

Population health

Needs Assessment

>2018-2022

NOVEMBER 2018











Contents

| ABBREVIATIONS | 4 |
|--|--|
| INTRODUCTION About our catchment Structure of the Needs Assessment Process Outcomes of the health needs analysis Outcomes of the service needs analysis Key issues Limitations Future directions | 5 5 6 7 7 8 9 |
| GENERAL POPULATION HEALTH Key issues Community voice Health needs Service needs In focus: Hazara community Data and consultation sources | 13 13 14 14 21 23 24 |
| PRIMARY MENTAL HEALTH CARE (including suicide prevention) Community voice Health needs In focus: Psychosocial support Service needs In focus: Place-based suicide prevention Data and consultation sources | 25 26 27 29 29 32 32 |
| ALCOHOL AND OTHER DRUGS Key issues Community voice Health needs Service needs Data and consultation sources | 33 33 33 33 37 38 |
| ABORIGINAL AND TORRES STRAIT ISLANDER HEALTH Aboriginal and Torres Strait Islander voice Health needs Service needs Data and consultation sources | 39 40 41 43 44 |

Murray PHN acknowledges the traditional owners of the lands we work on and would like to pay our respects to their elders past and present and extend that respect to all Aboriginal and Torres Strait Islander people.











Contents

| AGED CARE Key issues Community voice Health needs Service needs Data and consultation sources | 45 45 46 46 47 47 |
|--|----------------------------------|
| CHRONIC DISEASE Key issues Community voice Health issues Service needs Data and consultation sources | 48 48 49 50 51 54 |
| CHILD HEALTH Key issues Community voice Health needs Service needs Data and consultation sources | 55 55 55 56 59 |
| GENERAL PRACTICE Key issues Health needs Service needs | 60 60 61 61 |
| HEALTH WORKFORCE Key issues Community voice Service needs | 63 63 64 64 |
| DIGITAL HEALTH Key issues Digital health Referral | 67 67 67 69 |
| REFERENCES | 70 |

This Needs Assessment was accepted by the Department of Health (Commonwealth) in February, 2019

The programs and initiatives outlined within have been made possible through funding provided by the Australian Government under the PHN Program.











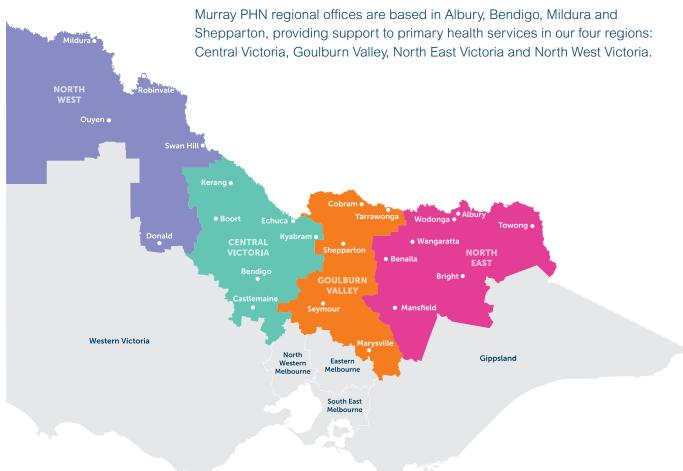
Abbreviations

| ABS | Australian Bureau of Statistics | МН | Mental Health |
|-------------|---|--------|--|
| ACCOs | Aboriginal Community Controlled Organisations | MHNIP | Mental Health Nurse Incentive Program |
| ACP | Advanced Care Planning | | Mental Health Services in Rural and |
| ACSC | Ambulatory Care Sensitive Conditions | | Remote Areas |
| ADHD | Attention Deficit Hyperactivity Disorder | MHTP | Mental Health Treatment Plans |
| ADIS | Alcohol and Drug Information System | MMM | Modified Monash Model |
| AEDI | Australian Early Development Index | MPHN | Murray Primary Health Network |
| AH | After-hours | MRI | Magnetic Resonance Imaging |
| AIHW | Australian Institute of Health and Welfare | MTOP | Medical Termination of Pregnancy |
| AOD | Alcohol and Other Drugs | MyHR | My Health Record |
| AS | Age Standardised | NBCSP | National Bowel Cancer Screening Program |
| ASSAD | Australian Secondary Students Alcohol and | NDIS | National Disability Insurance Scheme |
| | Drug Survey | NE | North East – Murray PHN region |
| ATAPs | Access to Allied Psychological Services | NFP | Not for Profit |
| BEACH | Bettering the Evaluation and Care of Health | NW | North West – Murray PHN region |
| CALD | Culturally and Linguistically Diverse | OOHC | Out of Home Care |
| CANSAS | | PAH | Potentially Avoidable Hospitalisation |
| | Assessment Scale | PATCAT | Practice Aggregation Tool for the Clinical |
| CDM | Chronic Disease Management | | Audit Tool |
| CHF | Congestive Health Failure | PCP | Primary Care Partnership |
| CHSP | Commonwealth Home Support Program | PDSA | Plan Do Study Act |
| COPD CoS | Chronic Obstructive Pulmonary Disease Continuity of Support | PHIDU | Public Health Information Development Unit (Torrens University) |
| CPD | Continuing Professional Development | PHN | Primary Health Network |
| CPI | Consumer Price Index | PIP | Practice Incentive Payment |
| CV | Central Victoria – Murray PHN region | PIR | Partners in Recovery |
| CYMHS | Child and Youth Mental Health Services | PMHCCC | Primary Mental Health Clinical Care Coordination |
| DET | Department of Education and Training | PTS | Psychological Therapy Services |
| DHHS | Victorian Government Department of Health | RACF | Residential Aged Care Facility |
| | and Human Services | RACGP | Royal Australian College of General Practitioners |
| DHSV | Dental Health Services Victoria | RFDS | Royal Flying Doctor Service |
| DoH | Australian Government Department of Health | RIPERN | Rural and Isolated Practice Endorsed |
| DVA | Department of Veterans Affairs | | Registered Nurse |
| ED | Emergency Department | RWA | Rural Workforce Agency Victoria |
| ENT | Ear Nose Throat | SA | Statistical Area |
| FOBT | Faecal Occult Blood Test | SEIFA | Socio Economic Indexes for Areas |
| GP | General Practitioner | SES | Socioeconomic Status |
| GPMP | General Practitioner Management Plan | SR | Standardised Ratio |
| GSD | Gender and Sexually Diverse | SRH | Sexual and Reproductive Health |
| GV | Goulburn Valley – Murray PHN region | STI | Sexually Transmitted Infections |
| HPV | Human Papillomavirus | STOP | Surgical Termination of Pregnancy |
| IARE | Indigenous Areas (statistical geographic unit) | TCA | Team Care Arrangement |
| IT | Information Technology | UCC | Urgent Care Centre |
| K10 | Kessler 10 Psychological Distress Scale | VACCHO | Victorian Aboriginal Community Controlled |
| LGA | Local Government Area | VAED | Health Organisation Victorian Admitted Epicodes Dataset |
| LGBTIQ | Lesbian Gay Bisexual Transgender Intersex Queer | VAED | Victorian Admitted Episodes Dataset Victorian Child and Adolescent Monitoring System |
| LHN | Local Hospital Network | VEMD | Victorian Emergency Minimum Dataset |
| LMM | Loddon Mallee Murray | VHISS | Victorian Health Information Surveillance System |
| MBS | Medicare Benefits Schedule | VPHS | Victorian Population Health Survey |
| טטואו | Micalcare Deficites deficable | VI 110 | violonan i opulation i loaith ourvey |

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.



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.

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.

Murray PHN began this process in September 2015 and this document was updated during November 2017. In readiness for the 2018-22 prioritisation and planning process, it has recently been reviewed and updated. 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.

Outcomes of the health needs analysis

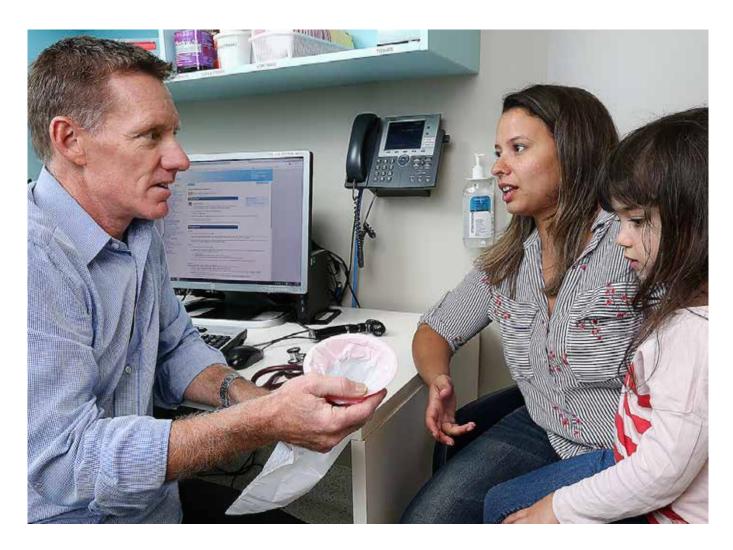
Each health priority area includes information, summarising the findings of the health needs analysis to date, including risk factors, comorbidities, and vulnerable populations.

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.

Further information on the health and wellbeing profile of the catchment can be accessed via Murray Exchange, our data repository of health indicators (https://exchange.murrayphn.org.au/).

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.





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 to support healthy ageing and provide adequate services for those with complex needs.
- Lower SEIFA scores than state and national median indicating high rates of disadvantage.
- Emerging health service access issues with regards to refugee health, women's sexual and reproductive health services and child health.
- The catchment is 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 to strengthen partnerships with Aboriginal Community Controlled Organisations to ensure services are based on self-determination and meet the needs of local Aboriginal and Torres Strait Islander communities.
- Limited access to geriatricians and GPs in aged care.
- The transition 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 for 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 regards 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.

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 embargos 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 to the PHN through data sharing agreements earlier. 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 'Murray Exchange', has been a significant milestone in the assembly of quality health-related information that is as contemporary, meaningful and as accessible as possible for broad stakeholder and community consideration.

Murray Exchange

Through the design and development of Murray PHN's approach to population health knowledge, Murray Exchange, Murray PHN has generated the following 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 Murray 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. The next phase of the Needs Assessment process, which may be conceptualised at the beginning of next year's update, is to use this report to engage with primary

health service partners and key stakeholders to confirm the presented data, identify local nuances masked in population-level information, and refine the data so this continues to be a living resource available to inform decision-making at both the local and catchment level.

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 care sector across the Murray PHN catchment.



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.
- Fifty-five of the 68 Statistical Areas (SA2 level) in the Murray PHN catchment have SEIFA scores less favourable than the Victorian average, and 19 areas are classified as extreme in terms of SEIFA and remoteness.
- 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 as 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 15 of the 22 LGAs within the Murray PHN catchment and life expectancy in the Murray PHN region is lower than the national average.
- Victorians living in regional and remote locations have a poorer cancer survival expectancy: approximately 4% lower than those who live in Melbourne.
- More than 50% of LGAs within Murray PHN's catchment have cancer screening participation rates that are lower for breast, cervical and bowel cancer compared with the Victorian average.
- Fourteen 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 dental clinics is limited in our region.





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.

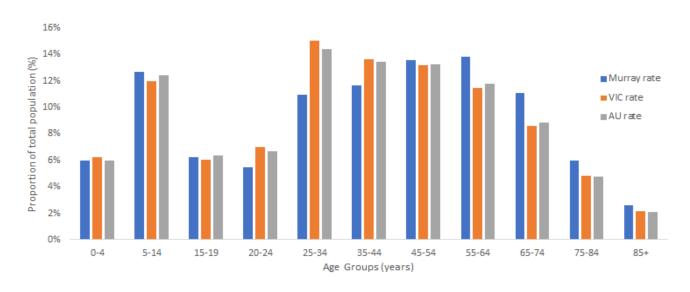


Health needs

Description of evidence

Demographics

- The Murray PHN region had a total population of approximately 644,457 persons in 2016. The catchment is projected to experience steady population growth over the next 10 years. In round figures, Central Victoria has 230,400, North East 175,400, Goulburn Valley 157,800 and North West 80,600 (ABS, 2016d).
- 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, and a significantly lower proportion of people aged 25-44 within the Murray PHN region (Murray Exchange, 2016).
- In some communities, particularly rural local government areas such as the Shire of Gannawarra and the Shire of Strathbogie, people aged over 65 years represent more than one quarter of the total local government area population (ABS, 2016d).



• The birth rate (number of births per 1,000 females) is lower in the Murray PHN region (21.9) compared to the Australian rate (25.6), however, the local government areas of Greater Shepparton (30.2), Mildura (28.0), Swan Hill (31.9), Wodonga (28.3) and Albury (28.2) are all significantly higher than the National rate (ABS, 2016d).

Disadvantage and income

- Fifty-five of the 68 Statistical Areas (SA2 level) in the Murray PHN catchment have SEIFA scores less favourable than the Victorian average (DoH, 2017a).
- Specific communities of significant disadvantage include California Gully – Eaglehawk (903), Cobram (904), Seymour (899), Upper Yarra Valley (846) and Robinvale (872).
- Loddon is ranked the second most disadvantaged LGA in Victoria and Mildura (ranked 4th) and Swan Hill (10th) are also in the 10 most disadvantaged LGAs in Victoria. Murray PHN has eight LGAs ranked within the lowest 20 in Victoria.
- 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).
- In 2014, Murray PHN's population was more likely to receive Centrelink income support payments, age pension, disability support payment or the sole parent payment (females only) compared with the Victorian average. The North West region had the highest proportion of population receiving any three of these Centrelink income support payments.
- The proportion of people receiving Newstart in the Murray PHN region (3.61%) is higher than the Victorian rate (2.81%). The local government areas of Mildura, (4.49%), Loddon (4.67%), Greater Shepparton (4.33%), and Albury (4.36%) were significantly higher than the Murray PHN rate (DSS, 2018a).

Mortality

- Life expectancy at birth (2014-2016) in the Murray PHN region is 81.2 years, which is lower than the national rate (82.5 years) (AIHW, 2018).
- The top five causes of mortality in the Murray PHN region in 012-2016 were coronary heart disease (12.7%), dementia and Alzheimer's disease (6.8%), cerebrovascular disease (6.4%), COPD (5.3%) and lung cancer (5.2%) (AIHW, 2018).

- Avoidable mortality (0-74 years):
 - There are 122 deaths per 100,000 people that are potentially avoidable in the Murray PHN region, which is higher than the national rate of 106 per 100,000
 - Central Victoria has five LGAs well above the Victorian rate
 - All LGAs in the Goulburn Valley region are above - notably Murrindindi at 276.4 is more than double the Victorian rate.
 - North East has five of eight LGAs above the Victorian rate
 - North West has all three LGAs above the Victorian rate per 1,000 (AHIW, 2017).
- Compared with metropolitan Melbourne, the Murray PHN region has higher premature mortality rates for all causes, except cardiovascular diseases.

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 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 Hil: 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).

- The rate of newly arrived settlers for humanitarian reasons between January 2017 to March 2018 was 0.74 per 1,000 persons across the Murray PHN region. This is lower than the national rate of 0.83. There are several LGAs with rates higher than the national average including Albury (1.55 per 1,000), Alpine (0.81), Greater Bendigo (1.0), Greater Shepparton (2.69), Mildura (0.98), and Wodonga (1.14) (DSS, 2018b).
- 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, 2016).
- The percentage of people who receive the disability support pension (DSP) in the Murray PHN catchment is 4.37% which is higher than the Victorian rate (3.12%) (DSS, 2018a):
 - the local government areas of Loddon (6.88%), Benalla (5.43%), Buloke (5.18%), Mildura (5.27%) and Gannawarra (5.02%) are the highest
 - approximately 38% of those receiving the DSP have a disability related to mental illness (MPHN, 2018a).
- The Murray PHN catchment includes 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). The 10th anniversary of the fires is in 2019 and may lead to increased demand for support for those affected.





 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, 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 on an average day is comparable in the Murray PHN region (20.2%) compared with Victoria (20.1%). However, the local government areas of Alpine (25.9%) and Shepparton (29.4%) reported one in four people has contact with fewer than five people per day (VPHS, 2014).

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).
- Fifteen out of 22 LGAs within the Murray PHN catchment reported experience with transport limitation in the last 12 months (DHHS, 2015).
- 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). 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) were the LGAs with the highest rates.
- 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, 2017a).



Modifiable health risk behaviours

- Across the Murray PHN region, the LGAs of Alpine (42%), Indigo (47%), Mitchell (45%), Moira (46%), and Strathbogie (41%) have a lower proportion of people meeting the national fruit and vegetable consumption guidelines, compared to the Victorian average (49%) (DHHS, 2015).
- All of the LGAs in the Murray PHNregion, aside from Mildura (9%) and Macedon Ranges (11%), have a higher proportion of people who consume sugar-sweetened soft drink daily, compared to the Victorian average (11%) (DHHS, 2015).
- The percentage of people in the Murray PHN region who do not meet physical activity guidelines (54.4%) is comparable to the Victorian rate (54%). The Shires of Mount Alexander and Benalla have the highest percentages of people who do not meet physical activity guidelines (61.3% and 60.5% respectively) (DHHS, 2015).

Self-reported health

- Across the Murray PHN region, approximately 14.8% of people rank their health as fair or poor, which is lower than the Victorian average (15.9%). The local government areas of Alpine (19.3%), Buloke (21.6%), Loddon (18.4%) and Moira (18.8%) had the highest percentage in the region for people ranking their health as fair or poor, while Benalla (9.8%), Mansfield (9.9%), and Wangaratta (9.3%) were the lowest (DHHS, 2015).
- 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 (2011-15) 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 (2011-15) was 1.6 per 100,000 persons (age standardised), compared to the national rate of 1.7 per 100,000 persons. (AIHW, 2018).



Cancer screening rates

- Bowel cancer:
 - bowel cancer screening participation rates in people aged 50-74 across the Murray PHN region are higher than the Australian rate (45% compared to 40.9%). Within the catchment, the SA3 area of Mildura (40.3%) was the only area lower than the Australian rate (AIHW, 2015-16)
 - compared with the 2016 Victorian average of 8.1%, rates of new diagnosis of those screened for bowel cancer were greatest in Loddon (11.2%), Gannawarra (11.1%), Swan Hill (9.9%), Moira (9.8%), Greater Shepparton (9.5%) and Mitchell (9.4%).

· Breast cancer:

- breast cancer screening participation rates in women aged 50-74 in the Murray PHN region (55.6%) are higher than the national average (54.8%). The SA3 areas of Albury (52.2%), Wodonga-Alpine (45.9%) and Loddon-Elmore (54.2%) are the only areas lower than the national average (AIHW, 2015-16).

· Cervical cancer:

- cervical cancer screening rates 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, and Albury (88.2%) is significantly higher, as is Heathcote-Castlemaine-Kyneton (66.5%) (AIHW, 2015-16).



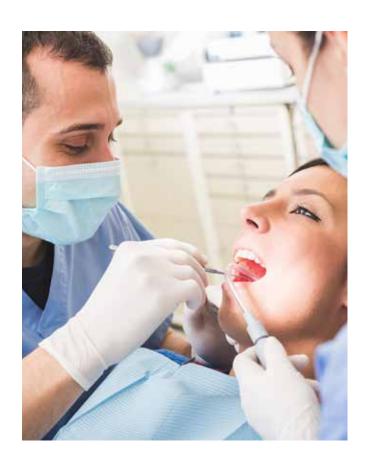
Child immunisation rates

- The percent of children who were fully immunised in the Murray PHN region (AIHW, 2018b):
 - fully immunised at 1 year: 94.2%
 - fully immunised at 2 years: 91.8%
 - fully immunised at 5 years: 95.2%.
- The LGAs within the Murray PHN region with 100% of 5-year-old children fully immunised as at 30 June 2018 are Alpine, Buloke and Gannawarra. Towong (88.24%) and Strathbogie (90.91%) had the lowest percentages of 5-year-olds fully immunised (AIHW, 2018b).
- In the Murray PHN region, 81.5% of girls, and 76.2% of boys were fully immunised against HPV (AIHW, 2018b).

Oral health

- The ambulatory care sensitive condition rate for dental conditions was higher than the Victorian average in approximately half of the Murray PHN catchment LGAs. Mildura had the highest rate, followed by Gannawarra then Buloke. (VHISS, 2018)
- Across the catchment, 14 of 21 LGAs report higher rates of persons delaying visiting a dental professional due to cost (2011/12) and every area indicates a lower than Victorian percentage of persons visiting a dental professional in the previous 12 months (2011/12) (VPHS, 2014).
- Approximately half of the Murray PHN LGAs had populations that described their dental health as fair or poor. Within the catchment, Murrindindi, Swan Hill, Gannawarra, Mount Alexander, Benalla and Mitchell all had a notably higher rate compared with the Victorian average.

- Compared with the Victorian average, all Murray PHN LGA populations were less likely to have visited a dental professional in the last 12 months. The lowest proportion was seen in Gannawarra, followed by Campaspe then Moira.
- The 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.
- 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).

- The rate of Hepatitis B in women in the Murray PHN region (1.2 per 10,000) was higher than the Victorian rate (1 per 10,000), with higher rates in Buloke (4 per 10,000), Loddon (3 per 10,000), and Towong LGAs (4 per 10,000) (VWHA, 2018).
- Approximately 200,000 Victorian women have endometriosis, however numbers are approximate due to lack of data collection procedures for the condition (Endometriosis Australia, 2018).
- Up to 20% of Australian women of childbearing age are affected by polycystic ovary syndrome (Jean Hailes, 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 January 2017 to March 2018 was 0.74 per 1,000 persons across the Murray PHN region. This is lower than the national rate of 0.83. There are several LGAs with rates higher than the national average including Albury (1.55 per 1,000), Alpine (0.81), Greater Bendigo (1.0), Greater Shepparton (2.69), Mildura (0.98), and Wodonga (1.14) (DSS, 2018b).
- 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).

🕇 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.
- 37% of adults stated they could not access their preferred GP in the preceding 12 months (2013-14).
- In 2013–14, the percentage of adults who felt they waited longer than acceptable to get an appointment with a GP was higher in the Murray PHN region than national averages.
- In 2015–16, the overall percentage of adults who were admitted to any hospital in the preceding 12 months was slightly less than the national average.
 This is a reduction from previous years.
- In 2015–16, the percentage of adults who went to a hospital emergency department for their own health in the preceding 12 months was significantly higher than the national average (19% compared with 13.5%). Murray is ranked the third-highest PHN nationally for visits to a hospital emergency department.

- In 2015–16, the percentage of adults who delayed or avoided filling a prescription due to cost in the preceding 12 months was higher than the national average.
- In 2015–16, the number of specialist attendances per person, age-standardised, was lower for the Murray PHN region than national averages.
- In 2015–16, the percentage of adults who reported having a long-term health condition was 57.8%, compared with 50.2% nationally.

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 healthcare 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.

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.



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 14 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 at February 2018, were:
 - Mallee Track:11.2 months
 - Sunraysia Community Health: 14.7 months
 - Boort District Health: 9.0 months
 - Echuca Regional Health: 22.1 months
 - Swan Hill District Health: 0.2 months
 - Goulburn Valley Health: 11.4 months
 - Bendigo Health: 9.4 months
 - Seymour Health: 23.2 months
 - Northeast Health: 25.5 months
 - Albury-Wodonga Health: 20.3 months
 - Rumbalara: (unknown)
 - Victorian Average: 19.7 months (ADAVB, 2018).



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 to healthcare 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 has a background as a doctor, 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).

| Area | Census 2016 Australia | Community leader population size estimates | Community leader estimated population breakdown by sex - male | Community leader estimated population breakdown by sex - female | Community leader population size estimates by age |
|-----------------------|-----------------------------|--|--|--|--|
| Greater Shepparton | 755 | Up to 2000 | 60% | 40% | 65% <50 25% <18 |
| Mildura | 260 | Over 900 | 58% | 42% | 72% < 50 24% < 18 |
| Swan Hill | 162 | Over 270 | 62% | 38% | 60% <50 18% <18 |
| Greater Bendigo | 90 | Up to 200 | 55% | 45% | 95% < 50 35% < 18 |

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 custom 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).



Data and consultation sources

- Murray PHN regional team community interaction (Nov 2016-July 2017).
- Murray PHN Clinical, community and Indigenous health councils (Nov 2016-July 2017).
- Murray Health Voices community voice feedback (July 2017).
- Population Health Planning Network (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).
- Women's Sexual and Reproductive Health Needs in the Murray Region: Final Report (2018).
 Women's Health Loddon Mallee, Bendigo.

PRIMARY MENTAL HEALTH CARE (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

- Five LGAs have populations with identified high and very high levels of psychological distress significantly higher than the Victorian rate of 12.6%.
- Thirty three percent of mental health treatment plan activities were for a review of the plan.
- There are over 45% more registered mental health clients in the Murray PHN region compared with the Victorian average.
- 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.
 Avoidable deaths for suicide and self-inflicted injuries in the Murray PHN region were 40% above the state
 average (PHIDU, 2018).
- Females account for 69% of all self-harm injury hospital admissions.
- 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.

(+)

Health needs

Description of evidence

Registered mental health clients

- Benalla (26.3 persons per 1,000, agestandardised), 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 rate per 10,000

- The mental health overnight hospitalisation rate (2015-16) in the Murray PHN region (93 per 10,000) is lower than the national average (102 per 10,000) (AIHW, 2017).
- The SA3 areas of Albury (106 per 10,000),
 Wangaratta-Benalla (103 per 10,000), and Murray
 River-Swan Hill (106 per 10,000) are all higher
 than the national average (AIHW, 2017).

Proportion (%) of 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).

MBS rates for focused psychological strategies (Better Access - MBS)

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

Rates of GP Mental Health Treatment Plans (MHTPs)

- Shepparton (281), Bendigo (209), Mildura (175), Moira (169) and Wodonga-Alpine (162) had higher rates of MHTPs per 1000 persons than the Murray PHN average (151).
- In contrast to those that had higher levels of MHTP, the following LGAs had a higher rate of MHTP reviews (as a percentage of MHTPs attended): Heathcote Castlemaine Kyneton (68%), Loddon Elmore (59%), Wodonga Alpine (50%), Upper Goulburn Valley (49%), Wangaratta Benalla (44%). These are all above the Murray PHN average of 33% reviews as a proportion of attended MHTPs (AIHW, 2017).

Partners in Recovery

- Partners in Recovery (Hume): 211 participants.
- Partners in Recovery (Loddon Mallee Murray):
 229 participants.
- Both programs are running close to maximum client level (271 combined) and have implemented a waitlist management process.
- NDIS participants supported under in-kind as of October 18 (Hume): 50 participants.
- NDIS participants supported under in-kind as of October 18 (LMM): 46 participants.
- Current NDIS ineligible rate for Hume and LMM is 23% and 20% respectively. PIR participants ineligible for NDIS at 30 June 2019 will transition to Continuity of Support (CoS) arrangements.
- Local Camberwell Assessment of Need Short Assessment Scale (CANSAS) data from Murray PHN's PIR programs confirm unmet needs:
 - Daytime Activities and Company are consistently within the top four highest areas of unmet needs in both programs from 2013-2016 (CANSAS).



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 were 24.4% above the state standardised ratio of 86 (AIHW, 2017). (A standardised ratio (SR) is a comparison to the Australian ratio that is assigned a value of 100).
- Females accounted for 69% of all Murray PHN catchment hospital separations for self-harm injuries.
- Rates of hospital separations for intentional selfharm is high compared with the state average in two of four regions within Murray PHN, and the rate of hospital separations for intentional selfharm for Aboriginal and Torres Strait Islander people is significantly higher than the non-Aboriginal and Torres Strait Islander population.
- Compared with the Victorian standardised ratio of 86, all Murray PHN LGAs except Campaspe have a higher rate of avoidable deaths from suicide and self-inflicted injuries (PHIDU, 2018).
- Strathbogie had the highest rate of avoidable deaths from suicide and self-inflicted injuries, followed by Benalla (161), Murrindindi (156), Macedon Ranges (150) and Albury (140). (PHIDU, 2018)
- North West region of Murray PHN experienced the highest rate of public hospital separations for intentional self-harm, at 13% higher than the state average. The next highest region was Goulburn Valley which is also above the state average.



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 Murray PHN Region: 87
- North East Murray PHN Region: 83
- Central Victoria Murray PHN Region: 156
- Goulburn Valley Murray PHN Region: 174.

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.



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.

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 leads two Partners in Recovery (PIR) programs in its region: Loddon Mallee Murray (LMM) and Hume with a regional coverage that is slightly divergent to Murray PHN's footprint, operating in four NDIS rollout regions: Loddon, Murrumbidgee, Ovens Murray and Mallee.
 - the Loddon NDIS region 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 have 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.



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 community interaction (Nov 2016-July 2017)
- Murray PHN evaluation and feedback from GP continuing professional development sessions (Nov 2016-July 2017)
- Murray PHN Clinical, Community and Indigenous health councils (Nov 2016-July 2017)
- Murray Health Voices community voice system (July 2017)
- Partners in Recovery (PIR) Needs Assessment (through a consultative process with consumers, carers and feedback from PIR clients)
- report: Contributing Lives, Thriving Communities Review of Mental Health Programs and Services, National Mental Health Commission (2015)
- 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 (Methamphetamine in the Murray Primary Health Network paper, 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.

Alcohol and Other Drugs

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, 2017).

Alcohol consumption

- Consumption of alcohol recorded in 2014 at levels leading to harm over the lifetime was 6.5% greater than the state average of 59.2 per 1000 persons (VPHS, 2014). Eight LGAs have populations who consume alcohol at a level that leads to alcohol related harm over their lifetime above the Victorian rate, they are:
 - Indigo (74.3 per 1,000 persons)
 - Murrindindi (73.4 per 1,000 persons)
 - Alpine (71.5 per 1,000 persons)
 - Wodonga (71 per 1,000 persons
 - Mansfield (69.8 per 1,000 persons)
 - Towong (68.5 per 1,000 persons)
 - Moira (68.1 per 1,000 persons)
 - Campaspe (65.6 per 1,000 persons).

Proportions of the adult population across the Murray PHN region who consume alcohol at a level leading to increased risk of alcohol-related harm on a single occasion was greater than the state average of 42.5% of the population, and 18 LGAs have populations who consume alcohol at a level that leads to increased risk of alcohol related harm on a single occasion are above the Victorian average (DHHS, 2015):

- Murrindindi (S): 58.7%

- Indigo (S): 58.3%

- Alpine (S): 56.1%

- Towong (S): 55.4%

- Moira (S): 53.9%

- Wodonga (RC): 53.1%

- Swan Hill (RC): 52.5%

- Greater Shepparton (C): 49.7%

- Campaspe (S): 49.3%

- Mildura (RC): 46.5%

- Mitchell (S): 46.4%

- Mansfield (S): 46.3%

- Buloke (S): 45.6%

- Macedon Ranges (S): 44.3%

- Greater Bendigo (C): 44.1%

- Wangaratta (RC): 43.5%

- Mount Alexander (S): 43.2%

- Strathbogie (S): 43.0%.

Alcohol-related hospitalisations

Rates for alcohol-related hospitalisations per 10,000 population in the Murray PHN region were significantly greater than the Victorian rate in three LGAs:

Wangaratta: (24% greater)

• Benalla: (12% greater)

• Mount Alexander: (7.5% greater).

Alcohol-related ambulance attendances

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

Alcohol and Other Drugs

Alcohol-related serious road injuries

In 2015/16, 1885 alcohol-related serious road injuries occurred in the PHN. Rates across the Murray PHN region were significantly above the Victorian rate (2.9 per 10,000 people) in 10 LGAs:

- Loddon (16.5 per 10,000 people)
- Strathbogie (11.2 per 10,000 people)
- Alpine (9.2 per 10,000 people)
- Gannawarra (9 per 10,000 people)
- Mansfield (8.4 per 10,000 people)
- Murrindindi (8 per 10,000 people)
- Benalla (6.7 per 10,000 people)
- Indigo (5.8 per 10,000 people)
- Mitchel (4.1 per 10,000 people)
- Macedon Ranges (5.1 per 10,000 people)
- Mount Alexander (2.8 per 10,000 people)
- Campaspe (2.5 per 10,000 people).

Alcohol-related assaults

The following 13 LGAs have alcohol-related serious assault rates from 1.11 to 2.36 times greater than the Victorian rate:

• Mildura: 2.36 (times greater)

• Shepparton: 2.36 (times greater)

Benalla: 2.17 (times greater)

Mansfield: 1.95 (times greater)

Mitchell: 1.94 (times greater)

• Swan Hill: 1.78 (times greater)

Campaspe: 1.71 (times greater)

Murrindindi: 1.4 (times greater)

Towong: 1.4 (times greater)

Wodonga: 1.33 (times greater)

Wangaratta: 1.27 (times greater)

Strathbogie: 1.23 (times greater)

Greater Bendigo: 1.11 (times greater).

Alcohol-related family violence

Alcohol-related family violence rates in 2015/16 were also disproportionately higher when compared with the Victorian rate in 16 LGAs within the Murray PHN region (23.1 per 10,000 people):

- Swan Hill (98.5 per 10,000 people)
- Mildura (83 per 10,000 people)
- Benalla (53.4 per 10,000 people)
- Campaspe (52.8 per 10,000 people)
- Wangaratta (47.3 per 10,000 people)
- Wodonga (44.6 per 10,000 people)
- Towong (43.4 per 10,000 people)
- Gannawarra (41.9 per 10,000 people)
- Mitchell (41.1 per 10,000 people)
- Loddon (39.8 per 10,000 people)
- Greater Bendigo (32.7 per 10,000 people)
- Murrindindi,(29.9 per 10,000 people)
- Strathbogie (28.5 per 10,000 people)
- Buloke (26.9 per 10,000 people)
- Alpine (26.1 per 10,000 people)
- Moira (24.3 per 10,000 people).

Alcohol-related deaths

The rate of alcohol-related deaths (2014) in the Murray PHN catchment, including in each of its four regions, were greater than the Victorian average. The highest rates were recorded in Central Victoria (2.4 times greater) and North West (1.4 times greater).

Alcohol-related episodes of care

Compared with the Victorian average rate of 28.8 (2014/15), the rate of alcohol and drug episodes of care for alcohol-related problems was notably higher for the Murray PHN catchment 34.23 (18.8% greater), including each of its four regions. The North West and Central Victoria regions had the highest rates - both were substantially higher than the Victorian average.

Alcohol and Other Drugs

Illicit drug-related episodes of care

- The rate of AOD episodes of care for illicit drugrelated problems (2014/15) was notably higher for the North West and Central Victoria regions of the catchment, having a substantially higher rate than the Victorian average (38.9 per 10,000 people):
 - Mildura (83.5 per 10,000 people)
 - Gannawarra (79.5 per 10,000 people)
 - Greater Bendigo (63.8 per 10,000 people)
 - Campaspe (48.8 per 10,000 people)
 - Greater Shepparton (47.9 per 10,000 people)
 - Swan Hill (46.6 per 10,000 people).

Illicit-drug related hospitalisation and ambulance attendance rates

- Hospitalisation rates for illicit drug use were higher compared with the state average for eight LGAs within the Murray PHN catchment, with Mount Alexander being particularly high (33% greater).
- The rate of hospital separations for alcohol/drug use and alcohol/drug use-induced organic mental disorders is at, or below, the Victorian average in all Murray PHN regions.
- There were 9,038 illicit drug-related ambulance attendances (2011-12/2013-14). (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

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

Methamphetamine-related Alcohol and Drug Information System, (ADIS) episodes of care 2010-2015

The number of ADIS episodes of care for illicit drug related problems in Greater Shepparton (19.3%) Mildura (18.9%) and Greater Bendigo (17.1%) comprise over 55% of the total Murray PHN catchment in terms of ADIS episodes of care delivered.

Methamphetamine offences 2010-2016

- 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 Greater Shepparton in 2016. For the period 2014-2016, 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.

Alcohol and Other Drugs



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).

Alcohol and Other Drugs

- 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 community interaction (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 Clinical, Community and Indigenous health councils (Nov 2016-July 2017)
- Murray Health Voices community voice system (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" (NAHSWP, 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 all 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 pledge that future versions 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, 2016).
- 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 the hospital separation data. Hospital separations by Aboriginal and Torres Strait Islander status show Aboriginal and Torres Strait Islander rates in the North West region to be nearly twice the average rate recorded for Victoria.
- Aboriginal and Torres Strait Islander people experience emergency department presentations for psychiatric illness at a rate 76% higher than non-Aboriginal and Torres Strait Islander Australians.
- 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).



(+)

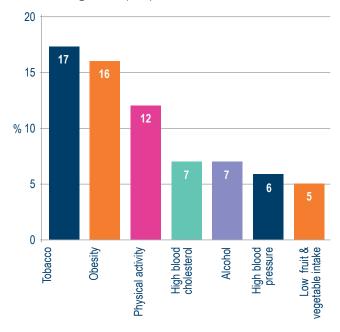
Health needs

Description of evidence

Mortality, social determinants and health-related behaviours

- Life expectancy for Aboriginal and Torres Strait Islander people in 2013:
 - males born in Australia in 2010-2012 could expect to live to 69.1 years, which is 10.6 years less than the life expectancy for non-Indigenous males (79.7 years)
 - females born in Australia in 2010-2012 could expect to live 73.7 years, which is 9.5 years less than the life expectancy for non-Indigenous females (83.1 years) (Healthinfonet, 2018).
- 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).
- 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).
- For self-assessed health in the Murray PHN region 3.2% people rated their health as Fair or Poor (2012-13).
- Risk factors contribution (%) to the health gap between Aboriginal and Torres Strait Islander and non-Indigenous people:



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

Health assessments

- During 2016-17, there were 4,252 patients who received Aboriginal Health Assessments (MBS item 715) in the Murray PHN region, indicating a usage rate of approximately 27.48% (AIHW, 2018).
- During 2015-2016, 4,161 Aboriginal and Torres Strait Islander health assessments were billed (MBS item 715) in the Murray PHN region. Based on an Aboriginal and Torres Strait Islander population of 15,473, that is a usage rate of 26.9% (AIHW, 2016).

Chronic disease

Nationally, disease rates for Aboriginal and Torres
 Strait Islander people are higher for diabetes
 complications (4.1 times the national rate), chronic
 obstructive pulmonary disease (five times the
 national rate) and heart failure (2.7 times the
 national rate).

- Higher rates are recorded for cellulitis (three times the national rate) and kidney and urinary tract infections (2.2 times the national rate).
- Across Australia, for the period 2009-2013, there were 6,397 new cases of cancer diagnosed in Aboriginal and Torres Strait Islander people (AIHW, 2018). 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, 2018).
- Aboriginal and Torres Strait Islander ED
 presentation rates for respiratory system illnesses
 (2011/12 to 2013/14) are higher in all areas of the
 Murray PHN region than Victoria.
- Aboriginal and Torres Strait Islander population hospital separation rates for respiratory system diseases and disorders were higher for the Murray PHN catchment than the Victorian average (19.6 compared with 15.9 per 100,000).

Mental health

- Public hospital separations for intentional selfharm injuries by Aboriginal and Torres Strait Islander status show Aboriginal and Torres Strait Islander rates are slightly higher in Goulburn Valley than Victoria.
- In Albury, the admission rates (2012/13) for mental health-related conditions for Aboriginal and Torres Strait Islander persons are more than double the Victorian Aboriginal persons rate.
- ED presentations for psychiatric illness in Aboriginal and Torres Strait Islander persons in Victoria 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, 2015/16)

- 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.
- 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 (147.5 versus 64.4 per 10,000 population respectively) (AIHW, 2016-17).

Alcohol and other drugs

- The rate of Aboriginal and Torres Strait Islander persons who exceeded single occasion alcohol risk guidelines in Victoria was 27.7% (AIHW, 2014-15), which is lower than the non-Indigenous state average of 42.5%.
- Across Victoria, the proportion of Aboriginal and Torres Strait Islander persons who exceeded alcohol consumption guidelines for lifetime risk was 3.5 per 1,000 (AIHW, 2014-15).
- The age-standardised mortality rate of deaths related to alcohol use in Australia, for Aboriginal and Torres Strait Islander persons is 24.3 (per 100,000), higher than the non-Indigenous rate of 4.8 (per 100,000) (2015).
- 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, 2017).
- The smoking rate for Aboriginal and Torres Strait Islanders living in the Murray PHN region is 45.4% (2014-15) (AIHW), 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% (2014-15).
- 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, 2017).

Immunisation rates

- The percentage of Aboriginal and Torres Strait Islander children who were fully immunised in the Murray PHN region (AIHW, 2018):
 - fully immunised at 1 year: 89.7%
 - fully immunised at 2 years: 87.6%
 - fully immunised at 5 years: 94.6%.

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%).
- Aboriginal children are over-represented in Outof-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.

- Antenatal visits in the first trimester for Aboriginal and Torres Strait Islander women (2010/2011) were significantly less than the population average when compared with like Aboriginal and Torres Strait islander communities in other PHN regions.
- 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 Vic:
 - 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).

Service system usage

- Hospital separations for Aboriginal and Torres Strait Islander population in the North West are notably higher for all conditions.
- Difference in ED presentation rates between non-Aboriginal and Torres Strait Islander and Aboriginal and Torres Strait Islander populations are 89% higher for Goulburn Valley, 52% higher in North West, 44% for North East and 18% in Central Victoria.
- Hospital separations by Aboriginal and Torres
 Strait Islander status demonstrate Aboriginal
 and Torres Strait Islander rates in the North
 West region to be nearly twice the average rate
 recorded for Victoria.

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 community interaction (Nov 2016-July 2017)
- Murray PHN Clinical, Community and Indigenous health councils (Nov 2016-July 2017)
- · Murray PHN Indigenous Advisory Council.

AGED CARE

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 126,497 persons aged over 65. This is 19.6% of the population compared to the Victorian average of 15.6%.
- Evidence suggests that 10% of the Victorian population aged 65 or older experience social isolation and 9% experience high levels of psychological distress.
- 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).



Aged Care



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 in this space 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 2016 ABS population estimates indicate there are now five LGAs in the Murray PHN catchment with more than 25% of the population being people aged over 65. They are Strathbogie (28.4%), Buloke (28%) Gannawarra (27.6%), Loddon (26.8%), Benalla (26.1%), and Towong (25.7%). The Victorian average is 15.56%.

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, 2018).

Residential aged care

- 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, 2016).
- There were 6,477 people in residential care in the Murray PHN region during 2017 (AIHW, 2017).
- 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.

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 65 years, all fall hospitalisations for the period 2011/12-2013/14 indicate that the catchment has an overall higher average than the Victorian rate, and Central Victoria, North East and North West individually higher.

Aged Care



Service needs

Description of evidence

- Rate of mental health overnight hospitalisations for dementia (per 10,000 persons, age standardised) in the Murray regions 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, 2016).
- BEACH: those aged 65+ years accounted for an increasing proportion of GPs' workloads (from 27% to 31% of encounters). This change affected all aspects of general practice as older patients are more likely to have multiple issues, particularly chronic conditions and are more likely to have comorbidities (Britt et al. 2016).
- Hospitalisations for external injuries that occurred in an aged care residential facility (2011-12 to 2013-14) show significantly higher rates in Central Victoria than Victoria, while Goulburn Valley, North East and North West are lower than the Victorian average.
- GP attendances in aged care homes are lower in the Murray PHN region than the national average

- The rate of high-level residential aged care places per population aged 70 years and over was higher than the Victorian average in the North East region; while the rate for low level - residential aged care places was higher in Goulburn Valley, Central Victoria and North West regions. The rate of community places was higher in the Goulburn Valley and North West regions.
- 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 community interaction (Nov 2016-July 2017)
- Murray PHN Clinical, Community and Indigenous Health Councils (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, wellness 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

- Potentially preventable hospitalisations for COPD and complications arising from diabetes are significantly higher across the PHN catchment with the highest numbers per standardised population rate in the Central Victoria and Goulburn Valley regions (AIHW, 2016).
- 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 26% of all Ambulatory Care Sensitive Conditions (ACSC) separations for hospital services.



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:

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

Through Health Voices our community have 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 have identified the following service needs/gaps in their area for people with diabetes

(Health Voices), 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 physiology
 - 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. (VHISS, 2018)
- The overall rate of all categories of potentially avoidable hospitalisations for the Murray PHN region (2,826) is slightly higher than the national PHN rate (2,643).

Diabetes

- Prevalence is highest in Gannawarra LGA, with National Disability Insurance Scheme (NDIS) reporting prevalence of 7.5% (against national average of 5.3% and PHN average of 5.7%).
- Complications arising from diabetes is the largest ACSC presenting within hospital services across the Murray PHN catchment area (20.8% of all separations); increasing each year for the past three years.
- 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 3,,717) 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 Swan Hill (7.6 per 100,000), Strathbogie (8.3 per 100,000), Moira (7.2 per 100,000), Mitchell (7.7 per 100,000), Mildura (6.4 per 100,000), Loddon (11.4 per 100,000), Greater Shepparton (9.1 per 100,000), Greater Bendigo (5.5 per 100,000), Campaspe (8.6 per 100,000), Benalla (11.4 per 100,000) and Albury (7.4 per 100,000) (PHIDU, 2018).



Chronic Obstructive Pulmonary Disease (COPD)

- For 2016/17, when using the 'impact' measure
 of rate of hospital admissions multiplied by the
 average number of bed days per admission,
 compared with the state average (15.08 per 1,000
 population), the burden of COPD on the acute
 hospital system is highest in:
 - Murrindindi (34.19 per 1,000 population)
 - Buloke (33 per 1,000 population)
 - Benalla (29.48 per 1,000 population)
 - Strathbogie (27.85 per 1,000 population)
 - Loddon (27.46 per 1,000 population)
 - Gannawarra (26.6 per 1,000 population)
 - Campaspe (25.29 per 1,000 population
 - Moira (24.46 per 1,000 population).
 - Mansfield (21.53 per 1,000 population)
 - Mitchell (20.76 per 1,000 population)
 - Alpine (19.79 per 1,000 population)
 - Greater Shepparton (19.31 per 1,000 population)
 - Towong (18.77 per 1,000 population)
 - Mount Alexander (17.47 per 1,000 population)
 - Wodonga (15.93 per 1,000 population) (VHISS, 2016-17).
- Aboriginal and Torres Strait Islander prevalence rates of COPD are five times the national rate. This is significant for approximately 13,591 persons who identify as Aboriginal and Torres Strait Islander (28% of the Victorian total) with significant proportions residing in Mildura 15%, Greater Shepparton 7% and Swan Hill 6%.
- The Perils of Place report (Grattan Institute 2016) identifies Wodonga (postcode 3690) as a persistent hotspot for COPD hospital admissions.



Cardiac-related conditions

- The number of cardiac related presentations has increased each year since 2012/2013.
- Victorian Admitted Episodes Dataset (VAED)
 has been sourced from Victorian public hospital information and does not include private hospital admissions. Specific characteristics include:
 - more than half of all admissions enter via emergency department (52.8%). LGA areas of significant emergency department points of interest are Swan Hill (66.4%), Mildura (63%) and Wangaratta (56%)
 - Eighty three percent of admissions are aged over 60 years
 - Forty three percent of patients have no referral or support services arranged before discharge.
- Early, indicative evidence from clinical audit tools within general practice identify that 11.6% of patients are diagnosed with hypertension.

Cancer

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



Service needs

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, 2018).

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. dieticians 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, and in some instances declined, over 2015-2017
- Preliminary GP clinical audit tools suggest opportunity to improve practice quality specific areas to better identify and manage patients with diabetes. Specific areas of focus include:
 - recording of HbA1c results; with 23% of patients diagnosed with diabetes having HbA1c results recorded
 - cholesterol results are not recorded in 20% of patients with diabetes
 - recording of foot exam at six and 12 months.
- 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.
- The rate of potentially avoidable hospitalisations for diabetes complications is slightly higher overall for the Murray PHN region compared with the national rate (210 compared with 183 per 100,000).
- However, the potentially avoidable hospitalisations rate for diabetes complications by SA3s is 40% higher than national rates in Murray River-Swan Hill and 30% higher than national rates in Wodonga-Alpine, Upper Goulburn Valley and Campaspe. Albury, Moira and Wangaratta-Benalla are slightly higher than national averages.
- Reduced access to endocrinology services is associated with hospital admissions for diabetes complications.
- Association between reduced access to high risk foot services and diabetes complications, cellulitis and gangrene admissions.
- Multidisciplinary clinics to support good patient care with coordinated care specialist, allied health, nursing, prosthetics, counselling.
- Local governments are exploring opportunities for foot care nurses/allied health assistants.
- Foot care teams including a podiatrist, foot care nurse, and allied health assistants and referral from GP for a podiatrist's assessment and for ongoing team care including patient education/ self-management (Kerang).
- 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)

- The rate of potentially avoidable hospitalisations for COPD is significantly higher in the Murray PHN region than national averages (321 compared with 260 per 100,000), with 11 of the 12 SA3 regions within the Murray PHN catchment being higher than the national rate.
- Rates for COPD admissions in the Campaspe area are more than double the national average (530 compared with 260 per 100,000).
- 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.
- Congestive cardiac failure rates are on par with national rates, however at SA3 levels within Murray PHN, Loddon-Elmore is 40% higher than the national average, and to a lesser extent, Shepparton, Wodonga-Alpine, Murray River-Swan Hill, Moira, Albury and Campaspe.

- 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:
 - smoking is higher in 12 of our local government areas than the Victorian average
 - obesity is higher in 17 of our local government areas than the Victorian average.
- Gannawarra LGA has the highest rate of potentially avoidable hospitalisations for hypertension in the Murray PHN catchment (approximately double the Victorian rate).
- Rates of potentially avoidable hospitalisations for angina are significantly higher in many of Murray PHN's LGAs compared with the Victorian average, especially in Loddon (247 compared with 86 per 100,000) and Towong, followed by Gannawarra, Strathbogie and Wangaratta.
- Strathbogie LGA has the highest rate of potentially avoidable hospitalisations for rheumatic heart disease in Victoria.
- Patients at risk of poor heart health can be better managed within primary and community health settings.

Other chronic conditions

- Cellulitis potentially avoidable hospitalisation rates are similar to national averages. However, rates by SA3 level are significantly higher than the national average in Murray River-Swan Hill, Wodonga-Alpine and Moira regions.
- Rates of potentially avoidable hospitalisations for kidney and urinary tract infections are lower in the Murray PHN region, compared with the national average. The exception to this, by SA3 region within Murray PHN's catchment, is Loddon-Elmore (30% higher) and to a lesser extent, Bendigo, Wangaratta-Benalla and Mildura.

Potentially avoidable hospitalisations

 By SA3 region, Murray River-Swan Hill, Campaspe, Shepparton, Moira, Mildura, Wodonga-Alpine, Loddon-Elmore and Wangaratta-Benalla have higher rates of potentially avoidable hospitalisations compared with the national average.

- The rate of potentially avoidable hospitalisations for acute and vaccine-preventable conditions is overall on par with the national average, however by SA3 regions, Murray-River-Swan Hill, Mildura and Moira are higher than the national rate.
- The Murray PHN region's rates of potentially avoidable deaths (per 100,000) 2011-13 were higher than national averages, significantly in the Loddon-Elmore SA3 region, moderately higher in Moira, Murray River-Swan Hill, Albury, Shepparton, Mildura, Wangaratta-Benalla and slightly higher in Upper Goulburn Valley, Campaspe and Bendigo areas.
- 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 community interaction (Nov 2016-July 2017)
- Murray PHN evaluation and feedback from GP continuing professional development sessions. (Nov 2016-July 2017)
- Murray PHN Clinical, Community and Indigenous health councils (Nov 2016-July 2017)
- Murray Health Voices community voice system (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 propositions for the future.

+

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 42.9%, significantly lower than the national average of 62.7%. The SA3 areas of Mildura and Murray River-Swan Hill were the only two within the Murray region that were higher than the national average.
- The percentage of live births that were of low birthweight in the Murray PHN region was 5.0%, comparable to the national rate of 5.0%. Wodonga-Alpine (6.0%), Wangaratta-Benalla (5.8%), Mildura (5.7%), Loddon-Elmore (5.2%), and Bendigo (5.2%), were the SA3 areas within the Murray PHN region with a higher than average percentage. (AIHW, MyHealthyCommunities 2013-2015).
- Seventeen percent of women smoked during the first 20 weeks of pregnancy in the Murray PHN region, higher than the national average of 10.1% (AIHW, 2015)
- 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, 2014-15).
- In the Murray PHN region, 96% of eligible children are enrolled in Kindergarten which is lower than the Victorian percentage of 98.1%. The local government areas of Benalla (86.7%), Moira (88.6%), Strathbogie (85.8%) and Wodonga (87%) were below 90%.
- The number of deaths among infants and young children aged less than five years (per 1,000 live births) in the Murray PHN region was 3.4, lower than the national rate (4.1). The SA3 areas in the Murray PHN region with a rate higher than the national average were Campaspe (4.7), Murray River-Swan Hill (5.2), Macedon Ranges (5.5), and Loddon-Elmore (9.0) (AIHW, MyHealthyCommunities 2013-2015).



Child and adolescent wellbeing

- All local government areas within the Murray PHN region, except Loddon and Macedon Ranges, recorded a higher percentage than the Victorian rate for the number of children developmentally vulnerable on two or more domains (AEDI, 2015). Benalla (20%) was more than double the Victorian rate (9.9%).
- 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).</p>
- 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 Project data, 2018).

Child and adolescent mental health

- Almost one in seven (13.9%) Australian 4-17-yearolds 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-yearolds) of children and adolescents with a disorder had two or more mental disorders at some time in the previous 12 months.
- of the children and adolescents with mental disorders who attended them: 28.4% received individual counselling, 9.2% attended a group counselling or support program: 13.1% used a special class or school, 5.6% had seen a school nurse and 17.1% received other school services.
- headspace services in Murray PHN region report seeing a higher percentage of young people in the 12-17 age group category than the national totals.
- Aboriginal and Torres Strait Islander young people are accessing headspace at rates higher than the local Aboriginal and Torres Strait Islander population in several centres within the Murray PHN catchment.
- Aboriginal and Torres Strait Islander young people are accessing headspace centres in the North West and North East at a higher rate than the national average.
- The 7.2% of all people accessing headspace services were young people from CALD communities which is lower within Murray PHN catchment compared with the national figures.



- Bullying is a frequently reported issue for young people across the Murray PHN catchment.
- Adolescents from all Murray PHN LGAs have reported being bullied at a rate higher than rural Victoria (20.8%). The highest rates are in Mitchell (29.4%), Wodonga (25.7%) and Swan Hill (25.7%). Three-fifths (62.8%) of young people with a major depressive disorder had been bullied in the previous 12 months and were bullied more often.
- The percentage of children with emotional or behavioural problems at school entry in Benalla is the highest in the state (10.8%) and is close to double the rural Victorian rate of 5.6%. Wodonga is also high at 8.1% and ranks third in the state.

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.
- 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

- Rate of substantiated child abuse is higher than the rural Victorian average rate of 9.5 per 1000 population in Benalla (14.10) Wodonga and Mildura (both 13.2).
- Rate of children on child protection orders is higher than the rural Victorian average rate of 8.8 per 1,000 in Swan Hill (16.1 per 1,000 and ranked third in the state), Mildura (15 per 1,000) and Benalla (14.4 per 1,000).
- Benalla has the highest and double the rural Victorian rate of children in out of home care per 1,000 at 14.4, followed by Swan Hill at 10.8, both of which are above the rural Victorian state average of 7.7.

- 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 community interaction (Nov 2016-July 2017)
- Murray PHN Clinical, Community and Aboriginal and Torres Strait Islander Councils (Nov 2016-July 2017)
- Murray Health Voices community voice feedback (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, 2017).
- 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.

General Practice



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).
- BEACH: consultation rates as a proportion of all MBS/DVA-claimable recorded consultations; short surgery consultations, chronic disease management items, health assessments, and GP mental health care all increased significantly, while standard surgery consultations decreased significantly.
- Over the last 10 years the most frequently managed GP consultations were for hypertension, check-ups and upper respiratory tract infection.
- Significant increases occurred in management rates for general check-ups, depression, back complaints, prescriptions, gastro-oesophageal reflux disease, anxiety, test results, administrative procedures, vitamin/nutritional deficiency, and atrial fibrillation.
- The management rate for chronic conditions in 2014-15 did not differ from the rate in 2005-06 and the most commonly managed conditions were non-gestational hypertension, depressive disorder, non-gestational diabetes, chronic arthritis and lipid disorders.
- Increased management rates occurred for depressive disorders, oesophageal disease, atrial fibrillation/flutter, chronic back pain and unspecified chronic pain.



Service needs

Description of evidence

- Number of GPs in Murray PHN region:
 - GPs: 722
 - Rural GPs are femal: 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 189.
- There are 175 accredited general practice services (93%) in the Murray PHN.
- The rate of general practice services sharing data with Murray PHN is 59.2% (112).
- 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 2017, the number of practices receiving a Practice Incentive Payment (PIP) ranged from 160-163 of 189 practices:
 - February: 163
 - May: 160
 - August :163
 - November: 162.

General Practice

- During 2016-17, 82.6% of people saw a GP in the previous 12 months (national average, 82.5%) (AIHW, 2018).
- 14.5% of people in Murray PHN region saw a GP in the previous 12 months for urgent medical care, higher than the national percentage of 11.2% (AIHW, 2018).
- 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, 2018).
- 81.9% of GP attendances in Murray PHN catchment in 2016-17 were bulk billed, compared with 85.7% nationally.
- The percentage of people that saw a GP afterhours in the previous 12-months (2016-17) in the Murray PHN region was 8.4%, which is the same as the national percentage (AIHW, 2018).
- 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.
- During 2016-17, the number of after-hours
 GP attendances per person was 0.29, lower than
 the national average 0.49, which may reflect
 low availability of after-hours general practice
 services in the catchment.

- Number of general practices receiving a PIP (level 1-5) payment for after-hours services in the Murray PHN region (approx. total number of general practice clinics 189):
 - PIP Level 1-5 after-hours Feb 2016: 118
 - PIP Level 1-5 after-hours May 2016: 119
 - PIP Level 1-5 after-hours Aug 2016: 121
 - PIP Level 1-5 after-hours Nov 2016: 125
 - PIP Level 1-5 after-hours Feb 2017: 138
 - PIP Level 1-5 after-hours May 2017: 142
 - PIP Level 1-5 after-hours Aug 2017: 142
 - PIP Level 1-5 after-hours Nov 2017: 146.

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.



Health Workforce



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, deskilling 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). For the Aboriginal and Torres Strait Islander population, the percentage was higher at almost 19%.
- Need for significantly more nurses and personal care workers with enhanced skills.
- Distinct districts of general practice workforce shortage Mildura, Ouyen, Murrayville, Boort, Wedderburn, Rushworth, Yea, Numurkah, Moyhu, Corryong, Wangaratta and Bethanga.
- The movement toward larger practices continued, with decreased proportions of GP participants working in solo practice (13% to 9%), and in practices of two to four individual GPs (35% to 21%). The proportion of practices with 10 or more GPs more than doubled, from 13% to 29%.
- The proportion of practices using medical deputising services for some or all their afterhours 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.

Health Workforce

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

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.
- BEACH survey: GP rate of referral to allied health services increased from 2.0 per 100 problems managed in 2005-06 to 3.3 in 2014-15. Referrals to psychologists rose four-fold and those to podiatrists doubled.
- Two-to-three month waiting periods for appointments with a dietician, podiatrist or physiotherapist in parts of the catchment. Longer waiting periods for speech pathology in some areas (especially for paediatric needs).
- Ambulatory Care Sensitive Conditions (ACSC)
 data shows very high admission rates for dental
 conditions. This can be interpreted in part to a
 lack of access to and or uptake of primary dental
 care. (ACSC, 2014/15, Murray Exchange).
- There is significant lack of paediatric allied health services catchment wide - especially for paediatric psychology, occupational therapy and physiotherapy. (Murray PHN regional team – sector interaction).
- High emergency department presentation and admission rates for cellulitis - this is often preventable with sufficient access to allied health.
- Gangrene causes the highest number of bed days in Goulburn Valley and North West regions.
 This is highly preventable with adequate access to primary care services.

Health Workforce

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 17%) (Australia) (ABS Patient Experiences in Australia, 2016-17).
- 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).
- Reasons why a patient went to an ED rather than a GP (as collected by ABS patient experience survey, 2013-2014):
 - taken by Ambulance or serious condition: 37%
 - GP not available when required: 32.6%
 - sent to emergency by GP: 5%
 - waiting time for GP appointment too long:
 2.15%
 - other: 11%.
- 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, 2018).
- There are many general practices not in collaborative after-hours arrangements and some practices have reported collaborative afterhours arrangements across small towns ceased because they were unsustainable.
- Increasing community expectations of care ondemand 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 afterhours - 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 healthcare, 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 or 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) interoperable 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 statebased eHealth systems and initiatives may vary.
- Number of practices receiving an eHealth PIP payment in the Murray PHN region (PHN data, 2017):
 - February 2017: 144 (189 total practices)
 - May 2017: 107
 - August 2017: 122
 - November 2017: 124.

Digital Health



Murray HealthPathways provides up-to-date, localised information regarding best-practice for the assessment and management of common clinical conditions. As at Februrary 2019, there are 417 localised pathways available.

- The most viewed pages in 2017-18 were:
 - mental health
 - non-urgent adult mental health referrals
 - mental health referrals
 - medical
 - allied health and nursing
 - women's health.
- The most common search terms included:
 - gout
 - diabetes
 - hepatitis C
 - shingles
 - mental health
 - hypertension.

(Murray PHN EOM Report, 2018)



My Health Record

- A knowledge gap between what the consumer expectations are around the My Health Record and the reality of how some GPs and specialists are using the record. Patients think consent has been given and that their information is automatically uploaded and available (misperception).
- Across Murray PHN's catchment there are 375 healthcare providers registered for the My Health Record System: 191 general practices, 101 pharmacies,13 public hospitals and health services, four private hospitals and clinics, one aged care provider and 65 other healthcare providers, including specialists and allied health (Nov 2018).
- As of September 2018, 142,948 consumers in the Murray PHN catchment have a My Health Record. Females (80,790) are more likely to have one than males (62,158).
- The most likely age group to have a My Health
 Record was the group aged 19 or less (38 per cent)
 followed by 40 to 64-year olds (24 per cent) and
 20 to 39-year olds (20 per cent). Those aged 65 or
 older were least likely to have one (18 per cent).
- As at October 2018, in the Murray PHN region:
 - Registered consumers for My Health Record: 142,948
 - Registered general practices: 89%
 - Registered pharmacies:64%
 - Registered specialists: 12
 - Registere allied health professional: 31.
- Number of providers uploading in the Murray PHN region (October 2018):
 - General practice clinics: 56%
 - Pharmacies: 68%
 - Specialists: 8%
 - Allied health professionals: 3%
 - The average number of hospital discharge summaries uploaded per month in 2018 was 133.

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 healthcare 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.



REFERENCES

Andrews, J. 2018, 'Blaks and stats in Aboriginal Victoria: Census resistance and participation' *Australian Aboriginal Studies*, no. 1, pp. 43-56.

Australian Bureau of Statistics (ABS) 2016a, 2016 *Census Aboriginal and Torres Strait Islander Peoples Profile*, Canberra.

Australian Bureau of Statistics (ABS) 2016b, 2016 Census: *Aboriginal and/or Torres Strait Islander Peoples QuickStats*, Canberra.

Australian Bureau of Statistics (ABS) 2016c, 2016 Census General Community Profiles, Canberra.

Australian Bureau of Statistics (ABS) 2016d, 2016 Census QuickStats, Canberra.

Australian Bureau of Statistics (ABS) 2016e, Patient Experiences in Australia 2015-16, Canberra.

Australian Dental Association – Victorian Branch (ADAVB) 2018, *Dental Wait lists* [Online], Available: http://www.adavb.net/?TabId=1595&org#ADAVB-the-voice-of-dentistry-in-Victoria-1110010100001110

Australian Early Development Census (AEDI) 2015, *Public Table by Local Government Area (LGA) 2009-2015* [Online], Available: https://www.aedc.gov.au/data/downloads

Australian Government 2011, Relative Risk Report, Department of Health and Ageing, Canberra.

Australian Government 2013, *National Aboriginal and Torres Strait Islander Health Plan 2013-2023*, Department of Health and Ageing, Canberra.

Australian Government Department of Health 2016, 2016 Historical PHN immunisation coverage data, [Online], Available: http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/2016-historical-phn-immunisation-coverage-data

Australian Government Department of Health 2017, *Annual Medicare Statistics*, [Online], Available: http://www.health.gov.au/internet/main/publishing.nsf/content/annual-medicare-statistics

Australian Government Department of Health (DoH) 2017, *Doctor Connect: Modified Monash Mode*l [Online], Available: http://www.doctorconnect.gov.au/internet/otd/publishing.nsf/content/classification-changes

Australian Government Department of Health (DoH) 2017a, Doctor Connect: Areas of Disadvantage [Online],

Available: http://www.doctorconnect.gov.au/internet/otd/publishing.nsf/Content/locator

Australian Government Department of Health 2017, General Practice Statistics, [Online],

Available: http://www.health.gov.au/internet/main/publishing.nsf/Content/General+Practice+Statistics-1

Australian Government Department of Health 2017, Medicare Benefits Schedule Data, [Online],

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

Australian Government Department of Health 2017, *Mental Health Nurse Incentive Program* (MHNIP) Data, [Online], <u>Available: http://www.health.gov.au/internet/main/publishing.nsf/Content/</u>
C66677BB7EB7084ECA257F15000413F9/\$File/MHNIP%20tables Public%20Release%20series V2a%201%20
Sep%202017%20PPS.xlsx

Australian Government Department of Social Security (DSSa) 2018, *DSS Payment Demographic Data*, [Online],

Available: https://data.gov.au/dataset/dss-payment-demographic-data

Australian Government Department of Social Security (DSSb) 2018, Settlement Data Reports, [Online],

Available: https://www.data.gov.au/dataset/settlement-reports

Australian Healthcare and Hospitals Association 2015, *Health Workforce: AHHA Primary Health Network Discussion Paper Series, Paper Five*, Canberra.

Australian Indigenous HealthInfoNet 2018, *Summary of Australian Aboriginal and Torres Strait Islander health status, 2017.* [Online], Available: https://healthinfonet.ecu.edu.au/learn/health-facts/summary-aboriginal-torres-strait-islander-health

Australian Institute of Health and Welfare (AIHW) 2018, *Mortality over regions and time (MORT) books 2012-201*6, [Online], Available: https://www.aihw.gov.au/reports/life-expectancy-death/mort-books/contents/mort-books

Australian Institute of Health and Welfare (AIHW) 2018a, *Cancer incidence and mortality in Australia by small geographic areas* [Online], Available: https://www.aihw.gov.au/reports/cancer-incidence-mortality-small-geographic-areas/data

Australian Institute of Health and Welfare (AIHW) 2018b, *Childhood immunisation coverage data (PHN and SA3*) [Online], Available: https://beta.health.gov.au/resources/publications/childhood-immunisation-coverage-data-phn-and-sa3

Australian Institute of Health and Welfare (AIHW) 2017a, *My Healthy Communities: Primary Health area Murray*, [Online], Available: http://www.myhealthycommunities.gov.au/primary-health-network/phn205

Australian Institute of Health and Welfare (AIHW) 2017b, *Web update: potentially preventable hospitalisations in 2015-15*, [Online], Available: https://www.myhealthycommunities.gov.au/our-reports/potentially-preventable-hospitalisations-update/july-2017

Australia Productivity Commission (APC) 2016, *Overcoming Indigenous Disadvantage: Key Indicators 2016* [Online], Available: https://www.pc.gov.au/research/ongoing/overcoming-indigenous-disadvantage/2016

Australian Secondary Schools Alcohol and Drug Survey (ASSAD) 2014, *Selected Topics* [Online], Available: https://www.data.act.gov.au/Health/Australian-Secondary-Students-Alcohol-And-Drug-ASS/iw6u-zm6s

Britt H, Miller GC, Henderson J, Bayram C, Harrison C, Valenti L et. al. 2016, *General practice activity in Australia 2015-16. General practice series no. 40.* Sydney: Sydney University Press.

Coliban Water 2017, 'Cohuna water treatment plant, fluoridation upgrade' [Online], Available: https://www.coliban.com.au/site/root/projects/cohunafluoridation.html

Conway, M. & Voros, J. 2001, Foresight: Learning from the future, Swinburne University of Technology, Melbourne.

Coroners Court of Victoria 2016, *Suicide frequency by Primary Health Network and local government area*, Victoria 2013-15, Melbourne.

Crime Statistics Agency Victoria 2017, *Explore crime by location*, [Online], Available: https://www.crimestatistics.vic.gov.au/explore-crime-by-location

Department of Health and Human Services (DHHS), 2018, *Recognising and supporting Victoria's carers: Victorian Carer Strategy 2018-22*. State Government of Victoria, Melbourne.

Duckett, S. & Griffiths, K. 2016, *Perils of Place: Identifying hotspots of health inequality*, Grattan Institute, Melbourne.

Dune, T., Ullman, J., Ferfolja, T., Hanckel, B. & Garga, S. 2018, *Welcoming Social Wellness: Exploring the impact of LGBTIQ-affirming health and community care on older gender and sexuality-diverse women's wellbeing and sense of belonging*. School of Science and Health and School of Education, Western Sydney University: Penrith.

Effective Change 2016, Evaluation of Aboriginal Health Case Management and care coordination models in Victoria – Early Years Service - Mallee District Aboriginal Services.

Endometriosis Australia 2018, What is Endometriosis?, [Online], Available: https://www.endometriosisaustralia.org/

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

headspace 2016, Annual Report 2015-16. Melbourne.

Jean Hailes 2018, PCOS, [Online], Available: https://jeanhailes.org.au/health-a-z/pcos

Kenny, A., Dickson Swift, V., McKinstry, C., Kidd, S., Spong, J., Pearce, N., McGlashan, A. & Christian, R. 2015, Where do I start? Mental health service access in small rural communities in the Southern Mallee catchment. La Trobe University Rural Health School, Bendigo.

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

Lloyd, B., Gao, C.X., Heilbronn, C. & Lubman, D.I. 2013, *Self harm and mental health-related ambulance attendances in Australia*, Turning Point, Melbourne.

Loddon Mallee Regional Palliative Care Consortium 2016, *Project Scoping Report*, Castlemaine.

Moeller-Saxone K, McCrutcheon L, Halperin S, Herrman H, Chanen AM. 2016, 'Meeting the primary care needs of young people in residential care. *Australian Family Physician Vol.45*, No.10'.

Monash University 2016, Methamphetamine in the Murray Primary Health Network, Melbourne.

Murray Exchange 2015, Victorian Injury Surveillance Unit Dataset, Murray PHN, Bendigo.

Murray Exchange 2017, *North West Cancer – average total new cases per year – by sex (2007-2011)*, [Online], Available: http://exchange.murrayphn.org.au/north-west-victoria/85-general-health-and-wellbeing/646-cv-lifetime-prevalence-of-self-reported-doctor-diagnosed-strole-2011-12-9

Murray Exchange 2017, Victorian Admitted Episodes Dataset 2011-2012, 2013-2014, Murray PHN, Bendigo.

Murray Exchange 2017, Victorian Emergency Minimum Dataset 2011-2012, 2013-2014, Murray PHN, Bendigo.

Murray Primary Health Network (MPHN) 2018c, Integrated Care Report. DRAFT.

Murray Primary Health Network (MPHN) 2018d, Murray HealthPathways EOM Report, 2017-18, Bendigo.

Murray Primary Health Network (MPHN) 2016, Murray PHN AOD sector consultation, Bendigo.

Murray Primary Health Network (MPHN) 2018a, *National Psychosocial Support Measure Needs Assessment 2018*, Bendigo.

Murray Primary Health Network (MPHN) 2018b, Refugee Health Needs Project: unpublished report, Bendigo.

Murray, K.E., Davidson, G.R. & Schweizer, R.D. (2008) *Psychological Wellbeing of Refugees Resettling in Australia*, Australian Psychological Society, Melbourne.

Murray PHN (2016) Partners in Recovery - modelling on expected transition of PIR clients to the NDIS, Bendigo.

National Aboriginal and Torres Strait Islander Social Survey (NATSISS) 2015, *Key Findings 2014-15* [Online], Available: http://www.abs.gov.au/ausstats/abs@.nsf/mf/4714.0

National Aboriginal Health Strategy Working Paper (NAHSWP) 1989, *A National Aboriginal Health Strategy. Canberra: Government of Australia* [Online], Available: http://www.naccho.org.au/about/aboriginal-health/definitions/

National Rural Health Alliance (NRHA) 2014, *Alcohol Factsheet* [Online], Available: http://ruralhealth.org.au/sites/gefault/files/publications/nrha-factsheet-alcohol.pdf

Parliament of Australia (2017) *The future of Australia's aged care sector workforce. Community Affairs References Senate Committee. Canberra, Australia.* [Online], Available: https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Community_Affairs/AgedCareWorkforce45/Report

Public Health and Information Development Unit (PDIDU) (2018), *Social Health Atlas of Australia 2015*, Torrens University, Adelaide.

Public Health and Information Development Unit (2016), *Aboriginal and Torres Strait Islander Social Health Atlas of Australia*, Torrens University, Adelaide.

Public Health and Information Development Unit (2017) Social Health Atlas, *Primary Health Networks (incl. Local Government Areas)*, [Online], Available: http://phidu.torrens.edu.au/current/maps/sha-aust/phn-lga-single-map/atlas.html

Royal Australian College of General Practitioners (RACGP) 2018, *General Practice: Health of the Nation 2018*. East Melbourne, Vic.

Royal Flying Doctor Service (2017) *Mobile Dental Care*, [Online], Available: https://www.flyingdoctor.org.au/vic/ourservices/mobile-dental-care/

Rural Health Workforce Australia (2017) *Medical practice in rural and remote Australia: Combined Rural Workforce Agencies National Minimum Data Set report as at 30th November 2016*, Melbourne.

Save the Children 2016, *Save the Children: State of Australia's Mothers Report*, [Online], Available: http://apo.org.au/node/63692

Shrestha, D. and Joyce, C. (2011) 'Aspects of work–life balance of Australian general practitioners: determinants and possible consequences'. *Australian Journal of Primary Health* 17(1) 40-47 https://doi.org/10.1071/PY10056

Turning Point (2015-2017), AODstats, [Online], Available: http://www.aodstats.org.au/#overview

Victorian Bushfires Royal Commission (VBRC) 2010, *Final Report, 2010* [Online], Available: http://royalcommission.vic.gov.au/Commission-Reports/Final-Report/Summary/Interactive-Version.html

VicHealth (2016) Indicators Survey 2015 *LGA profiles*, [Online], Available: https://www.vichealth.vic.gov.au/media-and-resources/publications/vichealth-indicators-lga-profiles-2015

Victorian Refugee Health Network (VRHN) 2018, *Rural and Regional*, [Online], Available: http://refugeehealthnetwork.org.au/engage/rural-regional/

Victoria State Government (DHHS) 2015, 2015 LGA profiles data, [Online], Available: https://www2.health.vic.gov.au/about/publications/data/loddon-area-2015

Victoria State Government (2018) *Victorian Health Information Surveillance System (VHISS)*, [Online], Available: https://www2.health.vic.gov.au/public-health/population-health-systems/health-status-of-victorians/interactive-data-on-the-health-of-victorians/victorian-health-information-surveillance-system

Victoria State Government (VPHS) 2014, *Victorian Population Health Survey 2011-12*, Department of Health, Melbourne.

Victoria State Government (2016) *Victorian Population Health Survey (VPHS) 2014*, Department of Health and Human Services, Melbourne.

Victoria State Government (2015) *Ambulance Victoria Annual Report 2014-15 – Incidents*, [Online], Available: https://www.data.vic.gov.au/data/dataset/annual-report-2014-15-final-1011-to-1415-incidents

Victorian State Government (2015) Victorian Emergency Minimum Dataset (VEMD), Melbourne.

Victoria State Government (2017) *Health status of Victorians*, [Online], Available: https://www2.health.vic.gov.au/public-health/population-health-systems/health-status-of-victorians

Victoria State Government (2017) *HOSdata – Victorian hospital data reports*, [Online], Available: https://www2.health.vic.gov.au/hospitals-and-health-services/data-reporting/health-data-standards-systems/hosdata

Victoria State Government (2017) *Registration of mental health clients* [Online], Available: https://www2.health.vic.gov.au/mental-health/research-and-reporting/reporting-requirements-for-clinical-mental-health-services/registration-of-mental-health-clients

Victoria State Government (2014) *Victorian Child and Adolescent Monitoring System (VCAMS*), [Online], Available: http://www.education.vic.gov.au/about/research/Pages/vcams.aspx

Victorian Women's Health Atlas (VWHA) 2018, 'Gender Equality' [Online], Available: https://victorianwomenshealthatlas.net.au/

Vins, H., Bell, J., Saha, S. and Hess, J.J., 2015. The mental health outcomes of drought: a systematic review and causal process diagram. International journal of environmental research and public health, 12(10), pp.13251-13275.

Vos, T, Barker, B, Stanley, L & Lopez, A 2007, *The burden of disease and injury in Aboriginal and Torres Strait Islander peoples 2003*, School of Population Health University of Queensland, Brisbane.

Webster S, Temple-Smith M, Smith A. 'Children and young people in out of home care: Improving access to primary care. *Australian Family Physician Vol.41*, No. 10', October 2012.

Women's Health Loddon Mallee (WHLM) 2018, *Women's Sexual and Reproductive Health Needs in the Murray Region: Final Report.* Bendigo.



An Australian Government Initiative

murrayphn.org.au

Central Victoria

3-5 View Point, Bendigo VIC 3550 e: centralvic@murrayphn.org.au p: 03 5441 7806

Goulburn Valley 100a High Street, Shepparton VIC 3630 e: goulburnvalley@murrayphn.org.au p: 03 5831 5399

North East Victoria

594 Hovell Street, Albury NSW 2640 e: northeast@murrayphn.org.au p: 02 6041 0000

North West Victoria

Suite 1, 125 Pine Avenue, Mildura VIC 3500 e: northwest@murrayphn.org.au p: 03 4040 4300