care 	<p>Consumer forums previously conducted by the NBMML in each of the LGAs, during 2012, indicate the following barriers in accessing health care.</p> <ul style="list-style-type: none"> • Transport including availability, long distances especially for outlying areas and costs were dominant issues for all LGAs • Workforce shortages including access to specialist care. For Blue Mountains and Lithgow LGAs in particular, there were difficulties accessing general practice due to

Outcomes of the health needs analysis – General Population Health, Priority Theme 1: *Access to Health Services*

	<ul style="list-style-type: none"> • Inadequate awareness and information about services and eligibility requirements • Inadequate support and lack of services for aged care and carers 	<p>limited supply. Consumers reported that GPs often closed their books to new patients. Or there was a 2 week plus waiting period. Long waiting lists for services were experienced by residents from all LGAs</p> <ul style="list-style-type: none"> • Inadequate information about available services and eligibility was raised by consumers from all LGAs. Residents were not able to access existing services because of lack of awareness of those services. GPs and allied health professionals also experienced similar difficulties obtaining up to date knowledge of available services and eligibility requirements • Inadequate support and lack of services for aged care and carers was also identified by all LGAs. The effects of increasing demand for these services due to the ageing population were believed to be negatively impacting on access. <p><i>NBMML Community Forums on Health (Penrith, Hawkesbury, Blue Mountains, Lithgow) 2012</i></p>
<p>Cost of health services impact residents accessing health services</p>	<p>Cost is a barrier to accessing healthcare services for NBM residents:</p> <p>A smaller proportion of NBM patients incurred out-of-pocket ('gap') costs for Medicare-subsidised health care compared to the national average for the following services:</p> <ul style="list-style-type: none"> • Total non-hospital Medicare services (40.6% vs. 49.8%) • GP attendances (16.4% vs. 33.8%) • Diagnostic imaging services (9.6% vs. 23.5%). <p>However, a higher proportion of NBM residents (7.8%) delayed or did not see a medical specialist, GP, get an imaging test or pathology test due to cost in the</p>	<p>The total annual out-of-pocket costs (known as the 'gap') for NBM patients for their Medicare-subsidised health care delivered outside a hospital in 2016-17 is outlined below. The proportion of patients who delayed seeing a specialist, GP, get an imaging test or a pathology test due to cost in the 12-months prior to 2016-17 is also indicated.</p> <p>Total out-of-pocket costs per patient:</p> <ul style="list-style-type: none"> • Two-fifths (40.6%) of all NBM patients incurred out-of-pocket costs for non-hospital Medicare services in 2016-17. This proportion was relatively low compared to Australia (49.8%) and the 5th lowest among PHNs in Australia. • For these patients with costs, the median amount spent in the year was \$152 per patient. This was \$10 higher per patient compared to the average for Australia (\$142 per patient) and the 7th highest among PHNs in Australia. • There was wide variation in the proportion of NBM patients who incurred out-of-pocket costs for non-hospital Medicare services. This ranged from one-quarter (25.7%) of patients in St Marys to more than double that number in the Hawkesbury (51.0%), Blue Mountains (52.2%) and Dural-Wisemans Ferry (58.5%) SA3. • The median total out-of-pocket cost also varied significantly, from \$117 in Lithgow-Mudgee to \$187 in Dural-Wisemans Ferry SA3.

Outcomes of the health needs analysis – General Population Health, Priority Theme 1: Access to Health Services

	<p>12-months prior to 2016-17, compared to the national average (6.5%).</p>	<p>Out-of-pocket costs for specialist and obstetric attendances:</p> <ul style="list-style-type: none"> • NBM patients were most likely to pay for specialist services, where 72.0% of patients incurred specialist out-of-pocket costs in 2016-17. This was the same as the Australian average, with 71.9% of patients incurring out-of-pocket specialist costs. • A lower proportion of NBM patients (40.5%) incurred obstetric out-of-pocket costs compared to all patients in Australia (44.2%), however the median cost per obstetric service was similar (\$81 vs. \$78). <p>Out-of-pocket costs per GP attendance:</p> <ul style="list-style-type: none"> • Only 16.4% of NBM patients incurred out of pocket GP costs in 2016-17. This was less than half the proportion of patients in Australia with GP costs (33.8%) and was the third lowest among PHNs in Australia. • The median out-of-pocket cost per GP attendance for NBM patients was \$13. <p>Out-of-pocket costs per diagnostic imaging service:</p> <ul style="list-style-type: none"> • Similarly, only 9.6% of NBM patients incurred out of pocket costs for diagnostic imaging services in 2016-17. This was less than half the proportion of patients in Australia with diagnostic imaging costs (23.5%) and was the second lowest among PHNs in Australia. • The median out-of-pocket cost per GP attendance for NBM patients was \$13. <p>People who delayed or did not see a medical specialist, GP, get an imaging test or get a pathology test due to cost:</p> <ul style="list-style-type: none"> • 7.8% of NBM residents aged 15 years and over said the cost of services was the reason they delayed or did not seek specialist, GP, imaging or pathology services when they needed them, in the 12 months prior to 2016-17. This was higher than the national average (6.5%) and the seventh-highest among PHNs in Australia.
--	-----------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the health needs analysis – General Population Health, Priority Theme 1: Access to Health Services

		<p>People who delayed or did not seek GP care due to cost:</p> <ul style="list-style-type: none"> 3.5% of NBM residents aged 15 years and over said the cost of services was the reason they delayed or did not seek GP care when they needed them, in the 12-months prior to 2015-16. This was slightly lower than the National average for PHNs at 4.1%. <p><i>Australian Institute of Health and Welfare 2018 - MyHealthyCommunities: Patients' out-of-pocket spending on Medicare services, 2016–17 [Online]. Available at: https://www.myhealthycommunities.gov.au/our-reports/out-of-pocket-spending/august-2018 [Accessed August 2018]</i></p>
<p>Lower levels of private health insurance across the region</p>	<p>A lower proportion of the NBM population (49.4%) has private health insurance hospital cover compared to the NSW state average (51.5%)</p>	<p>The estimated percentage of people aged 18 years and over with private health insurance hospital cover in 2014-15 was 49.4% across the NBMMPHN region, compared to 51.5% in NSW. Breakdown by LGA: 58.7% in Blue Mountains, 54.0% in Hawkesbury LGA, 39.3% in Lithgow LGA and 44.9% in Penrith LGA.</p> <p><i>Public Health Information Development Unit – Social Health Atlas of Australia, Data by Primary Health Network 2017</i> <i>Public Health Information Development Unit – Social Health Atlas of Australia, Data by Local Government Area 2018</i></p>
<p>Low health literacy levels affects health choices</p>	<p>Low health literacy is a risk factor for poor health – influencing capacity to make decisions about health and health care.</p> <p>59% of adult Australians have an inadequate level of health literacy to meet the complex demands of everyday life, with lowest levels among:</p>	<p>The health literacy of individuals and the health literacy environment (of healthcare services) impact on people's ability to maintain their own health. Healthy literacy is important as it can influence decisions people make about their health and healthcare, such as managing their medications, when to access health services, which services to access, and how. Low levels of health literacy have been associated with higher rates of hospitalisation and emergency care use, premature death among older people and lower participation in preventative programs.</p> <p>The latest (2006) Australian Bureau of Statistics survey on health literacy found that 59% of adult Australians had an inadequate level of health literacy that would not allow them to</p>

Outcomes of the health needs analysis – General Population Health, Priority Theme 1: Access to Health Services

	<ul style="list-style-type: none"> • People who speak English as a second language • People on low incomes 	<p>meet the complex demands of everyday life. Health literacy was found to be lower among people who speak English as a second language and among people on low incomes.</p> <p>The levels of Health literacy in the NBM region need to be explored further.</p> <p><i>Australian Institute of Health and Welfare 2018. Australia's health 2018. Australia's health series no. 16. AUS 221. Canberra: AIHW</i></p>
--	------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Availability of Primary Care Services

<p>GP services</p>	<p>Distribution of GP services in the NBM region.</p>	<p>There were 139 general practices in the NBM region as at 8 November 2018. Of these, 4 general practice services were medical deputising services providing access to GP services after hours. The number of general practices in each LGA in the region as 8 November 2018 was:</p> <ul style="list-style-type: none"> • Penrith LGA – 79 • Blue Mountains LGA – 25 • Hawkesbury LGA – 27 • Lithgow LGA - 8 <p>The number of GPs per 100,000 population in each LGA in the region as at 8 November 2017 was:</p> <ul style="list-style-type: none"> • Penrith LGA – 127 • Blue Mountains LGA – 133 • Hawkesbury LGA – 132 • Lithgow LGA - 144 <p>Note: This does not take into account whether GPs are part time. A fulltime equivalent (FTE) GP to population ratio would provide a clear picture. This data is not currently being collected at a national level.</p> <p><i>Nepean Blue Mountains PHN Customer Relationship Database, as at 8 November 2018</i></p>
---------------------------	-------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<i>.id Community Profiles for Nepean Blue Mountains Primary Health Network [Online]. Accessed November 2018.</i>
Predicted growth in older population	An additional 123 GPs will be required to practice in the NBM region by 2036 to maintain the same GP to population ratio.	<p>The NBM region population is increasing. The region's population is projected to increase by 24% between 2016 and 2036. This represents an additional 90,800 persons by 2036 and total population of 466,700 persons. This growth rate is slightly lower compared to the NSW state average, of 28% by 2036.</p> <p>The NBM region population is also ageing. In 2016, 14.1% of the NBM population was aged 65 years and older. The proportion of the NBM population aged 65 years and older is projected to increase to 18.5% by 2026 and 20.7% by 2036.</p> <p>Additionally, the most rapid increases in the population are projected for the 75-84 and 85+ year age groups. From 2016-2036, the 85+ year age group will experience the highest growth of 233% (5,600 to 16,300 persons) followed by the 75-84 years age group of 195% (14,660 to 35,470 persons).</p> <p>As at October 2018, the GP to population ratio in the NBM region was 130.3 GPs per 100,000 persons. In order to maintain the same GP to population ratio by the year 2036, an additional 123 GPs (total of 608 GPs) will be required to practice in the NBM region within this timeframe.</p> <p><i>Data obtained from NBMPHN CRM database, as at 24 October 2018</i></p>
Declining health capacity in regional areas	<p>Except for GPs, there is a marked decline in the workforce capacity / service availability for most primary healthcare professionals in Australia in regional areas.</p> <p>Compared with major cities, people who live in inner regional areas such as Lithgow</p>	<p>There is marked decline in the health professional workforce capacity / service availability (measured by the FTE rate) for most types of healthcare professionals across Australia, except for general practitioners (GPs) as the remoteness area increases. This includes: Psychologists, Podiatrists, Physiotherapists, Pharmacists, Optometrists, Occupational Therapists, Specialist Medical Practitioners, Dentists and Chiropractors.</p> <p>Based on the 2016-17 Patient Experience Survey, there was little difference in the proportion of people who visited a GP between major cities and areas with increasing</p>

	<p>LGA, Upper Blue Mountains and outlying areas of Hawkesbury are:</p> <ul style="list-style-type: none"> • Less likely to have seen a GP after-hours • Less likely to have seen a dental professional • More likely to have visited a hospital emergency department in the previous year. 	<p>remoteness. However, people who lived in regional areas were less likely to have seen a GP after-hours (6.6% vs. 9.3%) or have visited a dental professional (44.6% vs. 50.0%). The AIHW <i>Australia's Health 2018</i> report suggests the relative lack of specialists and primary care professionals outside of major cities may be a reason why people living in inner regional and outer regional/remote/very remote areas were more likely to have visited a hospital emergency department in the previous year.</p> <p><i>Australian Institute of Health and Welfare 2018. Australia's health 2018. Australia's health series no. 16. AUS 221. Canberra: AIHW</i></p>
<p>Access to continuity of GP services is limited for certain groups of people and in certain geographies</p>	<p>High unmet need for GP services in the NBMPHN region –</p> <p>A greater proportion (3.6%) of NBM general practice patients don't have a usual GP or a usual place of care compared to the Australian average (2.5%, NBM 7 of 31 PHNs). This was equivalent to 13,399 people in 2017.</p> <p>Potentially at-risk patient groups who are less likely to have a usual GP or place of care include persons who:</p> <ul style="list-style-type: none"> • Live outside of major cities / metropolitan areas • Do not speak English at home • Have lower levels of education • Do not have private health insurance <p>Accessing a GP and maintaining continuity of care with the same GP is increasingly</p>	<p>Findings from the AIHW 2016 Survey of Health Care reveal that a higher proportion of patients (3.6% in NBMPHN, 2.5% nationally) don't have a usual GP or a usual place of care. This is equivalent to 13,399 people based on current population estimates for the NBM region. Patient groups less likely to have a usual GP or place of care included:</p> <ul style="list-style-type: none"> • People younger than age 75 • Lived outside of major cities / metropolitan areas • Did not speak English at home • Had lower levels of education • Did not have private health insurance • Reported better health and less long-term health conditions <p>Not having a usual GP or a usual place of care was high in the NBM region compared to other PHN regions in Australia, ranking 7 of 31 PHNs. However, a higher proportion of patients in the NBMPHN (85.5%) region rated their care as excellent or very good compared to PHNs in Australia (84.1%), placing 9 of 31 PHNs.</p> <p>Over the last 18 months, there has been reduced access to bulk billed GP visits in the Blue Mountains, as well as longer waiting times to get an appointment to see a GP. The larger general practice at Katoomba that previously bulk billed all appointments, now only bulk bills children and those with a health care card. This access barrier was echoed in the recent Blue Mountains GP Consultation meeting, and by Blue Mountains Hospital, which has seen a marked increase of non-urgent presentations to ED.</p>

	<p>difficult in the Blue Mountains, where there is a shortage of GPs.</p>	<p><i>NBMPHN and NBMLHD Blue Mountains GP consultation meeting, 20 August 2018</i></p> <p><i>Australian Institute of Health and Welfare 2018 – My Healthy Communities: Coordination of health care – experiences with GP care among patients aged 45 and over, 2016 [Online]. Available at: https://www.myhealthycommunities.gov.au/our-reports/coordination-of-health-care/july-2018 [Accessed 26 July 2018].</i></p>
<p>Barriers experienced with accessing care for long term health conditions</p>	<p>High need for primary care services – NBM adults are less likely to report excellent, very good or good health and more likely to report having a long-term condition compared to national averages.</p> <p>A higher proportion of NBM adults report experiencing the following barriers to accessing primary healthcare services:</p> <ul style="list-style-type: none"> • Not accessing a GP for urgent medical care • Waited longer than acceptable to get an appointment with a GP • Delaying or avoiding filling a prescription due to cost • Needing to see a GP but did not <p>Seeing a GP in the after-hours period</p>	<p>Results from the Australian Bureau of Statistics 2016-17 Patient Experience Survey show that a smaller proportion of NBM adults report excellent, very good or good health (81.7%) compared to Australia (85.3%, 28 of 31 PHNs) and a greater proportion report having a long-term health condition (57.4%) compared to Australia (49.9%, 2 of 31 PHNs).</p> <p>Despite having the highest proportion of adults who saw a GP in the previous 12-months in Australia (88.2%, 1 of 31 PHNs), indicating a high level of demand for GP care, NBM adults also reported the following barriers to accessing primary healthcare services:</p> <ul style="list-style-type: none"> • Lower than national average for proportion who saw a GP for urgent medical care in the preceding 12 months – (9.2% vs. 11.2%, NBM 28 of 31 PHNs) • Higher than national average for proportion who felt they waited longer than acceptable to get an appointment with a GP – (28.2% vs. 22.6%), NBM 4 of 31 PHNs) • Highest ranked PHN for proportion who delayed or avoided filling a prescription due to cost in the preceding 12 months – (11.7% vs. 7.3%, NBM 1 of 31 PHNs) • Second highest ranked PHN for proportion who needed to see a GP but did not in the preceding 12 months – (19.8% vs. 14.1%, NBM 2 of 31 PHNs). • Lower than national average for proportion who saw a GP after hours in the preceding 12 months – (5.3% vs. 8.4%, NBM 26 of 31 PHNs). <p><i>Australian Institute of Health and Welfare 2018 – My Healthy Communities: Patient experiences in Australia in 2016-17 [Online]. Available at: https://www.myhealthycommunities.gov.au/our-reports/patient-experiences-update/august-2018 [Accessed 16 August 2018]</i></p>

Access to After-hours Primary Healthcare Services		
<p>Impact of changing environment on After-hours services</p>	<p>Impacts of the changed environment for service providers working in the After-Hours and Medical Deputising Service (MDS) space includes a reduction in the number of MDS providers, reduced MDS service demand and workforce shortages specifically in Lithgow LGA and the Blue Mountains LGA (Upper Mountains postcodes).</p>	<p>As a result of the 2017 MBS Taskforce review of urgent after hours MBS item utilisation, the Department of Health adopted and implemented some of the taskforce recommendations on 1 March 2018, including: Revision of the Guidelines for Approved Medical Deputising Services (AMDS) to set more explicit limits on advertising directly to consumers; introduction of minimum triage standards to better identify patients in need of urgent after hours services; and a reduction in the MBS fee payable to non-Vocationally Registered GPs working in metropolitan areas.</p> <p>The introduced changes have had various impacts on the operation of Medical Deputising Services (MDS) in the Nepean Blue mountains region including the reduction in the number of MDS service providers, reduced demand for these services, and workforce shortages for these services in certain areas.</p> <p>Currently in the NBM region, there are a number of MDS operating, however this number has reduced. There remains no MDS in the majority of this region. Upper Mountains saw the withdrawal of the MDS in January 2018, due to the solo practitioner reaching retirement; Lower Mountains have a NBMPHN commissioned MDS however this service is often unavailable due to GPs workforce shortages. Service utilization in particular since March 2018; the Nepean area has 2-3 MDS operating; Hawkesbury has 1-2 MDS depending on location (2 in Windsor and Richmond, 1 in outer areas).</p> <p>Consumer feedback consistently points to Medical Deputising Services not having a large enough workforce to adequately cover this region. Consumers report that the home visiting services often don't have a doctor available in the after-hours period.</p> <p><i>NBMPHN Workforce Consultations 2017-18.</i> <i>NBMPHN and NBMLHD Blue Mountains GP consultation meeting, 20 August 2018</i></p>

Impact of the After Hours PP incentive on primary care providers

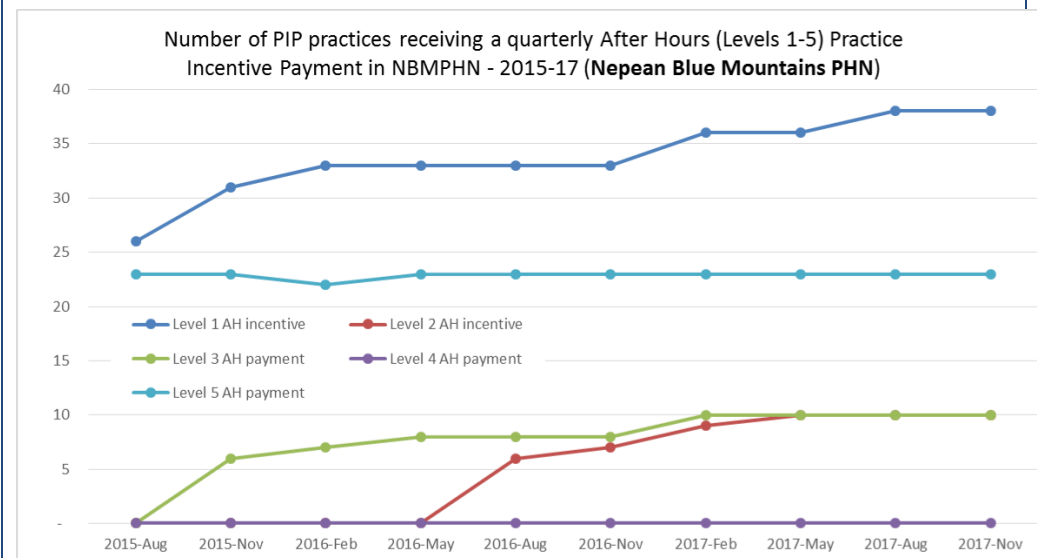
A total of 81 (60%) NBM General Practices received an After Hours PIP incentive payment in November 2017.

The highest number and recent growth in NBM practices receiving an After Hours PIP incentive payment was for Level 1 After Hours Incentive (practice must ensure patients have access to care in the complete after hours period).

Steady growth in the utilisation of after-hours primary care services in the NBM region, with a higher number of After-

Local General Practices contribute significantly to after-hours services. As at November 2017, 38 general practices were participating in Level 1 After Hours PIP, 10 in Level 2, 10 in Level 3, none in Level 4 and 23 in Level 5. The number of NBM PIP general practices receiving Level 2-5 After Hours payments between November 2016 and November 2017 remained steady, while an additional 5 practices received Level 1 After Hours payments in this time period (Figure 28).

Figure 28: Trends in the number of NBMPHN PIP general practices receiving a quarterly After Hours Practice Incentive Payment between August 2015 and November 2017.



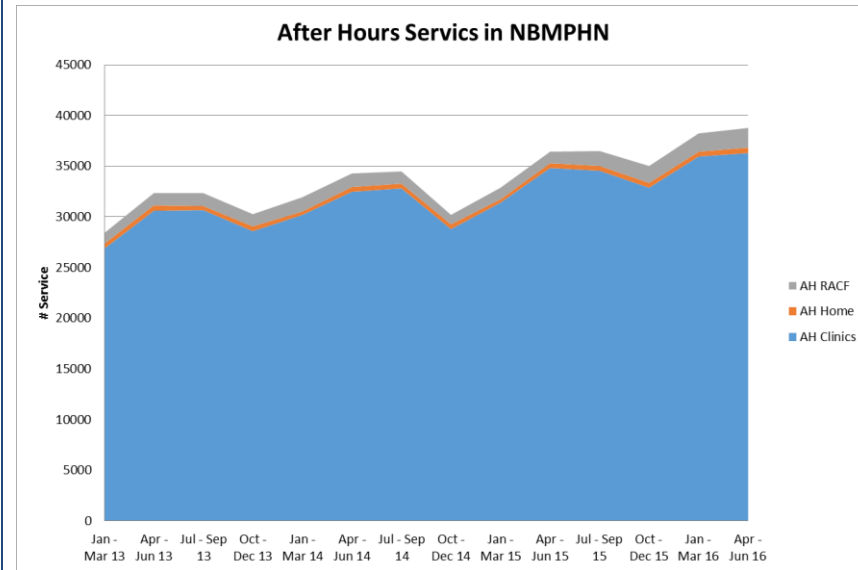
Commonwealth Department of Health 2018 – Practice Incentives Program Data. Available at: http://www.health.gov.au/internet/main/publishing.nsf/Content/PHN-PIP_Data [Accessed 15 June 2018]

Between January 2013 and June 2016, a large portion of after-hours primary services (94.7%) was carried out at a GP clinic, 4.0% at RACF and 1.3% at home. Figure B shows the

Hours attendances per person compared to Australia.

trends of the after-hours primary care services in the Nepean-Blue Mountains region. There is a steady growth in the service number, with higher numbers observed in the quarters including flu seasons (April – June and July – September). The average annual growth rate was 6.8% for the years 2013, 2014 and 2015.

Figure 29. Trends of after-hours primary care services in the Nepean-Blue Mountains region, January 2013 – June 2016

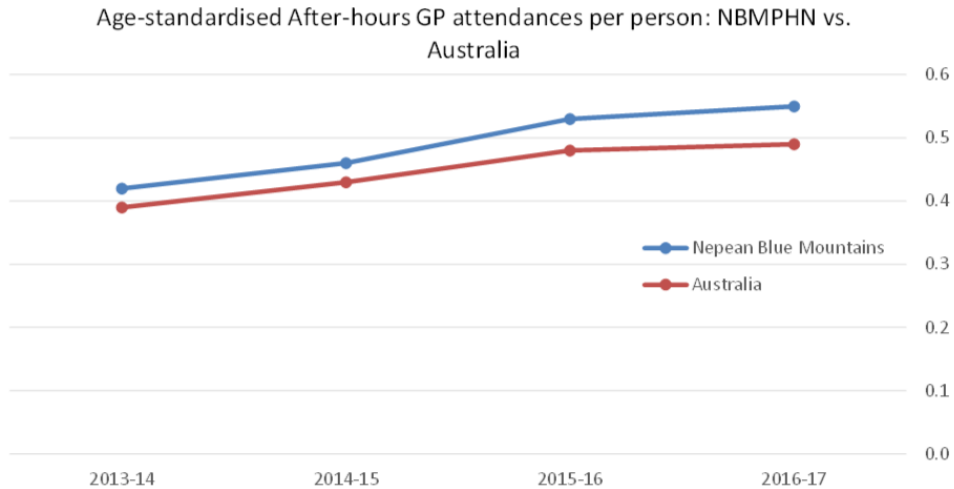


Medicare Statistics Online Portal – Medicare Locals Statistics Reports: General Practitioner After Hours item number services January 2013 – June 2016

Figure 30 shows the trends in after-hours GP attendances per person in the Nepean-Blue Mountains region compared to Australia for 2013-14 to 2016-17. There is a steady growth in the average number of after-hours GP attendances per person in NBM, and this occurred at a higher rate compared to the national average.

Coverage limited - Inadequate coverage for After Hours General Practice across the NBM region – specifically in Lithgow LGA (weekdays) and Blue Mountains LGA (weekends)

Figure 30: Trends in after-hours GP attendances per person in Nepean Blue Mountains PHN compared to Australia, 2013-14 to 2016-17

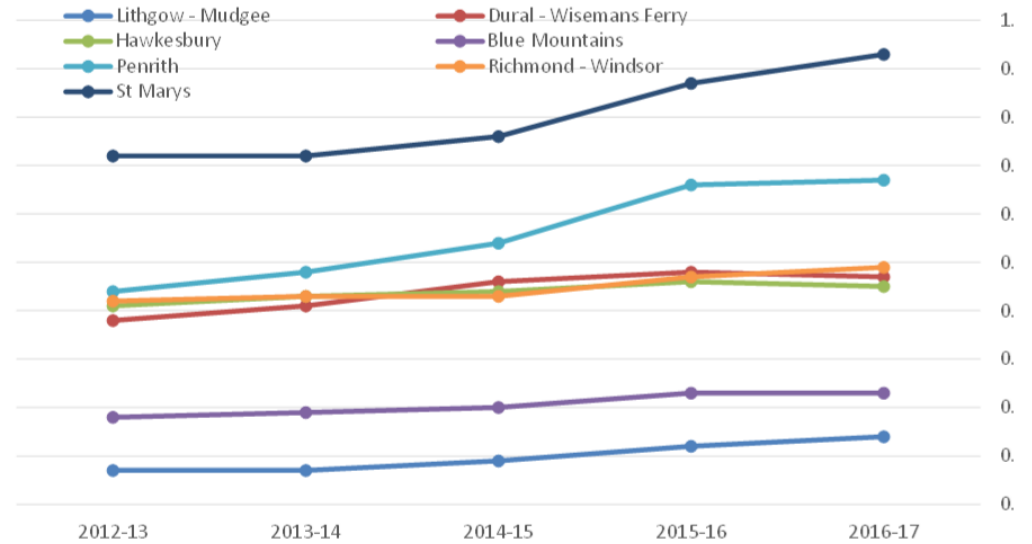


Australian Institute of Health and Welfare 2018 – My Health Communities Web Update: Medicare Benefits Schedule GP and specialist attendances and expenditure in 2016–17 [Online]. Available at: <https://www.myhealthycommunities.gov.au/our-reports/gp-and-specialists-attendances-and-expenditure/june-2018> [Accessed June 2018]

Figure 31 demonstrates there was significant regional variation in after-hours GP attendances (utilisation) per person in the Nepean-Blue Mountains region by smaller geographical areas in 2013-14 to 2016-17. The highest rates of attendances per person consistently occurred in the St Marys and Penrith SA3 areas, and lowest rates consistently occurred in the Lithgow-Mudgee and Blue Mountains SA3 areas. Such low rates of after-hours GP attendances is likely to reflect inadequate coverage &/or poor access to after-hours GP services for residents living in these areas.

Figure 31: Trends in after-hours GP attendances per person in Nepean Blue Mountains PHN by smaller geographical areas (SA3), 2013-14 to 2016-17

Age-standardised After Hours GP attendances per person: Regional variation in NBM by SA3



Australian Institute of Health and Welfare 2018 – My Health Communities Web Update: Medicare Benefits Schedule GP and specialist attendances and expenditure in 2016–17 [Online]. Available at: <https://www.myhealthycommunities.gov.au/our-reports/gp-and-specialists-attendances-and-expenditure/june-2018> [Accessed June 2018]

Table 1 sets out the distribution of after-hours services per 1,000 people. On average, Lithgow residents have the least amount of after-hours GP services during weekdays, whilst Blue Mountains residents have the least amount of after-hours GP services on weekends

Figure 32. Utilisation of after-hours home visits by age group in NBMPHN in NSW in 2014/15FY

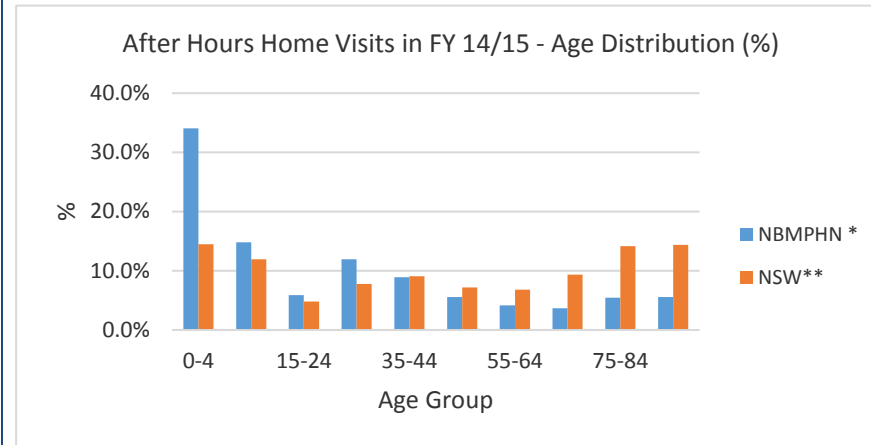


Figure 33 presents the number of after-hours RACF visits in the Nepean-Blue Mountains region. There was relatively small growth in RACF after-hours services (1.5%) from 2013 to 2014 and a significant growth (11.0%) from 2014 to 2015. This could be a result of National Home Doctor Services (NHDS) (a large corporation owned MDS) active engagement with the RACFs in 2014 and the establishment of After Hours GP Service Blue Mountains (a VR-GP owned MDS) in 2015.

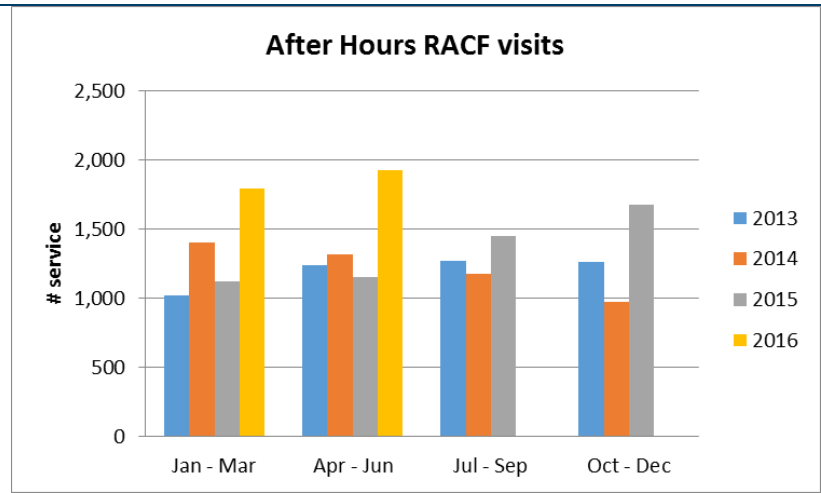
In 2016, After Hours GP Service Blue Mountains provided 387 after hours RACF visits in the Upper Mountains, compared to NHSD's 139 RACF visits in Lower Mountains. In September 2017, Dr Grewal (owner of After Hours GP Service Blue Mountains) verbally reported that he had 120 patients in five RACFs across the Upper Mountains whom he visited regularly. However, the After Hours GP Service Blue Mountains ceased operation in January 2018, with the impact of no current after-hours service being available for residents and residents of RACFs in the Upper Blue Mountains. .@HomeGP verbally reported visits to approximately 50-100 residents in four RACFs in the Hawkesbury area during 2016-17.

Figure 33. After Hours RACF visits in Nepean-Blue Mountains Regions

Unmet need for after hours GP services within RACFs across the entire NBM region.

Local GPs' unwillingness to visit RACF residents after hours

RACFs in the region typically call resident's regular GP first during after-hours. They also utilise the NHSD, RACF Liaison Officer and a Nurse Practitioner employed by Blue Mountains Hospital.



Medicare Statistics Online Portal – Medicare Locals Statistics Reports, GP Attendances: Consultations at an After Hours Facility January 2013 – June 2016

In October 2015, NBMPHN interviewed 15 RACFs across the region to understand what actions were commonly taken when the residents require medical care during after-hours. Most RACFs call residents' regular GPs first; except four RACFs call NHSD. Three out of these four RACFs are located in Penrith. RACFs located in upper Blue Mountains often contact Dr Grewal at After Hours GP Service Blue Mountains if residents' regular GPs are not available. They also utilise services provided by RACF Liaison Officer, a Nurse Practitioner employed by Blue Mountains Hospital.

NBMPHN interviews with RACF service providers in the NBM region, 2017

There is some concern nationally regarding RACF visits provided by MDS doctors who do not have any long term relationship with RACF residents. Pond (2016) reviewed 357,112 bookings logged by a MDS in Melbourne, with a particular focus on services provided to older people. Findings indicated that MDS doctors "are not equipped to care for these complex elderly patients in an optimal manner; they do not necessarily have a postgraduate qualification, they do not know the patient, and they are not supported by staff who are well trained and familiar with the medical conditions of each patient". Pond

	<p>Medical Deputising Services may pose a problem to continuity of care for older people</p> <p>Workforce shortage of GPs is a key factor influencing delivery of after-hours GP services in the region.</p>	<p>further pointed out that ‘older people have high rates of dementia and may not be able to fully communicate their history. It takes time to trawl through medical notes in RAC facilities. This potentially reduces the quality of service compared with attendance by the patient’s own GP, who knows them and their medical history well. <i>Pond (2016). After-hours medical deputising services for older people. Medical Journal of Australia; 205(9): 395-396</i></p> <p>One of the RACFs in Penrith reported that ‘ GPs do not do after hours’. In fact, only 48% of the BEACH GP sample in 2014–15 had visited an RAC facility in the previous month. Pond (2017) summarized the barriers to GPs visiting RACF residents, including ‘poor level of GP remuneration, increased time seeing patients, difficulty in finding staff (or indeed the patient), and staff with training below the levels of registered or enrolled nurse who are unable to hand over the patient history in a manner that makes medical sense’. An examples of handover comments include “Mrs Smith is a bit behavioural today”. <i>Britt H, Miller GC, Henderson J, et al General practice activity in Australia 2014-15. Sydney: Sydney University Press, 2015.</i> <i>Pond (2016). After-hours medical deputising services for older people. Medical Journal of Australia; 205(9): 395-396</i></p> <p>Workforce shortage is one of the key challenges to delivering after hours primary care services in the NBMPHN region. Most areas in the region are currently classified as District of Workforce Shortage (DWS), evidencing the need for more GPs. The shortfall of doctors and the trend for doctors to prioritise work-life balance in the interests of sustainable practice and professional longevity are putting pressure on the provision of after-hours services.</p> <p>The annual collection of data on 100,000 GP consultations in Australia known as the BEACH study has revealed a GP workforce that is “more feminised, older ... and worked fewer hours per week”. Other factors might include the dangers of after-hours visiting, stretched GP workforces, and a trend among GPs toward a better work–life balance. <i>Britt H, Miller GC, Henderson J, et al General practice activity in Australia 2014-15. Sydney: Sydney University Press, 2015.</i></p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<p>Similarly, in 2015 General practitioners had the highest proportion aged 55 or older (40.5%) of all clinician groups in 2015. The proportion of general practitioners who were women increased from 36.5% in 2005 to 42.1% in 2015.</p> <p><i>AIHW Medical Practitioners Workforce Report, 2015</i></p>
<p>Workforce challenges in maintaining local After-Hours GP services in the Hawkesbury region</p>	<p>Threefold increase in utilisation of the Penrith After Hours Doctors (after-hours GP service) since 2017 compared to the previous 10-year period.</p> <p>Workforce challenges have resulted in a reduction in operating capacity and service utilisation of the Hawkesbury After Hours GP clinic.</p>	<p>An after-hours GP clinic staffed by local GPs (and managed originally by Nepean Division of General Practice, then Nepean Blue Mountains Medicare Local and then Nepean Blue Mountains PHN) operated on the grounds of Nepean Hospital for 10 years. In July 2017, as part of NBMPHN's move to commissioned services, Penrith After Hours Doctors successfully tendered to deliver the service and have been operating from the Nepean Centro shopping complex since that time. This service has seen a threefold increase in patient's accessing services in the after-hours period compared to the Nepean AH GP clinic.</p> <p>Medicare data for the period 2012-13 to 2016-17 for After-Hours GP clinic based services (MBS items 5000, 5020, 5040, 5060, 5200, 5203, 5207 and 5208) in the NBM region demonstrates there was a steady increase in services claimed, from 120,244 services in 2012-13 to 145,682 services (21.2% increase) in 2016-17. MBS data for the 2017-18 financial year is not currently available, however once available will be interesting to compare to After-Hours GP clinic services in the previous 5-year period.</p> <p>NBMPHN continues to support the Hawkesbury After Hours GP clinic, which operates under the direction of St John of God and Hawkesbury District Health Service. This clinic is on the grounds of Hawkesbury District Health Service in Windsor and relies on local GPs to provide the workforce for the clinic. Workforce shortages have resulted in the closure of the clinic for a week in August 2018, and now reduction in opening hours from 7 days per week to 4 days per week. In 2017/18, 5,381 patients attended the Hawkesbury After Hours clinic representing a reduction from the previous year's attendances. This was directly related to the number of clinic closures resulting from lack of GP workforce to staff the clinic.</p>

		<p>There has been a growing trend over the past year, especially in the more densely populated areas of Penrith and Windsor/Richmond for general practices to provide extended opening hours beyond the traditional 9am to 5pm Monday to Friday.</p> <p><i>NBMPHN Workforce Consultations 2017-18.</i> <i>Commonwealth Department of Health 2017 – Medicare Benefits Schedule Date by PHN, 2012-13 to 2016-17</i></p>
<p>After Hours Use of Emergency Department Services</p>	<p>The high rate of after-hours Emergency Department attendances in Lithgow-Mudgee compared to other NBM smaller areas is likely to reflect inadequate coverage &/or poor access to after-hours GP services for residents.</p>	<p>Figure 34 demonstrates there was significant regional variation in the rate of after-hours Emergency Department attendances (utilisation) per 1,000 people in the Nepean-Blue Mountains region by smaller geographical areas in 2013-14 to 2016-17. The highest rates of attendances per person consistently occurred in the Lithgow-Mudgee SA3 area, and was similar to the highest rates among NSW PHNs (Western NSW PHN). After-hours ED attendance rates were similar at Blue Mountains Hospital Katoomba. Such high rates of after-hours ED attendances is likely to reflect inadequate coverage &/or poor access to after-hours GP services for residents.</p> <p>Figure 34: Rate of after-hours Emergency Department attendances in the NBMPHN region by smaller geographical (SA3) area, 2013-14 to 2015-16</p>

		<p style="text-align: center;">Number of after-hours ED attendances per 1,000 people: NBMPHN region, SA3 level</p> <p style="text-align: center;"><i>Australian Institute of Health and Welfare 2018 – MyHealthyCommunities: Use of Emergency Department and ED services 2013-14 to 2015-16 [Accessed November 2017]</i></p>
<p>High demand remains for health advice and access to a doctor in the after hours period</p>	<p>There is significant demand for After-Hours primary care services in the NBM region, indicated by almost three quarters (73.1%) of the 19,065 calls to the Healthdirect helpline telephone triage and advice service in 2017-18 occurring in the after-hours period.</p> <p>More than one-third (34.9%) or 6,653 callers to the Healthdirect helpline service by NBM residents in 2017 were advised to see an After-Hours GP or to see a doctor within the next 2-12 hours.</p>	<p>From 1 July 2017 to 30 June 2018, 19,065 calls were made to the Healthdirect Nurse Triage Helpline from residents in the NBMPHN region. Of these, almost three quarters (73.1%) were made during the following after-hours periods:</p> <ul style="list-style-type: none"> • Time 1 (6pm to 11pm weeknights) – 4,624 (24.3% of all calls) • Time 2 (11pm to 8am weekdays) – 2,638 (13.8% of all calls) • Time 3 (outside 8am to 12pm Saturday) – 2,527 (13.3% of all calls) • Time 4 (all day on Sundays and public holidays) – 4,145 (21.7% of all calls) <p>1,417 (7.4%) of these calls were later transferred to the After Hours GP Helpline. Callers to the Nurse Triage Helpline firstly speak with a registered nurse, who assesses their situation and advises what to do next.</p> <p>In 2017, of callers from the NBMPHN region to the Healthdirect Nurse Triage Helpline:</p> <ul style="list-style-type: none"> • 28.6% were advised to activate 000 or attend ED (despite 34.4% of people originally calling with this intention)

	<p>Users' satisfaction with telephone triage and advice services</p>	<ul style="list-style-type: none"> • 8.5% were advised to see an After-Hours GP • 26.4% to see a doctor within the next 2-12 hours • 7.6% to see a doctor within the next 1-3 days • 4.6% to schedule an appointment with your GP at a convenient time • 20.6% of the callers did not know what to do and 12.2% were seeking advice for home/self-care. <p><i>HealthDirect Healthmap, Helpline Call Data January 2016 to June 2018 [accessed November 2018]</i></p> <p>Lake et al. (2017) conducted a systematic review on the quality, safety and governance of telephone triage and advice services (TTAS). This review suggested that 'patient satisfaction with TTAS was generally high and there is some consistency of evidence of the ability of TTAS to reduce clinical workload. Similarly, McKenzie (2016) reported satisfaction with the Healthdirect after hours GP helpline was high, although awareness of the service was low.</p> <p><i>Lake, R., Georgiou, A., Li, J., Li, L., Byrne, M., Robinson, M. & Westbrook, J.I. 2017, "The quality, safety and governance of telephone triage and advice services - an overview of evidence from systematic reviews", BMC Health Services Research, vol. 17.</i></p> <p><i>McKenzie, R. 2016, "Consumer awareness, satisfaction, motivation and perceived benefits from using an after-hours GP helpline - a mixed methods study", Australian Family Physician, vol. 45, no. 7, pp. 512-517</i></p>
<p>Greater consumer awareness of HealthDirect After-hours GP helpline may contribute to ED avoidance</p>	<p>Lack of health information may result in unnecessary ED visits – only 7.1% of callers to the After-Hours GP helpline by NBM residents were directed to the ED, despite 29.2% of callers originally having this intention.</p>	<p>In 2017, 1,371 calls were made to the HealthDirect After Hours GP Helpline by residents in the NBMPHN region. For 75.7% of calls, GPs advised callers to either self-care only, or self-care and see their GP or Healthcare Provider.</p> <p>486 (35.5%) callers had originally intended to visit the emergency department (ED) or call 000 ambulance, however only 7.9% were advised to call 000 or visit an ED. Overall, only 7.1% of callers were directed to the ED, despite 29.2% of people originally calling with this intention.</p>

		<i>HealthDirect Healthmap, Helpline Call Data January 2016 to June 2018 [accessed November 2018]</i>
Increased consumer knowledge of local Health services and Information for is needed	<p>Poor knowledge of local health services and difficulties in obtaining information. This results in in appropriate presentations at hospital emergency departments among other things</p> <p>Online information on health symptoms has the potential to reduce medically unnecessary healthcare use.</p>	<p>Inadequate information about available services and eligibility has been raised previously by consumers from all LGAs. Residents were not able to access existing services because of lack of awareness of those services. GPs and allied health professionals also experienced similar difficulties obtaining up to date information about available services and eligibility requirements</p> <p><i>NBMML Community Forums on Health (Penrith, Hawkesbury, Blue Mountains, Lithgow) 2012</i></p> <p>The Healthdirect Symptom Check offers online information on health symptoms and is available to every Australian free of charge.</p> <p>A study in the Netherlands found that the valid online advice led to more medically appropriate decision-making for both non-urgent and urgent case scenarios. Its results indicated that online advice has the highest potential to reduce medically unnecessary use compared to other demand management strategies such as co-payment, overview medical costs and GP appointment next morning. Furthermore it enhanced safety of parents' decisions on seeking help for their young children during out-of-hours primary care. The authors concluded that valid online information on health symptoms for patients should be promoted.</p> <p><i>Giessen, M., Keizer, E., Pol, J.v.d., Knobben, J., Wensing, M.J.P. & Giessen, P. 2017, "The impact of demand management strategies on parents' decision-making for out-of-hours primary care: Findings from a survey in the Netherlands", BMJ Open, vol. 7, no. 5.</i></p>
Health Workforce		
GP Workforce shortages remain throughout the region	There are general practice workforce shortages in parts of every LGA in the NBM region.	A large proportion of the NBM region is designated District Workforce Shortage (DWS) for GPs in 2018.

		<ul style="list-style-type: none"> • Blue Mountains LGA: the entire Blue Mountains LGA is designated DWS. • Penrith LGA: most of Penrith LGA which has the largest population of 205,043 persons is mostly DWS with only five suburbs, Oxley Park, Colyton, Erskine Park, St Marys and North St Marys not designated DWS. • Lithgow LGA: Portland and Wallerawang are designated DWS. This represents approximately 20% of the Lithgow LGA. • Hawkesbury LGA: has a smaller group of suburbs (i.e. Kurrajong Heights, Kurrajong, East Kurrajong, Glossodia, Ebenezer, Wilberforce, Freemans Reach, Bilpin, Colo, St Albans etc.) designated DWS that represent around 15% of the LGA population. <p><i>Australian Government Department of Health 2018. Doctor Connect District of Health Workforce Map Locator [Online]. Available at: www.doctorconnect.gov.au/internet/otd/publishing.nsf/Content/locator. [Accessed 30 October 2018]</i></p>
	<p>High levels of attrition of general practice workforce due to aging of NBM workforce.</p>	<p>Consultations with general practitioners and regular retirements indicate that the NBM general practice workforce is aging and may not be replaced at the same rate as retirement. This is a particular concern among GPs from the Blue Mountains, and may also be indicated by the consistent District of Workforce Shortage status of the Blue Mountains.</p> <p>There are ongoing difficulties recruiting vocationally registered GPs to the outer metropolitan and rural areas of Blue Mountains and Lithgow. This is placing a considerable strain on the existing GP workforce.</p> <p>The Australian Health Practitioner Registration Authority (AHPRA) does not currently report workforce age profiles at regional levels however there are plans for APHRA to report age profiles according to PHN region in the near future.</p> <p>Local consultations indicate that the changes to the processes involved in general practice registrar placement may further compound GP workforce shortages. Practices can no longer rely on a Registrar being place with them. Registrar have a greater degree of choice</p>

		<p>now as to where they complete their training. Under the new arrangements it is more difficult to attract general practice registrars to regional and outer metro areas. <i>NBMPHN Workforce Consultations 2018.</i></p> <p>The cessation of the Outer Metropolitan Incentive Grant (OMRIG) has imposed further challenges on retaining GP registrar in the region. <i>NBMPHN Clinical Council Meeting, November 2016.</i></p>
<p>Limited availability of data to support workforce planning</p>	<p>Inadequate data to support regional planning for primary care workforce</p>	<p>Primary care workforce data for NSW and the NBM region is currently not maintained by a central authority. The National Health Services Directory (NHSD) contains a repository of health organisations (not individuals) across all four NBM LGAs but is reliant on NBMPHN and self-reporting to maintain currency.</p> <p>The NBMPHN regularly surveys practices and pharmacies to collect workforce data however these surveys are generally limited to practices, not individuals, and do not indicate FTEs for any workforce category. National sources of data such as APHRA have limited application for regional planning purposes. Apart from General Practitioners and Practice Nurses working in General Practice, it is not currently possible to establish health workforce levels for primary healthcare professionals per LGA or for the region. This prevents the analysis of trends and development of strategies for support in all areas including: Aboriginal Health, Mental Health and Suicide Prevention, Drug and Alcohol Services, chronic conditions, older adults, care coordination, general practice, nurse practitioners, and allied health professionals. <i>NBMPHN Workforce Consultations 2015-16.</i></p> <p>Obtaining up-to-date regional workforce data via DoH's online data tabulation tool is problematic. Data is currently only available for the NBM region for 2013-2016. The Department of Health's Workforce section have advised NBMPHN that the 2017 data will be released in late 2018.</p> <p>Headcount of GPs is not an effective measure because a significant number of GPs work part time. Full Time Equivalency or Full Service Equivalency is a better measure, however PHNs don't have access to this data.</p>

<p>Relative shortage of GP workforce</p>	<p>The GP to population ratio in the NBMPHN region (130 GP per 100,000 people), including all LGAs is relatively lower compared to the national (145) and NSW average (139), indicating a relative shortage of GP workforce.</p>	<p>The rate of supply of GPs in each LGA remained relatively steady between 2013 and 2018 (Table 2). The estimated number of GPs per 100,000 population in 2018 for the NBMPHN region was 130 (133 in Blue Mountains LGA, 127 in Penrith LGA, 144 in Lithgow LGA and 132 in Hawkesbury LGA). This compares to 145 in Australia and 139 in NSW for 2016-17. <i>AIHW Medical Practitioners Workforce Report, 2015</i></p> <p>It is important to note this data does not take into account whether GPs worked Full Time or Part Time.</p> <p>Table 3. Number of General Practitioners in the four Nepean Blue Mountains PHN region LGAs in 2013-2018</p> <table border="1"> <thead> <tr> <th></th> <th>Blue Mountains</th> <th>Penrith</th> <th>Lithgow</th> <th>Hawkesbury</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>2013</td> <td>82</td> <td>171</td> <td>26</td> <td>75</td> <td>354</td> </tr> <tr> <td>2014</td> <td>79</td> <td>177</td> <td>29</td> <td>71</td> <td>356</td> </tr> <tr> <td>2015</td> <td>85</td> <td>183</td> <td>30</td> <td>75</td> <td>373</td> </tr> <tr> <td>2017</td> <td>92</td> <td>240</td> <td>32</td> <td>82</td> <td>446</td> </tr> <tr> <td>2018</td> <td>105</td> <td>261</td> <td>31</td> <td>88</td> <td>485</td> </tr> <tr> <td>2018 GP per 100,000 population</td> <td>133</td> <td>127</td> <td>144</td> <td>132</td> <td>130</td> </tr> </tbody> </table> <p><i>Health Workforce Data tool http://data.hwa.gov.au/datatool.html Nepean Blue Mountains PHN Customer Relationship Database, as at 8 November 2018 .id Community Profiles for Nepean Blue Mountains Primary Health Network [Online]. Accessed November 2018.</i></p>		Blue Mountains	Penrith	Lithgow	Hawkesbury	Total	2013	82	171	26	75	354	2014	79	177	29	71	356	2015	85	183	30	75	373	2017	92	240	32	82	446	2018	105	261	31	88	485	2018 GP per 100,000 population	133	127	144	132	130
	Blue Mountains	Penrith	Lithgow	Hawkesbury	Total																																							
2013	82	171	26	75	354																																							
2014	79	177	29	71	356																																							
2015	85	183	30	75	373																																							
2017	92	240	32	82	446																																							
2018	105	261	31	88	485																																							
2018 GP per 100,000 population	133	127	144	132	130																																							
<p>Less nurses employed in NBM general practices than national average</p>	<p>A smaller proportion of General Practices in the NBM region (53%) employ at least one nurse compared to the Australian average (63%).</p>	<p>Practice nurses play a critical role in delivering continuous care to patients at general practice. There has been slow yet steady growth in the number of practice nurses in the four NBM LGAs between 2013 and 2018 (Table 3).</p>																																										

Predicted shortages in the General Practice nursing workforce in Australia is likely to impact the quality and costs of patient care.

Table 4. Number of practice nurses in the four Nepean Blue Mountains PHN region LGAs in 2013-2018

	Blue Mountains	Lithgow	Penrith	Hawkesbury	Total
2013	32	15	57	21	125
2014	33	11	77	22	143
2015	36	14	65	22	137
2017	36	15	71	28	150
2018	47	19	89	28	183

Health Workforce Data tool <http://data.hwa.gov.au/datatool.html>

Nepean Blue Mountains PHN Customer Relationship Database, as at 8 November 2018

As at 8 November 2018, 71 (52.6%) of General Practices in the NBM region employed at least one nurse. This compared to 63% across Australia in 2012.

Australian Medicare Local Alliance – General Practice Nurse National Survey Report, 2012. Nepean Blue Mountains PHN Customer Relationship Database, as at 8 November 2018

A simulation model developed to project changes to the General Practice Nursing (GPN) workforce in Australia for the 2012-2025 time period found the Australian Practice Nurse workforce is predicted to move into a position of shortage over this time period. The impact of GPN shortages on practices are likely to include:

- Difficulty managing the increasing rates of complex health conditions and chronic disease
- Increased GP workloads
- Limited practice participation in new models of care and result in increased costs of care.

Heywood T, Laurence C. The general practice workforce: estimating future supply. Australian Journal of General Practice. 2018; 47(11):788-795.

		<p>Nurses in general practice are an essential part of the primary health care workforce solution. However, there are no standardized position descriptions or agreed set of competencies or accreditation requirements for general practice nurses. The lack of a clear career path into general practice makes it difficult to sustain future growth in demand.</p> <p><i>Keleher, H., Joyce, C.M., Parker, R. & Piterman, L. 2007, "Practice nurses in Australia: current issues and future directions", Medical Journal of Australia, vol. 187, no. 2, pp. 108</i></p> <p>Afzali et al. (2014) conducted a 3-year observational study in Australia to estimate costs and outcomes associated with increased practice nurse involvement in clinical-based activities for the management of diabetes and obesity. Their findings suggested that the active involvement of practice nurses in collaborative clinical-based activities is cost-effective, as well as addressing general practice workforce issues.</p> <p><i>Afzali, H.H.A., Karnon, J., Beilby, J., Gray, J., Holton, C. & Banham, D. 2014, "Practice nurse involvement in general practice clinical care: policy and funding issues need resolution", Australian health review : a publication of the Australian Hospital Association, vol. 38, no. 3, pp. 301.</i></p>
<p>Limited mental health workforce capacity</p>	<p>There is a general view that workforce capacity for mental health in the region could be substantially improved with training and skills development (including GPs and other primary healthcare professionals).</p>	<p>Further research is needed to examine the potential sources of the issues raised by stakeholders to develop appropriate options. The concerns raised by stakeholders were:</p> <ul style="list-style-type: none"> • Increase GPs knowledge of available clinical and non-clinical services and their referral pathways. • Increase GP capacity to identify early if consumer needs more intensive treatment (not provided through ATAPS or Medicare) such as MHNIP. • Variable GP mental health engagement in region. • Need for trauma education for health professionals. • Lack of GP Education dual diagnosis drug and alcohol & severe mental illness. • Insufficient dual diagnosis support and supervision for private therapist. • Lack of GP education in relation to depression in the elderly. • Lack of peer workers to help increase consumer health literacy, understanding of treatment and psycho-social support options and to provide support for people while in acute care and in the community – identified as a high need by consumer group.

		<ul style="list-style-type: none"> Lack of support workers who are available after hours and on weekends. <p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>NBMPHN GP and AHP Consultations March 2016</i> <i>PIR Consumer Group Consultation 23/3/16</i></p>
Limited health workforce capacity affecting CALD Populations	Need for enhanced workforce training to support special needs of CALD populations with mental illness.	<p>A range of workforce issues have been identified affecting CALD populations. These include awareness of support services for CALD populations (translator services) and transcultural competency. Further research and consultation is required to establish the main CALD groups of concern and options for providing enhanced training and support to the workforce.</p> <p>The concerns raised in preliminary stakeholder consultation include the following:</p> <ul style="list-style-type: none"> More education is needed for clinicians in relation to the high number of psychosomatic disorders within the CALD community. GP's need more education in working with CALD communities in relation to their mental health – lack of cultural understanding Lack of training provided to GP's / Allied Health in using Telephone Translation Services. Lack of public/service provider awareness of CALD mental health provision. Lack of transcultural competency in workforce. Education, information and mental health literacy for CALD community organisations on existing mental health services so they can support their communities adequately. <p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>Stakeholder Consultation, NGO 11/3/16</i></p>
Access to digital health		
Increase the meaningful use of My Health Record by health care providers	Meaningful use of My Health Record across the region is needed to support information exchange between health care	The My Health Record (MHR) opt-out trial was conducted across the NBM region during 2016-17 resulting in a less than 2% opt out rate an 98% of the NBM population now having a secure electronic health record. The MHR enables sharing of an individual's health record between primary care providers including pharmacy and hospitals. This includes an

	<p>providers about patient care and management.</p>	<p>individual's health summary uploaded by their GP, an individual's advance care directive uploaded by the individual, and a discharge summary uploaded by the hospital.</p> <p>As one of the MHR trial sites, and now as part of the MHR opt-out national expansion, the NBM region now has 104 General Practices (of the 117 computerised Practices in the region) registered to upload shared health summaries. For the 2017-18 FY, 16,431 shared health summaries were uploaded by Practices in the NBM region, 1,611 discharge summaries were viewed and 2,276 shared health summaries were viewed by others. In the same time period, 312,107 pharmacy prescription dispense records were uploaded to MHR.</p> <p><i>Govdex spreadsheets issued by the Department of Health, 2017-18.</i></p> <p>NBM is part of the expansion program for the National Opt-out MHR Program. NBMPHN has percentage increases targeted for the number of General Practices uploading and number of uploads per Practice. <i>Wentworth Health Limited contract with the Australian Digital Health Agency, November 2017.</i></p> <p>Over the next 12-months, progression of meaningful use by both primary and acute care providers, including regularly uploading and viewing information will also continue.</p> <p>This year, NBMPHN in partnership with Ernest & Young launched its Digital Health Strategy for the NBM region for 2018-2021 period, including a digital maturity review of primary care. Integrating primary and secondary care patient information in real-time remains an ongoing challenge in the NBM region.</p> <p><i>Wentworth Healthcare Limited – Digital Health Strategy 2018-2021</i></p>
<p>Health Transport</p>		
<p>Health transport for NBM residents is limited</p>	<p>NBM residents often have difficulty or are unable to travel for health care due to inadequate transport options.</p>	<p>Consumer forums previously undertaken across the region have consistently reported that transport options were inadequate for their needs either due to high cost or lack of suitable transport services. The region is geographically diverse and depending on the LGA and remoteness of the location, the main transport flows may run contrary to the location of the nearest specialist health services. Long waiting times are often experienced for public transport and private transport may be costly due to long distances travelled.</p>

	<p>NBM residents, particularly persons living in the Hawkesbury or Lithgow LGA, persons from low socioeconomic backgrounds or those with poor mobility frequently experience difficulties accessing health care due to inadequate transport options.</p>	<p>Examples of problems experienced by consumers include: discharge from hospital after hours and no available transport services; difficulties accessing dialysis via public transport requiring multiple modes of transport; hospital parking difficulty and expense. <i>NBMML Community Forums on Health (Penrith, Hawkesbury, Blue Mountains, Lithgow) 2012</i></p> <p>Anecdotal evidence from the Connecting Care in the Community Care Coordination Program, previously conducted by the Nepean Blue Mountains Medicare Local, identified issues with a health transport for dialysis patients across LGAs, i.e. Hawkesbury to Penrith.</p> <p>The Health Transport Initiative established by the NBMPHN brought together key stakeholders involved in health and transport services, together with consumer representatives to develop options for improved transport services for health consumers, especially targeting special needs groups.</p> <p>Research identified that 10,438 residents had reported often having difficulty or were unable to travel to places due to lack of transport over a 12 month period. This Group proposed that there was increasing demand for health transport and inadequate funding throughout NSW, and found that special needs groups such as Aboriginal people and people with cancer were especially disadvantaged by inadequate transport options in the region. The Group report that inadequate transport may deny special needs groups access to basic health services. <i>NBMPHN Health Transport Initiative, 2015</i></p> <p>The NBMPHN Community Health Transport Initiative has compiled and made available local transport options for each LGA. These options can be accessed via the NBMPHN website. http://www.nbmphn.com.au/Community/Programs-Services/Health-Transport-Initiative.aspx</p> <p>Health consumers in the NBM cited the following specific issues and challenges experienced with accessing health transport across the region in 2017:</p>
--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<ul style="list-style-type: none"> • Hawkesbury LGA - limited North-South transport options between Hawkesbury and Penrith (Penrith has a relatively higher concentration of specialist services) • Hawkesbury LGA – no direct trains into the city or to Westmead (to access Westmead hospital) • Lithgow LGA – high cost of transport due to long travel distance to Nepean Hospital and high cost of fares via the local private bus company • Lithgow LGA - to get to Lithgow station you have to pay twice due to Opal ticket rules where a bus trip does not count towards the cost of a fare due to rural classification • High relative cost of transport for persons from low socioeconomic backgrounds • Poor transport availability after-hours, e.g. 6am or after hours at night • High number of connections and travel-time required to get to destination • Public transport is often not an option due to illness or mobility limitations • Community transport operators frequently cancel services at short notice due to a lack of drivers • Difficulties in accessing specialists appointments due to inability to find suitable transport <p><i>Health Transport Workshop consultation, NBMPHN and NBMLHD joint Community Advisory Committee meeting, 30 October 2017</i></p>
Access for populations with special needs and Individuals at risk of poorer health outcomes		
Support and services for older people is limited	<p>High demands for GP services</p> <p>High demands for after-hours primary care by RACF residents</p>	<p>Of the 62,300 people aged 65 and plus in NBMPHN region in 2015, 55.1% had seen a GP for their own health in the last 12 months. 8% stated that they had needed to see a GP at least once in last 12 months but did not.</p> <p><i>Australian Bureau of Statistics, 2016 – Survey of Disability, Ageing and Carers, 2015</i></p> <p>Activity data for the 2017-18 financial year by the NBMPHN commissioned MDS provider in the lower Blue Mountains indicates that on average, 13.1% of their after-hours visits were to RACF residents (195 visits) and 10% to older people living at home (141 visits). The proportion of after-hours visits to RACF residents and older people living at home varied by</p>

	<p>Potentially avoidable general practitioner (PAGP) type presentations by older persons: older patients are over-represented in emergency departments (ED), with many presenting for conditions that could potentially be managed in general practice</p> <p>Inadequate support and lack of services for aged care and carers</p> <p>Poor knowledge of available services among older people</p>	<p>calendar month within this period, ranging from 5% to 22% and 5% to 15% of visits respectively.</p> <p>Mazza et al (2017) conducted a retrospective analysis of data comprising ED presentations by patients aged 70 years at public hospitals across metropolitan Melbourne from January 2008 to December 2012. This study found that potentially avoidable general practitioner (PAGP) type presentations, although declining, remain an important component of ED demand. PAGP type presentations comprised 13.9% of ED presentations by older adults 70+ years during the study period, with 58.7% of patients referred back to a medical officer including a GP. Patients presented for a wide array of conditions during periods that may indicate difficulty accessing a GP.</p> <p><i>Mazza, D., Pearce, C., Joe, A., Turner, L.R., Brijnath, B., Browning, C., Shearer, M. & Lowthian, J. 2017, "Emergency department utilisation by older people in metropolitan Melbourne, 2008-12: findings from the Reducing Older Patient", Australian Health Review,</i></p> <p>Note: Comparable data for the NBM region is not yet available</p> <p>Consumer forums conducted by the NBMML in each of the LGAs during 2012, indicated inadequate support and a lack of services for aged care and carers in all LGAs. The effects of increasing demand for these services due to the aging population were believed to be negatively impacting on access.</p> <p><i>NBMML Community Forums on Health (Penrith, Hawkesbury, Blue Mountains, Lithgow) 2012</i></p> <p>During NBMPHN Aged Care Stakeholder's Forum 2015, it was identified that access to services before crisis point including after-hours support is impeded by a lack of awareness among health professionals, carers and older people. Further, primary care providers including General Practitioners have limited access to up-to-date and comprehensive information to support directing older persons to available support and services (<i>NBMPHN Aged Care Stakeholder's Forum, 2015</i>)</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p>Support and services for people with disability is limited</p>	<p>High level of unmet need for GP services among persons with a disability – approximately 4.3% of the 2017 NBMPHN population (16,013 persons) needed to see a GP at least once in the previous 12 months but did not.</p>	<p>It is estimated that there were approximately 67,000 people (18% of the population) living with disability in the NBMPHN region in 2017 based on national survey findings in 2015 (36.9k in Penrith LGA, 12.0k in Hawkesbury LGA, 3.9k in Lithgow LGA and 14.2k in Blue Mountains LGA). Their need for GP services was 35 times more than people without disability.</p> <p>However, survey findings also demonstrate a high level of unmet need for GP care from this cohort. Of those surveyed who had a disability, 23.9% needed to see a GP at least once in last 12 months but did not. The top 5 reasons were 1) decided not to seek care, 2) too busy or no time (including work, personal, family responsibilities), 3) other, 4) waiting time too long or not available at time required, and 5) cost. (SDAC 2015)</p> <p><i>Australian Bureau of Statistics, 2016 – Survey of Disability, Ageing and Carers, 2015</i></p>
--------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

CANCER SCREENING AND PREVENTION

Outcomes of the service needs analysis – General Population Health, Priority Theme 2: <i>Cancer Screening and Prevention</i>		
Identified Need	Key Issue	Description of Evidence
<p>Engaging patients and communities in cancer screening</p>	<p>Service provider barriers to engaging patients and community members in cancer screening include:</p> <ul style="list-style-type: none"> • Information technology challenges with general practice clinical software. • Lack of GP time, competing priorities or financial incentives to engage patients in screening. • Disconnect between the National Bowel Cancer Screening Program implementation and general practice. • Lack of standardized electronic systems for reporting screening results electronically into general practice clinical software. • Examples of poor teamwork within general practice teams due to lack of leadership. • Geographic and physical accessibility barriers to the mobile BreastScreen van. 	<p>NBMPHN implemented a cancer screening program between July 2016 and June 2018, which aimed to work with primary healthcare providers and the local community to raise cancer screening rates across its four local government areas. A 15-month quality improvement initiative with 18 NBM general practices was a key element.</p> <p>Qualitative evaluation of the NBMPHN cancer screening program identified facilitators and barriers to engaging patients and community members in screening,. The main barriers included:</p> <p>Information Technology Challenges:</p> <ul style="list-style-type: none"> • General practice software was described as limited in its capacity, not being fit for purpose and sometimes provided unreliable or inconsistent data with regards to screening participation across a cohort of patients. • Many general practice staff also expressed there was no way for them to identify if patients had been screened elsewhere (at another practice, or independent of the practice) and that it was challenging to accurately identify patients who do not require screening. • Limited or no ability for common clinical software tools such as Best Practice and Medical Director to build a practice register of patients eligible for screening directly within the software, without using the third party Pen Clinical Audit Tool. <p>General Practice strategies and challenges:</p> <ul style="list-style-type: none"> • Several GPs and practice staff described being time poor and having many competing clinical care priorities within their busy practices; these were prioritised over encouraging patients to be screened.

Outcomes of the service needs analysis – General Population Health, Priority Theme 2: *Cancer Screening and Prevention*

		<ul style="list-style-type: none"> • A perceived lack of time and financial reward were also identified as a disincentive to focus on practice team quality improvement activities specific to cancer screening. • Some GPs and practice staff described a major challenge was that many patients were reluctant to engage in screening, or to respond to conversations and reminders. • A disconnect between the National Bowel Cancer Screening Program (NBCSP) and general practices was commonly described – many GPs expressed interest in receiving bowel testing kits from the National program or Department of health to issue to patients, however did not receive them (the NBCSP is currently designed to send testing kits to participants directly in the mail and not via General Practice clinics). <p>Electronic systems for reporting and recording screening results:</p> <ul style="list-style-type: none"> • An information disconnect exists between pathology or screening test providers and general practices was described. Breast screening results were provided by BreastScreen NSW as physical documents and scanned and entered as documents into clinical software without coding, making it difficult to create a register of patients screened across the practice. • The NBCSP provides an option for the contracted pathology provider to send results to practices electronically, however this was not the default setting, meaning a majority of practices were receiving results by letter, with resulting difficulties in creating an accurate register of patients screened. • Lack of standardisation of common terms / codes used between different pathology providers for secure messaging screening results (e.g. for cervical screening) to the practice. This required time consuming manual entry of screening results by GPs or practice staff in order to effectively capture results upon the practice register of patients screened. <p>Leadership and teamwork:</p> <ul style="list-style-type: none"> • While there were examples of leadership, improved teamwork and shared knowledge and expertise among team members as a result of the program, not all practices were able to engage all members of or work well together across the practice team. Poor
--	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – General Population Health, Priority Theme 2: *Cancer Screening and Prevention*

		<p>communication and teamwork was seen to be a result of lacking commitment from practice leaders.</p> <p>Lack of accessibility to screening:</p> <ul style="list-style-type: none"> • Geographic and physical access were identified as barriers to breast screening. • Mobile screening was the only local option for a number of consumers due to their geographic location, yet the location to the screening van was seen to be problematic. • Physical access barriers included steps into the BreastScreening van being too steep, not sturdy enough, not wide enough and challenging for older or bigger women or those with limited mobility. <p><i>Trankle SA, Metusela C, MadDonald J, Reath J (2018). Evaluation of Nepean Blue Mountains Primary Health Network (NBMPHN) Cancer Screening Program. Campbelltown: Western Sydney University.</i></p>
<p>Systems for cancer screening results and reminders in primary care require enhancement</p>	<p>Poor integration of electronic systems for breast, cervical and bowel cancer screening results and reminders in primary care</p>	<p>Consultations with general practices in the NBM region indicate there are multiple layers of poor integration between electronic systems that primary care providers use to receive cancer screening test results, manage recalls and reminders for cancer screening &/or need to seamlessly and accurately identify under-screened or never-screened patients.</p> <p>Specific areas of poor integration include:</p> <ul style="list-style-type: none"> • Widespread receipt of paper-based letter results for BreastScreen NSW mammogram results and the National Bowel Cancer Screening Program FOBT results. • Lack of standardisation in electronic ‘coding’ of Pap-test pathology results among pathology providers • Poor or no recording of cancer screening results into relevant ‘fields’ in Practice clinical software systems (that allow for future data extraction and aggregate identification of patients screened / not-screened), without reliance on manual data entry by General Practitioners

Outcomes of the service needs analysis – General Population Health, Priority Theme 2: *Cancer Screening and Prevention*

		<ul style="list-style-type: none"> • Poor quality of practice data on patients screened, never-screened and last attended screening • High levels of difficulty or no ability of General Practitioners to interface with the relevant state-based cancer screening register to identify a patient’s screening history • Difficulties in accurately identifying patients never-screened or overdue for screening using aggregate data within clinical software or external data extraction tools • Reliance on extensive manual data entry for effective use of recall and reminder systems for cancer screening in General Practice <p><i>NBMPHN consultations with General Practices in the NBM region, 2017</i></p>
<p>Extended wait times for colonoscopy compounded by limited referral information from General Practitioners</p>	<p>The wait time from GP referral to colonoscopy for NBM patients referred for colonoscopy at Nepean Hospital is approximately double recommended by clinical guidelines for triage category 1 and 2 patients.</p> <p>GP referral letters frequently miss important information, such as past surgical history, past psychological history, relevant clinical findings, results of investigations to date, outline of management to date, or a possible differential diagnosis.</p> <p>Not all GPs received a follow-up letter if the patient did not attend a follow-up consultation with the gastroenterologist.</p>	<p>A retrospective evaluation of 265 general practitioner referrals to specialist gastroenterologists for patients undergoing colorectal cancer screening (colonoscopy) at Nepean Hospital in the NBM region was conducted between September 2017 and May 2018. It aimed to determine the time from GP referral to colonoscopy, the quality of GP referral letters for colonoscopies and if GPs clinical decision making was based on NHMRC Clinical Guidelines for colorectal cancer.</p> <p>Time from GP referral to colonoscopy</p> <ul style="list-style-type: none"> • The mean time from GP referral to colonoscopy was approximately double recommended by clinical guidelines for triage category 1 (within 30 days) and 2 (within 90 days) patients, but was within the time limit for category 3 (within 365 days) patients. • There was a low rate of colonoscopies performed within the time limit for patients within triage categories 1 and 2. <p>Quality of GP referral letters:</p>

Outcomes of the service needs analysis – General Population Health, Priority Theme 2: *Cancer Screening and Prevention*

	<p>There is need for a pre-developed template or standardization of GP referral letters for colorectal cancer screening to ensure no important clinical information is missing.</p>	<ul style="list-style-type: none"> • GP letters for colorectal cancer screening were overall judged to be well written and contained the right information for gastroenterologists. • GP letters however were frequently missing important information, such as past surgical history, past psychological history, relevant clinical findings, results of investigations to date, outline of management to date, or a possible differential diagnosis. • The 3 patients with a histopathological diagnosis of cancer were found to have received very poor quality referral letters from their GP. <p>GP clinical decision making:</p> <ul style="list-style-type: none"> • GPs were found to be good at referring patients presenting with specific indications and symptoms for colorectal cancer screening in line with Clinical Practice Guidelines <p>Other findings:</p> <ul style="list-style-type: none"> • Not all GPs received follow-up letters from the gastroenterologist, if the patient did not attend a follow-up consultation with the gastroenterologist then a letter was not provided. • One third of patients with a positive FOBT were incorrectly categorized by gastroenterologists as clinical priority category 2, instead of category 1. <p>Recommendations relevant for primary care:</p> <ul style="list-style-type: none"> • There is need for a pre-developed template for &/or standardization of GP referral letters for colorectal cancer screening so that no important clinical information is missing. This would streamline the referral process, and provide correct information needed for the gastroenterologist. • There is a need for incentive models to ensure that all GPs who have referred patients for colonoscopy are informed of the outcome of the procedure and histopathology findings.
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – General Population Health, Priority Theme 2: Cancer Screening and Prevention

		<p><i>Eslick GD. (2018) An evaluation of general practitioner referral letters for colorectal cancer screening (colonoscopy) and impact on patient outcomes.</i></p>
<p>Barriers to Bowel Cancer Screening amongst CALD men</p>	<p>Common barriers to bowel cancer screening participation among CALD men in the NBM region included:</p> <ul style="list-style-type: none"> • Lack of knowledge • Low perceived risk • Fear and fatalism • Masculinity beliefs • Specific cultural health beliefs and customs • Sociocultural factors • Test concerns and misconceptions • Lack of GP recommendation • Distrust in healthcare <p>Recommendations for increasing bowel cancer screening among CALD men in the NBM region broadly include:</p> <ul style="list-style-type: none"> • Engagement of community leaders and promotion among community networks • Simplification of the NBCSP test kit instructions and development of culturally appropriate and gender-sensitive educational materials • Collaboration with primary health care professionals to ensure consistent messages around bowel 	<p>Qualitative research in the NBM region between October 2017 and February 2018 explored the bowel cancer screening behaviours of men from different CALD groups in the NBM region, perspectives of their primary care providers and identified barriers and facilitators to participation in the NBCSP.</p> <p>Although there was variation in attitudes, perspectives and behaviours among the different CALD male communities, common barriers to bowel cancer screening and participation among CALD men in the NBM region included:</p> <ul style="list-style-type: none"> • Lack of knowledge: being unaware of screening and low healthy literacy • Low perceived risk: a belief there was no need to screen due to lack of digestive symptoms or family history of cancer • Fear and fatalism: helplessness and futility regarding cancer, not wanting to know the test result • Masculinity beliefs: attitudes of self-reliance, stoicism, heterosexual presentation, low help-seeking • Specific cultural factors: health beliefs and traditional customs • Sociocultural factors: language barriers, education level, transportation, income and ethnicity • Test concerns and misconceptions: unpleasant, embarrassing and confusion with other tests and physical exams • Lack of GP recommendation: low endorsement of screening in primary care • Distrust in healthcare: skepticism about preventative health and conventional cancer therapies <p>Barriers identified to promoting the NBCSP in primary care among NBM primary care providers interviewed were:</p>

Outcomes of the service needs analysis – General Population Health, Priority Theme 2: *Cancer Screening and Prevention*

	<p>cancer screening are being delivered for CALD men.</p>	<ul style="list-style-type: none"> • Limited opportunities to prompt participation as men “don’t come in much anyway”, that “getting men to visit the doctor is difficult” or when men did visit the doctor there were often other more pressing priorities to deal with. • Many male participants refused to do the test, despite its importance being explained, as their male patients either thought it was not worthwhile or necessary. • Men tended to place more importance on other cancers such as prostate cancer. • Practical difficulties among male patients using the test kit, including a perception the test procedure and instructions were too complex, particularly for patients with low health literacy or who experience language barriers. <p>Recommendations for increasing bowel cancer screening among this cohort included:</p> <p><i>Community-based approaches –</i></p> <ul style="list-style-type: none"> • Ensuring key community stakeholders (elders and leaders) are consulted, included and actively involved in any interventions and material development to increase participation in the NBCSP • Tailored approaches in the development and implementation of initiatives within different CALD community meeting the unique needs of each group. • Promotion of NBCSP awareness among community networks such as church, sporting and social clubs, in particular men’s groups delivered by health support workers of appropriate CALD backgrounds in partnership with community champions. <p><i>Test information and instructions –</i></p> <ul style="list-style-type: none"> • Development of culturally appropriate and gender-sensitive educational materials with basic information on bowel cancer highlighting benefits of early detection (also targeting partners and support persons) • Revision of the cancer terminology used such as the inclusion of alternative wording and perspectives that highlight prevention and use of less fear-provoking terms around cancer. • Widespread NBCSP awareness campaigns via the media and social media to encourage familiarity with bowel cancer and the test kit distribution.
--	-----------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – General Population Health, Priority Theme 2: *Cancer Screening and Prevention*

		<ul style="list-style-type: none"> • Simplification of the NBCSP test instructions with the use of visualisation where appropriate. <p><i>Collaboration with health professionals in primary care –</i></p> <ul style="list-style-type: none"> • Encouragement of medical help-seeking in general, in the context of masculinity, to increase the frequency of primary care visits and development of ongoing relationships with GPs. • Standard endorsement of the NBCSP by GPs, including availability of NBCSP test kits at GP surgeries alongside provision of basic information on bowel cancer and bowel cancer detection. • Raising awareness among primary care providers of the specific masculinity beliefs that may affect men’s health behaviours and allowing men to maintain masculine identities while still encouraging participation in the NBCSP. • Upskilling of primary care in strategies to promote wellbeing among their male patients. • Development of a primary care tool to prompt recommendation of NBCSP during consults, ideally automated flagging based on age. • Follow up by the NBCSP or culturally appropriate health support service following distribution of the kit to check receipt of the kit, to clarify purpose and to encourage use of the kit in a timely manner. <p><i>Sonego S and McBride K (2018). Perceptions of bowel cancer screening among culturally and linguistically diverse (CALD) men living in the Nepean Blue Mountains region. Campbelltown: Western Sydney University.</i></p>
<p>Barriers to Cervical and Breast Cancer Screening amongst CALD women</p>	<p>Common barriers to cervical and breast screening participation among CALD women in the NBM region include:</p> <ul style="list-style-type: none"> • Access to Medicare and costs • Low education and health literacy 	<p>Qualitative research in the NBM region between October 2017 and February 2018 explored the cervical and breast cancer screening behaviours of women from different CALD groups in the NBM region, perspectives of their primary care providers and identified barriers and facilitators to participation in screening.</p> <p>General barriers to participation in both cervical and breast screening included:</p>

Outcomes of the service needs analysis – General Population Health, Priority Theme 2: *Cancer Screening and Prevention*

	<ul style="list-style-type: none"> • Language barriers and access to interpreters • Fear and fatalism • Individual barriers related to past screening experiences <p>Barriers specific to cervical screening among NBM CALD women include:</p> <ul style="list-style-type: none"> • Preference for / availability of female practitioners and female-oriented health services • Socio-cultural: stigma and sensitivities discussing screening • Individual barriers related to discomfort of the test itself <p>Barriers specific to breast screening among NBM CALD women include:</p> <ul style="list-style-type: none"> • Transportation and lack of prompting by a GP • Socio-cultural: lack of awareness of benefits • Individual barriers related to prioritisation, knowledge and past experiences. <p>Needs of NBM primary care providers to maximise cervical and breast screening among CALD women include:</p>	<ul style="list-style-type: none"> • Financial: lack of Medicare due to residency status and costs for follow-up appointments • Low education and health literacy • Language barriers and identity of interpreters • Fear and fatalism: avoidance of cancer screening due to the belief that once diagnosed there is no cure, side effects of treatment outweigh benefits, or God’s will • Individual barriers: past cancer screening experiences (their own and other women) <p>Barriers specific to participation in cervical screening included:</p> <ul style="list-style-type: none"> • Service-level barriers: a clear preference for having a female practitioner perform screening / lack of availability of a female GP necessitating the need for referral elsewhere; manner of the GP performing and explaining the process; preference for / availability of female-oriented health services; and need for complete privacy during screening. • Socio-cultural: modesty; sensitivities and stigma in discussing sexual activities with health practitioners; history of trauma and genital mutilation; and dominant views from male relationships. • Individual-level: discomfort and invasiveness of the test itself. <p>Barriers specific to participation in breast screening included:</p> <ul style="list-style-type: none"> • Service-level barriers: difficulties among providers to establish if their patients had attended a breast-screen until receiving notification weeks later; transportation to the BreastScreen van, and for some lack of prompting by their GP. • Socio-cultural: lack of awareness of the importance or possible benefits of breast screening due to earlier detection. • Individual-level: individual prioritisation and knowledge of screening, misinformation about the perceived safety of screening, and physical discomfort experienced during a mammogram.
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – General Population Health, Priority Theme 2: *Cancer Screening and Prevention*

	<ul style="list-style-type: none"> • Referral networks to female practitioners and culturally appropriate services • Education and training for practice nurses and all providers, in particular communication around HPV vaccination and the new cervical screening program. • Practice nurses dedicated to women’s health • Services like Penrith Women’s Health Centre or expansion of this service. 	<p>Needs identified by NBM primary care providers to promote and maximise cervical and breast screening included:</p> <ul style="list-style-type: none"> • Referral networks and culturally appropriate services: <ul style="list-style-type: none"> - Female providers and culturally appropriate referral services that general practice and other providers could use to arrange cervical screening and preventive health advice for female patients, and facilitate tracing of results for regular GPs. - Women’s health services such as the Penrith Women’s Health Centre (PWHC) were seen as being an important service to improve screening among CALD women. • Training needs: <ul style="list-style-type: none"> - Education and upskilling on breast examination, around the new HPV screening process and screening in general for practice nurses, supported by a protocol around how to encourage screening in each of the screening programs. - Training for all primary care providers in identifying and sensitively managing vulnerable and at-risk populations. • Resource needs: <ul style="list-style-type: none"> - Increasing the number of nurses dedicated to women’s health. - More services like Penrith Women’s Health Centre or expansion of this service. - Funding for training for nurses to perform screening and Medicare funding for nurses when they performed cervical screening. - Dedicated language specific phone lines or websites for patients of different cultural backgrounds. • Extended consultation time limits: <ul style="list-style-type: none"> - Increased appointment time in particular where there were language barriers, presence of multiple health complaints or complex conditions, and where there was low awareness of knowledge of cancer screening. • The new HPV testing program:
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – General Population Health, Priority Theme 2: *Cancer Screening and Prevention*

		<ul style="list-style-type: none"> - Ongoing education of patients about the HPV vaccination, changes relating to the new program and continued need for cervical screening, especially because of concerns that the new test targets the HPV virus, not abnormal cells. - Packs with examples of all the different resources for CALD persons made available to primary care providers. <ul style="list-style-type: none"> • Self-collection cervical tests: <ul style="list-style-type: none"> - Self-collection tests should be routinely offered to women from CALD backgrounds. <p><i>Sonego S and McBride K (2018). Community and primary care perceptions on cervical and breast screening participation among CALD women in the Nepean Blue Mountains region. Campbelltown: Western Sydney University.</i></p>
<p>Poor access to cervical screening for Refugee women and women from vulnerable groups</p>	<p>Poor access to cervical cancer screening among newly arrived Refugee women</p> <p>Poor access to cervical cancer screening among women who have experienced trauma or are from vulnerable groups</p>	<p>Consultations with local service provider stakeholders have highlighted issues of poor access to cervical cancer screening among newly arrived Refugee women, women who have experienced trauma and women from vulnerable groups in the NBM region, in particular those settling or living in the Penrith LGA.</p> <p>Reasons cited contributing to poor access include:</p> <ul style="list-style-type: none"> • Limited number of primary care providers that understand and provide trauma informed care • Poor knowledge of screening programs among Refugee women • Limited number of providers who are sensitive to patient histories, have awareness of cultural issues and are perceived as culturally aware and safe (e.g. for Aboriginal and Torres Strait Islander women) • Limited access to female cervical screening providers • Limited use of interpreters within primary care to assist with comprehensive and thorough histories • Limited provision of health promotion among primary care providers that targets health issues for women from CALD backgrounds

Outcomes of the service needs analysis – General Population Health, Priority Theme 2: *Cancer Screening and Prevention*

		<ul style="list-style-type: none">• Limited provision of long consultations in primary care in particular for addressing women’s health issues including cervical screening• Limited number of providers who proactively address the social determinants of health <p><i>NBMPHN consultations with local women’s health and migrant settlement service providers, 2017</i></p>
--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

CHRONIC AND PREVENTABLE CONDITIONS

Outcomes of the service needs analysis – General Population Health, Priority Theme 3: <i>Chronic and Preventable Conditions</i>		
Identified Need	Key Issue	Description of Evidence
<p>Asthma</p> <p>Use of chronic disease planning items for persons with asthma is under utilised</p>	<p>Significant proportions (67.6%) of adults with asthma in the NBM region are not accessing chronic disease planning items by General Practitioners.</p>	<p>Data from 64 of 131 (49%) of local general practices in the NBM region indicates that within the previous 12-months, of those patients diagnosed with asthma aged 16 years and older:</p> <ul style="list-style-type: none"> • 32.4% had a GP Management plan • 27.6% had team care arrangements • 18.4% had their GP management plan or team care arrangements reviewed. <p>This data indicates a significant proportion of patients with asthma in the NBM region may be eligible for but are not accessing available MBS chronic disease planning items, coordinated by their general practitioner to assist management of their condition.</p> <p><i>Local general practice data available to the Nepean Blue Mountains Primary Health Network via the PEN Clinical Audit Tool, March 2018</i></p>
<p>Asthma</p> <p>Asthma MBS is under utilized for the number of people with Asthma</p>	<p>An insufficient number of people with asthma are serviced by General Practitioners utilising the MBS asthma annual cycle of care Practice Incentive Program (MBS items 2546, 2552 and 2558).</p>	<p>MBS Service Incentive Payments are paid to general practitioners for completion of each annual cycle of care for patients with moderate to severe asthma, including assessment, planning and review of patient care. Uptake of the MBS asthma Practice Incentive Program by eligible general practices in NBM region is an indication of self-regulated quality improvement by participating general practices.</p> <p>NBM MBS data for FY 2016-17 indicates 1,298 asthma annual cycles of care were completed by 179 practitioners. This was slightly greater than the 1,288 asthma annual cycles of care completed in 2015-16. Analysis of local data from 64 of 131 (49%) of general practices in the NBM region indicates that only 482 of 7,617 (6.3%) active patients aged 16 years and older, and 328 of 2,491 (13.2%) of patients aged 0-14 years with a diagnosis of asthma were managed through a asthma annual cycle of care in 2017-18.</p> <p>While this local NBM data should be interpreted with caution (it was not possible to exclude patients with mild asthma who are not eligible under the asthma MBS incentive items in this</p>

Outcomes of the service needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		<p>analysis), it appears to suggest that an insufficient number of people diagnosed with asthma in the NBM region are being managed via a MBS asthma annual cycle of care.</p> <p><i>Commonwealth Department of Health, 2017 – Medicare Benefits Schedule Data: MBS data by PHN, MBS item and reporting group 2012-13 to 2016-17</i></p> <p><i>Local general practice data available to the Nepean Blue Mountains Primary Health Network via the PEN Clinical Audit Tool, September 2018</i></p>
<p>Bowel screening</p> <p>Access to colonoscopy services</p>	<p>Identified service issues relating to patient access to colonoscopy services in the NBM region indicate clear opportunities for enhancing service provision and integration between primary and tertiary levels of healthcare.</p>	<p>The HealthPathways Gastroenterology Clinical Working Group identified the following service issues and needs relating to patient access to colonoscopy services and the interface between primary and tertiary care settings:</p> <ul style="list-style-type: none"> • Lack of standardised GP referral protocols for colonoscopy (HealthPathways to address) • Need for secure messaging to allow electronic referrals to colonoscopy services for both public and private specialists (Redesign need) • There are no systems in place to recall public patients for colonoscopy (Redesign need) • Need for timely reports back to GPs, ideally by secure electronic means (Redesign need) • Need for GPs software to measure FOBT rates, recall patients for FOBT 2-yearly and effectively record patients who should be excluded from screening (Education need) <p><i>Recommendations from the Nepean Blue Mountains HealthPathways initiative Gastroenterology Clinical Working Group, August 2018</i></p>
<p>Cardio vascular disease (CVD)</p> <p>General practice assessment of absolute cardiovascular risk is limited</p>	<p>There is widespread suboptimal routine assessment and treatment of absolute CVD risk among general practices in the NBM region.</p> <p>The proportion of NBM patients who have not had their CVD risk assessed according to recommended preventive guidelines is:</p> <ul style="list-style-type: none"> • 46.7% of age-relevant adults 	<p>Assessment of absolute CVD risk combines known risk factors to calculate the probability that an individual will develop a cardiovascular event, such as a myocardial infarction or stroke, or other vascular disease within a specified time frame (usually five years).</p> <p>The Royal Australian College of General Practitioners Guidelines for preventive activities in general practice recommends targeted screening and treatment for absolute CVD risk assessment at least every 2-years for all adults aged 45-74 years, and Aboriginal and Torres Strait Islander peoples aged 35 years and older, who are not known to have CVD or to be clinically determined to be at high risk.</p>

Outcomes of the service needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

	<ul style="list-style-type: none"> 64.6% of age-relevant Aboriginal Torres Strait Islander people 	<p>The Australian Health Policy Collaboration Heart Health report, which outlines a national implementation strategy for Australia’s heart health policy, suggests there is widespread under-treatment of CVD risk and poor incorporation into routine general practice. This is reflected in NBM general practice data, which indicates that among 64 of 131 (49%) of general practices in the NBM region, 46.7% of patients aged 45-74 years and 64.6% of Aboriginal and Torres Strait Islander patients aged 35-74 years had not had their CVD risk measured or recorded within the previous 2-years.</p> <p>Key infrastructure components which have resulted in successful national implementation of absolute CVD risk assessment in New Zealand, but which are missing in Australia include:</p> <ul style="list-style-type: none"> A government-led national strategy to increase Absolute Cardiovascular risk assessment. Integration of risk equations within patient electronic records and auditing of the results. <p>The report additionally advocates that PHNs be given responsibility and funding for engaging general practices, improving decision-support software, and building community awareness in a population health approach leading to identification of at-risk individuals within their communities.</p> <p><i>The Royal Australian College of General Practitioners. Guidelines for preventive activities in general practice. 9th edn, updated. East Melbourne, Vic: RACGP, 2018</i></p> <p><i>Australian Healthy Policy Collaboration 2017, Heart Health for all Australians Policy Paper: The first step to getting Australia’s health on track</i></p> <p><i>Local general practice data available to the Nepean Blue Mountains Primary Health Network via the PEN Clinical Audit Tool, March 2018</i></p>
Cardio vascular disease (CVD)	Significant proportions (51%) of people with CVD in the NBM region are not	Data from 64 of 131 (49%) of local general practices in the NBM region indicates that within the previous 12-months, of those patients diagnosed with CVD and aged 18 years and older: <ul style="list-style-type: none"> 49.0% had a GP Management plan

Outcomes of the service needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

<p>Use of chronic disease planning items for persons with CVD are under utilised</p>	<p>accessing chronic disease planning items by General Practitioners.</p>	<ul style="list-style-type: none"> • 46.0% had team care arrangements • 32.9% had their GP management plan or team care arrangements reviewed. <p>This data indicates a significant proportion of patients with CVD in the NBM region may be eligible for but are not accessing available MBS chronic disease planning items coordinated by their general practitioner, to assist management of their condition.</p> <p><i>Local general practice data available to the Nepean Blue Mountains Primary Health Network via the PEN Clinical Audit Tool, March 2018</i></p>
<p>Cardio vascular disease (CVD)</p> <p>Cardiovascular Disease risk management is limited</p>	<p>Indications that services do not adequately assess and manage risk factors.</p> <p>Inadequate self-management programs.</p>	<p>Consultations and review of epidemiological profiles indicate:</p> <ul style="list-style-type: none"> • Smoking cessation programs not incorporated in treatment plan for patients with cardiovascular disease who continue to smoke. • Poor focus on risk factors and prevention in primary care • Very few or absence of self-management programs which focus on building health literacy and improving management of risk factors. <p><i>SEIFA</i> <i>Staff consultation, NBMLHD</i> <i>NBMLHD Epidemiological profile 2014</i> <i>NBMLHD health services plan 2012/22</i> <i>PWC Review of community health and outpatients services 2014</i></p>
<p>Chronic Obstructive Pulmonary Disease (COPD)</p> <p>General practice management of COPD is limited</p>	<p>Local NBM general practice data indicates clear opportunities for improved management of COPD in primary care, including:</p> <ul style="list-style-type: none"> • Measurement of spirometry • Timely pneumococcal vaccination <p>Uptake of written GP management plans for persons with COPD</p>	<p>Local data from 13 COPD 'Collaborative' (vs. 51 non-'Collaborative') General Practices in the NBM region encompassing 911 patients indicates that the following services were used:</p> <ul style="list-style-type: none"> • 32.5% (vs. 9.0%) of patients with a coded diagnosis of COPD had a spirometry result recorded • 41.3% (vs. 35.3%) of patients with a coded diagnosis of COPD are up to date with their pneumococcal vaccinations • 96.7% (vs. 93.5%) of patients with a coded diagnosis of COPD have had their smoking status recorded • 56.5% (51.1%) of patients with a coded diagnosis of COPD have a written GP management plan in place to manage their condition

Outcomes of the service needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		<p>This data illustrates future opportunities for improved management of patients with COPD among general practices in the NBM region.</p> <p><i>Local general practice data available to the Nepean Blue Mountains Primary Health Network via the PEN Clinical Audit Tool, January 2018</i></p>
<p>Chronic Obstructive Pulmonary Disease (COPD)</p> <p>COPD services are limited within the Hawkesbury region</p>	<p>Lack of existing Pulmonary Rehabilitation services and resources in the Hawkesbury region</p>	<p>Continuing consultations with a panel of ‘expert’ service providers across the NBM region have indicated that patients with COPD in the Hawkesbury LGA have very few options available for hospital avoidance in times of acute exacerbation – the ‘safest’ option for them is to present to the local Emergency Department.</p> <p>This is due to a number of reasons:</p> <ul style="list-style-type: none"> • Lack of preventative intervention services for COPD. • Lack of a broad range local conservative management options (no pulmonary rehabilitation service), or post-discharge support available at Hawkesbury District Health service (HDHS) for patients with COPD • Challenges in collaboration across acute and primary health settings. • Difficulties experienced by patients accessing services due to distance and no public transport links available to connect with other services (i.e. Nepean Hospital in Penrith). • No dedicated COPD community health services in the Hawkesbury region. • Perception of COPD rehabilitation as a hospital rather than health promotion/prevention service. • Lack of access to supported/funded post-acute rehabilitation programs due to HDHS private hospital status. • Very little to no public allied health services are available or delivered for chronic and complex patients in the Hawkesbury • No private Allied Health services (Physiotherapy, Exercise Physiology or other) currently deliver services for COPD patients in Hawkesbury • Inability of the HDHS team to discharge COPD patients earlier from hospital due to a lack of supports available post-discharge.

Outcomes of the service needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

	<p>Timely access and better use of existing spirometry is needed within primary care.</p> <p>Care coordination and self-management for patients with COPD could be enhanced to reduce potentially preventable presentations to ED.</p>	<ul style="list-style-type: none"> General practitioners in Hawkesbury report being unable to refer their patients with COPD to education support programs which are accessible. <p><i>Hawkesbury Pulmonary Rehabilitation Program Co-design Meetings, Hawkesbury District Health Service and NBMPHN, 2018</i></p> <p>Throughout the region timely access to spirometry services and capacity within primary care nurses to use and interpret existing spirometry to full effect could be enhanced. Up to 50% of local General Practices in Hawkesbury indicate they offer spirometry, however others indicate limitations in time and capability to complete patient spirometry assessments. In addition, availability of local spirometry services is limited in Hawkesbury with current availability through Nepean Hospital Respiratory Services (with extreme travel/distance barriers for patients) and private Respiratory Physicians with associated wait times and costs.</p> <p>Care coordination services for patients with COPD are limited, resulting in patients attending ED for aspects of care that could otherwise be addressed in part through increased connection to services and aspects of self-management.</p> <p><i>Consultations with respiratory and primary care service provider stakeholders in the NBM region, 2017</i> <i>Hawkesbury Pulmonary Rehabilitation Program Co-design Meetings, Hawkesbury District Health Service and NBMPHN, 2018</i></p>
<p>Chronic Obstructive Pulmonary Disease (COPD)</p> <p>Regional COPD service redesign is required</p>	<p>Identified service issues and needs for effective COPD management in the NBM region indicate clear opportunities for enhancing service provision and integration between primary and tertiary levels of healthcare.</p>	<p>The HealthPathways COPD Clinical Working Group identified the following service issues and needs relating to effective management of COPD patients between primary and tertiary care settings:</p> <ul style="list-style-type: none"> The need for improved interpretation and quality of spirometry in General Practice (GP and Practice Nurse Education, Redesign, and HealthPathways to address) Lack of public respiratory outpatient departments at Lithgow, Blue Mountains or Hawkesbury hospitals (Redesign).

Outcomes of the service needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		<ul style="list-style-type: none"> • Long wait times for COPD patients to see specialist at Nepean respiratory outpatient department (HealthPathways – clear referral criteria and transfer back to GP guidelines for shared care). • Need for availability of GP advice for patient exacerbations (Redesign/HealthPathways) • Poor communication between primary and tertiary services in particular at transfers of patient care (Redesign) <ul style="list-style-type: none"> • GPs not able to access the hospital records system (CERNA) • Hospital/GP/Community records are not linked • No alerts provided to GPs for patient admissions or on discharge from hospital • Insufficient smoking cessation services / need for smoking cessation clinics in all areas (Redesign) • Need for respiratory training for community nurses (Education) • Need for GP supports when discussing the move from active management to palliative care with patients and their families – difficult discussions (Education) • Erratic arrival of the flu vaccine at GP clinics (Redesign) <p><i>Recommendations from the Nepean Blue Mountains HealthPathways initiative COPD Clinical Working Group, February and March 2018</i></p>
<p>Diabetes</p> <p>MBS Diabetes PIP is underutilized for the number of people with diabetes in the NBM region</p>	<p>An insufficient number of people with diabetes are serviced by General Practitioners utilising the MBS diabetes annual cycle of care Practice Incentive Program (MBS items 2517, 2521 and 2525).</p>	<p>Uptake of the MBS Diabetes Practice Incentive Program by eligible general practices in NBM region is an indication of self-regulated quality improvement by participating general practitioners. This relates to the completion of an annual cycle of diabetes care and the management of recall and reminder systems for patients with diabetes.</p> <p>NBM MBS data for FY 2016-17 indicates 3,519 diabetes annual cycles of care were completed by 362 practitioners. This was slightly less than the 3,826 diabetes annual cycles of care completed in 2015-16, and indicates only approximately 16.3% out of the 21,569 persons in the NBM region registered for the <i>National Diabetes Services Scheme</i> were managed through a diabetes annual cycle of care through primary care. In Australia in the 12 months to 30 June 2018, 409,972 people (32% of all people with diabetes; 24% of NDSS registrants with Type 2 diabetes) registered with the NDSS required insulin therapy.</p>

Outcomes of the service needs analysis – General Population Health, Priority Theme 3: Chronic and Preventable Conditions

		<p><i>Commonwealth Department of Health, 2017 – Medicare Benefits Schedule Data: MBS data by PHN, MBS item and reporting group 2012-13 to 2016-17</i></p> <p><i>NBMML 2013 Report: Primary Health Care Support Program – NBMML support with Diabetes Prevention and Management in Primary Health Care</i></p> <p><i>National Diabetes Service Scheme – Data Snapshot – Insulin Therapy (June 2017):</i> https://www.ndss.com.au/data-snapshots</p>
<p>Diabetes</p> <p>Health workforce supporting diabetes care is limited in capacity and capability</p>	<p>Indications that services do not adequately assess and manage risk factors.</p> <p>Staff shortages across the NBMLHD.</p> <p>Inconsistency in level of diabetes education of practice nurses in primary care delivering diabetes care.</p>	<p>Consultations and review of epidemiological profiles indicate:</p> <ul style="list-style-type: none"> • Poor management of disease and associated risk factors in primary care • Staff shortages and low numbers of Aboriginal health care workers - NBMLHD is classified as a District of Workforce Shortage (DWS) • Inadequate IT infrastructure to support home telemedicine and secure messaging of reports to GPs. <p><i>NBMLHD Epidemiological profile. 2014.</i></p> <p><i>NBMML comprehensive needs assessments 2014</i></p> <p><i>NBMLHD Aboriginal Health Profile 2016</i></p> <p><i>NBMML Allied Health Report 2014</i></p> <p><i>Staff consultation, NBMLHD</i></p> <p><i>Practice nurse consultations – 2013 NBMML Comdiab education program</i></p>
<p>Overweight and obesity</p> <p>Assessment of overweight and obesity in general practice is limited</p>	<p>A significant proportion of general practice patients in the NBM region have never had their body mass index (62.5%) or waist circumference (91%) assessed, according to recommended preventive guidelines.</p>	<p>The Royal Australian College of General Practitioners Guidelines for preventive activities in general practice recommend that body mass index (BMI) and waist circumference should be measured every two years and recorded in the medical record for all adults aged 18 years and older.</p> <p>Analysis of local data from 64 of 131 (49%) of general practices in the NBM region however indicates that 62.5% of active patients aged 18+ years had never previously had their body mass index (body mass and height) assessed at their general practice. A further 91.2% of male patients and 91.9% of female patients aged 18+ years had never previously had their waist</p>

Outcomes of the service needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		<p>circumference assessed. This compares to estimates showing that 64% of adults in the NBM region were overweight or obese in 2017.</p> <p>This data indicates a significant proportion of persons attending general practices in the NBM region who are overweight or obese are likely to have missed opportunities for assessment of their BMI and waist circumference, and offered appropriate support (such as individual lifestyle education and skills training) or referral (such as for self-management support) to assist weight loss according to recommended preventive guidelines.</p> <p><i>The Royal Australian College of General Practitioners. Guidelines for preventive activities in general practice. 9th edn, updated. East Melbourne, Vic: RACGP, 2018</i> Local general practice data available to the Nepean Blue Mountains Primary Health Network via the PEN Clinical Audit Tool, March 2018</p>
<p>Overweight and obesity</p> <p>Obesity management across health sectors is limited</p>	<p>Identified service issues and needs for effective obesity management in the NBM region indicate clear opportunities for enhancing service provision and integration between primary and tertiary levels of healthcare.</p>	<p>The HealthPathways Obesity Clinical Working Group identified the following service issues and needs relating to effective management of obese patients between primary and tertiary care settings:</p> <ul style="list-style-type: none"> • General Practitioner and Practice Nurse training in strategies for effective management of obese patients is needed (education) • MBS GP Management Plan / Team Care Arrangements items do not currently recognise obesity as a ‘chronic disease’ that can be used to access Allied Health services subsidised by Medicare (system change) • Limited access to publicly funded dietitians / allied health professionals (for example there are 2.5 FTE funded dietitian positions for the entire NBM region) (Redesign) • Private services such as those providing education, exercise &/or healthy eating advice are not known to GPs (HealthPathways) • The newly operating Family Obesity Service at Nepean Hospital already has long waiting times for its services (currently 12-months to access if ‘low risk’ but obese). GPs need information to help these patients while waiting for clinic appointments (HealthPathways to provide clear referral criteria and transfer patients back to GP guidelines for shared care).

Outcomes of the service needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

		<ul style="list-style-type: none"> • No electronic referral forms available for the Family Obesity clinic – GPs are time poor and reluctant to complete clinic specific referrals that are not electronic (HealthPathways). • Existing inclusion criteria for the Family Obesity clinic are complicated (HealthPathways) • Access to the Family Obesity clinic is limited to business hours – making it difficult for employed obese persons to attend groups (Redesign) • Need for a multidisciplinary approach for obesity management in the community (Redesign) • Need for upskilling of allied health professionals (e.g. Physiotherapists, Exercise Physiologists, Dietitians, Psychologists) with current evidence-based information (Education). <p><i>Recommendations from the Nepean Blue Mountains HealthPathways initiative Obesity Clinical Working Group, June 2018</i></p> <p>The MBS chronic conditions interpretation does not recognise obesity as an independent chronic condition and therefore GP management plans and team care arrangements, that might support preventive activities, can only be rendered as a comorbidity of a chronic disease. MBS prevention items that enable GPs to support a continuum of care for obese and overweight patients are limited to regular MBS items without supportive allied health subsidisation e.g. Dietetic, Exercise Physiology.</p> <p>Further research is needed to explore the approaches to obesity assessment, prevention and management across primary care providers. Investigation needs to assess the tools used, models of care and the range of service providers involved.</p> <p><i>NBMML Allied Health Report 2014</i> <i>Staff consultation, NBMLHD</i> <i>MBS online search MBS 721, 723 explanatory notes</i></p>
<p>Service integration between primary and tertiary care is limited</p>	<p>A lack of existing capacity across the NBMPHN and NBMLHD to address redesign initiatives identified by Clinical</p>	<p>Recommendations from Clinical Working Group meetings taking place as a part of the local NBM “HealthPathways” initiative frequently identify existing system issues between primary and tertiary levels of healthcare that require well-funded and well-supported ‘redesign’</p>

Outcomes of the service needs analysis – General Population Health, Priority Theme 3: *Chronic and Preventable Conditions*

	<p>Working Groups as a part of the joint NBM HealthPathways initiative.</p>	<p>initiatives or projects, with dedicated staff at both the NBM Primary Health Network and Local Health District in order to be successfully addressed. This capacity does not currently exist and if available, would provide an important enabler for driving future successful primary and tertiary healthcare redesign, integration and local system reform.</p> <p><i>Recommendations from Nepean Blue Mountains HealthPathways initiative Clinical Working Group meetings, 2018</i></p>
--	-----------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

CULTURAL AND DEMOGRAPHIC FACTORS INFLUENCING HEALTH STATUS

Outcomes of the service needs analysis – General Population Health, Priority Theme 4: <i>Cultural and Demographic Factors Influencing Health Status</i>		
Identified Need	Key Issue	Description of Evidence
CALD Populations		
Iraqi and Syrian refugees have complex needs	Significant challenges in meeting complex needs of the diverse refugee populations	<p>Interviews with service providers who provide health, mental health, and community and settlement services to Syrian and Iraqi migrants and refugees in the NBM region identified a number of significant challenges in meeting the complex needs of the diverse populations. Key findings from this research include:</p> <p>Common health needs:</p> <ul style="list-style-type: none"> • Physical health needs including diabetes, dental health, women’s sexual and reproductive health, diet related issues such as malnutrition and changing food patterns post-migration leading to obesity • Limited time for or provision of health check-ups • Mental health issues including trauma from issues of torture, post-traumatic stress disorder; headaches and stomach aches; and depression, anxiety and separation anxiety in children <p>Barriers to health seeking:</p> <ul style="list-style-type: none"> • Lack of seeking physical and mental health services • Poor awareness of physical and mental health issues • Poor knowledge of English language • Lack of cultural appropriateness or modification to meet the needs of refugee communities among some services • Cases of breaches in client confidentiality by interpreters • Fear of being diagnosed with a mental illness <p>Enablers of health seeking:</p>

Outcomes of the service needs analysis – General Population Health, Priority Theme 4: *Cultural and Demographic Factors Influencing Health Status*

		<ul style="list-style-type: none"> • Need for more time, attention and unhurried engagement at services sought by migrants and refugees • Preference to see General Practitioners and services who provide enough time and are sensitive to their background and culture <p>Health service provision:</p> <ul style="list-style-type: none"> • Existing health service staff under constant pressure, overworked and understaffed • Under resourcing a reason for lack of modification of services to increase outreach and close engagement with migrant and refugee communities • Most services provided in English and limited use of interpretation services • Poor cultural awareness among General Practitioners and lack of awareness of settlement services for referral purposes • Poor patient follow-up and mechanisms for recording patient background information • Poor communication and engagement among service providers • Need to identify General Practitioners who are committed and interested in working closely with refugees <p><i>Wentworth Healthcare Limited 2016 - Addressing the needs of Syrian and Iraqi refugees in the Nepean Blue Mountains region: a formative assessment of health and community services needs</i></p>
<p>Cost of Interpreter Services impedes access</p>	<p>High cost of Interpreter services</p>	<p>Interpreter services for accessing Allied Health services is not funded by any source. Service providers who can access a funded priority line include GPs, Pharmacists and Real Estate Agents. It is therefore cost-prohibitive to access Allied Health services by persons who do not speak English well or do not speak English at all.</p> <p><i>NBMPHN Allied Health Advisory Committee, 2017</i></p>

END OF LIFE CARE

Outcomes of the service needs analysis – General Population Health, Priority Theme 5: <i>End of Life Care</i>		
Identified Need	Key Issue	Description of Evidence
<p>End of Life Care</p> <p>Capacity and capability of health workforce to support end of life care is limited throughout the region</p>	<p>End of Life Care (EoLC) discussions often commence at a time of crisis</p> <p>Poor coordination of End of Life Care across the NBM region</p>	<p>Consultations held with representatives from community and primary health services, hospital services, non for profit providers and people working in policy, management and patient advocacy roles in the NBM region highlighted the EoLC discussions often commence at a time of crisis, rather than when there are initial signs that a person is entering the final phase of their life.</p> <p>Key drivers for this issue identified during consultations include:</p> <ul style="list-style-type: none"> • Many GPs lack training in EoLC • Many health professionals are uncomfortable talking about EoL • Lack of ability to recognise the dying • Junior staff are usually the first contacts with acute patients • Carers are frequently unprepared for or not supported to provide EoLC • Advanced care plans are often given to patients and carers along with other material required by Residential Aged Care Facilities <p>Consequences of this issue identified during consultations include:</p> <ul style="list-style-type: none"> • Advanced care plans are often developed in a time of crisis and in a rush • Frequent kneejerk reactions to crisis, referrals of patients to hospital without understanding of what the hospital can and cannot do • Patients turn up to Emergency Care with little information to guide Emergency Care clinicians • Information provision around Advanced Care Plans are often incorrect • Patients distressed and confused • Unnecessary use of resources <p><i>Caring for People in Their Last Year of Life – Report for Wentworth Healthcare Limited by Synergia, November 2017</i></p>

Outcomes of the service needs analysis – General Population Health, Priority Theme 5: *End of Life Care*

<p>End of Life Care</p> <p>Limited availability, quality, and use of Advance Care Plans when needed</p>	<p>Poor communication and coordination of Advance Care Plans between care providers, RACFs, carers and patients</p>	<p>Consultations held with representatives from community and primary health services, hospital services, non for profit providers and people working in policy, management and patient advocacy roles in the NBM region highlighted current poor communication and coordination practices with the use of Advance Care Plans between care providers, RACFs, carers and patients including:</p> <ul style="list-style-type: none"> • Poor communication across agencies and often working in isolation. • RACF’s have a vested interest in their own documentation, leading to inconsistencies in format and quality across Advanced Care Plans. • Advanced Care Plans are often given to patients and carers along with other material required by the RACF, with information provided often incorrect. • EoL information given to patients and carers at RACFs is often provided by junior Nurse / someone not skilled or sufficiently experienced to discuss the issues that the document may raise for the patient and or their carers. <p>Consequences of this issue identified during consultations include:</p> <ul style="list-style-type: none"> • Discussions about end-of-life are often late, handled poorly and based on incorrect information. • Advanced Care Plans often being completed far too late and EoL discussions commencing at a time of crisis. • Delays in patient care, or patients being taken to hospital unnecessarily. • Difficulties in providing best care and correct understanding of medications and allergies by care providers. • Stress for patients and families • Unnecessary use of resources
-----------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – General Population Health, Priority Theme 5: *End of Life Care*

	<p>Advance care plans are patient driven on My Health Record often leaving out health care providers in the development and viewing of the ACP</p>	<p>Advance care plans are available also through the My Health Record, however they are patient driven and currently must be uploaded by patients and are not able to be viewed by hospitals. GPs are also not alerted to their existence unless the patient advises. This can leave GPs and other health care providers unaware of the existence of the ACP when required.</p> <p><i>Caring for People in Their Last Year of Life – Report for Wentworth Healthcare Limited by Synergia, November 2017</i></p>
--	----------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

OLDER PERSONS

Outcomes of the service needs analysis – General Population Health, Priority Theme 6: <i>Older Persons</i>		
Identified Need	Key Issue	Description of Evidence
<p>Older Persons</p> <p>Limited access to health services</p>	<p>Indications that access to services is hindered due to transport issues, cost of transport, waiting lists and operating hours of service.</p> <p>Poor knowledge of local health services and difficulty obtaining information.</p>	<p>Consultations and review of the previous NBM Medicare Local needs assessment 2014 indicate:</p> <ul style="list-style-type: none"> • Poor access due to <ul style="list-style-type: none"> • long wait lists for ACAT/ CHC's • long wait times, lack of service availability and high demand for: domestic assistance, personal care and respite serves • Limited parking availability and parking costs • unsuitable and high costs of public transport, in particular private bus company services in Lithgow LGA • limited North-South public transport available between Hawkesbury and Penrith LGAs • unreliable community transport – frequent cancellations due to a lack of drivers • lack of after-hours and weekend services • difficulties navigating available services, including knowledge of who providers are, where they go, eligibility criteria • not having Information Technology (IT) or being IT literate <p><i>Staff consultation, NBMLHD</i> <i>NBMML comprehensive needs assessments 2014</i> <i>Health Transport Workshop consultation, NBMPHN and NBMLHD joint Community Advisory Committee meeting, 30 October 2017</i></p>
<p>Older Persons</p> <p>Poor service co-ordination</p>	<p>Indications that service provision is poorly coordinated and lacks communication between health providers across multiple treatment</p>	<p>Consultations and review of previous NBMML needs assessment indicate:</p> <ul style="list-style-type: none"> • Poor care coordination • Poor communication between health care providers • Poor holistic case management • Lack of GP referral pathways

Outcomes of the service needs analysis – General Population Health, Priority Theme 6: *Older Persons*

	<p>settings i.e. acute, community and primary care.</p> <p>Poor knowledge of local health services and difficulty obtaining the information.</p>	<ul style="list-style-type: none"> • Poor knowledge of existing health services in the NBMLHD • The need to strengthen the role of facilitators to enhance coordination of care. <p>NBMLHD is classified as a District of Workforce Shortage (DWS) <i>Staff consultation, NBMLHD</i> <i>NBMML comprehensive needs assessments 2014</i></p>
<p>Older Persons</p> <p>Limited availability of chronic pain services</p>	<p>Indications that there is a lack of community based chronic pain programs and poor management of chronic pain for older persons.</p>	<p>Consultations and review of chronic pain services indicate:</p> <ul style="list-style-type: none"> • Lack of community based chronic pain management programs specific to older persons • Poor management of older persons with chronic pain particularly those waiting for services /surgery <p>There is a high prevalence of chronic pain in the NBMLHD. The Australian Atlas of Healthcare Variation (2015) identified concerns regarding opioid dispensing and has recommended that PHNs work in partnership to implement systems for real time monitoring of opioid dispensing. In NSW around 1 in 5 people experience chronic pain (defined as greater than 3 months duration).</p> <p>Further research is needed to explore the approaches to and options for assessment and management across primary care providers.</p> <p><i>NBMML comprehensive needs assessments 2014</i> <i>Ministry of Health Pain Management Taskforce Report 2012</i> <i>The First Australian Atlas of Healthcare Variation 2015</i></p>
<p>Older Persons</p> <p>Current Residential Aged Care bed numbers</p>	<p>The number of beds in residential aged care is inadequate for predicted population projected growth</p>	<p>The NBM region has 28 Residential Aged Care Facilities (RACF) with capacity for around 2,420 residents. If ageing projections are fulfilled, there will not be enough RACF beds or GPs working within RACFs to cater for the needs of the ageing population.</p> <p>The number of RACFs and available beds/places in each LGA is:</p>

Outcomes of the service needs analysis – General Population Health, Priority Theme 6: *Older Persons*

<p>predicted to not meet future needs</p>	<p>Poor access to, representation and utilisation of General Practitioner services among Residential Aged Care Facilities</p>	<ul style="list-style-type: none"> • Blue Mountains – 9 facilities; 880 beds • Hawkesbury – 6 facilities; 450 beds • Lithgow – 3 facilities; 171 beds • Penrith – 10 facilities; 920 beds <p><i>DPS Guide 2017</i> <i>Nepean Blue Mountains Epidemiological Profile 2014</i></p> <p>Currently attracting a workforce of general practitioners to support the care of RACF residents is also an identified challenge Interviews with RACF service providers in the NBM region have revealed a number of issues around poor access to and utilisation of General Practitioner services within RACFs. These include:</p> <ul style="list-style-type: none"> • Poor access to General Practitioner services • Under-utilisation of General Practitioner preventive health services, for example low rates of immunisations • Lack of 24-hour access to nursing care and support due to lack of available nursing staff after hours • Increasing patient presentations to hospital ED for minor issues such as wound care, due to shortages in skilled nursing workforce available after hours <p><i>NBMPHN interviews with RACF service providers in the NBM region, 2017</i></p>
<p>Older Persons Over representation at Emergency departments</p>	<p>High representation of older persons to the Emergency departments due to injury and poisoning</p>	<p>Age-specific rates data for the NBM population in 2014/15 indicate that persons 80 years and older were over-represented in presentations to the Emergency Department due to injury and poisoning.</p> <p><i>Epidemiological Profile in Nepean Blue Mountains Local Health District: Emergency Department presentations by age. 2017</i></p>

Outcomes of the service needs analysis – General Population Health, Priority Theme 6: Older Persons

<p>Older Persons Falls</p> <p>Fall-related ambulance attendances and hospitalisations is increasing for RACF residents</p> <p>Re-attendance and mortality high amongst those refusing initial ambulance transport</p>	<p>Growth in fall-related ambulance attendances and hospitalisations among residential aged care facility residents</p> <p>High rate of Ambulance re-attendances for falls and mortality in persons not being transported for a previous fall</p>	<p>Between 2006 and 2013, rates of ambulance attendances due to falls and fall-related hospitalisations in NSW were similar and continued to increase over time. Aged care facility residents had a higher proportion of injurious fall hospitalisations (86%) compared to community dwelling persons (65%).</p> <p><i>Trends in fall-related ambulance use and hospitalisation among older adults in NSW, 2006–2013: a retrospective population-based study</i></p> <p>The non-transport rate for falls-related Ambulance NSW calls in 2014 was 19.24%, with the main reason for non-transport being ‘transport refused’. This group is significant as Ambulance NSW report that linked data studies highlight these persons have the highest ambulance re-attendance and 30-day mortality rates. In addition, there is currently no system for prospective regular monitoring of these persons.</p> <p><i>NSW Ambulance Falls Patients: Evaluation of 2014 Activity. Ambulance Service of NSW, 2016.</i></p>
<p>Dementia</p> <p>Diagnosis and services are limited for People with dementia</p>	<p>Identified issues relating to effective service provision for persons with dementia in the NBM region include:</p> <ul style="list-style-type: none"> • Lack of early diagnosis • Variability in GP skills and knowledge for identifying dementia &/or barriers to coordinating care • Gaps in dementia care across the NBM region: • Inequity in access to care 	<p>Key issues and needs identified by primary care professionals relating to effective service provision and care for persons with dementia in the NBM region are outlined below:</p> <p>Lack of Early Diagnosis:</p> <ul style="list-style-type: none"> • Many carers, in particular those among the older population lack awareness of services available for early care, diagnosis and support for persons with dementia, increasing the risk for avoidable hospital admissions. • Persons with dementia, their carers or family members need improved access to early diagnosis and early intervention care. <p>Variability in GP skills and knowledge for identifying dementia &/or barriers to coordinating care:</p> <ul style="list-style-type: none"> • Variability in general practitioner’s knowledge, skills and protocols for identifying and addressing dementia early. • Variable skills among GPs and other primary care clinicians regarding knowing when and where to refer on.

Outcomes of the service needs analysis – General Population Health, Priority Theme 6: *Older Persons*

		<ul style="list-style-type: none"> • GPs currently experience difficulties accessing telephone support (e.g. from specialist services) and make limited referrals to Geriatrician services. <p>Poor morbidity experienced among dementia patients:</p> <ul style="list-style-type: none"> • Commonly held view among many providers and the broader public that dementia patients are unable to make functional gains, however this may delay dementia patients accessing the services they need (that would have beneficial outcomes). <p>Gaps in dementia care across the NBM region:</p> <ul style="list-style-type: none"> • Lack of adequate supports currently available for carers of persons with dementia. • Persons with dementia do not always get their other basic health needs met such as dental care, with difficulties in providing informed consent a barrier. • The importance of a Medical Admissions Unit within hospital for people with dementia to have as a “back door” entry to hospital, however such a unit is not available within 3 of the NBM region’s hospitals (currently available only at Nepean hospital). • Many dedicated professionals working in the sector are not well supported to perform their role. <p>Inequity in access to care:</p> <ul style="list-style-type: none"> • Limited dedicated services for people with dementia outside of the Penrith LGA. • Poor access to services for Aboriginal people with dementia, due to fear of services and the need for improved cultural competence among service providers. • Poor access to services among LGBTI people with dementia, in particular due to heightened stigma around both dementia and their sexuality combined. <p><i>Improving Services for People with Dementia Stakeholder Workshop, NBMPHN and Synergia, 09/08/18</i></p>
--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Primary Mental Health Care (including Suicide Prevention)

SUICIDE PREVENTION

Outcomes of the service needs analysis – Primary Mental Health Care: <i>Suicide Prevention</i>		
Identified Need	Key Issue	Description of Evidence
Risk Assessment	Identification of risk for suicide is not perceived as systematic or effective across services.	<p>Stakeholders perceived a general absence of systematic processes for risk identification and intervention at the primary care level of service provision.</p> <p>Further research is needed to explore the approaches to suicide risk assessment across primary care providers. Investigation needs to assess the type of presentations being assessed, the tools used, and the range of service providers involved.</p> <p><i>NBM Suicide Prevention Stakeholder Consultation 24/2/16</i></p> <p>2018 Update: NBMPHN has developed and implemented a risk assessment tool for General Practitioners to use when assessing patients potentially at risk of suicide and making to determine when to refer patients to crisis services (the Community ACCESS team, or Emergency services), or to the Psychological Therapy Service “Seek Out Support” (SOS) service coordinated by NBMPHN. A completed risk assessment is currently requested by GPs for referring to the SOS PTS service. The tool is available at:</p> <p>https://www.nbmphn.com.au/getattachment/General-Practice/Programs-Services/Mental-Health/Mental-Health-programs-ATAPS/Referring-to-ATAPS-SOS/ATAPS-SOS-Risk-Assessment-and-Eligibility/ATAPS-SOS-Risk-Assessment-and-Eligibility.pdf.aspx</p>
Referral Pathways	Wide variation in referral pathways for people at risk of suicide.	<p>The perceived barriers and problems concerned with referral for people at risk of suicide include:</p> <ul style="list-style-type: none"> • Lack of easily understood and accessible clinical referral pathways. • Lack of easily understood and accessible community program referral pathways. • Lack of utilisation in some regions of ATAPS SOS for mild to moderate suicidality.

Outcomes of the service needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<p><i>NBM Suicide Prevention Stakeholder Consultation 24/2/16</i> <i>NBMLHD Mental Health & Suicide Prevention Focus Group 2/3/16</i> <i>ATAPS Program Feedback</i></p>
<p>Gaps And Barriers To Service Provision</p>	<p>There are a number of key barriers to accessing appropriate services to support people in the community, who have a history of self-harm, suicide ideation or suicide attempt.</p>	<p>Limited or absent support in the community for people at risk of suicide has been identified at all levels of primary care. This includes inadequate support after discharge from hospital due to limited service availability coupled with long waiting lists. Overall stakeholders perceive the absence of appropriate community based support for people at risk of suicide either due to too few services with long waiting lists, or needed services that are not provided, or inappropriate services.</p> <p>Preliminary stakeholder consultation has identified the following concerns regarding barriers to service provision for suicide prevention:</p> <ul style="list-style-type: none"> • Lack of support in the community following discharge from MH inpatient unit. • Limited access to community MH programs due to waiting lists. Lack of appropriate community programs in the region. • Lack of interventions for people who repeatedly self-harm or attempt suicide e.g. similar to Early Psychosis Intervention program for young people. • Lack of long-term interventions for young people who are engaged with homelessness services or with previous foster care and/or family breakdowns. <p>Further investigations are needed to clarify the range of service models needed and where they may be located.</p> <p>2018 Update: NBMPHN has recently commissioned the NBMLHD to deliver a peer-led service to connect people to ongoing supports upon leaving hospital after an attempt to end their own life. This will be run out of Plains Access (Nepean Hospital) and Blue Mountains Access (Blue Mountains Hospital), commencing in September 2018. The service offers a 6-week program for people who are leaving hospital after an attempt to end their own life. The primary aim of this service is to connect people with their (or a suitable) GP, as well as other ongoing supports, such as family and friends, or psychological therapy services.</p>

Outcomes of the service needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<p><i>NBM Suicide Prevention Stakeholder Consultation 24/2/16</i> <i>Commonwealth-funded Community-based Suicide Prevention Project List, distributed by Department of Health, 2016</i> <i>Stakeholder Consultation, NGO 26/2/16</i></p>
<p>Culturally Safe Suicide Prevention For Aboriginal People</p>	<p>Appropriate and culturally safe suicide prevention programs are not provided within the NBM region.</p>	<p>Stakeholder feedback indicates that suicide prevention programs that involve Aboriginal people in service provision are needed to support Aboriginal people at risk of suicide. NBMLHD has one Aboriginal trainee position located in Lithgow providing mental health services. It has been widely acknowledged by stakeholders that suicide prevention programs run by Aboriginal people are absent from the NBM region.</p> <p>Further investigation is necessary to establish the range and type of services needed.</p> <p><i>NBM Suicide Prevention Stakeholder Consultation 24/2/16</i> <i>NBMLHD Mental Health Consultation 2/3/16</i></p> <p>2018 Update: NBMPHN commissioned the Blue Mountains Aboriginal Resource Centre to deliver the Young Strong and Deadly program in 2017-18, a region-wide early intervention service focusing on connection to culture. The program aims to address crystal methamphetamine use, suicide risk and mental illness among young Aboriginal people at risk of mental illness, suicide and alcohol and other drugs addiction.</p>
<p>Skills And Training Capacity</p>	<p>Appropriate skills and training for suicide prevention and follow up support is generally regarded as inadequate throughout the NBM region.</p> <p>The need for specialised skills has been identified to support suicide prevention amongst especially vulnerable populations, including</p>	<p>Stakeholders have indicated that skills and training for suicide prevention are generally inadequate and further investigation is required on models of care, skills required and different options for capacity building through training support.</p> <p>Stakeholders have indicated that:</p> <ul style="list-style-type: none"> • Suicide prevention training and capacity amongst primary healthcare providers is unclear. • Need for education and training for non-clinical workers who have contact with high-risk people e.g. police, ambulance. • Lack of DBT (Dialectical Behaviour Therapy) training and services in the region. • Lack of relevant staff and training in youth specific mental health first aid at local schools.

Outcomes of the service needs analysis – Primary Mental Health Care: *Suicide Prevention*

	<p>Aboriginal people, youth and CALD populations.</p>	<ul style="list-style-type: none"> • Lack of cross-cultural suicide training for workers. <p>These issues requires further investigation to understand the extent of the gap.</p> <p><i>NBM Suicide Prevention Stakeholder Consultation 24/2/16</i></p> <p>2018 Update: NBMPHN commissioned Black Dog Institute in 2017-18 to deliver continuous professional development (CPD) training to GPs, GP registrars and practice nurses across the region. This training is intended to increase the capacity of primary care providers to support people at risk of suicide or self-harm. The following training types were delivered:</p> <ul style="list-style-type: none"> • Advanced training in suicide prevention workshops (full day) – with 18 (60% of target) GPs or GP registrars, and 3 (30% of target) practice nurses trained across the region • Talking About Suicide in General Practice (evening session) –with 10 (30% of target) GPs and 7 (58% of target) practice nurses trained across the region • Suicide Prevention Coaching Sessions – more in-depth follow-up sessions for those who attended the other training <p>Given poor attendance rates, Black Dog Institute is delivering additional suicide prevention CPD in the 2018-19 period, at no additional cost to the PHN. Coaching sessions will also be available online rather than face to face, for increased flexibility for participants.</p> <p>2018 Update: NBMPHN also commissioned Wesley Community Services in 2017-18 to deliver their LifeForce suicide prevention education in each of the NBM region’s four LGAs. This was for identified people who may have a ‘community gatekeeper’ role (such as teachers, sports coaches, service volunteers and workers, counsellors, clergy, pharmacists, family and friends, crisis line staff and other community members). The education aims to build participants’ capacity to identify and support people at risk of suicide or self-harm.</p> <p>146 people total (76% of target) participated, with participants reporting significant increases in knowledge and capacity to support people at risk. A suicide prevention train-the-trainer program was also delivered to 4 people in the region, in order for them to become accredited to deliver the</p>
--	-------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Primary Mental Health Care: <i>Suicide Prevention</i>		
		LifeForce training to people in the local community on an ongoing basis. Wesley Community Services will continue to support these newly trained trainers to deliver more of the LifeForce sessions over the 2018-19 year, in order to reach the original target of people trained, and at no additional cost to the PHN.
Continuity and Transfer Of Care	Barriers to follow up and support subsequent to assessment for people at risk of suicide indicate breakdowns in continuity of care, and the likely need for formalised care coordination across suicide prevention services.	<p>Stakeholders have identified barriers to follow up and support between hospital discharge and the community based Access teams. There are concerns that these services are unable to accommodate the demand for services within the region. Further investigations are required to fully assess the nature of these barriers to continuity of care.</p> <p>Preliminary stakeholder engagement has indicated the following concerns:</p> <ul style="list-style-type: none"> • Lack of follow-up from Access teams, which is likely due to time constraints and difficulty in contacting people. • People discharged from Access teams may not have a GP, aren't followed up by a GP or don't make an appointment. • Lack of support for family members when people are discharged from hospital into their care. <p><i>NBMLHD Mental Health & Suicide Prevention Focus Group 2/3/16</i> <i>NBM Suicide Prevention Stakeholder Consultation 24/2/16</i> Refer <i>Clinical Care of People Who May Be Suicidal, NSW Health Policy Directive, 2016</i></p>
Absence Of Quantitative Evidence To Support Analysis Of Demand For Services	Access to current data to support analysis of demand for suicide prevention services is poor.	<p>Research to date indicates that potentially important data to support planning for suicide prevention is not available. Stakeholders have indicated that it would be particularly important to analyse the extent to which vulnerable populations such as Aboriginal people, adult men and youth, utilise telephone services.</p> <p><i>NBM Suicide Prevention Stakeholder Consultation 24/2/16</i></p>
General Population Awareness Of Support For Suicide Prevention	Community awareness of suicide and risks is perceived as inadequate at the regional level. Poor	Preliminary stakeholder consultations indicate that the actual prevalence of suicidal behaviours and risk is likely to be underestimated because the general population is not sufficiently aware of

Outcomes of the service needs analysis – Primary Mental Health Care: *Suicide Prevention*

	community awareness may result in hidden prevalence of suicidal behaviors.	<p>the presentations and behaviours that indicate risk and the opportunities to support people who are at risk.</p> <p>Stakeholders have indicated that there is:</p> <ul style="list-style-type: none"> • Lack of community engagement and understanding of suicide - prevalence is hidden. • Lack of education and awareness to reach people who don't access mental health services. Some national public health campaigns are not localised. <p><i>NBM Suicide Prevention Stakeholder Consultation 24/2/16</i></p>
Evaluation Of Service Models	Existing models of care provided to the community to prevent suicide and support people who are at risk may not be properly evaluated and may be inappropriate for the needs of the community.	<p>Preliminary stakeholder consultation has indicated a lack of evaluation of existing service models for suicide prevention and support services.</p> <p><i>NBM Suicide Prevention Stakeholder Consultation 24/2/16</i></p>
Models For Effective Suicide Prevention Stakeholder Engagement	There are no appropriate community consultation and stakeholder engagement models for suicide prevention in the NBM region.	<p>Preliminary stakeholder consultation has indicated the importance of appropriate community consultation and stakeholder engagement models to identify service needs and provide ongoing feedback for capacity development and evaluation of service models.</p> <p><i>NBM Suicide Prevention Stakeholder Consultation 24/2/16</i></p>
Support for suicide prevention	<p>The pool of current NBMPHN funds available to support suicide prevention is relatively small relative to underlying need.</p> <p>Suicide Prevention Australia</p>	<p>Current NBMPHN services people at low to medium risk of suicide. There is scope to enhance active engagement with people who are discharged from hospital after attempted suicide or self-harm.</p> <p>2018 Update: NBMPHN has recently commissioned NBMLHD to deliver a peer-led service to support people to connect to ongoing supports, upon leaving hospital after an attempt to end their own life. This is to be managed and implemented through the Access teams at the Nepean and Blue Mountains Hospitals, intended to commence in September 2018 (as discussed previously).</p>

Outcomes of the service needs analysis – Primary Mental Health Care: Suicide Prevention

	<p>Limited Post suicide prevention for young people</p> <p>Supports recommended for suicide prevention among young people.</p>	<p>SPA provide support for PHNs Australia wide via its extensive membership network, online best practices hub (as of 2018), which integrates with resources by other projects in Australia) to provide centralised information surrounding suicide prevention.</p> <p>SPA is developing operational relationships with PHNs mental health and/or suicide prevention advisory committees.</p> <p><i>National Suicide Prevention Leadership and Support Program - PHN Resource 2017</i></p> <p>Local service provider consultations indicate that there is a lack of post suicide prevention support services available for young people, particularly in the Lithgow LGA.</p> <p>There is currently no safe place for children to express their emotions or feelings when someone close or in their community has died by suicide. Provision for supporting community after suicide or suicide attempts to help educate and support affected members would be essential for improving the current situation.</p> <p><i>Consultations with NBMLHD local health service providers, 2017</i></p> <p>Local community consultations also indicate that young people are most likely to seek support from their friends, then parents and relatives. It is viewed that only a small proportion (e.g. 5-10%) of young people who may be at risk of suicide seek out support from agencies. Consideration of the broader range of health, social and cultural factors for young people and what else is going on in their lives was recommended, as was moving towards peer support and online programs for supporting young people.</p> <p>In addition, as private counselling and community organisations including the headspace Youth service do not provide long-term follow-up, it was recommended that programs consider how they are viewed to be relevant, affordable and accessible by young people.</p>
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<p><i>Blue Mountains Mental Health Networking Forum: Suicide Prevention across the Lifespan, April 2018</i></p> <p>2018 Update: The “Seek Out Support” (SOS) Psychological Therapy Service (formerly ATAPS) designed for people with low to moderate risk of suicide and assessed by their GP as in need of an intensive intervention, offered an additional referral pathway for the first time in 2017-18, for young people through Lithgow High School’s Wellbeing Centre. The pathway is designed to allow students in need of support to access one or two sessions with a mental health practitioner, prior to being assessed and referred by a GP. It was initiated to reduce the risk of delays in access to psychological support for young people. This pathway was also opened up for this first time for Young people in Hawkesbury in 2017-18.</p>
<p>Short term psychological intervention</p>	<p>Access to ATAPS suicide prevention and support services is varied across the NBMPHN. The proportion of suicide prevention sessions of total ATAPS sessions in the NBMPHN is large compared to national figures.</p>	<p>The ATAPS suicide prevention service has to date been utilized to its full funding capacity and is a well-regarded and supported service among GP referrers and allied health providers. This service fills a previous regional gap by providing a GP referral pathway for people at mild to moderate risk of suicide in accessing targeted, quick response short term psychological therapy services within the primary care sector. However, it is noted that referrals for this service are uneven across the region and increased significantly between 2015-16 and 2016-17.</p> <p>The number of ATAPS referrals for suicide prevention services in the NBMPHN in 2016-17 was 308 (86 per 100,000 population), and increased in 2017-18 to 422 (86 per 100,000 population). This number does not include referrals for those who resided outside the NBMPHN (9) who received a referral to the NBMPHN. The distribution of referrals for suicide prevention services across the LGAs was:</p> <ul style="list-style-type: none"> • Blue Mountains: 171 (222 per 100,000) • Hawkesbury: 65 (63 per 100,000) • Lithgow: 9 (43 per 100,000) • Penrith: 159 (44 per 100,000)

Outcomes of the service needs analysis – Primary Mental Health Care: *Suicide Prevention*

		<p>Across the NBMHPN in 2017-18, the average completed suicide prevention sessions per referral was 7.5. This is notably higher than the average number of completed suicide prevention sessions per referral from the 2011-12 national data (5.4 sessions).</p> <p>NBMPHN data on ATAPS clients indicated there were 3,176 sessions (855 per 100,000 population) provided for suicide prevention services in 2017-18. Using the proportions of referrals by LGA, the estimated distribution of sessions across the LGAs is:</p> <ul style="list-style-type: none"> • Blue Mountains: 1,170 sessions (1,521 per 100,000; 56% of NBMPHN) • Hawkesbury: 280 sessions (434 per 100,000; 13% of NBMPHN) • Lithgow: 62 sessions (292 per 100,000; 3% of NMBPHN) • Penrith: 595 sessions (303 per 100,000; 28% of NBMPHN) <p>Suicide prevention sessions accounted for approximately 20.2% of all ATAPS sessions in 2017-18 in the NBMPHN.</p> <p><i>NBMPHN, ATAPS data, 2017-18</i></p> <p><i>Access to Applied Psychological Services (ATAPS) program. Nineteenth Interim Evaluation Report. Update on the achievements of Tier 1 and Tier 2 ATAPS, 2012, University of Melbourne, Melbourne</i></p> <p><i>Australian Bureau of Statistics, Estimated Resident Population by LGA, 2016</i></p> <p>2018 Update: In the 2018-19 year, the Psychological Therapy Services suicide-specific Seek Out Support (SOS) service stream is anticipated to expand, with additional promotion and awareness of the program, as well as new provisional referral pathways being opened up. For example, Peer Workers in the NBMLHD program (to connect people to ongoing support upon leaving hospital after an attempt to end their own life) will be able to provisionally refer into this therapy stream.</p>
	<p>The ATAPS suicide prevention and support service is valued among primary care service providers</p>	<p>Recent consultations with GPs and Allied Health providers (AHPs) in the NBMPHN region indicate that the PTS SOS service stream is valued and viewed as a high quality program. This stream is perceived to have clear parameters for referral, indications and contraindications, step up and step down options and is well understood by GPs and AHPs in the region.</p> <p><i>NBMPHN GP Advisory Committee Consultation, 17/07/18</i></p> <p><i>NBMPHN Allied Health Advisory Committee Consultation, 27/08/18</i></p>

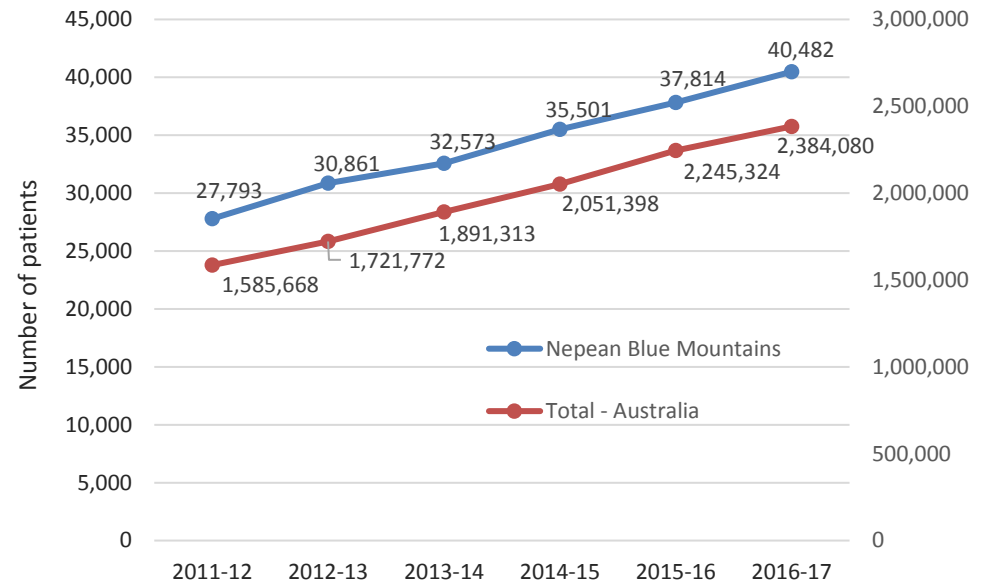
MENTAL Health

Adults with Moderate to Severe Mental Illness

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (<i>Adults with Moderate to Severe Mental Illness</i>)		
Identified Need	Key Issue	Description of Evidence
<p>Utilisation of Commonwealth funded Mental Health Services</p>	<p>Positive trends can be identified in the uptake of Commonwealth funded MBS mental health service items by GPs, allied health and psychiatrists.</p>	<p>Analysis of Medicare Australia MBS data for mental health service items shows that 40,482 patients (10.9% of the NBMPHN population in 2017) residing in NBMPHN accessed a total of 174,474 Commonwealth funded MBS mental health services in 2016-17.</p> <p>Both the number of people residing in NBMPHN who accessed Commonwealth funded MBS mental health services and the total number of Commonwealth funded MBS mental health services delivered for NBMPHN residents increased every year between 2011-12 and 2016-17 at a roughly linear rate. The number of mental health MBS services claimed by NBMPHN residents increased by 6.1% between 2015-16 and 2016-17, from a total of 164,431 to 174,474 services. These increases appear to be similar to the trends seen across Australia during this time period, and likely reflect increases in population size and demand for Commonwealth funded mental health services.</p>

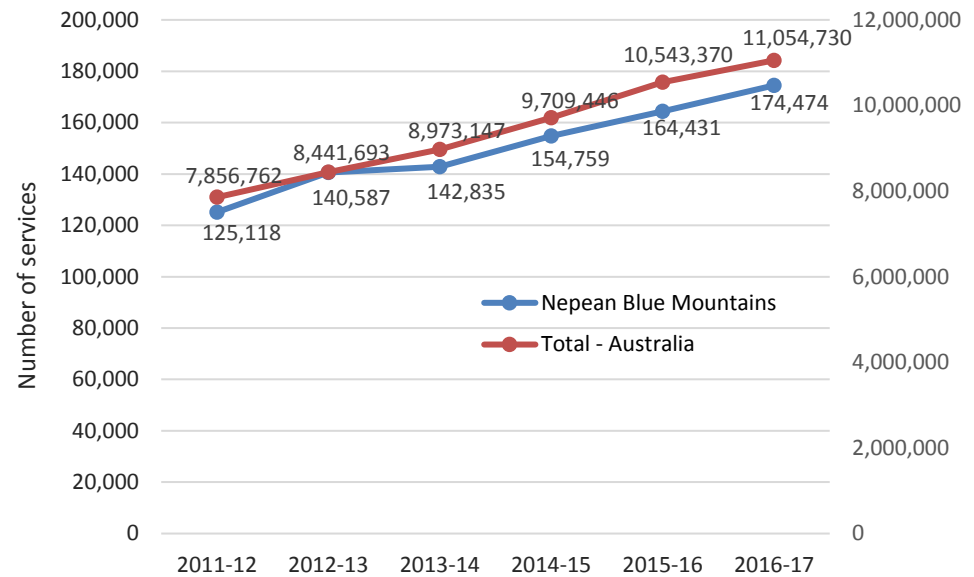
Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

Figure 35: Total patient uptake of Commonwealth funded MBS Mental Health services: by people residing in NBMPHN vs. Australia, 2011-12 to 2016-17



Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (Adults with Moderate to Severe Mental Illness)

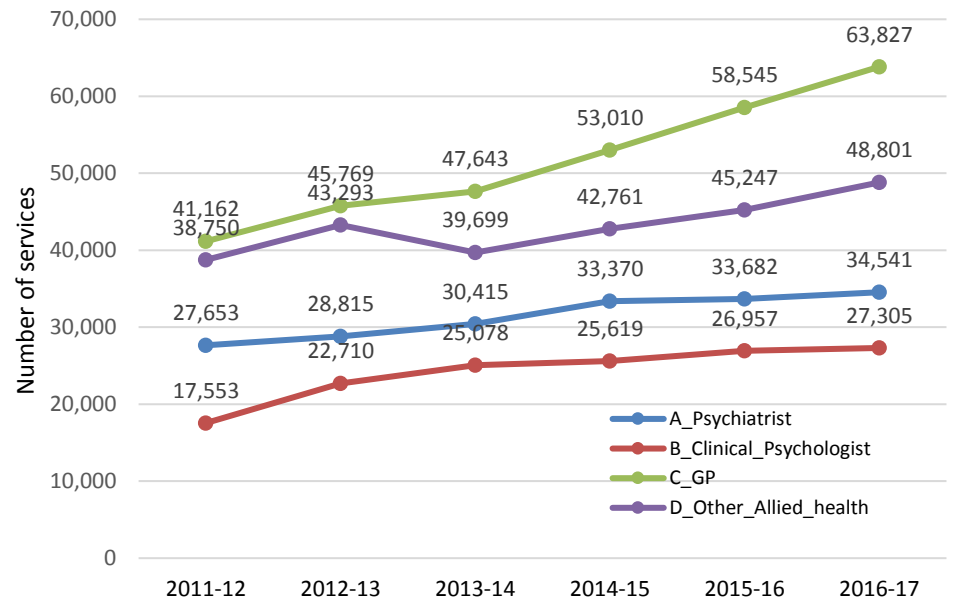
Figure 36: Total of Commonwealth funded MBS Mental Health services delivered - NBMPHN vs. Australia, 2011-12 to 2016-17



The largest growth in Commonwealth funded MBS mental health services claimed between 2015-16 and 2016-17 by service type was by: GPs (9.0%), followed by “Other Allied Health” (Better Access items) (7.9%), psychiatrists (2.6%) and clinical psychologists (1.3%).

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (Adults with Moderate to Severe Mental Illness)

Figure 37: Service uptake of Commonwealth funded MBS Mental Health items by service type in the NBMPHN region, 2011-12 to 2016-17



MBS Mental Health Data by PHN, Department of Health, 2011-12 to 2016-17

http://www.health.gov.au/internet/main/publishing.nsf/Content/PHN-Mental_Health_Data

Nepean Blue Mountains Primary Health Network .id Community Profile – Estimated resident population in 2017. Available at: <https://profile.id.com.au/nbmpnh>

Geographic access to Medicare mental health-specific services in the NBMPHN

The uptake of of MBS funded mental health-specific services varies across the NBMPHN catchment, however availability of

The number of patients receiving MBS funded mental health-specific services in the NBM region by SA3 local area is given by the National Mental Health Services Planning Framework Data portal for licensed users. In 2016-17, these were:

- Blue Mountains: 8,713 people (24% of patients)

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

	<p>age-standardised data is required to compare the relative utilisation of services across the catchment.</p>	<ul style="list-style-type: none"> • Hawkesbury: 2,312 people (6.6% of patients) • Richmond-Windsor: 3,749 people (10.3% of patients) • Rouse Hill-McGraths Hill: 910 people (2.5% of patients) • Lithgow-Mudgee: 1,664 people (4.6% of patients) • St Marys: 5,250 people (14.4% of patients) • Penrith: 13,648 people (37.5% of patients) <p>It is important that caution is used to interpret these figures. Differences in the size and age-structure of the population within the SA3 local areas mean that aged-standardised data (not currently available) is required to interpret the relative utilisation of MBS funded mental health services by patients across the NBMPHN catchment.</p> <p><i>National Mental Health Services Planning Framework Data Portal for Licensed Users –Number of patients receiving Medicare mental health-specific services, by PHN and SA3, 2011-12 to 2016-17</i></p>								
<p>Unmet need for Medicare mental health-specific services in the NBMPHN</p>	<p>Potential unmet need identified for utilisation of Medicare funded Structured Psychological Therapies – Family interventions and Individual interventions for persons aged 0-17 and 65+ years</p>	<p>The National Mental Health Services Planning Framework – Planning Support Tool (NMHSPF-PST), provides benchmark estimates for optimal national average levels of activity for Commonwealth-funded mental health clinical programs. This data can be directly compared to local MBS service use data mapped to the NMHSPF service elements, available in the NMHSPF data portal (currently only available for 2015-16 FY). Differences between the benchmark estimates and actual use of MBS services can be used to identify potential areas of unmet need.</p> <p>The following data summary is provided for the predicted optimal compared to actual utilisation of Medicare mental health-specific services for Structured Psychological Therapies (SPT) delivered in the NBMPHN region in 2015-16 by all provider types, including General Practitioners, Psychiatrists and other Tertiary Qualified Providers.</p> <p>SPT – Extended Intervention, Individual:</p> <table border="1"> <thead> <tr> <th>Age Group</th> <th>NMHSPF-PST benchmark, 2015 (Occasions of Service by all providers)</th> <th>MBS Service Use Data, 2015-16 (Occasions of Service by all providers)</th> <th>Difference</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Age Group	NMHSPF-PST benchmark, 2015 (Occasions of Service by all providers)	MBS Service Use Data, 2015-16 (Occasions of Service by all providers)	Difference				
Age Group	NMHSPF-PST benchmark, 2015 (Occasions of Service by all providers)	MBS Service Use Data, 2015-16 (Occasions of Service by all providers)	Difference							

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

0-17 years	14,839	13,581	-1,258 services (91.5% of benchmark)
18-64 years	39,457	55,139	+15,682 services (139.7% of benchmark)
65+ years	6,736	4,249	-2,487 services (63.1% of benchmark)

SPT – Extended Intervention, Family:

Age Group	NMHSPF-PST benchmark, 2015 (Occasions of Service by all providers)	MBS Service Use Data, 2015-16 (Occasions of Service by all providers)	Difference
0-17 years	14,019	168	-13,851 services (1.2% of benchmark)
18-64 years	1,171	140	-1,031 services (12.0% of benchmark)
65+ years	230	22	-208 services (9.6% of benchmark)

SPT Psychological Therapy – Extended Intervention, Group:

Age Group	NMHSPF-PST benchmark, 2015 (Occasions of Service by all providers)	MBS Service Use Data, 2015-16 (Occasions of Service by all providers)	Difference
0-17 years	N/A	217	N/A
18-64 years	745	1,474	+729 services (197.9% of benchmark)
65+ years	95	128	33 services (134.7% of benchmark)

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

Analysis of this data shows the following potential areas of unmet need:

- Utilisation of SPT interventions by families is relatively low compared to the NMHSPF benchmark for all groups, in particular for persons aged 0-17 years, where only 1.2% of services were utilized compared to the benchmark.
- Utilisation of SPT interventions by individuals aged 65+ years and 0-17 years is relatively low compared to the NMHSPF benchmarks.

Conversely, utilisation of SPT interventions by groups was significantly higher than predicted by the benchmark for all age groups, as was SPT interventions for individuals aged 18-64 years.

It is important to note the following limitations for interpreting and comparing data:

1. SPT interventions are anticipated by the NMHSPF-PST (benchmarks) to be delivered by all provider types; however there was not a clearly identified Medicare item number match for SPT and Psychiatrists (for the MBS service use data mapped to the NMHSPF elements). Due to this mapping issue, the MBS service use data for SPT will be an underestimate of total activity.
2. The NMHSPF-PST provides estimates of the **total** requirement for SPT, including services delivered by non-MBS funded services, such as PHN commissioned services (e.g. ATAPS) and privately funded services. Therefore, MBS service use data would represent one component of but not the total utilisation of available services.

Further investigation is required to understand the factors that may be driving differences in the uptake of Structured Psychological Therapies by intervention types and age group across the region.

The University of Queensland. 2016. The National Mental Health Service Planning Framework – Framework – Commissioned by the Australian Government Department of Health. Version AUS V2.1. The University of Queensland, Brisbane.

National Mental Health Services Planning Framework Data Portal for Licensed Users – Mental health-specific Medicare services mapped to the NMHSPF service elements, 2015-16

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

<p>Mental health care provided by General Practitioners</p>	<p>Increasing proportion of general practice encounters that were mental health-related and number of GP MBS mental health-related services</p>	<p>Analysis of BEACH study data across Australia revealed that an estimated 12.4% of all GP encounters in 2015-16 were mental health related (18.0 million estimated GP encounters), an increase from 12.1% of all GP encounters in 2011-12. This was much higher than the number of mental health-specific MBS subsidised GP services provided (3.2 million services in 2015-16).</p> <p>This means that only 1 in 6 (18.1%) of estimated GP encounters that were mental health-related were billed using mental health-specific MBS items in 2015-16. It is suggested the remaining mental health related GP encounters were billed as general MBS items. Therefore, estimates of GP mental health item utilisation are likely an underestimate of the total activity for mental health care services provided by GPs.</p> <p>The most common mental health-related issues in 2015-16 managed by GPs were: depression (32.1%), anxiety (16.6%) and sleep disturbance (12.1%).</p> <p><i>Mental Health Services In Brief, 2017: Mental health care provided by general practitioners</i></p> <p>In the NBMPHN region, GPs provided 36.6% (63,827) of all MBS mental health-specific services in 2016-17, an increase of 9.0% in the number of GP MH-specific services compared to 2015-16. These services were provided to 34,353 patients, at an average of 1.9 services per patient.</p> <p><i>MBS Mental Health Data by PHN, Department of Health, 2011-12 to 2016-17</i> http://www.health.gov.au/internet/main/publishing.nsf/Content/PHN-Mental_Health_Data</p>
<p>Unmet need for Medicare mental health-specific services delivered by General Practitioners</p>	<p>Potential unmet need identified for utilisation of Medicare funded centre-based monitoring and ongoing management, and comprehensive MH assessments for persons 65+ years</p>	<p>Similarly as for all Medicare mental health-specific services, differences between the NMHSPF-PST benchmark estimates and actual use of MBS services can be used to identify potential areas of unmet need for mental health-specific services delivered by General Practitioners.</p> <p>The following data summary is provided for the predicted optimal compared to actual utilisation of Medicare mental health-specific services for: Brief MH assessments, Comprehensive MH</p>

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

assessments and Centre based monitoring and ongoing management, delivered in the NBMPHN region in 2015-16 by General Practitioners.

Brief Mental Health assessments:

Age Group	NMHSPF-PST benchmark, 2015 (Occasions of Service by GPs)	MBS Service Use Data, 2015-16 (Occasions of Service by GPs)	Difference
0-17 years	10,782	4,279	-6,503 services (39.7% of benchmark)
18-64 years	19,302	38,136	+18,834 services (197.6% of benchmark)
65+ years	3,955	4,265	+310 services (107.8% of benchmark)

Comprehensive Mental Health assessments:

Age Group	NMHSPF-PST benchmark, 2015 (Occasions of Service by GPs)	MBS Service Use Data, 2015-16 (Occasions of Service by GPs)	Difference
0-17 years	51	932	+881 services (1,827% of benchmark)
18-64 years	7,837	4,902	-2,935 services (62.5% of benchmark)
65+ years	2,187	377	-1,810 services (17.2% of benchmark)

Centre based monitoring and ongoing management:

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

Age Group	NMHSPF-PST benchmark, 2015 (Occasions of Service by GPs)	MBS Service Use Data, 2015-16 (Occasions of Service by GPs)	Difference
0-17 years	6,288	979	-5,309 services (15.6% of benchmark)
18-64 years	30,459	5,445	-25,014 services (17.9% of benchmark)
65+ years	4,687	395	-4,292 services (8.4% of benchmark)

Analysis of this data shows the following potential areas of unmet need:

- Low delivery of centre-based monitoring and ongoing management by GPs for persons of all age-groups (8.4% to 17.9% of benchmark).
- Low delivery of comprehensive MH assessments for persons aged 65+ years (17.2% of the benchmark) and compared with 0-17 and 18-64 year age-groups.

The NMHSPF describes monitoring and ongoing management as the ongoing systematic collection, analysis and interpretation of information for the ongoing management of a person’s health status and/or ongoing need for specialist mental health services.

Delivery of brief MH assessments for individuals aged 0-17 years appears to be relatively low (39.7%) compared to the benchmark, however this is significantly outweighed by comprehensive MH assessments far in excess (1,827%) of the benchmark. Delivery of brief mental health assessments for adults 18-64 and 65+ years are also significantly higher than predicted by the NMHSPF-PST benchmark.

It is important to note the following limitations for interpreting and comparing data:

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

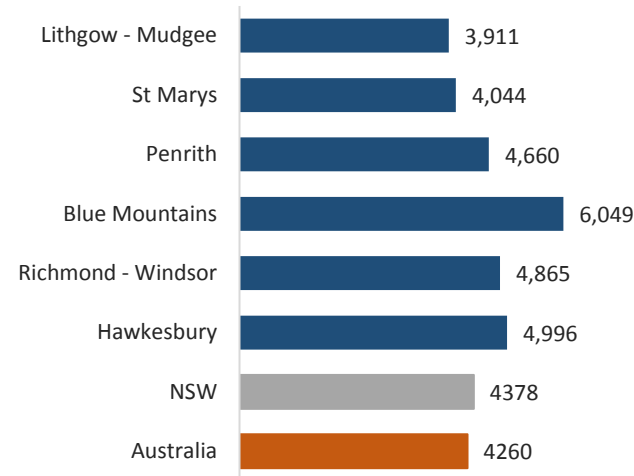
		<p>1. As reported earlier, only 1 in 6 (18.1%) of estimated GP mental health-related encounters were billed using mental health-specific MBS items in 2015-16. This means that the MBS service use data for services provided by GPs is an under-estimate of GP activity.</p> <p>Further investigation is required to understand whether GPs in the NBMPHN region may be billing activities relating to centre-based monitoring and ongoing management under general MBS items, or if this data represents a real area of unmet need in mental health care services delivered by General Practitioners.</p> <p><i>The University of Queensland. 2016. The National Mental Health Service Planning Framework – Framework – Commissioned by the Australian Government Department of Health. Version AUS V2.1. The University of Queensland, Brisbane.</i></p> <p><i>National Mental Health Services Planning Framework Data Portal for Licensed Users – Mental health-specific Medicare services mapped to the NMHSPF service elements, 2015-16</i></p>								
<p>General Practice Mental Health Treatment Plans</p>	<p>Increasing utilisation of GP Mental Health Treatment Plans in the NBM region.</p>	<p>Of the MBS mental health-specific services delivered by GPs in the NBMPHN region in 2016-17, more than one-third (26,511 or 41.5%) were for the preparation or review of a mental health treatment plan. This was an increase of 6.5% for these service items from the previous year in 2015-16.</p> <p>Table 5: Medicare Benefits Schedule services delivered under GP mental health treatment items in NBMPHN, FY 2016-17</p> <table border="1"> <thead> <tr> <th>MBS Reporting Group</th> <th>MBS item(s)</th> <th>No. of patients</th> <th>No. of services</th> </tr> </thead> <tbody> <tr> <td>Preparation of a GP Mental Health Treatment Plan</td> <td>2700, 2701, 2715, 2717</td> <td>19,458</td> <td>19,477</td> </tr> </tbody> </table>	MBS Reporting Group	MBS item(s)	No. of patients	No. of services	Preparation of a GP Mental Health Treatment Plan	2700, 2701, 2715, 2717	19,458	19,477
MBS Reporting Group	MBS item(s)	No. of patients	No. of services							
Preparation of a GP Mental Health Treatment Plan	2700, 2701, 2715, 2717	19,458	19,477							

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

		<table border="1"> <tr> <td>Review of a GP Mental Health Treatment Plan</td> <td>2712</td> <td>6,067</td> <td>7,034</td> </tr> <tr> <td>GP Mental Health Treatment Consultation</td> <td>2713</td> <td>17,816</td> <td>33,332</td> </tr> </table> <p><i>Australian Government Department of Health, 2017. Medicare Benefits Schedule items and groups by PHN 2012-13 to 2016-17. Available at: http://www.health.gov.au/internet/main/publishing.nsf/Content/PHN-MBS_Data.</i></p>	Review of a GP Mental Health Treatment Plan	2712	6,067	7,034	GP Mental Health Treatment Consultation	2713	17,816	33,332
Review of a GP Mental Health Treatment Plan	2712	6,067	7,034							
GP Mental Health Treatment Consultation	2713	17,816	33,332							
	<p>General practice involvement in mental health plan development and review is widely variable across the NBM region.</p>	<p>The number and age-standardised rate of MBS funded services for preparation of a mental health treatment plan is given by the National Health Performance Authority. The age-standardised rate of services for the preparation of a mental health treatment plan by general practitioners in 2013-14, by SA3 local area level were:</p> <ul style="list-style-type: none"> • Blue Mountains: 6,049 people per 100,000 (in the top decile for Australia) • Hawkesbury: 4,996 people per 100,000 • Richmond-Windsor: 4,865 per 100,000 • Lithgow-Mudgee: 3,911 people per 100,000 • St Marys: 4,044 per 100,000 • Penrith: 4,660 people per 100,000 								

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (Adults with Moderate to Severe Mental Illness)

Figure 38: Age-standardised rate of MBS funded services for preparation of a mental health treatment plan by SA3 local area in Nepean Blue Mountains, 2013-14



Number of MBS-funded services for the preparation of mental health treatment plans by general practitioners per 100,000 people, age standardised, by SA3, 2013–14. Australian Atlas of Healthcare Variation, November 2015.

The underlying drivers for this variability across the NBMPHNs catchment need further exploration: it may reflect underlying population needs; relative transport accessibility of GP services; differences in the number of GPs interested in preparing mental health treatment plans; and/or differences in the availability of support services that act as an alternative to GPs.

Lifestyle interventions as a part of routine mental health care

Little or no incorporation of lifestyle interventions for preventing and managing chronic conditions into routine care for

The Royal Australian and New Zealand College of Psychiatrists recommends incorporating health promotion programs such as smoking cessation, weight management and exercise interventions as core elements of mental health service delivery, proactive screening and lifestyle interventions aimed at preventing and managing chronic conditions and routine implementation of such care

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

	<p>people with a mental health condition in the NBM region, within primary and tertiary care settings.</p> <p>The proportion of NBM patients who have not had their CVD risk assessed in general practice according to recommended preventive guidelines is:</p> <ul style="list-style-type: none"> • 46.7% of age-relevant adults • 64.6% of age-relevant Aboriginal Torres Strait Islander people 	<p>into all services that support people with a mental health condition. Anecdotal evidence from local stakeholders indicates that lifestyle interventions are poorly incorporated to non-existent within routine care of mental health patients in the NBM region within both primary and tertiary care settings. Further research is required to further examine this issue.</p> <p>The Australian Health Policy Collaboration recommends implementing Absolute Cardiovascular Risk Assessment for all Australians over 45 years (over 35 for Aboriginal and Torres Strait Islander people) as a key step in addressing preventable chronic disease and early death. This should include and would disproportionately benefit people living with mental health conditions. Local NBM general practice data indicates that among 64 of 131 (49%) of general practices in the NBM region, 46.7% of patients aged 45-74 years and 64.6% of Aboriginal and Torres Strait Islander patients aged 35-74 years had not had their CVD risk measured or recorded within the previous 2-years.</p> <p>Finally, regular mental health assessments in primary care for people with chronic physical conditions are recommended by the Royal Australian College of General Practitioners.</p> <p><i>Harris B, Duggan M, Batterham P, Bartlem K, Clinton-Mcharg T, Dunbar J, Fehily C, Lawrence D, Morgan M, Rosenbaum S, 2018. Australia's Mental and Physical Health Tracker: Background Paper, Australian Health Policy Collaboration issues paper no. 2018-02, Melbourne, AHPC</i></p> <p><i>Dunbar, JA, Duggan, M, Fetherston, H, Knight, A, Mc Namara, K, Banks, E, Booth, K, Bunker, S, Burgess, P, Colagiuri, S, Dawda, P, Ford, D, Greenland, R, Grenfell R, Knight S & Morgan, M. Heart Health: the first step to getting Australia's health on track. Australian Health Policy Collaboration: Melbourne, Victoria University, October 2017</i></p> <p><i>Royal Australian and New Zealand College of Psychiatrists. Keeping Body and Mind Together: improving the physical health and life expectancy of people with serious mental illness. 2015</i></p> <p><i>Royal Australian College of General Practitioners. Guidelines for preventive activities in general practice. 9th edition. East Melbourne 2016</i></p>
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (Adults with Moderate to Severe Mental Illness)

		<p><i>Local general practice data available to the Nepean Blue Mountains Primary Health Network via the PEN Clinical Audit Tool, March 2018</i></p>																				
<p>Unmet need for Medicare mental health-specific services delivered by Psychiatrists</p>	<p>Potential unmet need identified for utilisation of Medicare funded comprehensive MH assessments and centre-based monitoring and ongoing assessment</p>	<p>Similarly as for Medicare mental health-specific services delivered by General Practitioners, differences between the NMHSPF-PST benchmark estimates and actual use of MBS services can be used to identify potential areas of unmet need for mental health-specific services delivered by Psychiatrists.</p> <p>The following data summary is provided for the predicted optimal compared to actual utilisation of Medicare mental health-specific services for: Comprehensive MH assessments, and Centre based monitoring and ongoing management (including care coordination and liaison, pharmacotherapy, pharmacotherapy prescription and pharmacotherapy review), delivered in the NBMPHN region in 2015-16 by Psychiatrists.</p> <p>Comprehensive Mental Health assessments:</p> <table border="1"> <thead> <tr> <th>Age Group</th> <th>NMHSPF-PST benchmark, 2015 (Occasions of Service by Psychiatrists)</th> <th>MBS Service Use Data, 2015-16 (Occasions of Service by Psychiatrists)</th> <th>Difference</th> </tr> </thead> <tbody> <tr> <td>0-17 years</td> <td>668</td> <td>369</td> <td>-299 services (55.2% of benchmark)</td> </tr> <tr> <td>0-17 years (Lithgow)</td> <td>32</td> <td>6</td> <td>-26 services (18.8% of benchmark)</td> </tr> <tr> <td>18-64 years</td> <td>8,200</td> <td>2,778</td> <td>-5,422 services (33.9% of benchmark)</td> </tr> <tr> <td>65+ years</td> <td>879</td> <td>305</td> <td>-574 services (34.7% of benchmark)</td> </tr> </tbody> </table> <p>Centre based monitoring and ongoing management:</p>	Age Group	NMHSPF-PST benchmark, 2015 (Occasions of Service by Psychiatrists)	MBS Service Use Data, 2015-16 (Occasions of Service by Psychiatrists)	Difference	0-17 years	668	369	-299 services (55.2% of benchmark)	0-17 years (Lithgow)	32	6	-26 services (18.8% of benchmark)	18-64 years	8,200	2,778	-5,422 services (33.9% of benchmark)	65+ years	879	305	-574 services (34.7% of benchmark)
Age Group	NMHSPF-PST benchmark, 2015 (Occasions of Service by Psychiatrists)	MBS Service Use Data, 2015-16 (Occasions of Service by Psychiatrists)	Difference																			
0-17 years	668	369	-299 services (55.2% of benchmark)																			
0-17 years (Lithgow)	32	6	-26 services (18.8% of benchmark)																			
18-64 years	8,200	2,778	-5,422 services (33.9% of benchmark)																			
65+ years	879	305	-574 services (34.7% of benchmark)																			

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

Age Group	NMHSPF-PST benchmark, 2015 (Occasions of Service by Psychiatrists)	MBS Service Use Data, 2015-16 (Occasions of Service by Psychiatrists)	Difference
0-17 years	1,533	1,027	-506 services (67.0% of benchmark)
0-17 years (Lithgow)	74	20	-54 services (27.0% of benchmark)
18-64 years	35,758	20,882	-14,876 services (58.4% of benchmark)
65+ years	4,613	3,083	-1,530 services (66.8% of benchmark)

Analysis of this data shows the following potential areas of unmet need:

- Relatively low delivery of comprehensive MH assessments by psychiatrists for persons of all age-groups (33.9% to 55.2% of benchmark), in particular for persons aged 0-17 years living in the Lithgow SA3 (18.8% of benchmark).
- Relatively low delivery of centre-based monitoring and ongoing management by psychiatrists for persons of all age-groups (58.4% to 67.0% of benchmark), in particular for persons aged 0-17 years living in the Lithgow SA3 (27.0% of benchmark).

It is important to note the following limitations for interpreting and comparing data:

1. The NMHSPF-SPT benchmark provides estimates for smaller geographical areas by local government area (LGA); this does not align with MBS service use data which are mapped to SA3 smaller geographical areas. Analysis for persons aged 0-17 years in Lithgow is based on MBS service use data for the Lithgow-Mudgee SA3. Concordance files by the Australian Bureau of Statistics show that 45.3% of the Lithgow-Mudgee SA3 population resides within the NBMPHN region. Therefore, the above estimates of service uptake for persons 0-17 years in Lithgow provide an overestimate by approximately a factor of two-fold.

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

		<p><i>The University of Queensland. 2016. The National Mental Health Service Planning Framework – Framework – Commissioned by the Australian Government Department of Health. Version AUS V2.1. The University of Queensland, Brisbane.</i></p> <p><i>National Mental Health Services Planning Framework Data Portal for Licensed Users – Mental health-specific Medicare services mapped to the NMHSPF service elements, 2015-16</i></p>
<p>PBS Prescriptions Dispensed For Mental Health Patients</p>	<p>There is considerable variation across the NBM region for prescribing of: antipsychotic medicines; ADHD medicines for under 18s; and, antidepressant and anxiolytic medicines to people over 65 years of age.</p>	<p>Further investigation of data and consultation with general practitioners is needed to assess variation and develop appropriate local responses.</p> <p>Review of available data indicates the following:</p> <ul style="list-style-type: none"> • The rate of prescribing antipsychotic medicines to under 18s is relatively high in Lithgow and the Blue Mountains. • The number of antipsychotic prescriptions is in the 2nd decile for Lithgow-Mudgee SA3 and 3rd decile for the Blue Mountains. • The rate of prescribing ADHD medicines to under 18s is high across the NBM region. The number of ADHD medicine prescriptions is in the top decile for Lithgow-Mudgee SA3, 2nd decile for Blue Mountains, Penrith and Richmond-Windsor, and the 3rd decile for Hawkesbury. • The rate of prescribing antidepressant and anxiolytic medicines to over 65s is relatively low across the NBM region. Notably the rate of anxiolytic prescribing in Lithgow-Mudgee SA3 is very low (1st decile). • The rate of prescribing antipsychotic medicines to over 65s is relatively high across the NBM except in Lithgow-Mudgee. Average or lower prescribing rates across the entire NBM region for over 65s, except for antipsychotics. <p><i>Number of PBS prescriptions dispensed per 100,000 people aged 65 years and over, age standardised, by SA3, 2013–14. Australian Atlas of Healthcare Variation, November 2015</i></p>

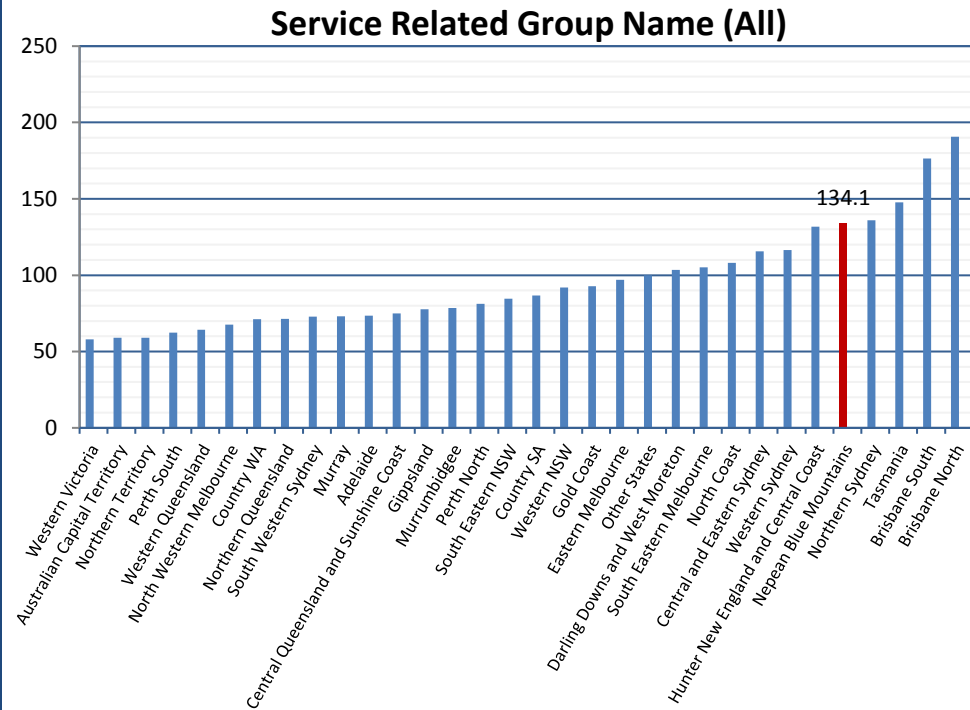
Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (Adults with Moderate to Severe Mental Illness)

Inpatient Facilities

Use of mental health inpatient facilities in NBMPHN is high relative to other PHNs, particularly for same day treatment.

Across all Diagnosis Related Groups (DRGs) for Mental Health in 2016-17, the NBMPHN region's relative utilisation (RU) is high at 134.1%. (RU is age/sex standardised attendance rate compared with the national average).

Figure 39: Variation in utilisation of inpatient mental health services – comparison between PHNs in 2016-17.



Same day mental health treatment without ECT is very high at 173.5% RU for 3,279 separations (57.0% of total mental health service separations).

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

		<p><i>Admitted Patient Utilisation Comparisons for PHNs, Department of Health, 2016</i></p>
<p>Primary Care Mental Health Services</p>	<p>Negative trends can be identified in the uptake of MHNIP services in the NBM region.</p>	<p>The number of patients receiving MHNIP services shrunk by 28.8%, from 236 in 2014/15 to 168 in 2017/18. The total number of occasions of service delivered however increased by 39.8% over the same period, from 2,688 to 3,758.</p> <p>As a proportion, males made up 37% of all MHNIP patients, and received 27% of occasions of service over the 7 years from 2011/12 to 2017/18.</p> <p><i>MHNIP Tables 2011-2015 by PHN, Department of Health, 2016</i> http://www.health.gov.au/internet/main/publishing.nsf/Content/PHN-Mental_Health_Data <i>NBMPHN MHNIP program database, 2016/17.</i></p>
	<p>The Mental Health Nurse Incentive Program (MHNIP), delivered by mental health nurses in association with GPs, is a major source of clinical support to people with severe and persistent mental illness</p>	<p>While MHNIP services are delivered in all four LGAs in the region, the majority of services are delivered in the Blue Mountains. This is due to historical reasons as the uptake in the Blue Mountains of the MHNIP initiative was greater than in other areas of the region.</p> <p>GPs on the Clinical Council stated that MHNIP services are valued by GPs but overall there are insufficient services available and the distribution of available services is unequal across the region.</p> <p><i>NBMPHN Clinical Council Consultation November 2016</i></p> <p>Consultation with mental health nurses who currently provide MHNIP services raised the following issues:</p> <ul style="list-style-type: none"> • There is a misconception that people with severe and persistent mental illness lack insight or ability to benefit from a therapeutic relationship. • The therapeutic relationship and intervention between the consumer and mental health nurse is crucial to successful service delivery. • Long term therapeutic relationship (using a variety of evidence based therapy modes) can keep consumers out of hospital and off Community Treatment Orders. • Consumers with complex trauma/post-traumatic stress disorder may not engage well with LHD community mental health services but may benefit from an ongoing therapeutic relationship with a mental health nurse.

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

		<ul style="list-style-type: none"> • In addition to the therapeutic role mental health nurses also provide clinical care co-ordination, ongoing monitoring of mental state, contribute to medication reviews and monitor effects of medications and consider physical health needs. As such they are in a key position to meet the needs of certain clients on a number of levels. • For some consumers long term therapy supports them to manage their own lives in a better way. • Mental health nurses provide ongoing stability and continuity of care which is important for this cohort and assists them in managing their mental health condition better. • To undertake the work nurses need to be highly skilled and there is a mixed view if credentialing is essential. Some nurses think it is important as it sets an agreed standard while others think that experienced non-credentialed mental health nurses can offer a valuable service with appropriate supervision and peer support. • Credentialed mental health nurses have a role to play in mentoring and supervising other less experienced mental health nurses. <p><i>Mental Health Nurse Consultations October 2016 and October 2017</i></p>
<p>Continuity Of Care After Discharge From Acute Services</p>	<p>Consultations indicate that there are possible breakdowns in the continuity of care for patients discharged from acute mental health services.</p>	<p>Further investigations are required to examine possible sources of breakdowns in continuity of care. Stakeholders have expressed the following views:</p> <ul style="list-style-type: none"> • Lack of consistent approach to discharge planning including lack of coordinated follow up after discharge (unless consumer is on a Community Treatment Order). • People discharged from Mental Health Inpatient Unit do not always make a follow up appointment with their GP. • Quality of discharge summaries from Nepean Mental Health Inpatient Unit - handwritten and very hard to impossible to read. • Aftercare teams often receive limited information about requirements for patient follow-up • Consumers need to be offered active support at time of discharge in particular consumers who lack appropriate family support would benefit from personal and practical support (e.g. peer support workers) at time of discharge.

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

		<ul style="list-style-type: none"> Regular follow up phone calls with consumers and carers after discharge from hospital can positively support and influence adjustment period after discharge. <p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>Headspace Penrith Consultation 8/3/16</i> <i>NBM ML & PHN Blue Mountains Aboriginal Sharing and Learning Circle Report 2015 NBMPHN GP and AHP Consultations March 2016</i> <i>PIR Consumer and Carer Group Consultation 23/3/16 and 21/10/2016</i> <i>NBMPH Clinical Council Consultation 2/11/2016</i></p> <p>2018 Update: Nepean Blue Mountains Local Health District has recently recruited two Peer support workers to implement a Supported Transfer Model of Care (funded by NSW Ministry of Health), to commence in September 2018. The service offers a 6-week program for persons following discharge from the acute mental health inpatient unit. It aims to connect identified persons with a range of community supports, assist them with stepping up and down to relevant services and provide appropriate follow-up from a peer worker perspective during this period.</p> <p>This service is intended to complement the Peer led Aftercare service for persons who have made an attempt on their life, following acute discharge (funded by NBMPHN).</p>
<p>Coordination Of Care</p>	<p>Mental health services across the region appear to be impacted by fragmentation of service provision between different providers and between acute and primary care. This is likely to represent a care coordination issue.</p>	<p>Preliminary stakeholder consultation indicates a wide range of issues that may be sourced back to fragmentation of service delivery. Further research is required to establish the possible sources of fragmentation.</p> <p>Stakeholders have expressed the following views that may be related to fragmentation of services:</p> <ul style="list-style-type: none"> Episodic nature and lack of effective coordination, integration and follow up between acute and primary mental health care. Lack of care coordination, referral pathway coordination and case management (including public and private sector and clinical as well as nonclinical services) to support consumer centered care based on consumer need rather than available service options. Lack of service coordination and linkages to support seamless step up or step down from services.

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

		<ul style="list-style-type: none"> • Consumers with complex trauma need access to long-term integrated care between GP, psychiatrist, mental health nurse and psychologist (or equivalent) to support recovery journey. • Significant number of consumers are not connected to GP and do not have a ‘medical home’. • Significant number of consumers without a carer - they are especially vulnerable, particularly in the older age group, and in need of care coordination. • Lack of coordination between outreach areas and Nepean Hospital for acute mental health issues. • Lack of coordination and sharing of information/results of regular screening for physical health issues between GPs and Community Mental Health. • Need for clinical multidisciplinary approach to care and sharing of information between public and private sector (e.g. private AHPs are limited in what they can treat). • Lack of access to consumer health information by NGOs. • Community Mental Health, ACCESS and Child & Youth Mental Health services less likely to engage/accept referral if private therapist is already involved. • The centralization of referrals to community mental health teams erodes relationships between GPs and their local community mental health team. A local model where GPs can directly refer to the mental health team may increase GP confidence to take on more challenging patients with severe mental illness. • In addition, the availability of multiple entry points for patients to access care within the tertiary mental health system other than through a GP, potentially erodes continuity of care and provision of appropriate follow-up of care by GPs post discharge. In particular, this frequently presents a challenge for GPs in identifying: <ul style="list-style-type: none"> ○ The point at which patients are discharged. ○ If adequate follow-up care is / isn’t being provided. ○ Lines of responsibility for follow-up care. ○ The point at which care should be transferred back to GPs. • Most psychiatrists (Penrith and Blue Mountains region) do not coordinate well with mental health AHPs - lack of feedback.
--	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

		<ul style="list-style-type: none"> • Need for case workers or capacity for case management to assist patients / consumers accessing care, in particular physical health care. • Need for a “Passport of care” to assist patients / consumers navigate the required steps up and or down • Explore issues arising from the transition of Partners in Recovery to the NDIS in particular loss of care coordination capacity for people with severe mental illness who do not access the NDIS or clinical care coordination for other chronic conditions. <p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>NBMLHD Mental Health & Suicide Prevention Focus Group 2/3/16</i> <i>2015NBMPHN GP and AHP Consultations March 2016, and July/August 2018</i> <i>PIR Consumer and Carer Group Consultation 23/3/16</i> <i>NBMML Comprehensive Needs Assessment Report 2014-15</i> <i>NBMPHN Clinical Council Consultation 2/11/ 2016</i> <i>NBMPHN GP Consultations 17/07/18</i></p>
<p>Service Gaps Psychiatry</p>	<p>There is a perceived lack of specialist psychiatric services in the NBM region.</p>	<p>Further investigation of the number of specialist psychiatrist positions in the NBM region is required. Stakeholders have indicated the following concerns regarding access to specialist psychiatric services:</p> <ul style="list-style-type: none"> • Lack of psychiatric services across the region. • Lack of sufficient bulk-billing by private psychiatrists (long waiting lists for those who do bulk-bill). • Long waiting lists to access public psychiatrists. • Limited access to psychiatrists are perceived to be a significant barrier for patients to access the services they need by local GPs. <p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>NBMPHN GP and AHP Consultations March 2016</i> <i>NBMPHN Clinical Council Consultation 2/11/ 2016</i> <i>Mental Health Nurse Consultations October 2016</i></p>

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

		<i>NBMPHN GP Consultations 17/07/18</i>
Service Gaps GPs	Ensuring all people with severe, persistent and complex mental illness are connected to a regular GP is recommended as a high priority.	<p>A region wide dynamic list of GPs with skills and willingness to support people with severe, persistent and complex mental illness is necessary to assist smooth referral pathways for consumers not connected to a GP. This is particularly important for those discharged from hospital.</p> <p><i>Feedback from PIR Support Facilitators and staff October 2016</i></p> <p>Consultations with local GPs conversely indicates that such a service model, promoting a region-wide dynamic list of GPs with skills and an interest to support people with severe, persistent and complex mental illness, is not sustainable. The limited number of GPs with additional skills will quickly become over-burdened. Ensuring that all people with a mental illness, in particular persons with severe and persistent mental illness have a GP &/or are connected to a regular GP who can advocate for their care, including mental and physical health care needs was recommended as offering greater potential impact and as a high priority.</p> <p><i>NBMPHN GP Consultations 17/07/18</i></p>
Gaps In Service Provision	Fragmentation of mental health service provision may be further indicated by stakeholder perceptions of gaps in service provision.	<p>Further research is needed to map existing mental health services in the region with perceived gaps in services. Stakeholders have expressed the following concerns:</p> <ul style="list-style-type: none"> • Lack of awareness of other services in the community among many service providers, a lack of understanding of the role of different mental health services and if and how these were integrated, and lack of knowledge about the role of mental health clinical and support services among service providers and community members. This makes referral pathways problematic and results in duplication of some services. • Lack of evidence based treatment services for consumers with complex trauma (often diagnosed with personality disorders). • Lack of adequate psychological support for those with more complexity (trauma) and/or severe mental illness as ATAPS and Medicare 10/10 session per year is not designed to address moderate to severe issues – more subsidised sessions are needed per year for those consumers who can benefit from psychological interventions.

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

- Lack of step down facilities from acute to sub- or non-acute care.
- Lack of stepdown services from severe to moderate mental illness.
- Lack of appropriate integrated service options (including between LHD and primary care) for consumers with dual mental health and D&A diagnosis.
- Lack of access to mental health services for consumers with co-morbid D&A issues – strong gate keeping and specific eligibility criteria can exclude these consumers
- Difficulty in getting quick access (within a week) to services for consumers in Lithgow area due to waiting lists (lack of sufficient services).
- Lack of sufficient subsidised group work (e.g. mindfulness based stress reduction)
- Limitation of Medicare or ATAPS psychological therapies – does not allow work with couples or families.
- Inconsistent provision of psychosocial services and appropriate social support to support consumers at all stages of their recovery journey across the region (particularly Blue Mountains, Lithgow and Hawkesbury).
- Lack of community based specific post-natal depression services available.
- Need for advance statements for Mental Health which can be uploaded to MyHealth Record – this will help avoid consumers having to retell their story over and over again (which can lead to reliving trauma) when engaging with new clinical services.
- Need for approaches that enable consumers and carers to have a broad and clear understanding and visibility of services available, what they do and their referral or access pathways, which provides a picture of a service ‘system’ and what is available across the system.

NBMML Report: A Snapshot of Health Needs in Cranebrook 2014

NBMML Comprehensive Needs Assessment Report 2014-15

Trankle, S. A., & Reath, J. (2015). The Nepean Blue Mountains Partners in Recovery Evaluation.

Campbelltown: University of Western Sydney.

NBMPHN Mental Health Stakeholder Forum 23/2/16

NBMPHN GP and AHP Consultations March 2016 and August 2018

PIR Consumer and Carer Group Consultations 23/3/16 and 21/10/2016

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

		<p><i>NBMPHN Clinical Council Consultation 2/11/ 2016</i> <i>NBMPHN ATAPS Stats 2013-15 – people accessing service for two consecutive years</i> <i>Centre for Rural and Remote Mental Health, The University of Newcastle – Mental Health and Well-being in the Lithgow Community, 2018</i></p> <p>2018 Update: NBMPHN has recently re-designed the range of funded Psychological Therapy Services (previously ATAPS) available via primary care providers, to offer a new Psychological Therapy Service – Extended, for people with moderate to severe mental illness with added complexity. This service is designed to support people with experiences of trauma, offering 25 support hours over a 12 month period. This service is anticipated to be offered to service providers and available to the public from October 2018.</p> <p>2018 Update: To best support the most appropriate referral pathways to mental health services, triage support will be available to GPs working in the Nepean Blue Mountains region from September 2018. This service will allow GPs to speak directly to mental health professionals to gain guidance and further support to ensure patients are referred to the most suitable service for the needs, based on their eligibility.</p>
<p>Gaps And Barriers To Accessing Housing And Accommodation</p>	<p>Access to housing and accommodation for people with mental illness is inadequate across the NBM region.</p>	<p>Further research is required to map the availability of housing services for the region.</p> <p>Relevant research and stakeholder feedback indicates that there is a lack of housing options for people with mental illness in the region and that this is having negative consequences for the wellbeing and ongoing treatment of people with mental health problems.</p> <p>Stakeholders have raised the following concerns:</p> <ul style="list-style-type: none"> • Lack of appropriate accommodation for homeless people results in discharged from hospital to unstable accommodation and increases likelihood of re-admission. • Lack of available accommodation for homeless people can result in unnecessary longer hospital stay (social admission).

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

		<ul style="list-style-type: none"> • Lack of stable long term quality accommodation which is socially supported and economically sustainable and takes into account the special needs of consumers (e.g. HASI type services). • Lack of mental health outreach services for homeless people in the region. • Insufficient emergency accommodation. <p><i>NBMML Homelessness Needs Identification Project Report 2014</i> <i>NBMPHN GP and AHP Consultations March 2016</i> <i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>PIR Consumer and Carer Group Consultations 23/3/16 and 21/10/2016</i> <i>Mental Health Nurse Consultations October 2016</i></p> <p><i>Trankle, S. A., & Reath, J. (2015). The Nepean Blue Mountains Partners in Recovery Evaluation. Campbelltown: University of Western Sydney</i></p>
<p>Capacity Building To Support Carers And Consumers</p>	<p>Respite care and other types of support for carers and consumers may be inadequate in the NBM region.</p>	<p>Further research is required to map available support services for carers and consumers. Stakeholders have raised the following concerns:</p> <ul style="list-style-type: none"> • Carers and families not sufficiently included and not receiving sufficient support (e.g. respite options). • Carers and families not adequately informed about mental health condition so they can stay safe and supportive in their own environment. • Lack of support for financial management – consumers accumulate debts which jeopardise payment for accommodation and living expenses, increases anxiety and can contribute to homelessness. • Insufficient education of consumers about prescribed medications including side effects. • Need for local mental health care support groups for carers &/or consumers <p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>PIR Consumer Group Consultation 23/3/16</i> <i>NBMPHN GP and AHP Consultations 17/07/18 and 27/08/18</i></p>

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

<p>Workforce Capacity Including Skills And Training</p>	<p>There is a general view that workforce capacity for mental health in the region could be substantially improved with training and skills development.</p>	<p>Further research is needed to examine the potential sources of the issues raised by stakeholders to develop appropriate options. The concerns raised by stakeholders were:</p> <ul style="list-style-type: none"> • Increase GPs knowledge of available clinical and non-clinical services and their referral pathways. • Increase GP capacity to identify early if consumer needs more intensive treatment (not provided through ATAPS or Medicare) such as MHNIP. • Patchy GP mental health engagement in region. • Need for trauma education for health professionals. • Lack of GP Education dual diagnosis drug and alcohol & severe mental illness. • Insufficient dual diagnosis support and supervision for private therapist. • Lack of GP education in relation to depression in the elderly. • Lack of peer workers to help increase consumer health literacy, understanding of treatment and psycho-social support options and to provide support for people while in acute care and in the community – identified as a high need by consumer group. • Lack of support workers who are available after hours and on weekends. • Need to develop a set of referral options or services algorithm for Allied Health professionals (other than psychologists, e.g. Pharmacists) to increase Allied Health capacity to discuss appropriate referral or local service options with clients / consumers with mental health concerns. <p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>NBMPHN GP and AHP Consultations March 2016 and 27/08/18</i> <i>PIR Consumer and Carer Group Consultations 23/3/16 and 21/10/2016</i></p>
	<p>A small proportion of the total number of people in the NBM population with severe and persistent mental health illness and with complex needs access the PIR program.</p>	<p>There is an ongoing lack of PIR services due to the relative size of the PIR funding pool. NBMPHN has the same number of registered PIR consumers accessing the program in 2018 as per 2016/17, with no further increases in funding. The number was capped at 256 when the program commenced transition to the NDIS in July 2016.</p>

Outcomes of the service needs analysis – Primary Mental Health Care: Mental Health (*Adults with Moderate to Severe Mental Illness*)

		<p>PIR program funding has been extended until 30 June 2019, to allow transition to the National Disability Insurance Scheme. The program continues to provide continuity of services for all PIR clients who are not eligible for support through the NDIS, until alternate arrangements are in place.</p> <p><i>NBMPHN Partners in Recovery (PIR) Program, 2018</i></p>
--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MENTAL HEALTH OF ABORIGINAL PEOPLE

Outcomes of the service needs analysis – Primary Mental Health Care: <i>Mental Health (Mental Health of Aboriginal People)</i>		
Identified Need	Key Issue	Description of Evidence
Service Gaps	Lack of culturally safe mental health services available to Aboriginal people in the region.	<p>Mental health services provided to Aboriginal people in the region are generally not regarded as culturally secure and supportive of the needs of Aboriginal people. The following issues have previously been identified via community consultations with Aboriginal people held in 2014 and 2016:</p> <ul style="list-style-type: none"> • Lack of indigenous programs run by Aboriginal people. • Lack of culturally appropriate services and lack of Aboriginal workers in identified roles, including community programs, psychiatrists and psychologists. • Lack of focus and provision of early intervention services and programs • No Aboriginal Controlled Medical Service in region (2018 update: the Penrith Greater Western Aboriginal Health Service (GWAHS) is expected to commence operation in the second half of 2018, approximately September 2018, with mental health related services identified as one of its health priority areas). • Need for improved and enhanced dual diagnosis mental health and D&A services. • Aboriginal workers are not trained in clinical assessment, and clinical forms are not culturally adapted. <p><i>Stakeholder Consultation, NGO 8/3/2016</i> <i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>NBM ML & LHD Blue Mountains, Penrith, Hawkesbury Aboriginal Sharing and Learning Circle Reports 2015</i> <i>NBMPHN Suicide Prevention Stakeholder Consultation 24/2/16</i> <i>NBMLHD Mental Health & Suicide Prevention Focus Group 2/3/16</i> <i>Stakeholder Consultation, NGO 8/3/2016</i> <i>Shared Path Aboriginal and Torres Strait Islander Corporation Report – Community Forums: Co-design of Aboriginal Specific Mental Health and Drug and Alcohol Services, 2016</i></p>

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Mental Health of Aboriginal People)*

		<p>Further consultation with Aboriginal community members in each of the region’s LGA confirmed previously stated concerns and in addition raised the following issues:</p> <ul style="list-style-type: none"> • Need for regular Aboriginal health clinics &/or forums in local hospitals and Community health centres • Need for better alignment of community and service expectations to ensure appropriate communication and accountability. • Need for alternative, complimentary programs/services that build on cultural strengths to engage and support people in developing positive coping strategies. • Need for people centred approaches (i.e. to examine issues from the whole person’s perspective to identify appropriate solutions). • Need to develop partnerships and pool resources with other non-health sectors (e.g. police, education, housing, sport and recreation). • Intergenerational trauma needs to be recognised and addressed through innovative, locally developed and coordinated programs. • Address and eradicate systemic, institutionalised racism in health services – this will help develop trust with Aboriginal communities. • Increase the number of preventative services to address underlying issues before people reach crisis, particularly for children and young people. • Lack of dual diagnosis (mental health and alcohol/other drugs) unit means people bounce between detox and psychiatric units. • Lack of mental health unit in Hawkesbury LGA. • Short funding cycles for services do not allow for trust to be built. • Need for Aboriginal Community hubs in each LGA to provide a safe meeting space. • Need for Aboriginal controlled health services in each LGA. • Need for culturally appropriate services which take a holistic and whole of family approach to emotional health and well-being. <p><i>Aboriginal community consultations Blue Mountains, Penrith, Hawkesbury, Lithgow September /October 2016</i></p>
--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Mental Health of Aboriginal People)*

<p>Care Coordination</p>	<p>Medium to long term follow up and support is not provided through mental health programs.</p>	<p>The role and importance of care coordination in supporting improved health outcomes is well recognised and exemplified through Closing the Gap programs for chronic disease and Social and Emotional Wellbeing programs through Aboriginal Community Controlled Health Organisations (ACCHOs).</p> <p>NBMLHD commenced operation of a “Whole Family Team” (WFT), in partnership with FACS, to provide intense mental health and family support to mental health patients (with Indigenous families identified as priorities for services in the event demand for WFT services exceeds capacity) following discharge from hospital where child protection has been involved. The program will involve six months of intensive support at home involving the whole family. The family will then be linked to other LHD services for ongoing support.</p> <p>Further stakeholder consultation, service mapping and research will aim to identify and assess service options available to Aboriginal people with mental illness in the NBM region.</p> <p><i>Stakeholder Consultation, NGO 8/3/2016</i> <i>Trankle, S. A., & Reath, J. (2015). The Nepean Blue Mountains Partners in Recovery Evaluation. Campbelltown: University of Western Sydney</i></p>
<p>Workforce Training And Capacity Building</p>	<p>Widely perceived lack of awareness of Aboriginal mental health needs from service providers coupled with an inadequate number of designated Aboriginal specific clinical and non-clinical positions in the NBM region.</p>	<p>Stakeholders have indicated a general lack of awareness of the needs of Aboriginal people with mental illness, as well as the need to develop programs to target those needs. Further investigations will seek to assess the need for workforce cultural safety training, targeted program development, mental health literacy in Aboriginal communities and capacity building for Aboriginal mental health professionals. The concerns raised by stakeholders in preliminary consultations included the following:</p> <ul style="list-style-type: none"> • Mental health services need willingness to engage with Aboriginal communities and need proper guidance from community members (Elders) to build trust. • Need to increase designated Aboriginal specific clinical positions in mental health. • Lack of understanding of stressors affecting the mental health of Aboriginal people, particularly intergenerational trauma and associated PTSD. • Lack of Aboriginal mentors for people undergoing treatment and therapy.

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Mental Health of Aboriginal People)*

		<ul style="list-style-type: none"> • Need to increase mental health literacy in Aboriginal communities. <p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>NBM ML & LHD Blue Mountains, Penrith Aboriginal Sharing and Learning Circle Reports 2015</i></p> <p>Consultations with Aboriginal community members in Penrith, Hawkesbury, Blue Mountains and Lithgow and with Aboriginal workers in Penrith and Lithgow confirmed the points stated above and in addition raised the following:</p> <ul style="list-style-type: none"> • Communities have higher expectations of professionals in Aboriginal identified positions than of mainstream mental health workers. • There are insufficient Aboriginal workers in dedicated health and mental health positions – this puts a lot of pressure and strain on existing Aboriginal health workers. • The experience of Aboriginal workers is too often discounted when they do not have health or allied health qualifications. • Aboriginal health workers need to be accepted as integral members of clinical teams, with the importance of these positions to the Aboriginal communities recognized. • There is insufficient gender mix of Aboriginal health workers. • Community expect support from Aboriginal health workers which often does not fit the narrower and often inflexible expectations of the employer; i.e. workers are expected to get involved in all sorts of issues which is outside their designated job description. This can create stress and tension in Aboriginal workers. • There is a high expectation from community that Aboriginal Health Workers have skills and capacity to provide a wide range of supports and services at the one place. • There is a need for more Aboriginal workers who can act as cultural translators and support community members to navigate and access mainstream services. • Aboriginal workers need to know ‘culture’ to be effective in supporting their community. • There is a lack of cultural supervision and mentoring to support Aboriginal workers.
--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Mental Health of Aboriginal People)*

		<ul style="list-style-type: none"> • There is an ongoing need for cultural awareness and competency training for all non-Aboriginal health service providers to improve cultural safety for Aboriginal people accessing services. • Issues of burnout are common among Aboriginal health service providers, in particular due to significant demand being placed upon Aboriginal health and social workers with limited support or staffing capacity to meet expectations. <p><i>Aboriginal community consultations Blue Mountains, Penrith, Hawkesbury, Lithgow September /October 2016</i></p> <p><i>Yarn Up for Mental Health Consultation Report December 2015 (commissioned by Nepean Community & Neighbourhood Services and Partners in Recovery)</i></p> <p><i>NBMLHD Aboriginal Health & Mental Health Worker consultations, October 2017</i></p> <p><i>Joint NBMPHN / NBMLHD Aboriginal Advisory Group for Mental Health and Alcohol and Other Drugs, August 2018</i></p>
<p>Cultural Safety of the Penrith Headspace service</p>	<p>There is a need to improve the cultural capability of the Headspace Youth service in Penrith</p>	<p>The headspace youth services team presented at the Joint NBMPHN / NBMLHD Aboriginal Advisory Committee for Mental Health and Alcohol and Other Drugs in August 2018, to seek feedback on ways that they can better cater for the needs of young Aboriginal people in the region. It was identified that while young Aboriginal people do access the service, the majority only attended once and did not return to the headspace centre for a second session.</p> <p>Feedback recommended by the Advisory Committee highlighted:</p> <ul style="list-style-type: none"> • The importance of employing Aboriginal staff, having an Aboriginal team, and offering specific groups and programs specifically for Aboriginal young people at the headspace service (and to ensure that this is developed by Aboriginal people, as well as run and driven by Aboriginal people) • That headspace seriously consider getting advice on, and implementing steps to increase, the cultural capabilities of the organisation and how cultural competency operates in all aspects of its service.

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Mental Health of Aboriginal People)*

		<ul style="list-style-type: none"> • The importance of building relationships with the Aboriginal community over time, and ways for how this should be done. • The importance of incorporating Aboriginal culture, art, music and dance within headspace programs • The need to offer young Aboriginal people an Aboriginal support person(s) from the community, i.e. an Elder or trusted person, to support them during their sessions. There may be potential to build relationships with such community members, in order to be able to seek their assistance with brokering or building relationships, when needed. <p><i>Joint NBMPHN / NBMLHD Aboriginal Advisory Group for Mental Health and Alcohol and Other Drugs, August 2018</i></p>
<p>Support for Aboriginal and Torres Strait Islander mental health</p>	<p>Anticipated improved access to Aboriginal community controlled primary mental health services for Aboriginal and Torres Strait Islander people living in the NBMPHN region.</p>	<p>The only dedicated Aboriginal Medical Service (AMS) in proximity to the NBMPHN catchment is located in Mt Druitt. The NBMPHN is seeking activity data on usage of this service by Aboriginal and Torres Strait Islander people resident in the NBM catchment.</p> <p>2018 Update: the Greater Western Aboriginal Health Service (GWAHS) located in Penrith is expected to commence operating its service on a part-time basis in the second half of 2018. While mental health related services have been identified as one of its health priority areas, it is expected that GWAHS will focus on establishing GP services as a core focus. The service is anticipated to facilitate easier access to culturally appropriate health services for at least part of the Aboriginal population within the NBMPHN region.</p>
	<p>Access to mainstream short term psychological therapy services for Aboriginal and Torres Strait Islander people in NBMPHN.</p>	<p>The number of ATAPS referrals into the Aboriginal and Torres Strait Islander people services in the NBMPHN in 2017-18 was 115 (843 per 100,000 population). This number does not include referrals for those whose GP practices outside the NBMPHN (3) who received a referral to the NBMPHN. The distribution of referrals for Aboriginal and Torres Strait Islander people services across the LGAs was:</p> <ul style="list-style-type: none"> • Blue Mountains: 46 (2,523 per 100,000)

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Mental Health of Aboriginal People)*

- Hawkesbury: 8 (334 per 100,000)
- Lithgow: 5 (414 per 100,000)
- Penrith: 52 (672 per 100,000)

Across the NBMHPN the average completed Aboriginal and Torres Strait Islander people sessions per referral in 2017-18 was 3.1. This is similar to the average number of completed Aboriginal and Torres Strait Islander people sessions per referral from the 2011-12 national data (3.2 sessions). It is also noteworthy that the 2017-18 NBMHPN proportion of Aboriginal and Torres Strait Islander people referrals out of total ATAPS referrals (6.7%) has increased from 2011-12 (2.2%) which at the time was higher than the 2011-12 national proportion (1.3%).

NBMHPN data on ATAPS clients indicated there were 355 sessions (90 per 100,000 population) provided for Aboriginal and Torres Strait Islander people in 2017-18. Using the proportions of referrals by LGA, the estimated distribution of sessions across the LGAs is:

- Blue Mountains: 143 sessions (7,844 per 100,000; 41.4% of NBMHPN)
- Hawkesbury: 25 sessions (1,045 per 100,000; 7.2% of NBMHPN)
- Lithgow: 16 sessions (1,325 per 100,000; 4.6% of NBMHPN)
- Penrith: 161 sessions (2,080 per 100,000; 46.7% of NBMHPN)

Aboriginal and Torres Strait Islander people sessions accounted for approximately 3.7% of all ATAPS sessions in 2017-18 in the NBMHPN. In comparison to 2016-17, where Aboriginal and Torres Strait Islander people sessions in NBMHPN accounted for 4.1% of all ATAPS sessions, the proportion of Aboriginal and Torres Strait Islander people sessions delivered in the NBMHPN has decreased.

NBMHPN, ATAPS data, 2017-18

Access to Applied Psychological Services (ATAPS) program. Nineteenth Interim Evaluation Report. Update on the achievements of Tier 1 and Tier 2 ATAPS, 2012, University of Melbourne, Melbourne

Australian Bureau of Statistics, Estimated Aboriginal and Torres Strait Islander Resident Population by LGA, 2016

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Mental Health of Aboriginal People)*

		<p>NBMPHN community consultations held across the NBM region indicated that the existing ATAPS Aboriginal and Torres Strait Islander people program needs better promotion of services, based on stronger engagement with elders and community members.</p> <p><i>NBMPHN ATAPS Reform Community Consultations Report, 2017</i></p>
--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

RURAL AND REMOTE AREAS AND OTHER UNDERSERVED AND/OR HARD TO REACH POPULATIONS

Outcomes of the service needs analysis – Primary Mental Health Care: <i>Mental Health (Rural and Remote Areas and Other Underserved and/or Hard to Reach Populations)</i>		
Identified Need	Key Issue	Description of Evidence
Service accessibility among CALD Communities	Lack of targeted support for CALD populations across a range of mental health service needs.	<p>A range of service support needs have been identified for CALD populations including suicide prevention, outreach services, and specialist services include post-natal support for depression. Further research and consultation is required to establish the main CALD groups of concern and options for enhancing existing services or providing additional services.</p> <p>The concerns raised by stakeholders include the following:</p> <ul style="list-style-type: none"> • Lack of appropriate transcultural services in suicide prevention in all LGAs. • Lack of mental health outreach services for CALD people. • Lack of culturally appropriate psychiatric and psychological services, and poor level of cultural competency among mental health service providers in general. • Lack of CALD clinicians, e.g. counselling services in own language. • Lack or poor use of interpreters, or poor skills in the use of interpreter services • Lack of post-natal support/services for people suffering post-natal depression • Need to support people from CALD communities who remain isolated in their own homes and remain hesitant to access mental health services. • Stigma of mental illness and denial of mental health issues within some CALD communities hamper early intervention. • Lack of mental health literacy. • Unfamiliarity with health and mental health systems and lack of knowledge how to navigate system. • Reluctance to use medications by some CALD communities. • Services limited by criteria which do not meet need of CALD communities • Absence of CALD focused performance indicators and accountability standards.

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserved and/or Hard to Reach Populations)*

	<p>Persons from CALD communities frequently view their GP as the first point of contact to provide a referral to a psychologist or the mental health service system.</p>	<p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>NBMPHN GP and AHP Consultations March 2016</i> <i>Stakeholder Consultation, NGO 11/3/16</i> <i>Breaking Barriers Bringing Understanding (3BU) Project report, Nepean Migrant Access, 2016</i></p> <p>A positive finding of the 3BU project was that most participants viewed their GP as the first point of contact to provide a referral to a psychologist or the mental health service system.</p> <p>The project report proposed the following recommendations to address the identified barriers to accessing services:</p> <ol style="list-style-type: none"> 1. Delivery of community education programs providing information about common mental health issues, including signs and symptoms of mental illness, services available and information about counselling processes; 2. Introduction of internal procedures among mental health services to improve the skilled use of interpreters by staff; 3. Engagement, awareness raising and provision of outreach services by mental health service providers 4. Implementation of strategies to increase the cultural competency of staff and introduction of accountability measures by service providers; 5. Introduction of a CALD specific service assessment for CALD clients at the initial intake or referral; 6. Provision and availability of clear information on different mental health service pathways for CALD communities to assist reducing confusion and difficulties navigating the system. <p><i>Breaking Barriers Bringing Understanding (3BU) Project report, Nepean Migrant Access, 2016</i></p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserved and/or Hard to Reach Populations)*

<p>Workforce Training And Capacity Development For CALD Populations</p>	<p>Need for enhanced workforce training to support special needs of CALD populations with mental illness.</p>	<p>A range of workforce issues have been identified for CALD populations. These include awareness of support services for CALD populations (translator services) and transcultural competency. Further research and consultation is required to establish the main CALD groups of concern and options for providing enhanced training and support to the workforce.</p> <p>The concerns raised in preliminary stakeholder consultation include the following:</p> <ul style="list-style-type: none"> • More education is needed for clinicians in relation to the high number of psychosomatic disorders within the CALD community. • GP’s need more education in working with CALD communities in relation to their mental health – lack of cultural understanding • Lack of training provided to GP’s / Allied Health in using Telephone Translation Services. • Lack of public/service provider awareness of CALD mental health provision. • Lack of transcultural competency in workforce. • Lack of bi-lingual health/mental health clinicians • Education, information and mental health literacy for CALD community organisations on existing mental health services so they can support their communities adequately. <p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>Stakeholder Consultation, NGO 11/3/16</i> <i>Breaking Barriers Bringing Understanding (3BU) Project report, Nepean Migrant Access, 2016</i></p>
<p>Communication For CALD Populations</p>	<p>Inadequate communication for CALD populations regarding mental health service information and resources.</p>	<p>A range of communication issues have been identified for CALD populations. These include awareness of support services in relevant languages, mental health educational resources and the need for CALD specific directories of services. Further research and consultation is required to establish the main CALD groups of concern and options for providing improved communication and education to CALD communities.</p>

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserviced and/or Hard to Reach Populations)*

		<p>The concerns raised in preliminary stakeholder consultation include the following:</p> <ul style="list-style-type: none"> • Lack of easy to access services outside the clinical setting • Lack of education in relation to stigma and discrimination with regards to mental health in CALD communities • Lack of awareness on how to navigate the mental health system and what supports are available • Lack of local mental health related resources in different languages. <p><i>Stakeholder Consultation, NGO 11/3/16</i> <i>Breaking Barriers Bringing Understanding (3BU) Project report, Nepean Migrant Access, 2016</i></p>
<p>Homelessness And Mental Health</p>	<p>Inadequate referral pathways between clinical and social support services for mental health patients with housing and accommodation problems.</p>	<p>The problems confronting many people with mental illness in relation to housing and accommodation are well known and have been the subject of various government initiated reviews and evaluations. The recent changes to NSW government housing support (HASI packages) have provided additional options to people with mental illness. However concerns continue to be raised by NBM stakeholders regarding the difficulties encountered by people with mental illness in relation to housing. These concerns include the inadequacy of the number of HASI packages and the criteria for eligibility.</p> <p>Further research and consultation is required to establish the key issues concerning people with mental illness in the NBM region.</p> <p>Stakeholders raised the following issues with regard to housing in preliminary consultations:</p> <ul style="list-style-type: none"> • Lack of mental health skills amongst homelessness assertive outreach workers. • Lack of referral pathways between clinical and non-clinical mental health service providers for people who are homeless.

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserved and/or Hard to Reach Populations)*

		<p><i>Stakeholder Consultation, NGO 15/2/16</i></p> <p><i>Evaluation of Housing and Accommodation Support Initiative (HASI). UNSW, 2012</i></p>
<p>Service Needs For Prisoners On Release</p>	<p>Prisoners transitioning to the community have higher than average incidence of mental health and D&A problems, typically have complex needs, and require access and strong links to a broad range of services.</p>	<p>In a 2012 study, 29% of NSW prisoners surveyed reported high or very high psychological distress on release from prison. 41% of NSW prisoners reported that in the past they have been told (by a doctor, psychiatrist, psychologist or nurse) that they have a mental health disorder.</p> <p>Correctional services stakeholders from the NBM region have indicated that the mental health needs of former inmates are not currently being met in a substantive or systematic way post-release. The NBMPHN Clinical Council and NBMLHD Aboriginal Health workers have additionally raised there is currently a lack of and poor-quality of aftercare for persons newly released from prison, in particular in the Lithgow LGA.</p> <p>Further research is required to identify usual referral pathways, services available and utilisation of services by former inmates in the region.</p> <p><i>Australian Institute of Health and Welfare 2013. The health of Australia's prisoners 2012. Cat. no. PHE 170. Canberra: AIHW.</i></p> <p><i>Consultations with Correctional Services Stakeholders. (2015/16)</i></p> <p><i>NBMPHN Clinical Council Consultation 2/11/ 2016</i></p> <p><i>NBMLHD Aboriginal Liaison Officer and Mental Health Clinician / Aboriginal Health Coordinator consultation, 31/10/17</i></p>
<p>Regional Variation In The Provision Of Services</p>	<p>Inadequate mental health services in outer LGAs of NBM region: Lithgow and Hawkesbury LGAs.</p>	<p>Stakeholders have indicated concerns specific to the outer areas of the NBM region, Lithgow and Hawkesbury LGAs. A wide range of issues have been identified. Further research is required to identify referral pathways and service mapping of the type of services currently available to people with mental illness in these LGAs, and the potential impact of any lack of service provision.</p>

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserviced and/or Hard to Reach Populations)*

		<p>In preliminary consultations stakeholders have raised the following issues:</p> <p>Lithgow and Hawkesbury –</p> <ul style="list-style-type: none"> • The majority of mental health consumers in Lithgow and Hawkesbury are unable to afford the gap for Medicare-subsidised (private) psychology services. • Insufficient skills by private clinicians to treat consumers with moderate to severe mental illness. • Social isolation in outer regional areas particularly Lithgow and Hawkesbury LGAs. <p>Hawkesbury –</p> <ul style="list-style-type: none"> • Minimal mental health support – Nepean hospital is main MH inpatient unit which often has bed block. • Lack of a drop-in space for mental health consumers to get help or information, or for family members to seek help • No psychiatrist or medication review consultations are available for non-acute patients • Ongoing staffing capacity challenges at the Community Mental Health team in Windsor. <p>Lithgow –</p> <ul style="list-style-type: none"> • Limited use of mental health care-plans by some GPs, and an over-reliance on medication as the first treatment option. • Some GPs and staff in general practice show stigmatising attitudes to people with mental illness, presenting a barrier for patients to discussing mental health with a GP. • Limited and poor access to psychiatrists and clinical psychologists, with waiting lists / times, gap payments and transport (for those who sought specialist care in areas outside of Lithgow) identified as key barriers.
--	--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserved and/or Hard to Reach Populations)*

		<ul style="list-style-type: none"> • Limited availability/location of mental health clinical services – Katoomba hospital is the closest MH inpatient unit for MH patients from Lithgow. • Access to specialist mental health services is perceived to be poor in the area and has reduced over the last five years. • There is a reliance on outreach services for Community based specialist mental health services. • A perception that LHD specialist mental health services are difficult to access due to a focus on severe mental illness, and services not being available for less serious patients. • Services are focused on excluding patients from their services, rather than on promoting access and referring to other appropriate services. • Limited awareness of support service options (including employment access, training, welfare and housing support) for people with a mental illness, and concern these services often work beyond their skills and capacity due to a lack of access to specialist mental health services in the areas. • No mechanisms for escalating clients with deteriorating mental health because of difficulties in accessing more specialist clinical mental health care. <p><i>NBMPHN GP and AHP Consultations March 2016</i> <i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>NBMLL and NBMLHD Community Reports 2013-Hawkesbury and Lithgow</i> <i>NBMLHD Aboriginal Liaison Officer and Mental Health Clinician / Aboriginal Health Coordinator consultation, 31/10/17</i> <i>Centre for Rural and Remote Mental Health, The University of Newcastle – Mental Health and Well-being in the Lithgow Community, 2018</i></p>
Services To LGBTI People	Inadequate support for LGBTI people with mental illness.	Preliminary consultations indicate that LGBTI people living in the NBM region may not be receiving adequate support for mental illness.

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserved and/or Hard to Reach Populations)*

		NBMPHN GP and AHP Consultations March 2016
<p>Service accessibility among LGBTI Communities</p>	<p>Significant barriers exist to accessing mental health services among LGBTI communities.</p>	<p>Many barriers have been identified that result in LGBTI people in Australia not accessing preventive or responsive mental health services at all, or in delaying their access to mental health services. Some of these include:</p> <ul style="list-style-type: none"> • Fear of discrimination and rejection and breach of confidentiality. • An assumed lack of understanding &/or potential discrimination unless services are explicitly inclusive. • Those in need of urgent support don't approach anyone, or if they do are most likely to contact their friends, followed by their GP or partner. • The quality of care in mainstream services is often unsatisfactory, with fear of discrimination or inappropriate behavior by service staff justified. • Few or no dedicated LGBTI community-based services being available, or mental health and suicide prevention initiatives targeting LGBTI people. • A lack of LGBTI knowledge and cultural competence in mainstream services resulting in poor quality service provision. • Where LGBTI people are identified, service providers often focus on sexual orientation, trans identity or intersex status rather than presenting mental health issue. • Where mental health issues are acknowledged by services, interventions are often focused on individual-level interventions rather than social interventions to minimize risk factors such as homophobia and heterosexism, or empowerment approaches to build resilience and develop strategies to effectively respond to discrimination. <p>The importance of both mainstream and LGBTI specific mental health services and initiatives being proactively inclusive of LGBTI people, their diverse issues and needs is emphasized.</p>

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserved and/or Hard to Reach Populations)*

		<i>Rosenreich, G. (2013) LGBTI People Mental Health and Suicide. Revised 2nd Edition. National LGBTI Health Alliance. Sydney</i>
Short Term Focused Psychological Interventions	Negative trends can be identified in the uptake of ATAPS services in the NBM region.	<p>The number of services per patient under ATAPS has been consistently higher in the NBM region than the national average (e.g. 5.9 NBM vs 4.7 national in 2016-17).</p> <p>ATAPS has grown at a slower rate in the NBM region compared to nationally. Over the 4 years to 30/6/17 patient numbers increased on average by 5.7% p.a. in the NBM region, compared to 12.7% p.a. nationally, and number of services provided increased by 12.7% p.a. in the NBM region compared with 14.6% p.a. nationally.</p> <p>Less than one-third of ATAPS patients in the NBM region have been male and less than one-third of services have been provided to males.</p> <p>In 2017-18, overall ATAPS services continued to be utilized to capacity within the available funding and there was no possibility to increase the referral rate.</p> <p>ATAPS services are an important part of mental health service provision in primary care across the region.</p> <p><i>ATAPS Tables 2011-2016 by PHN, Department of Health, 2017</i> http://www.health.gov.au/internet/main/publishing.nsf/Content/PHN-Mental_Health_Data</p>
	Access to mental health short term therapy services through ATAPS is provided across the NBMPHN.	<p>ATAPS usage activity are a general indicator of access to clinical services by people with mild to moderate mental illness. The figures for other cohorts should be looked at in this context to inform observations about relative rates of access.</p> <p>The number of referrals to ATAPS General (for people on low income not otherwise able to access psychological therapy services) in the NBMPHN in 2017-18 was 937 (250 per 100,000 population). This number does not include referrals for those whose GP</p>

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserviced and/or Hard to Reach Populations)*

		<p>resided outside the NBMPHN (14) who received a referral to the NBMPHN. The distribution of general ATAPS referrals across the LGAs was:</p> <ul style="list-style-type: none"> • Blue Mountains: 561 (712 per 100,000) • Hawkesbury: 15 (23 per 100,000) • Lithgow: 10 (46 per 100,000) • Penrith: 343 (167 per 100,000) <p>The proportion of NBMPHN ATAPS General referrals out of total ATAPS referrals decreased in 2017-18 (54.4%) in comparison to 2016-17 (70.1%).</p> <p>Across the NBMPHN in 2017-18 the average completed ATAPS General sessions per referral was 5.1. This is notably higher than the average number of completed ATAPS General sessions per referral from the 2011-12 national data (3.5 sessions).</p> <p>NBMPHN data on ATAPS clients indicated there were 5,040 (1,275 per 100,000 population) sessions provided for ATAPS General in 2017-18. Using the proportions of referrals by LGA, the estimated distribution of sessions across the LGAs is:</p> <ul style="list-style-type: none"> • Blue Mountains: 2,861 sessions (3,631 per 100,000; 53.6% of NBMPHN) • Hawkesbury: 77 sessions (116 per 100,000; 5.1% of NBMPHN) • Lithgow: 51 sessions (236 per 100,000; 1.4% of NBMPHN) • Penrith: 1,749 sessions (854 per 100,000; 39.9% of NBMPHN) <p>ATAPS General sessions accounted for approximately 60.1% of all ATAPS sessions in 2017-18 in the NBMPHN. This was similar in comparison to 2016-17 (60.1%).</p> <p><i>NBMPHN, ATAPS data, 2017-18</i></p> <p><i>Fletcher, J; King, K; Bassilios, B; Reifels, L; Blashki, G; Burgess, P; Prikis, J, Evaluating the Access to Applied Psychological Services (ATAPS) program. Nineteenth Interim Evaluation Report. Update on the achievements of Tier 1 and Tier 2 ATAPS, 2012, University of Melbourne, Melbourne</i></p>
--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserved and/or Hard to Reach Populations)*

		<i>Estimated Resident Population by LGA, Australian Bureau of Statistics, 2016</i>
	<p>ATAPS services for perinatal depression may vary across the NBMPHN. The proportion of total ATAPS services delivered for perinatal depression in the NBMPHN is comparatively small.</p>	<p>The number of ATAPS referrals for perinatal depression services in the NBMPHN in 2017-18 was 51 (12 per 100,000 population). This number does not include referrals for those whose GP resided outside the NBMPHN (1) who received a referral to the NBMPHN. The distribution of referrals for perinatal depression services across the LGAs was:</p> <ul style="list-style-type: none"> • Blue Mountains: 38 (48 per 100,000) • Hawkesbury: 1 (2 per 100,000) • Lithgow: 0 (0 per 100,000) • Penrith: 7 (3 per 100,000) <p>Across the NBMPHN in 2017-18 the average completed perinatal depression sessions per referral was 3.8. This is similar to the average number of completed perinatal depression sessions per referral from the 2011-12 national data (3.6 sessions). However, the proportion of perinatal depression referrals out of total ATAPS referrals was lower in the NBMPHN (4% of all referrals) than the 2011-12 national proportion (5.4%).</p> <p>NBMPHN data on ATAPS clients indicated there were 196 sessions (72 per 100,000 population) provided for perinatal depression in 2017-18. Using the proportions of referrals by LGA, the estimated distribution of sessions across the LGAs is:</p> <ul style="list-style-type: none"> • Blue Mountains: 145 sessions (184 per 100,000; 82.3% of NBMPHN) • Hawkesbury: 4 sessions (6 per 100,000; 2.3% of NBMPHN) • Lithgow: 0 sessions (0 per 100,000; 0% of NBMPHN) • Penrith: 27 sessions (13 per 100,000; 15.3% of NBMPHN) <p>Perinatal depression sessions accounted for approximately 2.4% of all ATAPS sessions in 2017-18 in the NBMPHN. In comparison to 2011-12 national figures, where perinatal depression sessions accounted for 5.5% of total ATAPS sessions, the proportion of perinatal depression sessions delivered in the NBMPHN was smaller.</p>

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserved and/or Hard to Reach Populations)*

		<p>NBMPHN, ATAPS data, 2017-18</p> <p>2015-16 Fletcher, J; King, K; Bassilios, B; Reifels, L; Blashki, G; Burgess, P; Prikis, J, <i>Evaluating the Access to Applied Psychological Services (ATAPS) program. Nineteenth Interim Evaluation Report. Update on the achievements of Tier 1 and Tier 2 ATAPS, 2012, University of Melbourne, Melbourne</i></p> <p><i>Estimated Resident Population by LGA, Australian Bureau of Statistics, 2016</i></p>
	<p>Key issues influencing access to short term psychosocial therapy services</p>	<p>Recent community and service provider consultations held across the NBM region highlighted a number of issues and concerns regarding limitations with the existing ATAPS program and suggestions how to address these within the PHN’s mental health reform tasks to create a stepped care model of primary mental health care services across their regions.</p> <p>The following key issues and concerns were raised about the existing ATAPS program delivery in the NBM region:</p> <ul style="list-style-type: none"> • Out of pocket costs and low rates of bulk-billing services are a deterrent for many people in accessing psychological services under MBS Better Access. • Need to encourage more bulk-billing under Better Access to support people on low income. • Fee for service arrangements are not the best fit for people with complex mental illness. • Need to extend annual session number limit beyond 12 sessions for people with moderate to severe mental illness with added complexities who can benefit from psychological therapy – suggestion to provide a specially segmented psychological therapy service for this group through providers with specialist skills. • Need for more group therapy options as an alternative to individual psychological therapy sessions. • Need to extend access to additional underserved or hard to reach groups e.g. people from culturally and linguistically diverse backgrounds; people

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserviced and/or Hard to Reach Populations)*

		<p>identifying as LGBTI; people newly released from prison; older people; people with chronic pain and co-morbidities; at risk of or homeless people; people in residential aged care facilities; people with eating disorders; people with dual diagnosis (mental health and AOD)</p> <ul style="list-style-type: none"> • Need to provide options for GPs to receive clinical triage and assessment support and a system of reliable feedback from providers to facilitate monitoring. • Importance of effectively supporting consumers in the transition to any new service arrangements, and of providing some level of continuity of care to existing ATAPS clients. • Importance of managing costs to clients: any changes to the ATAPS program should avoid any new and unnecessary disincentives to pursue mental health care such as new additional costs. • Interest in pursuing low intensity mental health models (including group work program) and other models such as drop-in centres, as part of the new stepped care approach, designed to provide shorter and quicker interventions for people with less complex mental health issues. • Need for consideration of non-fee for service based models for engaging psychologists to meet the needs of key underserviced groups. • Need for special referral pathways for post-prison clients who need fundamental issues addressed first, such as housing, social stability and employment. • Telephone psychiatry support for GPs. • Local differences in each LGA need to be factored into any changes to service provision. <p><i>Nepean Blue Mountains PHN ATAPS Reform Community Consultations, July & August 2017</i></p>
--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Rural and Remote Areas and Other Underserved and/or Hard to Reach Populations)*

	<p>Need for perinatal therapy services in Cranebrook</p>	<p>A dedicated ante natal clinic has been established by the LHD in Cranebrook. There is a need for a part time co-located psychological therapy service to support women with perinatal depression and related mental health issues.</p> <p><i>Communicated by LHD manager Ante natal services (via GP Liaison nurse) November 2016</i></p>
--	----------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

CHILDREN & YOUTH

Outcomes of the service needs analysis – Primary Mental Health Care: <i>Mental Health (Children & Youth)</i>		
Identified Need	Key Issue	Description of Evidence
Gaps In Services and Barriers to Accessing Services For Children And Youth	Inadequate paediatric and adolescent service provision in psychiatry and mental health.	<p>A wide range of shortcomings have been identified for services currently available to children and youth through preliminary consultations. The importance of providing paediatric and adolescent services across all types of health services is well understood. There are indications that the apparent increase in mental illness amongst children and adolescent over recent decades has not been met in the NBM region by increasing the range and number of services targeting this population.</p> <p>Further research is required to identify the range of service needs in the NBM region as well as mapping of services currently provided.</p> <p>Stakeholders have raised the following concerns in regard to gaps in services and barriers to service provision for this population:</p> <ul style="list-style-type: none"> • Lack of early intervention mental health and D&A programs for under 16 year olds. • Lack of psychiatric services for children and young people. • Lack of After Hours service for ages 12 to 24. • Lack of general intervention programs for children under 12 to support complex needs. • Difficulty in finding services for 18-25 year olds, and no provision for people under 18 to be admitted to Nepean Hospital Mental Health Unit. • Inadequate sessions available through Medicare subsidised and ATAPS-funded psychological therapy services, in particular for persons with long-term moderate to severe mental illness / support needs, who often use up the available services quickly within the calendar year. • Availability and costs of travel to mental health services is perceived to be a significant barrier. • Costs of services are a major barrier for those with moderate to severe and complex mental illness and who are not in crisis: the cost of required services to maintain

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Children & Youth)*

		<p>mental wellbeing is prohibitive outside the public health system, yet these services are not accessible within the public health system unless in crisis.</p> <ul style="list-style-type: none"> • Headspace is perceived to be one of, if not the only available free service for Young people, however is not well-placed or able to manage complex cases well and is best suited to young people with low to mild mental health needs. • Limited availability of online information for public mental health services to assist young people determine if the service is able to meet their needs: a phone call is required to assist decision making however this presents a barrier for many young people. • Limited skills among health practitioners &/or capacity within public services to effectively assist young people with multiple diagnoses &/or complex conditions, such as eating disorders and borderline personality disorder. • Safety checks (to identify those who may be at risk of suicide) completed by Community teams are often very basic and not viewed as adequate. • Unwillingness of less acute services to continue to provide support for young people who identify they have attempted suicide, self-harm or experienced suicide ideation. This interrupts service continuity for the range of supports needed by young people to maintain mental wellbeing. <p><i>NBMPHN GP and AHP Consultations March 2016 and August 2018</i> <i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>Stakeholder Consultation, NGO 8/3/16</i> <i>NBMPHN and NBMLHD consultation with the Headspace Youth Advisory Committee, 3/09/18</i></p>
<p>Regional Variation In Provision Of Services</p>	<p>The perceived lack of service provision for children and youth may be aggravated in some LGAs (Upper Blue Mountains, Lithgow and Hawkesbury) where there are higher proportions of young people.</p>	<p>Stakeholders have identified the potential for poorer service availability in locations where there are higher proportions of young people. Further research is required to map service provision in these regions and compare it with the distribution of youth populations.</p> <p>The concerns raised by stakeholders included the following:</p> <ul style="list-style-type: none"> • Lack of mental health services in the Upper Mountains, Lithgow and Hawkesbury. • Lack of Youth acute services available in Hawkesbury

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Children & Youth)*

		<ul style="list-style-type: none"> • Lack of outreach services across all 4 LGAs. • Lack of tertiary mental health unit for children and youth in the region. • Lack of GP's who can take children/youth, especially in Cranebrook. • Lack of Headspace services in Lithgow, Blue Mountains and Hawkesbury. <p><i>Stakeholder Consultation, NGO 8/3/16</i> <i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>NBMPHN GP and AHP Consultations March 2016</i> <i>NBMPHN AHP Consultations, 27/08/18</i></p> <p>2018 Update: NBMPHN has recently commissioned Marathon Health Ltd. to operate a Headspace satellite service situation in Lithgow. The service will target young people aged 12-25 years with low to mild mental health needs, and is anticipated to open in late 2018.</p>
<p>Services For Vulnerable Groups Within Young Populations</p>	<p>The overall perceived lack of services for young people in the region appears to be aggravated for young people in vulnerable groups.</p>	<p>Stakeholders have indicated that children and young people who are especially vulnerable have unmet service needs. Further research is required as part of broader mapping of services to children and young people.</p> <p>Stakeholders raised the following concerns:</p> <ul style="list-style-type: none"> • Need for better connection for young people in and out of Home Care, Juvenile Justice, FACS, Health and NGOs, through sharing data and information to support integrated care with clinical in-reach. There are many services but little or no communication feedback loops. • Lack of service provision for children high on the Autism Spectrum. • Lack of support for young people identifying as LGBTI. • Lack of Aboriginal and CALD youth/child mental health services. • Limited service provision for young mothers with children who are experiencing symptoms of anxiety and depression, and antenatal services for young mothers with perinatal depression. • Lack of appropriate support for homeless youth.

Outcomes of the service needs analysis – Primary Mental Health Care: <i>Mental Health (Children & Youth)</i>		
		<p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>Stakeholder Consultation, NGO 8/3/16</i> <i>NBMPHN GP and AHP Consultations March 2016</i> <i>NBMPHN Clinical Council Consultation 2/11/ 2016</i></p>
<p>Adequacy Of Supported Accommodation Available For Young People With A Mental Illness</p>	<p>Supported accommodation available for young people with a mental health illness are inadequate and or not fit for purpose</p>	<p>In consultations, stakeholders have raised the following issues:</p> <ul style="list-style-type: none"> • Inadequacy of housing available, in particular for young people with a mental health illness. • Limited places available in care facilities that cater for people with a mental illness and which are age-appropriate for young people. • Care facilities are poorly equipped to provide appropriate support for people with a mental illness • Lack of safe and secure care facilities available for people with a mental illness <p><i>NBMLHD Aboriginal Liaison Officer and Mental Health Clinician / Aboriginal Health Coordinator consultation, 31/10/17</i></p>
<p>headspace Services Within Region</p>	<p>There is one headspace centre in the region which is located in Penrith.</p>	<p>headspace Penrith has been in operation since May 2013 to deliver services addressing mental health, physical and sexual health, drug and alcohol and vocational issues for young people aged 12-25 years in the region. Since 2014 headspace Penrith also operates a headspace Youth Early Psychosis Program as a spoke of the western Sydney hub and spoke model (hub in Mt Druitt and another spoke in Parramatta).</p> <p>Concerns have been raised that headspace is not well integrated with GPs and that GPs do not always receive feedback when they have made a referral.</p> <p><i>NBMPHN Clinical Council Consultation 2/11/ 2016</i></p>

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Children & Youth)*

	<p>Geographic access to headspace services for youth is localized; the Penrith centre is mainly used by youth who live in the Penrith area, close to the headspace location.</p>	<p>In 2017/18 financial year, 64.1% of all clients of the Penrith headspace center resided in the Penrith LGA. 19.2% of clients resided in the Blue Mountains LGA. 7.5% of clients resided in the Hawkesbury LGA. No clients resided in the Lithgow LGA. A small proportion of clients (9.2%) resided outside the region.</p> <p><i>headspace Penrith centre activity data 2017-18</i></p> <p>In theory headspace Penrith is open to any young person regardless where they live. However, distance and transport issues prevent most young people from accessing headspace unless they live in the Penrith LGA or lower Blue Mountains. The lack of and need for headspace type services in Lithgow, upper Blue Mountains and Hawkesbury has been raised at various stakeholder consultations.</p> <p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>NBMPHN GP and AHP Consultations March 2016</i> <i>NBMPHN Clinical Council Consultation November 2016</i></p> <p>2018 Update: NBMPHN has recently commissioned Marathon Health Ltd. to operate a Headspace satellite service situation in Lithgow. The service will target young people aged 12-25 years with low to mild mental health needs, and is anticipated to open in late 2018. Marathon Health will be additionally be delivering an additional Youth Severe service in Lithgow. This service component is expected to be operational in 2019.</p> <p>2018 Update: NBMPHN has additionally commissioned Parramatta Mission to offer an additional Youth Severe service at the Penrith headspace centre, with outreach to Hawkesbury and Blue Mountains in 2018-19. The service will target young people aged 12-25 years at risk of or with a severe (non-psychotic) mental illness, and is intended to provide wrap-around services clearly defined clinical care.</p>
<p>Unmet need for Youth mental health-specific services</p>	<p>Differences between the NMHSPF-PST benchmark estimates for service demand and actual use of mental health services by young people can be used to identify potential areas of unmet need for Youth-specific mental health-specific services.</p>	

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Children & Youth)*

Key Issue: Potential poor utilisation of mental health-specific services by Young people in the region

The following data summary is provided for the NMHSPF-PST estimated service demand rate by level of severity in 2016-17 for persons aged 0-17 years, compared to the actual utilisation of mental health services including: Medicare-funded services, headspace primary services, headspace Early Psychosis Program (hYEPP) and the EPI program available through the State-funded Child and Youth Mental Health Service.

Early intervention and mild mental illness (0-17 years):

	Service demand	Service Use			
NBMPHN LGA	NMHSPF-PST service demand rate, 2016 (no. of persons)	MBS Service Use Data, 2016-17 (no. of persons)	Psychological Therapy (ATAPS) serviced young persons, 2016-17 (no. of persons)	headspace Primary serviced young persons, 2016-17 (no. of persons)	Unmet need (service demand – service use, no. of persons)
Blue Mountains	2,270	1,475	90	139	-566 persons (75.1% of benchmark)
Hawkesbury	2,038	1,115	20	55	-848 persons (58.4% of benchmark)
Lithgow	549	114	6	0	-429 persons (21.9% of benchmark)
Penrith	6,228	3,009	117	419	-2,683 persons (56.9% of benchmark)
Total	11,085	5,713	233	613	-4,526 persons (59.2% of benchmark)

Note: Caution must be used when interpreting these estimates of unmet need, since it is possible that young persons who accessed headspace primary services will have also accessed individualised mental health treatment services funded by Medicare. However, by combining data for young persons who used either Medicare &/or headspace services (to calculate service use), any potential error would therefore be more likely to *underestimate* the potential unmet need for services by young people in 2016-17.

Moderate and severe mental illness (0-17 years):

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Children & Youth)*

	Service demand	Service use	Unmet need (service demand – service use, no. of persons)
NBMPHN LGA	NMHSPF-PST service demand rate, 2016 (no. of persons)	headspace hYEPP Program, serviced young persons, 2016 - 2017 (no. of persons)	
Blue Mountains	1,069	20	1,049 persons (1.9% of benchmark)
Hawkesbury	961	14	947 persons (1.5% benchmark)
Lithgow	259	0	259 persons (0% of benchmark)
Penrith	2,944	29	2,915 persons (1.0% of benchmark)
Total	5,233	63	5,170 persons (1.2% of benchmark)

Analysis of this data shows the following potential areas of unmet need:

- An estimated three-fifths (59.2%) of young people aged 0-17 years in the region with early intervention and mild mental health needs accessed individual mental health services tailored to their level of need in 2016-17. The highest levels of unmet need were in the Lithgow LGA, where just over one-fifth (21.9%) of young people accessed the early intervention and mild mental health care services they needed.
- An extremely small proportion (approximately 1.2%) of young people aged 0-17 years in the region with moderate to severe mental health needs accessed individual mental health services tailored to their level of need in 2016-17, indicating high levels of unmet need for this cohort. Caution must be used however to interpret this data, as it was not possible to obtain service use data from the NBMLHD Child and Youth Mental Health Service Early Psychosis Intervention (EPI) program. The EPI program also targets young people experiencing their first episode of psychosis or who are deemed at high risk.

The University of Queensland. 2016. The National Mental Health Service Planning Framework – Framework – Commissioned by the Australian Government Department of Health. Version AUS V2.1. The University of Queensland, Brisbane.

National Mental Health Services Planning Framework Data Portal for Licensed Users – Number of patients receiving Medicare mental health-specific services, by PHN and SA3, 2011-12 to 2016-17.

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Children & Youth)*

	<p>headspace referral sources</p> <p>The proportion of headspace Penrith centre users who were formally referred, or had received a written referral to headspace in 2017-18 was 6.2%. This was lower than the 2016-17 figure of 20.4%. No referral was received for 73.2% of young people (YP) with a further 20.7% of referral sources unknown.</p> <p>Of those received, the source of written referrals among Penrith headspace centre in 2017-18 users was as follows:</p> <ul style="list-style-type: none"> • Primary health care – GP: 40.9% of YP • School-based service - school psychologist, guidance or welfare worker: 20.5% of YP • Community service / welfare agency: 13.6% of YP • Community-based mental health service (e.g. CAMHS, AMHS): 4.5% of YP • Other service: 2.3% of YP • Specialist health care - psychiatrist / paediatrician / inpatient service: 9.1% of YP • Legal, justice, corrections service or mandated: 9.1% of YP <p>The proportion of referrals ‘out’ for future care among Penrith headspace centre users was quite different to national averages. In 2016/17, 13.4% of headspace Penrith users, compared to 9.3% of headspace clients nationally were referred to other services in conjunction with or at the end of their treatment. Of these, more Penrith users (38.8%) were referred to specialist health care, compared to a national average of 24.2%. The major points of ‘referral out’ for the Penrith service are summarised below:</p> <ul style="list-style-type: none"> • Community-based mental health service: 31.6% of YP (35.8% national average) • Specialist health care (Psychiatrist / Paediatrician / inpatient): 38.8% of YP (24.2% national average) • Community service / welfare agency: 9.7% of YP (13.8% national average) • Community-based allied health professional: 11.7% of YP (10.2% national average) • Primary health care – GP: 2.0% of YP (5.6% national average)

Outcomes of the service needs analysis – Primary Mental Health Care: <i>Mental Health (Children & Youth)</i>		
		<ul style="list-style-type: none"> Alcohol or other drug service: 0.5% of YP (2.6% national average) Employment agency: 3.6% of YP (4.9% national average) School based service: 1.0% of YP (2.1% national average) Legal, justice, corrections service: 1.0% of YP (0.8% national average) <p><i>headspace Penrith Centre Activity Overview Report. Financial Year 2016/17 (1 July 2016 to 30 June 2017)</i></p>
	Average wait times to access headspace services at the Penrith centre are similar to national averages.	<p>Self-reported wait times to attend the first appointment ranged from less than 3 days to more than 4 weeks. Most commonly, 35.3% of cases of young people reported they waited between 1-2 weeks to attend their first appointment at the Penrith centre. This is similar to the national average, where 34.4% of young people waited 1-2 weeks to attend their first appointment. A further 28.0% of Penrith headspace clients reported they waited less than 3 days for their first appointment.</p> <p><i>headspace Penrith Centre Activity Overview Report. Financial Year 2016/17 (1 July 2016 to 30 June 2017)</i></p>
	Proportion of ATAPS services provided to children (0-11 years)	<p>The number of ATAPS referrals for child mental health services in the NBMHPN in 2017-18 was 196 (53 per 100,000 population). This number does not include referrals from a Paediatrician (28) received a referral to the NBMHPN. The distribution of these referrals for child mental health services across the LGAs was:</p> <ul style="list-style-type: none"> Blue Mountains: 70 (89 per 100,000) Hawkesbury: 15 (23 per 100,000) Lithgow: 2 (9 per 100,000) Penrith: 109 (53 per 100,000) <p>Across the NBMHPN in 2017-18 the average completed child mental health sessions per referral was 4.4. This is higher than the average number of completed child mental health sessions per referral from the 2011-12 national data (3.8 sessions).</p>

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Children & Youth)*

		<p>The proportion of child mental health referrals out of total ATAPS referrals in 2017-18 was 11.4%, an increase from 9.8% of all ATAPS referrals in 2016-17.</p> <p>NBMPHN data on ATAPS clients indicated there were 859 sessions (233 per 100,000 population) provided for child mental health services in 2017-18. Using the proportions of referrals by LGA, the estimated distribution of sessions across the LGAs is:</p> <ul style="list-style-type: none">• Blue Mountains: 308 sessions (391 per 100,000; 35.6% of NBMPHN)• Hawkesbury: 66 sessions (99 per 100,000; 7.6% of NBMPHN)• Lithgow: 10 sessions (46 per 100,000; 1.1% of NMBPHN)• Penrith: 480 sessions (234 per 100,000; 55.6% of NBMPHN) <p>Child mental health sessions accounted for approximately 10.7% of all ATAPS sessions in 2017-18 in the NBMPHN, which was similar to 2016-17 (10.7%).</p> <p><i>NBMPHN, ATAPS data, 2017-18</i></p> <p><i>Estimated Resident Population by LGA, Australian Bureau of Statistics, 2016</i></p>
--	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

LOW INTENSITY

Outcomes of the service needs analysis – Primary Mental Health Care: <i>Mental Health (Low Intensity)</i>		
Identified Need	Key Issue	Description of Evidence
<p>Community Wide Communication To Support People At Risk Of Mental Illness</p>	<p>Enhanced and targeted communication methods are required to engage and inform the general population about the risks of mental illness and available supports</p>	<p>Stakeholders previously raised the following concerns regarding community wide engagement and education concerning mental health, risks and wellbeing:</p> <ul style="list-style-type: none"> • Need for resources and education that promote mental wellbeing. • Lack of service navigation website or tool to find appropriate services and interventions across the stepped care model. • Lack of guidance available to access appropriate, evidence-based digital interventions. • Need for support to use e-health interventions in the home. • Need for early intervention and access to low intensity services for high school and university students to start intervention before there is significant illness. <p>The Commonwealth Department of Health launched ‘<i>Head to Health</i>’ the new digital mental health gateway for low intensity mental health services in October 2017.</p> <p>Some of the stakeholder concerns regarding lack of a service navigation tool have been addressed through the development and launch of NBMPHN’s ‘<i>Mental Health Help</i>’ website, a new regional Mental Health Navigation Tool.</p> <p><i>NBMLHD Mental Health & Suicide Prevention Focus Group 2/3/16</i> <i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>NBMPHN Clinical Council Consultation 2/11/ 2016</i> https://headtohealth.gov.au/ http://www.mentalhealthhelp.com.au/</p>

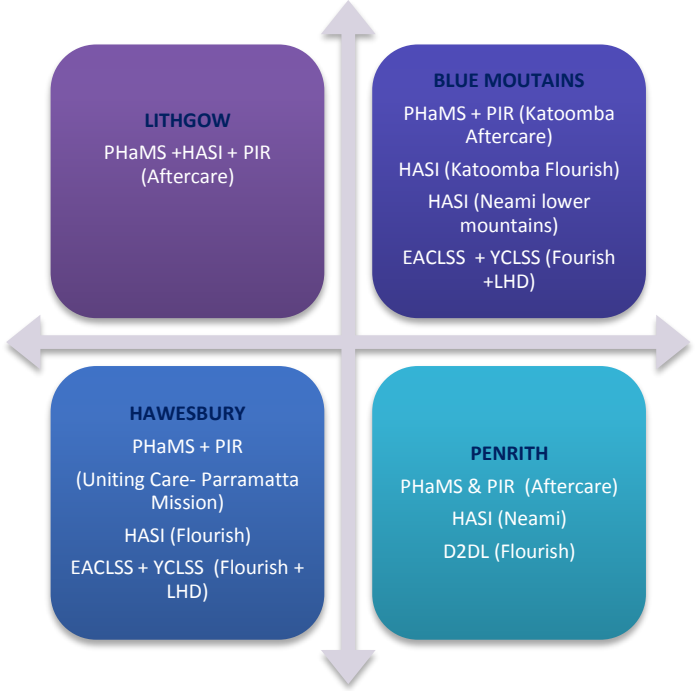
Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Low Intensity)*

		<p>2018 Update: NBMPHN recently commissioned Neami to offer a new 8-week psycho-education group program (named “Optimal Health Group Program”) for people with emerging mental health issues or who are risk of developing mild to moderate mental illness. This program will be available in the Penrith and Hawkesbury LGAs in the 2018-19 financial year.</p>
<p>Services To Support People With Low Intensity Mental Health Needs</p>	<p>Local ‘bricks and mortar’ services are available but they are not ‘joined up’ into a network and awareness of their capacity amongst GPs and other relevant service providers (e.g. emergency departments) is limited</p>	<p>There is a broad range of services available within the NBMPHN catchment that include counselling and support services. These comprise:</p> <ul style="list-style-type: none"> • Community health centers <ul style="list-style-type: none"> ○ Penrith - *5 (St Clair, St Mary’s, Penrith, Cranebrook, Lemongrove) ○ Blue Mountains – *3 (Katoomba, Lawson, Springwood) ○ Lithgow - *2 (Lithgow, outreach service [to Portland, Tablulam and Wallerawang]) ○ Hawkesbury - *1 (community health services are available at Hawkesbury Hospital) • Neighborhood centers <ul style="list-style-type: none"> ○ Penrith - *14 (Nepean Community and Neighbourhood Services (5), Community Junction (8), St Marys Area Community Development Project (1)) ○ Blue Mountains – *5 (Blaxland, Springwood, Winmalee, Lawson, Katoomba) ○ Lithgow - *1 ○ Hawkesbury - *1 (Richmond) • Private psychologists and clinical social workers • Chaplains <p><i>NBMLHD Healthcare Service Plan 2012-2022</i></p>

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Low Intensity)*

	<p>On-line services to support people with low intensity mental health needs are increasingly available; details on awareness and use of these services needs exploration.</p>	<p>There is a high awareness of Lifeline but this is focused on supporting people in crisis.</p> <p>There is a need to promote e-mental health services to stakeholders. It is expected that Australia’s new national digital mental health gateway ‘Head to Health’ will facilitate access to digital mental health services as well as complementary face-to-face therapies.</p> <p>It will be important to create awareness of locally based ‘bricks and mortar’ services when promoting the new Commonwealth digital gateway.</p> <p>https://headtohealth.gov.au/</p> <p>2018 Update: NBMPHN commissioned the Black Dog Institute in 2017-18 to deliver continuous professional development training across the region for GPs, practice nurses and general practice staff regarding low intensity mental health options for people with emerging or low to moderate mental illness. The following training sessions / options were delivered:</p> <ul style="list-style-type: none"> • Low intensity MH services training – Stepped Care and eMH in Practice, SCeMHIP (one within each of the NBM region’s 4 LGAs) • Academic detail session – a short version of the SCeMHIP workshops • Webinar program – two live webinars of the SCeMHIP workshops • Online learning module and podcasts - 1 hour online learning module <p>Introduction to e-Mental Health prior to the SCeMHIP workshops, and a range of podcasts from the eMHPrac resources were also offered to participants.</p>
	<p>Coaching services</p>	<p>There is a need to facilitate access to coaching services to increase the variety of services within the mental health stepped care model.</p>

PSYCHOSOCIAL NEEDS

Outcomes of the service needs analysis – Primary Mental Health Care: <i>Mental Health (Psychosocial Needs)</i>		
Identified Need	Key Issue	Description of Evidence
<p>Community Managed Organisations Operating Psychosocial Program in the NBM region</p>	<p>Currently available local psychosocial programs operated by community managed organisations are prone to market forces in the current climate of reform. Unstable short term funding cycles impact on staff retention, quality of service delivery and strategic workforce planning.</p>	<p>The spectrum of psychosocial disability is complex with variable presentations and stages on the recovery journey. This complexity is reflected in the psychosocial service system with a suite of different programs and clinical options to cater to consumer need. However, this diversity means the service system is fragmented and difficult for consumers and health professionals alike to navigate. An outline of currently available psychosocial program in the NBM region is presented below.</p>  <p>The diagram illustrates the distribution of psychosocial programs across four locations in the NBM region, arranged in a 2x2 grid with a central cross of arrows pointing in all directions. Each location is represented by a colored rounded rectangle containing a list of services:</p> <ul style="list-style-type: none"> LITHGOW (Purple box): PHaMS +HASI + PIR (Aftercare) BLUE MOUNTAINS (Dark Blue box): PHaMS + PIR (Katoomba Aftercare), HASI (Katoomba Flourish), HASI (Neami lower mountains), EACLSS + YCLSS (Fourish +LHD) HAWESBURY (Blue box): PHaMS + PIR (Uniting Care- Parramatta Mission), HASI (Flourish), EACLSS + YCLSS (Flourish + LHD) PENRITH (Teal box): PHaMS & PIR (Aftercare), HASI (Neami), D2DL (Flourish)

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Psychosocial Needs)*

		<p>The above diagram gives a current snapshot of the geographic reach of psychosocial programs and lead agencies as at November 2018. Such service maps are kaleidoscopic and prone to market forces particularly in current climates of reform and transition over to the NDIS. Any investment in service mapping would need to enable live documents and interactive feedback from lead agencies as government tenders are awarded.</p> <p>The unstable, short term nature of funding cycles adds to the complexity with implications on staff retention, quality of service delivery and strategic workforce planning.</p>
<p>Systems reform</p>	<p>Significant opportunities for (and barriers to) system reform exist to assist health professionals and consumers identify appropriate psychosocial referral options, such as:</p> <ul style="list-style-type: none"> • Simplification of referral criteria • Creation of a central triage point with system expertise and reach 	<ul style="list-style-type: none"> • Psychosocial service system is fragmented and confusing for health professionals and consumers alike. GPs are unsure what clinical presentations are suitable for what psychosocial service. • Referral criteria is confusing and there is not central triage point with system expertise and reach. • Consumers have to retell their story as psychosocial services not connected to clinical care in meaningful ways • Transitional policies and short funding cycles of psychosocial services leads to operational scaling up and winding down in rapid succession. This is not conducive to therapeutic relationships and does not give services opportunity to mature. <p><i>Mental Health Nav Tool</i> <i>Government tender information</i> <i>People living with psychosocial disability: Rehabilitation and recovery informed service provision within the second Australian national survey of psychosis. Harvey, Brophy, Parsons, Moeller-Saxone, Grigg and Siskind. Australian and New Zealand Journal of Psychiatry, 50 (6)</i> <i>Addressing the Psychosocial needs of people with severe mental illness in the Nepean Blue Mountains – community consultation report</i></p>
<p>Peer Work</p>	<p>Inadequate resourcing and lack of strategic investment in peer work from statutory organisations and CMOs in the region.</p>	<ul style="list-style-type: none"> • Inadequate resourcing for the development of peer work in the region • Lack of strategic investment in peer work from statutory organisations and CMOs. <p><i>Being Submission – The provision of services under the NDIS for people with psychosocial disabilities</i></p>

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Psychosocial Needs)*

		<p><i>Peer workers in mental health services. Literature overview.</i> <i>Gillard, S & Holley J. Advances in Psychiatric Treatment, July 2014 20 (4)</i></p>
Aboriginal identified staff and culturally safe services	Lack of investment in Aboriginal staff in both clinical settings and psychosocial services.	<ul style="list-style-type: none"> • Lack of Aboriginal staff in both clinical settings and psychosocial services • Lack of cultural engagement frameworks and best practice solutions to attracting and retaining Aboriginal staff <p><i>My Life My Lead. Opportunities for strengthening approaches to the social determinants and cultural determinants of Indigenous health. December 2017</i></p> <p><i>Addressing the Psychosocial needs of people with severe mental illness in the Nepean Blue Mountains – community consultation report</i></p> <p><i>Cultural Respect Framework 2016 – 2026 for Aboriginal and Torres Strait Islander Health. A National approach to building a culturally respectful health system</i></p>
Overall lack of mental health support services	Limited resourcing, long waiting lists and poor demand management strategies for psychosocial programs.	<ul style="list-style-type: none"> • Limited government resources for psychosocial programs • Long waiting lists and poor demand management strategies • Short funding cycles leading to reduced quality of care <p><i>Government tender information</i> <i>Addressing the Psychosocial needs of people with severe mental illness in the Nepean Blue Mountains – community consultation report</i></p>
Barriers to access	Identified need to create consumer-oriented pathways to accessing services, such as a soft entry hub model / drop in centre.	<ul style="list-style-type: none"> • Referral is system oriented not consumer oriented • Soft entry via a hub model/drop in centre was identified across all LGAs • Transport as a geographic barrier to service remains an issue across all LGAs <p><i>Australian Government Response to Contributing Lives, Thriving Communities – Review of Mental Health Programs and Services.</i> <i>Addressing the Psychosocial needs of people with severe mental illness in the Nepean Blue Mountains – community consultation report</i> <i>Hawkesbury Youth Summit Outcomes Report</i> <i>Mental Health and Wellbeing in the Lithgow Community. Key findings and recommendations</i> <i>Blue Mountains Stronger Families Alliance Analysis Report for the Blue Mountains Council – Harwood Community Consultation</i></p>

Outcomes of the service needs analysis – Primary Mental Health Care: *Mental Health (Psychosocial Needs)*

<p>Improved access to GPs</p>	<p>Charging a gap for GP services and refusal of walk in appointment are significant barriers to accessing clinical care for people in mental health crisis.</p>	<ul style="list-style-type: none"> • There is a significant gap in GPs that bulk bill in the Nepean Blue Mountains region. This excludes many mental health consumers from their primary source of clinical care • There is also a significant gap in GP practices that accept walk in appointments. When someone having a mental health crisis is in need of care it is detrimental to their wellbeing to wait three weeks for an appointment <p><i>MBS data Consumer Centred Needs Assessment interviews Centre for Rural and Remote Mental Health</i></p>
<p>Out of Hours Access</p>	<p>Limited access to after hours GP services is perceived to a barrier by consumers to receiving timely clinical care.</p>	<ul style="list-style-type: none"> • Limited support after hours. Ex operational hours is often the time consumers seek help and present to acute care settings <p><i>Mental Health Nav Tool Mental Health and Wellbeing in the Lithgow Community. Key findings and recommendations. June 2018</i></p>
<p>Broader system needs capacity building and education around mental health</p>	<p>Identified need for basic mental health training for mainstream services, including Centrelink, Housing, Police, employers and community organisations.</p>	<ul style="list-style-type: none"> • Basic mental health training for mainstream services such as Centrelink, Housing, Police, employers and community organisations to make them more inclusive. <p><i>Consumer and Carer Advisory Group Feedback Addressing the Psychosocial needs of people with severe mental illness in the Nepean Blue Mountains – community consultation report</i></p>

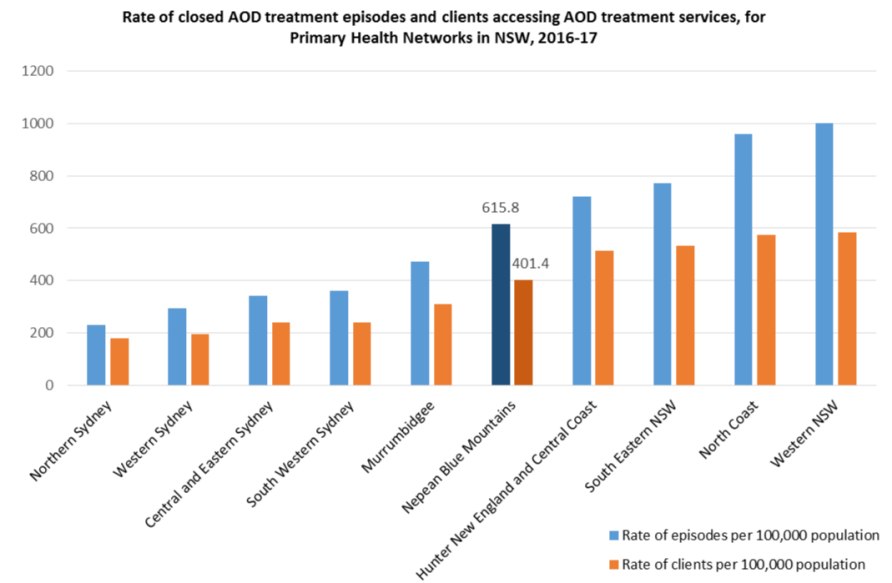
Alcohol and Other Drug Treatment Needs

DRUG AND ALCOHOL

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population		
Identified Need	Key Issue	Description of Evidence
3.0 AOD treatment	Characteristics of and trends in local service provision: Publicly funded drug and alcohol treatment services	<p>The Alcohol and Other Drugs Treatment Services Minimum Dataset (AODTS NMDS) provides data on in-scope specialist alcohol and other drug treatment providers in Australia. AOD treatment agencies funded by PHNs under the Drug and Alcohol Program submitted data to the AODTS NMDS for the first time in 2016-17.</p> <p>The following is a summary of the characteristics of AOD treatment services provided in the NBMPHN region, by publicly funded providers.</p> <p>Utilisation of AOD treatment services:</p> <ul style="list-style-type: none"> Both the rate of closed treatment episodes for AOD treatment services (615.8 per 100,000 persons) and clients accessing AOD treatment services per 100,000 population in the NBMPHN region (401.4 per 100,000 persons) were the highest amongst metropolitan PHNs in NSW.

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

Figure 40: Rate of closed AOD treatment episodes and clients accessing publicly funded AOD treatment services, for Primary Health Networks in NSW, 2016-17

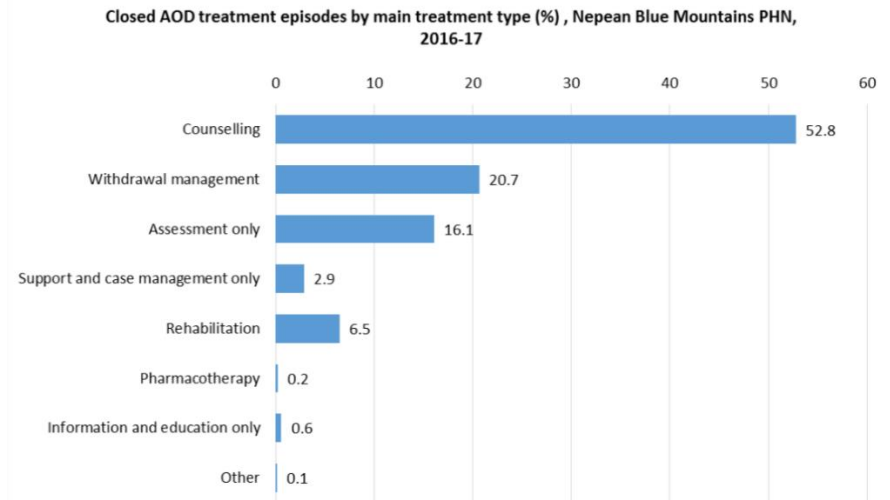


AOD treatment type:

- 2,250 closed AOD treatment episodes were provided in Nepean Blue Mountains in 2016-17.
- More than half (52.8%) of closed AOD treatment episodes were counselling. This was followed by withdrawal management (20.7%) and assessments (16.1%).
- The number and proportion of counselling closed treatment episodes increased significantly in the NBMPHN region between 2014-15 and 2016-17 in particular compared to other treatment types, rising from 600 to 1,188 episodes.

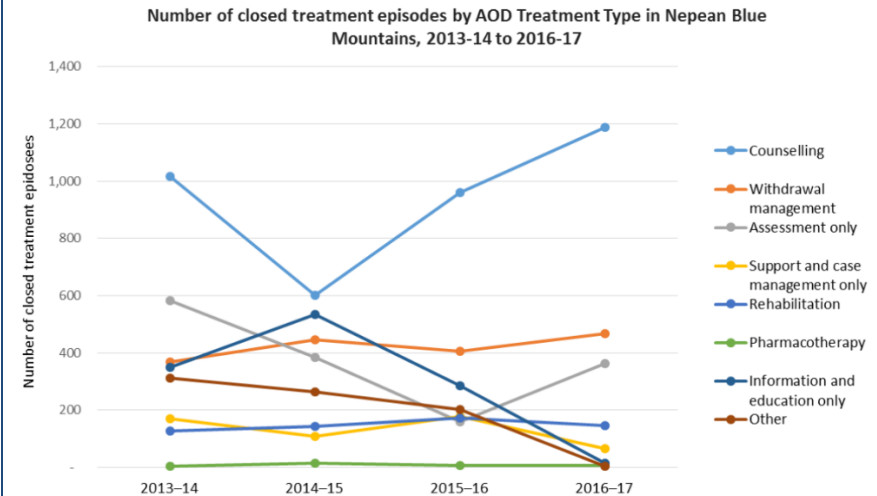
Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

Figure 41: Closed AOD treatment episodes by main treatment type (%), Nepean Blue Mountains PHN, 2016-17 (publicly funded drug and alcohol treatment services only)



Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

Figure 42: Number of closed treatment episodes by AOD treatment type in Nepean Blue Mountains, 2013-14 to 2016-17 (publicly funded drug and alcohol treatment services only)

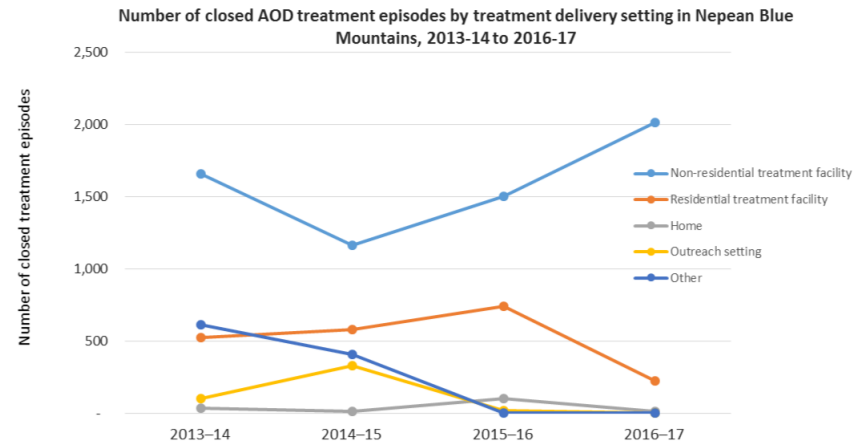


AOD Treatment Delivery Setting

- There were 22 AOD treatment agencies that delivered publicly funded services in the NBMPHN region in 2016-17.
- The majority (89.6%) of closed AOD treatment services in the NBMPHN region in 2016-17 occurred within non-residential treatment facilities, with a smaller number of remaining services occurring in residential treatment facilities (9.8%) or at home (0.5%).
- In addition, there was growth in the number of closed AOD treatment services held within non-residential treatment facilities between 2014-15 and 2016-17 from 1,165 to 2,015 treatment episodes, while the number of treatment episodes in other locations decreased within this period.

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

Figure 43: Number of closed AOD treatment episodes by treatment delivery setting in Nepean Blue Mountains, 2013-14 to 2016-17 (publicly funded drug and alcohol treatment services only)

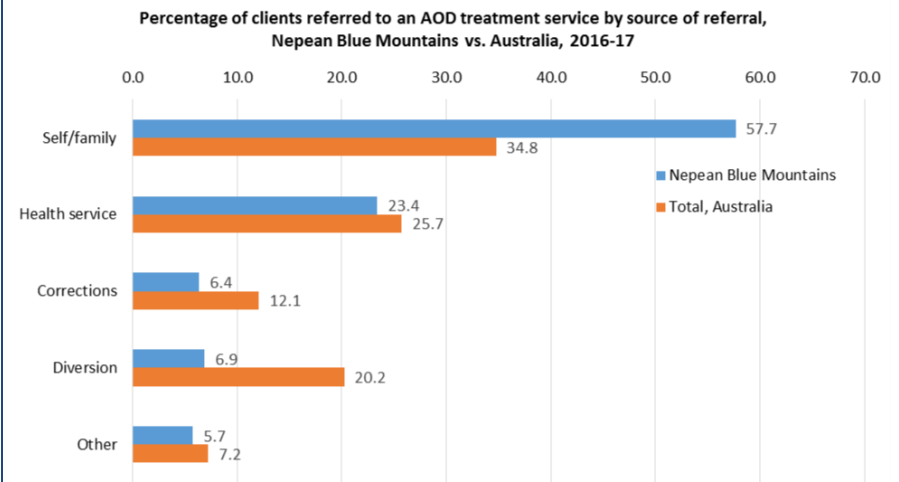


Source of referral: AOD Treatment

- The primary source of client referrals to AOD treatment services in NBMPHN in 2016-17 was by clients/family members (57.7%), followed by health service referrals (24.4%).
- The proportion of client/family member referrals to AOD treatment services in the NBMPHN region (57.7%) was significantly greater than the total for Australia (34.8%).

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

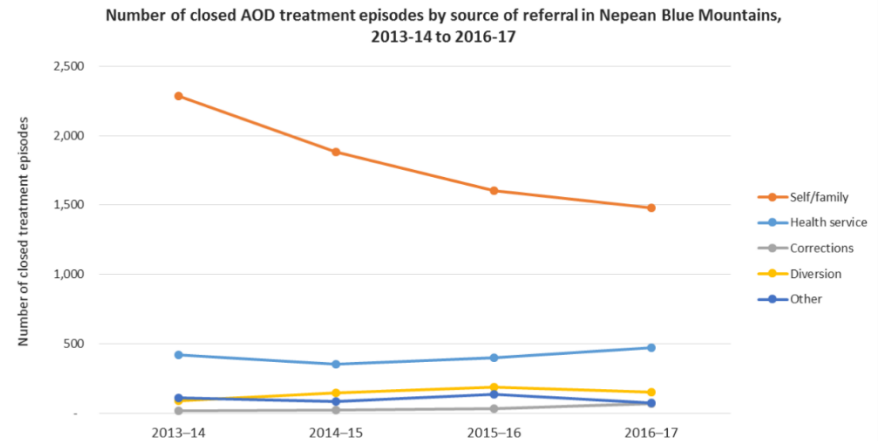
Figure 44: Percentage of clients referred to an AOD treatment service by source of referral, Nepean Blue Mountains vs. Australia, 2016-17 (publicly funded drug and alcohol treatment services only)



- Analysis of trends in referrals to AOD treatment services in the NBMPHN region reveal that the number and proportion of self/family referrals to closed AOD treatment episodes decreased between 2013-14 and 2016-17, while referrals from health services increased.

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

Figure 45: Number of closed AOD treatment episodes by source of referral in Nepean Blue Mountains, 2013-14 to 2016-17 (publicly funded drug and alcohol treatment services only)



Australian Institute of Health and Welfare – Alcohol and Other Drug Treatment Services in Australia 2016-17: Primary Health Network (PHN) Analysis

It is important to note that local stakeholders expressed a number of concerns around the accuracy and limited interpretation of data possible from analysis of this AODTS minimum dataset, including:

- The view that the dataset is incomplete due to the lack of data included from private providers such as pharmacies; therefore it is not representative of the full range of local service providers providing AOD treatment services.
- Concerns that data highlighting trends in treatment services by delivery setting is a direct reflection of government policy and funding requirements, rather than indicative of current service capacity or the most effective treatment options currently available.

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

		<ul style="list-style-type: none"> Concerns that the presentation of data by closed treatment episodes does not provide any insight into the number or quality of treatment sessions / services actually provided to clients. <p><i>Nepean Blue Mountains PHN Alcohol and Other Drugs Advisory Committee, August 2018</i></p>
<p>3.1 AOD treatment</p>	<p>Minimal options for local access to AOD treatment.</p> <p>Note that the following is a preliminary mapping of AOD services. Additional information such as the number of places available and any costs to clients will be added when service mapping is finalised and with the advice of the proposed AOD Regional Advisory Committee. Known additions will be services primarily aimed at providing mental health that also provides some AOD support with counselling.</p>	<p>It is acknowledged that certain people wish to access AOD treatment services outside their local area. This view has been stated by NADA, as well as DoH.</p> <p>NBMPHN preliminary investigation and consultations to date have not supported this position. By and large NBM community consultations have indicated a strong preference for the provision of these services locally, particularly where families are involved. For example, services for youth, men and women with children at home.</p> <p>Service mapping undertaken below has been limited to local and other metropolitan services in response to these preliminary findings.</p> <p>In addition services available only to local residents in other metropolitan areas have been excluded. They are:</p> <ul style="list-style-type: none"> - Corella Lodge, Fairfield (Detoxification) - Langton Centre, Surry Hills - St George Drug and Alcohol Service, Kogarah <p><i>NADA, A planning tool for NGO alcohol and other drugs treatment services, March 2016.</i></p> <p><i>Department of Health, Guidance for Primary Health Networks, April 2016.</i></p> <p>November 2017 Update:</p>

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

	<p>Opioid treatment programs (OTP) re primarily provided by NBMLHD in all LGAs except Hawkesbury. The Hawkesbury Health Service operated by St John of God Hospitals does not provide an opioid treatment program.</p> <p>Notably there are no community based OTP prescribers identified as accredited and with current clients in the Lithgow LGA.</p>	<p>Review of accredited and active OTP prescribers indicate that excluding prescribers employed by NBMLHD, there are eight community based OTP prescribers accredited who have current clients in the NBM region.</p> <ul style="list-style-type: none"> - 3 x Penrith LGA - 3 x Hawkesbury LGA - 2 x Blue Mountains LGA. <p><i>Chief Pharmacist Unit Legal and Regulatory Services Branch, NSW Ministry of Health. Data provided current as at 21 September 2017.</i></p> <p>NBMPHN Commissioned AOD Treatment Services</p> <ul style="list-style-type: none"> - Aftercare/treatment for relapse prevention <ul style="list-style-type: none"> o Targeting clients recovering from alcohol and/or other drugs addiction involving assessment and one-on-one aftercare. <ul style="list-style-type: none"> ▪ Making Choices Program based at Katoomba and Lithgow and operated by the Lyndon Community. This program targets adults including people recently released from prison ▪ Aftercare Outreach Program based at Penrith and Hawkesbury LGAs and operated by One80TC. This program targets adults including people recently released from prison ▪ WHOS West Aftercare based at Penrith and operated by WHOS. This program targets adults who live in the NBM region or wish to live in the NBM region who have received treatment from one of the WHOS rehabilitation services. - Ted Noffs Foundation: Targeted early intervention for young people involved in risky behaviours especially ice. This program provides
--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

		<p>individual support to young people across the NBM region and is based at Katoomba.</p> <ul style="list-style-type: none"> - The Lyndon Community: Professional development for general practice staff regarding alcohol and other drugs. AOD First Aid workshops primarily targeting allied health professionals and General practice information sessions are being conducted in each LGA. - Refer to 3.3 below for newly commissioned non-residential rehabilitation for women.
<p>3.2 Detoxification services</p>	<p>NBM local detoxification services:</p> <p>One local public detoxification service is available to residents of NBM region. This is located within the Penrith LGA. Travel time to this service is at least 2.5 hours one way for residents of Lithgow LGA and 0.5 to 1-5 hours for residents of Hawkesbury and Blue Mountains LGAs.</p> <p>One local private detoxification is available to residents of NBM region. This is located within the Hawkesbury LGA with travel time ranging from 2.5 hours to 0.5 hours, one way.</p> <p>Key stakeholders have reported a noticeable shortage of localized NBM area detoxification relative to the size of area and population density. It was suggested that increased availability to detoxification services would help reduce dependency in the NBM area. (NBMPHN Alcohol and Other Drugs Advisory Committee Meeting October 2017)</p>	<p>NBM local detoxification services:</p> <p><i>NBM Drug and Alcohol Service, Penrith</i> Men, women and youth. Inpatient and outpatient detoxification. Supports drug use in pregnancy and opioid substitution.</p> <p><i>St John of God, Richmond (Private Hospital)</i> Men and women. Detoxification for all drugs. Provides medicated detoxification, group and individual counselling, aftercare program. 3 week in-patient rehabilitation. Psychiatrist’s referral with assessment report preferred. GPs may also refer.</p>

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

	<p>Other metropolitan locations:</p> <p>A range of metropolitan services are available that would require considerable train or road travel. A number of these services are private hospitals requiring private hospital health insurance coverage.</p> <p>Lengthy travel time is a barrier to ambulatory detoxification and is also likely to be barrier to participants with family who need to stay in touch during an inpatient program.</p> <p>Services self-indicated culturally secure for Aboriginal people:</p> <p>Two services in other metropolitan locations indicate willingness to support culturally secure detoxification services. These are located in Darlinghurst and Surry Hills.</p>	<p>Other metropolitan locations:</p> <p><i>Herbert Street Clinic, St Leonards.</i> Men and women. Medically supervised detoxification. Methadone detoxification under 40 mg only. Provides adult detoxification, group therapy, assessment and counselling. Abstinence philosophy (NA/AA)</p> <p><i>Gorman House, Darlinghurst.</i> Men and women. Non-medicated detoxification in a 3-5 day program. Does not accept methadone, benzodiazepines, or cannabis. 20 bed unit with 17 female and 3 male beds.</p> <p><i>Jarrah House, Malabar.</i> Women with or without children. Detoxification, residential rehabilitation, case management, non-residential activities and family support.</p> <p><i>Northside Clinic, Greenwich (Private Hospital)</i> Detoxification and rehabilitation program for all drugs. 3 week in-patient program. Open-ended two days per week outpatient program and relapse prevention as 10 week program. Abstinence philosophy (NA/AA). GP referral required.</p> <p><i>Northside West Clinic, Wentworthville (Private Hospital)</i> 3 week residential detoxification and rehabilitation program. 40 beds. Provides outpatient program with relapse prevention. GP referral required. May have abstinence philosophy (NA/AA)</p> <p><i>Odyssey House, Campbelltown</i></p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

		<p>Men, women and families. Capable for people with comorbid mental health and AOD problems. Provides detoxification, residential rehabilitation, therapeutic community, case management, non-residential activities, family support, living skills programs.</p> <p><i>Program for Adolescent Life Management (PALM), Randwick (Ted Noffs Foundation)</i> For youth. Provides detoxification, residential rehabilitation, therapeutic community, case management, nonresidential activities including living skills programs.</p> <p><i>SA William Booth House (Salvation Army), Surry Hills</i> Men, women and Indigenous Australians. Provides detoxification for injecting drug users, homeless people, people with comorbid mental health and AOD problems, and CALD communities. Detoxification service includes residential rehabilitation, therapeutic community and family support.</p> <p><i>St John of God, Burwood (Private Hospital)</i> Men and women. Detoxification for all drugs. Provides medicated detoxification, group and individual counselling, aftercare program. 3 week in-patient rehabilitation. Psychiatrist’s referral with assessment report preferred. GPs may also refer.</p> <p><i>St Vincent’s Hospital AOD Service, Darlinghurst</i> Men, women and Indigenous Australians. Detoxification service for injecting drug users, homeless people and people with comorbid mental health and AOD problems. Services include pharmacotherapies, detoxification, case management and non-residential activities.</p> <p><i>South Pacific Private (Hospital), Curl Curl</i></p>
--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

		<p>Inpatient detoxification for unspecified length of time. Outpatient day program post discharge. <i>The Sydney Clinic, Bronte</i> Men, women, and dual diagnosis capable. Requires top medical cover. Inpatient medicated detoxification 15-21 days followed by day program. Referral from GP required.</p> <p><i>Wesley Private Hospital, Ashfield and Kogarah</i> Private psychiatric hospital providing detoxification as inpatient and outpatient programs. Dual diagnosis capable. GP referral required.</p> <p><i>Family and Community Services, NSW/ACT Drug and Alcohol Service Directory, January 2016.</i></p>
<p>3.3 Outpatient detoxification-counselling and non-residential rehabilitation services</p>	<p>NBM local services: One NGO non-residential rehabilitation service is located within the region at Katoomba. This is a relatively new and small service that supports women only. Indications are that this is a low intensity service.</p> <p>The WHO's West service is provided at Penrith and supports both men and women including those with high needs.</p> <p>The main regional outpatient service is provided by NBMLHD at Penrith and Katoomba locations.</p> <p>November 2017 Update: The newly commissioned nonresidential rehabilitation service for women is the only AOD rehabilitation</p>	<p>NBM local services: <i>Dianella Cottage, Katoomba</i> For women only. Payment by donation if affordable. This is a non-residential day program with group work, 1:1 work, drop in facilities, access to SMART recovery meetings.</p> <p><i>Woodlands Clinic: Blue Mountains Hospital</i> Comprehensive medicated assisted treatment program for opioid dependence as an outpatient service.</p> <p><i>WHOs West, Penrith</i> Men and women. WHO's West offers assessment, referral services and residential supported care for individuals from the NBM districts. There are 6 transitional housing beds located in Penrith and 7 residential care beds located at the Roselle Campus.</p> <p><i>Pathways Penrith (NBMAOD)</i></p>

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

	<p>service available within the Lithgow LGA. Local stakeholders have repeatedly requested a similar service for men.</p>	<p>Men, women and youth. Inpatient and outpatient detoxification, drug use in pregnancy, and opioid substitution.</p> <p><i>State Community Health Centres in NBM region:</i></p> <ul style="list-style-type: none"> - Youth drug and alcohol counselling service (YDAS) - Adult drug and alcohol counselling service - Magistrates early referral into treatment (MERIT) team - Adult drug court (ADC) team - Quit for new life counselling (Q4NL – Closing the Gap in Aboriginal health strategy) - Drug and Alcohol Psychology Team. <p>These services are located at the Nepean Campus (Opioid Treatment Program and Outreach), Penrith Community Health Centre, St Mary’s Community Health Centre, Cranebrook Community Health Centre and Katoomba Community Health Centre.</p> <p>November 2017 Update: NBMPHN Newly Commissioned Services</p> <ul style="list-style-type: none"> • Dianella Cottage provides non-residential outreach to Lithgow 2 days per week. This service targets women with coexisting drug, alcohol and mental health issues, including PTSD and complex trauma, and women at all stages of addressing their substance use. <p>Other metropolitan services:</p> <p><i>Marrin Weejali Aboriginal Corporation, Blackett</i> As part of Aboriginal specific Social and Emotional Wellbeing Services, this program provides S.M.A.R.T Recovery Program (stages 1 to 3). This is a self-help group that assists clients to recover from addictive behaviours. It teaches</p>
--	--------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

	<p>Other metropolitan services: A range of metropolitan services are available that would require considerable train or road travel. A number of these services are private hospitals requiring private hospital health insurance coverage.</p> <p>Lengthy travel time is a barrier to ambulatory detoxification and is also likely to be barrier to participants with family who need to stay in touch during an inpatient program.</p> <p>Services self-indicated culturally secure for Aboriginal people: There are no self-indicated services identified in the region or metropolitan areas that provide specialized AOD services for Aboriginal people, according to reports accessed.</p> <p>However just outside the regional boundaries, Marrin Weejali, an ACCHO is located on the eastern border near to Penrith.</p>	<p>practical skills to help deal with problems and gaining a more balanced life style. The program involves, motivation, coping skills and problem solving.</p> <p><i>Centre for Addiction Medicine, North Parramatta</i> Men and women. Provides drug and alcohol outpatient clinic, pharmacotherapy and drug and alcohol counselling.</p> <p><i>Continuing Adolescent Life Management (CALM), Randwick (Ted Noffs Foundation)</i> For young people between 13-18 years of age. Will accept comorbid clients on a case by case basis. Provides community-based therapeutic services including individual and family counselling, life skills development and educational, vocational programs and a medicated 2 week detoxification program.</p> <p><i>Maryfields Day Recovery Centre, Campbelltown (St. Vincent de Paul Society)</i> Men, women and families. This is a 10 week program with case management, non-residential activities, family support, living skills programs.</p> <p><i>Phoenix Treatment Facility (Kedesh Services), Balgowlah</i> Men and women. No detoxification service. Cognitive behaviour therapy (CBT), acceptance and commitment therapy (ACT), psychodynamic therapies, attachment theory, family systems theory, Gestalt therapy, solution focused therapy and positive psychology.</p> <p><i>Royal Prince Alfred Drug Health Service, Camperdown</i> Men and women. Outpatient medical clinics, outpatient counselling, opioid treatment program, counselling, perinatal and family drug health services.</p> <p><i>Centre for Addiction Medicine, North Parramatta</i> Men and women. Drug and alcohol outpatient clinic. Pharmacotherapy and drug and alcohol counselling.</p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

		<p><i>St Vincent’s Stimulant Treatment Program & Telephone Line, Darlinghurst</i> STP works with stimulant users who wish to develop safer ways of using and /or attain or maintain abstinence. Harm minimization is the overarching framework of this service. The telephone line is a NSW state-wide telephone service providing education, information, referral, crisis counselling and support specifically for stimulant use such as speed, ice ecstasy and cocaine.</p> <p><i>Family and Community Services, NSW/ACT Drug and Alcohol Service Directory, January 2016.</i></p>
<p>3.4 Residential rehabilitation & therapeutic communities</p>	<p>NBM Local Services:</p> <p>The identified state funded residential rehabilitation beds for the NBM region are not located in the region. They are located in a specialist facility approximately 1 hour drive from eastern border of the region and Penrith.</p> <p>One NGO provides residential rehabilitation in the NBM region and another at Werrington borders on the NBM region to the east. Both facilities cater only for men. One provides only a 12 month program aimed at young men aimed at delivering life skills as part of rehabilitation. This is a highly selective program. The other provider a 9-12 month program for adult men are risk of or homeless.</p> <p>There is long term residential rehabilitation beds open to men based on selective criteria. 180TC additionally</p>	<p>NBM Local Services:</p> <p><i>One80TC (formerly teen challenge), Richmond</i> Males only 18-35 years. Long term (12 month) residential rehabilitation. Detoxification needed prior to entering program. Living skills programs, life skills management. May take co-morbid clients on case by case basis.</p> <p><i>WHOs West, Penrith</i> Men and women. WHO’s West offers assessment, referral services and residential supported care for individuals from the NBM districts. There are 6 transitional housing beds located in Penrith and 7 residential care beds located at the Rozelle Campus.</p>

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

	<p>recently announced the opening of its women’s residential facility in Kurmond.</p> <p>Other Metropolitan Services: Similar to other AOD treatment categories, a range of metropolitan residential rehabilitation services are available that would require considerable train or road travel. A number of these services are private hospitals requiring private hospital health insurance coverage.</p> <p>Lengthy travel time is a barrier to participants with family who need to stay in touch during a residential program.</p> <p>Services self-indicated culturally secure for Aboriginal people:</p> <p>There are no reported self-indicated culturally secure residential rehabilitation beds for Aboriginal people in metropolitan Sydney or NBM region.</p>	<p>Other Metropolitan Services:</p> <p><i>Adele House, Werrington</i> Men only who are homeless or at risk of being homeless. 9-12 month residential program.</p> <p><i>Detour House, Glebe</i> Women only. Residential rehabilitation, non-residential activities, family support, living skills programs.</p> <p><i>Foundation House, (Construction Industry Drug and Alcohol Foundation) Rozelle</i> Men and women. Residential rehabilitation, non-residential activities, living skills programs and workplace AOD.</p> <p><i>Glebe House, Glebe</i> Men, CALD and people with comorbid mental health and AOD problems. Residential rehabilitation, case management, family support, living skills programs.</p> <p><i>Gunyah, WHOs, Rozelle</i> Men only, Long term therapeutic residential community. Requirement for detoxification prior to admission.</p> <p><i>Guthrie House, Enmore</i> Women, parents with children, homeless people and people with comorbid mental health and AOD problems. Provides pharmacotherapies, residential rehabilitation, family support, living skills programs.</p> <p><i>Jarraah House, Malabar.</i></p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

		<p>Women with or without children. Detoxification, residential rehabilitation, case management, non-residential activities and family support.</p> <p><i>Kathleen York House, Glebe</i> Women with or without children. Residential rehabilitation, case management, non-residential activities, family support.</p> <p><i>New Beginnings WHOs, Rozelle</i> Women only. Long term residential rehabilitation program.</p> <p><i>Odyssey House, Campbelltown</i> Men, women and families. Capable for people with comorbid mental health and AOD problems. Provides detoxification, residential rehabilitation, therapeutic community, case management, non-residential activities, family support, living skills programs.</p> <p><i>Program for Adolescent Life Management (PALM), Randwick (Ted Noffs Foundation)</i> For youth. Provides detoxification, residential rehabilitation, therapeutic community, case management, nonresidential activities including living skills programs.</p> <p><i>RTOD, WHOs, Rozelle</i> Men and women. Residential rehabilitation to allow stabilization on opioid substitution program. No minimum dose. Must be detoxed from alcohol and or benzodiazepines prior to admission.</p> <p><i>SA William Booth House (Salvation Army), Surry Hills</i> Men, women and Indigenous Australians. Provides detoxification for injecting drug users, homeless people, people with comorbid mental health and AOD</p>
--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

		<p>problems, and CALD communities. Detoxification service includes residential rehabilitation, therapeutic community and family support.</p> <p><i>Wayback Committee, Harris Park</i> Men and women. People with comorbid mental health and AOD programs. People can apply from jail however cannot come directly from jail. May be able to accept some detoxification cases on a case by case basis. Provides pharmacotherapies, residential rehabilitation, case management, living skills programs.</p> <p><i>Family and Community Services, NSW/ACT Drug and Alcohol Service Directory, January 2016.</i></p>
<p>3.5 Other specialist services</p>	<p>Family and child support is provided by two NGOs in the region in the Blue Mountains and Penrith LGAs. Bridging the Divide also aims to improve service integration between treatment providers and community service providers.</p> <p>Two youth specialist services and one specialist women’s service operate in western Sydney and regions bordering on NBM region. Travel time for NBM residents would range from 1 to 4 hours, one way.</p> <p>One specialist youth service supports non-specialist counselling for Aboriginal people in the adjoining region of Western Sydney.</p>	<p><i>Family Drug Support, Leura (Bridging the Divide)</i> Primarily volunteer programs to offer support to families impacted by substance use. Bridging the Divide builds partnerships with treatment services and other relevant communities and organisations to improve client engagement with services and increase effectiveness of treatment.</p> <p><i>Bernado’s Penrith, Cranebrook</i> Temporary accommodation, crisis intake. Child and family support.</p> <p><i>Follow On Youth Recovery Support Team, FYRST, Fairfield and Parramatta</i> Youth between 12-24 years. Outpatient drug and alcohol counselling and education in addition to a range of health service, housing and basic needs support.</p> <p><i>High Street Youth Health Service, Harris Park</i> Outpatient drug and alcohol counselling and education, in addition to a range of health service, housing and basic needs support.</p> <p><i>Mums and Kids Matter, Wesley Mission, Liverpool</i></p>

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

		<p>Mothers with mental illness & young children (0-5). Will take women with comorbid drug and alcohol problems on a case by case basis. Provides long-term support, mentoring, specialist assistance tailored to the individual needs of mothers and children. Residential facility which can accommodate up to 8 mothers and children. Plus in-home community packages for up to 15 mothers and children (one child less than 5 years).</p> <p><i>Street University Ted Noffs – Mount Druitt</i> Provides counselling 5 days a week including specialist Indigenous counselling and workshops.</p> <p><i>Family and Community Services, NSW/ACT Drug and Alcohol Service Directory, January 2016.</i> <i>NADA, Member Services reports provided, 2016</i></p>
<p>3.6 Poor access to rehabilitation services for women</p>	<p>Improved access to services for women and particularly women with children was identified as the highest priority by a large proportion of respondents that formed part of Project Skylight (2010). Subsequent to that report the funds from the liquidation of Westmount Rehabilitation centre at Leura were directed to the establishment and operation of Dianela Cottage, Katoomba where day care is provided in group and one-on-one counselling. These were not recurrent funds.</p>	<p>Respondents described the difficulties encountered by women as:</p> <ul style="list-style-type: none"> - Women with children often feared that by entering treatment they would disclose their substance habit and risk have their children taken into protective care. - A general lack of child care provided by treatment services including group support such as AA and NA. - Areas of disadvantage in the Blue Mountains were regarded as North Katoomba, the Hazelbrook areas and the Lower Mountains. <p>Respondents recommended the following interventions:</p> <ul style="list-style-type: none"> - Community based options for detoxification in safe environments for women with children - Intensive support, service co-ordination and case management for women with children, possibly using a mobile-outreach model - Coordinated support for pregnant substance users - Child care for recovery groups

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population		
		<ul style="list-style-type: none"> - Outreach to Blue Mountains women’s services - Capacity development of community based workers. <p><i>Project Skylight - Blue Mountains Drug and Alcohol Recovery Services Inc., Report 2: Alcohol and other drugs in the Blue Mountains, 2010.</i></p>
3.6.1 Care Coordination	Inadequate service models for early intervention and effective support and treatment	<p>Preliminary consultation with service providers indicate that:</p> <ul style="list-style-type: none"> - Drug and alcohol presentations represent approximately 20% of all presentations to ED - There are insufficient numbers of Aboriginal health workers in drug and alcohol services - It is likely that one in four inpatients could meet criteria for D&A treatment however most of these patients are not aware that they have a problem - Excluding detoxification - drug and alcohol related hospital separations are one of the top 5 medical DRGs with an average of 80 separations per month - There are difficulties obtaining D&A consultations for patients presenting to ED and other hospital services - There are currently no mechanism or links for shared care or advice between the regional drug and alcohol service and general practice <p><i>NBMPHN Preliminary Stakeholder Consultations for Drug and Alcohol, 2016</i></p>
3.7 Poor access due to limited service hours and availability of counselling	Strong indications that access to early intervention, counselling and aftercare is fragmented and inadequately resourced.	<p>Post-care or aftercare is recognised as important to prevent relapse following treatment. NADA (2013) reported that there is currently no systematic approach or dedicated funding to AOD services for the provision of post care programs across the sector.</p> <p>Consultation and review of Drug and Alcohol services indicate:</p> <ul style="list-style-type: none"> • Limited after hour services particularly for youth (12-20 yrs) • Lack of addiction medicine specialists in community setting • Low staffing levels and long wait lists • Very limited outreach clinics for youth (12-20yrs)

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

		<ul style="list-style-type: none"> • Limited GP experience in dealing with D&A clients • Poorer access for Aboriginal clients <p>drug and alcohol services is:</p> <ul style="list-style-type: none"> - Poor due to hours of service operation - Difficult for youth and Aboriginal clients - Poor due to inadequate staffing levels. <p><i>NBMLHD Health Services Plan 2012/2022</i> <i>Staff consultation, NBMLHD</i></p>
<p>3.8 Coordination of Care</p>	<p>D&A services operate independently of mental health services, largely operate independently of each other, have limited focus on clients holistic well-being and the ‘whole of family’ approach has not been adopted.</p>	<p>Consultation and review of D&A services indicate:</p> <ul style="list-style-type: none"> • Prevalence of dual diagnoses with mental health and D&A clients • Absence of service collocation with mental health services • Absence of service integration between AOD treatment services, including services delivered by NBMLHD, commissioned by NBMPHN and local NGO services • Poor focus on holistic care / physical well being • Lack of ‘whole of family’ approach in treatment plan and therapy <p>Further research is required to explore models of care that incorporate holistic management.</p> <p><i>NBMLHD Epidemiological profile 2014</i> <i>NBMLHD Health Services Plan 2012/2022</i></p>
<p>3.9 Smoking Cessation Programs</p>	<p>Indications that Drug and Alcohol services need to broaden and implement more smoking cessation programs</p>	<p>Consultation and review of D&A services indicate:</p> <ul style="list-style-type: none"> • Lack of smoking cessation clinicians in Child and Family Nursing teams • Lack of smoking cessation programs within Aboriginal maternal health services.

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population		
		<i>Staff consultation, NBMLHD</i>
3.10 Child and Youth D&A Services	Lack of appropriate detoxification service for young people for drug or alcohol withdrawal.	<p>Stakeholders have identified the need for specific detoxification services to support the withdrawal of young people from long term drug or alcohol substance use.</p> <p>Further research is required to examine existing detoxification treatment options for young people in the NBM region.</p> <p>Stakeholder have raised the following concerns:</p> <ul style="list-style-type: none"> • Lack of provision for young people within the detox facility at Nepean Drug and Alcohol Service, with regards to being in the same environment as adults. • Lack of free or cheap detox/rehab facilities. <p><i>Stakeholder Consultation, NGO 8/3/16</i> <i>NBMPHN GP and AHP Consultations March 2016</i></p>
November 2017 Update: <u>Corrections Drug Treatment Programs</u>	<p>Corrections NSW drug treatment programs provide some post discharge access to support. This is limited to the location and availability of staff.</p> <p>Additional post discharge support for ex-prisoners is now provided via NBMPHN Aftercare programs.</p>	<p>The Corrections NSW program for 6-8 months and using Open Rolling groups to deliver more individualized treatment.</p> <p>The first part of the program looks at Real Understanding of Self Help (RUSH). RUSH provides skills and works on minimising drug use.</p> <p><i>NBMPHN AOD Advisory Committee, October 2017.</i></p>
3.11 Community Wide Communication For Youth: D&A	Enhanced and targeted communication methods are required to engage and inform young people about the use of drugs and alcohol.	<p>Stakeholders have raised the following concerns regarding community wide engagement and education of young people:</p> <ul style="list-style-type: none"> • Lack of D&A services within the community to help engage and educate young people.

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

		<ul style="list-style-type: none"> • Lack of education for young people in relation to the effects of Drug and Alcohol. • Lack of community education and understanding of ICE. <p><i>NBMPHN GP and AHP Consultations March 2016</i> <i>Stakeholder Consultation, NGO 8/3/16</i></p>
<p>3.12 Workforce Capacity Including Skills And Training</p>	<p>There is a general view that workforce capacity for drug and alcohol services in the region could be substantially improved with training and skills development.</p>	<p>Further research is needed to examine the potential sources of the issues raised by stakeholders to develop appropriate options. The concerns raised by stakeholders were:</p> <ul style="list-style-type: none"> • Poor or no engagement of persons who use drugs by local general practitioners • Increase GPs knowledge of available clinical and non-clinical services and their referral pathways. • Increase GP capacity to identify early if consumer has substance use problems • Need for trauma education for health professionals. • Lack of GP Education dual diagnosis drug and alcohol & severe mental illness. • Insufficient dual diagnosis support and supervision for private therapist. • Lack of support workers who are available after hours and on weekends. <p><i>NBMPHN Mental Health Stakeholder Forum 23/2/16</i> <i>NBMPHN GP and AHP Consultations March 2016</i></p> <p>November 2018 Update Lyndon Community were commissioned to deliver AOD First Aid professional development for General Practitioners, Practices Nurses and General practice staff in all LGAs of the NBM region, for the period June 2017 to December 2018. The professional development package is designed to equip the local primary care workforce to more effectively identify types of treatments and supports that</p>

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD general population

		are effective, increase knowledge of alcohol and other drug referral pathway options, assist primary care practitioners to develop skills in supporting people effectively with AOD issues and overall improve the quality of patient care in AOD.
--	--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

ALCOHOL AND OTHER DRUGS: ABORIGINAL PEOPLE

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD services for Aboriginal people		
Identified Need	Key Issue	Description of Evidence
3.13 Indigenous corporations – community services	The NBM region has a number of active Aboriginal corporations, especially in the Blue Mountains region to support Aboriginal community engagement with AOD regional planning for Aboriginal people.	<p>NBM region:</p> <p><i>Cawarra Women’s Refuge Aboriginal Corporation, Kingswood</i> Provides accommodation and counselling support.</p> <p><i>Indigenous Disability Advocacy Services, Penrith</i> Disability services.</p> <p><i>Merana Aboriginal Community Association for the Hawkesbury, Richmond</i> Community development, support, programs and resources.</p> <p><i>Blue Mountains Aboriginal Cultural and Resource Centre, Katoomba</i> Cultural services including advocacy and resources.</p> <p><i>Gundungurra Aboriginal Heritage Association Inc., Lawson</i> Cultural services, awareness programs and recording sacred sites.</p> <p><i>Gundungurra Tribal Council Aboriginal Corporation, Katoomba</i> Cultural services, representing Gundungurra people.</p> <p><i>Katoomba Indigenous Outreach, Katoomba</i> Drop in information, advisory and advocacy service.</p> <p><i>Muru Mittigar Aboriginal Education and Resource Centre, Castlereagh</i> Employment services supporting Aboriginal people and cultural awareness.</p>

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD services for Aboriginal people

		<p>Adjoining regions:</p> <p><i>Gilgai Aboriginal Centre Inc., Mount Druitt</i> Community service provider for aged and disabled.</p> <p><i>Footprints in Time, Blackett</i> Longitudinal study of Indigenous children.</p> <p>Link Up Counselling Services Counselling and support especially for Stolen Generation.</p> <p><i>Darug Tribal Aboriginal Corporation, Blacktown</i> Cultural Services, resources.</p> <p><i>Aboriginal Medical Service, Western Sydney</i> Medical service, currently managed by the WSPHN. Has provided specialist AOD in the past and may do so in the future.</p> <p><i>Aboriginal Employment Strategy, Blacktown</i> Indigenous managed recruitment organisation.</p> <p><i>Step Up Indigenous Employment Solutions. Mt Druitt</i> Providing long term employment solutions to Aboriginal people.</p> <p><i>Aboriginal Legal Service NSW, Parramatta</i> Legal representation.</p> <p><i>CatholicCare Social Services, Parramatta Diocese. Mapping Aboriginal Services in the Diocese of Parramatta. 2012</i></p>
--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD services for Aboriginal people

<p>3.14 Mainstream (NGO) programs with Aboriginal workers</p>	<p>The NBM region has access to a number of NGOs with Aboriginal liaison and community workers to support Aboriginal community engagement with AOD regional planning for Aboriginal people.</p>	<p>NBM Region: <i>Blue Mountains Youth Accommodation and Support Service Inc, Springwood</i> Assisting homeless youth.</p> <p><i>Nepean Community and Neighbourhood Services, South Penrith</i> Community development.</p> <p><i>Miimali Aboriginal Community Association, St Mary's</i> Supporting Aboriginal youth 12-18 years.</p> <p>Adjoining regions: <i>Eddy's Out West, Blacktown</i> Transitional accommodation for youth.</p> <p><i>Jessie Street Domestic Violence Service, Doonside</i> Supporting Aboriginal women with emergency accommodation.</p> <p><i>Yawarra Community and child care centre, Bidwill</i> Long day care for children.</p> <p><i>Learning Ground, Bidwill</i> Capacity building in the community.</p> <p><i>Mount Druitt – The Shed, Emerton</i> A safe place for men and social inclusion.</p> <p><i>Salvation Army (New Careers for Aboriginal People Program), Mt Druitt</i> Increase employment participation for Aboriginal people.</p> <p><i>Aboriginal Legal Access Program, Windsor</i></p>
---------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD services for Aboriginal people

		<p>Legal Services.</p> <p><i>Marist Post Release Support Program, Blacktown</i> Support transitioning through custody.</p> <p><i>Family and Community Services, NSW/ACT Drug and Alcohol Service Directory, January 2016.</i></p> <p>November 2017 Update: The NBMLHD and NBMPHN Joint Aboriginal Advisory Committee for AOD and mental health was established in 2016 and has successfully provided ongoing input and feedback from Aboriginal communities across the region. This committee has been responsible for the co-design of three Aboriginal specific newly commissioned AOD and mental health programs for the NBM regions. These programs support all LGAs and target complex needs of Aboriginal people with dual diagnosis, early intervention for Aboriginal young people, and capacity building of Aboriginal workforce for AOD and mental health. Each LGA is represented by a male and female from the Aboriginal community.</p>
<p>3.15 Provision of services for Aboriginal people</p>	<p>Inadequate service models for early intervention and effective support and treatment</p>	<p>Preliminary consultation with service providers indicate that:</p> <ul style="list-style-type: none"> - Drug and alcohol presentations represent approximately 20% of all presentations to ED - There are insufficient numbers of Aboriginal health workers in drug and alcohol services - It is likely that one in four inpatients could meet criteria for D&A treatment however most of these patients are not aware that they have a problem - Excluding detoxification - drug and alcohol related hospital separations are one of the top 5 medical DRGs with an average of 80 separations per month

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD services for Aboriginal people

		<ul style="list-style-type: none"> - There are difficulties obtaining D&A consultations for patients presenting to ED and other hospital services - There are currently no mechanism or links for shared care or advice between the regional drug and alcohol service and general practice. <p><i>NBMLHD AOD Strategic Planning Forum, February 2016</i></p>
<p>3.16 Provision of services for Aboriginal people</p>	<p>Inadequate access to culturally secure detoxification and rehabilitation and aftercare services in the region.</p>	<p>Project Starlight (2010) reported service provider recommendations for improved access to services for Aboriginal people in the region. Concerns were expressed regarding lack of aftercare to support people who were living in an environment with other substance users and experienced peer pressure to resume substance use following rehabilitation.</p> <p>Service providers recommended the following interventions targeting Aboriginal people involved in substance use:</p> <ul style="list-style-type: none"> - Training for service providers to improve awareness of the link between substance use and Stolen Generation issues - Strategies to reach young people who may be at the crossroads of substance use and substance addiction - Soft entry options for access to AOD treatment when AOD issues arise in the context of other service provision - Post treatment support for Aboriginal people who have been through residential rehabilitation programs - A culturally secure drop in centre with male and female Aboriginal workers. <p><i>Project Skylight - Blue Mountains Drug and Alcohol Recovery Services Inc., Report 2: Alcohol and other drugs in the Blue Mountains, 2010.</i></p> <p>November 2017 Update: NBMPHN newly commissioned services targeting Aboriginal people:</p>

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD services for Aboriginal people

		<ul style="list-style-type: none"> • Nepean Community Neighbourhood Centres (NCNS) has been commissioned to provide a care coordination service for Aboriginal people with a dual diagnosis of AOD and mental illness. This is a region wide program based at Penrith. • Blue Mountains Aboriginal Culture and Resource Centre (ACRC) has been commissioned to provide early intervention for young Aboriginal people at risk of mental illness and AOC addiction. This is program focusses on connection to culture and aims to address the rising prevalence of crystalline methamphetamine and the increasing risk of suicide and mental illness. This is a region-wide program with regular workshops held in each LGA.
<p>3.17 Capacity of Services For Aboriginal People</p>	<p>Inadequate capacity of primary health services to respond to Aboriginal health needs.</p>	<p>The Sharing and Learning Circles conducted in each LGA identified the importance of building service capacity to meet broad range needs for Aboriginal health service provision.</p> <p>Inadequate knowledge of health services: was identified as an issue by each community group. The primary concern is one of knowledge and lack of access to relevant information to support equitable and necessary access to health services. This prevents Aboriginal people from attempting to access a range of services. Lack of knowledge of entitlements was also identified as part of this issue. When unique services and supports are provided to support identified issues, Aboriginal people are often not aware of these opportunities due to social and cultural isolation.</p> <p>Lack of trust in mainstream service providers was identified as a barrier to access by each of the community groups. Examples given were CTG benefits not provided by certain pharmacies.</p>

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD services for Aboriginal people

		<p>Cultural safety was identified by all community groups either directly or indirectly. There is limited and potentially no access to Aboriginal medical service providers in the region due to the uncertain future of the Mount Druitt and Penrith services. A culturally safe environment recognises and respects traditional values, norms and preferences, and supports the dignity and cultural identity of each individual.</p> <p>Engagement with services by Aboriginal people: Each community group indicated that there are no clear mechanisms for Aboriginal people to become involved in the governance of health services in the NBM region. The broad issues raised were the need for information, forums, engagement with identified providers to facilitate access and linkages to other services. There appeared to be no specific mechanisms in place to support the engagement of Aboriginal people in the decision making and development of service provision for their communities. <i>NBM Sharing and Learning Circles, Blue Mountains LGA, Hawkesbury LGA, Penrith LGA, Lithgow LGA, 2015</i></p> <p>November 2017 Update Poche Centre for Indigenous Health (Sydney Medical School, The University of Sydney) has been commissioned to facilitate the development of a skilled Aboriginal workforce as an important precursor to culturally secure services. The program includes supported cadetships (4) and scholarships (24). This is a region-wide program.</p>
3.18 Capacity of Services For Aboriginal People	Additional AOD and related services required needed to meet identified needs.	<p>Drug and Alcohol: Inadequate supply of culturally safe drug and alcohol services has been identified for the region. Additional services are needed especially to support Aboriginal people with mental health problems, and for culturally safe detoxification services or dedicated facility.</p>

Outcomes of the service needs analysis – Alcohol and Other Drugs: AOD services for Aboriginal people

		<p>One stop shop: A central point where Aboriginal people can access a broad range of information, coordination and support was absent. This is not necessarily a location for service provision, but rather a place where Aboriginal people can feel safe to participate and discuss their needs in order to understand service provision options and facilitate access.</p> <p>Mental Health: There is a need for more appropriate follow up and support for dual diagnosis for substance abuse and mental health issues. The importance of mentoring was identified as part of a culturally safe response to mental health issues.</p> <p><i>NBM Aboriginal Sharing and Learning Circles, Blue Mountains LGA, Hawkesbury LGA, Penrith LGA, Lithgow LGA, 2015</i></p>
--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Indigenous Health (including Indigenous chronic disease)

Outcomes of the service needs analysis – Indigenous Health (including Indigenous chronic disease)		
Identified Need	Key Issue	Description of Evidence
<p>Access to Aboriginal and Torres Strait Islander specific primary healthcare services</p>	<p>Anticipated improved access to Aboriginal community controlled primary healthcare services for NBM Aboriginal community members living in the Penrith LGA, commencing in late 2018.</p> <p>There is an ongoing unmet need for Aboriginal community controlled primary healthcare services for NBM Aboriginal community members living in Lithgow LGA, Hawkesbury LGA and Blue Mountains (in particular mid to upper areas) LGA.</p>	<p>Previously, the only dedicated Aboriginal Medical Service (AMS) in close proximity to the NBMPHN catchment was located in Mt Druitt (just outside the Eastern boundary of the NBMPHN region).</p> <p>2018 Update: the Greater Western Aboriginal Health Service (GWAHS) located in Penrith is expected to commence operating its service on a part-time basis in the second half of 2018. GWAHS identified purpose is to plan, deliver, coordinate and advocate for effective clinical and community-based primary healthcare services to the Aboriginal community. It is expected that GWAHS will focus on establishing GP services as a core focus, with identified priority areas including: child and adult immunisation, chronic disease management, and drug and alcohol, and mental health related services. The service is anticipated to facilitate easier access to culturally appropriate health services in particular for the Penrith Aboriginal population within the NBMPHN region.</p> <p><i>Greater Western Aboriginal Health Service presentation at the Penrith Health Action Plan Planning Workshop, 21 June 2018.</i></p>
<p>Access to primary health care services for Indigenous people</p>	<p>Social and cultural determinants of health including costs of transport, healthcare costs, lack of communication infrastructure, unemployment and education levels impact on Indigenous</p>	<p>Australian research has identified and explored issues and barriers that hinder Indigenous patients, their families and communities from accessing primary health care, and the extent to which and how these may be successfully addressed by Indigenous health care services.</p> <p>Key issues impacting on Indigenous peoples ability to access care were those relating to social and cultural determinants of health, in particular:</p>

Outcomes of the service needs analysis – Indigenous Health (including Indigenous chronic disease)

	<p>peoples access to primary healthcare in Australia.</p>	<ul style="list-style-type: none"> • Poverty – making it difficult to afford transportation to, or of the costs of obtaining healthcare services • Lack of basic communication infrastructure within some communities, such as telephones to access healthcare guidance and advice • Unemployment and lower levels of education <p>Indigenous health care services were able to overcome some of these barriers via strategies such as providing transport to and from their facility, providing outreach services delivering care into patient’s homes or subsidized costs for Indigenous peoples on low incomes. The lack of Indigenous primary healthcare service provision in NBM means these issues are very likely to have remained as unmet needs for Aboriginal people in the region up to the current time.</p> <p><i>Harfield S, McArthur A, Munn Z and Brown A. Access to primary health care services for Indigenous peoples: A framework synthesis. International Journal for Equity in Health; 2016(15):163</i></p>
<p>Poor Access to culturally appropriate health services</p>	<p>There are indications that access to healthcare services for Aboriginal people in the NBM region is poor due to a lack of culturally appropriate services.</p> <p>Defunding and discontinuation of the Healthy for Life Service for Aboriginal persons living in the Blue Mountains LGA</p>	<p>Consultation and review of access to services for Aboriginal people indicate:</p> <ul style="list-style-type: none"> • A lack of culturally appropriate services in NBMLHD • Inequitable access to health services <p><i>NBMLHD Aboriginal Health Profile 2016</i> <i>NBMLHD Health Services Plan 2012/2022</i></p> <p>The Healthy for Life Service for Aboriginal persons, operated by Wentworth Healthcare Ltd. (WHL) in the Blue Mountains LGA was defunded on 31 March 2017, with the view that this service would transfer to and continue to be delivered by Greater Western Aboriginal Health Service (GWAHS) This service has not yet re-commenced to date, however GWAHS have indicated that Healthy for Life staff / services will be available at the Penrith site. It is unclear</p>

Outcomes of the service needs analysis – Indigenous Health (including Indigenous chronic disease)

	<p>Limited access to the Aboriginal Medical Service operating in Mt Druitt (just beyond the Eastern border of the NBMPHN region).</p>	<p>whether WACHS will re-commence a Healthy for Life service for the Aboriginal Community in the Blue Mountains LGA.</p> <p><i>Greater Western Aboriginal Health Service (GWAHS) presentation at the Penrith Health Action Planning Workshop, 21 June 2018.</i></p> <p>Anecdotal reports suggest that Aboriginal people living in Penrith and Hawkesbury have experienced discrimination in accessing culturally appropriate care via limited access to the WACHS Aboriginal Medical Service located in Mt Druitt. An increasing number of Aboriginal persons have been refused access to care due to having inadequate paperwork proving their cultural identify.</p> <p><i>NBMPHN and NBMLHD joint Aboriginal Mental Health and AOD Advisory Committee, 2017</i></p>
<p>Aboriginal Health Worker Workforce</p>	<p>Poor access to Aboriginal Health workers in the NBM region.</p> <p>Poor career mentoring, development and support for the Aboriginal Health Workforce.</p>	<p>There is a severe and chronic shortage of Aboriginal Health Workers in the NBM region, in particular in the Hawkesbury and Lithgow LGAs. This exacerbates challenges for the local Aboriginal communities in accessing culturally safe and appropriate local health services. Currently only one Aboriginal Health Worker is available in the Hawkesbury LGA and one Aboriginal Health & Community worker available who covers Lithgow and the Blue Mountains. This situation additionally adds to significant overwork and stress upon the few Aboriginal Health Workers themselves, who report they are at a heightened risk of burnout.</p> <p><i>NBMPHN consultations with Aboriginal and Community Health teams NBMLHD, 2017</i></p> <p>Local workforce consultations reveal that poor levels of support, mentoring and career development is currently provided for Aboriginal Health Workers in the Lithgow area, in particular for younger Aboriginal persons &/or health workers who may be considering working in the area, or who are at risk of moving away from and working out of the area. Support and mentoring that engages Aboriginal Health Workers about issues and situations that are affecting them personally or the Aboriginal community are needed to promote a sustainable local Aboriginal Health Workforce.</p>

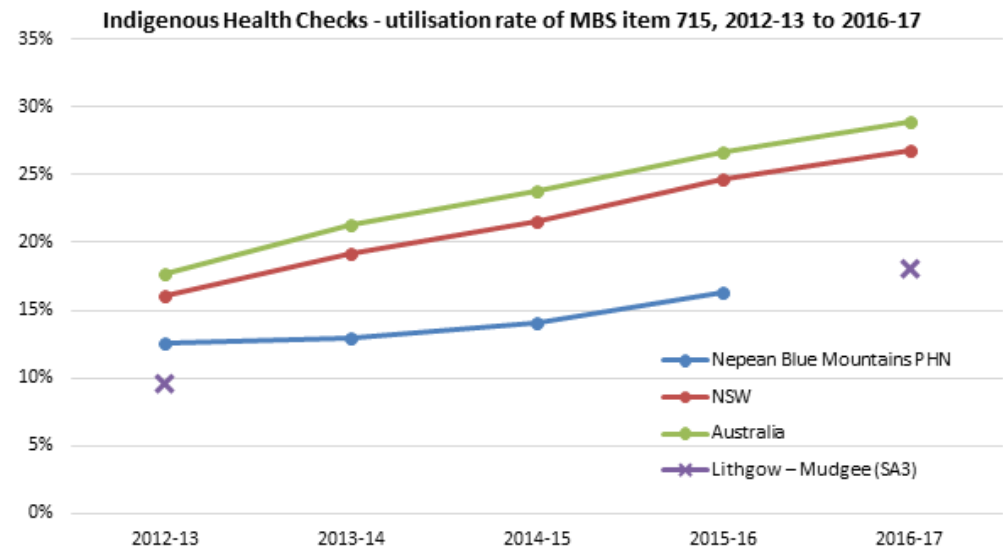
Outcomes of the service needs analysis – Indigenous Health (including Indigenous chronic disease)

		<i>NBMPHN consultations with Aboriginal and Community Health teams NBMLHD, 2017</i>
Health transport	Poor access for transport to health services for Aboriginal people	Poor access for transport to health services, particularly for Aboriginal people living in the Hawkesbury region with disability, mobility issues and or multiple chronic health issues is reportedly a major and ongoing issue. In the Lithgow LGA, the private bus company does not accept Opal cards including Concession Opal cards, which prohibits travel for disadvantaged Aboriginal people with low incomes. <i>NBMPHN consultations with Aboriginal and Community Health teams NBMLHD, 2017</i>
Use of the Indigenous health check MBS item	<p>Relatively lower use of the Indigenous Health Assessment (MBS item 715) amongst primary care providers in the NBM region compared to Australian and NSW state average –</p> <p>Possible indication of reduced capacity among NBM general practices to deliver and improve access to culturally appropriate primary healthcare services.</p>	<p>All Aboriginal and Torres Strait Islander people are eligible for an annual Indigenous-specific Health Assessment for chronic conditions, which is designed to support earlier detection of disease, diagnosis and treatment of common, treatable conditions.</p> <p>Although the usage rate of the Indigenous health check item MBS 715 for Indigenous persons by primary care providers in the NBM region increased from 12.6% in 2012-13 to 16.3% in 2015-16, these rates were lower than the average uptake of the Indigenous health check item Australia-wide and in NSW, which were 17.7 and 16.1% in 2012-13 and 26.7 and 24.7% in 2015-16 respectively. This means that many Aboriginal and Torres Strait Islander people in the NBM region are missing out on regular health checks for which they are eligible.</p> <p>MBS item 715 claims for the 2016-17 financial year for the NBM region indicate 1,951 services were claimed / number of checks completed. This equates to an estimated 14.8% uptake of the Indigenous health check item Indigenous persons in the NBM region, a decrease from 16.3% in the previous 2015-16 financial year. In comparison, a total of 217,678 MBS item 715 claims were claimed across Australia in 2016-17, equating to an estimated 28.9% uptake by Indigenous persons across the country.</p> <p>Relatively lower use of the Indigenous Health Assessment MBS item 715 may be an indicator of lower capacity of general practices in the NBM region to deliver culturally appropriate</p>

Outcomes of the service needs analysis – Indigenous Health (including Indigenous chronic disease)

primary healthcare services and to improve access for Aboriginal people to mainstream primary healthcare services.

Figure 46: Utilisation of the Indigenous Health Check MBS 715 item, Nepean Blue Mountains PHN vs. Lithgow-Mudgee SA3, NSW and Australia, 2012-13 to 2016-17



Australian Institute of Health and Welfare 2017 – Indigenous Health Check (MBS 715) source data. Available at: <https://www.aihw.gov.au/reports/indigenous-health-welfare-services/indigenous-health-check-mbs-715-data-tool/data> [Accessed March 2018]

Commonwealth Department of Health, 2017 – Medicare Benefits Schedule Data: MBS data by PHN, MBS item and reporting group 2012-13 to 2016-17

.id Community Profile – Nepean Blue Mountains Primary Health Network [Accessed 24 October, 2018]. Available at: <https://profile.id.com.au/nbmphn>

Outcomes of the service needs analysis – Indigenous Health (including Indigenous chronic disease)

<p>General practice assessment of absolute cardiovascular risk</p>	<p>There is widespread suboptimal routine assessment and treatment of absolute CVD risk in general practice for Aboriginal patients across the NBM region.</p> <p>Local data indicates that 64.6% of age-relevant Aboriginal general practice patients have not had their absolute CVD risk assessed according to recommended preventive guidelines.</p>	<p>Assessment of absolute CVD risk combines known risk factors to calculate the probability that an individual will develop a cardiovascular event, such as a myocardial infarction or stroke, or other vascular disease within a specified time frame (usually five years).</p> <p>The Royal Australian College of General Practitioners Guidelines for preventive activities in general practice recommends targeted screening and treatment for absolute CVD risk assessment at least every 2-years for Aboriginal and Torres Strait Islander peoples aged 35 years and older, who are not known to have CVD or to be clinically determined to be at high risk.</p> <p>NBM general practice data indicates that among 64 of 131 (49%) of general practices in the NBM region, 64.6% of Aboriginal and Torres Strait Islander patients aged 35-74 years had not had their CVD risk measured or recorded within the previous 2-years.</p> <p>Key infrastructure components which have resulted in successful national implementation of absolute CVD risk assessment in New Zealand, but which are missing in Australia include:</p> <ul style="list-style-type: none"> • A government-led national strategy to increase Absolute Cardiovascular risk assessment. • Integration of risk equations within patient electronic records and auditing of the results. <p><i>The Royal Australian College of General Practitioners. Guidelines for preventive activities in general practice. 9th edn, updated. East Melbourne, Vic: RACGP, 2018</i></p> <p><i>Australian Healthy Policy Collaboration 2017, Heart Health for all Australians Policy Paper: The first step to getting Australia’s health on track</i></p> <p><i>Local general practice data available to the Nepean Blue Mountains Primary Health Network via the PEN Clinical Audit Tool, March 2018</i></p>
---------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Indigenous Health (including Indigenous chronic disease)

<p>Experiences of Hospital care for Aboriginal People</p>	<p>Aboriginal persons reported poorer experiences of care while in hospital in the NBMLHD</p>	<p>The Australian Bureau of Health Information Survey of hospital care for admitted patients – Aboriginal people in the NBMLHD, revealed that Aboriginal people reported poorer experiences of care compared to non-Aboriginal persons and to Aboriginal patients elsewhere in NSW.</p> <p>Survey questions where Aboriginal patients in NBM reported significantly poorer experiences of care compared to non-Aboriginal patients include:</p> <ul style="list-style-type: none"> • ‘Always’ got the opportunity to talk to a nurse when needed • Nurses were ‘always’ kind and caring • ‘Definitely’ involved in decisions about care and treatment • ‘Always’ given enough privacy when being examined or treated • ‘Always’ given enough privacy when discussing condition or treatment • Nurses were ‘always’ polite and courteous <p><i>Bureau of Health Information. Patient Perspectives – Hospital care for Aboriginal people: Nepean Blue Mountains LHD profile. 2016</i></p>
<p>Capacity of service for Aboriginal People</p>	<p>Inadequate capacity of primary health services to respond to Aboriginal health needs</p>	<p>The Sharing and Learning Circles consultations conducted in each NBM LGA in 2014 identified the importance of building service capacity to meet broad range needs for Aboriginal health service provision.</p> <p>Inadequate knowledge of health services: was identified as an issue by each community group. The primary concern is one of knowledge and lack of access to relevant information to support equitable and necessary access to health services. This prevents Aboriginal people from attempting to access a range of services. Lack of knowledge of entitlements was also identified as part of this issue. When unique services and supports are provided to support identified issues, Aboriginal people are often not aware of these opportunities due to social and cultural isolation.</p>

Outcomes of the service needs analysis – Indigenous Health (including Indigenous chronic disease)

		<p>Lack of trust in mainstream service providers was identified as a barrier to access by each of the community groups. Examples given were CTG benefits not provided by certain pharmacies.</p> <p>Cultural safety was directly and indirectly identified as a gap by all community groups. There is limited and potentially no access to Aboriginal medical service providers in the region due to the uncertain future of the Mount Druitt and Penrith services. A culturally safe environment recognises and respects traditional values, norms and preferences, and supports the dignity and cultural identity of each individual.</p> <p>Engagement with services by Aboriginal people: Each community group indicated that there are no clear mechanisms for Aboriginal people to become involved in the governance of health services in the NBM region. The broad issues raised were the need for information, forums, engagement with identified providers to facilitate access and linkages to other services. There appeared to be no specific mechanisms in place to support the engagement of Aboriginal people in the decision making and development of service provision for their communities.</p> <p><i>NBM Sharing and Learning Circles, 2015</i></p>
<p>Services needed</p>	<p>Additional services required needed to meet identified needs</p>	<p>Dental services: These services either could not be accessed or were difficult to access by a number of community groups.</p> <p>One stop shop: A central point where Aboriginal people can access a broad range of information, coordination and support was absent. This is not necessarily a location for service provision, but rather a place where Aboriginal people can feel safe to participate and discuss their needs in order to understand service provision options and facilitate access.</p> <p>Aboriginal Community Controlled Health Organisation (ACCHO): there is no existing ACCHO available in the NBM region. This continues to have a significant and ongoing negative impact upon how health services are distributed, available for and accessed by NBM local Aboriginal populations.</p>

Outcomes of the service needs analysis – Indigenous Health (including Indigenous chronic disease)

	<p>Loss of service coordination for Aboriginal people living with Chronic conditions in the Blue Mountains LGA.</p>	<p>Mental Health: There is a need for more appropriate follow up and support for dual diagnosis for substance abuse and mental health issues. The importance of mentoring was identified as part of a culturally safe response to mental health issues.</p> <p>Aged Care: The need for increased support for aged people at home including home support services and volunteer services was identified.</p> <p>Drug and Alcohol: Inadequate supply of culturally safe drug and alcohol services has been identified for the region. Additional services are needed especially to support Aboriginal people with mental health problems, and for culturally safe detoxification services or dedicated facility.</p> <p>Ante and Post Natal Care: For the Lithgow area there were concerns expressed regarding a lack of understanding of Aboriginal maternal needs and cultural awareness.</p> <p>Paediatric Care: There were also concerns raised regarding a significant shortage of paediatricians in the Lithgow area. The outcome of this situation has been excessive waiting lists including for Aboriginal children who may not be performing well at school due to delayed access to needed care.</p> <p>Aboriginal people with Chronic conditions were previously supported in the Blue Mountains by the Healthy For Life Program. In March 2016, the delivery of the Healthy for Life was awarded to Wellington Aboriginal Corporation Health Service (WACHS). WACHS expect to re-open services in the Penrith LGA in 2018 for Aboriginal people living with chronic conditions; however it is currently unclear if or when Healthy for Life services may recommence in the Blue Mountains LGA. In the interim, alternate services have had to be sought for this group of patients.</p> <p><i>NBM Sharing and Learning Circles, 2015</i></p>
--	---------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outcomes of the service needs analysis – Indigenous Health (including Indigenous chronic disease)

		<i>NBMPHN consultations with Aboriginal and Community Health teams NBMLHD, 2017 Department of Health directive – Advice of alternate service provider for Healthy for Life program March 2016.</i>
--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------