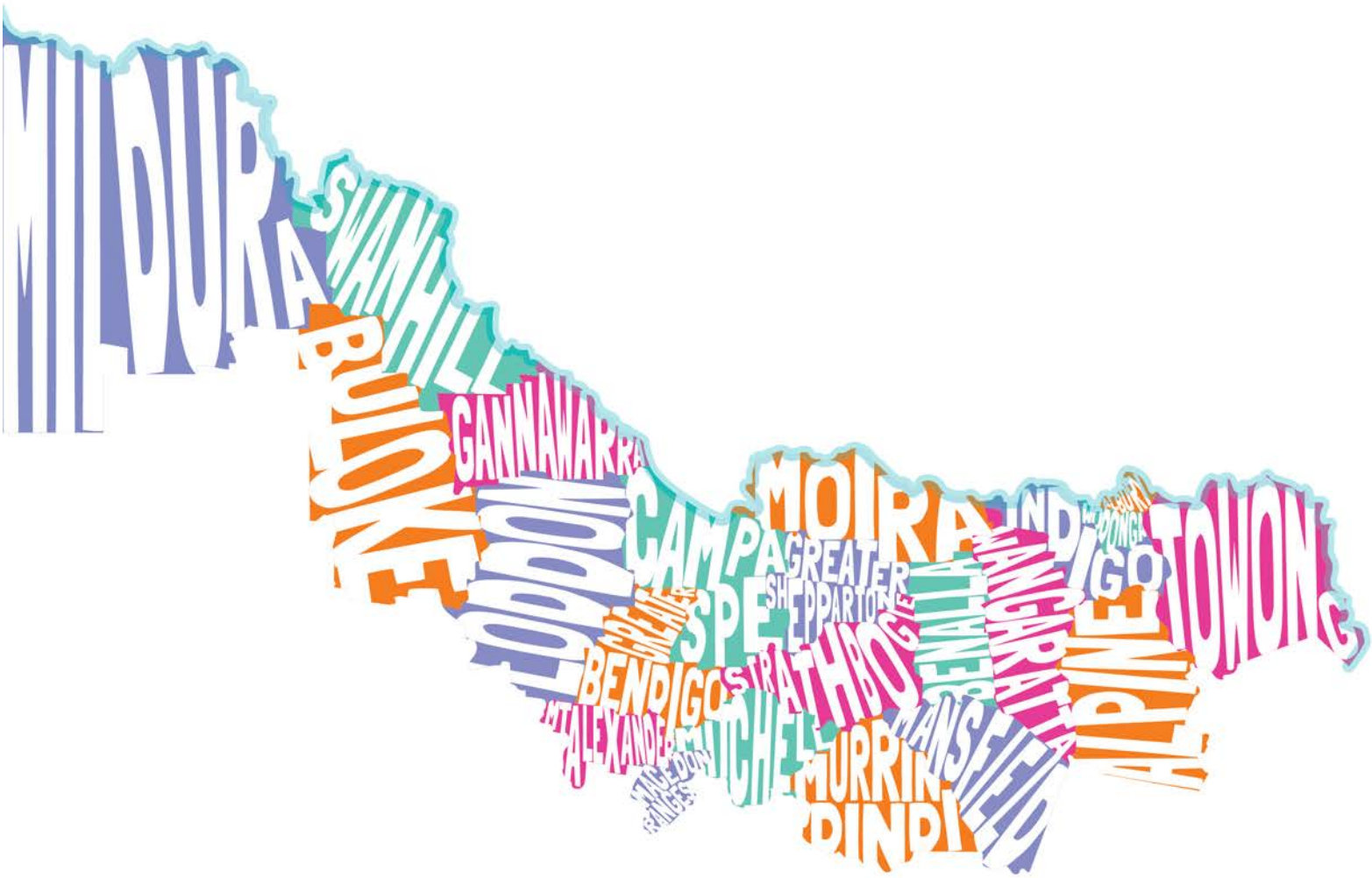


phn
MURRAY

An Australian Government Initiative

NEEDS ASSESSMENT

2017/18

CONTENTS

INTRODUCTION

To understand the health of our population, we gather, interpret and layer data to provide a detailed and full picture of our communities. The information is published annually, helping us to identify priority health and service needs within our region.

Our analysis of data is informed by foresight methodology (Voros, 2001) that moves from problem/gap identification through to options and opportunities. Looking at what is, and what might happen, to what needs to be done and how.

Since our first assessment in 2016, we have strengthened our future capability through knowledge management. Our population health knowledge base - Murray Exchange - has been a significant milestone in the assembly of quality health-related information that is contemporary, meaningful and accessible for stakeholders and to our communities.

To drive improvements in GP data quality, we have designed and tested an automated report, for GP practices working with Murray PHN. The report displays 15-month trends, regional and catchment-wide comparisons and creates benchmarks across practices in our region. We have begun tracking disease prevalence (cardiac, pulmonary and diabetes disease trends), count of patients by MBS data, cancer screening rates, mental health trends and Aboriginal and Torres Strait Islander patients' health assessment status. The report also provides us with de-identified patient data for population health planning.

Murray PHN has been informed by the Aboriginal and Torres Strait Islander, clinical and community advisory councils established across the catchment. We have also created Health Voices: a network of community members who can respond and advise Murray PHN of local health barriers and opportunities. They add a deeper dimension to our understanding of health at the local level. Our councils and voices are referred to in this document as 'Community Voice'.

The 2017/2018 Needs Assessment supports the planning, design and commissioning of services that provide accessible and affordable, efficient and effective primary health care in our region.

OUTCOMES OF HEALTH NEEDS ANALYSIS

This section summarises the findings of the health needs analysis to date, with a particular focus on health priorities.

The summaries will continue to be developed in consultation with the service providers, communities and advisory structures. The summary is not presented as an exhaustive list or comprehensive evidence base, as it has sought to strategically build on existing local knowledge and professional judgment as to what matters most for future planning.

Outcomes of the health needs analysis - key areas:

- Population health
- Aboriginal and Torres Strait Islander health
- Aged care
- Mental health
- Child and adolescent mental health
- Suicide prevention
- Alcohol and other drugs (AOD)
- Childhood immunisations
- Cancer screenings
- Chronic disease conditions: diabetes and cardiac-related admissions.

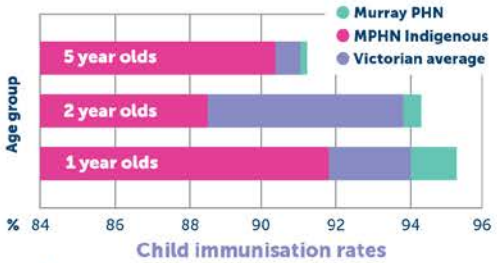
Our region at a glance

The Bendigo Easter Fair began in 1871 and is Australia's oldest ongoing festival

151,000 of us are obese

More than 14 Aboriginal language groups

371,000 have a long-term health condition



105,000 people smoke

1 in 5 experience a mental illness in any year

The Murray River is the third longest navigable river in the world

The largest Murray Cod **1.8m long and 113 kg** (a critically endangered species)

13,600 Aboriginal and Torres Strait Islander people

400+ Health Voices

4 Pink Lakes

177,000 have high blood pressure

2,530km The length of the Murray River

237,000 physically inactive

373,000 haven't seen a dentist in the past year

348,000 don't have private health insurance

Indigenous Australians have lived in the Murray River valley for at least 40,000 years

Greater Shepparton's 90 life-sized, fibreglass cows celebrate the region's agricultural industry

331,000 don't meet daily recommended fruit and vegetable consumption

22 Doctors in secondary schools appointed

388,000 people misuse alcohol

Bowel Cancer Screening Rates

43.1% Murray PHN **38.9%** National

The Murray River is more than 60 million years old

Champion race horse Black Caviar was born in Nagambie

644,460 Murray PHN total population

Cervical Cancer Screening Rates

63.5% Murray PHN **56.4%** National

Mt Bogong is Australia's second highest mountain and Victoria's highest at **1,986m**

Home to half of Victoria's wine regions

A royal commission in 1903 recommended Albury as the site of Australia's capital but Parliament chose Canberra in 1908

50 Stop Mental Illness Stigma signed pledges

69% of Australia's almonds and 48% of Australia's pistachios are grown in the North West region

Breast Cancer Screening Rates

56.8% Murray PHN **53.7%** National

122,000 went to an emergency department for treatment

We have the highest and lowest record temperatures in Victoria

Highest 50.8°C
Mildura 6 January 1906

Lowest -12.8°C
Mt Hotham 30 July 1931

The world's largest canoe race, the Murray Marathon, is held on the Murray River each year **5 days 404kms**

Leadership Collaboration Knowledge Innovation Accountability

Population health

Summary points

- Higher avoidable mortality rates (than the Victorian rate) exist for 15 of the 22 LGAs within the Murray PHN catchment
- GP workforce sustainability and retention is a significant issue.
- Cardiovascular disease, diabetes and chronic obstructive pulmonary disease are significant contributors to hospital admissions
- Cardiovascular disease, diabetes, cancer and mental illness are the most significant direct contributors to the life expectancy gap between Aboriginal and non-Aboriginal Victorians.
- There are emerging issues regarding women's health across the catchment
- New settler and refugee arrivals are significant for the Murray PHN

Consultation

(A) Murray PHN regional team – community interaction (Nov 2016-July 2017)
(B) Murray PHN Clinical, Community and Indigenous health councils (Nov 2016-July 2017)
(C) Murray Health Voices – community voice feedback (July 2017)
(D) Population Health Planning Network (July 2017)

Community voice

(D) Integration and effectiveness of services is a major consideration of service providers across the catchment. (C) (B) and (A) Workforce capacity and retention is a significant issue in remote and regional areas.

Key issues

- Need for increased access to services, and need for improved access for young people with a disability to supported care.
    - Options for access to after-hours support including improved awareness of supports available for Ageing in Place – care in the home models.
    - Access to specialist service providers and greater flexibility for better models of coordinated care.
    - Discharge planning processes from metro and regional hospitals and improved after care services are required and need GP coordination.
- Health data establishes that four preventable chronic conditions - cardiovascular disease, diabetes, cancer and mental illness - are the most significant direct contributors to the life expectancy gap between Indigenous and non-Indigenous Victorians.

- In some communities, particularly rural local government areas such as the Shire of Gannawarra and the Shire of Strathbogie, people aged over 65 years represent more than one quarter of the total local government area population.
- An increased number of people and proportion of the population over 65 years and over 85 years means all services need to take more account of the needs of the aging and the very elderly.
- A further analysis of Australian Institute of Health and Welfare (AIHW) indicators shows that for certain conditions and service use activity, there are a number (of indicators) for Murray PHN which fall detrimentally outside of AIHW comparative data.
- Potentially preventable hospitalisations for COPD and complications arising from diabetes are significantly higher across the PHN catchment with the highest numbers per standardised population rate in the Central Victoria and Goulburn Valley regions (AIHW 2016).
- Limited public dental clinics are available throughout many rural areas.
- There are major transport issues, including access, timetabling, small towns into regional centres/services and costs as identified in local transport plans and reports.

Description of evidence

- Murray PHN had a total population of approximately 644,457 persons in 2016. The catchment is projected to experience steady population growth over the next ten years. In round figures, Central Victoria has 230,400, North East 175,400, Goulburn Valley 157,800 and North West 80,600.
- Approximately 13,591 persons identify as Aboriginal and Torres Strait Islander. This represents 28% of the total Victorian Aboriginal and Torres Strait Islander population. Murray PHN has significant proportions residing in Swan Hill, Mildura and Greater Shepparton regions.
- Fifty-five of the 68 Statistical Areas (SA2 level) in the Murray PHN catchment have SEIFA scores less favourable than the Victorian average.
- Specific communities of significant disadvantage include California Gully – Eaglehawk (903), Cobram (904), Seymour (899), Upper Yarra Valley (846) and Robinvale (872).
- In 2014, Murray PHN's catchment population was noticeably more likely to receive the Centrelink income support payments, age pension, disability support payment or the sole parent payment (females only) compared with the Victorian average. North West had the highest proportion of population receiving any three of these Centrelink income support payments.
- Avoidable mortality (0-74 years):
    - Central Victoria has five of six LGAs well above the Victorian rate
    - Goulburn Valley all five LGAs are above - notably Murrindindi at 276.4 is more than double the Victorian rate
    - North East has five of eight LGAs above the Victorian rate
    - North West has all three LGAs above the Victorian rate per 1,000.
- Those receiving disability support payments is approximately 30,000 persons (16 – 64 years) across the catchment, representing 7.9% of the population.
- For those receiving instances of assistance through Home and Community Care (HACC), two areas have significant variance to the Victorian population rate. For Gannawarra it is more than double at 372, and for Loddon it is 560 compared with the Victorian rate of 142.
- For all causes of premature mortality, excluding cerebrovascular diseases, Murray PHN has higher premature mortality than for all conditions in metropolitan Melbourne.

Aboriginal and Torres Strait Islander health

Summary points

- Approximately 13,591 persons identify as Aboriginal and Torres Strait Islander (28% of the Victorian total) with significant proportions residing in Greater Shepparton (4.6 % of the Victorian total) Mildura (4.3% of the Victorian total), and Swan Hill (1.7% of the Victorian total).
- There is an over-representation of Aboriginal and Torres Strait Islander people in the hospital separation data. Hospital separations by Aboriginal and Torres Strait Islander status show Aboriginal and Torres Strait Islander rates in the North West region to be nearly twice the average rate recorded for Victoria.
- Aboriginal and Torres Strait Islander people experience Emergency Departments (ED) presentations for psychiatric illness at a rate of 76% higher than non-Aboriginal and Torres Strait Islander Australians.

Consultation

Community consultation has been undertaken through the following:

(A) Murray PHN regional team – community interaction (Nov 2016-July 2017)
(B) Murray PHN Clinical, Community and Indigenous health councils (Nov 2016-July 2017)

Aboriginal and Torres Strait Islander voice

The following themes emerged during consultation with the Aboriginal and Torres Strait Islander community:

- Build capacity for dual diagnosis response.
- Increase GP mental health expertise. (A)
- Lack of specialist children's counselling services. (A)
- More communication required between services and the prison system.
- Need to improve cultural sensitivity. (A)
- Lack of accessible and affordable treatment options. (A)
- Build capacity of mainstream providers particularly with complex needs clients. (A)
- The stigma of mental health is a barrier to accessing services.

Key issues

- Nationally, disease rates for Aboriginal and Torres Strait Islander people are higher for diabetes complications (4.1 times the national rate), Chronic Obstructive Pulmonary Disease (five times the national rate) and heart failure (2.7 times the national rate).
- Higher rates are recorded for cellulitis (three times the national rate) and kidney and urinary tract infections (2.2 times the national rate).
- Unacceptably high rates of morbidity and chronic disease across the Murray PHN Aboriginal and Torres Strait Islander population.
- Lower life expectancy and increased disadvantage (income rates, education and housing).
- Higher ED presentation rates overall compared with the Victorian Aboriginal population rate.
- A need to work in close partnership with Aboriginal health services and community organisations to identify needs and provide screening, assessment and early intervention programs more collaboratively - especially in chronic disease management and smoking cessation.
- Increased risk factors for social determinants of health, increased family violence, increased complexity and chronicity, and a lack of acknowledgment of the importance of culture within models of care – increasing the need for assistance for older community members such as health literacy issues and transport needs.
- The need for Aboriginal children and their families to participate in special activities aimed at teaching and celebrating their culture.
- Aboriginal children are over-represented in Out-of-Home Care and through child protection data, with increasing concern about levels of risk.
- Concern about dental health conditions for young Aboriginal children and over-representation in some communities for children with dental conditions in avoidable hospital admission data.
- Population immunisations - whole of life approach implementation needs to include:
    - residential aged care facilities immunisations for residents and staff
    - immunisation programs for people aged over 65
    - Aboriginal and Torres Strait islander state funded activity for Aboriginal children
    - chronic disease high risk groups
    - pregnant women
    - hospital staff immunisation
    - staff of childcare facilities.

Description of evidence

- Hospital separations for Aboriginal and Torres Strait Islander population in the North West is notably higher.
- Difference in ED presentation rates between non-Aboriginal and Torres Strait Islander and Aboriginal and Torres Strait Islander populations are 89% higher for Goulburn Valley, 52% more in North West, 44 % for North East and 18% difference in Central Victoria.
- Aboriginal and Torres Strait Islander ED presentation rates for respiratory system illnesses (2011/12 to 2013/14) are higher in all areas of Murray PHN than Victoria. The difference between Aboriginal and Torres Strait Islander and total population is especially high in Goulburn Valley (130% compared with 81%).
- Hospital separations by Aboriginal and Torres Strait Islander status show Aboriginal and Torres Strait Islander rates in the North West region to be nearly twice the average rate recorded for Victoria.

- Aboriginal and Torres Strait Islander population hospital separation rates for respiratory system diseases and disorders were higher for the Murray PHN catchment than the Victorian average (19.6 compared with 15.9 per 100,000).
- HACC clients - (2012/13) Aboriginal and Torres Strait Islander clients as a percentage of Aboriginal and Torres Strait Islander population are higher in Central Victoria and Goulburn Valley than Victoria.
- Aboriginal and Torres Strait Islander people experience 76% higher Victorian ED presentations for psychiatric illness than non-Aboriginal and Torres Strait Islander Australians.
- Emergency department presentations for psychiatric illness by Aboriginal and Torres Strait Islander status are 1.5 times higher in North West than for the total Murray PHN catchment.
- Public hospital separations for intentional self-harm injuries by Aboriginal and Torres Strait Islander status show Aboriginal and Torres Strait Islander rates are slightly higher in Goulburn Valley than Victoria.

- In Albury, the admission rates (2012/13) for mental health related conditions for Aboriginal and Torres Strait Islander persons are more than double the Victorian Aboriginal persons rate.
- Admissions for circulatory system diseases are double the Victorian rate for Aboriginal persons in Swan Hill.
- GP data primary diagnoses for Aboriginal and Torres Strait Islander persons are depression, asthma, osteoarthritis and anxiety.
- Antenatal visits in the first trimester for Aboriginal and Torres Strait Islander women (2010/2011) were significantly less than the population average when compared with like Aboriginal and Torres Strait islander communities in other PHN regions.
- In the general population, there are 44% more people who are registered mental health clients in the Murray PHN catchment area than the Victorian average (15.7 clients per 1,000 population) with higher rates experienced noticeably in Mildura (25.5) and Benalla (24.3). Rates were also substantially higher in Alpine, Wangaratta, Wodonga, Greater Bendigo, Greater Shepparton, Indigo and Swan Hill. North West had rates above the state average in two out of three LGAs.

Aged care

Summary points

- The aged population across the Murray PHN catchment of 65+ years (range 17-19%) is higher than the Victorian average of 14.8%.
- Five LGAs have 25% of their population above 65 years compared with the Victorian average of 15%.
- In some communities, particularly rural local government areas, such as the shires of Gannawarra and Strathbogie, people aged over 65 years represent more than one quarter of the total local government area population.
- Generally lower rates of annual health assessments by GPs for persons 75 and over (2009/10) with LGAs Moira, Indigo, Towong, and Wodonga having significantly lower rates.
- Ambulance call out rate of 53% to residential aged care facilities in Bendigo were classified as emergency hospitalisation for external injuries caused by falls.

Consultation

Community consultation has been undertaken through the following:

(A) Murray PHN regional team – community interaction (Nov 2016-July 2017)
(B) Murray PHN Clinical, Community and Indigenous health councils (Nov 2016-July 2017)

Community voice

The following theme emerged through consultation with the community:

- Advocacy services are required to support client access to the National Disability Insurance Scheme (NDIS) particularly in small rural communities. (A)
- There are emerging issues about how people are transitioned from the NDIS to My Aged Care as the NDIS continues to roll out across our region. (A)
- Advance care plan (ACP) completion rates are low and there is currently no reliable system of communicating ACP between services in a timely manner to ensure the ACP can be acted upon if or when required. (A)
- Accessibility, medication review and advocacy issues. An emerging issue in this space in the commencement of new Advance Care Directive legislation, the *Medical Treatment Planning and Decisions Act (2016)* in March 2018 in Victoria. (B)

Key issues

- There is a need for a broader primary health focus to support community and aged care resident needs (including social and lifestyle measures/interventions).
- A need to support general practice to accommodate types of patient care required by older persons such as simple structured assessment and attention to underlying frailties i.e. mobility, undernutrition, pain, incontinence, and cognitive and sensory impairments that limit ability and independence.
- Lack of communication between patients, staff and relatives in aged care regarding health and care needs.
- The need to ensure health issues in the elderly are identified in a timely way and appropriate care is accessible.
- Improved transport options, especially for those living in isolated areas.
- Need for a consistent, safe medications management strategy.
- Early assessment and intervention in functional decline and complex care coordination.
- Need for improved home based/or residential aged care facility (RACF) palliative care support, to reduce unnecessary 'end of life' hospital transfers/admissions.
- Need to reduce avoidable emergency department presentations through improving and promoting access to primary health care (including palliative care and in-home services).
- Need to understand the implications of:
    - a significant increase in the number of older people
    - an increasing incidence of age-associated disability and disease (e.g. dementia, stroke, COPD, diabetes), along with complex morbidities.

Description of evidence

- 2016 ABS population estimates indicate there are now five LGAs in the Murray PHN catchment with more than 25% of the population being people aged over 65. They are Strathbogie (28.4%), Buloke (28%) Gannawarra (27.6%), Loddon (26.8%), Benalla (26.1%), and Towong (25.7%). The Victorian average is 15.56%.
- The number of high level care places in residential aged care available across regions are: Central Victoria 955, Goulburn Valley 669, North East 887, and North West 351.
- The number of low level care places in residential aged care available across regions are: Central Victoria 1234, Goulburn Valley 870, North East 874, and North West 446.
- The number of community places in residential aged care available across regions are: Central Victoria 431, Goulburn Valley 585, North East 472, and North Wes: 356.
- For annual health assessments by GPs for persons 75 and over (2009/10), areas where the rate per population was lower than Victoria include: Gannawarra, Loddon, Mount Alexander, Mitchell, Benalla, Albury, Mansfield and Mildura. The following have significantly lower rates: Moira, Indigo, Towong and Wodonga.
- Rural Ambulance Victoria data reveals that in 2015, only 53% of call outs to RACFs in Bendigo were classified as emergency hospitalisation for external injuries caused by falls.
- For persons over 65 years, of all fall hospitalisations for the period 2011/12-2013/14 indicates that the catchment has an overall higher average than the Victorian rate, and Central Victoria, North East and North West are individually higher.

Mental health

Summary points

- Five LGAs have populations with identified high and very high levels of psychological distress significantly higher than the Victorian rate of 12.6%.
- Aboriginal and Torres Strait Islander people experience 75% higher Victorian ED presentations for psychiatric illness.
- 33% of Mental Health (MH) Treatment Plan activities were for a review of the plan.
- There are over 45% more registered mental health clients in Murray PHN compared with the Victorian average.
- Murray PHN expects that up to 67 people from the PIR target group in the Loddon NDIS region, 55 in Murrumbidgee, 65 in Ovens Murray and 29 in Mallee will need the organisation's support to access the NDIS as it rolls out across the PIR regions.

Consultation

Community consultation has been undertaken through the following:

(A) Murray PHN regional team – community interaction (Nov 2016-July 2017)

(B) Murray PHN evaluation and feedback from GP continuing professional development sessions (Nov 2016-July 2017)

(C) Murray PHN community consultation – needs assessment planning Sept – Oct 2017)

(D) Murray PHN Clinical, Community and Indigenous health councils (Nov 2016-July 2017)

(E) Murray Health Voices – community voice system (July 2017).

Community voice

The following themes emerged during consultation with the community:

- Access. (D)
- Rurality. (D)
- Workforce sustainability (ageing GP workforce, part time work preferences and mobility of female GPs). (B)
- Stigmatisation. (C)
- Lack of cultural sensitivity. (C)
- Cross-border demand on services. (C)

- Long waiting times for service and comorbidity of conditions. (C)
- Barriers to timely access to adolescent mental health services. (C)
- Co-payments and costs are barrier to access. (C)
- Funding models need to be more flexible. (C)
- Uncertainty exists regarding the implementation impact of the National Disability Insurance Scheme (NDIS) (D) for the workforce. General practices require support to assist with NDIS implementation. Private allied health may also require more support for transitioning to the NDIS. Impact on Partners in Recovery clients was also identified as an area of focus. (D)
- Advocacy services are required to support client access to the NDIS particularly in small rural communities. (C)
- The NDIS also brings a focus on certain conditions and has the potential to decrease holistic care and also potentially decrease career satisfaction for the worker. (D)
- Tertiary institutions need to do more to support health professional careers in rural areas. (C)
- A need to increase telepsychology/psychiatry services (including nursing staff) and training for the use of the platform. (D)
- Better to provide services in appropriate settings such as schools, outreach areas and homes. (D)
- Private service options are also sometimes overlooked. (D)
- PHN collaboration to systematise state-wide and cross-border discharge planning for mental health is needed. (D)
- Predictive modelling could guide placement of services. (C)
- Competitive tendering for services was viewed as counterproductive especially in small remote areas. KPIs which encourage service to work together are needed. (C)
- Dual diagnosis – comorbidity - more support needed for GPs, colocation and integration of services (Australian Community Support Organisation - ACSO) workers, Mental Health Nurse Incentive Program (MHNIP) and GPs and flexibility of working hours.
- There may be underreporting of mental health services by GPs. (C)
- A need for mental health training for lay counsellors. Peer working with lived experience are an untapped resource, community organisations and personal helper and mentor models and family support groups should be investigated. (C) (D)
- Community mental health literacy needs to be further supported to encourage those with low level mental health needs to access services. (C) (D)

Aboriginal and Torres Strait Islander voice

The following themes emerged during consultation with the Aboriginal and Torres Strait Islander community:

- Build capacity. (A)
- Dual diagnosis response. (A)
- Increase GP mental health expertise. (A)
- Lack of specialist children's counselling services. (A)
- More communication required between services and the prison system. (A)
- Need to improve cultural sensitivity. (A)
- Lack of accessible and affordable treatment options. (A)
- Build capacity of mainstream providers particularly with complex needs clients. (A)
- The stigma of mental health is a barrier to accessing services. (A)

Key issues

- Based on ABS Census 2016 data, the Murray PHN catchment population is estimated as 644,457 people. It is estimated that 19.6% of the population (aged 18 to 85 years) will experience mental ill health. This equates to approximately 126,314 people across the Murray PHN catchment. Of this group, estimates indicate 20,841 people will have moderate to low mental health needs and 4420 people will have severe and persistent mental illness with complex needs, although only a proportion of these people will access services (as defined in a stepped model of care).
- There is significant variation between Local Government Areas (LGAs), across the catchment, in terms of rates of registered mental health clients, hospitalisations, chronic conditions and those receiving alcohol and drug treatment services. There are also variations between LGAs for risk factors which include socioeconomic status, psychological distress rates, remoteness, new settler arrivals and homelessness.
- This variation does show areas of greater need for resources, but should not be viewed in isolation. There is significant need in all the Murray PHN regions and therefore services should be available across all the catchment. Some areas have received more consideration and have been weighted, based on a greater need (MHNIP only). Presently some locations do not have any resource allocation in either MHNIP or Psychological Therapy Services (PTS) services.
- A significantly higher lifetime prevalence of depression and anxiety was reported among people with the following characteristics:
    - Unemployed or not in the labour force
    - Total annual household income less than $40,000
    - Moderate, high or very high levels of psychological distress
    - Current smoker
    - Fair or poor self-reported health status
    - Diabetes
    - For women: living in rural areas, were ex-smokers (Goulburn Valley region study)
    - For men: long-term risk of alcohol-related harm and/or were obese.
- A significant proportion of LGAs in the Murray PHN are in the 20 most socio-economically disadvantaged within Victoria.
- More than 20% of Victoria's Aboriginal and Torres Strait Islander population live within the Murray PHN catchment.

Description of evidence (indicators)

Registered mental health clients

Description: The rate per 1,000 of aged standardised population and the Victorian ranking by LGA of clients who are registered by the state to receive clinical mental health services (therefore with a diagnosis).

Areas of note:

- Benalla (26.3) followed by Mildura (24) have the highest rates of registered mental health clients per 1,000 for Murray PHN, more than double the Victorian average (11.9) and are ranked 4th and 6th highest in Victoria respectively.
- Wangaratta, Indigo and Wodonga are all significantly higher than the Victorian average and ranked within the top 10 LGAs in the state for registered mental health clients.

Mental health overnight hospitalisations rate per 100,000 (2014-15)

Description: Number of mental health overnight hospitalisation rates per 100,000 age standardised by SA3 level based on the patient's postcode.

Areas of note:

- Albury at an SA3 level is ranked second in the Murray PHN catchment for mental health overnight hospitalisations bed day rate per 100,000 (2014-15), and ranked sixth in Murray PHN for mental health overnight hospitalisations rate per 100,000 (2014-15).
- Wangaratta – Benalla, Murray River - Swan Hill, Heathcote – Castlemaine - Kyneton, Loddon-Elmore and Bendigo SA3 areas are also above the Murray PHN average for mental health overnight hospitalisations bed day rate per 100,000 (2014-15) and mental health overnight hospitalisations rate per 100,000 (2014-15).

Index of relative socio-economic disadvantage
Description: Victorian state ranking of LGAs for socio-economic disadvantage.

Areas of note:

- Loddon is ranked the second most disadvantaged LGA in Victoria.
- Mildura (ranked 4th) and Swan Hill (10th) are in the 10 most disadvantaged LGAs in Victoria.
- Greater Shepparton (13th), Moira (15th), Benalla (16th), Gannawarra (18th) and Campaspe (20th) are ranked within the 20.

Proportion (%) of adult population with high or very high psychological distress
Description: Using the Kessler 10 measure of psychological distress, the percentage of the population with rates of high or very high psychological distress can indicate a higher need for psychological therapy services rather than the need for care coordination. This measure is used to identify possible hotspots for greater Psychological Therapy Services (PTS).

- Campaspe (18.3%), Mount Alexander (17.2%), Murrindindi (16.4%), Wangaratta (15.2%) and Mitchell (14.8) are significantly above the Victorian average (12.6%) for population reporting high/very high psychological distress (2014).

Description of evidence (risk factors)

The following risk factors have been considered relevant for either psychological therapy service planning or for services for people living with severe mental illness.
Aboriginal and Torres Strait Islander population sizes (risk factors for mental illness include being an Aboriginal and Torres Strait Islander person).

Communities that have the most significant population sizes, based on LGA 2013 and ABS 2016 data include:

- Shepparton 2661
- Mildura 2332
- Wodonga 2131 - this is deemed to be higher with residents of NSW and surrounding areas not included in these numbers.
- Bendigo 1843
- Swan Hill 1081
- Campaspe 992 (LGA 2013 data) or 878 (ABS Census 2016 data) - this is deemed to be higher with residents of Moama and surrounding areas not included in these numbers.

Clients receiving drug and alcohol treatment services (severe)
Description: Clients receiving drug and alcohol treatment services per 1000 of the population.

Areas of note:

- Gannawarra is ranked the highest LGA in Victoria for clients receiving drug and alcohol treatment services.
- Swan Hill (5th) and Mildura (10th) are also ranked in the top 10 highest LGAs in Victoria for clients receiving drug and alcohol treatment services.

Chronic conditions (physical co-morbidities)
Description: Chronic conditions per 1000 population ranking.

Areas of note:

- Gannawarra (29.5), Buloke (25), Loddon (24.7) and Swan Hill (23.5) have a significantly higher proportion of the population with chronic conditions than the Victorian average (13.5).

Availability of services in rural and remote areas (severe and moderate)
The following LGAs have a Modified Monash Model (MMM) classification of 5 defined as 'other rural' with a population below 10,000 people. Services to target these populations such as tele-psychiatry and clinical-led web-based psychological interventions should be considered:

- Alpine
- Buloke
- Gannawarra
- Indigo
- Loddon
- Macedon Ranges
- Mansfield
- Murrindindi
- Strathbogie
- Towong.

New settler arrivals per 100,000 population rank (PTS)
Studies identify intercountry resettlement due to humanitarian reasons as being an indicator for the need of mental health services.

The following areas have both high numbers of new settler arrivals (per 100,000 population) and high percentage of humanitarian new settler arrivals:

- Greater Bendigo
- Mildura
- Greater Shepparton
- Wodonga
- Swan Hill.

MBS rates for focused psychological strategies (Better Access)
Description: The total number of MBS patients seen by clinical psychology, social work and psychologists (mental health clinicians) as a rate per 1,000 for SA3 (2015-16).

Areas of note:

- Moira and Murray-Swan Hill (SA3 areas) were significantly below the Murray PHN average number of MBS patients seen by a mental health clinician. Both SA3 areas are also two of the most disadvantaged Victoria LGAs.
- Campaspe and Wodonga-Alpine (SA3 areas) is below the Murray PHN average number of MBS patients seen by a mental health clinician.
- Loddon had no recording of allied health and thus their population was not included in the Murray PHN average and is ranked the second-most disadvantaged LGA in Victoria.
- Bendigo and Heathcote-Castlemaine-Kyneton (SA3 areas) have a significantly higher number of mental health providers than the Murray PHN average.
- Moira, Campaspe and Murray River-Swan Hill (SA3 areas) have a significantly lower number of MBS mental health providers than the Murray PHN average. These SA3 areas are also two of the most disadvantaged Victoria LGAs.

Rates of GP Mental Health Treatment Plans
Description: The rates of GP Mental Health Treatment Plans (MHTPs) per SA3 have been calculated as a rate per 1000 of the population and then compared against the Murray PHN average. The MBS item for attendance was compared. As were the percentage of reviewed plans as a proportion of attended sessions to indicate those GPs that were reviewing patients' plans.

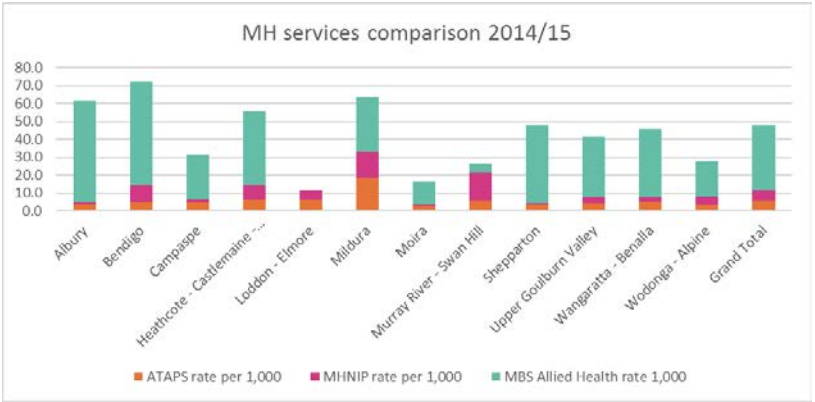
Areas of note:

- Shepparton (281), Bendigo (209), Mildura (175), Moira (169) and Wodonga-Alpine (162) had higher rates of MHTPs than the Murray PHN average (151).
- In contrast to those that had higher levels of MHTP conducted the following LGAs had a higher rate of MHTP reviews (as a percentage of MHTPs attended): Heathcote - Castlemaine – Kyneton (68%), Loddon – Elmore (59%), Wodonga – Alpine (50%), Upper Goulburn Valley (49%), Wangaratta – Benalla (44%). These are all above the Murray PHN average of 33% reviews as a proportion of attended MHTPs.

Comparison of Access to Allied Psychological Services (ATAPs), MHNIP and Better Access programs
Description: Comparison of ATAPs, MHNIP and Better Access services for 2014/15 as a rate of 1000 per population (not age standardised).

Areas of note:

- The SA3 areas of Bendigo, Heathcote-Castlemaine-Kyneton, Murray-Swan Hill and Wodonga-Alpine had higher MHNIP rates per 1000 than ATAPs.
- The Loddon-Elmore's ATAPS and MHNIP account for 100% of services when combined with Better Access focused psychological strategies.



Clients receiving drug and alcohol treatment services (per 1000 population 2014/15)

- Gannawarra is ranked the highest LGA in Victoria for clients receiving drug and alcohol treatment services.
- Swan Hill (5th) and Mildura (10th) are also ranked in the top 10 highest LGAs in Victoria for clients receiving drug and alcohol

Aboriginal and Torres Strait Islander people
Experience:

- 76% higher Victorian ED presentations for psychiatric illness than non-Aboriginal and Torres Strait Islander Australians. The highest rate of presentations was experienced in the North West.
- Emergency department presentations rates for:
    - depression for Murray PHN was 17% higher than the Victorian rate
    - anxiety was 37% above the Victorian rate
    - mental status alterations were 64% above the Victorian rate
    - suicide risk was 80% higher than the Victorian rate. (VEMD data 2015/16)

Partners in Recovery

Description of evidence (indicators)
National Disability Insurance Scheme (NDIS) roll-out schedule Partners in Recovery (PIR) client data (note: the PIR target group are people with severe and persistent mental illness and complex needs).

Description: Evidence of the needs of the PIR target group in Murray PHN's PIR regions for support to enter the NDIS.

Areas of note:

- Murray PHN leads two Partners in Recovery (PIR) programs in its region: Loddon Mallee Murray (LMM) and Hume.
- The LMM and Hume PIR programs have regional coverage that is slightly divergent to Murray PHN's footprint, operating in four NDIS rollout regions: Loddon, Murrumbidgee, Ovens Murray and Mallee.
- The Loddon NDIS region including the LGAs of Campaspe, Greater Bendigo, Loddon and Mount Alexander began NDIS rollout on 1 May 2017.
- The Murrumbidgee NDIS region including the LGAs of Albury, Berrigan, Conargo, Corowa, Deniliquin, Greater Hume Shire, Jerilderie, Murray, Urana, and Wakool began NDIS rollout on 1 July 2017.
- The Ovens Murray NDIS region including the LGAs of Alpine, Benalla, Indigo, Mansfield, Towong, Wangaratta and Wodonga began NDIS rollout on 1 October 2017.
- The Mallee NDIS region including the LGAs of Buloke, Gannawarra, and Swan Hill will begin NDIS rollout on 1 January 2019.
- Up to 271 clients can be supported by the PIR programs combined at any one time. It is expected that the programs will run at full capacity through the 18/19 period.
- It is estimated that 70 to 80% of PIR clients will be eligible for the NDIS: a range of 190 to 216 clients.

Suicide prevention

Summary points

- Avoidable deaths for suicide and self-inflicted injuries in the Murray PHN region were 40% above the state average (Victorian Health Atlas).
- Females account for 69% of all self-harm injury hospital admissions.
- The rate of self-harm injury for Aboriginal and Torres Strait Islander people is approximately 50% more than the total Murray PHN rate.
- Definition of a registered mental health client: when a public mental health service accepts a person's referral for service delivery or intervention, the person becomes a registered mental health client of the service and is registered in the Client Management Interface/Operational Data Store (CMI/ODS) system.

Consultation

One project underway is a place-based suicide prevention initiative in conjunction with the Victorian government. There are two trial sites, Benalla and Mildura, in the catchment. Each one will facilitate local responses and evidence-based strategies with multi-sectorial suicide prevention groups developing and implementing local strategies.

The aim is to use an evidence-based suicide prevention approach, drawing on available collective impact approaches and mental health specific approaches. The strategies will be built around the nine evidence-based strategies for communities. Communities have driven the development of the local plans, based on identified needs. The interventions focus on capacity building and enhancing system effectiveness rather than service expansion or new services.

Community voice

Themes from the community consultation include:

- ensuring strong representation and support of people with lived experience to actively participate in the project
- regular knowledge sharing and support
- multi-sectoral involvement with a shared model of understanding
- plans should be shaped by the community within cultural frameworks
- open and transparent communication.

Key issues

- Significant rates of suicide are experienced in Murray PHN regions of North West, Goulburn Valley and North East, with significantly high rates of ambulance attendance to suicide attempts in these regions.
- Rates of hospital separations for intentional self-harm is high compared with the state average in two of four regions within Murray PHN.
- The rate of hospital separations for intentional self- harm for Aboriginal and Torres Strait Islander people is significantly higher than the non-Aboriginal and Torres Strait Islander population.

Description of evidence

- Annual frequency, overall frequency and average annual rates of suicide by LGA indicate that Benalla, Mansfield, Indigo and Mount Alexander are the highest. There is an increasing trend in Benalla and Mount Alexander in the years 2009–2015.
- Avoidable deaths for suicide and self-inflicted injuries in the Murray PHN catchment area were 24.4% above the state standardise ratio of 86. (A standardised ratio (SR) is a comparison to the Australian ratio that is assigned a value of 100)
- Females accounted for 69% of all Murray PHN catchment hospital separations for self-harm injuries.
- Compared with the Victorian standardised ratio of 86, all Murray PHN LGAs except Campaspe have a higher rate of avoidable deaths from suicide and self-inflicted injuries.
- Strathbogie had the highest rate of avoidable deaths from suicide and self-inflicted, followed by Benalla (161), Murrindindi (156). Followed by Macedon Ranges (150) and Albury (140).
- North West region of Murray PHN experienced the highest rate of public hospital separations for intentional self-harm which is 13% higher than the state average. The next highest region was Goulburn Valley which is also above the state average.
- Across Murray PHN, Aboriginal and Torres Strait Islander communities have a rate of separations which is 127% higher than the non-Aboriginal and Torres Strait Islander population. Particular communities of concern that experience the highest rate are within Goulburn Valley (131%), Central Victoria (127%) and North West (79%).

Alcohol and other drugs (AOD)

Summary points

- Murray PHN had rates for smoking (above 18yrs) at 26% above the state average.
- Alcohol consumption for increased lifetime risk of alcohol related harm is 6.5% above the Victorian average with significant increased numbers in eight LGAs.
- The North West region has considerably higher than other regions within Murray PHN and the Victorian average rate for alcohol related assaults.
- Emergency department presentations for co-occurring AOD and mental health disorders are higher than the Victorian average, particularly for the North West region.

Consultation

Community consultation has been undertaken through the following:

(A) Murray PHN regional team – community interaction (Nov 2016-July 2017)

(B) Murray PHN evaluation and feedback from GP Continuing Professional Development sessions. (Nov 2016-July 2017)

(C) Murray PHN community consultation – needs assessment planning Sept–Oct 2017)

(D) Murray PHN Clinical, Community and Indigenous health councils (Nov 2016-July 2017)

(E) Murray Health Voices – community voice system (July 2017)

(F) Murray PHN AOD sector consultation (Dec 2016)

Community voice

The following themes emerged during consultation with the community:

- The community noted that stigmatisation of alcohol and other drug clients was often greater than that experienced by mental health clients. (D)
- A need for more specialist services. (A) (B)
- A need for general practitioner skills training, a strengthening of existing services and more early intervention options. (A) (B)
- A need to better link pharmacies into the system. (C)
- Better access to addiction specialists and pain management services is required. (C)
- Some services have long waiting periods. (C)

- Health professionals are also treating comorbid conditions such as diabetes when delivering AOD services. (C)
- Support for health practitioners to provide non-judgemental treatment for both AOD issues and co-occurring chronic diseases. (C)
- Sector priorities were 1. place based withdrawal 2. dual diagnosis, 3. alcohol brief intervention in primary care settings and 4. AOD service pathways. Other areas identified were vulnerable youth, the use of technology for specialist consult, and appropriate staff supervision. (F)
- Advocacy services are required to support client access to the National Disability Insurance Scheme (NDIS) particularly in small rural communities. (D)
- The NDIS also brings a focus on certain conditions and has the potential to decrease holistic care and also potentially decrease career satisfaction for the worker. (D)
- PHN collaboration to systematise state-wide and cross-border discharge planning from detoxification facilities is needed. (D)

Key issues

- Smoking rates for Murray PHN are considerably higher than the Victorian average.
- The rates of alcohol consumption and related harm indicate an enduring need to be comprehensive in the strategic effort and cognisant of rural community culture and subsequent impacts.
- Trends in illicit drug use, especially involving amphetamine use, require further planning of a comprehensive, catchment-wide approach with focus on the North West and Goulburn Valley regions.
- Goulburn Valley region however shows the highest rate in the catchment for specifically drug dealing and trafficking.
- In providing current AOD needs data and priority issues, it is viewed that the category has intrinsic overlap with related and broader priority issues; especially mental health.

Description of evidence

Smoking rates
Description: Proportion percentage of current smokers.

- Murray PHN had rates for smoking for those over 18 years that were 26% above the Victorian average.

Proportions of the adult population across Murray PHN who consume alcohol at a level that leads to alcohol related harm over their lifetime
Description: Prevalence of lifetime risk of alcohol related harm

Consumption of alcohol recorded in 2014 at levels leading to harm over the lifetime was 6.5% greater than the state average of 59.2 per 1000 persons. Eight LGAs have populations who consume alcohol at a level that leads to alcohol related harm over their lifetime above the Victorian rate, they are:

- Indigo (74.3 per 1000 persons)
- Murrindindi (73.4 per 1000 persons)
- Alpine (71.5 per 1000 persons)
- Wodonga (71 per 1000 persons
- Mansfield (69.8 per 1000 persons)

- Towong (68.5 per 1000 persons)
- Moira (68.1 per 1000 persons)
- Campaspe (65.6 per 1000 persons)

Alcohol related hospitalisations
Description: Alcohol related hospitalisations per 10,000 population

Rates for Murray PHN were significantly greater the Victoria rate in three LGAs:

- Wangaratta (24% greater)
- Benalla (12% greater)
- Mount Alexander (7.5% greater)

Alcohol related ambulance attendances and serious road injuries (SRI)
Description: Alcohol related ambulance attendances.

- Murray PHN reported 21,602 alcohol related ambulance attendances in 2014/15.

Alcohol related serious road injuries
Description: Alcohol related serious road injuries

In 2014/15, 1885 alcohol related serious road injuries occurred in the PHN. Rates across Murray PHN were significantly above the Victorian rate (3.2 per 10,000 people) in 12 LGAs:

- Loddon (13.6 per 10,000 people)
- Strathbogie (12.2 per 10,000 people)
- Murrindindi (10.3 per 10,000 people)
- Alpine (9.2 per 10,000 people)
- Mitchel (per 10,000 people)
- Mansfield (7.8 per 10,000 people)
- Benalla (6.6 per 10,000 people)
- Indigo (5.2 per 10,000 people)
- Campaspe (4.3 per 10,000 people)
- Gannawarra (5.9 per 10,000 people)
- Mount Alexander (6.1 per 10,000 people)
- Macedon Ranges (5.6 per 10,000 people)

Alcohol related assaults
Description: Alcohol related serious assaults.

The number of alcohol related assaults recorded for the Murray PHN catchment 5839. The following 13 LGAs have rates from 1.1 to 78 times greater than the Victorian rate:

- Gannawarra (78 times greater)
- Loddon (53 times greater)
- Mildura (35 times greater)
- Buloke (21 times greater)
- indigo (12 times greater)
- Greater Shepparton (9 times greater)

- Mount Alexander (7.6 times greater)
- Swan Hill (5.2 times greater)
- Benalla (4 times greater)
- Mitchell (3.2 times greater)
- Mansfield (1.9 times greater)
- Moira (1.9 times greater)
- Murrindindi (1.1 times greater)

Alcohol related family violence
Description: Definite alcohol related family violence rates

Definite alcohol related family violence rates were also disproportionately higher when compared with the Victorian rate (10.7 per 10,000 people):

- Mildura (44.9 per 10,000 people)
- Swan Hill (42.8 per 10,000 people)
- Wangaratta (26.6 per 10,000 people)
- Wodonga (24.1 per 10,000 people)
- Gannawarra (23.7 per 10,000 people)
- Mitchell (23.6 per 10,000 people)
- Greater Shepparton (20.7 per 10,000 people)
- Benalla (19.1 per 10,000 people)
- Buloke (18.1 per 10,000 people)
- Murrindindi (17.6 per 10,000 people)
- Greater Bendigo (17.2 per 10,000 people)
- Campaspe (16.8 per 10,000 people)
- Loddon (16.3 per 10,000 people)
- Indigo (15.6 per 10,000 people)
- Moira (15.3 per 10,000 people)
- Mansfield (13.4 per 10,000 people)

Alcohol related deaths
Description: The rate of alcohol-related deaths

- The rate of alcohol-related deaths in the Murray PHN catchment, including in each of its four regions, were greater than the Victorian average. The highest rates were recorded in Central Victoria (2.4 times greater) and North West (1.4 times greater).

Alcohol related episodes of care
Description: Alcohol and drug episodes of care for alcohol-related problems.

- Compared with the Victorian average rate of 28.8, the rate of alcohol and drug episodes of care for alcohol-related problems was notably higher for the Murray PHN catchment 34.23 (18.8% greater), including each of its four regions. The North West and Central Victoria regions had the highest rates both were substantially higher than the Victorian average.

Illicit drug related episodes of care
Description: The rate of AOD episodes of care for illicit drug related problems

- The rate was notably higher for the North West and Central Victoria regions of the catchment, having a substantially higher rate than the Victorian average (38.9 per 10,000 people).
- Mildura (83.5 per 10,000 people)
- Gannawarra (79.5 per 10,000 people)
- Greater Bendigo (63.8 per 10,000 people)
- Campaspe (48.8 per 10,000 people)
- Greater Shepparton (47.9 per 10,000 people),
- Swan Hill (46.6 per 10,000 people).

Illicit drug related hospitalisation and ambulance attendance rates
Description: Hospitalisation rates for illicit drug use and hospital separations for alcohol/drug use and alcohol/drug use induced organic mental disorders.

- Hospitalisation rates for illicit drug use was higher for when compared with the state average rate for eight LGAs within Murray PHN with Mount Alexander being particularly high (33% greater).
- The rate of hospital separations for alcohol/drug use and alcohol/drug use induced organic mental disorders is at or below the Victorian average in all Murray PHN regions.
- Description Illicit drug related ambulance attendances.
- 9038 illicit drug related ambulance attendances (2011-12/2013-14).

Illicit drug use and possession crime rates
Description: Rates for drug use and possession crime and possession and cultivate or manufacture criminal offences.

- Compared with the Victorian average, rates for drug use and possession crime are especially high in the North West region and above the average in Goulburn Valley. These two regions also show higher rates for cultivating and manufacturing drugs.
- The rate of drug use and possession and cultivate or manufacture criminal offences were above the Victorian average in Goulburn Valley and North West.

Co-occurring mental health and AOD disorders
Description: Emergency department presentations for co-occurring AOD and mental health disorders.

- Rates of presentations to emergency departments are higher than the Victorian average, particularly for the North West region, which is distinct from the lower rates of the other Murray PHN regions.

Notes on data interpretation from *Methamphetamine in the Murray Primary Health Network* paper, 2017:

- Australia has one of the highest per capita rates of methamphetamine use in the world (United Nations Office on Drugs and Crime, World Drug Report 2016).

- Service usage data is one measure treatment demand but do not capture the number of unique users. Increased rates of service use may reflect (to varying degrees) unknown changes (increases) in the availability and purity of methamphetamine. Similarly, changes in police reported methamphetamine offences may reflect enhanced surveillance and/or reporting. There is no source of data that accurately measures other societal, physical and psychological harms to methamphetamine users and others.
- Rural Australians demonstrate higher rates of risky health behaviour, including risky alcohol and illicit drug use. This may suggest more complex use trends of methamphetamine use among those living in rural and regional locations.

Methamphetamine related Alcohol and Drug Information System, (ADIS) episodes of care 2010-2015
Description: The number of ADIS episodes of care for illicit drug related problems.

- Greater Shepparton (19.3%) Mildura (18.9% and Greater Bendigo (17.1%) comprise over 55% of the total Murray PHN catchment in terms of ADIS episodes of care delivered.

Methamphetamine offences 2010-2016
Description: The number of methamphetamine offences.

- Murray PHN's catchment accounted for 9.5% of all Victorian methamphetamine offences.
- For the period 2010-2016, the rate of methamphetamine offences ranged from 9.5/100,000 in 2010 in Swan Hill to 168/100,000 population in Greater Shepparton in 2016. For the period 2014-2016, the biggest rates of change were seen in Mildura (63%), Greater Shepparton (61%) and Greater Bendigo (60%). This compares to a state-wide increase of 174% for the same period.

Oral health

Summary points

- 14 of the 21 LGAs within Murray PHN have higher rates of people delaying visits to dental professional's due to cost.
- Ambulatory care sensitive conditions for dental conditions was higher for approximately half Murray PHN LGAs, with Mildura, Gannawarra and Buloke having the highest.
- Towns currently without fluoridation exist across Murray PHN including Cohuna, Cobram, Numurkah, Myrtleford, Tatura, Bright, Woodend, Broadford, Mansfield and Alexandra.

Consultation

Community consultation has been undertaken through the following:

(A) Murray PHN regional team – community interaction (Nov 2016-July 2017)

(B) Murray PHN evaluation and feedback from GP Continuing Professional Development sessions. (Nov 2016-July 2017)

(C) Murray PHN community consultation – needs assessment planning Sept-Oct 2017)

(D) Murray PHN Clinical, Community and Indigenous health councils (Nov 2016-July 2017)

Community voice

The following themes emerged during consultation with the community:

- Value is in 'soft screening' with kindergarten children the focus, along with changes in school policies (encouraging healthy eating and water as first beverage choice) and incorporating achievement programs like healthy living. (A)
- There is a need for more oral health education, this could reduce hospital admissions. (D)

Key issues

- Access to public dental health services is very limited in many rural communities, and private dental service fees present a barrier to access.
- Number of potentially preventable hospital admissions related to children with caries needing extractions points to lack of oral health literacy, barriers such as cost, and rural/remote access to providers.
- The Royal Flying Doctor Service has a mobile dental care program that provides dental services to people that live more than 50 km from a public dental clinic.

Description of evidence

- Further investigation is required to understand catchment level data however Ambulatory Care Sensitive Conditions data indicates that hospital rates for dental conditions were higher than the Victorian rate in four of six areas in Central Victoria, one of five in Goulburn Valley, three of seven in North East, and all three of North West (2013/14).
- Across the catchment, 14 of 21 LGAs report higher rates of persons delaying visiting a dental professional due to cost (2011/12) and every area indicates a lower than Victorian percentage of persons visiting a dental professional in the previous 12 months (2011/12).
- Approximately half of the Murray PHN LGAs had populations that described their dental health as fair or poor. Within the catchment, Murrindindi, Swan Hill Rural City, Gannawarra, Mount Alexander, Benalla and Mitchell all had a notably higher rate compared with the Victorian average.
- Compared with the Victorian average, all Murray PHN LGA populations were less likely to have visited a dental professional in the last 12 months. The lowest proportion was seen in Gannawarra, followed by Campaspe then Moira.
- The ambulatory care sensitive condition rate for dental conditions was higher than the Victorian average in approximately half of the Murray PHN catchment LGAs. Mildura Rural City had the highest rate, followed by Gannawarra then Buloke.
- The number of people who saw a dentist, hygienist or dental specialist in the preceding 12 months were comparable to other regional peer groups, however rates were 5% lower in the Loddon Mallee Murray Medicare Local catchment (within the Murray PHN catchment) than a metropolitan peer group comparator.
- Towns without fluoridation in our catchment include Cohuna, Cobram, Numurkah, Tatura, Myrtleford, Bright, Woodend, Broadford, Mansfield and Alexandra (10). Many others are using tank water as their primary water source.
- The percentage of persons consuming sugar sweetened soft drink was higher across central Victoria, Mitchell, Moira, Strathbogie, Alpine, Benalla, Towong, Wangaratta, Wodonga, Buloke and Swan Hill.
- Children from low socio-economic areas are 70% more likely to have poor oral health than children in higher socio-economic areas.
- Particular postcodes have come into focus: Donald and surrounds (postcode 3480) and Swan Hill and surrounds (postcode 3585) as persistent hotspots for ear, nose and throat hospital admissions. Mildura (postcode 3500) and Hattah and surrounds (postcode 3501) as persistent hotspots for dental hospital admissions.

Cancer screening rates

Summary points

- Victorians living in regional and remote locations have a poorer cancer survival expectancy less than 4% lower survival rate than those who live in Melbourne.
- More than 50% of LGAs within Murray PHN's catchment have cancer screening participation rates that are lower for breast, cervical and bowel cancer compared with the Victorian average.
- PENCAT data will be used in the future to assess cancer screening participation rates.
- General data quality issues exist for many GP practices across the catchment. There is opportunity for Murray PHN, through its established relationship with general practice to work toward a better understanding of the GP practice in improving cancer screening.
- Further engagement opportunities exist for Murray PHN and peak bodies such as the Cancer Council about timely access to data.

Consultation

(A) Murray PHN Clinical, Community and Indigenous health councils (Nov 2016-July 2017)

Community voice

(A) Cancer incidence in the Goulburn Valley region was identified by the GV Clinical Council as an issue for further investigation.

Key issues

- Although cancer is a chronic disease, many health services including secondary and primary health services don't use existing chronic disease systems to support this patient population.
- Data obtained from peak bodies is often delayed. There is a need for more current data on a regular basis.
- There is a need to develop systems to record cancer survivorship.

Description of evidence

- Across the Loddon Mallee region, on average over the past five years, the cancer that killed most people was prostate cancer (17.1%), bowel cancer (14.4%) and breast cancer (11.6%).
- Current research about residents of the Loddon-Mallee region indicates a 4% lower five-year survival rate (65%) than those in Melbourne (69%

- Cervical cancer screening rates by location (2013-2014) lower proportion in Gannawarra, Loddon (Central Victoria), Greater Shepparton, Mitchell, Moira, Murrindindi (Goulburn Valley) than Victoria.
- Bowel cancer screening participation rates (Cancer Council data 2016) across the Murray PHN catchment were lower proportion in Loddon, Mildura, Mitchell, Moira, Swan Hill and Towong. All are slightly above the state average.
- Compared with the 2016 State average of 8.1%, rates of new diagnosis of those screened for Bowel cancer were greatest in Loddon (11.2%), Gannawarra (11.1%), Swan Hill (9.9%), Moira (9.8%), Greater Shepparton (9.5%) and Mitchell (9.4%).
- Breast cancer screening (Cancer Council data 2016) lower in Loddon (Central Victoria), Alpine, Indigo, Towong, Wodonga than Victoria.
- PATCAT software currently being deployed across general practices will enable regular reports for the following on a three-monthly basis:
    - Pap smears, mammograms and faecal occult blood tests (FOB)
    - Health checks – MBS Items 715, 45 – 49 years and 75+.

Chronic disease conditions

Summary points

Murray PHN works closely with state-funded health provider organisations and local government authorities. Generally, these bodies work to address chronic disease prevention and reduction of community risk factors, for example: obesity, wellness and smoking rates. Murray PHN's approach to chronic disease focuses on the priority areas of diabetes, cardiovascular and chronic obstructive pulmonary disease and the impact these conditions have on the acute sector.

Murray PHN has a role in supporting knowledge sharing between providers where common conditions are being addressed. There is opportunity for catchment-wide projects.

General data quality issues exist for many GP practices across the catchment. There is opportunity for Murray PHN, through its established relationship with general practice, to work toward holistic, multi-disciplinary, team-based management of chronic diseases in the primary care setting.

Population immunisations - whole of life approach implementation needs to include:

- Residential aged care facilities immunisations for residents and staff
- Immunisation programs for over 65s
- Aboriginal and Torres Strait Islander state funded activity for Aboriginal children
- Chronic disease high risk groups
- Pregnant women
- Hospital staff immunisation
- Staff of childcare facilities.

Consultation

Community consultation has been undertaken through the following:

(A) Murray PHN regional team – community interaction (Nov 2016-July 2017)

(B) Murray PHN evaluation and feedback from GP continuing professional development sessions. (Nov 2016-July 2017)

(C) Murray PHN Clinical, Community and Indigenous health councils (Nov 2016-July 2017)

(D) Murray Health Voices – community voice system (July 2017)

Community voice

The Murray PHN clinical and community councils had input into the design and development of appropriate models of care for COPD and cardiovascular disease throughout 2017.

- There is a national issue regarding food labelling, and a need to link with other local initiatives.
- Strengthen health partnerships and transparency of information for groups involved in patient care.
- Greater support with health coaching and improved psychological support is needed for those with chronic conditions.
- There are gaps in services to transition from paediatric to adult.
- More patient health information sharing would improve care.
- More support for professional development and the use of video conferencing should be promoted.
- More support to improve practitioner understanding of patient health literacy.
- After-hours access to services to suit families would improve service usage.

Key issues

The specific conditions are diabetes, COPD and cardiac related admissions.

Diabetes

- Diabetes and related complications are listed in the top 10 presentations for ambulatory care sensitive conditions, therefore improvements to the integration between discharge planning services from hospital services into primary care settings in a way that connects patients to general practice, allied health and community support structures will be important to mitigate readmission.
- General practitioners do not review care plans as frequently as required by best practice principles. General data quality issues exist for many GP practices across the catchment.
- Opportunity to enhance practice capacity to better identify patients at risk of, or with chronic disease and to strengthen the multidisciplinary coordination of care of patients in a way that fits with patient needs and contexts.

Chronic Obstructive Pulmonary Disease (COPD)

- The impact (rates of hospital admissions multiplied by average number of bed days per admission) is higher than the state average in 13 of Murray PHN's LGAs.
- LGAs with higher impact rates (rates of hospital admissions multiplied by average number of bed days per admission) are spread across the PHN catchment. Postcodes are in focus through the Perils of Place report (Grattan Institute 2016) which identifies Wodonga (postcode 3690) as a persistent hotspot for hospital admissions.
- Specific engagement with hospital emergency departments is required to identify COPD population sub groups (at a diagnostic related group level), readmission rates and system gaps in terms of planning and care coordination.

Cardiac related admissions

- Cardiac related admissions (including hypertension, congestive heart failure and angina) account for approximately 26% of all Ambulatory Care Sensitive Conditions (ACSC) separations within hospital services.
- The number of cardiac related presentations has increased each year since 2012/2013.
- 50% of all LGAs are assessed to be in the highest risk category of heart health.

Description of evidence

Diabetes

- Prevalence is highest in the Shire of Gannawarra, with National Disability Insurance Scheme (NDIS) reporting prevalence of 7.5% (against national average of 5.3% and PHN average of 5.7%).
- Complications arising from diabetes is the largest ACSC presenting within hospital services across the Murray PHN catchment area (20.8 % of all separations); increasing each year for the past three years.
- Despite this, MBS activity associated with GP management planning and review (MBS item numbers 721, 723, 729 and 731) have remained relatively constant, and in some instances declined, over the same period.
- Preliminary GP clinical audit tools suggest opportunity to improve practice quality specific areas to better identify and manage patients with diabetes. Specific areas of focus include:
    - Recording of HbA1c results; with 23% of patients diagnosed with diabetes having HbA1c results recorded.
    - Cholesterol results are not recorded in 20% of patients with diabetes.
    - Recording of foot exam at six and 12 months.
- Postcodes have come into focus through the Perils of Place report (Grattan Institute 2016) which identifies Robinvale, Annuello and surrounds (postcode 3549) and Murrindindi and surrounds (postcode 3717) as persistent hotspots for diabetes complications hospital admissions.

Chronic Obstructive Pulmonary Disease (COPD)

Description: Hospital admission and bed day rates.

- When using the 'impact' measure of rate of hospital admissions multiplied by the average number of bed days per admission, compared with the state average (20.16 per 1000 population), the burden of COPD on the acute hospital system is highest in:
    - Campaspe (36 per 1000 population)
    - Moira (26.86 per 1000 population)
    - Benalla (24.45 per 1000 population)
    - Wodonga (24.16 per 1000 population
    - Loddon (23.84 per 1000 population)
    - Mildura (23.84 per 1000 population).
- Aboriginal and Torres Strait Islander prevalence rates of COPD are five times the national rate. This is significant for approximately 13,591 persons who identify as Aboriginal and Torres Strait Islander (28% of the Victorian total) with significant proportions residing in Mildura 15%, Greater Shepparton 7% and Swan Hill 6%.
- The Perils of Place report (Grattan Institute 2016) identifies Wodonga (postcode 3690) as a persistent hotspot for COPD hospital admissions.

Cardiac related admissions

- Victorian Admitted Episodes Dataset (VAED) has been sourced from Victorian public hospital information and does not include private hospital admissions. Specific characteristics include:
    - More than half of all admissions enter via emergency department (52.8%). LGA areas of significant emergency department points of interest are Swan Hill (66.4%), Mildura (63%) and Wangaratta (56%)
    - 83% of admissions are aged over 60 years
    - 43% of patients have no referral or support services arranged before discharge.
- Early, indicative evidence from clinical audit tools within general practice identify that 11.6% of patients are diagnosed with hypertension.

Child and adolescent health

Summary points

- One in seven (13.9%) of 4-17 year-olds were assessed as having mental disorders in the previous 12 months.
- Almost one third (30.0% of all 4-17 year-olds) of children and adolescents with a disorder had two or more mental disorders at some time in the previous 12 months
- School based mental health services provided 40.2% of services.
- 7.2% of all people accessing headspace services were young people from culturally and linguistically diverse (CALD) communities.
- Teenage pregnancy rate is 17.9 per 1000 as opposed to the Victorian average of 10.4 per 1000 = 75% difference.

Consultation

Community consultation has been undertaken through the following:

(A) Murray PHN regional team – community interaction (Nov 2016-July 2017)

(B) Murray PHN Clinical, Community and Aboriginal and Torres Strait Islander Councils (Nov 2016-July 2017)

(C) Murray Health Voices – community voice feedback (July 2017)

(D) Population Health Planning Network (July 2017)

Community voice

The following themes emerged through community consultation:

- Further comprehensive assessment is required in the early years' service sector, including investigation of models of care, best practice models, gap analysis and propositions for the future. (B) (D)

Key issues

- Increasing support for GPs to meet mental health needs of children and young people (all regions).
- Increasing support for GPs to ensure the complex assessment and management and appropriate referral of children living in out of homecare.
- Develop better access to mental health promotion for children and adolescents (all regions).

- Improve coordinated planning across sectors and service systems – complex service environment (all regions).
- Review of approach to culturally and linguistically diverse groups, as CALD groups are underrepresented in the data (all regions).
- Increase mental health service access rates for Aboriginal and Torres Strait Islander youths (4-17 years) in the Central Victoria and Goulburn Valley regions, looking at earlier intervention for children who have experienced traumatic events.
- More Aboriginal and Torres Strait Islander young people are accessing services than their non-Aboriginal and Torres Strait Islander peers.
- Lack of services for CALD children and young people.

Description of evidence

- Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing (June 2015).
- Almost one in seven (13.9%) 4-17-year-olds were assessed as having mental disorders in the previous 12 months. This is equivalent to 560,000 Australian children and adolescents.
- Males were more likely than females to have experienced mental disorders in the 12 months prior to the survey (16.3% compared with 11.5%)
- Attention deficit hyperactivity disorder (ADHD) was the most common mental disorder in children and adolescents (7.4%), followed by anxiety disorders (6.9%), major depressive disorder (2.8%) and conduct disorder (2.1%).
- Based on these prevalence rates it is estimated that in the previous 12 months 298,000 Australian children and adolescents aged 4-17 years would have had ADHD, 278,000 had anxiety disorders, 112,000 had major depressive disorders and 83,600 had conduct disorders.
- Almost one third (30.0% or 4.2% of all 4-17 year-olds) of children and adolescents with a disorder had two or more mental disorders at some time in the previous 12 months.
- Schools provided mental health services to 40.2% of the children and adolescents with mental disorders who attended them: 28.4% received individual counselling, 9.2% attended.
- A group counselling or support program: 13.1% used a special class or school, 5.6% had seen a school nurse and 17.1% received other school services.
- headspace services in Murray PHN report seeing a higher percentage of young people in the 12-17 age group category than the national totals.
- Aboriginal and Torres Strait Islander young people are accessing headspace at rates higher than the local Aboriginal and Torres Strait Islander population in a number of centres within the Murray PHN catchment.
- Aboriginal and Torres Strait Islander young people are accessing headspace centres in the North West and North East at a higher rate than the national average.
- 7.2% of all people accessing headspace services were young people from CALD communities.
- Higher than state average rates of teenage pregnancy.
- Bullying is a frequently reported issue for young people across Murray PHN.
- Across Murray PHN there are communities of children who are particularly vulnerable and at risk of poorer mental health outcomes as a result.

Child immunisation rates

Key issues

- Immunisation rates across Murray PHN generally are above the 'herd' immunisation rate of 90%.
- Data should be viewed with caution as actual numbers of participants in each location may be low.
- Coverage rate is above the 90% indicator, but specific populations and communities are below: need better targeted interventions as this indicates decrease in timeliness of immunisations and impacts on increasing reported cases of pertussis.
- Potential impact of implementing 'no jab, no pay' strategy on families regarding income and child care supports.

Description of evidence

- Time series data available catchment wide indicates that:
    - 12<15-month year old full immunisation rates fell slightly below either Victorian or Australian averages in Buloke, Mildura, Gannawarra, Mount Alexander, Macedon Ranges, Mitchell, Benalla and Towong LGAs
    - 24<27-month year old full immunisation rates fell slightly below either Victorian or Australian averages in Swan Hill, Buloke, Macedon Ranges, Mount Alexander, Campaspe, Mitchell, Moira, Yarra Ranges, Murrindindi, Greater Shepparton, Alpine and Mansfield LGAs
    - 60<63-month year old full immunisation rates fell slightly below either Victorian or Australian averages in Swan Hill, Gannawarra, Macedon Ranges, Mount Alexander, Yarra Ranges, Murrindindi, Albury, Benalla, Wangaratta and Towong LGAs.
- Culturally and linguistically diverse young people received fewer services at headspaces within Murray PHN compared with the national figures.
- The rate of teenage pregnancy across Murray PHN of 17.9 is significantly higher than the Victorian rate of 10.4 births per 1000 females, with hot spots across the whole catchment, North West (25.9) being the most significant hot spot.
- While adolescents from all LGAs have reported being bullied with a higher than rural Victorian rate of 20.8%, rates are higher in Mitchell (29.4%), Wodonga (25.7%) and Swan Hill (25.7%). Three-fifths (62.8%) of young people with a major depressive disorder had been bullied in the previous 12 months and were bullied more often.
- Rate of substantiated child abuse is higher than the rural Victorian average rate of 9.5 per 1000 population in Benalla (14.10) Wodonga and Mildura (both 13.2).
- Rate of children on child protection orders is higher than the rural Victorian average rate of 8.8 per 1000. Population in Swan Hill (16.1 per 1000 and ranked third in the state), Mildura (15 per 1000) and Benalla (14.4 per 1000).
- Benalla has the highest and double the rural Victorian rate of children in out of home care per 1000. Population at 14.4, followed by Swan Hill at 10.8, both of which are above the rural Victorian state average of 7.7.
- The percentage of children with emotional or behavioural problems at school entry in Benalla is the highest in the state (10.8%) and is close to double the rural Victorian rate of 5.6%, Wodonga is also high at 8.1% and ranks third in the state.

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 health.gov.au/PHN

Outcomes of the service needs analysis:

- Understanding our catchment profile
- Access to GPs or primary care providers
- Mental health services
- Suicide prevention
- Alcohol and other drugs services (AOD)
- Access to allied health practitioners
- Access issues for aged population
- Service coordination
- Referral
- Effective and efficient chronic disease management systems:
    - Diabetes
    - Cancer
    - Heart related conditions
- After hours
- Potentially preventable hospital admissions
- Patient/client information management systems and eHealth
- Health workforce

Understanding our catchment profile

Key issues

- Central Victoria has six local government areas being Loddon, Campaspe, City of Greater Bendigo, Gannawarra, Mount Alexander, and shares the Macedon LGA with North Melbourne PHN and Western Victoria PHN. The total population is approximately 225,834 with a total land mass of 21,221 square kilometres.
- North East has eight local government areas being Albury, Alpine, Benalla, Indigo, Mansfield, Towong, Wangaratta and Wodonga. The total population is approximately 170,780 with a total land mass of 24,080 square kilometres.
- Goulburn Valley has five local government areas being Moira, Greater Shepparton, Strathbogie, Mitchell and Murrindindi. The total population is approximately 151,237 with a total land mass of 16,522 square kilometres.
- North West has three local government areas being Buloke, Mildura and Swan Hill - total population is approximately 67,729 with a total land mass of 34,066 square kilometres.

Description of evidence

- Central Victoria region has 71 general practices, one large regional health service, 13 small rural health services, two bush nursing hospitals and 12 community health sites. The Central Victoria office is in Bendigo. ACCOs within the catchment operate two general practices
- North East region has 47 general practices, three regional and rural health services, and a range of small rural health services. ACCOs operate one general practice. The North East office is in Albury.
- Goulburn Valley region consists of approximately 42 general practices, a large regional health service, an Aboriginal Community Controlled Health Organisation, 11 small rural health services - three of which are fully funded community health services – six are associated with the small rural health services. ACCOs operate one general practice. The Goulburn Valley office is in Shepparton.
- North West region has 34 general practices, one large regional health service and a range of small rural health services. It also includes two Primary Care Partnership (PCP) regions. ACCOs operate two general practices. The North West office is in Mildura.
- Within the catchment there are significant settlement programs of recent arrivals in Swan Hill, Bendigo, Shepparton and Wodonga.

Access to GPs and primary care providers

Key issues

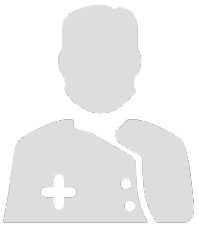
- Need for GPs in rural areas with impact of shortage in identified communities:
    - Increased use of urgent care centres and emergency departments in hospitals.
    - Need for and impact of access to GP after hours for smaller communities and residential aged care facilities and implications when the GP has no admitting rights to hospital.
    - Need for and impact of lack of 'in hours' GP services in smaller rural communities.
    - Impact on GPs now that local government no longer undertakes child immunisation programs (Albury).
    - Need and impact of access for patients with complex care needs such as: requiring bariatric support, access to interpreter services and respite care/aged care.
    - GP fatigue regarding after hours - refer to after-hours section.
    - GP isolation and lack of peer support.
    - Support for navigating transitioning patients back into primary care in their local service system is required.
- Financial burden of paying for health care.
- New graduate doctors (interns) and hospital medical officers (doctors who have completed their internship but are yet to pursue a speciality) in the vast majority of cases work in the hospital system.
- International medical graduates (who have general practice experience overseas and have come to Australia to complete their GP fellowship) and GP registrars (doctors who are undertaking their training towards GP fellowship without having had GP experience elsewhere) often rotate through regional and rural training posts. These doctors account for approximately one third of our medical workforce in Murray PHN's regions and you wouldn't expect them to have a detailed understanding of the local service system.
- Aged care MBS billing remains difficult to navigate.
- Many rural and small regional centres are struggling to retain and attract procedural GPs (GPs who have advanced skills in obstetrics, anaesthetics, small surgeries, emergency etc.)
- Extremely complex patients need shared a care approach from primary and secondary health services but access to these services can be limited.
- Inadequate secondary services discharge planning.
- Lack of collaborative care across the treatment continuum, namely in discharge from acute mental health services into community, and poor feedback and collaborative care between GPs and specialist services (psychological services and mental health service providers).

Description of evidence

- Distinct districts of the General Practice Workforce Shortage in 2015 are: Mildura, Ouyen, Murrayville, Boort, Wedderburn, Rushworth, Yea, Numurkah, Moyhu, Corryong, Wangaratta, Bethanga.
- 84% of people saw a GP in the previous 12 months (ranked 10 of 31 PHNs).
- 14% of people in Murray PHN saw a GP in the previous 12 months for urgent medical care (ranked five of 31 PHNs).

- Compared with the Victorian average, more than half of Murray PHNs LGA populations were more likely to report they had not visited a GP in the last 12 months.
- 81.8% of GP attendances were bulk billed, compared with 84.3% nationally.
- 15% of people were admitted to hospital in preceding 12 months (Murray PHN, ranked fifth of 31 PHNs).
- Low use of after-hours GP services with 5% of people seeing a GP after hours (Murray PHN ranked 25 of 31 PHNs).
- 15 out of 22 LGAs within the Murray PHN catchment reported experience with transport limitation in the last 12 months.
- All three LGAs in the North West region recorded rates of fair or poor self-assessed health that were higher than the state average.
- In 2011-12, 18 out of 21 Victorian LGAs in the Murray PHN catchment had a higher proportion of population that assessed their health as fair or poor. Within the catchment, Mildura, followed by Loddon then Greater Shepparton and Swan Hill, had the highest proportion of persons who assessed their health as fair or poor.

Access to specialist providers



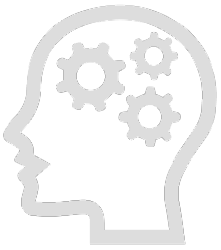
Key issues

- There are excessively long wait lists and extended waiting times reaching into years for some specialties.
- There are complexities and barriers to accessible, informed referral to specialist clinics.
- A lack of access for women's health specialists across life-course needs and specifically for fertility, sexual and reproductive health needs.
- Specific specialties identified as having relative impacts across most of the catchment are rheumatology, gerontology, dermatology, endocrinology, speech pathology, pain management specialists and psychiatry, including:
    - Paediatric care; access to specialist services for paediatricians – long waiting lists (years).
    - Paediatric diabetes, with transition to adult diabetes services.
    - Mental health related services to support children 10-14 years with medium to severe behaviours - mental health issue or paediatric issue.
    - Rehabilitation services for pulmonary care in Benalla and transport options.
    - A need for increased access through telehealth to specialists and addressing problems around.
    - Financial burden and transport barriers, especially with non-bulk billing facilities.
    - Many rural and small regional centres are struggling to retain and attract procedural GPs (GPs who have advanced skills in obstetrics, anaesthetics, small surgeries, emergency etc.)

Description of evidence

- Rate of referral to medical specialists rose from 5.6 per 100 problems managed in 2005–06 to 6.2 per 100 in 2014-15.
- Average number of specialist attendances per person is lower than the national average.
- According to the Department of Health and Human Services (DHHS) performance monitoring, there is up to a two-year wait to be seen by a specialist, for example: urology, ear, nose and throat (ENT) and orthopaedics.
- There are almost 170 medical specialists and 25 allied health professionals providing some level of outreach service through specialist clinics within the catchment.

Mental health



Key issues

Consumers and carers experience

- Mechanisms to support greater and more effective consumer and carer participation at an individual and systemic level across the continuum of need.
- A lack of consultative mechanisms for gaining feedback and input from mental health consumers and carers who use the primary mental health service system.
- Stigma impacts negatively upon the health and wellbeing of people who experience mental illness within the catchment, including stigma from providers of mental health services.

Rural and remote communities

- There continues to be a lack of access to services for those living in rural and remote communities.

Access

- Lack of access to care coordination for people with severe mental illness being managed in a primary care setting.
- Potential service access limitations associated with mental health nurses located within specific general practices.
- Access to psychological therapy services and state funded mental health services is limited in some smaller regional areas.
- Access to early identification, intervention and care options for children and adolescents is limited.

Description of evidence

- Partners in Recovery (PIR) needs assessment (through a consultative process with consumers, carers and feedback from PIR clients).
- Report: Contributing Lives, Thriving Communities - Review of Mental Health Programs and Services, National Mental Health Commission (2015).
- PIR consumer and carer feedback and consultations from regions. Feedback from GP workforce engagement events.
- Murray PHN community, clinical and Aboriginal and Torres Strait Islander councils provide feedback and consultation.
- Engagement with identified consumer and career groups across the Murray PHN catchment identified:
    - Lack of service response in acute circumstances
    - Frustration with discharge and re-entry processes at the specialist mental health level
    - Frustration with lack of information sharing between care team and consumers and carers
    - The system is difficult to navigate.
- Engagement with key stakeholders including service providers identified:
    - Access to private psychiatry is limited
    - Lack of transport is a barrier to service access

    - Outreach is limited and some communities have absence of local service provision
    - Access to bulking billing GPs is limited in some areas.
- Refer to geo-mapping of Mental Health Nurse Incentive Program services across the Murray PHN catchment area.
- Refer to spatial mapping of ATAPS and Mental Health Services Rural and Remote Areas (MHSRRA) services across Murray PHN catchment.
- La Trobe University PIR report: Where do I start? Mental health service access in small rural communities in the Southern Mallee catchment.
- Summary of findings:
    - Stigmatising attitudes are evident in small rural communities
    - Barriers to service access included a lack of understanding of mental illness among community members, health professionals and emergency service staff
    - Participants stated that the only way they could get help was in a crisis situation
    - A lack of discharge planning and inadequate service coordination
    - Perceptions of being excluded from care were consistent among family members.
- Distance and transport issues in rural and remote areas still pose significant barriers to access to services for clients and their families.

Key issues

Services for people who experience severe mental illness

- Significant barriers for people with severe and persistent mental illness in accessing the community, resulting in social exclusion and lack of participation.
- Dual diagnosis is poorly understood.
- Poor transition and integration across multiple sectors with limited coordination.
- Lack of available longer-term case management.
- Shortage of skilled workforce.
- Missing those who fall through the gap between primary care and specialist mental health services.

Child and Young Persons Mental Health (CYMS)

- There is a lack of services for children and young persons' mental health outside the locations where there is a headspace centre in operation. There is a lack of providers specialising in child and youth mental health in a primary care setting.

CALD communities

- Barriers in accessing support and intervention for people from culturally and linguistically diverse communities.

Aboriginal health services

- Intensive work is required to engage and maintain contact with Aboriginal and Torres Strait Islander people for follow up of primary mental health.
- The risk to not investing time and effort in engaging and applying culturally safe practices results in poorer health outcomes for this group and higher demand on the emergency and primary health care systems.

- Accessing mainstream services that are not culturally safe - many services lack cultural awareness.
- A shortage of Aboriginal and Torres Strait Islander health workers.
- Aboriginal Community Controlled Health Organisations (ACCHOs) report that people often present to them in crisis and have high needs for service coordination across sectors.
- Lack of targeted services for young people.
- Limited access to dual diagnosis services.
- Community dynamics can challenge service access and complicate treatment and support.

Description of evidence

- Local Camberwell Assessment of Need Short Assessment Scale (CANSAS) data from Murray PHN's PIR programs confirm unmet needs:
    - Daytime Activities and Company are consistently within the top four highest areas of unmet needs in both programs from 2013-2016 (CANSAS).
- Pathways through the Jungle PIR Project Report - Hume PIR.
- Program documentation - Northwest (PIR and Mental Health Community Support Services (MHCSS) and Loddon Mallee Murray and Hume PIR regions).
- Timely discharge from inpatient units is compromised due to lack of supported accommodation options in rural communities.
- Engagement with key stakeholders including service providers identified:
    - Gap in services for eating disorders
    - Lack of collaboration between services means that the potential benefits of headspace is not realised.
    - Lack of outreach limits the accessibility to the youth community
    - Lack of skilled clinicians
    - Lack of targeted services in some areas including specialist mental health, primary mental health and school based services
    - There is a missing middle between current primary care services and Child and Youth Mental Health Services (CYMS) for complex presentations.
- Feedback to Hume PIR from local migrant communities in Wangaratta.
- Goulburn Valley Mental Health Community Support Services Catchment Plan.
- Lower usage of translation services associated with provision of ATAPS/MHSSRA and MHNIP services in communities with high CALD populations, including new settlers.
- PIR client files (Hume).
- Engagement with Aboriginal health services and workforce.

Suicide prevention

Key issues

- Limited access to integrated suicide prevention services across the catchment area.
- Prevention services exist in some areas but are not well integrated or known.
- Identifying the at-risk person is inconsistent and often missed.
- Training in risk assessment and safety planning is indicated.
- Poor discharge practices.
- Communities and front-line worker need awareness raising and training.
- Referral processes are variable.
- Lack of targeted services for minority groups such as lesbian, gay, bisexual, transgender and intersex community (LGBTI) people and people from CALD backgrounds.

Description of evidence

- Above average suicide rates are experienced in Murray PHN's regions of North West and Goulburn Valley, with significantly high rates of ambulance attendance to suicide attempts in these regions.

Alcohol and other drugs services (AOD)

Key issues

Generally, there is:

- An absence of platforms for meaningful and effective consumer and carer engagement across the catchment area.
- Low uptake of web-based treatment and support options in rural areas - largely influenced by gaps in telecommunication coverage and internet bandwidth.
- A lack of appropriate responses for the complexities of methamphetamine use that include social, clinical and environmental considerations.
- Access to appropriate, safe and affordable housing.

Coordination and integration

- The service system is fragmented with multiple entry points for various treatment service types.
- Inadequate support and treatment options for people who experience co-morbid mental illness and substance misuse.
- Shared-care arrangements are variable, while there are pockets of good practice, coordination and mechanisms to support shared care are generally lacking.
- General increased demand and increased need for access to opioid replacement treatment programs.
- Not all communities across the catchment have access to bulk billing GPs.
- Access to brief intervention, residential rehabilitation and family support services is limited.

Treatment services

- Limited access to bed-based withdrawal.
- Availability of targeted youth services is disparate across the Murray PHN catchment area.

Description of evidence

- AOD catchment plans.
- Independent Review of New Arrangements for the delivery of Mental Health Community Support Services and Drug Treatment Services found:
    - Access to services in rural communities limited due to availability of skilled clinicians and service options - communities are underserviced
    - Poor use of technology to support service access
    - Lack of family support services
    - Lack of funding within services to respond to crisis situations
    - Lack of tracking with clients between intake, assessment and treatment
    - Homelessness and lack of crisis accommodation has subsequent impact on treatment options
    - Lack of funding and activity in prevention and early intervention
    - Appropriate facilities to deliver services difficult to access due to perceptions and stereotypes
    - Lack of transport and/or cost, limited options to reach services.

- Themes from PHN consultation with AOD treatment services and other key stakeholders:
    - Difficulty in navigating system (including central intake via contracted service provider) - reluctance to make referrals
    - Assessment/intake is complex and disengages clients
    - Due to central intake, treating agencies often need to undertake an additional (second) assessment
    - A sense that since central intake commenced referrals have dropped
    - No common data system - lack of central data or client management system for dual diagnosis
    - Clients can impact care coordination, impeded by less than strong professional relationships
    - Limited outreach results in people not being treated earlier
    - Coordination of care is not funded
    - Roles of services in treatment can be poorly defined
    - GPs are often the starting point for system entry but engagement and relationships less developed where previously direct referral capacity from GP strengthened GP/AOD worker relationships
    - Discharge notifications from emergency departments and mental health services are inconsistent.
- Service system mapping indicates that access to specialist services such as Aboriginal and Torres Strait Islander specific, youth and withdrawal is largely determined upon place of residence.
- Harm Reduction Victoria - consultations.

Key issues

Workforce development

- Lack of professional development opportunities in rural areas for AOD workforce, including general practice.
- Need to support GPs in managing AOD, particularly opioid and ice related issues.

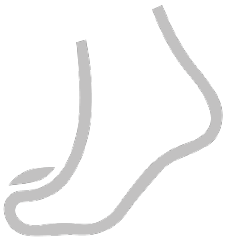
Aboriginal and Torres Strait Islander people

- Families lack support.
- Lack of wrap-around service provision.
- Lack of culturally safe service provision outside of Aboriginal and Torres Strait Islander services.
- Poor understanding of mental health, AOD and dual diagnosis among the community.
- Lack of accessible and appropriate rehabilitation and detoxification services for ice and poly-drug use.
- Psychiatric services lack the capacity to respond to drug-related mental health problems.
- Lack of systematic alcohol and drug awareness education in schools.
- AOD sector workforce and organisational capacity constraints.

Description of evidence

- Sources include: consultation with AOD service providers and other key stakeholders, AOD catchment plans:
    - Access to professional development and education for workers - metro courses are prohibitive to attend.
- Consultations with ACCOs and other key stakeholders.
- Consultation with Victorian Aboriginal Community Controlled Health Organisation (VACCHO).

Access to allied health practitioners



Key issues

- An increased demand for and lack of access to exercise physiology.
- An increased demand for high risk foot services (increasing diabetes rates with diabetes complications).
- Improved continuity of service required, especially for when MBS visits have been used up.
- Bulk billed allied health care is not widespread.
- Lack of public funded allied health for lower income persons.
- Lack of access to primary dental care.
- Need for extended hours for allied health and dialysis services.
- Opportunity for increased, supported telehealth services.
- Need for market development and incentives in some rural communities for allied health providers.

Description of evidence

- Bettering the Evaluation and Care of Health (BEACH) survey: GP rate of referral to allied health services increased from 2.0 per 100 problems managed in 2005-06 to 3.3 in 2014-15. Referrals to psychologists rose four-fold and those to podiatrists doubled.
- Shortages of access to specific practitioners or specialists related to chronic disease management (CDM) identified through regional consultations:
    - pain management specialist services (all regions)
    - dietetic services, especially for young people (North East)
    - occupational therapists (North West)
    - ophthalmologist (Robinvale)
    - endocrinologist (Robinvale, Buloke, Gannawarra)
    - general physician (Robinvale)
    - counsellors (North West)
    - physiotherapist (Sea Lake, Seymour, Alexandra)
    - neurological physiotherapist (Lower Hume)
    - paediatricians (all regions)
    - exercise physiologists (Kerang, Sea Lake)
    - dentist - public (Gannawarra, Buloke, Murrindindi)
    - podiatrists – public (Kerang, Gannawarra)
    - high risk foot clinics – all areas access issues
    - diabetes educator (Buloke, Sea Lake, Seymour, Kinglake)
    - mental health practitioners (all regions)
    - dermatologist (Goulburn Valley).
- Two-to-three month waiting periods for appointments with a dietician, podiatrist or physiotherapist in parts of the catchment. Longer waiting periods for speech pathology in some areas. (especially for paediatric needs).
- Ambulatory Care Sensitive Conditions (ACSC) data shows very high admission rates for dental conditions. This can be interpreted in part to a lack of access to and or uptake of primary dental care. (ACSC 2014/15, Murray Exchange).

- There is significant lack of paediatric allied health services catchment wide - especially for paediatric occupational therapy and physiotherapy. (Murray PHN regional team – sector interaction).
- High emergency department presentation and admission rates for cellulitis - this is often preventable with sufficient access to allied health.
- Gangrene causes the highest number of bed days in Goulburn Valley and North West regions. This is highly preventable with adequate access to primary care services.

Access issues for aged population

Key issues

- Ageing rural populations exist across the Murray PHN region, placing increasing pressure on access to health resources.
- Ageing workforce has resulted in reduced hours of work.
- Transport limitation presents barriers to access and leads to inappropriate emergency department presentations.
- GPs are not familiar enough with aged care MBS items.
- Limited access to geriatricians in aged care.
- Limited access to technology for the elderly.
- GPs and general practices may not manage patients in an aged care facility or provide home visits.
- An expected relative decline in the number of informal carers.
- Access to other health care services, including allied health and pharmacy.
- Access to home based palliative care requires further investigation and support (incorporating palliative care for chronic diseases other than cancer).

Description of evidence

- BEACH: those aged 65+ years accounted for an increasing proportion of GPs' workloads (from 27% to 31% of encounters). This change affected all aspects of general practice as older patients are more likely to have multiple issues, particularly chronic conditions and are more likely to have co-morbidities.
- 60% of adults in the Murray PHN region report having long term health conditions
- Hospitalisations for external injuries that occurred in an aged care residential facility (2011-12 to 2013-14) show significantly higher rates in Central Victoria than Victoria, while Goulburn Valley, North East and North West are lower than the Victorian average.
- The rate of persons aged 75 years and over who have annual GP assessments is lower than the Victorian average for many LGAs within Murray PHN, including most of the LGAs in the North East region. The lowest rates were recorded for Towong (one quarter of the Victorian average) and Indigo, Wodonga, Mount Alexander (all less than half the Victorian average.
- 15 out of 22 LGAs within the Murray PHN catchment area reported experience with transport limitation in the last 12 months.
- Number of bulk billed GP attendances is lower in the Murray PHN region than the national average.
- GP attendances in aged care homes is lower in the Murray PHN region than the national average.
- The rate of high-level residential aged care places per population aged 70 years and over was higher than the Victorian average in the North East region; while the rate for low-level residential aged care places was higher in Goulburn Valley, Central Victoria and North West regions. The rate of community places was higher in the Goulburn Valley and North West regions.
- Rates of Home and Community Care (HACC) service delivery to clients aged 70 years and over were higher for all Murray PHN LGAs except Greater Shepparton and Mitchell. The highest rates were recorded at Gannawarra, Loddon and Buloke and this reflects the very high proportion of older population living in these locations. Prolonged waiting times for assessments compromise care planning.

Service coordination

Key issues

- Discharge, planning, admission processes and acute stay periods need better alignment and coordination.
- Implementation of the My Health Record ‘opt out’ emphasises the need for integration with the acute sector.
- Significant number of children living out of home, with a high number being from Aboriginal and Torres Strait Islander backgrounds.
- Poor sector engagement in service coordination for vulnerable populations.
- Transition to the Commonwealth Home Support Program (CHSP) and NDIS requires significant 'navigation of the health system' by the patient/ individual and this in itself can create an access issue, which has the potential to adversely impact isolated communities.
- Lack of resourcing for community development in rural areas.

Description of evidence

- Victorian DHHS Service Coordination Survey 2015 indicates that a considerable number of agencies across the catchment have used e Referral to:
    - increasingly support referral and shared care
    - access a range of secure messaging/communications systems that interact to varying capabilities with organisational client/patient information management systems.
- Shared Care planning was supported in the DHHS Loddon Mallee region through local agreements between three or more service providers in 66% of respondents, and in DHHS Hume region 55%.
- Communications with GPs was less developed/implemented, occurring in approximately half of these arrangements.
- Information conveyed was primarily patient/consumer information.
- There is significant involvement of multiple providers, but consistent lack of service coordination for this at-risk vulnerable population.

Referral

Key issues

- Lack of inter-operability between health services systems.
- Health Service IT infrastructure remains fragmented. 'Patchy' access to regional broadband internet remains a significant barrier to interoperability. (Murray PHN regional team – community interaction)
- There are a number of legacy systems that don't engage patient or consumers in their own care.
- Improvements are required to enhance e-messaging systems and secure messaging systems performance.
- Lack of workforce knowledge regarding referral systems to family violence services including:
    - Children's services
    - District nursing services
    - Diagnostics services.
- Need to improve health professionals' understanding of the billing eligibilities and constraints around diagnostic services:
    - For example, if a specialist orders an MRI for a health care card holder, it is bulk billed, but if the specialist requests the GP to order an MRI for the patient, it can result in an out-of-pocket cost of $200.
- Improvements are needed in the communication of changes to service provision between agencies (day, frequency, eligibility, referral method).
- Timely and accurate information provision about costs and service eligibility is not effectively communicated.
- Significant variances across referral pathways and processes within and between service providers.

Description of evidence

- MBS evidence identifies increase of 18% of GPs using the telehealth, overall contributing to a 37% growth in telehealth consultations.
- Episodic use of telehealth to support discharge planning and shared care arrangements within the areas of cancer survivorship, dermatology and cardiology has been reported.
- Telehealth referrals have increased over the last three years with higher use of the MBS financial incentives.
- Delays through redirected triage and timeframe reflected was six to eight weeks.
- Demand for podiatry services was particularly high (waiting times can be as great as four months).
- Criteria and method to access the service has been reviewed in order to manage the demand, however the level of complexity and acuity continues to increase, and affects waiting times.

Effective and efficient chronic disease management systems

Key issues

- There is a need for systematic approaches to the diagnosis, care planning and service coordination of chronic diseases across each region of Murray PHN.
- Requirement for a planned approach to improvements in individual service system inefficiencies (identified through evidence).

Required notable flexible service possible responses

- Multidisciplinary clinics: to support good patient care with coordinated care specialist, allied health, nursing, prosthetics, counselling.
- Local governments are exploring opportunities for foot care nurses/allied health assistants.
- Foot care teams including a podiatrist, foot care nurse, and allied health assistants and referral from GP for a podiatrist's assessment and for ongoing team care including patient education/self-management (Kerang).
- Local health and community services use video conferencing for case management (Mallee Track).
- Need to increase patient knowledge about physical activity and diabetes management in rural communities.
- Identification of barriers to physical activity in rural communities and the available options for older adults.
- Exploration of applicability of group based sessions.

Challenges in provision and coordination of outreach and visiting services

- Services in rural and outlying communities are limited.
- Address the challenges of maintaining programs with limited resources, community interest, in smaller communities with less facilities.
- Address identified inefficiencies and duplication of services and the lack of coordination (dieticians from three different services that visit community).
- Need for GPs to assess and refer patients to a range of allied health services and or for multiple treatments within the one GP consultation.
- Improvement to communication between service providers and the public regarding changes to a service.
- Address workforce capacity needs to maintain appropriate service levels.
- Transport limitations are a barrier to access.

Description of evidence

- BEACH: consultation rates - as a proportion of all MBS/DVA-claimable recorded consultations; short surgery consultations, chronic disease management items, health assessments, and GP mental health care all increased significantly while standard surgery consultations decreased significantly.
- Over the last 10 years the most frequently managed GP consultations were for hypertension, check-ups and upper respiratory tract infection.
- Significant increases occurred in management rates for general check-ups, depression, back complaints, prescriptions, gastro-oesophageal reflux disease, anxiety, test results,

administrative procedures, vitamin/nutritional deficiency, and atrial fibrillation.

- The management rate for chronic conditions in 2014-15 did not differ from the rate in 2005-06 and the most commonly managed conditions were non-gestational hypertension, depressive disorder, non-gestational diabetes, chronic arthritis and lipid disorders.
- Increased management rates occurred for depressive disorders, oesophageal disease, atrial fibrillation/flutter, chronic back pain and unspecified chronic pain.
- Opportunities to be pursued to build evidence through project funding and collaborations with service providers across the care continuum.
- Albury has a higher percentage of amputation - above the state average. This may, in part, be attributed to lack of diabetes care.
- All users of electronic database systems are generally under-used thus reducing the capability to support shared care.

Diabetes

Key issues

- Loddon Mallee Region Diabetes Pathways identifies twenty health disciplines, of which an average of nine of these professionals may be included in the cycle of care for a person with diabetes.
- Diabetes service system analysis across Buloke, Gannawarra and Swan Hill identifies where service provision is and is not available.
- There are predominantly fewer services as identified in the Loddon Mallee Region Diabetes Pathways as being required in the diabetes cycle of care available in the Buloke LGA than Swan Hill and Gannawarra.
- All services identified in the Loddon Mallee Region Diabetes Pathways are available in Swan Hill city including public and private providers and with specialist services attending on a cyclic basis.
- All regions within Murray PHN's catchment report a lack of access to endocrinology services.

Description of evidence

- The rate of potentially avoidable hospitalisations for diabetes complications is slightly higher overall for the Murray PHN region compared with the national rate (210 compared with 183 per 100,000).
- Estimated population aged 18 years and over with diabetes mellitus, (2011-13) rates in all LGAs of Murray PHN lower or same as Victoria (positive).
- However, the potentially avoidable hospitalisations rate for diabetes complications by SA3s is 40% higher than national rates in Murray River-Swan Hill and 30% higher than national rates in Wodonga- Alpine, Upper Goulburn Valley and Campaspe. Albury, Moira and Wangaratta-Benalla are slightly higher than national averages.
- Avoidable deaths from diabetes, persons aged 0 to 74 years (2009-12) higher rates in Campaspe, Gannawarra Greater Bendigo, Loddon, Mount Alexander (Central Victoria), Greater Shepparton, Mitchell, Moira (Goulburn Valley), Albury, Wangaratta, Wodonga (North East), Mildura, Swan Hill (North West) than Victoria.

Cancer

Key issues

- This disadvantage may be explained by poorer access to cancer services and community support structures.
- Data is currently lacking on cancer staging and treatments.
- This is anecdotally supported by health and community agencies across the Southern Mallee and Northern Loddon regions who report lack of health service capacity and patient access as key barriers to achieving quality cancer survivorship care.

Description of evidence

- Avoidable deaths from cancers, persons aged 0 to 74 years (2009-12) shows higher rates in Campaspe, Greater Bendigo, Loddon, Mount Alexander (Central Victoria), Greater Shepparton, Mitchell, Strathbogie (Goulburn Valley), Albury, Benalla, Indigo, Wodonga (North East), and Buloke (North West) than Victoria.
- The rate of new cancer cases in 2007-11 was higher than the Victorian average in all Murray PHN regions. The highest rate was in Central Victoria and North West regions. The rate of new cancer cases is notably higher for males than females. This rate is likely to have been influenced by age structure of the population as it has not been age standardised.

Heart related conditions

Key issues

- Hospital admissions for heart attack are higher in many parts of
- the catchment than the Victorian average, and very high in some areas.
- Bendigo Health report that 60% of patients who have been previously admitted for heart-related activity will be readmitted within a three-year period.
- Lifestyle risk factors, including smoking and obesity, can be more systematically managed with primary care providers, through the use of clinical audit tools and improvement to practice workflows and systems, recognising that:
    - Smoking is higher in 12 of our local government areas than the Victorian average
    - Obesity is higher in 17 of our local government areas than the Victorian average.

Description of evidence

- Congestive cardiac failure rates are on par with national rates, however by SA3 levels within Murray PHN, Loddon-Elmore is 40% higher than the national average, and to a lesser extent, Shepparton, Wodonga-Alpine, Murray River-Swan Hill, Moira, Albury and Campaspe.
- Gannawarra LGA has the highest rate of potentially avoidable hospitalisations for hypertension in the Murray PHN catchment (approximately double the Victorian rate).
- Rates of potentially avoidable hospitalisations for angina are significantly high in many of Murray PHN's LGAs compared with the Victorian average, especially in Loddon (247 compared with 86 per 100,000) and Towong - followed by Gannawarra, Strathbogie and Wangaratta.
- Strathbogie LGA, within the Murray PHN catchment, has the highest rate of potentially avoidable hospitalisations for rheumatic heart disease in Victoria.
- Patients at risk of poor heart health can be better managed within primary and community health settings.

After hours

Key issues

- Difficulties in recruiting to isolated GP practices with younger graduates preferring a different lifestyle to that offered by small towns.
- There is still a number of GP practices not in collaborative after hours arrangements.
- Increasing community expectations of care on-demand for non-urgent conditions.
- Opportunity to expand the use of Rural and Isolated Practice Endorsed Registered Nurses (RIPERN) for after-hours support at urgent care centres.
- The average number of after-hours GP attendances per person in Shepparton SA3 is above the national average.
- Poor 'in hours access' and patients disengaged from GPs are presenting 'out of hours' to urgent care centres or emergency departments.
- New models of care and service delivery to support specific populations e.g. peri-urban or dormitory towns and palliative care and support through after hours.
- Need for new models to include after-hours support for carers.
- Availability of video conferencing technology to support remote consultation in after hours - improved support for rural communities with limited GP access.
- Demands and pressures of significant seasonal changes and/or major events to population numbers during peak tourist seasons (Yarrawonga, Mount Beauty, Mount Hotham, Echuca) puts significant strain on local practices and there is need for additional locum staffing and rosters to meet demand during peak seasons and events.
- Access to psychological services, particularly for populations unable to access in business hours.
- Access to pharmacies after hours for dispensing of medication in smaller towns and rural areas – a super pharmacy strategy is underway but not in small communities.

Description of evidence

- Difficulties in recruiting to isolated GP practices with younger graduates seeking a different lifestyle to that offered by small towns: Mallee Track Health in Ouyen persevered for 12 months to recruit a permanent doctor.
- Meetings with some practices where collaborative after hours arrangements across small towns became unsustainable.
- Kyneton District Health Service reports that for 2015/16, 82% of presentations were categorised a 'seen by nurse only' compared with an average of 40% for Victorian rural hospital emergency departments.
- Data provided by Ambulance Victoria for the 2015 calendar year for ambulance callouts to residential aged care facilities in Bendigo indicates that only 53% of the 1247 cases were classified as an emergency.
- Based on a recent review of six small rural hospitals in which four of the six were not using their RIPERN staff effectively or wanted to recruit or train more (four of the six were in the Murray PHN catchment area).
- Five-month Heathcote RIPERN trial which targeted frequent presenters to improved supports and access to in hours services and thereby diverted 31 potential urgent care centre presentations, saved an estimated 86 bed days and 14 ambulance transfers and the hospital board has agreed to continue the approach within its existing resources.
- Evidence from Cobaw Community Health that 46% of Kyneton and Woodend residents work outside the shire increasing the demand for extended hours and after-hours services.

- Evidence from Sunraysia Community Health Services is that 70% of clients die in hospital despite many stating preference to die at home. New after-hours palliative care models are currently being trialled across the Murray PHN catchment.
- A recent report prepared for the Loddon Mallee Regional Palliative Care Consortium indicated that just under 60% of carers that responded to their survey were 65 years or older.
- St Anthony's Medical Group telehealth trial has commenced at Boort.

Potentially avoidable hospitalisations

Key issues

- Relationship to lack of access to after-hours GP services and supportfor isolated GPs.
- Relationship to absolute GP shortages in some localities (e.g. Buloke/Mildura LGAs).
- Lack of communication regarding discharge planning and return to community services
- Link to electronic compatibility issues for information transfer/ communication between primary care and acute services.
- Further work for the North East region regarding discharge planning processes, admission process and acute length of stay period to understand patient admissions to emergency departments and/or acute.
- Need to increase development and review of care plans for chronic diseases.
- Need to increase use of condition specific patient action plans for chronic disease management.
- Lack of public dental services in Buloke and Gannawarra result in admissions for dental conditions/ extractions (especially for children).
- Health literacy levels relate to potentially avoidable hospitalisations. (e.g. smoking remains the key risk factor for respiratory related hospitalisations).
- Link to transport issues.
- Link to ageing population and comorbidities, with ageing population rates in regional areas above state average.
- Reduced access to endocrinology services has a relationship to admissions for diabetes complications.
- Relationship between reduced access to high risk foot services and diabetes complications, cellulitis and gangrene admissions.

Description of evidence

- The overall rate of all categories of potentially avoidable hospitalisations for Murray PHN (2826) is slightly higher than the national PHN rate (2643)
- By SA3 region, Murray River-Swan Hill, Campaspe, Shepparton, Moira, Mildura, Wodonga-Alpine, Loddon-Elmore and Wangaratta-Benalla have higher rates of potentially avoidable hospitalisations compared with the national average.
- The rate of potentially avoidable hospitalisations for chronic conditions is significantly higher than national comparisons, especially in Campaspe, Murray River-Swan Hill and Shepparton and a lesser extent to Loddon – Elmore, Moira, Wodonga-Alpine, Bendigo, Wangaratta-Benalla and the Upper Goulburn Valley areas.
- Cellulitis potentially avoidable hospitalisation rates are similar to national averages. However rates by SA3 level are significantly higher than the national average in Murray River-Swan Hill, Wodonga-Alpine and Moira regions.
- The rate of potentially avoidable hospitalisations for COPD is significantly higher in the Murray PHN region than national averages (321 compared with 260 per 100,000), with 11 of the 12 SA3 regions within the Murray PHN catchment being higher than the national rate.
- Rates for COPD admissions in the Campaspe area are more than double the national average (530 compared with 260 per 100,000).
- The rate of potentially avoidable hospitalisations for diabetes complications is slightly higher overall for the Murray PHN region with 210, compared with 183 per 100,000.

- However, the potentially avoidable hospitalisation rate for diabetes complications by SA3s is 40% higher than national rates in Murray River-Swan Hill and 30% higher than national rates in Wodonga- Alpine, Upper Goulburn Valley and Campaspe. Albury, Moira and Wangaratta-Benalla are slightly higher than national averages. This is a significant change from the previous year.
- The rate of potentially avoidable hospitalisations for acute and vaccine-preventable conditions is overall on par with the national average, however by SA3 regions, Murray-River-Swan Hill, Mildura and Moira are higher than the national rate.
- Congestive cardiac failure rates are on par with national rates, however by SA3 levels within Murray PHN, Loddon-Elmore is 40% higher than the national average, and to a lesser extent, Shepparton, Wodonga-Alpine, Murray River-Swan Hill, Moira, Albury and Campaspe are higher than the national average for congestive cardiac failure admissions.
- Rates of potentially avoidable hospitalisations for kidney and urinary tract infections are lower in the Murray PHN region, compared with the national average. The exception to this, by SA3 region within Murray PHN's catchment, is Loddon-Elmore (30% higher) and to a lesser extent, Bendigo, Wangaratta-Benalla and Mildura.
- The Murray PHN region's rates of potentially avoidable deaths (per 100,000) 2011-13 were higher than national averages, significantly in the Loddon-Elmore SA3 region, moderately higher in Moira, Murray River-Swan Hill, Albury, Shepparton, Mildura, Wangaratta-Benalla and slightly higher in Upper Goulburn Valley, Campaspe and Bendigo areas.
- 15% of adults within the Murray PHN catchment reported needing to see a GP, but did not. This is a 5% reduction from the previous needs assessment.
- 37% of adults stated they could not access their preferred GP in the preceding 12 months (2013-14).
- In 2013–14, the percentage of adults who felt they waited longer than acceptable to get an appointment with a GP was higher in Murray PHN than national averages.
- In 2015–16, the overall percentage of adults who were admitted to any hospital in the preceding 12 months was slightly less than the national average. This is a reduction from previous years.
- In 2015–16, the percentage of adults who went to a hospital emergency department for their own health in the preceding 12 months was significantly higher than the national average (19% compared with 13.5%). Murray is ranked the third-highest PHN nationally for visit to a hospital emergency department.
- In 2015–16, the percentage of adults who delayed or avoided filling a prescription due to cost in the preceding 12 months was higher than the national average.
- In 2015–16, the number of specialist attendances per person, age-standardised, was lower for the Murray PHN region than national averages.
- In 2015–16, the percentage of adults who reported having a long-term health condition was 57.8%, compared with 50.2% nationally.

eHealth

Key issues

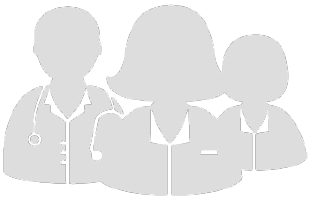
eHealth is also referred to as digital health.

- Murray PHN's strategic planning balances its contractual obligations to the Commonwealth with the realities of evolving technologies, limited resources and an increased expectation from the public and providers for what digital health can deliver. The many stakeholders and universal presence of digital health necessitates consideration of multiple perspectives.
- A general lack of education, understanding and uptake of eHealth, including by private allied health practitioners.
- A belief among some health practitioners that eHealth is problematic and that they won't use it until there is an effective system that communicates with the hospital, GP and pharmacy systems.
- A knowledge gap between what the consumer expectations are around the My Health Record and the reality of how some GPs and specialists are using the record. Patients think consent has been given and that their information is automatically uploaded and available (misperception).
- My Health Record will be opt-out from 2018.
- Lack of interoperable secure messaging.
- Variable infrastructure (internet connections aren't great in many rural areas).
- Confusion and variability regarding video conferencing platforms for telehealth.
- Under-use of telehealth for patients subject to regional and rural disadvantage.
- Inconsistent awareness of basic general practice IT requirements for both general practices and their IT providers.
- Towns located on borders face the additional challenges of working across them where state-based eHealth systems and initiatives may vary.

Description of evidence

- Almost all general practices (97%) have clinical and business software systems in place that support safe and efficient information exchange between health services and analysis of population health needs and patterns.
- Currently 178 general practices (96% of all practices) within the Murray PHN catchment receive the e-Health Practice Incentives Payment (ePIP). These are the essential building blocks that will support improvements in patient care.
- While 72% of all general practices were receiving ePIP payments in 2013-2014, only 16% were uploading clinical information to the system.
- Opportunity to scale up supporting implementation and improvement in quality of care across the Murray PHN catchment area and strengthen GP integration with pharmacy and allied health services.

Health workforce



Key issues

Key issues raised elsewhere in this needs assessment include:

- Existing labour shortages across a range of professions and disciplines.
- Skills shortages for emerging and growing needs such as aged care, dual diagnoses, patient and consumer engagement, digital health care, information management systems and evidence-led practice.
- Provider capabilities to attract and retain a skilled workforce and to establish and maintain strong collaborations with peer service providers and others in the broader health and social services sectors.
- Access needs are outlined and future models of care need to be considered with the quantum, availability and capacity of specialists to meet demand.
- Specific challenges for rural communities in attracting, training and retaining skilled workforce, especially for residential aged care, women's health and allied health.
- Training opportunities in rural and regional settings and analytics about workforce supply and demand issues at a regional level.
- Workforce sustainability issues continue to present challenges for remote Aboriginal and Torres Strait Islander communities.

Description of evidence

- There is limited regional health workforce data collection and analytics. It is more often historically reported and not as informative about demand and supply issues, with the focus more often being on general practitioners and not the whole health workforce.
- A focus on strategic engagement of key players is planned to collaborate on workforce strategies that redevelop and support an accessible and sustainable primary health system.
- In 2011 data, the catchment had 13% of its workforce employed in the health care and social assistance industries. For the Aboriginal and Torres Strait Islander population, the percentage was higher at almost 19%.
- Need for significantly more nurses and personal care workers with enhanced skills
- Distinct districts of General Practice Workforce Shortage Mildura, Ouyen, Murrayville, Boort, Wedderburn, Rushworth, Yea, Numurkah, Moyhu, Corryong, Wangaratta and Bethanga.
- The movement toward larger practices continued, with decreased proportions of GP participants working in solo practice (13% to 9%), and in practices of two to four individual GPs (35% to 21%) The proportion of practices with 10 or more GPs more than doubled, from 13% to 29%.
- The proportion of practices using medical deputising services for some or all their after-hours patient care increased from 51% to 57%.

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