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Murray PHN acknowledges the traditional owners of the land on which we work and live. We pay our respects to elders past, present and emerging, and extend that respect to all Aboriginal and Torres Strait Islander people.
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The programs and initiatives outlined within have been made possible through funding provided by the Australian Government under the PHN Program.
Abbreviations

ABS  Australian Bureau of Statistics
ACCOs Aboriginal Community Controlled Organisations
ACP  Advanced Care Planning
ACSC Ambulatory Care Sensitive Conditions
ADHD Attention Deficit Hyperactivity Disorder
ADIS  Alcohol and Drug Information System
AEDI  Australian Early Development Index
AH After hours
AIHW  Australian Institute of Health and Welfare
AOD Alcohol and Other Drugs
AS Age Standardised
ASSAD Australian Secondary Students Alcohol and Drug Survey
ATAPs Access to Allied Psychological Services
BEACH Bettering the Evaluation and Care of Health
CALD Culturally and Linguistically Diverse
CANSAS Camberwell Assessment of Need Short Assessment Scale
CDM  Chronic Disease Management
CHF Congestive Heart Failure
CHSP Commonwealth Home Support Program
COPD  Chronic Obstructive Pulmonary Disease
CoS  Continuity of Support
CPD Continuing Professional Development
CPI Consumer Price Index
CV  Central Victoria – Murray PHN region
CYMHS  Child and Youth Mental Health Services
DET  Department of Education and Training
DHHS Victorian Government Department of Health and Human Services
DHSV Dental Health Services Victoria
DoH Australian Government Department of Health
DVA  Department of Veterans Affairs
ED  Emergency Department
ENT  Ear Nose Throat
FOBT Faecal Occult Blood Test
GP  General Practitioner
GPMP  General Practitioner Management Plan
GSD Gender and Sexually Diverse
GV  Goulburn Valley – Murray PHN region
HPV  Human Papillomavirus
IARE Indigenous Areas (statistical geographic unit)
IT Information Technology
K10 Kessler 10 Psychological Distress Scale
LGA Local Government Area
LGBTIQ Lesbian Gay Bisexual Transgender Intersex Queer
LHN  Local Hospital Network
LMM Lodden Mallee Murray
MBS Medicare Benefits Schedule
MH Mental Health
MHNIP Mental Health Nurse Incentive Program
MHSSRA Mental Health Services in Rural and Remote Areas
MHTP Mental Health Treatment Plans
MMM Modified Monash Model
MPHN Murray Primary Health Network
MRI Magnetic Resonance Imaging
MTOP Medical Termination of Pregnancy
MyHR My Health Record
NBCSP National Bowel Cancer Screening Program
NDIS  National Disability Insurance Scheme
NE North East – Murray PHN region
NFP  Not for Profit
NW North West – Murray PHN region
OOHC  Out of Home Care
PAH Potentially Avoidable Hospitalisation
PATCAT Practice Aggregation Tool for the Clinical Audit Tool
PCP Primary Care Partnership
PDSA Plan Do Study Act
PHIDU Public Health Information Development Unit (Torrens University)
PHN Primary Health Network
PIP Practice Incentive Payment
PIR Partners in Recovery
PMHCCC Primary Mental Health Clinical Care Coordination
PTS Psychological Therapy Services
RACF Residential Aged Care Facility
RACGP Royal Australian College of General Practitioners
RFDS Royal Flying Doctor Service
RIPERN Rural and Isolated Practice Endorsed Registered Nurse
RWA Rural Workforce Agency Victoria
SA Statistical Area
SEIFA Socio Economic Indexes for Areas
SES Socioeconomic Status
SR Standardised Ratio
SRH Sexual and Reproductive Health
STI Sexually Transmitted Infections
STOP Surgical Termination of Pregnancy
TCA Team Care Arrangement
UCC Urgent Care Centre
VACCHO Victorian Aboriginal Community Controlled Health Organisation
VAED Victorian Admitted Episodes Dataset
VCAM Victorian Child and Adolescent Monitoring System
VEMD Victorian Emergency Minimum Dataset
VHISS Victorian Health Information Surveillance System
VPHS Victorian Population Health Survey
INTRODUCTION

About our catchment

Murray PHN operates across 22 local government areas across the north of Victoria, along the Murray River. The catchment is a diverse area that covers almost 100,000 square kilometres of mountains, semi-deserts and regional cities.

Murray PHN regional offices are based in Albury, Bendigo, Mildura and Shepparton, providing support to primary health services in our four regions: Central Victoria, Goulburn Valley, North East Victoria and North West Victoria.

Structure of the Needs Assessment

The Murray PHN Needs Assessment 2018-22 is presented as a comprehensive analysis of health and service needs, organised under our 10 strategic health priorities. Alignment to our health priority areas provides a strategic focus for our work and demonstrates the depth of needs and knowledge we have in each area. There are three “in focus” areas within the Needs Assessment which provide a more in-depth description of a health issue or population group. The information presented “in focus” is the result of a concentration of effort to improve understanding and inform future activity.

Needs Assessment update 2019-2020

Our Needs Assessment was updated in November 2019 with the addition of three new sections and a comprehensive review and update of the data presented across the 10 strategic priority areas. The new sections include Emerging Issues In Rural And Regional Health and Service System Challenges, which provide an exploration of the social and system issues that have emerged over the past 12 months and are impacting on the health of our communities. The Community Voice section on page 24 provides a summary of the community consultations that have occurred during 2019, including the clinical and community advisory councils.
Introduction

Process

The needs analysis is informed by a foresight methodology (Conway & Voros 2001) that moves from problem/gap identification through to options and opportunities that then inform the choice of operational interventions. The Needs Assessment provides an analysis of the current health and service needs of the catchment, organised across the organisation’s 10 health priority areas.

The foresight process model that underpins the enquiry methodology has involved staff working with key stakeholders, colleagues and, where possible, consumers to strengthen the broader Murray PHN Needs Assessment. The model addresses the following questions:

1. **Scanning: What is happening?**
   Initial scan of data, policy settings and program priorities.

2. **Analysis: What seems to be happening?**
   Assembly and presentation for further investigation in response to presenting and emerging needs and service system capability.

3. **Assessment: What is really happening?**
   Deeper interpretation of the data with a range of key informants and lenses of equity, effectiveness and efficiency.

4. **Prospection: What might happen?**
   Identifying the options based on evidence summaries and the desired outcomes.

5. **Priority setting: What might we need to do?**
   Selected options supported by resource mapping based on strategic priorities.

6. **Validation and planning: What will we do?**
   Triangulated evidence and knowledge base for each strategic priority, communicated between stakeholders and communities.

7. **Strategy implementation: How do we do this?**
   Public release of annual work plan with key evidence, reporting and accountabilities through formal stakeholder commitments to collaborative actions.

Murray PHN Needs Assessment activity has also been supported by the Indigenous, clinical and community advisory councils across the catchment, along with Health Voices, which is our network of community members who can respond to and advise on Murray PHN activities electronically. These structures are adding a deeper dimension to our understanding of health at the local level and are referred to in this document as ‘Community Voice’.

As part of the analysis, the professional judgment of PHN staff, stakeholders and service providers has been considered. Where possible, needs have been validated through feedback processes, and multiple sources of normative, felt, expressed, and comparative need were considered. Significant volumes of data have been viewed to establish breadth of knowledge from key informants and provide some indication as to what is privileged through, or validated by, other funding drivers such as chronic disease management and service coordination.
Introduction

Outcomes of the health needs analysis

Each health priority area includes information, summarising the findings of the health needs analysis to date, including risk factors, comorbidities and vulnerable populations.

As stated, the Needs Assessment summaries will continue to be developed in consultation with service providers, communities and advisory structures. The summary is not presented as an exhaustive list nor 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 service needs analysis

Each health priority area also includes a summary of the findings of the service needs analysis. The service needs were identified through consultation with consumers, stakeholders and advisory structures and informed through internal processes and reports. Analysed alongside the health needs, the service needs highlight where there are opportunities with regards to gaps in service provision, innovative approaches to complex issues, rural challenges and the service needs of diverse communities.
Introduction

Key issues

The leading issues identified across the catchment include:

- Ageing rural population within the Murray PHN catchment placing pressure on access to health services.
- Lower SEIFA scores than state and national median indicating high rates of disadvantage.
- Emerging health service access issues with regard to refugee health, women’s health services, child health and aged care.
- Being home to a large and diverse range of Aboriginal and Torres Strait Islander communities.
- Higher avoidable mortality rates, poorer cancer survival rates, and lower life expectancy than metropolitan areas.
- High rates of psychological distress, self-harm and suicide.
- Limited access to specialist mental health services and targeted mental health care.
- Physical health co-morbidities for people with mental health conditions.
- Higher than state average rates for co-occurring mental health and AOD disorders.
- Need for stronger partnerships with Aboriginal Community Controlled Organisations to ensure services support self-determination to meet the needs of local Aboriginal and Torres Strait Islander communities.
- Limited access to geriatricians and GPs in residential aged care.
- Transitioning to NDIS is disrupting services, creating gaps and difficulties for people in the mental health, child health and aged care service systems, especially in rural areas of low population.
- Potentially avoidable hospitalisations for COPD and diabetes complications remain high across the catchment, although current Murray PHN projects are having some impact.
- Improved multidisciplinary coordination of care is required for people experiencing chronic disease, especially at the interface between acute and primary care services.
- Increased support is required for GPs to meet the mental health, and other complex needs of children and young people.
- Improved systems for coordination of care for children and young people across the health and community services sectors.
- Lack of access in rural areas to paediatricians and child psychologists.
- Six ‘hotspots’ identified in the Murray PHN region ‘at risk’ of inadequate primary care access (general practice), and many other areas ‘vulnerable’.
- Changing landscape of general practice such as working conditions (on-call and after hours), MBS billing changes, and patient expectations having disproportionate impacts in rural areas.
- Issues with regard to rural health workforce recruitment and retention are ongoing.
- Limited availability or access to general practitioners continues to result in increased burden on emergency departments in rural and regional areas.
- Digital health challenges persist and relate to system limitations such as internet reliability, software incompatibility, along with professional and consumer expectations about change management, previous negative experiences, and education.
Introduction

Limitations

Population estimates

The Murray PHN region is home to several population groups that are known to be underrepresented in data collection instruments such as the census. It is well established that Aboriginal and Torres Strait Islander community participation in the census is inconsistent and the Victorian undercount rate hovers around 20% (Andrews 2018). The incorrect count affects the purpose of the census which is to provide and distribute services adequately, based on reliable population estimates. However, compiling a statistical profile of the Aboriginal and Torres Strait Islander populations of our region is not straightforward and the exact characteristics of size, composition and distribution will probably be unknowable. Our ACCOs regularly report that the population they service is significantly greater than official numbers, so the information presented herein needs to be considered as a probable underrepresentation of actual figures.

The refugee health project implemented in 2017-18 focusing on the needs of Hazara refugees in the Murray PHN region also highlights significant discrepancies in the official estimated population of refugees, compared to estimates provided by local community leaders. Across all areas within the Murray PHN region, Hazara community leaders estimated the local population to be at least double what was reported in census information. Reasons for these discrepancies may include: people choosing not to participate in the census (this may be due to limited understanding of purpose, language, fear of government authorities); issues with online submission of census form; and new arrivals that have come to the locations after the census.

The North West and Goulburn Valley regions of the Murray PHN catchment are also home to large fruit and vegetable growing and processing industries that attract large populations of seasonal workers. In many cases, these workers are not captured in official population estimates due to the seasonal and transient nature of the work, the legal or visa status of the workers, and the general attitude of distrust of government. The impact on the health and community services within these regions is that the volume of people they service varies significantly, and they experience workloads far greater than the population estimates would predict.

The other characteristic of the region that needs to be considered is the tourism that the Murray River generates, and the influx of visitors to the region across the year. The impact of tourism on primary care services results in longer waiting times for appointments, increased after hours service usage, and greater burden on emergency departments. It is also worth noting that locations in the Murray PHN catchment attract tourists of an older demographic, placing further burden on the primary care system.
Data availability

The Needs Assessment was prepared using local, state, national datasets and relevant literature, along with input from community, stakeholder and staff consultations and reports. In determining the data sources, several factors influenced the selection, being:

- a traditional suite of demographic data and a data set related to health status, health behaviours and health conditions
- access in a form that was relevant for the Murray PHN catchment area
- opportunity for ongoing time series data to be developed
- opportunity for data to be integrated into discrete projects, communities and population needs
- data governance and integrity.

While a significantly large selection has been compiled, there are gaps identified in the work to date. These include:

- identified data sets have limited usefulness for analysis specifically for the Aboriginal and Torres Strait Islander population in the catchment because key data is not as available at the local level or by Aboriginal and Torres Strait Islander status
- emergency departments are no longer collecting Indigenous status. This will have implications for monitoring Aboriginal and Torres Strait Islanders presenting in crisis and impact of care coordination on chronic disease management
- inability to conclude whether the population is getting better or worse because time series data is not presented
- inability to conclude whether Murray PHN is doing better or worse than like PHNs (same age structure/SES profile) because the current comparator is either Victorian or Australian levels.

Murray PHN also engages with peak bodies and other relevant organisations to obtain data. It is often the case that data sharing agreements do not permit the widespread release or publication of the information. Such cases arise with the following:

- Coroners Court (suicide data)
- hospital admission data at postcode level (Victorian HosData)
- Victorian Emergency Minimum Dataset (VEMD).

Also, due to data sharing agreements, there are often embargoes between the receipt of data by the PHN and the public release date. An example is the Victorian Health Information Surveillance System (VHISS) data. This is published approximately 16 months after collection by the State Government but is available earlier to the PHN through data sharing agreements. There are also sensitivities regarding publishing of localised service use data in that actual numbers of clients may compromise the de-identification of the data. Consequently, Murray PHN has access to such data which is used to guide strategy, planning and commissioning that is not presented here but helps inform the organisation.

However, significant progress has been made in addressing the above-mentioned data gaps including data sharing agreements with some ACCOs and an increase in the number of general practices sharing data with Murray PHN.
**Future directions**

The capture of data and information alone is inadequate to determine priority setting, systems change and resource mobilisation. The development of an evidence base for Murray PHN is ongoing and will be matured to become a robust, trusted source on which solid analysis can be based and interpreted in a range of forms that stakeholders - including communities and specific population groups - can use. Since the initial assessment, Murray PHN has strengthened its future capability in knowledge management. The design and development of our population health knowledge base, known as ‘PHN Exchange’, has been a significant milestone in the assembly of quality health-related information that is as contemporary, meaningful and accessible as possible for broad stakeholder and community consideration.

**PHN Exchange**

Through the design and development of PHN Exchange, Murray PHN has generated the following population health knowledge initiatives:

- a business process review and planned integration of current Murray PHN management information systems, including an appropriate information governance framework
- an enterprise-wide population health planning framework and an online training module
- a centralised information exchange that is:
  - enterprise-wide and will embed a wide range of Murray PHN activities such as the community and clinical advisory councils
  - accessible to internal and external stakeholders
  - transparent by publishing key information that is evidence-based about its commissioning activity that reflects:
    - market evidence and analysis about public, private and not-for-profit (NFP) service provider partners
    - residents of the community who use the service system
    - data evidence relating to demographics, health conditions, behaviours and status.

Indicator and risk factor data has been compiled for each local government area within the Murray PHN catchment and automatic ‘hotspot’ identification is being built into PHN Exchange. This has been created with an increasing appreciation that developing health and service needs data over multiple years will better inform future decision-making. Future needs identification processes will be enhanced by the development of outcome performance measures, and opportunity for greater scope with predictive and trend analytics over time, as well as the increase in community participation through the advisory council structure.

GP data collected through specialised tools and software will yield considerable data and is currently being used for GP engagement and quality improvement activities. The ‘Closing the Loop’ report is web accessible to GP practices sharing data with the PHN and displays 15-month trends, regional and catchment-wide comparisons and can introduce benchmarks for relevant data sets. Where possible, an increased capability to produce practice or area-level data is being investigated through the development of dashboard indicators focusing on: childhood immunisation, avoidable hospital admissions specifically for chronic disease conditions (cardiac disease, COPD and diabetes), mental health, and cancer screening for breast, bowel and cervical cancers. Data monitoring through dashboard reports is being planned for alcohol and other drugs (AOD), childhood dental conditions, and after hours GP access.

As the above platforms mature, it is envisaged that the Murray PHN website will continue to provide relevant information and data specific for more contextual and relational needs. Strengthening the overall data picture with the inclusion of qualitative evidence to ensure community context and service system capability is factored into the analysis.

Notwithstanding the current gaps in health data and information, we will continue to consider the needs identification and assessment to be an ongoing and iterative process that is under ongoing and progressive development.

_It is with this context that we submit this Needs Assessment report, acknowledging our progress towards responsible and responsive planning and delivery within the primary health care sector across the Murray PHN catchment._
EMERGING ISSUES IN RURAL AND REGIONAL HEALTH

Climate change and health

The rural and regional communities within the Murray PHN catchment are vulnerable to the impact of climate change and the effect on human health through both direct and indirect environmental changes. Direct climate change will impact health through increased morbidity and mortality resulting from higher temperatures and heatwaves, particularly amongst vulnerable groups such as the elderly, children and those with pre-existing cardiovascular and respiratory diseases.

Analysis of the Victorian heatwave of January 2014 demonstrated increases in all the following indicators during, or immediately after, the four-day heatwave:

- Emergency department presentations
- High acuity emergency department presentations
- Deaths in, and prior to, arrival at public hospital emergency departments (ED)
- ED presentations involving:
  - Heat-related conditions
  - Diseases of the circulatory system
  - Mental and behavioural disorders
- Ambulance emergency dispatches
- National home doctor service heat-related consultations
- Nurse-on-call heat-related consultations
- Deaths reported to the coroner
- Death admissions to the Victorian Institute of Forensic Medicine
- Total deaths (24% greater than expected)

(DHHS, 2014).

The indirect impacts of climate change result from the effect of adverse weather events on other areas such as agriculture, bushfire, infectious disease distribution (via mosquitoes and other vectors), along with social change such as migration, conflict and impairment of livelihoods due to drought and flood. Vulnerability to climate change and adverse weather events will therefore impact rural and regional communities disproportionately and highlights the emerging role of the rural health workforce in identifying, reducing and managing the adverse health effects of weather events.

Climate change and adverse weather events pose a significant threat to the health and wellbeing of children because their behaviour may expose them to harm and their systems lack maturity to respond to such harms. Their vulnerability is highlighted by the following:

- Lower body weight increases risk from hazards such as air pollution, water shortage, contamination and malnutrition
- Decreased ability to cope with temperature stress
- Immature immune systems make them susceptible to infection
- In-utero exposure to harm leading to long-term conditions (e.g. asthma)
- Trauma associated with adverse weather events experienced in childhood leads to poor health outcomes
- Children lack self-protecting behaviours making them more susceptible to sunburn, dehydration and infection
- Reliance on primary care givers to protect and provide for them (DEA, 2015).

The Royal Australian College of General Practitioners (RACGP, 2019) and the Australian Medical Association (AMA, 2019) released position statements in June and September 2019, respectively, acknowledging the consequences of climate change on health, and the subsequent impact on the health system and workforce. The RACGP statement identifies key roles for general practitioners within each of the domains of general practice and promotes a framework for primary care to improve health by mitigation and adaptation to climate change.
River health

The Murray PHN catchment is home to several significant river systems including the Murray, Goulburn, Ovens, Coliban, Campaspe and Kiewa rivers. The rivers play a significant role in the identity and economic development of our region and are central to the cultural and spiritual wellbeing of our Aboriginal communities.

Climate change, land and water management plans, and floods and drought, along with pollution and contamination, are having a negative impact on river health leading to social and economic consequences for river communities. The social impact of poor river health is associated with decreased tourism, poorer agricultural and horticultural yields, and loss of recreation opportunities. The consequences for primary care are increased demand due to the impact of decreased and insecure incomes, loss of identity and community wellbeing leading to increased stress, anxiety, depression and relationship breakdown.

The traditional culture of our Aboriginal and Torres Strait Islander communities revolved around their relationship to land and water. The rivers provided, and continue to be places of significance, for places to camp, hunt, fish and hold ceremonies. The rivers are central to Aboriginal creation stories, burial sites, birthing sites and provide spiritual connection to ancestors and dreaming stories (Dja Dja Wurrung, 2016). Declining river health and future uncertainty will impact on the spiritual and emotion wellbeing of our Aboriginal and Torres Strait Islander communities and have a negative impact on health outcomes.
Suicide prevention

Recently released research from Suicide Prevention Australia (2019) indicates there are a range of new risks for suicide related to economic security, family and relationships. These risks have emerged due to the changing nature of the Australian society and a greater understanding of the population groups that are at increased risk of suicide. These groups include Aboriginal and Torres Strait Islander people, the LGBTIQ community, those bereaved by suicide and those who struggle with alcohol and drug problems.

The Suicide Prevention Australia ‘Turning Points’ report, prepared with KPMG, identifies a range of risk and protective factors for suicide. These indicators, which focused on economic and relationship factors, were analysed on current trends with results indicating that prevalence of suicide will increase unless these issues are addressed. The report identifies factors which we have translated into indicators that can be used to determine an area’s suicide risk. The list of indicators is presented below. Based on these indicators, analysis suggests that the local government areas within the Murray PHN at the greatest risk of increased suicide rate are Mildura and Mount Alexander, and those with the lowest are Alpine, Mansfield and Macedon Ranges.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measure</th>
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<tbody>
<tr>
<td><strong>Risk factors</strong></td>
<td></td>
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<tr>
<td>Mental health condition</td>
<td>Mental health-related ED presentations (2017-18) per 1,000 persons</td>
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<tr>
<td></td>
<td>(Available at SA3 level)</td>
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<tr>
<td></td>
<td>Doctor diagnosed anxiety or depression % (VPHS, 2017)</td>
</tr>
<tr>
<td></td>
<td>Sought help for a mental health-related condition % (VPHS, 2017)</td>
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<tr>
<td>Average daily alcohol consumption</td>
<td>Increased lifetime risk of alcohol-related harm % (VPHS, 2017)</td>
</tr>
<tr>
<td>Binge drinking</td>
<td>Increased risk of injury from a single occasion of drinking % (VPHS, 2017)</td>
</tr>
<tr>
<td>Self-reported health</td>
<td>Proportion of adult population with fair/poor self-reported health status % (VPHS, 2017)</td>
</tr>
<tr>
<td></td>
<td>Low or medium life satisfaction % (VPHS, 2017)</td>
</tr>
<tr>
<td>Work related stress/</td>
<td>High or very high psychological distress % (VPHS, 2017)</td>
</tr>
<tr>
<td>psychological distress</td>
<td></td>
</tr>
<tr>
<td>Feelings of hopelessness</td>
<td>Feeling of life being worthwhile (low or medium) (VPHS, 2017)</td>
</tr>
<tr>
<td>Gender expectations</td>
<td>Proportion of males who performed 15hrs or more of unpaid domestic work % (ABS, 2016c)</td>
</tr>
<tr>
<td></td>
<td>Proportion of females who performed 15hrs or more of unpaid domestic work % (ABS, 2016c)</td>
</tr>
<tr>
<td>Housing and finance</td>
<td></td>
</tr>
<tr>
<td>Household income</td>
<td>Proportion of households with less than $650 gross weekly income %</td>
</tr>
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<td></td>
<td>(ABS, 2016d)</td>
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<tr>
<td>Mortgage stress</td>
<td>Proportion of households with housing costs greater than 30% of household income % (ABS, 2016d)</td>
</tr>
<tr>
<td>Area of disadvantage</td>
<td>SEIFA (2016)</td>
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<tr>
<td>Employment</td>
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<tr>
<td>Job loss during past year</td>
<td>Unemployment rate % (ABS, 2016d)</td>
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<td>Relationships and household</td>
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<td>structures</td>
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<td>Single person households</td>
<td>Single (or lone) person households % (ABS, 2016d)</td>
</tr>
<tr>
<td>Relationship breakdown</td>
<td>Divorce rate % (ABS, 2016d)</td>
</tr>
</tbody>
</table>
Underserviced populations

Murray PHN is home to a range of population groups that are regularly referred to as vulnerable, underserviced, hard to reach or at risk. Usually referring to people who are experiencing disadvantage due to economic circumstance, ethnicity, rurality or a medical condition, services are incentivised to provide health care to these groups, yet are often unsuccessful at adequate engagement and therefore unable to affect improved health outcomes. A new way to approach this issue has emerged by reframing the language from vulnerable and underserved people to hard-to-reach services and exclusionary services, thereby placing the onus on the services to improve accessibility as they hold responsibility to reach those that require care.

The complex nature of the Australian health system has been recently acknowledged in a policy paper by the Australian Health Policy Collaboration (AHPC). Whilst the system performs well by international standards, it struggles to provide equitable access to care for all Australians and often fails to manage chronic disease effectively (AHPC, 2019). The complexity of the system across multiple providers and funders, along with the increased demand for services due to an ageing population and a high burden of chronic disease, has resulted in a health system that is difficult to navigate and hard to access, especially for individuals and communities with vulnerabilities.

Within the Murray PHN region, the population groups who have been identified as underserviced are those that experience health inequalities, commonly through health inequity, and are listed below.

Rural populations
We define our rural populations as people living in a Monash Modified Model (MMM) 4 or above location, as per MMM definitions.

Aboriginal and Torres Strait Islander people
Aboriginal and Torres Strait Islander people continue to experience widespread socioeconomic disadvantage and have worse health than the rest of the population.

People experiencing socioeconomic disadvantage
People who live in areas with poorer socioeconomic conditions tend to have worse health than people from other areas.

People experiencing, or at risk of, homelessness
People experiencing homelessness have multiple complex health conditions yet are typically disengaged from primary health care services and place a significant burden on the acute health system.

Newly arrived communities (including refugees)
Refugees in Australia frequently have complex physical and psychological health needs.

Older adults
Increased use of health services by older age groups including higher hospitalisation rates, and higher rates of multimorbidity.

People with disability
People with disability have poorer health than the rest of the population, even when their health outcomes are unrelated to their impairment.

People with mental illness
People who live with a mental illness are also more at risk of experiencing a range of adverse social, economic and health outcomes.

People who identify as gender and sexuality diverse
A disproportionate number of people who identify as gender and sexually diverse experience poorer mental health outcomes and have higher risk of suicidal behaviours than their peers.

People who have experienced natural disasters
Natural disasters can cause substantial social and mental health problems that may continue over extended periods of time.

The health and service system needs of our populations experiencing health inequalities highlights the role of Murray PHN to promote and support a service system that is accessible, safe, easy to navigate and actively seeks to reach individuals that require care.
Seasonal populations

Population variability across the Murray PHN region is a consistent issue for population health and other service-based planning. The Murray PHN region is bordered by the Murray River which experiences a significant seasonal influx of tourists. The Victorian ski-fields are another location within the region that attract seasonal visitors and temporary residents, along with the agricultural regions where there is a substantial seasonal workforce passing through.

Swan Hill Rural City Council recently commissioned a population estimation exercise to provide a more accurate measure of the actual, daily residential population of Robinvale due to substantial evidence that Robinvale’s actual population is higher than the official Estimated Residential Population (ERP) calculated by the ABS. Modelling of the actual population was generated using bank and water usage data. Bank data reviewed regular transactions of goods and services within Robinvale, and water data used aggregate residential water consumption to estimate population based on a typical per capita consumption in a comparable rural area.

The modelling resulted in an estimated mean population in Robinvale of approximately 7,900 residents, which is significantly higher than the ERP of 3,359.

There are 17 of the 22 LGAs in the Murray PHN region with a tourist profile generated by Tourism Research Australia. These profiles are created where there are significant visitor numbers compared to resident population. Based on these data, the local government areas of Greater Bendigo, Albury, Macedon Ranges, Greater Shepparton, and Campaspe all have annual visitor number of over 1,000,000 per year. However, when visitor numbers are analysed compared to resident population, the LGAs of Murrindindi, Mansfield and Alpine all report more than 50 visitors per resident each year.

The impact of seasonal and tourist populations, and inaccurate estimates of residential populations, result in an increased and unplanned demand on in-hours and after-hours primary care, urgent care centres and emergency departments.
Aged care

Aged care in Australia is currently under review through a Royal Commission which is likely to lead to significant reform of the sector to improve quality and safety, as well as improve the capacity of the system to grow and meet future need and changing demands. Within the Murray PHN region, service system challenges have emerged relating to in and out of hours GP coverage for residential aged care facility (RACF) residents. Increasingly, the number of general practitioners who are taking new RACF patients is decreasing across the catchment, leading to increased burden on fewer practitioners, and delays in older adults moving into RACFs for much needed care.

Prior to individuals entering aged care facilities, there must be an allocated general practitioner (GP) who is willing to manage their care, including the provision of visits to the resident at the facility. Obtaining a GP is the responsibility of the resident and/or family and is the choice of the resident. Over the last 12 months, there have been various concerns expressed from the management of aged care facilities in their difficulty in maintaining GP access for their residents and these concerns have been increasing. Aged care facilities have indicated:

- difficulty in filling beds, regardless of the demand due to individuals not being able to access a GP
- current residents now without a GP – which is breaching aged care standards and accreditation
- GPs who are willing to support but does not include visits to the facility – staff are required to present to the general practice with paperwork and if able, residents are also required to present to the general practice for health care.

In a recent survey undertaken by Murray PHN, residential aged care facilities highlighted a range of issues and impacts related to reduced GP coverage of their facilities. The main issue that was identified was timeliness of primary care provision and the subsequent impact of delayed care. Other concerns included, but were not limited to, the following:

- preventable deterioration due to constipation, urinary tract infection, pain and general infections leading to decreased quality of life for residents
- transfer to emergency department and/or preventable hospital admission
- delayed medication reviews and reliance on exchange of faxed medication charts, charts are unsigned, RACF staff waste time on follow up, and increased potential for medication errors
- prescriptions unfilled
- disgruntled residents and family
- GPs are rushed when onsite and unable to provide comprehensive, person-centred service
- overreliance on residential in-reach service
- very difficult to get GP after hours.

Many factors are impinging on general practices’ capacity or willingness to work in providing a service to residents in aged care. Factors that include:

- The time required to appropriately manage the resident, including:
  - to get to the nursing home
  - to find the nurse in charge (if you can find the nurse)
  - to get the patient into a private situation for the consultation
  - no equipment to assess the patient
  - to take a history and examine the frail and elderly
  - to have to write both a script and a medication chart
  - to have to write notes both for the nursing home and for one’s own surgery notes
  - to field inquiries from pharmacists who often want to have scripts ahead of time for the medication packs
  - to make specialist appointments
  - to transport patients to specialists and allied health professionals
• Skill set of RACF staff:
  - the skill of the staff within aged care facilities is at the very low end of what would be expected in managing individuals who are frail and have complex health issues, which adds to the time the GP is required at the facility
  - GPs receive frequent disruptions during the day from RACF staff; calls are often inappropriate and not needed, where there are times when a GP should be notified, and this does not happen

2009 Victorian bushfires

Ten years have passed since the 2009 Victorian bushfires, and this year marked an important anniversary of what has been recognised as one of Victoria’s most devastating tragedies. The 2009 bushfires resulted in the death of 173 people (State Government of Victoria, 2019), and also massive loss of natural forest and infrastructure throughout many regions and communities of Victoria (National Museum of Australia, n.d.).

The Bushfires of 2009 Community Support Committee (also known as the Kinglake Consortia) was a collaborative project conducted by health service providers and community representatives with funding from the Victorian State Government to provide services, particularly mental health services, to people living in some of the communities impacted by the 2009 bushfires.

The objective of the Bushfires of 2009 Community Support Committee was to ensure appropriate and trauma-informed mental and community health supports, communications regarding services available and capacity building to support communities and service providers were available to all people in the regions of Mitchell, Murrindindi, Strathbogie, the Yarra Ranges, Whittlesea and Nillumbik during the recent anniversary of the fires.

The project provided a range of additional support services to the communities identified above, however uptake of these services was varied. Anecdotal evidence suggested that communities appreciated the increased service availability and acknowledgement of need, however uptake was not significantly increased during this period.

There is also emerging evidence that children who lived through the bushfires are displaying trauma-related behaviours that is impacting on educational outcomes. In a study recently conducted by University of Melbourne (Gibbs et al. 2019) analysis of numeracy and reading achievements of children demonstrated a dose-dependent relationship with depressed learning outcomes and level of bushfire affectedness four years after the event. Without early intervention, these developmental patterns have the potential to impact educational and functional outcomes many years down the track. The wider evidence base indicates there are opportunities to intervene through positive multilevel school strategies and primary health care support. This provides further evidence that our bushfire affected communities require ongoing, specialist support.

Homelessness

According to the census, the rate of homelessness across the Murray PHN region has increased in nine local government areas between 2011 and 2016 (ABS, 2016). Although it is problematic to rely on census data for accurate homelessness information due to poor census participation of those in insecure housing, these trends support anecdotal evidence regarding homelessness from health services and community consultations across our catchment.

An emerging group at risk of homelessness is women. Research by the Australian Institute of Health and Welfare showed that in 2017-18, 64% of people seeking specialist homeless services (SHS) in Victoria were women (AIHW, 2018d). Many are experiencing family violence, financial stress, mental health issues and are unemployed. There is also a growing group of older women who have been unpaid carers, worked in casual jobs and have little to no savings or superannuation unable to find housing in the private rental market. This leads to couch surfing, living in crisis accommodation, living out of their car, or on the streets. Many are also primary carers to children.

The impact of homelessness on the primary health care sector is that housing instability and homelessness, unemployment and financial insecurity can exacerbate mental and physical health issues and substance abuse disorders. When children experience homelessness there are significant impacts on future health and wellbeing due to limited engagement with maternal and child health support, education settings and primary care.
Digital health

Following the release of the National Digital Health Strategy, digital health-mediated initiatives, such as My Health Record, have gained traction. However, widespread implementation of digital health has also uncovered a range of health service system issues.

RACGP are actively supporting members by providing advice on how to use digital health platforms safely and effectively, whilst ensuring adherence to the Privacy Act 1988. Concerns regarding the use of personal devices for capturing clinical images, understanding the ownership and responsibility of the clinical images (generally the property and responsibility of the health service, even if they have been taken on a private mobile phone), practitioner-level understanding of health data privacy and compliance (e.g. secure messaging and referral), and the development and implementation of policies and procedures have all been identified as areas requiring further training and development.

An ongoing issue that the increase in digital health activity is highlighting is the trepidation of some health services to commit to participation in innovative digital health programs due to the perceived risks of web-based platforms. Whilst concerns are based upon maintaining the privacy of clients, limited understanding of the technology and fear of reputational issues is impacting on uptake. The need is to build the understanding and capacity for both practitioners and administrators to deliver a workforce that confidently uses digital health technologies to deliver health and care.

General practice will also require additional support to participate in digital health-mediated consultation due to the lack of MBS items available for direct patient consultation using videoconferencing and the requirement for e-script capability. Although there is a capacity and training need in digital health literacy and some system issues that need to be addressed, new technologies should be embraced as opportunities arise from the National Digital Health Strategy.

Refugee health needs

The rate of newly arrived settlers for humanitarian reasons between July 2018 and March 2019 was 0.48 per 1,000 persons across the Murray PHN region. This is higher than the national rate of 0.32. Rates for LGAs with the most newly arrived settlers for humanitarian reasons for the period are Greater Bendigo (0.66), Greater Shepparton (1.76), Mildura (1.03) and Wodonga (1.74) (DSS, 2019b).

Recent community health needs work with the Hazara community throughout the catchment has provided helpful illustration of the lived experience for many refugees. The Hazara make up one of the major groups of refugees and asylum seekers who have resettled in Victoria. There have been two main waves of Hazara refugee arrivals in Australia, with the first wave of refugee and asylum seekers arriving from Afghanistan between 1999 to 2002, and the second wave mostly resettled in Victoria, including in the Murray PHN catchment, between 2009 to 2013. Many of these refugees have received permanent residency visa; some are still living with temporary or bridging visas. Also, many Hazaras are entering Australia via refugee family reunion programs which is a different type of visa.

Most refugees from Afghanistan in the Murray PHN catchment have settled in four major centres – Bendigo, Mildura, Shepparton and Swan Hill. Hazara people make up most of these settlers from Afghanistan and estimates indicate there are over 2,000 Hazara refugees in the Shepparton area alone.
The main health issues identified by community members and service providers for the Hazara communities within the Murray PHN region included women's health issues (including cancer screening and post-natal support), mental health concerns, chronic pain, delayed presentations to health services, hepatitis B prevalence, health impacts of chewing tobacco, family issues related to resettlement, and health literacy. Given the central role of general practice in addressing the above health concerns, opportunity exists to develop and implement structures and supports to improve refugee engagement with general practice. Related to this, recent conversations with refugee health workers within the Murray PHN catchment have identified access and engagement with general practitioners as a significant barrier to primary care service access for refugee communities.

Therefore, opportunity exists for exploration of how general practice can improve engagement with local refugee communities. Known barriers include factors related to time, billing, and translator availability; yet opportunities such as peer-workers, care coordination and resourcing have yet to be trialled within the Murray PHN catchment.

Rural women’s health

Following the finalisation of the ‘Women’s sexual and reproductive health needs across Murray PHN region’ innovation project (2018), there remains a gap in knowledge regarding the specific needs and types of services required for women in outlying rural areas of the Murray PHN catchment. The report makes recommendations to progress place-based, nurse-led models of sexual and reproductive health care, explore service coordination links between family violence service providers and primary care; and highlights several access issues for women particularly relating to options counselling and medical and surgical termination of pregnancy. However, more specificity regarding the type of services and associated locations is required to progress action in this area.

The health and service needs of rural women located in selected rural local government areas in the Murray PHN catchment were investigated. The following key issues were consistently highlighted by women in the LGAs of Buloke, Loddon, Towong, and Benalla:

- Mental health
- Access to general practice (including waiting time and bulk-billing availability)
- Chronic disease management
- Sexual and reproductive health
- Social connection
- Transport

Another outcome of the study was that participants appreciated being consulted as they felt that women’s health needs were often overlooked, especially in rural areas.

Child health

Childhood vulnerability is a complex problem, particularly in communities with high levels of disadvantage. Opportunistic health care is inadequate to meet the chronic and complex health needs of children in out of home care, experiencing social or economic disadvantage, or displaying developmental delay and/or autism spectrum disorder. Specialised paediatric care and early intervention is usually required from early childhood through to late adolescence to prevent lifelong effects of such conditions or adverse childhood experiences.

Children living in rural and regional Victoria often experience significant waiting times or costs to see a pediatrician or specialist paediatric health services. Transition to the NDIS has also highlighted the lack of services across the PHN catchment with an increased demand due to the financial support provided by the scheme.

The service system challenges, and complexity, increase when children are in out of home care, or where child protection is involved. Murray PHN’s Community Paediatric Project was in response to the unmet health needs of children and their families in the Mildura area in the Murray PHN catchment, and in particular to focus on addressing health needs and service gaps for Aboriginal and Torres Strait Islander children.

The project’s aim was to better understand their needs by developing a place-based, best practice model of community paediatric care. Community paediatrics differs from general paediatrics. Community paediatricians generally work with ambulatory patients who may have a chronic illness, complications of prematurity, genetic diseases, developmental
disabilities, autism and behavioural issues (Hall 2000, Kronick, Hilliard et al. 2009). While working with individual patients, community paediatricians also focus their work more broadly on children and youth within a community, not just those who come into a clinic. The project identified the following needs:

- **Need for and benefits of community paediatricians**
  - There is need for a full-time, salaried community paediatrician based in Mildura, whose role should be shared/co-located across Mallee District Aboriginal Services (MDAS) and Sunraysia Community Health Services (SCHS) in order to best serve the needs of families in Mildura and the surrounding areas.

- **Clinical outcomes are anticipated and value for money propositions need to be tested**
  - A business model to support this role that includes several funding streams and draws upon health economics evidence to demonstrate value.

- **Clinic scope needs to be any child who is vulnerable**
  - In the future the service is available to vulnerable and disadvantaged families from non-Indigenous backgrounds, including children from culturally and linguistically diverse families.

- **Community paediatrics deliver beyond the clinic**
  - That a paediatrician servicing this population group should be a community paediatrician with dedicated time to be actively involved in developing and maintaining collaborative working relationships with various local professionals and key organisations, along with providing capacity building activities.
  - That the professional and personal needs of prospective community paediatricians be considered when recruiting.

- **Additional, related paediatric services need to be strengthened to support the community paediatrician, families and the wider community.**

## Cancer Survivorship Project

The term ‘cancer survivor’ has been used irregularly; most commonly, a cancer survivor refers to any person who has been diagnosed with cancer. Therefore, survivorship begins at the time of diagnosis and includes the periods of initial treatment with intent to cure, become cancer free, or need to manage chronic or sporadic disease, and end of life care.

Reports suggest that cancer survivors do not receive appropriate oncological or primary care services, where there is often an overuse, misuse or underuse of appropriate services. Related reports indicate that cancer survivors are less likely to receive regular primary prevention such as heart and lung health checks, cancer screening and immunisations.

Patients in rural areas face significant obstacles associated with a lack of resources, health workforce challenges, increased financial burden and social isolation. Understanding the specific care required means solutions can be matched to the unique needs of the rural patient.

The Cancer Survivorship Project identified the following key local issues related to cancer care:

- **There is increased prevalence and poorer survivorship in rural areas**
- **There is significant variability in cancers and care pathways**
- **Supportive care screening, risk stratification and advance care planning isn’t routinely completed for, or offered to all patients, regardless of the setting**
- **Access to care is limited due to distribution of services, geographic distance, limited transport and fragmented/non-existent telehealth options**
- **Limited workforce with no or limited knowledge of cancer survivorship care**
- **General practice is mostly not involved with ‘formal’ cancer survivorship care**
- **There is a clear disconnect between primary care and specialists/tertiary health centres regarding sharing information around patient care.**
Analysis of patient stories exposed that the patient journey was highly variable. The problem of distance, inconsistent supportive care assessments, unreliable communication and geographic limitations were all barriers to embedding cancer survivorship care in the region. General practice is well positioned to provide continuity of care and many rural health services are well positioned to provide cancer survivorship care.

Following the development and implementation of a Cancer Survivorship Model of Care, the outstanding service system needs include:

- A cancer care coordinator should be a funded essential service across rural health service sectors
- Cancer survivorship needs to be standard training item for Aboriginal health workers and practice nurses
- The shared care model between the acute and primary care sectors needs to be financially resourced to support primary care implementation
- Cancer survivorship should be embedded into accreditation frameworks
- Cancer survivorship training and education providers need to ensure content meets the needs of rural agencies and survivors
- PHNs should consider the development of one chronic disease management plan that encompasses most chronic diseases.

**Rural primary care access, workforce and sustainability**

In rural areas, the lack of health professionals per head of populations is further exacerbated by their need to serve small populations spread over large geographic areas. This means that it is more likely that these health professionals will be working in very small, geographically dispersed practices, with a lack of economies of scale that occur in denser population areas. In 2017, there were 217 GP practices in the Murray PHN region and 15% of these (32) were solo practices (RWAV, 2017). This is the highest percentage of solo practices across all PHN regions in Victoria. The 2016 National Health Workforce (DoH, 2019d) dataset indicates that shortages of GPs, compared to state averages and patient needs, within the Murray PHN region continues to be a problem. For example, Loddon has the lowest provision of GPs per head of population of any LGA in Victoria, and many of these GPs are over 60 years old (unpublished data, 2019). Looking beyond the existing vacancies, many towns within the Murray PHN region have precarious GP workforces. Some towns have a solo GP who doesn’t live in the region full-time or is older and approaching retirement.

Workforce shortages are also apparent across other disciplines and services in the Murray PHN region, including a significant shortage of allied health professionals. For example, DHHS has calculated that if the allied health workforce in the Gannawarra Shire was perfectly distributed, an additional 45 FTE would be registered there, in addition to the current 16.2 registered in that region in 2017 (unpublished data, 2019). In addition to the other challenges with rural practice like professional isolation and the need for broader skills, often only part-time employment is available for allied health professionals, which can reduce the attractiveness of working in these areas.

A new approach that connects the primary care system across communities will address some of the workforce issues that drive poor health care access and will improve the sustainability of these services over time.
COMMUNITY VOICE

Murray PHN’s community engagement occurs predominately across two channels, Health Voices our online survey platform, and through our four Community Advisory Councils. The following information is a compilation of our engagement activities during 2018-2019.

My Health Record

In the latter part of 2018 and early 2019, as part of the My Health Record Expansion Program, Murray PHN conducted community engagement events/activities to inform consumers about My Health Record. In total, 169 education activities were conducted across the Murray PHN catchment, including 92 presentations, resulting in 3,346 engagements (excluding collateral dissemination/extended reach).

Through Health Voices, our community demonstrated high awareness of My Health Record, with 97% of respondents having heard about My Health Record and 70% knowing what type of information was contained within a My Health Record. Almost one third of Voices had spoken to their doctor or health professional about My Health Record.

In relation to My Health Record, 62% of the Health Voices respondents thought it was great because health care providers will be more informed, 14% will be opting out, 12% were unsure because of not knowing enough; and 12% were not bothered either way.

As of October 2019, across Murray PHN’s catchment there are 434 health care providers registered for the My Health Record system: 198 general practices, 128 pharmacies, 15 public hospitals and health services, four private hospitals and clinics, one aged care provider, 42 allied health, 15 specialists and one pathology and diagnostic imaging service.

Access to primary care

During October and November 2018, Murray PHN’s Community Advisory Council members consulted with their local networks and gathered more than 800 responses to questions about primary health and the primary health care system.

Our community told us they are most concerned about access to general practitioners and attracting and retaining GPs, particularly in rural areas. The top five health issues concerning our community across the catchment related to GP access (28%), mental health (27%), chronic disease (20%), aged care (14%), and alcohol and other drugs (10%). The community was also asked to identify community strengths which included health services (28%), caring and supportive community (25%), social connection (21%), social capital (13%) and services, shops and amenities (13%).
General practice

The previous community consultation identified access to general practice was one of the main primary health concerns across Murray PHN communities. This was investigated further with a focus on access to and experiences of primary care.

In relation to general practice access, 90% of Health Voices have a GP that they prefer to see however, in the past 12 months only 10% of Voices could get an appointment with that GP when required. Of the 58% of Voices that didn’t see a GP when they needed to, the main reasons for not doing so was because the service not available when required (35%), other (24%), waiting time too long (14%), cost, or too busy (9%), already had an upcoming appointment (7%) and dislike or fear of service (2%).

Unlike hospitals and community health services, general practices are not required to undergo a health care quality accreditation to provide health care. Voices were asked if they would prefer to visit an accredited general practice with the majority responding Yes (70%).

When asked about recent experience with their GPs, almost half (48%) of Health Voices always felt involved in decisions about their health care. In relation to care co-ordination, over the past 12 months, 50% of Voices had seen three or more different health professionals (such as a GP, specialist, physiotherapist or nurse) for the same condition. The health professionals who were deemed as helping the most in coordinating their care was their GP (35%). The majority of Health Voices thought that care coordination was seen to have helped to some or a large extent (56%). Almost half of Health Voices reported that they hadn't experienced any issues in their care that were a result of poor communication or coordination between health professionals, however, 23% did, and 5% couldn't remember if they did or didn't.

Through our Community Advisory Councils (CAC), the community told us that care coordinators could offer considerable advantages for their health care, including the recording of a more complete medical history and the provision of more holistic care with potential time saving benefits. However, concerns were raised around trust and communication, privacy and confidentiality and inconvenience. Overall, 43% of those consulted concluded care coordinators would be potentially beneficial, 40% obtrusive and 17% were undecided.

Digital health

Community Advisory Council consultations explored community perceptions about digital health-mediated consultations with many preferring face-to-face consultations with their health care providers. Other barriers were identified such as internet access, internet quality, connectivity and reliability in rural areas, the impact on aged people and access to computers or smart phones, and the ability to access pharmacy medications after hours.

Through the CACs our community also told us that in relation to the possibility of using home monitoring devices for managing chronic conditions, 74% were in favour of using this type of technology, 14% were not in favour and 12% were undecided.

After hours

Through Health Voices our community has told us that in relation to after hours care in the past 12 months, 16% of Voices had seen a GP after hours for their own health, including both urgent and non-urgent care. One third of Voices experienced a time when they needed to go to the GP after hours but didn’t, which was mainly due to the service being not available when required (28%).

Of the 25% of Voices that had been to a hospital emergency department (ED) for their own health, 20% of Voices thought that the care could have been provided at a general practice, while 38% said it couldn't and 5% didn't know if it could or couldn't.
Navigating the health system

Many people find it difficult to access the health system due to its complexity. It’s a system with multiple moving parts, including intricate funding models, patients with complex, chronic and diverse needs, and numerous interventions and treatment options. A new type of service Murray PHN is exploring could place ‘health navigators’ into local communities. Health navigators are knowledgeable people who would help community members access or evaluate health information. They would be locally accessible and help create better links to community and health-based resources.

Through Health Voices our community has told us if a service was available that helped people understand medical information and included services such as assistance completing forms, making appointments and organising health-related travel, this service should be located (other than at the GP clinic or local health service) at a pharmacy (69%), neighbourhood/community house (45%), library (32%) or council office (29%). Other ideas for locations suggested included post offices, Centrelink offices, hospitals, banks, schools and religious settings.

Place and wellbeing

Where we spend our time has an important effect on our lives and health and wellbeing. Strong, resilient and cohesive communities can positively influence a person’s perspective of place.

Community Advisory Council members were asked to conduct an audit of places or towns in their regions using the Place Standard tool (https://www.placestandard.scot/). The Place Standard tool provides a framework to assess the quality of a place. It enables the physical, social and environmental qualities of a place to be evaluated in a structured way and can help to initiate conversations to identify areas where quality can be improved.

The purpose of conducting a wellbeing audit was to identify key strengths community members have identified about their respective places. On average, across the Murray PHN catchment, natural space, play and recreation and feeling safe were the most positive aspects and received higher scale ratings; while public transport, and work and the local economy received lower scale ratings. More specifically, through Health Voices our community has told us that across the Murray PHN catchment:

- 94% believed there are opportunities for people to experience and have contact with nature.
- 80% agreed that the community welcomed children playing outdoors.
- 76% thought there were a range of different spaces (indoor, outdoor, purpose-built and more informal) where people can meet.
- 75% of people felt safe both at home and when out and about.
- 70% agreed that there were adequate public areas such as local paths and parks which are suitable spaces for physical activity.
- 53% thought people could feel connected to their neighbours and community, whatever their background.
- 44% thought people took priority over cars and other traffic.
- 37% believed organisations such as local authorities, health services or housing associations actively worked with the community to understand their needs.
GENERAL POPULATION HEALTH

The populations of the Murray PHN region are diverse with significant communities of Aboriginal and Torres Strait Islanders, newly arrived humanitarian settlers, ageing communities, rurally isolated and those experiencing financial disadvantage. A significant proportion of the catchment is rural, leading to additional vulnerability related to climate events such as drought, flood and bushfires, all of which have occurred in the region in the last decade. There is diversity in the services, stakeholders and places (regional and rural centres and outlying communities) within the Murray PHN region. All of these characteristics contribute to the range of health and service needs identified across the health priorities within this Needs Assessment.

This general population health section provides an overview of the health of our population, with a specific focus on the social determinants of health, health-related risk factors and behaviours, prevention activity such as cancer screening and immunisations, and vulnerable population groups. Most of the information presented here relates directly to the prevalence of our health priorities and should be considered in a comprehensive approach to primary health care. These factors can strengthen or undermine the health and welfare of individuals and communities.

Key issues

- The age distribution in the Murray PHN region demonstrates an older population when compared with the Victorian and Australian averages.
- Eleven of 22 LGAs in the Murray PHN catchment have a SEIFA (Index of Relative Socio-economic Disadvantage) decile ranking of 5 or lower within Australia. Murray PHN has seven LGAs ranked within the lowest 20 in Victoria (ABS, 2016f).
- There are emerging issues regarding women’s health across the catchment.
- New settler and refugee arrivals are significant for the Murray PHN region.
- The Murray PHN region has a diverse range of Aboriginal and Torres Strait Islander communities representing approximately 28% of the total Victorian Aboriginal and Torres Strait Islander population.
- Higher avoidable mortality rates (compared to the Victorian rate) exist for 19 out of the 21 LGAs within the Murray PHN catchment 2010-14. Life expectancy in the Murray PHN region is also lower than the national average (VHISS, 2019).
- Victorians living in regional and remote locations have a poorer cancer survival expectancy. In 2012-2016, the age-standardised mortality rate for all cancers combined was highest in remote and very remote areas combined and lowest in major cities, (182 compared to 157 deaths per 100,000 persons) (NCCI, 2019).
- Cancer screening rates in the Murray PHN catchment are higher than the Australian average for breast, cervical and bowel cancer. However, seven LGAs have lower rates than the Victorian average for breast cancer screening (VPHS, 2017).
- Twelve of the 21 LGAs within the Murray PHN region have higher rates of people delaying visits to dental professionals due to cost, and timely access to public dentals clinics is limited in our region (VPHS, 2017).
General population health

Community voice

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

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

The following themes emerged during oral health consultation with the community:
- Value is in ‘soft screening’ with kindergarten children the focus
- School policies (encouraging healthy eating and water as first beverage choice)
- Incorporating achievement programs like Healthy Living.

Health needs

Description of evidence

Demographics

- The Murray PHN region had a total population of approximately 670,845 persons in 2018. The catchment is projected to experience steady population growth over the next 10 years. In round figures, Central Victoria has 251,200, North East 182,600, Goulburn Valley 154,600 and North West 82,500 (ABS, 2018d).
- The age distribution in the Murray PHN region demonstrates an older population when compared with Victoria and Australia. There is a higher proportion of people aged 55 and over (33%), and a significantly lower proportion of people aged 25-44 (23%) within the Murray PHN region (ABS, 2018d).
- In some communities, particularly rural local government areas such as the Shires of Buloke, Gannawarra, Loddon and Strathbogie, people aged over 65 years represent more than one quarter of the total population (ABS, 2018d).

- The total fertility rate in the Murray PHN region is 2.12 babies per woman, which is higher than Australian rate (1.74). The local government areas of Swan Hill (2.54), Towong (2.53), Moira (2.31) and Gannawarra (2.30) are all significantly higher than the national rate (ABS, 2018a).
**General population health**

**Disadvantage and income**

- Eleven of 22 LGAs in the Murray PHN catchment have a SEIFA (Index of Relative Socio-economic Disadvantage) decile ranking of 5 or lower within Australia (ABS, 2016f).
- Specific SA2 communities of significant disadvantage include California Gully – Eaglehawk (899), Seymour (897), Mooroopna (896), Mildura North (886) and Robinvale (871) (ABS, 2016g).
- Mildura is ranked the fifth most disadvantaged LGA in Victoria and Loddon (ranked 9th) is also among the 10 most disadvantaged LGAs in Victoria. Murray PHN has seven LGAs ranked within the lowest 20 in Victoria (ABS, 2016f).
- Over 50% of households within the Murray PHN region report a household income of less than $1,000 per week (ABS, 2016c).
- The unemployment rate is lower in the Murray PHN region (2.65%) compared to the national rate (3.37%), however, long-term unemployment (365 days or longer on Newstart) is higher (ABS, 2016c).
- As of March 2019, Murray PHN’s population was more likely to receive Centrelink income support payments, age pension, disability support payment or the single parenting payment compared with the Victorian average (DSS, 2019a).
- The proportion of people receiving Newstart in the Murray PHN region (3.27%) is higher than the Victorian rate (2.49%) as of March 2019. The local government areas of Loddon (4.67%), Greater Shepparton (4.02%), Mildura (4.02%) and Albury (3.90%) were significantly higher than the Murray PHN average rate (DSS, 2019a).

**Mortality**

- Life expectancy at birth (2015-2017) in the Murray PHN region is 81.4 years, which is lower than the national rate (82.5 years) (AIHW, 2019d).
- The top five causes of mortality in the Murray PHN region in 2013-2017 were coronary heart disease (12.3%), dementia and Alzheimers disease (7.1%), cerebrovascular disease (6.5%), COPD (5.5%) and lung cancer (5.1%) (AIHW, 2019g).
- Avoidable mortality (0-74 years):
  - There are 121 deaths per 100,000 people that are potentially avoidable in the Murray PHN region, which is higher than the national rate of 104 per 100,000 and Victorian rate of 94 per 100,000.
  - All SA3 areas in the Murray PHN catchment have a higher rate than the Victorian rate, with Murray River-Swan Hill having the highest rate (139), followed by Mildura (136), Wangaratta-Benalla (135) and Campaspe (133). Heathcote-Castlemaine-Kyneton (97), Wodonga-Alpine (109) and Albury (112) have the lowest rates for the Murray PHN catchment. (AIHW, 2019d).
- For 2011-2015, compared with Greater Melbourne and Victoria, the Murray PHN region has higher premature mortality rates for total deaths, 0 to 74 years (258.7 per 100,000). Rates for Greater Melbourne and Victoria are 203.2 per 100,000 and 220.4 per 100,000 respectively (PHIDU, 2019).

**Vulnerable populations**

- 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 populations residing in the local government areas of Swan Hill, Mildura and Greater Shepparton. Towns that have the most significant population sizes, based on LGA 2013 and ABS 2016 Census data include:
  - Shepparton: 2,661
  - Mildura: 2,332
  - Wodonga: 2,131 - this is deemed to be higher with residents of NSW and surrounding areas not included in these numbers.
  - Bendigo: 1,843
  - Swan Hill: 1,081
  - 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.
- The homelessness rate in the Murray PHN region is comparable to the Victorian rate (3 people per 1,000 compared to 4 people per 1,000) (ABS, 2016c).

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General population health

- The percentage of people with a core need for assistance for activities of daily living is 5.8% compared with the Victorian rate of 5.1%. Used as an estimation of the number of people with a disability, the Loddon Shire is the highest local government area with 7.4%, and Mildura, Strathbogie, and Benalla are also well above the Victorian rate at 6.8% (ABS, 2016c).

- The percentage of people who receive the disability support pension (DSP) is higher in 19 out of 22 LGAs in the Murray PHN region compared to the Victorian rate (2.82%). The local government areas of Loddon (6.84%), Benalla (5.38%) and Mildura (4.98) have the highest rates, while Indigo is equal to the Victorian rate and Macedon Ranges (2.0%) and Mansfield (2.6%) are lower (DSS, 2019a).

- The Murray PHN catchment experienced five of the 15 most damaging fires that burned in Victoria on 7 February 2009 during the ‘Black Saturday’ bushfires. These fires were significant because of their size and impact, including significant loss of life, and deeply scarred the Victorian people and landscape (VBRC, 2010).

- Currently emerging drought conditions in the Murray PHN catchment may make rural communities more vulnerable and can result in various health concerns, such as respiratory and mental health issues, and may impact on food security and livelihoods (Vins et al, 2015).

Education

- The percentage of adults in the Murray PHN region who have completed year 12 (or equivalent) is 30.3%, which is lower than the national rate of 42.2%. The areas (SA3) of Campaspe, Loddon-Elmore, Moira, and Murray River – Swan Hill have 25% or less with year 12 or equivalent qualifications (ABS, 2016c).

- Across the Murray PHN catchment, the local government areas of Buloke (96.2%) and Wodonga (90.1%) are the only areas with a higher Year 12 completion rate (students who completed year 12 in that area) than the Victorian average (88.2%). Murrindindi (73.3%) and Benalla (69.3%) have the lowest rates (VCAMS, 2014).

Social isolation

- The Murray PHN region has a higher percentage of lone person households (22%) compared with Victoria (20.7%). One in four households in Benalla (26.5%), Albury (25.6%), Buloke (26.2%), Gannawarra (26.0%), Mount Alexander (26.0%) and Wangaratta (25.3%) are lone person households (ABS, 2016c).

- The percentage of people who spoke with fewer than five people the previous day, was higher in 11 out of 21 LGAs in the Murray PHN region, compared with the state average (78.4%) (DHHS, 2015).
Access

- The percentage of households able to access the internet in the Murray PHN region is 76.3%, which is lower than both the Victorian (83.7%) and national (83.2%) rates. Buloke (68.6%), Gannawarra (69.7%), and Loddon (68.4%), all report fewer than 70% of dwellings with internet access (ABS, 2016c).
- The percentage of internet users in Australia accessing the internet for health services or health research has increased from 22% of internet users in 2014-15 to 46% in 2016-17 (ABS, 2016c).
- The proportion of people who experienced transport limitations in the past 12 months was slightly higher in the Murray PHN region (4.6 per 100 persons) compared to the Victorian rate (4.4 per 100 persons) (DHHS, 2015).
- Fifteen out of 22 LGAs within the Murray PHN catchment reported transport limitations in the last 12 months higher than the Victorian rate (4.4 per 100 persons): Mildura (5.2), Mount Alexander (5.1), Swan Hill (4.9), Gannawarra (4.9), Loddon (4.9), Greater Shepparton (4.9) and Benalla (4.9) had the highest rates (DHHS, 2015).
- Transport issues, such as timetabling, connections to regional centres/services, and cost are frequently identified in local transport plans and reports.
- The following LGAs have a Modified Monash Model (MMM) classification of 5 defined as ‘other rural’ with a population below 10,000 people:
  - Alpine
  - Buloke
  - Gannawarra
  - Indigo
  - Loddon
  - Macedon Ranges
  - Mansfield
  - Murrindindi
  - Strathbogie
  - Towong (DoH, 2019c).

Modifiable health risk behaviours

- Across the Murray PHN region, the LGAs of Alpine (56.5%), Benalla (58.4%), Buloke (55.1%), Campaspe (53.9%), Gannawarra (62.7%), Greater Bendigo (52.5%), Greater Shepparton (63.0%), Loddon (60.4%), Mildura (54.0%), Mitchell (58.5%), Moira (56.7%), Strathbogie (58.3%) and Wodonga (56.9%), have a higher proportion of people not meeting fruit and vegetable consumption guidelines compared to the Victorian average (51.7%) (VPHS, 2017).
- All of the LGAs in the Murray PHN region aside from Alpine (7.5%) and Buloke (4.9%), have a higher proportion of people who consume sugar-sweetened soft drinks daily, compared to the Victorian average (10.1%) (VPHS, 2017).
- Fourteen out of 21 LGAs have a lower proportion of people who do not meet physical activity guidelines compared to the Victorian average (44.1%). The Shires of Strathbogie and Benalla have the highest percentages of people who do not meet physical activity guidelines (56.1% and 54.0% respectively) (VPHS, 2017).

Self-reported health

- Thirteen out of 21 LGAs have a higher proportion of people ranking their health as fair/poor, compared to the Victorian average (20.3%). Swan Hill (27.0%), Moira (26.4%) and Strathbogie (25.3%) have the highest percentage of people in the region ranking their health as fair/poor; while Towong (14.8%), Murrindindi (16.0%) and Alpine (16.1%) have the lowest (VPHS, 2017).
- All three LGAs in the North West region recorded rates of fair or poor self-assessed health that were higher than the state average.
Cancer incidence and mortality

- All cancers combined:
  - the incidence rate of cancer in the Murray PHN region (2009-2013) was 503.8 per 100,000 (age standardised), which was comparable to the national rate of 497.4
  - the mortality rate of cancer in the Murray PHN region (2011-2015) was 180.7 per 100,000 (age standardised), which was higher than the national rate of 167.1
  - between 2011-2015 in the Murray PHN catchment, lung cancer caused 18.5% of cancer deaths, followed by bowel (9.4%), prostate (8.13%), and breast (6.2%).

- Bowel cancer:
  - the incidence of bowel cancer in the Murray PHN region (2009-2013) was 67.8 per 100,000 persons (age standardised), compared to national rate of 60.1 of per 100,000 persons
  - the mortality rate of bowel cancer in the Murray PHN region (2011-2015) was 16.9 per 100,000 persons (age standardised), which is higher than the national rate of 15.6 per 100,000 persons.

- Breast cancer:
  - the incidence of breast cancer in the Murray PHN region (2009-2013) was 118.3 per 100,000 persons (age standardised), compared to national rate of 119.8 per 100,000 persons
  - the mortality rate of breast cancer in the Murray PHN region (2011-15) was 21.8 per 100,000 persons (age standardised), which is higher than the national rate of 20.6 per 100,000 persons.

- Cervical cancer:
  - the incidence of cervical cancer in the Murray PHN region (2009-2013) was 6.8 per 100,000 persons (age standardised), compared to national rate of 7.0 per 100,000 persons
  - the mortality rate of cervical cancer in the Murray PHN region (2011-2015) was 1.6 per 100,000 persons (age standardised), compared to the national rate of 1.7 per 100,000 persons (AIHW, 2018b).

Cancer screening rates

- Bowel cancer:
  - bowel cancer screening participation rates for people aged 50-74 across the Murray PHN region for 2016-17 are higher than the Australian rate (46.0% compared to 41.3%). Within the catchment, the SA3 area of Mildura (40.4%) was the only area lower than the Australian rate (AIHW, 2019h).
  - compared with the Victorian average of 7.9%, rates of new diagnosis of those screened for bowel cancer in 2016 and 2017 were highest in Loddon (10.2%), Towong (10.2%), Mitchell (9.8%), Buloke (9.5%) and Alpine (9.2%) (PHIDU, 2019).

- Breast cancer:
  - breast cancer screening participation rates in 2016-17 for women aged 50-74 in the Murray PHN region (56.1%) are higher than the national average (54.5%). The SA3 areas of Albury (54.2%), Heathcote-Castlemaine-Kyneton (53.5%), Loddon-Elmore (53.4%), Wangaratta-Benalla (51.5%) and Wodonga-Alpine (51.2%) are the only areas lower than the national average (AIHW, 2019h).

- Cervical cancer:
  - cervical cancer screening rates in 2015-16 for women aged 20-69 in the Murray PHN region are 60.8%, higher than the national rate of 55.4%. The SA3 area of Loddon-Elmore (51.7%) is lower than the national rate, and Albury (88.2%) is significantly higher, as is Heathcote-Castlemaine-Kyneton (66.5%) (AIHW, 2019h).
General population health

Child immunisation rates

- The percent of children who were fully immunised in the Murray PHN region (DoH, 2019b):
  - fully immunised at 1 year: 94.5%
  - fully immunised at 2 years: 92.6%
  - fully immunised at 5 years: 96.4%.
- The SA3 areas in the Murray PHN region with the highest proportion of 5-year-old children fully immunised as at June 2019 are: Loddon-Elmore (99.2%), Campaspe (97.5%) and Bendigo (97.0%). Heathcote-Castlemaine-Kyneton (95.1%) had the lowest percentage of 5-year-olds fully immunised (DoH, 2019b).
- In the Murray PHN region, 81.5% of girls, and 76.2% of boys were fully immunised against HPV (AIHW, 2018c).

Oral health

- The ambulatory care sensitive condition rate for dental conditions was higher than the Victorian average in 12 of 22 LGAs in the Murray PHN catchment. Mildura had the highest rate, followed by Swan Hill then Campaspe (VHISS, 2019).
- Across the catchment, 12 of 22 LGAs report higher rates of persons who avoided or delayed visiting a dental professional due to cost, compared to the Victorian rate (33.9%). The Shires of Mitchell and Campaspe have the highest rates, 41.1% and 40.8% respectively, while Mildura had the lowest rate (26.3%) (VPHS, 2017).
- Twelve of the 21 LGAs across the Murray PHN region had higher rates of persons who described their dental health status as fair/poor, compared to the Victorian rate (24.4%). Within the catchment, Benalla (36.3%), Buloke (36.0%), Indigo (34.0%), Loddon (33.6%) and Swan Hill (31.2%) all had a notably higher rate compared to the Victorian average (VPHS, 2017).
- In the Murray PHN region, the percentage of adults who saw a dentist, hygienist or dental specialist in the preceding 12 months (2016-17) was lower (41.5%) than the national average (48.1%) (AIHW, 2018c).
- The rate of potentially preventable hospital admissions related to children with caries needing extractions points to lack of oral health literacy, cost, and rural/remote access to providers.
- Lack of public dental services in Buloke and Gannawarra result in admissions for dental conditions/ extractions (especially for children).
- Towns currently without fluoridation exist across the Murray PHN region including Cobram, Numurkah, Myrtleford, Tatura, Bright, Woodend, Broadford, Mansfield and Alexandra. A fluoridation upgrade for Cohuna commenced in 2018, with expected completion by July 2019, and Rochester and Heathcote have been wait-listed for water plant fluoridation upgrades. Many households also rely on tank water as their primary water source (Coliban Water, 2017).
Women’s health

- The population of women in the Murray PHN region is 326,988, which is 50.7% of the total population (ABS, 2016c).

- Although the education attainment and level of qualifications are comparable between males and females in the catchment, there are significantly more women who have an income below the minimum wage in the Murray PHN Region (47.3%), which is also higher than the Victorian rate (45.7%) (VWHA, 2018).

- Over 50% of women living in the LGAs of Towong, Benalla, Loddon, Gannawarra, and Buloke earn below the weekly minimum wage (VWHA, 2018).

- The Mother’s Index indicator quantifies the best place for a mother to live based on one’s health, education, socioeconomic status, and children’s wellbeing. It ranks Victorian local government areas from one to 79 where one represents the best place for a mother to live. Benalla, Loddon, Buloke, Swan Hill, and Mildura all rank greater than 70, with Gannawarra, Campaspe, Moira, and Greater Shepparton ranking greater than 60, indicating that the Murray PHN region has nine of the poorest 19 areas for mothers to live in Victoria (Save the Children, 2016).

- The rate of chlamydia notifications for women in the Murray PHN catchment (20.1 per 1,000) was higher than the Victorian rate (18 per 1,000), with significantly higher rates in the local government areas of Loddon (118 per 1,000) and Wodonga (28 per 1,000) (VWHA, 2018).

- The rate of gonorrhoea notifications for women in the Murray PHN region (1.4 per 10,000) was lower than the state average (4.4 per 10,000), with a hotspot in Loddon LGA (12 per 10,000) (VWHA, 2018).

Refugee health

- Rural and regional Victoria has received 13% - 15% of people arriving in Victoria via the Australian Government’s Humanitarian Settlement Program over the past 12 months (VRHN, 2018).

- The rate of newly arrived settlers for humanitarian reasons between July 2018 and March 2019 was 0.48 per 1,000 persons across the Murray PHN region. This is higher than the national rate of 0.32. The LGAs with the highest rates of newly arrived settlers for humanitarian reasons for the period are Greater Bendigo (0.66), Greater Shepparton (1.76), Mildura (1.03) and Wodonga (1.74) (DSS, 2019b).

- Five of the seven regional and rural refugees settlement areas in Victoria are within the Murray PHN catchment: Greater Shepparton, Mildura, Wodonga, Greater Bendigo and Swan Hill (VRHN, 2018).
General population health

**Service needs**

**Description of evidence**

**Service availability**

- Central Victoria (CV) region has 71 general practices, one large regional health service, 13 small rural health services, two bush nursing hospitals and 12 community health sites. There are three Primary Care Partnerships (PCPs). ACCOs within the catchment operate two general practices. The Murray PHN Central Victoria office is in Bendigo.

- North East (NE) region has 47 general practices, three regional and rural health services, two PCPs, and a range of small rural health services. ACCOs operate one general practice. The Murray PHN North East office is in Albury.

- Goulburn Valley (GV) region consists of approximately 42 general practices, a large regional health service, an ACCO, 11 small rural health services; three of which are fully funded community health services, and six are associated with the small rural health services. ACCOs operate one general practice. There are two PCPs and the Murray PHN Goulburn Valley office is in Shepparton.

- North West (NW) region has 34 general practices, one large regional health service and a range of small rural health services. It also includes two PCPs. ACCOs operate two general practices. The Murray PHN North West office is in Mildura.

- Across the Murray PHN catchment, 37% of adults stated they could not access their preferred GP in preceding 12 months (2013-14) (ABS, 2016e).

- In 2013–14, the percentage of adults who felt they waited longer than acceptable to get an appointment with a GP was higher in the Murray PHN region than national averages (ABS, 2016e).

- In 2016-17, the average all hours lower urgency emergency department presentations per 1,000 persons for the Murray PHN region population is 170.7. Rates differ significantly for SA3 areas in the catchment:
  - Albury (237.2)
  - Bendigo (156.2)
  - Campaspe (232.8)
  - Heathcote-Castlemaine-Kyneton (53.7)
  - Loddon-Elmore (115.8)
  - Macedon Ranges (50.5)
  - Mildura (280.0)
  - Moira (66.9)
  - Murray River-Swan Hill (210.5)
  - Shepparton (134.8)
  - Upper Goulburn Valley (44.4)
  - Wangaratta-Benalla (208.5)
  - Wodonga-Alpine (239.7)

- In 2016-17, the percentage of adults in the Murray PHN region (7.8%) who delayed or avoided filling a prescription due to cost, in the preceding 12 months, was higher than the national average (7.3%) (ABS, 2016e).

- In 2016-2017, the number of specialist attendances per person, age-standardised, was slightly lower for the Murray PHN region (0.85) than the national average (0.89) (AIHW, 2018c).

- Just under half (47.3%) of Australians had one or more chronic conditions in 2017-18, an increase from 2007-08 when two-fifths (42.2%) of people had one or more chronic conditions (ABS, 2018c).
Women’s health

- There is a need for sexual and reproductive health services for women that are delivered with a lifecourse perspective (WHLM, 2018).
- Older GSD women continue to experience stigma and marginalisation from health care institutions, which detrimentally impact their health outcomes. Practitioners often assume patients are heterosexual and fail to consider their specific needs as lesbian and/or transwomen with intersecting identities (Dune et al. 2018).
- Primary care-targeted workforce development on:
  - menstruation
  - endometriosis diagnosis, treatment and management
  - polycystic ovary syndrome diagnosis and treatment
  - contemporary contraception options
  - pregnancy counselling/options
  - Sexual and reproductive health (SRH) care for people with disability
  - culturally appropriate sexual and reproductive health and CALD communities (WHLM, 2018).
- Community rights-based SRH education and training (to improve SRH health literacy).
- Address service gaps, specifically access to MTOP and STOP across the Murray PHN region.
- Increase knowledge of, and access to, women’s health nurses and nurse-led models of SRH care (e.g. well women’s clinics).
- Expanded nurse practitioner scope of practice for STI screening and telehealth termination services.

Cancer screening

General data quality issues regarding cancer screening exist for many GP practices across the catchment. There is opportunity for Murray PHN, through its established relationship with general practice, to work towards a better understanding of the GP practice in improving cancer screening.

Oral health

- Public dental clinics - There are 92 chairs across 15 clinics, managed by 12 agencies, in the Murray PHN region. The clinics are in Mildura, Robinvale, Ouyen, Boort, Swan Hill, Echuca, Bendigo, Mooroopna, Shepparton, Cobram, Seymour, Benalla, Wangaratta, and Wodonga (DHSV Murray PHN Oral Health Profile, n.d.). Outreach services are also provided to the Murray PHN region from Rumbalara to Bendigo and District Aboriginal Co-Operative and Njernda, North Richmond Community Dental to Murray Valley Aboriginal Co-operative in Robinvale.
- The Royal Flying Doctor Service has a mobile dental care program that provides dental services to people that live more than 50km from a public dental clinic.
- The average waiting times for general dental care at the public dental agencies in the Murray PHN catchment, as of April 2019, were (in months):
  - Echuca Regional Health: 26.9
  - Northeast Health: 25.3
  - Albury Wodonga Health: 25.2
  - Seymour Health: 21.5
  - Sunraysia Community Health: 15.3
  - Goulburn Valley Health: 12.2
  - Mallee Track Health & Community Service: 10.3
  - Boort District Health: 9.6
  - Bendigo Health: 5.1
  - Swan Hill District Health:
  - Rumbalara: (unknown)
  - Victorian Average: 20.3 (ADAVB, 2019).

Immunisation services

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.
In focus: Hazara community

Hazaras are the third largest ethnic group in Afghanistan, and the majority are Shiite Muslims. People of Hazara background are one of the major groups of people from refugee backgrounds and asylum seekers who have resettled in Victoria.

There have been two main waves of Hazara refugee arrivals in Australia. The first wave of refugee and asylum seekers arrived from Afghanistan between 1999 to 2002 and the second wave arrived in Australia and mostly resettled in Victoria, including the Murray PHN catchment between 2009 to 2013. Some of these refugees have received a permanent residency visa, but many of them are still living with temporary or bridging visas.

Many Hazara refugees are suffering from multiple and complex physical and psychological health issues, which may be influenced by both pre- and post-arrival experiences. The experience of trauma and torture in their home country, dangerous journeys to Australia and prolonged periods in immigration detention centres may have direct and indirect impacts on their physical and mental health and wellbeing.

As new residents, Hazara refugees often have poor understanding of the health system of Australia, lower levels of health literacy and many have difficulty accessing health care services. These barriers result in this population not receiving an appropriate level of treatment and support for physical and mental health issues.

As part of Murray PHN’s work to understand its different populations, a discrete project was undertaken to understand the health and service needs of the Hazara population in the Murray PHN catchment. A Hazara community member, who trained as a doctor in Afghanistan, was employed to undertake this project. As part of this project, 250 Hazara people attended community meetings and 70 Hazara adults (48 male and 22 female) were interviewed and completed a verbal health assessment.

From the community discussions and engagement, it is apparent that community understandings of the size of the Hazara population is different to ABS census data. This is detailed in the table below. Reasons for these discrepancies may include: people choosing not to participate in the census (this may be due to limited understanding of purpose, language, fear of government authorities); issues with online submission of census form; new arrivals that have come to the locations after the census; or over estimates by community leaders (although these higher numbers were consistent for each location).

<table>
<thead>
<tr>
<th>Area</th>
<th>Census 2016 Australia</th>
<th>Community leader population size estimates</th>
<th>Community leader estimated population breakdown by sex - male</th>
<th>Community leader estimated population breakdown by sex - female</th>
<th>Community leader population size estimates by age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Shepparton</td>
<td>755</td>
<td>Up to 2000</td>
<td>60%</td>
<td>40%</td>
<td>65% &lt;50 25% &lt;18</td>
</tr>
<tr>
<td>Mildura</td>
<td>260</td>
<td>Over 900</td>
<td>58%</td>
<td>42%</td>
<td>72% &lt; 50 24% &lt; 18</td>
</tr>
<tr>
<td>Swan Hill</td>
<td>162</td>
<td>Over 270</td>
<td>62%</td>
<td>38%</td>
<td>60% &lt;50 18% &lt;18</td>
</tr>
<tr>
<td>Greater Bendigo</td>
<td>90</td>
<td>Up to 200</td>
<td>55%</td>
<td>45%</td>
<td>95% &lt; 50 35% &lt; 18</td>
</tr>
</tbody>
</table>
From community discussions and interviews with individuals, the following health and service needs have been identified.

**Health needs**

* Mental health is a common and serious issue at individual and community levels. Some identified causes include family separation, pre-and post-arrival experiences, depression, anxiety and social isolation.
* Support for ongoing connection to culture and customs is important for mental health and to support family structure and functioning.
* There is a need to support health literacy, including understanding the health system, greater awareness of screening and early detection, healthy lifestyle behaviours, and common conditions.
* There is a need for tobacco cessation support for smokeless tobacco users (chewing tobacco).
* Within a social determinants of health framework, identified needs included supported access to employment, particularly for younger adults as unemployment/under-employment was causing stress for individuals and families.

**Service needs**

* There is need for health services to improve engagement and to build trust with Hazara communities.
* There is a need for health services to improve their understanding of the Hazara communities they service, in particular, to better understand health literacy, culture and pre-and post-arrival experiences.
* There is a need for interpreters to be readily available, and for these to be perceived by community members as confidential and trustworthy, which may improve medication/treatment compliance.

**Key issues**

* Hazara community members perceive that there is a poor relationship between their community and local health service providers.
* Hazara community members are avoiding accessing health services due to lack of interpreters.
* Hazara community members are not complying with prescribed treatment of medication due to not understanding the purpose or their diagnosis/health condition.
* Of the 70 people who completed a health assessment there was only one smoker, but 33% (16/49) of the men interviewed indicated they chewed tobacco (MPHN, 2018b).

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**Data and consultation sources**

* Murray Health Voices (July 2017).
* Population Health Planning Network (July 2017).
* Murray PHN evaluation and feedback from GP Continuing Professional Development sessions (Nov 2016-July 2017).
* Women’s Health Loddon Mallee, Bendigo.
PRIMARY MENTAL HEALTH
(INCLUDING SUICIDE PREVENTION)

This section presents an overview of the health and service needs of the Murray PHN catchment specifically related to mental health and suicide prevention. The information presented below predominantly focuses on those who are already unwell and using our mental health service system. This section needs to be considered with a view of the social determinants of mental health and risk factors such as homelessness, ageing, trauma, drug and alcohol use, low income, social isolation, and the lack of meaningful occupation such as employment.

As described in the general population health section herein, the Murray PHN region has hotspot areas of low income, high drug and alcohol use, an ageing population and populations who have high rates of trauma such as Aboriginal and Torres Strait Islanders and newly arrived humanitarian settlers. People experiencing poor mental health are also more likely to experience poor physical health, homelessness, have poor oral health, and comorbidities such as chronic disease and alcohol and other drug dependencies. Information relating to Aboriginal and Torres Strait Islander communities and mental health is described in the Aboriginal health section.

The mental health service sector continues to undergo significant transitions at both the Commonwealth and state level which is impacting on this sensitive population group. The transition to NDIS is presenting some emerging needs for people at risk of, or living with, mental illness. People aged over 65 are not eligible for NDIS support, nor are people who were born overseas and are not Australian citizens. There will also be groups of service users that were previously eligible for services that due to slight modifications of criteria, or changed programs, will lose funding.

Another significant transition in the mental health sector is the introduction of a stepped care approach. Stepped care is a consumer-centred model of care that integrates mental health services within communities and supports general practitioners to help those who may be vulnerable to developing mental illness. A continuum of primary mental health services within a stepped care approach will ensure a range of service types that are matched to individual and population levels of need.

Action in the mental health priority area will be targeted towards the six mental health priority areas of the stepped care model which include the development or commissioning of low-intensity mental health services; region-specific, primary care-based services for children and young people; addressing service gaps in psychological therapies for vulnerable groups; commissioning services for people with severe and complex mental illness; a regional approach to suicide prevention; and enhanced local mental health services for Aboriginal and Torres Strait Islander communities.
Key issues

- Twelve LGAs have higher proportions of adult population with high, or very high, levels of psychological distress, higher than the Victorian rate of 15.4%: Benalla (19%), Gannawarra (21%), Greater Bendigo (18%), Greater Shepparton (17%), Loddon (20%), Mansfield (16%), Mildura (17%), Mitchell (22%), Moira (15%), Mount Alexander (22%), Strathbogie (18%) and Swan Hill (23%) (VPHS, 2017).

- Eleven percent of mental health treatment services by GPs in the Murray PHN region for 2016-17 were for a review of mental health treatment plans (DoH, 2018).

- Significant rates of suicide are experienced in the Murray PHN regions of North West, Goulburn Valley and North East, with significantly high rates of ambulance attendance to suicide attempts in these regions. LGAs within the Murray PHN catchment with rates higher than the state average (9.8 per 100,000) for avoidable deaths from suicide and self-inflicted injuries (2011-2015) include: Benalla (23.0), Buloke (22.4), Mount Alexander (17.5) and Macedon Ranges (17.0) (PHIDU, 2019).

- Rates of hospital separations for intentional self-harm in 2016/17 is lower for Murray PHN compared to the state average. Females accounted for almost two thirds of all intentional self-harm injury hospital admissions for Murray PHN in 2016/17 (VAED, 2018).

- It is estimated that 19.6% of the population (aged 18 to 85 years) will experience mental ill-health across the Murray PHN catchment. Of this group, estimates indicate 20,841 people will have moderate to low mental health needs and 4,420 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) (Modelled data).

- Access to specialist services and targeted primary mental health care is limited across the region.

- People with serious mental illness typically live between 10 and 32 years less than the general population. Around 80% of this higher mortality rate can be attributed to the much higher rates of physical illnesses, such as cardiovascular and respiratory diseases and cancer experienced by this population (Harris et al. 2018).

Community voice

Across several community consultations, five key themes emerged regarding mental health needs and service system issues:

- ACCESS: relating to costs, specialist services, outreach, telehealth models, waiting times, stigma, and mental health literacy.

- MENTAL HEALTH SYSTEM: inflexible funding models, cross-border issues including discharge planning, services informed by people with lived experience, and transition to NDIS support.

- RURALITY: counter-productive impact of competitive tendering in rural areas and need for alternative models of care including community-based and peer-led.

- WORKFORCE: limited availability of child and adolescent specialists, lack of female practitioners, underreporting of mental health conditions.

- PERSON-CENTRED CARE: inadequate cultural awareness and support for co-morbidities.
Primary mental health

Health needs

Description of evidence

Registered mental health clients

- Benalla (26.3 per 1,000 persons, age-standardised), followed by Mildura (24) have the highest rates of registered mental health clients in the Murray PHN region, more than double the Victorian average (11.9) and are ranked 4th and 6th highest in Victoria respectively (DHHS, 2015).
- 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 (DHHS, 2015).

Mental health overnight hospitalisations

The mental health overnight hospitalisation rate (2017-18) in the Murray PHN region (101.5 per 10,000) is lower than the national average (104.9 per 10,000) (AIHW, 2019i).

- The SA3 areas of Albury (115.3 per 10,000), Bendigo (113.7 per 10,000), Campaspe (111.1 per 10,000) and Shepparton (106 per 10,000) are all higher than the national average (AIHW, 2019i).

Adult population with high or very high psychological distress (K10)

- 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 the proportion of the population reporting high or very high psychological distress (DHHS, 2015).

GP Mental Health Treatment Plans (MHTPs)

- The SA3 areas of Bendigo (161), Mount Alexander (255), Mildura (123), Moira (160), Shepparton (193) and Wodonga-Alpine (121) had higher rates of MHTP services per 1,000 persons than the Murray PHN average (119 per 1,000 persons) (DoH, 2018).

In contrast to those that had higher levels of MHTP services, the following LGAs had a higher rate of MHTP review services (as a percentage of all MHTP services attended): Heathcote-Castlemaine-Kyneton (18.7%), Upper Goulburn Valley (14.5%), Wodonga-Alpine (14.2%), Loddon-Ellmore (14%), and Albury (12.7%) These are all above the Murray PHN average of 12% reviews as a proportion of attended MHTP services (DoH, 2018).

Suicide prevention

- There are 10 local government areas in the Murray PHN region with annual suicide frequency rates higher than the regional Victorian rate (Coroner’s Report, 2018).
- Annual frequency, overall frequency and average annual rates of suicide by LGA indicate that Benalla, Mansfield, Indigo and Mount Alexander are the highest. There was an increasing trend in Benalla and Mount Alexander in the years 2009–2015.
- Avoidable deaths from suicide and self-inflicted injuries in the Murray PHN catchment area in 2011-2015 had an average standardised ratio of 128, significantly higher than the state standardised ratio of 85 (PHIDU, 2019). (A standardised ratio (SR) is a comparison to the Australian ratio that is assigned a value of 100).
- Females accounted for almost two thirds of all intentional self-harm injury hospital admissions for the Murray PHN region in 2016/17 (VAED, 2018).
- Rates of hospital separations for intentional self-harm have doubled for the Murray PHN region in 2016/17 from 2013/14 (VAED, 2018).
- Compared with the Victorian standardised ratio of 85, all Murray PHN LGAs except Campaspe (74) have a higher rate of avoidable deaths from suicide and self-inflicted injuries from 2011 to 2015 (PHIDU, 2019).
- Benalla had the highest rate of avoidable deaths from suicide and self-inflicted injuries (200), followed by Buloke (195), Strathbogie (160), Mount Alexander (152) and Macedon Ranges (148) (PHIDU, 2019).
In focus: Psychosocial support

Murray PHN will commission new services from 2018/2019 for the National Psychosocial Support Measure (NPSM). To date, Murray PHN has undertaken a focused Needs Assessment to identify the psychosocial support needs of those in our region who would be eligible under the NPSM guidelines. The NPSM is intended to assist people who have a severe mental illness resulting in reduced psychosocial functional capacity, who are not participants in the National Disability Insurance Scheme (NDIS) or a client of another Commonwealth funded mental health program.

The NPSM Needs Assessment draws on population health statistics, academic evidence, key stakeholders, and several local consultations with service providers, carers, and people with lived experience. Demand levels for NPSM services are predicted to be high in the context of funding levels. It is estimated that at least 500 individuals will need these services annually.

Health needs:

Much of the Murray PHN region has a significant level of prospective need for the service, with highest levels of respective service demand expected in Shepparton, Moira and Loddon LGAs. There is a relatively high level of need in the North West LGAs, with lower levels of need in the North East LGAs. This breaks down as the following estimated annual client levels:

- North West region: 87
- North East region: 83
- Central Victoria region: 156

Local data and national evidence correlate as to the types of psychosocial needs that services must address. The foremost of these is social connectedness. Evidence-based interventions to address psychosocial needs include support with education, employment, social skills development and physical health management, along with the use of psycho-education and cognitive remediation approaches.

Service needs:

Key themes from local consultations regarding service provision were:

- FLEXIBILITY: We want services that are flexible and sensitive to individual needs
- EASE OF ACCESS: Overwhelming agreement for simple access and minimal red tape
- SHORT TERM-ISM: Concerns about shorter term service responses being ineffective
- INTEGRATION: Individual needs are integrated, so services need to be
- WORKFORCE: We want consistent, skilled, knowledgeable and genuine workers.

The findings of this Needs Assessment will inform the service design, funding model and commissioning approach for Murray PHN’s National Psychosocial Support Measure.

Further information can be found in the Murray PHN National Psychosocial Support Measure Needs Assessment 2018.
Service needs

Description of evidence

Stakeholder consultations:

CONSUMER AND CARER EXPERIENCES

- 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.

ACCESS

- Gap in services for eating disorders, particularly in the North East.
- 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 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.

SERVICE SYSTEM ISSUES

- Frustration with discharge and re-entry processes at the specialist mental health level.
- Missing those who fall through the gap between primary care and specialist mental health services.
- Frustration with lack of information sharing between care team and consumers and carers.
- The system is difficult to navigate.

SERVICES FOR PEOPLE WHO EXPERIENCE SEVERE MENTAL ILLNESS

- Lack of service response in acute circumstances.
- Significant barriers for people with severe and persistent mental illness in accessing the community, resulting in social exclusion and lack of participation.
- Timely discharge from inpatient units is compromised due to lack of supported accommodation options in rural communities.
- 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.

CHILD AND YOUNG PERSONS MENTAL HEALTH (CYMS)

- There are headspace centres located in Bendigo, Swan Hill, Mildura, Shepparton, and Albury-Wodonga.
- 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.
- Access to early identification, intervention and care options for children and adolescents is limited.
- Poor collaboration between services means that the potential benefits of headspace is not realised.
- Limited outreach restricts accessibility for the youth community.
- 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.
Primary mental health

CALD COMMUNITIES
- Barriers in accessing support and intervention for people from culturally and linguistically diverse communities.
- Lower usage of translation services associated with provision of ATAPS/MHSSRA and MHNIP services in communities with high CALD populations, including new settlers.

Partners in Recovery and NDIS
- Murray PHN lead two Partners in Recovery (PIR) programs in its region: Loddon Mallee Murray (LMM) and Hume with a regional coverage that was slightly divergent to Murray PHN’s footprint, operating in four NDIS rollout regions: Loddon, Murrumbidgee, Ovens Murray and Mallee.
  - the Loddon NDIS region began NDIS rollout on 1 May 2017; the Murrumbidgee NDIS region began NDIS rollout on 1 July 2017; the Ovens Murray NDIS region began NDIS rollout on 1 October 2017; the Mallee NDIS region including the LGAs of Buloke, Gannawarra, and Swan Hill began roll out on 1 January 2019
  - PIR participants supported under the Hume and Loddon Mallee Murray program had in most cases, received adequate support coordination funding in plans. Often however, a plan review is instigated to address a lack of other supports such as transport.
- In general, NDIS transition presents a number of issues in relation to service needs:
  - access to the NDIS presents a significant issue for people with psychosocial disability for a number of reasons including; lack of understanding about what the Scheme offers, difficulties demonstrating eligibility criteria in relation to functional impairment and permanency, inconsistent assessment outcomes from the National Access Team and the impact of the process on the mental health of consumers
  - plan implementation is hindered by lack of appropriate services available to provide funded supports, waitlists are common and some providers ‘opt-out’ of supporting people with mental illness and complex needs
- choice and control is an ‘illusion’ for many NDIS participants due to market thinness and rural locale described above, lack of participant knowledge, confidence and skills to navigate the new system (particularly those who don’t have support coordination in their plan).
- For PIR participants not yet transitioned to the NDIS, the availability of psychosocial support is becoming more and more limited as block funded supports wind up or become limited in their scope. For unmet needs: Daytime Activities, Social Company and Psychological Distress continue to be amongst the highest areas of unmet needs in both PIR programs from 2016-2018 (CANSAS).

Suicide prevention
- 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 (LGBTIQ) people and people from CALD backgrounds.
Primary mental health

In focus: Place-based suicide prevention

Murray PHN has partnered with the Victorian Government to develop and deliver place-based suicide prevention strategies in Mildura and Benalla – two of 12 sites where the state government is trialling this initiative. It forms part of the Victorian suicide prevention framework 2016-2025 that aims to halve the state’s suicide rate by 2025.

Project officers are working in those two towns to coordinate strategies that address local priorities, engaging and consulting with community, looking at data and using an evidence-base as a foundation for decision making.

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.

The projects, based in Benalla and Mildura, have identified health and service needs in the following areas:

- whole of community approach
- stronger links with Aboriginal and Torres Strait Islander workforce
- community capacity in Mental Health First Aid, suicide bereavement, Mindframe and safeTALK
- workforce capacity in “pathways to care”, Complex Systems Thinking, gatekeeper training, and general practice suicide prevention
- mechanisms to better collate and link data
- additional coordination resources to strengthen prevention and education support
- development of coordination protocols between agencies to initiate and coordinate effective responses.

Data and consultation sources

Community consultation has been undertaken through the following:

- Murray PHN regional team (Nov 2016-July 2017)
- Murray PHN evaluation and feedback from GP continuing professional development sessions (Nov 2016-July 2017)
- Murray PHN Advisory councils (Nov 2016-July 2017)
- Murray Health Voices (July 2017)
- Partners in Recovery (PIR) Needs Assessment (through a consultative process with consumers, carers and feedback from PIR clients)
- 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)
- Feedback to Hume PIR from local migrant communities in Wangaratta.
ALCOHOL AND OTHER DRUGS

The consumption of alcohol, tobacco and other drugs is a major cause of preventable disease and illness. Population groups vulnerable to harms related to alcohol and other drugs include Aboriginal and Torres Strait Islander people, homeless people, older people, people from culturally and linguistically diverse backgrounds, people identifying as lesbian, gay, bisexual, transgender, intersex or queer (LGBTIQ), people in contact with the criminal justice system, people with mental health conditions, and young people. There are four public prisons in the Murray PHN catchment, one youth justice centre, and as previously described, high numbers of the vulnerable groups. It is also well established that rural communities have high rates of alcohol consumption and rural people experience disproportionately high levels of alcohol misuse and its associated burden of disease and injury (NRHA, 2014). Information relating to Aboriginal and Torres Strait Islander communities and alcohol and other drugs is described in the Aboriginal health section. This health priority area is closely related to the mental health priority, with many AOD service users experiencing mental health comorbidities.

Key issues

- Smoking rates in the Murray PHN region 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.
- For alcohol related assaults, the North West region has considerably higher rates than other regions within the Murray PHN catchment and the Victorian average rate.
- Emergency department presentations for co-occurring AOD and mental health disorders are higher than the Victorian average, particularly for the North West region.
- 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 (Monash University, 2017).
- 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.

Community voice

Across several community consultations, key themes emerged regarding alcohol and other drugs health needs and service system issues:

- the community noted that stigmatisation of alcohol and other drug clients was often greater than that experienced by mental health clients, also the need to promote non-judgemental treatment for AOD-related chronic disease
- a need for more specialist services including telehealth options, addiction specialists, place-based withdrawal, pain management and dual diagnosis
- a need for general practitioner skills training, early intervention options in primary care settings such as alcohol brief intervention, and specialist staff supervision
- improved system integration and support through better links with pharmacies, AOD service pathways, and adequate management of comorbid conditions such as diabetes
- PHN collaboration to systematise state-wide and cross-border discharge planning from detoxification facilities is needed.
Health needs

Description of evidence

Smoking rates

The percentage of daily smokers in the Murray PHN catchment was 20.6% in the 2014-15 period, which is higher than the national average of 14.5% (AIHW, 2016b).

Alcohol consumption

- Consumption of alcohol at levels of increased lifetime risk of harm was higher for all LGAs, except for two, compared to the Victorian average (59.5%) (VPHS, 2017). The LGAs with the highest proportion of adults who consume alcohol at a level that leads to alcohol related harm over their lifetime are:
  - Macedon Ranges (73%)
  - Towong (73%)
  - Wodonga (73%)
  - Campaspe (70%)
  - Murrindindi (70%)
  - Wangaratta (70%)
  - Buloke (69%)
  - Indigo (69%)
  - Loddon (69%) (VPHS, 2017).

- There are 19 LGAs with populations who consumed alcohol at a level that leads to increased risk of alcohol related harm on a single occasion that are above the Victorian average (43%):
  - Alpine (54%)
  - Benalla (47%)
  - Buloke (45%)
  - Campaspe (53%)
  - Gannawarra (48%)
  - Greater Bendigo (48%)
  - Indigo (51%)
  - Loddon (57%)
  - Macedon Ranges (56%)
  - Mansfield (54%)
  - Mildura (48%)
  - Mitchell (50%)
  - Moira (52%)
  - Mount Alexander (46%)
  - Murrindindi (44%)
  - Strathbogie (48%)
  - Towong (56%)
  - Wangaratta (50%)
  - Wodonga (55%) (VPHS, 2017).

Alcohol-related hospitalisations

Rates for alcohol-related hospitalisations per 10,000 population (2016/17) in the Murray PHN region were significantly greater than the Victorian rate (59.8%) in Murrindindi (67.9%) and Loddon (67.5%) (Turning Point, 2018).

Alcohol-related ambulance attendances

The Murray PHN region had 2,333 alcohol-related ambulance attendances in 2017/18 (Turning Point, 2018).
Alcohol-related serious road injuries

In 2016/17, 123 alcohol-related serious road injuries during high alcohol hours occurred in the Murray PHN region. Rates across the Murray PHN region were above the Victorian rate (2.6 per 10,000 people) in the following LGAs:

- Strathbogie (9.7)
- Murrindindi (8.6)
- Mitchell (5.0)
- Swan Hill (4.3)
- Moira (4.1)
- Macedon Ranges (4.0)
- Indigo (3.7)
- Wangaratta (3.5)
- Loddon (3.2)

(Turning Point, 2018).

Alcohol-related assaults

In 2016/17, the state average for assaults during high alcohol hours per 10,000 population was 10.3 per 10,000 population. The following LGAs in the Murray PHN catchment were significantly higher than the state average:

- Benalla (28.7)
- Swan Hill (25.4)
- Mildura (20.1)
- Mitchell (17.1)
- Towong (16.7)
- Mansfield (16.3)
- Wangaratta (16.1)
- Greater Shepparton (15.7)
- Campaspe (14.4)

(Turning Point, 2018).

Alcohol-related family violence

Alcohol-related family violence rates in 2016-17 were higher when compared with the Victorian rate (18.6 per 10,000 people) in 19 LGAs within the Murray PHN region:

- Mildura (86.7)
- Swan Hill (81.3)
- Gannawarra (49.2)
- Greater Shepparton (46.6)
- Moira (45.4)
- Mitchell (43.4)
- Benalla (43.4)
- Towong (38.5)
- Strathbogie (35.8)
- Wangaratta (35.7)
- Murrundindi (34.5)
- Wodonga (33.9)
- Campaspe (28.1)
- Greater Bendigo (26.5)
- Loddon (26.5)
- Buloke (25.1)
- Mansfield (24.4)
- Mount Alexander (24.3)
- Alpine (19.3)

(Turning Point, 2018).

Alcohol-related deaths

The rate of alcohol-related deaths (2015) in the Murray PHN catchment is greater than the Victorian average (1.4 per 10,000 people) in the following LGAs:

- Swan Hill (2.9)
- Moira (2.7)
- Greater Shepparton (2.5)
- Mildura (2.2)
- Wangaratta (2.1)
- Greater Bendigo (1.7)
- Campaspe (1.6)

(Turning Point, 2018).
Alcohol and other drugs

Alcohol-related episodes of care

Compared with the Victorian average rate of 29.1 per 10,000 people (2016/17), the rate of alcohol and drug episodes of care for alcohol-related problems was higher for the Murray PHN catchment (32.5 per 10,000 people). The LGAs of Gannawarra (87.1 per 10,000 people), Mildura (50.2 per 10,000 people), Swan Hill (45.9 per 10,000 people) and Benalla (42.3 per 10,000 people) were substantially higher than the Victorian average (Turning Point, 2018).

Illicit drug-related episodes of care

The rate of AOD episodes of care for illicit drug-related problems (2016/17) was notably higher for the North West region of the catchment, having a substantially higher rate than the Victorian average (46 per 10,000 people):

- Swan Hill (83.2)
- Mildura (68.4)
- Benalla (67.3)
- Greater Bendigo (67.3)
- Greater Shepparton (65.)
- Gannawarra (61.5)
- Wodonga (55.7)
- Mitchell (55.5)
  (Turning Point, 2018).

Illicit drug use and possession crime rates

- 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 cultivating or manufacturing criminal offences were above the Victorian average in Goulburn Valley and North West.

Co-occurring mental health and AOD disorders

Presentations to emergency departments for co-occurring AOD and mental health disorders in 2017/18 increased from 2016/17 for the Murray PHN region, significantly higher than the increase for the state (VEMD, 2019).

Methamphetamine offences

- Throughout 2010-2016, the number of methamphetamine offences in 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 per 100,000 in 2010 in Swan Hill, to 168 per 100,000 population in Swan Hill, to 168 per 100,000 population in Greater Shepparton in 2016. For the period 2014-16, the biggest increases 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 (Monash University, 2017).
Service needs
Description of evidence

Coordination and integration

- Require increased effort to build collaboration and effective systems between primary care and AOD sector in line with stepped care approaches.
- Support and treatment options for people who experience co-morbid mental illness and substance misuse was the focus for 2017 and will continue.
- Shared-care arrangements are variable, while there are pockets of good practice, coordination and mechanisms to support shared care are generally lacking.
- Ongoing education and support for general practice regarding opioid replacement treatment programs.
- Access to brief intervention, residential rehabilitation and family support services requires system modification to support increased usage.
- A lack of appropriate responses for the complexities of methamphetamine use that include social, clinical and environmental considerations.

Treatment services

- Bed-based withdrawal coverage increased during 2017 in Wangaratta and Bendigo, but availability is limited in other areas of the catchment.
- Availability of targeted youth services is disparate across the Murray PHN catchment area.
- Low uptake of web-based treatment and support options in rural areas - largely influenced by gaps in telecommunication coverage and internet bandwidth.
- An absence of platforms for meaningful and effective consumer and carer engagement across the catchment area.
- 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.

Workforce development

- Rural inequality in access to face-to-face professional development opportunities for AOD workforce, including general practice, particularly to support opioid and ice related issues.
- Recent training has included dual-diagnosis, chronic pain management, cultural safety, and AOD family support.
- Workforce has identified chronic pain management and co-occurring AOD and mental health conditions as priority training needs.
- Limited access to professional development and education for workers – metropolitan-based courses are prohibitive to attend.

Stakeholder consultations

- 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
  - poor uptake 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 (MPHN, 2016).
Murray PHN consultation with AOD treatment services and other key stakeholders indicated some main themes:

- difficulty in navigating system (including central intake via contracted service provider) and 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.

Data and consultation sources

Consultation has been undertaken through the following:

- Murray PHN regional team (Nov 2016-July 2017)
- Murray PHN evaluation and feedback from GP Continuing Professional Development sessions. (Nov 2016-July 2017)
- Murray PHN community consultation – Needs Assessment planning Sept–Oct 2017
- Murray PHN Advisory councils (Nov 2016-July 2017)
- Murray Health Voices (July 2017)
- Murray PHN AOD sector consultation (Dec 2016)
- consultations with ACCOs and other key stakeholders
- consultation with Victorian Aboriginal Community Controlled Health Organisation (VACCHO)
- Harm Reduction Victoria - consultations
- AOD catchment plans.
ABORIGINAL AND TORRES STRAIT ISLANDER HEALTH

The Murray PHN region is home to a diverse population of Aboriginal and Torres Strait Islanders. There are more than 14 different Aboriginal language groups in our catchment and a range of community-led Aboriginal organisations. Aboriginal people view health as something that connects all aspects of life. It is “not just the physical wellbeing of the individual but the social, emotional, and cultural wellbeing of the whole community in which each individual is able to achieve their full potential” (NAHSPW, 1989). Describing the health of Aboriginal Victorians involves looking at individual characteristics and behaviours, as well as the broader social, economic and environmental factors that influence health. It is also important to understand the impact of a history of colonisation and the subsequent disadvantage experienced by Aboriginal people over more than two centuries. Recognising the fundamental influence of Aboriginal culture on health outcomes is one of the critical dimensions in both understanding and responding to the health disparities. Aboriginal health should be approached in terms of relationships, family, and community; and health-related decisions will be influenced by culture, social connections, racism, communication, choice, and distrust of service providers.

This section of the Needs Assessment includes information regarding Aboriginal and Torres Strait Islander people including chronic disease, mental health, alcohol and other drugs, and child health. Many of the data presented are aggregated at the state or national level due to the limited availability of local data. Where possible, we have included local information, and acknowledge that there are many different “units” of geographical areas described. The population health data also needs to be viewed considering the inconsistencies that are known in Aboriginal and Torres Strait Islander participation in the census and other surveys. Many reports and publications about Aboriginal and Torres Strait Islander people focus on the negative differences between Aboriginal and Torres Strait Islander people and non-Indigenous people, and we acknowledge this Needs Assessment is no different. We will ensure that in future we will include celebrations of positive differences and improvements in health where the information is available.

Key issues

• 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) (ABS, 2016b).

• 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.

• There is an over-representation of Aboriginal and Torres Strait Islander people in hospital separation data. In 2016-17, the age-adjusted separation rate for Aboriginal and Torres Strait Islander people was 2.6 times higher than for non-Indigenous people (HealthInfoNet, 2019).

• Aboriginal and Torres Strait Islander people hospitalisations for a mental health issue age-standardised rate is 29.1 per 1,000 (2014-15), almost double that of non-Indigenous Australians (15.9 per 1,000) (AIHW, 2017a).

• 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.

• Emergency departments are no longer collecting Indigenous status. This will have implications for monitoring Aboriginal and Torres Strait Islanders presenting in crisis and impact of care coordination on chronic disease management.
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
- lack of specialist children's counselling services
- more communication required between services and the prison system
- need to improve cultural sensitivity
- lack of accessible and affordable treatment options
- build capacity of mainstream providers particularly with complex needs clients
- the stigma of mental health is a barrier to accessing services
- ACCOs have noted the under reporting of Aboriginal populations in government data sources, such as ABS, and that this is common across communities. (source: Murray PHN Indigenous Advisory Council)
- VACCHO's recent study on the unmet GP need across the state in ACCOs indicated only 35% of need is met. Discussed difficulties in workforce recruitment, retention, pay matching and other workforce capacity concerns (source: Murray PHN Indigenous Advisory Council).

Key messages from Murray PHN Indigenous Advisory Council (April 2018)

- Continuity of funding is vital; without this, the retention of staff is difficult.
- Projects require funding for longer than 12-18 months to allow adequate time for impact and evaluation.
- Funding for projects needs to include adequate provision for on-costs.
- There is a shared interest and desire to work with Murray PHN on early years, which aligns with Murray PHN’s priority area of child health and builds on the work of MDAS’ early years program (Effective Change, 2016).
Health needs

Description of evidence

Mortality, social determinants and health-related behaviours

- For Aboriginal and Torres Strait Islander people born 2015-2017, life expectancy is estimated to be 71.6 years for males and 75.6 years for females, around 8-9 years less than the estimates for non-Indigenous males and females. However, life expectancy has increased in comparison to Aboriginal and Torres Strait Islander people born in 2010-2012, with males expected to live to 69.1 years and females to live to 73.7 years (HealthInfoNet, 2019).

- For the period 2011-2016 across Australia, cancer was responsible for the deaths of 2,754 Aboriginal and Torres Strait Islander people. Lung cancer was the leading cause of cancer death for both Aboriginal and Torres Strait Islander people and non-Indigenous people (HealthInfoNet, 2018).

- In 2016-17, age-adjusted hospitalisation rates for cancer were lower for Aboriginal and Torres Strait Islander people than for non-Indigenous people (HealthInfoNet, 2019).

- Across the Murray PHN catchment, 27% of Aboriginal or Torres Strait Islander people have year 12 or equivalent qualifications, which is lower than the total Murray PHN percentage (30.3%) (ABS, 2016a).

- Across Australia, 69% of Aboriginal and Torres Strait Islander people aged 15 years or over (2014-15) reported awareness of problems in their neighbourhood or community, with 25% reporting awareness of family violence and 21% reporting awareness of assault (NATSiSS, 2015).

- Health issues can result from an unhealthy environment. In 2014-15, Australian Aboriginal and Torres Strait Islander people were:
  - 2.3 times more likely than non-Indigenous people to be hospitalised for certain diseases related to environmental health
  - 51.3 times more likely than non-Indigenous people to be hospitalised for scabies

- 43.2 times more likely than non-Indigenous people to be hospitalised for acute rheumatic fever
- 1.7 times more likely than non-Indigenous people to die from diseases related to environmental health (APC 2016).

- In 2012-2013, 91% of Aboriginal and Torres Strait Islander people reported on feelings of calmness and peacefulness, happiness, fullness of life and energy either some, most, or all of the time (HealthInfoNet, 2019).

- Risk factors contribution (%) to the health gap between Aboriginal and Torres Strait Islander and non-Indigenous people:

![Bar chart showing risk factors](chart.png)

Source: Vos, Barker, Stanley & Lopez (2007)

Health assessments

- During 2017-18, there were 4,139 patients who received Aboriginal Health Assessments (MBS item 715) in the Murray PHN region, indicating a usage rate of 26.0% (AIHW, 2019c).

- A greater number of Aboriginal Health Assessments were performed throughout 2016-17, with 4,252 patients receiving an Assessment in the Murray PHN region, indicating a usage rate of 27.5% (AIHW, 2017b).
Aboriginal and Torres Strait Islander health

**Chronic disease**

- In 2016-17, after age-adjustment, Aboriginal and Torres Strait Islander people were hospitalised for cardiovascular disease (CVD) at 1.7 times the rate of non-Indigenous people (HealthInfoNet, 2019).
- In 2015-16, Aboriginal and Torres Strait Islander people were more likely to have diabetes recorded as the principal cause of hospital admission compared with non-Indigenous people. Diabetes was the second leading cause of death for Aboriginal and Torres Strait Islander people in 2017 (HealthInfoNet, 2019).
- In 2014-15, age-adjusted hospitalisation rates for Aboriginal and Torres Strait Islander people were 5.0 times higher for chronic obstructive pulmonary disease, 3.1 times higher for influenza and pneumonia, 2.1 times higher for whooping cough and 1.8 times higher for asthma and acute upper respiratory infections, than for non-Indigenous people (HealthInfoNet, 2019).
- For 2011-2015, after age-adjustment, the notification rate of end-stage renal disease was 6.8 times higher for Aboriginal and Torres Strait Islander people than for Non-Indigenous people (HealthInfoNet, 2019).
- Across Australia, for the period 2009-2013, there were 6,397 new cases of cancer diagnosed in Aboriginal and Torres Strait Islander people. Aboriginal and Torres Strait Islander people were 1.1 times more likely than non-Indigenous people to be diagnosed with cancer. The most commonly diagnosed cancer among Aboriginal and Torres Strait Islander people was lung cancer, followed by breast cancer (in females), colorectal cancer and prostate cancer (AIHW, 2018a).
- In 2014-15, hospitalisation rates for COPD, influenza and pneumonia, acute upper respiratory infections, and asthma all increased with remoteness for Aboriginal and Torres Strait Islander people. The rate for influenza and pneumonia was particularly high for Aboriginal and Torres Strait Islander people living in remote/very remote areas (22 per 1,000), compared with the rate for those living in major cities areas (6.8 per 1,000) (HealthInfoNet, 2019).

- 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).

**Mental health**

- Age-specific rates for intentional self-harm for Aboriginal and Torres Strait Islander people from 2013-2017 are considerably high for the 15-24, 25-34 and 35-44 age groups (41 per 100,000, 48.5 per 100,000 and 41.6 per 100,000 respectively), in comparison to non-Indigenous people (11 per 100,000, 14.5 per 100,000 and 17.9 per 100,000) (ABS, 2018b).
- ED presentations for psychiatric illness in Aboriginal and Torres Strait Islander persons in Victoria (2015/16) is 76% higher than non-Aboriginal and Torres Strait Islander Australians:
  - depression 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, 2019)
  - 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.
- For 2017-18, Aboriginal and Torres Strait Islander people had a rate of overnight mental health-related separation with specialised psychiatric care more than double that of other Australians (150.6 versus 63.7 per 10,000 population respectively) (AIHW, 2019f).
Alcohol and other drugs

- The rate of Aboriginal and Torres Strait Islander persons who exceeded single occasion alcohol risk guidelines in Victoria in 2014-15 was 27.7%, which is lower than the non-Indigenous state average of 42.5% (AIHW, 2019a).
- Across Victoria in 2014-15, the proportion of Aboriginal and Torres Strait Islander persons aged 15 years and over who exceeded alcohol consumption guidelines for lifetime risk was 10.8% (AIHW, 2019a).
- A greater percentage of Aboriginal and Torres Strait Islander adult population (31%) don’t drink any alcohol, compared to non-Indigenous adult population (23%). Similarly, 27% of Aboriginal and Torres Strait Islander youth have never tried alcohol, compared to 22% non-Indigenous youth (Positive Choices Drug and Alcohol Information, 2019).
- Aboriginal and Torres Strait Islander people recorded rates of mortality directly attributable to alcohol five times higher than that of the non-Indigenous population over the 2013 to 2017 period. The annual average per 100,000 capita for this time frame was 23.8. Non-Indigenous Australians recorded a rate of 4.7 alcohol-induced deaths per 100,000 persons over the same period (ABS, 2018b).
- The age-standardised hospitalisation rates for a principal diagnosis related to alcohol use in Victorian Aboriginal and Torres Strait Islander persons was 4.3 per 1,000, higher than the non-Indigenous rate (2.2 per 1,000) 2014-15 (AIHW, 2017a).
- The smoking rate for Aboriginal and Torres Strait Islanders living in the Murray PHN region is 45.4% (2014-15), which is higher than the Victorian Indigenous rate 40.6% (2012-13), the Indigenous Australian rate (41.6%) (2012-13), and the non-Indigenous Murray PHN region rate 20.6% (AIHW, 2016).
- The rate of Victorian Aboriginal and Torres Strait Islander persons reporting substance use in the past 12 months (2014-15) was 39.8 per 1,000 (AIHW, 2017a).

Immunisation rates

- The percentage of Aboriginal and Torres Strait Islander children who were fully immunised in the Murray PHN as of 30 June 2019:
  - fully immunised at 1 year: 92.0%
  - fully immunised at 2 years: 91.4%
  - fully immunised at 5 years: 95.9% (DoH, 2019a).

Child health

- In 2014-2016, across Australia, the Aboriginal and Torres Strait Islander infant mortality rate (IMR) was 6.2 per 1,000; this was almost twice as high as the non-Indigenous IMR of 3.2 per 1,000:
  - between 1998 and 2015, the Aboriginal and Torres Strait Islander IMR dropped by more than half (from 13.5 per 1,000 to 6.3 per 1,000)
  - the gap between Aboriginal and Torres Strait Islander and non-Indigenous IMR has narrowed significantly (by 84%). (AIHW, 2017a)
- Aboriginal children are over-represented in Out-of-Home Care and through child protection data, with increasing concern about levels of risk.
- The rate of children in out of home care in the Murray PHN region is 7.0 per 1,000, higher than the Victorian rate of 4.6 per 1,000 children (VCAMS, 2011). Benalla (14.4) and Swan Hill (10.8) are the LGAs with the highest rates. Alpine (2.4) and Murrindindi (2.1) were the lowest.
- The 2016 Overcoming Indigenous Disadvantage Report, highlights that from 30 June 2005 to 2015, the number of Aboriginal and Torres Strait Islander children aged 0-17 years in OOHC in Victoria almost tripled from 526 to 1,511.
- Taskforce 1000, a collaborative project between the Department of Health and Human Services (Victoria) and the Commission for Children and Young People, found that the majority of Aboriginal children in out-of-home care experienced family violence, substance abuse and mental health problems within their family.
The percentage of Aboriginal and Torres Strait Islander women in the Murray PHN region who gave birth and had at least one antenatal visit in the first trimester (2014-2016) is 44%. This is considerably lower than the national average for all Aboriginal and Torres Strait Islander women (57.6%), and slightly lower than the Murray PHN rate (47.3%) for all women (AIHW, 2018c).

The three IARE locations in the Murray region with a rate higher than the Australian average (43.2) of Aboriginal and Torres Strait Islander children developmentally vulnerable on one or more domains are Mildura (62%), Castlemaine-Kerang (47.4%), and Upper Goulburn Valley (60%) (PHIDU, 2012).

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.

Service needs

There are seven services in the Murray PHN region that specifically support our Aboriginal and Torres Strait Islander communities manage their health and wellbeing.

- Central Victoria:
  - Bendigo and District Aboriginal Co-operative (Bendigo)
  - Njernda Aboriginal Corporation (Echuca).
- Goulburn Valley:
  - Rumbalara Aboriginal Co-operative (Shepparton)
- North East:
  - Albury Wodonga Aboriginal Health Service (Albury, outreach to Wangaratta)
  - Mungabareena Aboriginal Corporation (Wodonga).
- North West:
  - Mallee District Aboriginal Services (Mildura, Swan Hill, Kerang)
  - Murray Valley Aboriginal Co-operative (Robinvale).
Aboriginal and Torres Strait Islander health

Aboriginal mental 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 conditions.
• Ignoring culturally safe practices results in poorer health outcomes and higher demand on the emergency and primary health care systems.
• There is a shortage of Aboriginal and Torres Strait Islander health workers.
• Aboriginal Community Controlled Health Organisations (ACCOs) report that people often present to them in crisis and have high needs for service coordination across sectors.
• There is a lack of targeted services for young people.
• Limited access to dual diagnosis services for Aboriginal clients in mainstream and ACCOs.
• Community dynamics can challenge service access and complicate treatment and support.

Aboriginal and Torres Strait Islander AOD services

• 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 within 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.

Data and consultation sources

Community consultation has been undertaken through the following:

• Murray PHN regional team (Nov 2016 - July 2017)
• Murray PHN Advisory councils (Nov 2016 - July 2017)
The aged population or older population refers to people aged 65 and over, unless otherwise specified. For Indigenous people, a different age group of 50 and over is used as ‘aged’. This reflects the life expectancy gap between Aboriginal and Torres Strait Islander people and non-Indigenous Australians (AIHW 2017).

The age distribution in the Murray PHN region reflects an older population than both Victorian and Australian averages. The intersection of an ageing population and the complexities of service access in rural communities is a current and future challenge for the Murray PHN region. To support older Australians to lead healthy, productive and connected lives, ensuring they enjoy greater social and economic participation in society, this section identifies needs, and current services, in order to develop solutions to fill priority gaps in primary care services for our older community members.

Key issues

- Ageing rural populations exist across the Murray PHN region, placing increasing pressure on access to health resources.
- In the Murray PHN catchment there are 130,970 persons aged over 65. This is 19.7% of the population compared to the Victorian average of 15.2% (ABS, 2018d).
- The proportion of 65+ year old people in the Murray PHN region who live alone is 26.1%, which is higher than the state and national rate, both 24.3% (Gen Aged Care Data, 2018).
- 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.
- Transport limitation presents barriers to access and leads to inappropriate emergency department presentations, and barriers in accessing other health care services such as allied health and pharmacy.
- Limited access to geriatricians and GPs in aged care, especially areas where general practices do not manage patients in an aged care facility or provide home visits.
- Aged care sector is associated with poorer working conditions than other areas of health due to high resident to staff ratios, low registered nurse to personal care attendant ratios, staff shortages and long shifts, and complex care needs of aged care facility residents (Parliament of Australia, 2017).
Community voice

The following themes emerged through consultation with the community:

- advocacy services are required to support client access and navigation of My Aged Care, NDIS, and Continuity of Supports (CoS), particularly in small rural communities
- 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
- 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
- accessibility, medication review and advocacy issues. An emerging issue is the commencement of new Advance Care Directive legislation, the Medical Treatment Planning and Decisions Act (2016) in March 2018 in Victoria
- our PIR programs have developed strong relationships with carer networks recognising social isolation is a key issue for ageing carers
- lack of communication between patients, staff and relatives in aged care regarding health and care needs.

Health needs

Description of evidence

The 2018 ABS population estimates indicate there are now six LGAs in the Murray PHN catchment with more than 25% of the population aged over 65. They are Gannawarra (28.0%), Strathbogie (28.0%), Loddon (27.8%), Buloke (27.7%), Towong (26.1%) and Benalla (25.9%). The Victorian average is 15.2% (ABS, 2018d).

Health assessments

The rate of people aged 75 or over with a GP health assessment (MBS item, 701, 703, 705, 707) in the Murray region is 42% (PHN data, 2016-17). The highest proportion is 63% in the SA3 region of Loddon-Elmore, and the lowest is 21% in the SA3 region of Moira (AIHW, 2019e).

Residential aged care

- As of June 2018, there are 7,402 aged care places in the Murray PHN region: 6,886 residential care, 287 multipurpose service, 199 transitional care and 30 National Aboriginal and Torres Strait Islander Aged Care Program. The occupancy rate for residential aged care for the catchment is 93.8% (Gen Aged Care Data, 2018).
- 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 1,234, 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 West 356.
- There were 133,242 MBS services provided by primary care providers in residential aged care facilities in the Murray PHN catchment during 2016-17 (AIHW, 2019e).
- 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 1,247 cases were classified as an emergency (Ambulance Victoria Annual Report 2014-15 Incidents).
Aged care

Falls

- Rural Ambulance Victoria data reveals that in 2015, 53% of call outs to RACFs in Bendigo were classified as emergency hospitalisation for external injuries caused by falls.
- For persons over 70 years, all fall hospitalisations for the 2016/17 period indicate that the Murray PHN catchment has an overall higher average rate compared to the state rate (VAED, 2018).

Service needs

Description of evidence

- Rate of mental health overnight hospitalisations for dementia (per 10,000 persons, age standardised) in the Murray region was five, lower than the national rate of six. The SA3 areas within the Murray regions, that were higher than the national rate were:
  - Heathcote-Castlemaine-Kyneton: 8
  - Albury: 8
  - Bendigo: 7 (AIHW, 2016a).
- As of June 2018, 46.1% of people using permanent residential aged care in the Murray PHN region had a diagnosis of dementia (Gen Aged Care Data, 2018).
- From the BEACH Survey (2015/16): 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 (Britt et al. 2016).
- Hospitalisations for injuries that occurred in a residential aged care facility increased by a higher rate across the Murray PHN catchment from 2016-17 to 2017-18, compared to the increase for the state. The North East region experienced a decrease for the same period, while the Goulburn Valley had a significant increase (VEMD, 2019).

- In 2016-17, the number of GP attendances in residential aged-care facilities per patient, who received at least one GP attendance in a facility, was 14.4 for the Murray PHN region, which is lower than the national average (16.6) (AIHW, 2018c).
- The rate of residential aged care places per 1,000 population aged 70 years and over in 2016 was higher in nine LGAs in the Murray PHN region compared to the Victorian rate (85.1 per 1,000 population). LGAs with the lowest rates are:
  - Mansfield (64.1)
  - Murrindindi (66.5)
  - Mitchell (69.2)
  - Strathbogie (71.3) (PHIDU, 2019).
- There is a need to understand the implications of an increasing incidence of age-associated disability and disease (e.g. dementia, stroke, COPD, diabetes), along with complex morbidities.
- Access to home-based palliative care requires further investigation and support (incorporating palliative care for chronic diseases other than cancer).
- 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).
- An aging population, rural location and implementation of NDIS is having on impact on the availability of carer support respite places (DHHS, 2018).

Data and consultation sources

Community consultation has been undertaken through the following:

- Murray PHN regional team (Nov 2016 - July 2017)
**CHRONIC DISEASE**

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 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, and smoking rates, which are described in the general population health section.

Cardiovascular disease, diabetes and chronic obstructive pulmonary disease are significant contributors to hospital admissions. The risk factors for these conditions are described in the general population health section, and issues related to achieving optimal management of these conditions are related to coordination of care, health system improvements and early intervention.

General data quality issues related to chronic disease management 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.

Internationally, evidence is building for integrated models of care to improve health outcomes for people with chronic disease. In Australia, people who have chronic conditions also have multi-morbidities including mental health. For this reason, integrated models of care that provide targeted patient-centred primary health services are preferred, rather than services that are targeted towards a particular disease or condition.

Our Chronic Disease Management (CDM) and Potentially Avoidable Hospitalisations (PAH) projects have seen interventions at the patient, general practice and system levels and this has informed two key insights:

1. Integrated, patient-centred services are required that incorporate the co-morbidities of chronic disease, including mental health, to support the transition to self-management.
2. Care coordination is required to support the patient transition from the acute care setting to general practice. It is important to note that we are focusing our efforts in the post-acute end of the care continuum, so care coordination should be understood as a clinical role.

**Key issues**

- The rate of potentially avoidable hospital admissions for chronic conditions is significantly higher in the Murray PHN region compared to Victorian averages, particularly in the LGAs of Campaspe, Gannawarra, Shepparton and Swan Hill (VHISS, 2019).
- 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.
- 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.
- Cardiac-related admissions (including hypertension, congestive heart failure and angina) account for approximately 15% of all Ambulatory Care Sensitive Conditions (ASCS) separations for Victorian hospital services 2017-18 (VHISS, 2019).
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. Feedback included:

- Stronger 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.

Through Health Voices our community has told us, that in relation to chronic disease, the top five services people would like to access in their community but cannot are: mental health counsellor (16%), exercise physiologist (12%), dentist (9%), dietitian (9%) and podiatrist (5%).

Health professionals via Health Voices have identified the following service needs/gaps in their area for people with diabetes as well as bulk-billed and low fee services:

- **Central Victoria**
  - endocrinologists
  - consistent access to exercise physiologists, podiatrists and diabetes educators
  - health psychology support.
- **Goulburn Valley**
  - more endocrinology services
  - a standardised level of care.
- **North East Victoria**
  - more exercise physiologists, dietitians, mental health support
  - endocrinologists
  - extended hours of access for diabetes educators.
- **North West Victoria**
  - exercise physiologists
  - health promotion services.
Health issues

Description of evidence

• 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. (AIHW, 2018c)

• The overall rate of potentially preventable hospitalisations for all categories per 100,000 people (2016-17) for the Murray PHN region (2,739) is slightly higher than the national rate (2,643) (AIHW, 2018c).

Diabetes

• The proportion of adult population ever diagnosed with type 2 diabetes (2015-17) is 5.5% for the state of Victoria. Nine of 21 LGAs in the Murray PHN region are above the state average, with the highest rates occurring in Wodonga (8%), Gannawarra (7%), Mitchell (7%) and Swan Hill (7%) (VPHS, 2017).

• In 2015/16 complications arising from diabetes is the largest ACSC presenting within hospital services across the Murray PHN catchment area (23.3% of all separations), increasing each year for the past three years (VAED, 2018).

• The rate of potentially avoidable hospitalisations for diabetes complications in 2016-17 is slightly higher overall for the Murray PHN region compared with national rate (208.0 compared with 194.5 per 100,000) (PHIDU, 2019).

• Rates of potentially avoidable hospitalisations for diabetes complications have consistently increased over the past 3 years in the Goulburn Valley region, particularly in the LGAs of Mitchell and Moira, but have consistently decreased in the North East region. The LGAs with the highest rates of diabetes complications in 2018/19 are Mitchell (4.73 per 1,000 persons), Swan Hill (4.3 per 1,000 persons) and Murrindindi (3.28 per 1,000 persons), which are all higher than Victorian rate (2.29 per 1,000 persons) (VHISS, 2019).

• 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.

• Compared to the Victorian rate (5.1 per 100,000), avoidable deaths from diabetes in persons aged 0 to 74 years (2011-15) was higher in:
  - Benalla (11.4)
  - Loddon (11.4)
  - Greater Shepparton (9.1)
  - Campaspse (8.6)
  - Strathbogie (8.3)
  - Mitchell (7.7)
  - Swan Hill (7.6)
  - Albury (7.4)
  - Moira (7.2)
  - Mildura (6.4)
  - Greater Bendigo (5.5) (PHIDU, 2019).
Chronic disease

**Chronic Obstructive Pulmonary Disease (COPD)**

- The rate of potentially avoidable hospitalisations for COPD in 2016-2017 is significantly higher in the Murray PHN region than national averages (374.4 compared to 322.4 per 100,000) (PHIDU, 2019).
- Overall, rates of potentially avoidable hospitalisations for COPD have dropped significantly in the North East region in the past three years, aside from Mansfield and Benalla.
- For 2018-19, the rate of hospital admissions (per 1,000 people) for COPD in the Murray PHN region is above the state average (2.42 per 1,000 people) in 17 out of 22 LGAs:
  - Gannawarra (5.0)
  - Buloke (4.83)
  - Campaspe (4.74)
  - Swan Hill (4.67)
  - Greater Shepparton (4.34)
  - Mitchell (4.31)
  - Moira (4.05)
  - Benalla (3.98)
  - Strathbogie (3.66)
  - Greater Bendigo (3.21)
  - Mildura (2.99)
  - Murrindindi (2.94)
  - Wodonga (2.82)
  - Mount Alexander (2.77)
  - Alpine (2.77)
  - Mansfield (2.71)
  - Loddon (2.51)
  (VHISS, 2019).
- COPD affects an estimated 8.8% of Indigenous Australians aged 45 and over—approximately 10,300 people, based on self-reported data, although this is likely to be an underestimate. The prevalence of COPD (across all age groups) among Indigenous Australians is 2.5 times as high as the prevalence for non-Indigenous Australians after adjusting for differences in age structure (AIHW, 2019b).

**Cardiac-related conditions**

- Congestive cardiac failure potentially avoidable hospitalisation rates, are highest for the Murray PHN region in Swan Hill (4.92 per 1,000 persons), Mitchell (3.86 per 1,000 persons) and Loddon (3.77 per 1,000 persons) and eight LGAs are higher than the Victorian rate (2.63 per 1,000 persons) (VHISS, 2019).
- Victorian Admitted Episodes Dataset (VAED) has been sourced from Victorian public hospital information and does not include private hospital admissions. Specific characteristics for Murray PHN in 2016/17 include:
  - more than half of all admissions enter via the emergency department. LGAs of significant emergency department points of interest are Swan Hill, Alpine and Mildura, with higher rates per region
  - Fifty two percent of admissions are aged over 60 years
  - Forty two percent of patients have no referral or support services arranged before discharge.

**Cancer**

- The rate for Victoria for avoidable deaths from cancer aged 0 to 74 years (2011 to 2015) is 28.5 per 100,000 persons. LGAs with higher rates are: Benalla (32.6), Buloke (43.9), Campaspe (32.2), Greater Shepparton (31.0), Loddon (34.8), Mildura (30.1), Moira (32.0), Mount Alexander (29.4), Murrindindi (38.5), Strathbogie (29.0), Wangaratta (29.7) and Wodonga (33.1) (PHIDU, 2019).
- 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 (Cancer Council Victoria, 2019).
### Chronic disease service coordination

- There is a need for systematic approaches to the diagnosis, care planning and service coordination of chronic diseases across each region of Murray PHN.
- Discharge planning from acute stay periods needs better alignment and coordination with primary care (general practice).
- 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 the workforce) and this can create an access issue; which has the potential to further adversely impact isolated communities.
- Communications with GPs was less developed/implemented, occurring in approximately half of these arrangements.
- Information conveyed was primarily patient/consumer information.
- Link to electronic compatibility issues for information transfer/communication between primary care and acute services.
- Use of telehealth tools to ensure full models of care are achievable for chronic disease, especially in rural areas.
- Limited capability of the service system and the health workforce to respond to the demand for chronic disease integrated care. Many small towns in our catchment are unable to recruit and sustain workforce to deliver the range of integrated services that are required. Health services require support to:
  - collaborate with other service providers to deliver integrated and co-ordinated models of care, that will address the needs now and into the future
  - look at scope of practice and alternate models of service provision, supported by enablers like HealthPathways, My Health Record, eHealth, and telehealth
  - focus on performance, quality and safety, and deliver evidence-based health outcomes (Integrated Care Report, MPHN, 2018c).

### 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 (eg. dietitians from three different services that visit community).
- Improvement in communication between service providers and the public regarding changes to a service.
- Address workforce capacity needs to maintain appropriate service levels.

### Diabetes

- MBS activity associated with GP management planning and review (MBS item numbers 721, 723, 729 and 731) have remained relatively constant for most SA3 areas in the Murray PHN region, and in some instances declined in 2016-17 from 2015-16 (DoH, 2018).
- Loddon Mallee Region Diabetes Pathways identifies 20 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.
- The range of services identified in the Loddon Mallee Region Diabetes Pathways as being required in the diabetes cycle of care have limited availability in Buloke LGA.
- All services identified in the Loddon Mallee Region Diabetes Pathways are available in Swan Hill 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.
- Reduced access to endocrinology services is associated with hospital admissions for diabetes complications.
Chronic disease

• Association between reduced access to high risk foot services and diabetes complications, cellulitis and gangrene admissions.
• Multidisciplinary clinics are required 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).
• Albury has a higher percentage of amputation - above the state average. This may, in part, be attributed to lack of diabetes care.
• 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.

Chronic Obstructive Pulmonary Disease (COPD)

• 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.

Cancer

• 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 and support cancer survivorship.
• Although cancer is a chronic disease, many health services including secondary and primary health services do not use existing chronic disease systems to support this patient population. This results in poorer access to cancer services and community support structures.
• Data is currently lacking on cancer staging and treatments.

Heart related conditions

• 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, using clinical audit tools and improvement to practice workflows and systems, recognising that:
  - proportion of adults who smoke daily is higher in 16 of our local government areas than the Victorian average
  - obesity is higher in 17 of our local government areas than the Victorian average (VPHS, 2017).
• Ambulatory Care Sensitive Conditions (ACSC) data shows very high admission rates for hypertension (2017-18) in the LGAs of Loddon (0.73 per 1,000 people), Murrindindi (0.64 per 1,000 people) and Campaspe (0.62 per 1,000 people), compared to the Victorian rate of 0.43 per 1,000 people (VHISS, 2019).
• Rates of potentially avoidable hospitalisations for chronic angina in 2016-17 are significantly higher in many of Murray PHN’s LGAs compared with the Victorian average (114.3 per 100,00 people), particularly in Swan Hill (300.2), Greater Shepparton (240.0) and Indigo (196.5) (PHIDU, 2019).
• Rates of potentially preventable hospitalisations for rheumatic heart disease in 2016-17 for Murray PHN region (11 per 100,000 people) is lower than the national rate (17 per 100,000 people) (AIHW, 2019).
• Patients at risk of poor heart health can be better managed within primary and community health settings.
Other chronic conditions

- Potentially avoidable hospitalisation rates for cellulitis are high across Murray PHN region in 2017-18, compared to the state average (3.0 per 1,000 persons), particularly in the LGAs of Murrindindi (5.33 per 1,000 persons) Buloke (4.77 per 1,000 persons) and Benalla (4.50 per 1,000 persons) (VHISS, 2019).

- In 2016-17, rates of potentially preventable hospitalisations for kidney and urinary tract infections are lower in the Murray PHN region (256 per 100,000 people) compared with the national average (280 per 100,000 people). The exception to this, by SA3 region within Murray PHN’s catchment, is Loddon-Elmore (425 per 100,000 people) Campaspe (395 per 100,000), Shepparton (319 per 100,000) and Moira (318 per 100,000) (AIHW, 2019).

- The rate of potentially avoidable hospitalisations for acute and vaccine-preventable conditions in the Murray PHN region for 2016-17 (1,373 per 100,000 people) is lower than the national rate (1,503 per 100,000 people). However, by SA3 regions, Murray River-Swan Hill (1,921), Mildura (1,779) Campaspe (1,757), Moira (1,747) and Shepparton (1,682), are higher than the national rate (AIHW, 2019).

- Murray PHN’s rate of potentially avoidable deaths (121.3 per 100,000 people) in 2017 is significantly higher than the state and national rates, 92.4 and 103.7 respectively. The LGAs with the highest rates in the catchment are Swan Hill (178.5), Wodonga (150.8), Campaspe (143.0) and Greater Bendigo (131.6) (AIHW, 2019).

- Health literacy levels relate to potentially avoidable hospitalisations. (e.g. smoking remains the key risk factor for respiratory related hospitalisations).

- Link to ageing population and comorbidities, with ageing population rates in regional areas above state average.

Data and consultation sources

Community consultation has been undertaken through the following:

- Murray PHN regional team (Nov 2016 - July 2017)
- Murray PHN evaluation and feedback from GP continuing professional development sessions. (Nov 2016 - July 2017)
- Murray PHN Advisory councils (Nov 2016 - July 2017)
- Murray Health Voices (July 2017).
CHILD HEALTH

Children who experience adverse conditions throughout their childhood are more likely to experience poorer health outcomes as adults. Known as the life-course perspective, understanding how early-life experiences can shape health across an entire lifetime and potentially across generations is an important aspect of population health planning. A major focus of life-course epidemiology has been to understand how early-life experiences (particularly experiences related to economic adversity and the social disadvantages that often accompany it) shape adult health, particularly adult chronic disease and its risk factors and consequences.

This approach provides a powerful rationale to give more priority to investment in child health and wellbeing as a strategy for improving population health. The Murray PHN catchment includes areas of socioeconomic disadvantage and populations likely to have experienced trauma, as well as high rates of children in out of home care. A primary health system that is responsive to the needs of children and their carers will lead to improved population health outcomes.

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 home care.
- 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), and there is a lack of services for CALD children and young people.
- 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.

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 future prospects.
Health needs

Description of evidence

Early years

- The percentage of women that gave birth and had at least one antenatal visit in the first trimester in the Murray PHN region was 47.3%, significantly lower than the national average of 65.0% (AIHW, 2018c).
- The percentage of live births (2014-16) that were of low birthweight in the Murray PHN region was equal to the national rate of 5.0% (AIHW, 2018c).
- In the Murray PHN region (2014-16), 18% of women smoked during pregnancy, higher than the national average of 10.4% (AIHW, 2018c).
- In the Murray PHN region, 49% of babies are exclusively breastfed at three months, which is lower than the Victorian percentage of 51.4%. The local government areas of Wodonga (44.4%), Mitchell (42.7%), Greater Bendigo (44.1%), and Gannawarra (39.5%) were all below 45% (VCAMS, 2015).
- In the Murray PHN region (2015), 96% of eligible children enrolled in kindergarten which is lower than the Victorian rate of 98.1%. The LGAs of Benalla (86.7%), Moira (88.6%), Strathbogie (85.8%) and Wodonga (87%) were below 90% (VCAMS, 2015).
- The number of deaths among infants and young children aged less than five years (per 1,000 births) in the Murray PHN region (2014-16) was 3.0, lower than the national rate (3.8 per 1,000 births) (AIHW, 2018c).

Child and adolescent wellbeing

- In 2015, all LGAs within the Murray PHN region, except Loddon, Macedon Ranges, Mansfield, Strathbogie and Towong, recorded a higher percentage than the Victorian rate (9.9%) for the number of children developmentally vulnerable on two or more domains. Benalla (20%) was more than double the Victorian rate (PHIDU, 2019).
- Among 12 to 17-year-olds, more students in regional/rural Victoria reported smoking in the past year than students in metropolitan Melbourne (p<0.05) (ASSAD Survey, 2014).
- Among younger, older and all students (aged 12-17), a greater proportion of students from regional/rural areas than students living in greater metropolitan Melbourne reported drinking alcohol in the past week, past month, past year and lifetime (p<0.01) (ASSAD Survey, 2014).
- Additionally, among all students, a greater proportion from regional/rural areas than students living in metropolitan Melbourne reported drinking five or more drinks on one occasion in the past seven days, putting themselves at risk of short term harm (p<0.01) (ASSAD Survey, 2014).
- The proportion of older Victorian students (aged 16-17) using any illicit substance in the past month was significantly higher in greater metropolitan Melbourne (p<0.01), compared to regional/rural Victoria, however among all 12- to 17-year-old students, use of any illicit substance did not differ by residential area. The proportion of all students using any illicit substance excluding cannabis did not differ by residential area. This was consistent across 12- to 15-year-old and 16- and 17-year-old students. (ASSAD Survey, 2014).
- From the commencement of the Doctors in Secondary Schools program in April 2017 to September 2018, the top three ‘reasons for visit' in the Murray PHN region were:
  - physical health (44%)
  - mental health (32%)
  - sexual health (15%)
    (Murray PHN, 2018d).
Child health

Child and adolescent mental health

According to the Australian Child and Adolescent Survey of Mental Health and Wellbeing (2015):

- Almost one in seven (13.9%) Australian 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 the Murray PHN region report seeing a higher percentage of young people in the 12-17 age group category than the national totals (headspace, 2016).
- Aboriginal and Torres Strait Islander young people are accessing headspace at rates higher than the local Aboriginal and Torres Strait Islander population in several centres within the Murray PHN catchment (headspace, 2016).
- 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 (headspace, 2016).
- The 7.2% of all people accessing headspace services were young people from CALD communities which is lower within the Murray PHN catchment compared with the national figures (headspace, 2016).
- Bullying is a frequently reported issue for young people across the Murray PHN catchment.
- The proportion of year 7-9 children who report being bullied in 2018 in Victoria is 17.5%. In the Murray PHN catchment, LGAs that have higher rates compared to the state are:
  - Benalla (34.9%)
  - Campaspe (25.9%)
  - Gannawarra (24.6%)
  - Greater Bendigo (21.1%)
  - Greater Shepparton (22.7%)
  - Indigo (23.7%)
  - Lodden (24.0%)
  - Mansfield (21.9%)
  - Mildura (19.5%)
  - Mitchell (27.5%)
  - Moira (22.4%)
  - Mount Alexander (28.0%)
  - Murrindindi (20.9%)
  - Strathbogie (33.8%)
  - Swan Hill (29.0%)
  - Towong (22.8%)
  - Wangaratta (25.6%)
  - Wodonga (28.4%) (VCAMS, 2018).
- The proportion of children at school entry in 2018 in the Murray PHN catchment with emotional or behavioural difficulties is highest in the LGAs of Strathbogie (11.6%), Buloke (11.1%), Mitchell (10.8%), Wodonga (10.8%), Benalla (10.2%), Campaspe (10.0%), and all being significantly higher than the state average (5.6%) (VCAMS, 2018).
Sexual and reproductive health

- The rate of teenage pregnancy across the Murray PHN region of 17.9 is significantly higher than the Victorian rate of 10.4 births per 1,000 females, with hotspots across the whole catchment, North West (25.9) being the most significant (VCAMS, 2012).

- The rate of sexually transmitted infections in 12-17-year-olds (per 100,000) was higher than the Victorian rate in Wodonga (1,161.7), Wangaratta (911.6), Mitchell (468.1), Indigo (598.4), Greater Shepparton (556.3), Greater Bendigo (776.0) and Campaspe (518.0) (VCAMS, 2012).

Vulnerable children

- The rate of substantiated child abuse in 2010/11 is substantially higher than the Victorian average rate of 9.5 per 1,000 population in the LGAs of Benalla (14.1), Mildura and Wodonga (both 13.2) (VCAMS, 2012).

- The rate of children on child protection orders in 2010 is substantially higher than the rural Victorian average rate of 8.8 per 1,000 in Swan Hill (16.1 per 1,000 and ranked third in the state), Mildura (15.0 per 1,000) and Benalla (14.4 per 1,000) (VCAMS, 2010).

- Benalla has the highest and double the rural Victorian rate of children in out of home care per 1,000 people at 14.4 in 2011, followed by Swan Hill at 10.8, both of which are above the rural Victorian state average of 7.7 (VCAMS, 2012).

- Children and young people in OOHC exhibit a higher prevalence of chronic and complex conditions, involving physical, neurological, developmental, psychological and behavioural difficulties when compared to the average child in Australia.

- Research evidence collated by Moeller-Saxone in 2016 highlights common health and psychosocial problems for young people in OOHC, including:
  - Sixty two percent of young people in residential care are overweight or obese (compare to 27% of general population of young people)
  - half of Australian children entering OOHC have dental problems
  - young people with experience of OOHC reported engaging in sexual activity at an earlier age; having more sexual partners, a greater likelihood of engaging in sex in exchange for money, goods or services, and a higher prevalence of sexually transmissible infections. One third of young women had become pregnant or given birth within one year of leaving care
  - young people in residential care have fewer outpatient visits for asthma but are four times more likely to be hospitalised for asthma than other young people. This is despite higher rates of prescription of controlled medications for young people in residential care.
  - OOHC populations engage in earlier initiation to tobacco, alcohol and other drugs and report higher and escalating rates of illicit drug use on exiting care
  - Forty five percent of young people in OOHC have a diagnosable mental disorder, versus 10% of their peers. Externalising and behaviour problems are three times more common
  - just under 50% of young people had attempted suicide within four years of leaving care.
Service needs

- Large unmet need in child health and wellbeing across the catchment including:
  - early childhood development support, especially early assessment of children with risk factors
  - assessment and support for families with children with behavioural difficulties or displaying early signs of learning challenges
  - supporting children with emerging mental health problems (Murray PHN Community Paediatric Project).
- Lack of publicly (i.e. fully funded) paediatric services. Where these services are available there are long waitlists for “non-urgent” problems (Murray PHN Community Paediatric Project).
- There is need for a community paediatrician to address issue of poor access to a paediatrician for some parts of the catchment (North West) (Murray PHN Community Paediatric Project).
- There is need for culturally appropriate and culturally safe paediatric services for Aboriginal and culturally and linguistic diverse communities, and for vulnerable families (North West) (Murray PHN Community Paediatric Project).
- In the North West region there is a need for bulk-billing specialist appointments (the public health service is currently managed privately, therefore specialist appointments must be attended at private clinic and are not bulk-billed) (HealthPathways Clinical Working Group).
- There is a need to better link information and data from antenatal care providers with Mildura Base hospital to support better birth outcomes (North West).
- Most paediatric services are town-centric, with the majority of existing services in Mildura/ Swan Hill. There is a need for services to be available in more remote locations (North West).
- 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 metropolitan and regional hospitals and improve after care services are required and need GP coordination.

Data and consultation sources

Community consultation has been undertaken through the following:

- Murray PHN regional team (Nov 2016 - July 2017)
- Murray PHN Advisory Councils (Nov 2016 - July 2017)
- Murray Health Voices (July 2017)
- Population Health Planning Network (July 2017).

Other sources:

- Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing (June 2015)
- Reflections from Paediatrician (Community Paediatric Project)
- Stakeholders (Hands Up Mallee)
- HealthPathways Clinical Working Group.
GENERAL PRACTICE

A thriving, accessible and high-quality general practice sector is vital to the health of the Murray PHN community. Within the Murray PHN catchment, the general practice system is facing challenges due to an ageing workforce, system reforms, digital health, and practice viability. Along with an ageing population, high rates of chronic disease and mental ill health, and the complexities of the rural locale, recruitment and retention of general practitioners in the region remains an ongoing concern. The landscape of general practice has been changing in Australia for several years, including a decrease in hours worked per week and a greater focus on work-life balance. Rural GPs are traditionally known to work longer hours, work in multiple settings and cover a broader scope of practice – all of which could potentially deter GPs from moving to a remote or rural area (Shresta & Joyce, 2011).

The focus of this section of the Needs Assessment is to describe the health concerns commonly encountered by GPs, a description of the local workforce, after hours coverage and issues, and the activity of GPs associated with chronic disease management and potentially avoidable hospitalisations.

Key issues

- In Victoria, 25% of MBS item 23 consultations (standard consultation less than 20 minutes) involve patients aged 65 or over (2017-2018) (DoH, 2018).
- Patient out of pocket costs continue to increase per year at a rate higher than the consumer price index (CPI) (RACGP, 2018).
- 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 region and have a limited understanding of the local service system.
- 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 a shared care approach from primary and secondary health services but access to these services can be limited.
- Potential impact on recruitment and retention of rural GPs due to changes in MBS fee arrangements for non-Vocationally Registered GPs.
- RWAV identified six ‘hotspot’ SA2 areas in the Murray PHN Region that are experiencing, or at risk of, inadequate primary care access.
- The impact of GP shortages in rural communities leads to:
  - increased use of urgent care centres and emergency departments in hospitals
  - limited access to GP after hours in smaller communities and residential aged care facilities with additional implications when the GP has no admitting rights to hospital
  - limited ‘in hours’ GP services in smaller rural communities
  - impact on GPs where local government no longer undertakes child immunisation programs (Albury)
  - limited 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.
Health needs

- Psychological issues are the most common health issue managed by GPs (RACGP, 2018).
- General Practitioners identified mental health and obesity as the health issues causing them the most concern (RACGP, 2018).
- Of the encounters claimable from MBS/DVA: short surgery consultations as a proportion of all MBS/DVA-claimed consultations increased from 2006-07 to 2015-16 and standard surgery consultations decreased significantly. The proportion claimable as chronic disease management items, health assessments and GP mental health care all increased significantly (BEACH Survey, 2016).
- The most frequently managed GP consultations from 2006-07 to 2015-16 were from hypertension, check-ups and upper respiratory tract infection (BEACH Survey, 2016).
- The management rate of hypertension decreased from 9.6 per 100 encounters in 2006–07 to 7.5 per 100 in 2015–16. Due to the overall increase in the number of general practice encounters nationally, there were still an additional 800,000 encounters at which hypertension was managed in 2015–16 than in 2006–07 (BEACH Survey, 2016).
- The management rate of chronic conditions did not differ in 2015–16 (53.3 per 100 encounters) from that of 2006–07 (53.3 per 100 encounters). However, due to the increase in the number of GP visits nationally, it is estimated that GPs managed 21.1 million more chronic problems in 2015–16 than they did a decade earlier (BEACH Survey, 2016).
- The management rate of depression increased from 3.7 per 100 encounters to 4.2 per 100 between 2006–07 and 2015–16, suggesting about 2.2 million more occasions where depression was managed in 2015–16 than in 2006–07 (BEACH Survey, 2016).

Service needs

Description of evidence

- Number of GPs in the Murray PHN region:
  - GPs: 722
  - Rural GPs that are female: 301 (37.5%)
  - The average age of female GPs in the area is 47 years
  - The average age of male GPs in the area is 52 years (RWAV, 2017).
- There are approximately 219 practice managers (RWAV, 2017).
- There are approximately 317 practice nurses (RWAV, 2017).
- The number of general practice services in the Murray PHN is 187.
- There are 172 accredited general practice services (92%) in the Murray PHN region.
- The rate of general practice services sharing data with Murray PHN region is 79% (147) (as at Nov. 2019).
- Distinct districts experiencing general practice workforce shortage in 2015 were: Mildura, Ouyen, Murrayville, Boort, Wedderburn, Rushworth, Yea, Numurkah, Moyhu, Corryong, Wangaratta, Bethanga.
- RWAV-identified ‘hotspot’ SA2 areas in the Murray PHN Region that are experiencing, or at risk of, inadequate primary care access:
  - Robinvale
  - Kerang
  - Loddon (includes Boort, Wedderburn, Inglewood, Pyramid Hill)
  - Nagambie
  - Cohuna
  - Buloke (includes Charlton, Sea Lake, Donald, Wycheproof).
- During 2016-17, 82.6% of people in the Murray PHN region saw a GP in the previous 12 months, which is on par with the national average (82.5%) (AIHW, 2018c).
- In 2016-17, 14.5% of people in the Murray PHN region saw a GP in the previous 12 months for urgent medical care, higher than the national average of 11.2% (AIHW, 2018c).
• The percentage of people in the Murray PHN region who did not claim a GP attendance in the last 12 months (2016-17) was 9.9%, lower than the national percentage of 12.5% (AIHW, 2018c).

• 81.9% of GP attendances in the Murray PHN catchment in 2016-17 were bulk billed, compared with 85.7% nationally (AIHW, 2018c).

• The percentage of people that saw a GP after hours in the previous 12-months (2016-17) in the Murray PHN region was 8.4%, which is the same as the national percentage (AIHW, 2018c).

• Ageing workforce has resulted in reduced hours of work.

• 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.

• Evidence from Sunraysia Community Health Services is that 70% of clients die in hospital despite many stating preferences 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.

Potentially avoidable hospitalisations, chronic disease and GPs

• Relationship between potentially avoidable hospitalisations and lack of access to after hours GP services and lack of support for isolated GPs.

• Relationship between potentially avoidable hospitalisations and absolute GP shortages in some localities (e.g. Buloke/Mildura LGAs).

• Lack of communication regarding discharge planning and return to community services.

• 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.

• 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.

• 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.

• Number of GP team care arrangements and case conferences (MBS items 723, 732, 735, 758)
  - there were 105,022 cases of chronic disease GP team care arrangements and case conferences (2016-17) in the Murray PHN Region.

• 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).
HEALTH WORKFORCE

The information presented below summarises the issues related to the health workforce in the Murray PHN catchment. There is strategic opportunity for PHNs to support workforce planning, retention and development activities matched to the population health needs of their communities through the development and commissioning of services. As the Murray PHN catchment is predominantly rural, there is an ongoing risk that communities will not have adequate access to primary health services due to issues of service viability, recruitment, and geography.

A key area of the health workforce priority is the provision of ‘after hours’ services. After hours primary health care is “accessible and effective primary health care for people whose health condition cannot wait for treatment until regular primary health care services are next available. It should not be a substitute for primary health care that could otherwise occur ‘in hours’” (DoH, 2015).

Key issues

- Existing labour shortages across a range of professions and disciplines.
- Changing landscape of general practice – with increased work/life balance and reduced after hours, full time, and on-call work.
- 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.
Community voice

- Three key themes emerged from consultation with general practitioners regarding after hours:
  - changing workforce (improved GP work/life balance, more fractional staff, more female GPs, less ‘small town’ GPs, de-skilling or disempowerment of RACF and nursing staff via changed policies/risk shifting/clinical governance issues)
  - business/finance models (no, or very poor) ‘on call’ allowances to balance out the imposition/inconvenience, GP payments poor compared to peer specialists, PIP payments usually go to the practice, not the on-call doctor
  - changing community expectations
  - with a cultural shift to longer, 24-hour, or online shopping hours, and the age of ‘instant information’, there has been a reported shift in patients’ expectations for after hours medical service.

- Enablers for improving after hours access and potential opportunities all focus around the themes of:
  - telehealth (various methodology – direct patient to GP, patient to emergency physician, nurse to GP or physician, telephone, app or video based)
  - nurse facilitated care or triaging (RACFs, UCCs, practice nurses)
  - GP/practice collaborations/clusters/networks (supported further via telehealth triaging/care options)
  - workforce upskilling to ensure the above options work optimally (especially points one and two).

Service needs

Rural workforce

- 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 2016 data, the catchment had 14% of its workforce employed in the health care and social assistance industries (ABS, 2016c). For the Aboriginal and Torres Strait Islander population, the percentage was higher at almost 19% (ABS, 2016a).
- 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%.
- There are disparities in scope of practice expectations based on where general practitioners are trained impacting on service availability once the individual is practicing.
- There is a need for more rural generalists.

Access to specialist providers

- 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 (GP’s who have advanced skills in obstetrics, anaesthetics, small surgeries, emergency etc.)

• Referrals to medical specialists increased from 5.4 per 100 problems managed in 2006–07 to 6.2 in 2015–16. There was a significant decrease in the rate of referrals to ophthalmologists, and marginally significant increases in referrals to dermatologists, cardiologists and psychiatrists (BEACH Survey, 2016).

• The average number of specialist attendances per person for 2016-17 for the Murray PHN region (0.99) is comparable to the national average (0.95) (AIHW, 2018c).

• 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.

### Access to allied health practitioners

• 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.

• Referrals to allied health services increased from 2.1 per 100 problems managed in 2006–07 to 3.6 in 2015–16. This was reflected in significant increases in referral rates per 100 problems to physiotherapists, psychologists, podiatrists/chiropodists and dietitians/nutritionists (BEACH Survey, 2016).

• Two-to-three month waiting periods for appointments with a dietitian, 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 in 2018-19 for some LGAs in the Murray PHN catchment compared to the Victorian rate (2.59 per 1,000 persons) (VHISS, 2019). LGAs with the highest rates are: Mildura (6.18 per 1,000 persons), Swan Hill (4.27 per 1,000 persons), Campaspe (3.82 per 1,000 persons) and Benalla (3.4 per 1,000 persons). This can be interpreted in part to a lack of access to and or uptake of primary dental care.

• There is significant lack of paediatric allied health services catchment wide - especially for paediatric psychology, occupational therapy and physiotherapy. (Murray PHN regional team – sector interaction).
Health workforce

• 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.

After hours

• People living in outer regional, remote and very remote areas were almost twice as likely to report visiting an ED because a GP was not available when required, than those living in major cities (29% compared with 18%) (Australia) (ABS Patient Experiences in Australia Survey 2018-19).
• The main reasons why a patient went to ED rather than a GP (as collected by ABS Patient Experiences in Australia Survey, 2018-19) (Australia):
  - taken by ambulance or serious condition: 47.1%
  - GP not available when required: 20.5%
  - GP does not have required equipment/facilities: 12.4%
  - sent to emergency by GP: 10.5%
• Proportion of people in the Murray PHN region who went to the ED for their own health and at the time, felt the care could have been provided by a GP 28% (ABS Patient Experience Survey, 2013-14).
• The number of GP attendances in residential aged-care facilities per patient who received at least one visit for the Murray PHN region was 14.4, lower than the national average of 16.6, during 2016-17 (AIHW, 2018c).
• There are many general practices not in collaborative after hours arrangements and some practices have reported collaborative after hours arrangements across small towns ceased because they were unsustainable.
• 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.
• 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/telehealth technology to support remote consultation in after hours - improved support for rural communities with limited GP access.
• 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.
• 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.
• Advances in, and simpler use of, telehealth technology can act as an enabler to new models of after hours care.
• 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.
• Based on a recent review of six small rural hospitals, 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. 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.
DIGITAL HEALTH

Across the Murray PHN region, digital health offers a range of outcomes that will improve access to care, and improved health outcomes, for our predominantly rural communities. Although issues relating to internet quality and availability, as well as limited understanding of eHealth initiatives have been barriers, improved uptake of digital health across the catchment will improve the primary care patient experience.

Key issues

- Rural challenges of internet quality and reliability.
- Poor understanding and therefore uptake of benefits of digital health initiatives.
- Incompatible health service systems and software.
- Workforce readiness/ change management needs.
- Ongoing financial sustainability.
- Perceptions of telehealth as an alternative or optional way of receiving health care, rather than it being “how we do it”.
- Historical experiences with earlier digital health technology (both workforce and consumers).

Digital health

Digital Health is also referred to as eHealth and includes telehealth.

- Less than one-third of all GPs report using telehealth services (RACGP, 2018).
- 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.
- Lack of (and perceived lack of) inter-operable secure messaging.
- Variable infrastructure (poor internet connection in rural areas).
- Confusion and variability regarding video conferencing platforms for telehealth.
- Private health funds increasingly using eHealth apps and technology as they are aware of cost/ benefits.
- Under-use of telehealth for patients experiencing 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.
Murray HealthPathways provides up-to-date, localised information regarding best-practice for the assessment and management of common clinical conditions. As at October 2019, there are 475 localised pathways available.

- The most viewed pages in 2018-2019 were:
  - non-urgent adult mental health referrals
  - mental health referrals
  - contraception
  - hypertension
  - non-urgent child and adolescent mental health referrals
  - heavy or irregular menses.

- The most common search terms included:
  - hypertension
  - diabetes
  - gout
  - sinusitis
  - asthma
  - haematuria

The most viewed Suites included:
- medical
- women’s health
- child health
- Aboriginal and Torres Strait Islander health
- gynaecology
  (Murray HealthPathways, 2019).

- There is a knowledge gap between what the consumer expectations are around My Health Record and the reality of how some GPs and other health providers are using the My Health Record system. Many consumers or patients think as consent has been given, by having a My Health Record, that their medical information is automatically uploaded and available.

- Across Murray PHN’s catchment there are 434 health care provider organisations registered for the My Health Record system: 198 general practices, 128 pharmacies, 15 public hospitals and health services, four private hospitals and clinics, one aged care provider, 42 allied health, 15 specialists and 1 pathology and diagnostic imaging service.

- As of July 2019 for My Health Record, the national participation rate (the number of people who chose not to opt out as a percentage of the number of people eligible for Medicare as at 31 January 2019), is 90.1%. Victoria (89.3%) is lower than the national rate (ADHA, 2019).

- For the Murray PHN catchment January-June 2019:
  - the average number of shared health summaries uploaded to My Health Record per month was 2598.
  - the average number of event summaries uploaded per month was 104.
  - the average number of discharge summaries uploaded per month was 2395.
Digital health

Referral

- Lack of inter-operability between health services systems.
- Health service IT infrastructure remains fragmented. Access to regional broadband internet remains a significant barrier to interoperability (Murray PHN regional team – community interaction.
- There are 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.
- 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 to manage the demand, however the level of complexity and acuity continues to increase which affects waiting times.
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