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An Australian Government Initiative

Primary Health Network

Needs Assessment Reporting

North Western Melbourne PHN

DECEMBER 2019

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NOTE: APPENDICES C TO F ARE ATTACHED AS SEPARATE DOCUMENTS

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1.1 About this document

This document includes the following sections:

1. Narrative (this section)
2. Outcomes of the health needs analysis
3. Outcomes of the service needs analysis
4. Opportunities, priorities and options
5. Checklist

The following appendices provide important background and contextual information, including additional data analysis and reference information. They are cross referenced throughout the body of the document:

A/ Additional data analysis (within this word document)

B/ References (within this word document)

C/ After Hours Primary Health Care: Gap Analysis and Recommendations – Summary information from IMPACT-CO.

D/ General Practice Engagement Review- First Results

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F/ NWMPHN Discussion Paper (developed for consultation with our sector)

The Addendum included at the end of this document provides an update on the needs analysis relating to the psychosocial support program of NWMPHN as at 1 December 2019 (pages 173-183).

1.2 North Western Melbourne PHN

North Western Melbourne PHN (NWMPHN) is one of 31 Primary Health Networks (PHNs) established by the Commonwealth Government on 1st of July 2015 to:

- Increase the efficiency and effectiveness of medical services for patients, particularly those at risk of poor health outcomes and
- Improve coordination of care to ensure patients receive the right care, in the right place, at the right time.

NWMPHN includes 13 Local Government Areas (LGAs):

- Brimbank
- Darebin
- Hobsons Bay
- Hume
- Macedon Ranges (Gisborne part)
- Maribyrnong
- Melbourne
- Melton
- Moonee Valley
- Moreland
- Moorabool (Bacchus Marsh part)
- Wyndham
- Yarra.

Growth and Diversity

Covering 3,212 km2 and with a population of over 1,640,000, NWMPHN is a growing region, with nearly one-third of Victoria's projected population growth to 2031 occurring in our region. The combined Melton and Wyndham area is the fastest growing part of Melbourne and one of the fastest growing in Australia. These two areas increased their population by 70,000 between 2011 and 2016. The population aged greater than 65 years is also forecast to experience significant growth in coming years. This group is forecast to grow by 55% to 292,000 people by 2031.

The region is diverse not only in its geography but also in the characteristics of its people. NWMPHN's population is younger than the Victorian average, reflecting the student and young professional presence closer to the CBD and young families in the growth corridors of Hume, Brimbank, Melton and Wyndham. The region includes some population groups with specific health and service needs, such as international students (who experience service access issues) and people who identify as gay, lesbian, bisexual, transgender, intersex and queer (who may experience specific health and service needs, for example around mental health and wellbeing).

10,144 people identified as being of Aboriginal or Torres Strait Islander descent in NWMPHN at the last Census (2016), with Melton, Wyndham and Hume having the highest populations.

The 2016 census shows that over half (56%) of the NWMPHN population were born in Australia. Of the 590,000 overseas-born persons, nearly one in four had arrived since 2011, with India, Vietnam and China the most common countries of birth after Australia.

The region is also home to people seeking asylum or settling via humanitarian programs, with Hume, Brimbank, Wyndham and Melton all having a high percentage of humanitarian arrivals as a proportion of all new settlers in 2016 and 2017 (87 per cent of all new migrations in NWMPHN region). Humanitarian visas made up 21 per cent of all new migrations in 2016 and 2017 in NWMPHN region.

Figure 1: Map of North Western Melbourne PHN Region, indicating LGA boundaries

Disadvantage and inequality

NWMPHN has an overall Index of Relative Socio-economic Disadvantage (IRSD) score of 994, however there is high variability within the region. LGAs with IRSD scores below 1,000 (relatively disadvantaged) include:

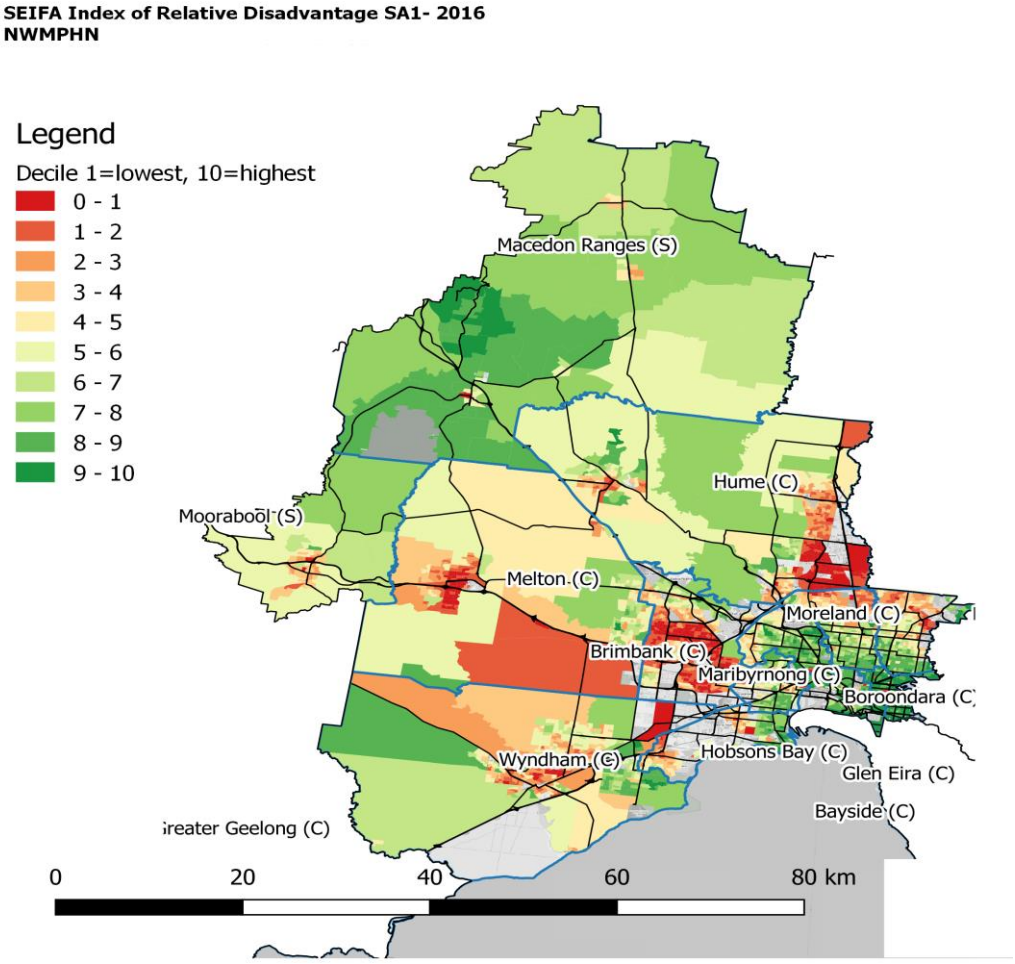
- Brimbank (921)
- Hume (947)
- Maribyrnong (995) and
- Melton (994).

LGAs with IRSD scores above 1,000 (relatively advantaged) include:

- Hobsons Bay (1,015)
- Macedon Ranges (1,072)
- Melbourne (1,010)
- Darebin (1,004)
- Moreland (1,014)
- Moonee Valley (1,035)
- Moorabool (1,007)
- Wyndham (1,009) and
- Yarra (1,035).

There is also significant variation within LGAs. For example, Moonee Valley has an LGA score of 1,035, but has a smaller SA1 area with a score of 348 - the lowest in Victoria.

Figure 2: The Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) by ABS collection district, 2016 (Census).



While overall education levels in the region closely resemble Victorian averages, educational attainment is low in the outer suburban LGAs of Brimbank, Hume, Melton, Macedon Ranges and Moorabool. This suggests a divide in educational attainment between the inner and outer areas of the region.

Workforce participation also provides insight into inequality across the region, with workforce participation (2012) being more than 15 per cent higher than the Victorian average in Yarra (83.1 per cent) and more than 15 per cent lower in Melton (55.1 per cent) and Wyndham (51.5 per cent). Unemployment (March 2017) rates were 25 per cent higher than the Victorian average in Brimbank, Hume, Maribyrnong, Melton and Wyndham.

Inequality is also evident in the impact of gambling across the region, as evidenced through losses from electronic gaming machines (pokies). This is an area of significant concern, with the most disadvantaged LGAs in the region having disproportionally higher numbers of gaming machines and gaming machine losses than the more affluent LGAs. Losses in our two most disadvantaged LGAs, Brimbank and Hume, totalled $249.1 million in 2017-18 alone compared to Yarra and Moonee Valley with combined losses of $109.7 million for the same period.

Crime rates (2017/18: against the person, against property, and drug offences) were all higher than the Victorian average in Melbourne, Yarra and Brimbank. Areas with lower than Victorian average crime rates included Moonee Valley, Macedon Ranges, Moorabool and Wyndham.

NWMPHN LGAs have moderately high per capita levels of police reported family violence incidents (Hume, Moorabool, Melton and Brimbank).

Service system

The North Western Melbourne region has a highly complex and fragmented service system with more than 13 large and specialist/state-wide hospitals; 11 community health services operating multiple sites; more than 1,700 general practitioners across over 540 practices; 385 pharmacies; over 130 aged care facilities; over 120 mental health and alcohol and drugs providers; many of Victoria's correctional facilities; and three of the fastest growing LGAs in Australia.

The region covers the Melbourne Central Business District (CBD), which has a daily population estimate of more than 900,000 people with a unique mix of transient populations (including tourists, students, workers, homeless people, and people visiting on weekends and evenings) in addition to permanent residents.[1]

[1] www.melbourne.vic.gov.au/about-melbourne/research-and-statistics/city-population/Pages/daily-population-estimates-and-forecasts.aspx

1.3 Needs assessment process

NWMPHN has been undertaking needs assessment activities since establishment. This iteration of our needs assessment has been updated to reflect both new data sources and additional engagement or analysis undertaken since the 2017 HNA was delivered. This information has been used to inform a refreshed opportunities, priorities and options section which will in turn continue to inform our Activity Work Plans in the coming years.

A continued priority in this needs assessment has been the ongoing development of strategic relationships across our region to support an inclusive and engaging process, and to set the scene for more collaborative population health planning, co-design and commissioning in the future.

Some activities undertaken include:

- A deep dive into After Hours in our region, this includes both Quantitative and Qualitative analysis and synthesis. The work is continuing but an overview is included here. (**Appendix C**)
- Undertake data analysis and consultation in order to commission services to meet the needs of people with severe mental illness who are not eligible for the National Disability Insurance Scheme (NDIS), through the new National Psychosocial Support Measure.
- Continued implementation of the Memorandum of Understanding (MoU) with the Victorian Department of Health and Human Services (DHHS) Regional Office to progress an integrated and collaborative approach to population health planning for the region. The relationship will evolve over time, but the current MoU is an agreement to:
    - cooperate and align effort in regional population health planning
    - identify opportunities to share data and information
    - explore opportunities to share resources where appropriate
    - look for opportunities to work collaboratively to address shared priorities and
    - Utilise a shared resource - a population health analyst.
- Continued review of new and updated secondary data, and commencing analysis and interpretation of that data to inform planning and commissioning.
- Development of an annual population health planning delivery and engagement schedule to comply with internal and external requirements.
- The publication of two discussion papers to inform and engage stakeholders in conversations about healthcare reform:
    - Australian Health Care Reform: Challenges, Opportunities and the Role of PHNs[2]
    - The health care home: What it means for Australian primary health care.[3]

[2] nwmphn.org.au/wp-content/uploads/2017/06/Challenges-Opportunities-Feb2016.pdf

[3] nwmphn.org.au/wp-content/uploads/2017/08/NWMPHN_DiscussionPaper_Health_Care_Home-FINAL.pdf

With specific regards to our **community engagement and consultation**, activities have included:

- Stakeholder consultations with over 150 drug and alcohol treatment providers, organisations and consumers through 9 separate events.
- Co-design activities with providers and other stakeholders to shape the commissioning of services for palliative care and chronic disease management.
- Reviewing our findings and approach with our Clinical and Community Advisory Councils throughout the year. This process identified ongoing areas of focus and important considerations for prioritisation.
- In supporting the roll-out and uptake of MyHealthRecord, NWMPHN have attended or run over 250 events engaging over 8500 members of our community.
- Individual and joint engagement meetings held with Local Governments in the region, Primary Care Partnerships and Community Health Organisations to strengthen relationships, present our previous Health Needs Assessment and develop methods to work more collaboratively together in the future.
- Ongoing and regular face to face and online engagement with our providers and stakeholders including updates regarding future commissioning intentions.
- The development of, and consultation on, seven detailed and informative data profiles based on the key priorities for NWMPHN. (**Appendix E1-7**)
- Undertaking comprehensive consultation with our General Practice and Primary Health Care sectors to inform a refreshed strategic engagement model. (**Appendix D**)

NWMPHN DISCUSSION PAPER

To further engage with our region, we developed a discussion paper based on up to date data and information from this year's Health Needs Assessment. This was sent to our community and provider sectors along with some key questions to consider. The results have informed the development of priorities in Section 4 of this document and will continue to be used to inform commissioning in 2019 and beyond. The template discussion paper itself can be found in **Appendix F**; however, some of the thematic findings are listed below to some of the key questions we asked.

Under the Priority Population section, a question was asked around which communities we should target. Responses were as follows:

- Refugee and asylum seekers
- Aboriginal the Torres Strait Islanders
- CALD populations
- People with a disability
- Older adults
- Children and youth
- Homeless people
- LGBQTI people

Under the Workforce Challenges Section, we asked about the type of workforce and how services could be delivered to improve access for consumers. Responses were as follows:

Type of workforce needed:

- Culturally aware
- Diverse workforce (bilingual, CALD, Aboriginal, LGBQTI)
- Skilled, agile and qualified and
- Multidisciplinary

How services could be delivered to improve access:

- Improve health literacy
- Provide more localised services
- Provide more prevention and early intervention
- Utilise shared care models
- Upskilling (GPs and Primary Care)
- Integrated and co-ordinated service models
- Utilise collective impact approaches
- More outreach (mobile, in home or over the phone)
- Better use of technology and
- More co-designed services

COMMUNITY PEOPLE BANK

Additionally, this year we have strengthened our Community People Bank. People Bank is a registry of community members who have expressed interest in staying in contact with our organisation. There are currently 234 People Bank members. People Bank members include:

- People who use, or are potential users of health services
- Consumer representatives from various health services
- Carers
- A small number of health professionals

People Bank members receive a quarterly newsletter, *My Health My Voice*, which keeps them updated about our work. They also receive emails about opportunities to participate in improving health care. Examples of opportunities include:

- Completing surveys
- Providing feedback on our Health Needs Assessment
- Reviewing information brochures
- Being a part of a committee or working group
- Attending workshops
- Reviewing tender applications

You Said™

NWMPHN is interested in understanding consumers' self-reported experience and outcomes of the commissioned services they use. An innovative trial commenced in July 2018 with an initial focus on Targeted Psychological Supports and the Mental Health Nurse Intensive Support Services within our CAREinMIND™ suite of primary mental health services.
In consultation with consumers; carers and mental health clinicians NWMPHN has developed the You Said™ concept. You Said™ is underpinned with technology that enables NWMPHN to invite consumers to participate, by email or SMS, at key stages of their care journey (referral; assessment and; during care). This feedback is captured in a dashboard which enables analysis and reporting of experience and outcomes at each stage of the care journey, qualitative and quantitative data can be analysed at a region wide level; by discipline and; by individual provider.
This provides valuable insight into leading practices that can be shared but also opportunities for improvement to ensure services are effective for consumers.
An experience survey for providers has also been developed to access insight on providers' experience of NWMPHN as a commissioner and opportunities for improvement to support the provider experience.

NWMPHN views the process of assessing need as an ongoing activity. While the delivery of this HNA to the Commonwealth is another important milestone, it is not the end of our assessment of need process and we continue to work through the following activities in a planned way:

- We are developing a schedule of in-depth studies aimed at thorough interrogation of quantitative data as well as a methodology and process around qualitative research to support a deeper understanding of key issues.
- Ongoing and targeted consultations to continue the process of building a complex and nuanced view of health and service needs in our region and to further identify and develop solutions which can be included in the next Activity Work Plan.
- Continued development of our stepped system of care for the future commissioning of mental health and drug and alcohol services across the region. This model has been co-designed with a broad range of providers, consumers and carers.
- Continuing to build our capacity internally and externally as a meso-level commissioning organisation for our region.

1.4 Additional data needs and gaps

The priority is to enable detailed analysis of data at the sub-PHN catchment level. The analysis of data at the Statistical Area 3 (SA3) / Local Government Area (LGA) level is sufficient in some cases; however, for more sophisticated analysis within PHNs and to be able to identify highly localised, place-based priorities, a finer level of granularity needs to be available.

Statistics from existing data sources often become suppressed for confidentiality reasons when attempting to examine small geographic areas, or analysis using several qualifying factors which reduce publishable counts to below the privacy threshold. PHNs need to be seen as trusted users of original data for internal purposes and be able to apply privacy rules to

published data to ensure privacy is maintained. It is also important that PHNs are provided with access to data as soon as possible after collection, as currently many available data sets are several years old and therefore of questionable relevance.

Data matching is also problematic due to the variation in application of different data rules across multiple datasets, which has inhibited our capacity to undertake meaningful comparative analysis.

Notwithstanding these constraints, it is our view that overall there is an abundance of secondary data available to support the assessment of need and commissioning generally. Not all data sources are perfect, or meet our needs exactly, but the challenge is to use the data we have effectively to inform decision making.

We also have an ongoing challenge to collect, collate and analyse high quality qualitative data to further inform our understanding of need, prioritisation and solution design. This is being done through substantial ongoing engagement processes, as well as targeted consultation activities.

1.5 Additional comments

The complexity of the north western Melbourne service system, and the implications for the relationships that need to be developed and maintained within a commissioning context, cannot be overstated. This creates several challenges for NWMPHN. The most significant challenge has been in relation to communicating our intentions and providing a degree of certainty to our providers and other stakeholders regarding future funding cycles in this uncertain environment.

We look forward to having a clear understanding of future expectations, and more time to focus on high value engagement activities, collaborative planning and co-design in future iterations of the needs assessment and commissioning process, moving to a three-year planning cycle for the needs assessment will certainly support this. We also recognise the need to continue to build and demonstrate our own capacity as an effective and mature commissioning organisation, and to continue to develop strong partnerships and trust across our region in order to maximise the value of responsive regional population health planning.

1.6 Abbreviations

ABS	Australian Bureau of Statistics
AEDC	Australian Early Development Census
ASR	Age Standardised Rate
CALD	Culturally and Linguistically Diverse Communities
COPD	Chronic Obstructive Pulmonary Disease
FTE	Full Time Equivalent
GP	General Practitioner
INA	Initial Needs Assessment
IRSD	Index of Relative Socioeconomic Disadvantage
LGA	Local Government Area
LGBTIQ	Lesbian, Gay, Bisexual, Transgender, Intersex, Queer

NWMPHN	North Western Melbourne PHN
NDIS	National Disability Insurance Scheme
NPS	National Psychosocial Supports
MBS	Medical Benefits Scheme
SA3	Statistical Area Level 3
SA4	Statistical Area Level 4

1.7 Acknowledgements

North Western Melbourne PHN gratefully acknowledges the input of the following organisations throughout the development of the needs assessments in 2017.

Access Health and Community	North East Primary Care Partnership
Asylum Seeker Resource Centre	Melton City Council
Australian Multicultural Community Services	North Richmond Community Health
Banyule Community Health	Northern Health
Brimbank City Council	Odyssey House Victoria
Cohealth	Orygen Youth Mental Health
Darebin Community Health	Plenty Valley Community Health
Dental Health Services Victoria	Royal District Nursing Service
Department of Health & Human Services	Salvation Army
Diabetes Victoria	St Vincent's Hospital Melbourne
Dianella Community Health	Stepping Up
Djerriwarrah Health	Sunbury Community Health
Drummond Street Services	The Melbourne Clinic
Eastern Melbourne PHN	The Royal Women's Hospital
Harm Reduction Victoria	Transgender Victoria
HealthWest Partnership (PCP)	Turning Point
Headspace National Office	Uniting Care ReGen
Hepatitis Victoria	Victorian Alcohol and Drug Association
Hobsons Bay City Council	Victorian Aboriginal Community Controlled Health Organisation
Hume Whittlesea Primary Care Partnership	Victorian Aboriginal Health Service
Inner East Community Health	Victorian Alcohol & Drug Association
Inner North West Primary Care Partnership	Victorian AIDS Alliance
IPC Health	Victorian PHN Alliance
Jesuit Social Services (Connexions)	Vincent Care
LeadWest	Western Health
Mackillop Family Services	Women's Health West
Maribyrnong City Council	Wyndham City Council
Melbourne Health	Yarra City Council
Mercy Health	Yarra Drug and Health Forum (YDHF)
Merri Health	Youth Projects
Melton City Council	Youth Support and Advocacy Service (YSAS)
Moorabool City Council	
Moonee Valley City Council	

SECTION 2 – OUTCOMES OF THE HEALTH NEEDS ANALYSIS

The methodology below has been used to rank and describe needs. Local data (usually LGA) has been compared with Victorian or Australian data and percentiles calculated. The variation in rates has been assessed and determined as high if they are within the 30th percentile for data where a high value is desirable (for example, cancer screening rates) or the 70th percentile where a low value is desirable (for example, death rates):

- **Extremely high (low):** Indicator is in the 90th-100th (0th-9th) percentile compared to the Victorian or Australian average (the average used will be indicated)
- **Very high (low):** Indicator is in the 80th-89th (10th-19th) percentile
- **High (low):** Indicator is in the 70th-79th (20th-29th) percentile
- **Moderately high (low):** Indicator is in the 60th-69th (30th-39th) percentile

Where data has been updated from the previous HNA, new tables have been created and formatted to illustrate the variation across the PHN area. Colour shading has been provided on the data on a red (poorer performance) to green (better performance) scale.

All Table references refer to data tables at Appendix A.

2.1 Population health

Identified needs	Key issues	Description of evidence
Summary The health needs of the NWMPHN community reflect the diverse community and geographic area. This area is spread ranges from the inner city of Melbourne to the peri-urban rural communities in the north and west. The following key features are of note:		

2.1 Population health

- There is substantial variation in the socioeconomic status of the community, with some areas substantially below the Victorian and national average. This directly correlates with high prevalence of chronic health conditions and low protective health behaviours.
- Most of the western part of the region is classified as a District of Workforce Shortage for general practice and specialist medical services. Similar shortages exist for allied health services. This workforce shortage limits the capacity of the service system to meet the needs of the community.

Perinatal and infancy Identified needs in this age group are: • Supporting families with birth complications, neonatal disorders and congenital abnormalities. • Reducing the number of infant deaths. • Providing primary care for asthma and ear, nose and throat infections as an alternative to hospitalisation. • Encouraging breastfeeding rates.	Ensuring a healthy start in life for infants is critical to establishing a health foundation that will carry them through their lifetime. Rates of neonatal disorders and congenital abnormalities are similar to the Victorian average; while these needs may not be preventable, support to families both before and after care is critical. Other health needs include higher than average levels of potentially avoidable hospitalisations for asthma and ear, nose and throat diseases in some areas. Rates of infant mortality also vary across	Please refer to the Children and Families Data Profile at **Appendix E2** for more detailed statistics and data sources. **Potentially avoidable hospitalisations** **Table 63** 0-4-year olds in the PHN region • Ear, nose and throat infections (31 per cent of total ACSCs). • Dental conditions (23 per cent of total ACSCs) **Infant mortality** **Table 64** • High in Melbourne, Brimbank, Moorabool and Melton. **Breastfeeding rates at 3 months** **Table 65** • Low in Darebin, Macedon Ranges, Hume, Melbourne, Yarra and Brimbank **Smoking during pregnancy** • Literature: Provision of Smoking Cessation Interventions During Pregnancy.[4]

[4] 3 Centres Collaboration, 'Guidelines: Provision of smoking cessation interventions during pregnancy' <http://3centres.com.au/guidelines/low-risk-pregnancy/provision-of-smoking-cessation-interventions-during-pregnancy>, accessed 26 October 2017.

2.1 Population health

	the region, indicating the need for a targeted focus. Maternal health is also critical, both for mothers and for children to have strong relationships, which then impact upon the development of children. Other than mental health, major maternal health needs in this region include support with antenatal care and support with breastfeeding. Tobacco smoking during pregnancy is the most common preventable risk factor for pregnancy complications and is associated with poorer perinatal outcomes including low birthweight, being small for gestational age, pre-term birth and perinatal death. 9.3 per cent of Victoria women smoked during the first 20 weeks	• Literature: Australian Institute of Health and Welfare 2017. Australia's mothers and babies 2015—in brief. Perinatal statistics series no. 33. Cat no. PER 91. Canberra: AIHW. **Maternal and Child Health service utilisation** • Participation rates at 3.5 years' ages and stages consultation (**Table 66**) Extremely low in Maribyrnong, Melbourne and Wyndham; very low in Melton; low in Hume, Moreland, Hobsons Bay, and Darebin. • Participation rates for Aboriginal people (**Table 67**) Very low in Maribyrnong; low in Darebin, Melbourne, Yarra, Brimbank and Moreland.

2.1 Population health		
	of pregnancy and some mothers are more likely than others to smoke in pregnancy. Proportions are highest among the following women: • younger mothers • mothers living in the lowest socioeconomic status (SES) areas and, • Aboriginal and Torres Strait Islander mothers.	
Children Identified needs for this age group are: • Immunisation rates are low in some LGAs. • Rates of asthma across the region are higher than the Victorian average. • Oral health and dental care needs.	Establishing protective health behaviours at a young age is critical, as it sets children up for being healthy adults. However, some children in the PHN region face barriers to establishing these behaviours. Children in outer-west Melbourne experience higher rates of vulnerability, potentially correlated with being raised in areas of higher socio-economic disadvantage. Determinants such	Please refer to the Children and Families Data Profile at **Appendix E2** for more detailed statistics and data sources. **Potentially avoidable hospitalisations** 5-14-year olds in the PHN region, most prevalent (**Table 68**) • Dental conditions (19 per cent of total ACSCs). • Ear, nose and throat infections (15 per cent of total ACSCs). **Vulnerability in childhood development** Vulnerability as reported in the Australian Early Development Census (**Table 69**) • Children vulnerable on one domain Above the Australian average (22.0 per cent): Brimbank, Hume, Yarra, Wyndham and Melbourne. Above the Victorian average (19.9 per cent) only: Moorabool, Moreland, and

2.1 Population health

• There is a high prevalence of low-value procedures in some LGAs.	as rates of obesity and physical inactivity are high in some areas in this age group, and immunisation rates are low or borderline low in a range of areas across the PHN region. Rates of asthma prevalence and avoidable hospitalisations are higher in the region than the Victorian average. Rates of low-value procedures are also high areas, suggesting the need for targeted education work with GPs. These challenges will be exacerbated by high projected population growth, particularly in the outer west.	Melton. • Children vulnerable on two or more domains Above Australian average (11.1 per cent): Brimbank, Hume, Yarra, Wyndham and Melbourne. Above the Victorian average (9.9 per cent) only: Moorabool, Moreland and Melton. **Immunisation** Rates below 95 per cent (**Table 70**) • One, two, and five-year immunisation: Low in Melbourne. • Five-year-old immunisation: Low in 10 of the 13 SA3's (excludes Hobsons Bay, Melton Bacchus Marsh, Keilor, Sunbury) **Asthma** The PHN has some of the areas with the highest estimated hospital admissions for asthma nationally. • Estimated annual asthma/respiratory hospital admissions (**Table 71**) Extremely high in Maribyrnong, Keilor, Brimbank, Melbourne City, Moreland North, Brunswick-Coburg; high in Tullamarine-Broadmeadows. • Asthma medicines dispensed, 3-19 years (**Table 72**) Extremely high in Sunbury; high in Brimbank and Macedon Ranges. **Low value surgical interventions**

2.1 Population health		
		• Myringotomy admissions, under 17 years (**Table 73**) Very high in Sunbury and high in Macedon Ranges. • Tonsillectomy admissions, under 17 years (**Table 74**) Moderate in Sunbury and Macedon Ranges. **Determinants of health** • High estimated rates of children aged 2-17 that are overweight in Maribyrnong, Brimbank, Darebin and Moreland; and obese in Brimbank, Hume, Melton and Wyndham. (**Table 75, Table 76**) • High estimated rates of children aged 2-17 that have inadequate fruit intake in Melbourne (**Table 77**)
Young people Identified needs for this group are: • Sexual health. • Mental Health (see also 'Mental Health' section)	Recently there have been significant gains in the health of young people including: • a large decline in death rates (due to fewer injury deaths) • asthma and hepatitis hospitalisations have decreased and there is improved survival for cancer • favourable trends are occurring in some risk and protective factors, such as smoking and illicit substance use;	**Potentially avoidable hospitalisations** Most prevalent potentially avoidable hospitalisations among 15-24-year olds (**Table 78**) • Cellulitis (14%) • Urinary tract infections (11%) • Ear, nose and throat infections (10%) **Literature** Australian Institute of Health and Welfare. Young Australians: their health and wellbeing 2011. Canberra: AIHW; 2011.

2.1 Population health

	• most sexually active Year 10 and 12 students are using contraception and, • most young people can get support from outside the household in times of crisis. These health gains need to be contrasted against rising rates of diabetes and sexually transmissible infections, high rates of mental illness and, for males, road transport accident deaths. Many young people are overweight or obese, not physically active or eating enough fruit and vegetables, and drinking at risky or high-risk levels. Many young people are also victims of alcohol or drug-related violence or are homeless. Within our catchment, priority communities include disadvantaged areas in Brimbank	

2.1 Population health		
	and Hume and the high growth areas in Melton and Wyndham.	
Adults Identified needs for this group are: • Primary prevention activities to promote healthy lifestyles to prevent the onset of chronic disease. • Services to manage chronic disease (refer to 'Population health – Chronic disease').	Adults of working age experience major life events and transitions such as establishing themselves in the workforce, purchasing a home, raising a family, changing careers and retirement planning. Restrictions to their health can reduce their earning capacity and affect how these life events are experienced. It is also during working age that many long-term health conditions emerge and behaviours and patterns that can influence longevity or health in later years are established. Although young adults experience fewer long-term health conditions than older age groups, they can put themselves at a greater risk of developing these conditions later in life if their lifestyles and behaviours are unhealthy.	Please refer to the Chronic Diseases Data Profile at **Appendix E1** for more detailed statistics and data sources. **Potentially avoidable hospitalisations** (**Table 79** and **Table 80**) Major avoidable hospitalisations for 25-44-year old include: • Iron deficiency anaemia • Cellulitis • Other vaccine-preventable conditions As adults age, chronic obstructive pulmonary disease becomes increasingly prevalent. Major avoidable hospitalisations for 45-64-year old include: • Chronic Obstructive Pulmonary Disease (COPD) • Iron deficiency anaemia. • Diabetes (type 2)

2.1 Population health		
	Compared with the younger age group, people aged 45-64 are more likely to die due to a chronic disease. Cancer and coronary heart disease were the predominant conditions causing death in both men and women. Many chronic diseases are linked to lifestyle determinants such as rates of obesity/being overweight, physical inactivity, poor diet and smoking. The outer west and north generally have higher rates of these determinants, indicating correlation with socio-economic disadvantage.	
Older adults (65+) Identified needs in this age group are: • Co-ordinating care for older adults, particularly	Major chronic diseases become increasingly prevalent as people age. Thus, the health needs of many older adults are compounded by the need to manage comorbidities. At a system level, an integrated	Please refer to the Older Adults Profile at **Appendix E7** for more detailed statistics and data sources. **Potentially avoidable hospitalisations** (**Table 81**) • Congestive heart failure (26 per cent of ACSCs). • Chronic obstructive pulmonary disease (14 per cent of ACSCs)

2.1 Population health

those with several co-morbidities. • Ensuring that residential aged care facilities are sufficiently equipped to provide and/or facilitate access to high-quality primary care services. • Co-ordinating end of life care.	approach to co-ordinating care is required. This is particularly pertinent for older adults in residential care or on home care packages, who must be able to access high quality services to meet their needs. Additionally, older adults also need to be able to access palliative care and end-of-life planning as they reach the end of their lifecycle. This may require co-ordination for priority groups such as CALD communities. Additional focus on the quality use of medicines can assist in addressing the variability in prescription rates, in conjunction with the implementation of real-time prescription monitoring and up-listing of codeine-based drugs in 2018.	• Iron deficiency anaemia (12 per cent of ACSCs) **Pharmaceutical data** • Dementia medication dispensations (**Table 82**) - Very high in Melbourne City, Darebin North and Yarra; high in Darebin South. • Opioid medication dispensations (**Table 83**) - High in Sunbury and Melton-Bacchus Marsh. This may be linked to chronic musculoskeletal pain. **Data gaps** • Advance care planning data, including statistics on where people die compared to where they nominate wanting to die in their advance care plan.
Major diseases – all age groups	**Chronic disease – diabetes**	**Potentially avoidable hospitalisations** (**Table 84**)

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Identified needs for all age groups are:
• Very high rates of diabetes across the PHN region.
• High rates of respiratory disease in young children and older adults.
• High rates of hypertension and other cardiovascular diseases.
• Cancer as a major burden of disease in all populations.
• Ensuring that infants and those in aged care avoid preventable urinary tract infections and kidney infections.
• Primary and Secondary prevention.
	Diabetes is a major priority area across all age groups. The PHN region has significantly higher rates of diabetes than the Australian average across most LGAs, and the burden of disease presented in the PHN region is rated higher than the Victorian average.
	
	Diabetes as a major burden of disease first becomes prominent in the 35-44 age group, although younger adults and young children may face avoidable hospitalisations from diabetes complications. As a predominantly lifestyle disease, health needs in this region include the need for prevention as well as management.
		• Diabetes is the highest avoidable hospitalisation for adults aged 45-64 years.
		• Second highest avoidable hospitalisation for 35-44-year olds.
		• Third highest avoidable hospitalisation for all ages.
		
		Prevalence
		(**Table 85**)
		• Estimated population with type 2 diabetes: Diabetes rates are extremely high, very high or high in 10 of the 13 LGAs in the PHN region
		  • Extremely high: Brimbank, Hume, Maribyrnong, Darebin, Moreland.
		  • Very high: Melton.
		  • High: Hobsons Bay, Yarra, Moonee Valley, Wyndham.

	Chronic disease – respiratory disease Respiratory system diseases primarily affect two age groups.	**Potentially avoidable hospitalisations** (**Table 86**)

2.1 Population health		
	Asthma is a major burden of disease for infants, children and young people; this region has some of the highest rates of asthma hospitalisations nationally, indicating that the needs of those with asthma may not be adequately met in the primary health system. Older adults are more greatly affected by chronic obstructive pulmonary disease and other respiratory diseases. Very high morbidity rates in western Melbourne suggests that the primary care system may not be adequately meeting health needs.	• Chronic obstructive pulmonary disease second highest for 45-64-year olds (13 per cent of ACSCs) and highest for 65+ year olds (14 per cent of ACSCs). (**Table 87**) • Asthma Highest for 0-4-year olds and second highest for 25-34-year olds Avoidable hospitalisation rates for asthma are higher than the state average. **Prevalence** (**Table 89**) • Estimated population with asthma: Extremely high in Moorabool and Macedon Ranges. **Morbidity** • Very high average annual deaths from respiratory system diseases (**Table 90**) Hume and Maribyrnong. • Average annual deaths from chronic obstructive pulmonary disease (**Table 91**) High in Maribyrnong; Moderate in Hobsons Bay and Hume. **Data gaps** • Prescribing of asthma medicines. • Hospital admissions.

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	Chronic disease - cardiovascular Cardiovascular disease (including both hypertensive and cardiac disease) is one of the major diseases for adults and older adults, and a leading cause of death.	**Potentially avoidable hospitalisations** (**Table 92**) • Congestive cardiac failure is the highest avoidable hospitalisation for 65+ years. **Prevalence** (**Table 94**) • Circulatory disease: Extremely high in Maribyrnong; very high in Melton. • Hypertensive disease (**Table 95**) Extremely high in Melbourne, Yarra, Maribyrnong, Moreland, Brimbank and Darebin; Very high in Hobsons Bay and Hume. **Mortality** • Deaths attributed to circulatory disease, 0-74 years (**Table 96**) Extremely high in Maribyrnong; Moderate in Darebin, Hume and Melton. • Deaths attributed to ischaemic heart disease, 0-74 years (**Table 97**) Very high in Maribyrnong; Moderate in Hume and Darebin. • Deaths attributed to cerebrovascular disease, 0-74 years (**Table 98**) High in Darebin, Melton and Hobsons Bay; Moderate in Maribyrnong, Moorabool. **Other literature**

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		• The Heart Foundation has developed data on the selected cardiac conditions and out-of-hospital cardiac arrest by local government area in Victoria. The maps also show risk factors and selected socio-demographic data by local government area. These data are consistent with the burden of disease data above. http://heartfoundation.org.au/programs/victorian-heart-maps.
	Chronic disease – mental health Refer to the mental health section of the needs analysis.	
	Cancer Cancer is one of the major burdens of disease for adults and becomes increasingly prevalent as adults' progress throughout their lifespan. Across the region, there are areas with higher incidence of cancer morbidity but lower rates of cancer screening. For some types of cancer (e.g. lung cancer), there may be a correlation between the prevalence of cancer and higher rates of socio-economic disadvantage.	**Screening rates** • Bowel cancer *Screening* (**Table 99**) Low screening in Tullamarine-Broadmeadows, Moreland North, Melbourne, Darebin-North, Wyndham, Melton - Bacchus Marsh. • Breast cancer *Screening* (**Table 102)** Very low in Melbourne, and low in Yarra, Darebin - North, Darebin-South, Wyndham, Tullamarine-Broadmeadows, Melton - Bacchus Marsh *Diagnosis* (**Table 103**) High in Moonee Valley, Darebin, Melton, Wyndham, Macedon Ranges, Moreland. • Cervical cancer *Screening* (**Table 104**) Very low in Melbourne, low in Wyndham, Tullamarine – Broadmeadows,

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		Darebin – North, Sunbury, Melton -Bacchus Marsh *High grade abnormalities* (**Table 105**): Extremely high in Yarra; Very high in Melbourne. **Mortality** • Colorectal cancer mortality rates (**Table 107**): Very high in Moreland and high in Hobsons Bay, Moorabool, Yarra and Darebin. • Lung cancer mortality rates (**Table 108**): Very high in Moorabool; High in Hobsons Bay and Yarra. • Breast cancer mortality rates (**Table 109**) High in Darebin and Melton; High in Hume, Hobsons Bay and Moreland. **Data gaps** • Cancer survival rates. • Cancer treatment rates. • Determinants of cancer – asbestos, chronic Hepatitis B.
	Communicable disease While Australia has made great progress in addressing blood-borne viruses and sexually transmitted infections over the past three decades, these conditions still represent a	**HPV vaccine rates** • Rates of coverage: Very low in Melton and Melbourne; Low in Macedon Ranges and moderately low in Hume (**Table 121**). **Blood-borne diseases**

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	significant burden of disease with the number of people affected remaining too high and, in some cases, increasing. The burden is higher amongst vulnerable population groups and given the relatively high proportion of these within NWMPHN it is an important area.	• Extremely high levels of notification rates of Hepatitis B – unspecified and Hepatitis C - unspecified in Melbourne and Maribyrnong, Extremely high Hepatitis B - unspecified in Brimbank and Wyndham. (**Table 122**) • Extremely, very high and high levels of STI notifications rates (chlamydia, gonorrhoea, syphilis, HIV) across the PHN, except for Moorabool (**Table 123**).
	Musculoskeletal disease The severity of impact of musculoskeletal disease may be as high as other chronic diseases, and as a comorbidity, musculoskeletal disease can also negatively impact mental health through persistent low-level chronic pain.	**Prevalence** • Estimated prevalence across the region is consistent with the Victoria average (**Table 100**)**.**
	Urinary tract/kidney infections Urinary tract and kidney infections are one of the major diseases causing avoidable hospitalisations across all age groups.	**Potentially avoidable hospitalisations** (**Table 101**) • All ages: 8.8 per cent across PHN, compared with 9.3 per cent across Victoria. Forms the third highest cause of potentially avoidable hospitalisations. • 15-24 years: 11.4 per cent across PHN, compared with 11.5 per cent across Victoria. Forms the highest cause of potentially avoidable hospitalisations.

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	In general, urinary tract and kidney infections affect two age groups: infants and older adults, particularly those in aged care. In both groups, kidney infections can indicate a need for either higher quality service provision or better education on infant hygiene practices.	
Aboriginal and Torres Strait Islander people.	Aboriginal and Torres Strait Islanders people are likely to experience significantly poorer health and life outcomes across all ages and stages, from pregnancy to premature mortality. While the NWMPHN region has a relatively small Aboriginal and Torres Strait Islander population, the major health inequalities experienced by this group across a range of indicators suggest that these populations in the region require specific interventions to	Please refer to the Closing the Gap report (2016) at **Appendix B** for more detailed statistics and data sources. Please also refer to the determinants list in the Aboriginal and Torres Strait Islanders Data Profile (**Appendix E5**). A short snapshot of key statistics is included below. Refer to the Aboriginal and Torres Islander Health section of the needs analysis. **Determinants: All age groups** • Population: Aboriginal residents tend to be younger than non-Aboriginal residents. • Disadvantage: almost 40 per cent of Aboriginal people in Victoria are at the highest level of disadvantage (lowest 20 per cent of Index of Relative Socio-Economic Disadvantage scores). • Education: 30 per cent gap in Year 12/equivalent or ACQ attainment between Aboriginal and non-Aboriginal Australians.

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	ensure more equitable access to health services.	• Employment: Aboriginal people are 25-30 per cent less likely to be in the labour force. Those out of the workforce are more likely to smoke, eat poorly, feel less healthy and have chronic diseases. • Housing and homelessness: 25 per cent of all Australian people experiencing homelessness are from an Aboriginal background. Victorian Aboriginal men and women are more likely to use homelessness services to escape family violence. • Racism and discrimination: 17.2 per cent of Aboriginal people in non-remote areas reported experiencing racism or discrimination in the last 12 months. • Crime and violence: hospitalisations for family assaults are 28.3 times more likely for Aboriginal men and 34.2 times more likely for Aboriginal women. Aboriginal imprisonment in Victoria increased nearly 30 per cent from 2010 to 2013, however remains lower than overall Australian rates.
		Perinatal and infancy **Pregnancy and birth** • Aboriginal women generally give birth at an earlier age and have more children than non-Aboriginal women. • Single-birth Aboriginal babies are twice as likely to be underweight than non-Aboriginal babies. **Health needs** • Breastfeeding: Aboriginal children in Victoria under three years old are less likely to be breastfed than non-Aboriginal children, and Aboriginal mothers appear to stop breastfeeding earlier.

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		• Immunisation: Aboriginal immunisation rates are lower at one year old, but higher at five years old. **Infant mortality** • Mortality rates are higher for Aboriginal infants and children than non-Aboriginal infants and children. • Deaths from sudden infant death syndrome and respiratory diseases are more common for Aboriginal than non-Aboriginal infants. **Service utilisation** • Maternal and Child Health Nurse: Attendance rates are lower for Aboriginal people in Victoria.
		Children and young adults **Determinants** • Child protection: Aboriginal children are nine to ten times more likely to be the subject of a substantiated child protection report than non-Aboriginal children. • Vulnerability: Victorian Aboriginal children are more likely than non-Aboriginal children to be classified as 'vulnerable' across all five domains. • Bullying: Victorian Aboriginal children experience more bullying than non-Aboriginal children. **Health needs indicators**

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		• Disability: Aboriginal children are approximately three times more likely to have a disability than Victorian non-Aboriginal children. • Injury: Aboriginal children across Australia are between 5 and 8.8 times more likely to be hospitalized for assaults than non-Aboriginal children. • Mortality: The mortality rate for 5-14-year olds is 17.6 per 100,000, almost double the rate for non-Aboriginal children.
		Adults and older adults **Chronic disease** • Aboriginal people are more likely to have a range of key chronic diseases, such as chronic kidney disease, than non-Aboriginal people. **Cancer** • Rates: Rates of lung and cervical cancer are significantly higher for Aboriginal people than non-Aboriginal people in Victoria. • Mortality: Aboriginal women are five times more likely to die of cervical cancer. **Other health needs** • Disability: Non-remote Aboriginal adults have higher recorded rates of all types of disability than non-Aboriginal adults, and almost 20 per cent of older adults over 55 have a disability requiring daily assistance. • Hearing: Aboriginal adults are twice as likely to have a hearing problem than non-Aboriginal adults.

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		• Blood-borne viruses: Rates of STIs and blood-borne viruses, except for HIV, are substantially higher for Aboriginal people than non-Aboriginal people across Australia. **Avoidable hospitalisations** • Aboriginal people in major cities are hospitalised at a higher rate (7.2 per cent) than non-Aboriginal people (4.1 per cent). • The rate of diabetes ACSCs is extremely high for Aboriginal people compared to non-Aboriginal people. **Mortality** • Life expectancy: Aboriginal people live for approximately 10 years less than non-Aboriginal people. • Mortality: Aboriginal people die of endocrine, nutritional and metabolic disorders, including diabetes, at more than 4.5 times the rate of non-Aboriginal people. • Avoidable mortality: Aboriginal people are seven or more times more likely to die of diabetes, kidney disease, violence, and rheumatic and valvular heart disease.
Other vulnerable groups	*Homeless persons* • Homelessness has a negative impact on physical and mental health, and there is a strong link between	**Homeless persons** • Approximately 42.6 per 10,000 persons are homeless in Victoria, compared to a national average of 48.9. There are extremely high rates of homelessness in Melbourne, Yarra, Maribyrnong, Darebin and Moreland (**Table 124**).

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	homelessness and poor mental health. • NWMPHN region has extremely high rates of homelessness reported in 5 LGAs. *CALD* • Barriers to accessing the health system through lack of engagement or understanding. • Some have different cultural practices (e.g. around aged/palliative care). *Recent humanitarian arrivals* [5] • Less likely to know how to navigate the health system. • May have low levels of health literacy. • Are likely to have experienced trauma and may require	• Approximately 3 per cent of homeless persons in Victoria are primarily homeless because of mental health or substance abuse issues. • The primary reasons for homelessness are domestic violence (33 per cent), accommodation issues (29 per cent) and financial difficulties (27 per cent). • People with disabilities are more likely to become homeless; across Australia, approximately 25 per cent of clients of homeless services have a disability, but people with disabilities only constitute approximately 18 per cent of the population. • Aboriginal and Torres Strait Islanders are substantially more likely to be homeless; in 2014-15, 23 per cent of people supported by specialist homelessness services identified as Aboriginal or Torres Strait Islander, and more than 25 per cent of these were children aged 0-10. Please refer to the Aboriginal and Torres Strait Islander Health Data Profile at **Appendix E5** for more detailed statistics and data sources. • Regarding vulnerable populations, see also **2.2 Mental health needs** and **Appendix E3**.

[5] The Victorian refugee and asylum seeker health action plan 2014–2018, https://www2.health.vic.gov.au/Api/downloadmedia/%7B6E6F8723-0369-4DA0-B504-59397A81A679%7D

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	additional mental health support. *LGBTIQ* • Are more likely to face stigmatisation, bullying and minority stress which have a strong impact on poor mental health. • Have some specific health issues (e.g. sexual health risks, blood-borne viruses, utilisation of cross-gender hormone treatments).	
Health literacy	Health literacy is a major issue in the region, given the levels of cultural diversity, new arrivals from refugee and asylum seeker backgrounds and areas of general disadvantage. Low levels of health literacy are consistently associated with a	• Approximately 50 per cent of the Victorian population has below adequate literacy (level three or above) to meet the complex demands of everyday life, including managing and engaging in their own health care.[6]

[6] Australian Bureau of Statistics. Adult Literacy and Life Skills Survey, Summary Results. Australia, 2006. Results of national survey concerning Health Literacy in 2006. http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4228.0.55.0042006?OpenDocument

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	range of negative health outcomes. These include increased hospitalisations and greater use of emergency care; lower use of mammography and preventative medicine such as influenza vaccination; a lack of ability to interpret labels and health messages and take medications appropriately; and, among seniors, poorer overall health status and higher mortality.	

2.2 Mental health needs

Identified needs	Key issue	Description of evidence

Summary

Mental health issues are present across the life span creating high levels of need at key transition stages where developmental milestones provide a critical grounding for general health and development. Child development is a critical foundation for the challenges of young adulthood/youth where the development of mental illnesses often occurs, 75% of mental health disorders manifest themselves before 25 years old. In the productive adult years, the burden of mental illnesses becomes highest and creates challenges around the life years lost through disability. A key challenge for the system is the rise of dementia and supporting patients and their families.

The NWMPHN population has greater mental health needs when compared with other areas of Victoria and Australia. Specifically, the catchment includes populations with higher rates of risk factors like social and economic disadvantage, large CALD populations, large numbers of people who identify as LGBTIQ

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and many people experiencing homelessness. These groups require greater access to highly tailored mental health and counselling services and supports when compared with the general population. Additionally, there are some locations with specific mental health needs, such as Wyndham, Brimbank and Macedon Ranges. The following section provides detailed identification of these mental needs, specific issues and supporting evidence or identification of relevant data gaps where relevant. Please refer to the Mental Health Data Profile at **Appendix E3** for more detailed statistics and data sources.

Mental health *Perinatal and infancy* Identified needs for this group are: • Perinatal depression rates and the subsequent impact on parent-infant attachment and early childhood development.	While local data on perinatal depression rates are not readily available, national prevalence data indicate that this condition is an important health issue, particularly in localities with high birth rates. Evidence suggests that many people access their general practitioner for support with perinatal depression.[7] Limited service access data indicate that referral rates to psychological services may not align with actual need, and	**Maternal mental health** • ATAPS (**Table 1**): 2012-2015 discrepancies between the number of referrals (1.3 per cent of all referrals) and attendance of appointments (0.8 per cent of all attendances) indicates that women may have faced barriers to accessing services. Barriers may include long distances to travel, financial barriers to travel and lack of access to public and private transport. The 2015-16 data do not show this discrepancy. **Infant mental health** • It is estimated that up to 1 in 10 women and 1 in 20 men experience antenatal depression, and more than 1 in 7 new mothers and up to 1 in 10 new fathers experience postnatal depression every year. [8] • Analysis of data from the 2010 Australian National Infant Feeding Survey estimated that 56,000 women would have been suffering with depression in the perinatal period (that

[7] Australian Institute of Health and Welfare 2012. Experience of perinatal depression: data from the 2010 Australian National Infant Feeding Survey. Information Paper. Cat. no. PHE 161. Canberra: AIHW.

[8] Perinatal Anxiety and Depression in Australia. Factsheet: *Anxiety & Depression in Pregnancy & Early Parenthood.* Accessed August 2017 at https://www.panda.org.au/images/resources/Resources-Factsheets/Anxiety-And-Depression-In-Early-Parenthood-And-Pregnancy.pdf

2.2 Mental health needs

	uptake of those referrals is also worryingly low. Given the importance of the first 1000 days of life, providing coordinated and accessible support for new parents is critical in terms of ensuring that infants born in our region are building healthy relationships, thriving and achieving developmental milestones.	is, the depression was diagnosed from pregnancy until the child's first birthday) at the time of the survey.[9] Perinatal anxiety is also considered to be very high. • Perinatal mental health issues have been shown to lead to poorer developmental outcomes for the infant with associated bonding and attachment issues which can create lifelong challenges for personality development and building relationships. **Data gaps** • Local prevalence data and screening data. • Data on perinatal depression in Aboriginal and Torres Strait Islander people, and parents of Aboriginal and Torres Strait Islander infants.
Mental health *Children and young adults* Identified needs for this group are: • Mental disorders and psychological stress are a major burden of disease for children and young	Mental disorders and psychological stress represent a major burden of disease for children and young adults, particularly those in the outer-suburban areas with high levels of socio-economic disadvantage. Prevention and early intervention of mental health	**Determinants** • Socio-economic disadvantage (**Table 62**): Pockets of disadvantage exist across the PHN region, with Brimbank, Hume, Melton and Maribyrnong LGAs have among the lowest scores for the SEIFA Index of Relative Socio-Economic Disadvantage (IRSD). • Bullying rates (**Table 2**): Predominantly at or below Victorian median LGA values with the exception of Wyndham (very high) and Melton (high) for years 5-6 and Moorabool (extremely high) for years 7-9. • Child protection substantiations (**Table 3**): High rates observed in Melton and Brimbank

[9] Australian Institute of Health and Welfare 2012. Experience of perinatal depression: data from the 2010 Australian National Infant Feeding Survey. Information Paper. Cat. no. PHE 161. Canberra: AIHW.

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adults, particularly in the outer-suburban areas with higher levels of socio-economic disadvantage. • The associated need for equitable access to psychological services for children and young adults, with a focus on vulnerable populations.	issues present the greatest opportunities to limit the impact of mental illness on individuals and families. The prevalence of mental health problems relates to young people's transitional stage in their lifecycle, where they may be particularly impacted by issues such as bullying, gender identity and sexuality. These issues may manifest themselves in stress, anxiety, lowered mood, eating disorders, self-harm and suicide. The establishment of an additional headspace centre in Melton is an important development for the region.	Most LGBTIQ young people experience the same range of mental health concerns as their peers. Gender diversity in itself does not cause mental health problems. LGBTIQ young people may be more likely to experience a range of stressful occurrences however that contribute to an increased risk of depression, anxiety, self-harm and suicide. Please refer to the Suicide Prevention Data Profile at **Appendix E6** for more detailed statistics and data sources. Substance misuse, mental health problems and domestic violence are commonly associated with child protection involvement and are described as "key risk factors" for child abuse and neglect. There is substantial research documenting the association between these parental problems and poor outcomes for children. Children are particularly vulnerable to cumulative harm in families with multiple and complex problems in which the unremitting daily impact of multiple adverse circumstance and events has a profound and exponential impact on children and diminishes their sense of safety and wellbeing.[10] **User profile – headspace** Compared to headspace centres nationally, service users at the headspace centres in the PHN region have: • Greater progression of mental illness than the national average. • Generally higher outcomes on the Kessler Psychological Distress Scale (K10). • Generally lower outcomes on the Social and Occupational Functioning Assessment Scale.

[10] Australian Institute of Family Studies, December 2010. Issues for the safety and wellbeing of children in families with multiple and complex problems. The co-occurrence of domestic violence, parental substance misuse, and mental health problems. NCPC Issues No. 33

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	The NWMPHN is commissioning this service that will provide additional capacity in the high demand and population growth area in the outer west of Melbourne.	• Higher average visit frequency. Services within the PHN region have a higher proportion of Culturally and Linguistically Diverse (CALD) and Lesbian, Gay, Transgender, Intersex and Queer (LGBTIQ) users, and a lower proportion of Aboriginal and Torres Strait Islander users than national averages. This reflects the demographic profile of the NWMPHN region. **Service usage – headspace** Compared to headspace centres nationally, service users at the headspace centres in the PHN region: • Are more likely to have been referred by their general practitioner (GP). This may reflect better engagement of GPs or underutilisation of the other referral pathways such as schools. • Have higher formal written referrals. • Have higher primary funding from Medicare Benefits Schedule (MBS) for each occasion of service (**Table 9** to **Table 13**).
Mental health *Adults* Identified needs for this group are: • High prevalence and significant impacts of mental health and wellbeing issues across the region, with extremely high	Mental health problems are prevalent across the region. High levels of psychological distress are evident in a number of areas with higher levels of socio-economic disadvantage. In these areas, general mental health issues may be exacerbated by additional financial and social stresses, substance abuse,	**Determinants** • Financial stress and Food Security: some areas have a high to extremely high levels of financial stress and/or food insecurity – Melbourne, Hume, Brimbank, Melton, Wyndham and Moorabool (**Table 14** to **Table 16**) • Gambling: extremely high electronic gaming machine losses per adult (expenditure ($) per adult person) in many areas especially, Brimbank Maribyrnong, Moonee Valley, and Hume (**Table 20**) **Prevalence of mental health issues**

2.2 Mental health needs

rates of psychological distress in both some outer-suburban and inner-metropolitan LGAs. • The associated need for equitable access to psychological services.	family violence and challenges such as gambling. Poor mental health can lead to lost income and productivity and increase the risk of homelessness and disadvantage. The presence of a number of correctional facilities in western Melbourne, and the subsequent settlement of individuals on parole in western Melbourne, also creates a concentration of people with high service needs. Intimate partner violence is responsible for more ill-health and premature death in Victorian women under the age of 45 than any other preventable risk factor, including high blood pressure, obesity and smoking.	• Mental and behavioural problems (**Table 21**) High in Melbourne compared to Australia. • Psychological distress (**Table 22**) Statewide, the proportion of adults with high or very high psychological distress levels has increased from 11.4% in 2011 to 12.3% in 2014. Relatively high levels remain in Brimbank, Moonee Valley, Maribyrnong, Hume and Darebin • ATAPS referrals (**Table 23**) Depression is the highest primary care diagnosis in referrals, with anxiety the second highest. • MBS-funded mental health plans (**Table 25**) Extremely high rates observed in Sunbury, very high recorded in Darebin-South and high levels in Brunswick-Coburg and Yarra when compared to all other Victorian SA3s. **Intimate partner violence** • Literature: VicHealth. The Health Costs of Violence: Measuring the Burden of Disease Caused by Intimate Partner Violence. Carlton South, Vic: Victorian Health Promotion Foundation, 2004 (reprinted 2010). Accessed 26 October 2017. https://www.vichealth.vic.gov.au/media-and-resources/publications/the-health-costs-of-violence. • Family Incidents (**Table 125**): Family violence incidence rates within NWMPHN are predominantly within range of the Victorian median, with Moorabool very low and Darebin, Maribyrnong, Melbourne and Yarra low **Data gaps**

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	Direct health consequences for women exposed to violence include depression, anxiety, suicide attempts, physical injury, and a variety of reproductive consequences. The impacts of abuse can persist long after it has stopped, and the more severe it is, the greater the impact on a woman's ongoing physical and mental health.	• Rates and locations of family violence in the PHN region. • Data on individuals exiting correctional facilities and being placed on parole who are settled in the PHN region, including volume, demographic data, settlement location and health and social needs.
Mental health *Older adults* Identified needs for this group are: • The increasing prevalence of dementia nationally. • Relative high rates of dispensing of mental illness and dementia related medicines.	With the rising burden of lifestyle related chronic disease in this cohort, mental health issues are often unrecognised or treated effectively within the primary care system, and so may be underreported. Dementia rates are rising nationally and will continue to do so as the population ages, it is therefore important that appropriate services are	**Determinants** • Rates of 75+ year olds living alone (**Table 33)**: Melbourne LGA has the highest rate within the NWMPHN area, with Yarra also displaying very high levels with almost 2 out of 5 75+ persons living alone in those LGAs. • Aged pension recipients (**Table 34**): A large proportion of the LGAs (7 of 13) have high numbers of aged pension recipients, related to the relatively low socioeconomic status of the area. • Prevalence of dementia: Local data is not available for the NWMPHN area, but across Australia, three in ten people over the age of 85 and almost one in ten people over 65 have dementia (AIHW). **Pharmaceutical data** • Dispensing antipsychotic medication, 65 years and over (**Table 35**)

2.2 Mental health needs

	available for people across the region, including better assessment, identification and treatment.	13 of 16 SA3s within NWMPHN catchment are within to top quartile (highest 25%) of Victorian SA3s. Keilor and Wyndham are mildly elevated, while Macedon Ranges is well below the Victorian SA3 median. Yarra, Brunswick-Coburg, Melbourne City, Maribyrnong, Darebin-South and Darebin-North are in the highest 10% of Victorian SA3 values • Dispensing of anxiolytic medication, 65 years and over (**Table 36**) 14 of 16 NWMPHN SA3s are the Victorian SA3 median. Melton-Bacchus Marsh and Maribyrnong display extremely high rates (within top 10% of Victorian SA3) with very high rates observed in Yarra, Sunbury, Brunswick-Coburg and Tullamarine-Broadmeadows. Keilor and Melbourne City exhibit approximately median values while Macedon Ranges is well below median. • Dispensing of anticholinesterase medication (**Table 37**) High rates displayed by Melbourne City and Darebin-North, high rates in Yarra and Darebin-South. Extremely low rates observed in Brimbank, Wyndham and Maribyrnong. **Data gaps** • Local prevalence of dementia.
Mental health *Vulnerable populations* Identified needs for this group are: • Vulnerable people are more likely to experience mental	**Aboriginal and Torres Strait Islander people** Aboriginal and Torres Strait Islander people experience higher rates of socio-economic disadvantage, family violence and assaults, racism and	Please refer to the Closing the Gap report at **Appendix B** for more detailed statistics and data sources. Please also refer to the determinants list in the Aboriginal and Torres Strait Islanders Data Profile (**Appendix E5**). A summary is included within the below sections: **Child mental health** • Bullying: In Victoria, Aboriginal and Torres Strait Islander children experience more bullying than non-Aboriginal children.

2.2 Mental health needs

health issues, and less likely to have good access to services, impacting on their recovery rate and quality life. • The need for access to safe and appropriate psychological services and social supports.	discrimination, homelessness and unemployment. Aboriginal and Torres Strait Islander people generally have higher rates of mental illness, self-harm and suicide, mental illness-related hospitalisations and drug and alcohol comorbidities. Culturally appropriate, accessible integrated health and social services are required to meet the complexity of their health and other needs.	• Parental concerns: Aboriginal and Torres Strait Islander parents of children entering the first year of school were more likely to be concerned about child behavioural concerns, high family stress in the previous month and child emotional/behavioural difficulties. • Child protection substantiations: High rates observed in Melton and Brimbank (**Table 3**)**.** **General mental health** • Aboriginal and Torres Strait Islander people over 18 are 2-3 times more likely to report higher levels of psychological distress than non- Aboriginal and Torres Strait Islander people. • Aboriginal and Torres Strait Islander women and Aboriginal and Torres Strait Islander people aged 45-54 report the highest levels of psychological distress when compared to the overall Aboriginal and Torres Strait Islander population. • Aboriginal and Torres Strait Islander people in major cities and inner regional areas reported feeling more nervous, without hope, restless or jumpy, that everything was an effort, and so sad that nothing could cheer them up compared to non- Aboriginal and Torres Strait Islander people. • Across Australia, a higher proportion of Aboriginal and Torres Strait Islander GP encounters (737.5 per 1,000 compared to 585.2 per 1,000 in the non- Aboriginal and Torres Strait Islander population) were focused on managing mental health. **Self-harm** • Aboriginal and Torres Strait Islander people under 25 are almost four times more likely to die from self-harm than non- Aboriginal and Torres Strait Islander people. • Self-harm deaths were highest among 25-34-year old between 2008-12.

2.2 Mental health needs

		• Over 3 times as many Aboriginal and Torres Strait Islander males and 2.3 times as many Aboriginal and Torres Strait Islander females are hospitalised for self-harm than non-Aboriginal and Torres Strait Islander people. **Hospitalisations** • In Victoria, Aboriginal and Torres Strait Islander people were more likely in 2012-13 to be hospitalised for schizophrenia, mental and behavioural disorders due to psychoactive substance abuse, neurotic stress-related disorders, disorders of adult personality and behaviour, and mood disorders. **Comorbidities** • Hospitalisations: In 2012-13, Victorian Aboriginal and Torres Strait Islander people were 2.5 times more likely to be hospitalised for mental and behavioural disorders due to psychoactive substance use. • Homelessness: A high percentage of homeless persons are Aboriginal and Torres Strait Islander relative to the size of the Aboriginal and Torres Strait Islander population in Victoria.
	People experiencing homelessness Mental health is a major risk factor for homelessness, and the incidence of mental illness in the homeless population in Australia is higher than for the general population.	People experiencing homelessness are substantially more likely to have alcohol and drug dependence than the general population, and psychotic illnesses and personality disorders prevalence rates are higher. Ref: The Prevalence of Mental Disorders among the Homeless in Western Countries: Systematic Review and Meta-Regression Analysis. Fazel, Khosla, Doll and Geddes December 2008 http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.0050225. **Data gaps**

2.2 Mental health needs

	In turn, homeless persons may face additional barriers, such as cost, transience and transport, in accessing mental health services. A co-ordinated care approach across a range of mental health and other health services is required to ensure that people experiencing homelessness are able to access services that address the complexities of their health needs.	• Robust data on the prevalence of mental illness in the homeless population in the PHN region.
	People from CALD backgrounds The PHN region has a diverse population covering a wide range of cultural backgrounds. CALD people may experience specific mental health needs relating to trauma, cultural factors or isolation. In addition to language and other barriers in navigating	**Demographics** • People born overseas (**Table 38**) 11 of 13 NWMPHN catchment LGAs exhibit high to extremely high proportions of persons who were born overseas. • People who speak a language other than English at home (**Table 39**): 11 of 13 NWMPHN catchment LGAs exhibit high to extremely high proportions of people who speak a language other than English. In Brimbank (62.1%) and Melbourne (54.3%), a majority of the resident population speak a language other than English • Low English proficiency (**Table 40**): 11 of 13 NWMPHN catchment LGAs are within the top quartile (25%) of all Victorian LGAs for proportion of people with little or no English

2.2 Mental health needs

	and accessing the health system, cultural factors such as taboos on discussing mental health or family violence may discourage individuals from seeking treatment of mental illness. In order to meet these needs, the health system in the region must be able to engage CALD communities through culturally appropriate response and in partnership with local social structures.	proficiency. In Brimbank 1 in 7 people speak a language other than English and speak English not well or not at all, while in Maribyrnong the figure is 1 in 10.
	Recent humanitarian arrivals The PHN region hosts a range of humanitarian arrivals centred in Maribyrnong and Preston, with the most recent wave of Syrian refugee arrivals commencing in December 2015. Humanitarian arrivals often have relatively poor health	No specific data exist on the incidence of mental illness in the refugee community in the PHN region. However, current research highlights strong linkages between poor mental health and people experiencing displacement and trauma associated with refugee status. **Literature** • The Victorian Refugee Health Network collates a range of research and information on the health issues associated with refugees and asylum seekers. This is available at http://refugeehealthnetwork.org.au/learn/health-assessment-and-care/

2.2 Mental health needs

	status and are likely to have had limited access to health care. Some health problems experienced by people from refugee backgrounds are asymptomatic, but nonetheless may have serious long-term health consequences (e.g. intestinal parasitic infection, adult vitamin D deficiency, hepatitis B). Additionally, good access to services optimise the opportunity for early intervention, helping to ensure that physical and psychological problems do not become enduring barriers to settlement.	
	LGBTIQ • Members of the LGBTIQ community are at increased risk for a	**Literature** • Rosenstreich, G. (2013) LGBTI People Mental Health and Suicide. Revised 2nd Edition. National LGBTI Health Alliance. Sydney Accessed from

2.2 Mental health needs		
	number of health issues associated with social and structural inequities, such as stigma, discrimination and minority stress that LGBTIQ people experience.	http://www.beyondblue.org.au/docs/default-source/default-document-library/bw0258-lgbti-mental-health-and-suicide-2013-2nd-edition.pdf?sfvrsn=2 • National LGBTI Health Alliance (2 September 2011) Mental Health Issues for LGBTI individuals in CALD communities, in Diversit-e Sydney. http://lgbtihealth.org.au/sites/default/files/Diversit-e-20110902.pdf. • Writing Themselves In 3 (WTi3). The third national study on the sexual health and wellbeing of same sex attracted and gender questioning young people.

2.3 Drug and alcohol needs

Identified needs	Key issues	Description of evidence
Alongside the mental health needs identified in north western Melbourne there are significant service needs relating to drug and alcohol misuse. Evidence shows a strong correlation between rates of illicit substance use and areas of socioeconomic disadvantage, such as in Melton, Moorabool and Brimbank. North western Melbourne also has a high rate of emergency department presentations for acute intoxication and ambulance call outs for overdose in areas such as Melbourne and Yarra, reflecting social and recreational activities in the city which centre around alcohol and drug use. These patterns illustrate the need for not only acute and longer-term support programs, but also the necessity to better integrate low acuity supports and early interventions to divert people away from longer term substance misuse patterns. In terms of overall health service needs, alcohol remains the greatest issue in the region, however while there are lower overall usage rates of illicit substances such as methamphetamine, this is increasing. Alcohol and other substance misuse is also an area where a number of specific population groups are overrepresented, such as people experiencing homelessness, Aboriginal or Torres Strait Islander people, people identifying as LGBTIQ and people who may have experienced trauma such as refugees. Please refer to **Appendix E4** (Alcohol and Other Drugs Data Profile) and **Appendix E5** (Aboriginal and Torres Strait Islander Health Data Profile) for more detailed statistics and data sources.		
Drug and alcohol *Alcohol, tobacco and cannabis* Identified needs are: • Youth specific services to address rates of adolescent smoking and drinking. • General alcohol and smoking services.	The rate of alcohol consumption is a key determinant of overall health. Alcohol consumption and service usage rates are high in the inner city, as well as in inner-suburban areas with higher rates of socio-economic disadvantage and in the rural municipality of Moorabool.	**Determinants** • Estimated number of people aged 15 years and over who consumed more than two standard alcoholic drinks per day on average (**Table 41**): Very high in Yarra. **Service utilisation** • Alcohol-related ambulance attendances (**Table 42**): Extremely high in Yarra and Melbourne (reflects where people access services, not necessarily where they live).

2.3 Drug and alcohol needs

• Health literacy for vulnerable groups.	While all levels of smoking are dangerous to health, rates of adult smoking are low relative to the Australian and Victorian average. However, adolescent rates of smoking and drinking continue to be a priority in the region, as the highest rates of alcohol related hospitalisations are in the teenage age group.	• Alcohol-related emergency department presentations (**Table 43**) Extremely high in Yarra and Melbourne. • Alcohol-related hospitalisations (**Table 44**) Very high in Yarra, moderate in Melbourne, Maribyrnong and Hobsons Bay. • Alcohol-related episodes of care (**Table 45**) High in Yarra. **Injury and mortality** • Alcohol-related assaults during high alcohol hours (Friday and Saturday nights between 8pm and 6am) (**Table 46**) Extremely high in Melbourne and very high in Yarra • Alcohol-related serious road injuries during high alcohol hours (**Table 47**) Very high in Melbourne, high in Moorabool and Macedon Ranges. • Alcohol-related deaths (**Table 48**) Very high in Moorabool, moderate in Macedon Ranges. Adolescent smoking and drinking rates across Australia • Smoking rates increase with age. By the age of 17, 13 per cent of males and 11 per cent of females are current smokers (smoked in the last week). • Young Australians (14-24) have their first full serve of alcohol at 15.7 years, on average. • 27.7 per cent of 12-17-year olds have consumed alcohol in the last 12 months.

2.3 Drug and alcohol needs

		• Alcohol contributes to the 3 major causes of teenage death, being injury, homicide and suicide. Smoking rates are low across the PHN region relative to both the Victorian and Australian averages.
Drug and alcohol *Other drugs* Identified needs are: • Services to address the increasing use of methamphetamine. • Services to address the use of other drugs, particularly for vulnerable populations.	Service utilisation for non-methamphetamine drugs is high in the inner-city and in outer-suburban areas with higher rates of socio-economic disadvantage. Rates are particularly high in the 15-24-year-old age group, indicating the need to target interventions on young people. National Drug Strategy Household Survey has not found a rise in methamphetamine use among 14-19-year olds, methamphetamine has replaced powder as the main form used, increasing the	Rates of drug use and service utilisation for other drugs are consistently highest in the 15-24-year-old age group. **Service utilisation – methamphetamine** • Ambulance attendance (**Table 49**) Extremely high in Melbourne and Yarra; very high in Maribyrnong, Hume, Brimbank and Darebin **Service utilisation – other amphetamines** • Ambulance attendance (**Table 50**) Extremely high in Melbourne and Yarra, very high in Maribyrnong, Darebin and Brimbank. • Episodes of care (ADIS) (**Table 51**) Very high in Yarra; High in Melton, Moreland and Hume. **Service utilisation – other drugs** • Ambulance attendances (**Table 50, Table 52, Table 56, Table 60)** • *Illicit substances*: Extremely high in Melbourne, Yarra and Maribyrnong; very high in Brimbank, Moonee Valley and Darebin. • *Pharmaceuticals:* Extremely high in Melbourne and Yarra; high in Moorabool.

2.3 Drug and alcohol needs

	purity and thus the impact of the drug.
	
	Drug and alcohol usage is often a comorbidity of mental health issues. This presents additional challenges in co-ordinating care due to the complexity in addressing both needs concurrently.
		• *Other stimulants*: Extremely high in Melbourne and Yarra; very high in Darebin and Moreland; high in Maribyrnong and Hume.
		• Hospitalisations (**Table 54, Table 58**)
		  • *Illicit substances*: Very high in Melbourne and Brimbank; high in Yarra and Maribyrnong.
		  • *Pharmaceuticals:* Very high in Melbourne; High in Yarra.
		
		Episodes of care (**Table 50, Table 55, Table 61**)
		  • *Illicit substances*: Very high in Yarra and Maribyrnong; high in Brimbank and Melton.
		  • *Pharmaceuticals:* High in Maribyrnong
		  • *Other stimulants:* Extremely high in Hume; very high in Brimbank, Hobsons Bay, Moonee Valley and Darebin; high in Maribyrnong, Yarra and Melbourne
		Rates of illicit substance episodes of care are higher for males, while rates of pharmaceutical episodes of care are higher for females.

Drug and alcohol *Usage by vulnerable populations*	**Aboriginal and Torres Strait Islander people** Rates of drug and alcohol usage are higher for Aboriginal populations than for the general population. This may relate to the wider prevalence and severity of mental health issues in the Aboriginal community, as well as multi-	Please refer to the mental health, alcohol and drug data profiles in **Appendices E3** and **E4**, respectively, for more detailed statistics and data sources. A summary is included below. **Alcohol** • Binge-drinking rates are similar to those for non-Aboriginal people, but those Aboriginal people who do binge-drink drink more often. • Hospitalisation rates for acute intoxication are 12.1 times higher for Aboriginal women than non-Aboriginal women, and 9.7 times higher for Aboriginal men than non-Aboriginal men. **Smoking** • Aboriginal people are 2.6 times more likely to smoke daily than non-Aboriginal people.

2.3 Drug and alcohol needs

	faceted and intergenerational disadvantage.	• Aboriginal males are 2.3 times more likely to be hospitalised for smoking-related causes • Aboriginal females are 3.9 times more likely to be hospitalised for smoking-related causes. **Other drug use** • Hospitalisation rates with drug use as the principal diagnosis are high for Australian Aboriginals, who are 2.5 times more likely to be hospitalised for these reasons. • The rate of alcohol and other drug treatment episodes is proportionally higher for the Aboriginal population. • The proportion of Aboriginal alcohol and other drug clients with concurrent mental health conditions is higher in Moreland, Hobsons Bay and Hume.
	People experiencing homelessness People experiencing homelessness experience higher rates of substance misuse specifically alcohol, cannabis, opioids, and amphetamines.[11] **LGBTIQ** Rates of drug use are considerably higher among LGBTIQ people than the	Australian and international research indicates higher levels of drug use in non-heterosexual populations with these patterns of higher drug use generally beginning in adolescence.[12]

[11] https://research-repository.griffith.edu.au/handle/10072/49548

[12] http://www.glhv.org.au/report/writing-themselves-3-wti3-report

2.3 Drug and alcohol needs		
	general population, except for heroin.	

SECTION 3 – OUTCOMES OF THE SERVICE NEEDS ANALYSIS

Understanding the complexity and needs of the service system has been an ongoing focus for NWMPHN since its inception, and we have undertaken some key pieces of work to analyse the current service configuration, structures, relationships and areas requiring further market analysis and development across the region. Most recently detailed data profiles have been developed to provide a focus on the key priority areas for the PHN **(Appendix E1-7**).

A key theme emerging from the service needs analysis relates to the unprecedented population growth being experienced in the NWNPHN region. Our region currently has a population of over 1.6 million people and this is predicted to rise by 18 per cent in just six years to 1.9 million people. Wyndham, Melton and Melbourne are three of the five most rapidly growing LGAs in Victoria. North Western Melbourne PHN region also includes several other LGAs that are predicted to have annual growth rates well in excess of the state average. Whilst some of this growth comes from immigration, and both interstate and intrastate migration (due to proximity to Melbourne CBD and relatively affordable housing), additional growth comes from very high birth rates. The high numbers of births, especially in Melton and Wyndham, has immediate implications not only for strained maternity and maternal and child health services, but also in terms of planning for kindergartens, schools, and broader health and social infrastructure. Maintaining and improving service quality, access and effectiveness will therefore be an ongoing challenge, and will require considerable coordination and planning across multiple organisations and levels of government.

We would also note that it is not always possible to separate health needs from service needs, and in many cases section 2 of this document refers to service needs which are directly linked to a highly specific health need. The table below highlights a range of more general service needs which cut across sectors, populations and the geography of the region.

Outcomes of the service needs analysis		
Identified Need	Key Issue	Description of Evidence
Areas of workforce shortage across the region, specifically in the western suburbs and growth corridors where there is very high and growing demand.	There is a need to ensure that the health workforce is able to support service availability in the outer west and growth corridors, where there are high levels of projected population growth.	**District of workforce shortages** (**Table 120**) GP shortages • Key areas of shortage include: Macedon Ranges, Wyndham, Brimbank, Melton-Bacchus Marsh, and Hobsons Bay.

Outcomes of the service needs analysis		
	Compared to inner-city and inner-suburban areas, the outer west and north regions generally has smaller primary health workforces. These regions also have higher levels of socio-economic disadvantage indicating that there may be higher levels of unmet or underserviced demand, as individuals with greater needs face additional barriers to accessing services. Strong current and projected population growth in these regions may exacerbate any existing service shortfalls. There is also a need to ensure that bulk billing services continue to be available to meet demand in areas with higher socio-economic disadvantage.	Obstetrician and gynaecologist shortages • Shortage in all regions except for Melbourne, Brunswick-Coburg, Essendon, Maribyrnong and Yarra. General surgeon shortages • Shortage in all regions except for Essendon, Melbourne, Yarra and Maribyrnong. Psychiatrist shortages • Shortage in all regions except Essendon, Melbourne, Brunswick-Coburg and Yarra.
	NWMPHN has utilisation levels of general practice and medical specialists generally comparable with overall national levels, with some exceptions: • Low per capita rates of general practice attendances in Yarra • Low per capita rates of general practice bulk billing in Yarra, Darebin-South, Macedon Ranges, Melbourne City. • Low per capita rates of medical specialist attendances in Brimbank and Maribyrnong. • Lower rates of after-hours general practice in the Melbourne - inner area than in other areas.	**Service usage** • The AIHW publish analysis of MBS utilisation by SA3 and PHN. These data provide estimations of the crude and aged standardised per capita utilisation of services. • Variation in the age standardised rates may reflect a range of factors including practice variation including referral practice among general practitioners, workforce availability, financial and other barriers for service provision. **Table 111, Table 113,Table 115, Table 117** provide analysis of the key MBS utilisation data.
Concerns about the accessibility of services, the responsiveness of services (related to wait times and	Qualitative and quantitative data indicates that access to services across the region is not satisfactory, and that there are issues around waiting times and affordability.	**Accessibility**

Outcomes of the service needs analysis		
the affordability of services), particularly for some priority populations.		• The NWMPHN population has similar rates of self-reported 12-month usage of GPs for general and urgent care, and medical specialists to the national levels. The difference is not significant at the 95% confidence level (**Table 114**). • Providers in our region have concerns about the general level of access to services for their clients /communities of interest, with over three-quarters reporting that they are only somewhat satisfied or not very satisfied that their clients /communities of interest can access the services they need across the healthcare system in the region. • Excessive wait times and service affordability are the two biggest concerns identified by providers. **Wait times** • 25.6 % of adults felt they waited longer than acceptable for a GP appointment. This is higher than the Australian rate of 22.6% but is not significant at the 95% confidence level (**Table 114**). • Providers in our region have told us they have significant concerns about public hospital outpatient and outreach waiting lists, mental health services and public housing, and that they hold particular concerns about the impact of wait times for elderly and CALD people. Providers

Outcomes of the service needs analysis		
		suggest that, in addition to increasing funding to address wait times, there is an opportunity to improve referral pathways and triaging.
After-hours access - There is a need to improve access to after-hours primary health care in order to limit the extent to which people go without care or access emergency and acute services in the after-hours period.	Access to services is greater during the sociable after hours (6pm-11pm weekdays) in comparison to unsociable hours with limited options available between 11pm-8am weekdays and on weekends. Targeted responses to address access for priority populations is necessary; especially those from non-English speaking backgrounds, people affected by homelessness and residents of aged care facilities. The PHN's 2016 review of after-hours services identified the following issues: • Community awareness of after-hours services. • Access to after-hours services for homeless persons. • Limited mental health after-hours services. • GP workforce and business development. • Aged care access to after-hours services. • The availability of diagnostic services after-hours, particularly radiology and pathology. • Cultural diversity. We are now undertaking a deep-dive into AH service use in our catchment, to validate the issues described above	**Service usage** • After-hours GP attendances (**Table 115**). • There are variations in the rates of use of after-hours GP services across the PHN, with lower rates reported in the inner areas of Darebin-South, Yarra and Macedon Ranges and higher rates in the SA4 area of Melbourne West and some of the North West. • The interaction between the use of AH GP services and hospital emergency department services has been often studied, as there is considered to be a relationship between low GP availability and higher emergency department utilisation. • **Table 119** illustrates the variation in Primary Care Type presentations across the area, with lower per capita rates in the peri-urban areas of Macedon Ranges and Moorabool, and higher rates in the inner areas that have greater proximity to emergency departments. These data have a general inverse correlation to the after-hours GP data, except for Melbourne City and the Peri-Urban areas that have both high and low

Outcomes of the service needs analysis		
	and provide additional quantitative and qualitative information (see Appendix C).	after-hour use and ED PCT presentations, respectively. **Service availability** General practice • There are twenty-six GP clinics open after hours (until 10pm) of these eight are open until 11pm and a further one until midnight. Additionally, there are three GP Super Clinics (open unsociable hours) within 10km of the PHN region. • However, there are some areas where access is limited during the after-hours period. Pharmacies • Five pharmacies are open until 10pm, a further four are open until 11pm, whilst two are open 24 hours. A range of areas reported limited access to pharmacies at 9pm, including Sunbury, Macedon Ranges, Werribee, Hobsons Bay, Maribyrnong, Melbourne CBD, Moreland North, Broadmeadows, Bacchus Marsh and Brimbank North. • Supercare Pharmacies are open 24 hours a day, seven days a week, and provide round-the-clock access to pharmacists for advice, supply of medicines and dispensing prescriptions. A dedicated, private consulting room serviced by a registered nurse operates daily from 6:00 pm to

Outcomes of the service needs analysis		
		10:00 pm. The nursing service provides free face-to-face health advice and treatment for minor injuries or illness, wound management, flu and whooping cough immunisations, health screening, sexual health advice and referrals to other services. Supercare Pharmacies do not replace doctors or the need to visit an emergency department but can provide a safe and accessible alternative for less urgent matters. • Supercare Pharmacies are now operating in: ○ Ascot Vale - Ascot Vale Pharmacy, 67-69 Union Road, Ascot Vale, 9370 4146 ○ Coburg - Coburg Pharmacy 4 Less, 1 Louisa St, Coburg, 9386 6655 ○ Craigieburn - Amcal Pharmacy, 2A/340 Craigieburn Road, Craigieburn, 9308 4981 ○ Hoppers Crossing - Hoppers Crossing Chemist Warehouse, Shop 24-25, 428 Old Geelong Rd, Hoppers Crossing, 9931 0040 ○ Keilor East - Keilor East Chemist Warehouse, Lot 3 233 Milleara Rd, Keilor East, 9325 4660

Outcomes of the service needs analysis		
		○ Melbourne - HealthSmart Pharmacy Victorian Comprehensive Cancer Centre, 311 Grattan St, Melbourne, 9045 9777 ○ Melton - Melton Chemist Warehouse, Unit 4 Melton Gateway, 66-84 High St, Melton, 9746 8733 ○ Reservoir - Reservoir Pharmacy 4 Less, Summerhill Shopping Centre, 27/850 Plenty Rd, Reservoir, 9471 0222 ○ Yarraville - Carnovale Pharmacy, 149 Somerville Road, Yarraville, 9314 7557 Community health services • There are 12 community health providers in the region and of these three provide after-hours services, up to five hours per week. Hospitals with emergency departments • Access to hospital services in the outer areas is limited with Werribee Mercy hospital having a limited emergency service and Bacchus Marsh Hospital and Melton Health having a GP urgent care service only. Other emergency departments are available at Sunshine Hospital, Footscray Hospital, Williamstown Hospital, and the central city locations. This needs enhancement to meet the growing needs of the community.

Outcomes of the service needs analysis		
		• Diagnostic after-hours services in the region are generally referred to hospitals as most private diagnostics services are not open in the after-hours period. Other primary health care services: • Palliative Care Services. • Royal District Nursing Service. • Telephone advice and support services. • Homeless Nurse Outreach. • Foot Patrol (needle syringe program). • Private Allied Health. • Police and Clinician Emergency Response Teams. • Crisis Assessment and Treatment teams (acute mental health).
Service effectiveness: The PHN Needs assessment guidance developed by the Department of Health describes components of service effectiveness as being accessibility, appropriateness and quality, although some definitions in the academic literature also include wider concepts of safety, efficiency and sustainability as components of service effectiveness. For the purposes of presenting the work undertaken for this service needs analysis, service accessibility (availability) is addressed above. The broader components of quality, efficiency, appropriateness, safety and sustainability of services have not been addressed separately as these are embedded into much of the work undertaken by the PHN (**see Section 4 – Opportunities, priorities and options**). Instead we have selected some core strategies and approaches that can be used to support and improve service effectiveness, and which are particularly salient to our region at this time.		
Very high levels of service demand from a diverse range of priority groups.	Service volume and complexity, makes it difficult for services to prioritise their time and resources to meeting universal demand and the needs of particular priority, special needs or high-risk groups.	• A review conducted by the Sax Institute commissioned by the NSW Agency for Clinical Effectiveness in July 2015 assessed the evidence for the use of risk stratification approaches in

Outcomes of the service needs analysis		
	Application of risk stratification approaches across a range of service settings (for example in general practice, in hospital out-patient and emergency departments, in community health and by private health insurers can facilitate more targeted and effective responses to meeting community needs and anticipating the likely service demands of key groups.	improving patient outcomes. It found that the use of risk stratification tools in combination with care management planning can improve patient outcomes, including reductions in hospital readmissions, and more appropriate health service use. Some critical enablers and barriers to successful implementation included engaging clinicians in tool implementation, refinement and use; a supportive context; data requirements and tool characteristics; and responsiveness to equity issues.[13]
Variations in service capability and capacity to respond to the dynamic and changing environment, and to adopting innovative approaches to improving service effectiveness.	There is wide variety in the capacity and capability of a range of services across the region to be able to take up and respond to service improvement opportunities and innovation. This occurs both in general practice and with several of our bed-based and community health services. For example, the NWMPHN region includes up to 20 per cent of GP practices that are not computerised, and nearly a quarter of all practices in the region are solo practitioners (working in relative isolation). Similarly, whilst our region contains a number of large quaternary services with significant philanthropic foundations and research income, a number of our bed-based and community services are within relatively deprived catchment areas and have only modest internal	• Analysis of primary NWMPHN data on general practices across region.

[13] https://ses.library.usyd.edu.au/bitstream/2123/13872/1/Implementing-System-Wide-Risk-Stratification-Appproaches.pdf

Outcomes of the service needs analysis		
	resources to be able to focus on to adopting innovative approaches to improving service effectiveness. Development and implementation of a range of support tools and service enhancement approaches in a range of settings are important priorities for NWMPHN as outlined in Section 4 (for example HealthPathways, building service improvement collaborations and partnerships).	
Over utilisation of acute and specialist services for conditions which could be effectively managed in the primary sector at a lower overall cost to the system	Enhancing the capacity of the primary health care sector to manage a range of chronic and low acuity acute conditions provides a way to reduce utilisation of expensive acute and specialist services, which can support the overall affordability and sustainability of the health care system.	**Efficiency** • High potentially preventable hospitalisations (see section 2). • Qualitative insights from across the region.
Variation in provider utilisation of treatments and interventions which may or may not reflect health needs, and which may be driving unnecessary costs to the system	There is unexplained variation in a range of procedures and interventions, potentially indicating under-servicing in some areas and over-servicing (driving unnecessary costs) in others.	**Undesirable variation** • The Australian Atlas of Healthcare Variation (www.safetyandquality.gov.au/atlas/) presents a picture of substantial variation in healthcare use across Australia, across areas such as antibiotic prescribing, surgical, mental health and diagnostic services. • Some variation is expected and associated with need-related factors such as underlying differences in the health of specific populations, or personal preferences. However, the weight of evidence in Australia and internationally suggests that much of the variation documented in the atlas is likely to be unwarranted. Understanding

Outcomes of the service needs analysis		
		this variation is critical to improving the quality, value and appropriateness of health care.
The complexity of the service system means that coordination and integration are key priorities in the region	Key issues relevant to the coordination and integration of care across the region are: • The complexity of the service system within the region (probably the most complex service system within any PHN region in Australia). • The pressing need to design, promote and implement effective, efficient and coordinated models of care for the future.	**Service system complexity** • Healthcare service configuration across the region is dynamic and complex, including: more than 13 large and specialist/state-wide hospitals; 11 community health services over multiple sites; more than 1700 general practitioners across over 540 practices; 385 pharmacies; over 130 aged care facilities; and over 120 mental health and alcohol and drugs providers. • The NWMPHN regional catchment also contains most of Victoria's correctional facilities (prisons), along with three of the fastest growing LGAs in Australia. Within the Melbourne CBD there is a large and unique mix of transient populations, including tourists, students, workers, people experiencing homelessness, in addition to permanent residents.
	Key issues relevant to eHealth as an enabler for better coordination and integration are: • Disconnectedness of the current system across health settings. • Reliance on old technology – fax and post. • Poor/slow uptake of digital options. • Opportunity for an increasing focus on *technology and other innovations* to support efficient and effective support.	**eHealth** • Analysis of the service across the NWMPHN region confirms the huge appetite for providers of health care in improving communication and connectedness, including through digital means. • The development of affordable and scalable e-health and technology solutions, and meeting consumer expectations for e-health solutions are an ongoing challenge.

Outcomes of the service needs analysis		
Burn-out, isolation and deteriorating health and economic opportunities of carers, who form an integral part of the service system	The majority of informal care provided across the region is undertaken by low-paid or unpaid carers and relatives, whose work is often invisible and whose value is unacknowledged. Priority groups of carers include: • Parents of children with a profound disability living in areas of high socioeconomic disadvantage. • Child carers. • Grandparents under stress with unwanted child care responsibilities. • Families caring for a member with mental illness. • Families impacted by drug and alcohol issues. • Non-English-speaking carers of people with chronic disease. • Elderly carers of elderly people.	**Carers as providers** Our stakeholders tell us that supporting carers is an important way to ensure that people experiencing a range of health concerns are able to be cared for in the community. Carers Victoria[14] identifies some clear evidence of the need to support carers: • Over 2.6 million Australians provide help and support to a family member or friend. • Carers may be as young as 10 or as old as 90. • 50 per cent of primary carers are on a low income and can experience additional financial hardships associated with being carers. • Carers have the lowest wellbeing of any large group measured by the Australian Unity Wellbeing index. • Carers are 40 per cent more likely to suffer from a chronic health condition. • Many carers feel isolated, missing the social opportunities associated with work, recreation and leisure activities.

[14] https://www.carersvictoria.org.au/file-assets/factsheet/carer-health

SECTION 4 – OPPORTUNITIES, PRIORITIES AND OPTIONS

This section identifies the priority areas of action NWMPHN is considering progressing in 2019-2020 and beyond. Priorities have been identified through the analysis of qualitative and quantitative data, including important insights gained through our various consultation activities. The prioritisation process has been informed by NWMPHN staff, our clinical and community advisory councils and other stakeholders as appropriate.

Prioritisation has included consideration of:

- The size and severity of needs identified. This means we have considered how many people are affected, and how severe the impact is for any one individual. Importantly, this includes consideration of 'clinical relevance'.
- Alignment with the scope and priorities of PHNs including PHN Program Performance and Quality Framework, NWMPHN Board priorities and priorities of other funded programs based on the Quadruple Aim and needs of the population.
- Consideration of equity of social determinants, health outcomes and service access
- Market Analysis and sector considerations
- The opportunity for impact. This aspect considers whether it is plausible to assume that the NWMPHN, either acting alone or in collaboration with partners, would be able to effectively address an identified need. This includes consideration of a wide range factors including (but not necessarily limited to): whether there is a strong evidence-based solution or credible innovative solution currently available; whether the potential solution sits within the sphere of influence of the NWMPHN; and whether other critical success factors are in place.

NWMPHN will continue to develop these ideas through research activities and ongoing consultation with relevant stakeholders, including potential providers and consumers, as appropriate. As these priorities and potential solutions are refined we will develop our 2019-2020 Activity Work Plan.

Some priorities identified here may be held over for future years, or may be identified for further research and development, or evaluation before we are able to progress to the specification and procurement phase of the commissioning cycle.
In the context of the new three-year cycle of Health Needs Assessments, we are adopting a different approach to **Section 4** and within this aim to show that we are committed to a number of priorities already underway and have methods in place to help further prioritise and allocate funds for the upcoming AWP 2019.

As an organisation we have identified seven key priority areas, and these are also consistently documented by community and stakeholders as important. As part of this needs assessment each of these seven areas has a dedicated compendium of data and analysis to support planning and commissioning across the region (**Appendix E1-7**).

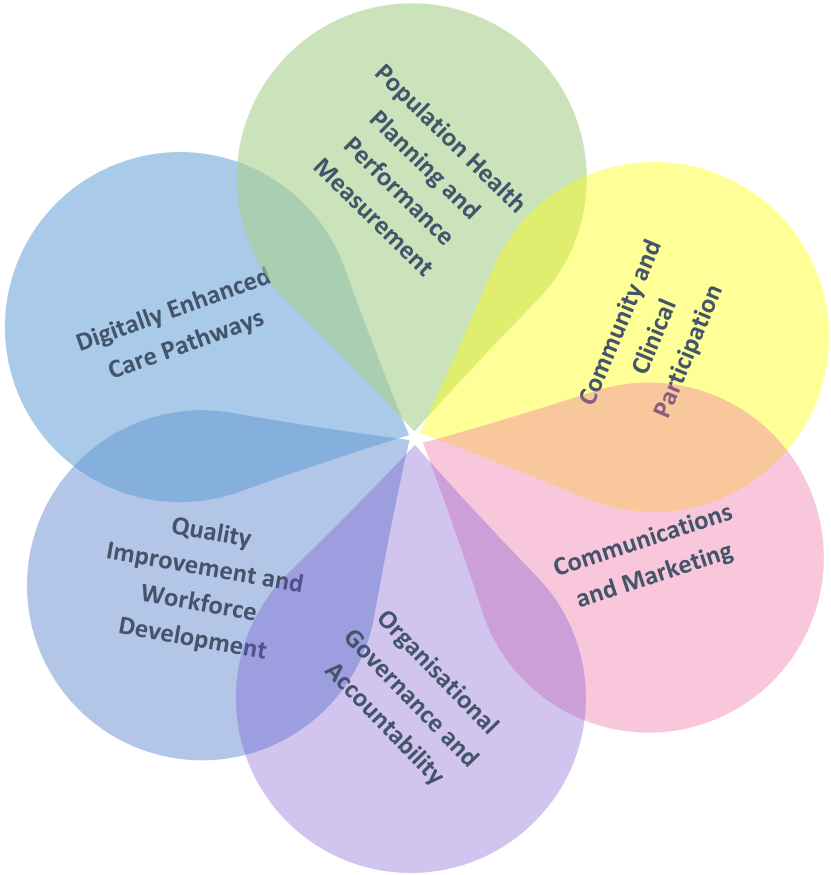
1. AOD
2. Mental Health
3. Suicide Prevention
4. Aboriginal Health
5. Chronic Conditions
6. Older Adults
7. Children and Families

Additionally, each of these priority areas are supported by our Organisational Enablers. These enablers relate to areas that are cross-cutting across the business and further demonstrate our commitment to organisational continuous quality improvement.

Their use across the organisation provides evidence of our ability and commitment to work in an integrated and matrix management model. The enablers are:

- Organisational Governance and Accountability.
- Population Health Planning and Performance Measurement.
- Community and Clinical Participation.
- Quality Improvement and Workforce Development.
- Digitally Enhanced Care Pathways.
- Communications and Marketing.

See below for a diagram of our Organisational Enablers.



To better describe each enabler and examples of ongoing, emerging or current activity for that enabler, we have developed the table below and additionally provided an outcome related to it.

Organisational Enabler	Director/s	NWMPHN Description and Current or Emerging Activity	Outcome
Organisational Governance and Accountability	Executive Director Systems	Ensure governance and accountability, to our funders and our community, are paramount by ensuring our senior leadership team is supported and skilled to achieve operational excellence. Ensure staff are supported to be accountable and do their jobs in a collegiate manner that supports learning and quality improvement. Examples of organisational activity include: • Review of clinical governance and compliance approach internal and external. • Consolidation of Contract templates including standardised Terms and Conditions document. • Implementation of Commissioning Management System to manage and store all commissioning and procurement processes and relational documentation securely. • Continue to maintain our commitment to Quality Improvement through maintenance of our ISO accreditation.	**Capable Organisations -** Operational activities of PHNs which support the successful delivery of the PHN Program
Population Health Planning and Performance Measurement	Director Data, Research and Evaluation	Ensure all activity and approaches are based on the identified needs of our region and take the role of data custodians seriously. Commissioned activity is planned, delivered, evaluated and evolved based on evidence and insight from our community. Data, both qualitative and quantitative, supports the management of all	**Addressing Needs -** Activities conducted by PHNs to address the needs of people in their local region, including an equity focus **Capable Organisations -** Operational activities of PHNs which

Organisational Enabler	Director/s	NWMPHN Description and Current or Emerging Activity	Outcome
		commissioned activity and is fundamental to our relationships with the sector. Examples of organisational activity include: • Develop a comprehensive health needs assessment including detailed summaries, infographics, maps and other collateral to support evidence informed commissioning. • Continue to ensure our data software and systems are fit for purpose and effectively utilised and managed to support commissioning activity. • Continue to build the research and evaluation capacity of the organisation through collaborations with research institutions and universities. • Support the Mental Health and Suicide Prevention Regional Plan (and including AOD in our region). • Work with other PHNs in the development of the PHN Exchange – a population health planning portal.	support the successful delivery of the PHN Program
Community and Clinical Participation	Directors across organisation	Ensure our organisation's commissioning activity is informed and supported by people with lived experience, while drawing on clinical experience from across the sector. Taking the voice of our consumers, clinicians, providers and community, we evaluate quality and efficacy of care provided and commission services to ensure we drive and receive the best outcomes in all that we procure. Examples of organisational activity include: • The continued development of our People Bank.	**Addressing Needs -** Activities conducted by PHNs to address the needs of people in their local region, including an equity focus **Quality Care -** Activities and support offered by PHNs to general practices and other health care providers to improve quality of care for patients

Organisational Enabler	Director/s	NWMPHN Description and Current or Emerging Activity	Outcome
		• Involvement in the Collaborative Pairs trial. • Engagement of clinicians and consumers in tender evaluation panels. • Clinician Advisory Groups E.g. Health Care Home Leaders Group.	**Improving Access -** Activities by PHNs to improve access to primary health care by patients **Coordinated Care -** Activities and support by PHNs to improve coordination of care for patients and integration of health services in their region **Capable Organisations -**Operational activities of PHNs which support the successful delivery of the PHN Program
Quality Improvement and Workforce Development	Directors across organisation	Ensure the primary health care sector is supported to continually improve outcomes for our community through meaningful engagement and workforce development, including service navigation. Continued advocacy for cross sector collaboration and coordination in supporting primary care providers to drive sustainable, quality and evidenced based services to our community. Examples of organisational activity include: • Implementation of our Quality Improvement Toolkit and targeted approaches with general practices around PHN priorities • Education and Training activity undertaken across the year to support general practices and other health care	**Addressing Needs -** Activities conducted by PHNs to address the needs of people in their local region, including an equity focus **Quality Care -** Activities and support offered by PHNs to general practices and other health care providers to improve quality of care for patients **Improving Access -** Activities by PHNs to improve access to primary health care by patients **Coordinated Care -** Activities and support by PHNs to improve

Organisational Enabler	Director/s	NWMPHN Description and Current or Emerging Activity	Outcome
		providers, via face to face, web based and partnered approaches • Development of online resource library to support primary care	coordination of care for patients and integration of health services in their region
Digitally Enhanced Care Pathways	Directors across Organisation	Ongoing development of primary care led pathways to ensure our community is supported to receive quality primary care and experience seamless referral to other primary and tertiary services in our region. Developing and driving digital platforms, tools and usage across our region to ensure quality use of these progressive opportunities and enable meaningful data capture by NWMPHN to support ongoing regional planning and design. Examples of organisational activity include: • HealthPathways development and implementation • Ongoing development of NWMPHNs referdirect™ client information management and service navigation platform to ensure timely access to commissioned services • Ongoing development of the NWMPHN *You Said….* PREMS and PROMs measure for both consumers and providers to support the ongoing delivery of quality care in an accessible and coordinated manner • Promoting increased use of e-referral and secure messaging delivery (SMD) solutions between hospital and general practice • Promoting the increased uptake and of use of My Health Record • Supporting the roll out of SafeScript.	**Addressing Needs -** Activities conducted by PHNs to address the needs of people in their local region, including an equity focus **Quality Care -** Activities and support offered by PHNs to general practices and other health care providers to improve quality of care for patients **Improving Access -** Activities by PHNs to improve access to primary health care by patients **Coordinated Care -** Activities and support by PHNs to improve coordination of care for patients and integration of health services in their region

Organisational Enabler	Director/s	NWMPHN Description and Current or Emerging Activity	Outcome
Communications and Marketing	Director Strategic Relations	Ensuring the activities and approaches of our organisation are shared with the sector and our communities in a meaningful way. Driving and developing key resources and information both internally and externally. Working collaboratively to ensure all stories are based on data and we present where feasible data with stories of the quality. Examples of organisational activity include: • Integration of online referral forms into new mental health, alcohol and other drugs and suicide prevention System of Care webpages to provide a seamless experience for consumers and health practitioners. • Education and awareness campaign for general practices in the leadup to the new Quality Improvement Practice Incentive Program (QI PIP). This is a key part of our redesign of our primary care engagement • After Hours Community Awareness campaign (first half of 2019) • Immunise Melbourne campaign	**Improving Access -** Activities by PHNs to improve access to primary health care by patients **Capable Organisations -** Operational activities of PHNs which support the successful delivery of the PHN Program

PRIORITIES AND OPTIONS.

Additional to the above work please find below our identified planning and commissioning opportunities, priorities and options moving into 2019/2020.
These are listed under the seven organisational priorities as described earlier in this section.

Priority area (from list above)	Director/lead	NWMPHN Activity	Outcome	Timeframe
Alcohol and Other Drugs	Director, Priority Populations	• Commission a range of workforce development and capacity building initiatives to support the health and community services workforce to deliver evidence-based interventions to meet the needs of priority populations.	AOD and primary care providers are supported to assess, manage and refer AOD patients effectively	Ongoing based on funding availability
		• Commission innovative approaches to improve linkages between GPs, other primary care providers and AOD specialist services.	AOD Health Pathways and Care Navigation approaches are enhanced to support more integrated approaches	2019/2020
		• Commission services with a focus on enhancing responses for priority populations, including Aboriginal, CALD, LGBTIQ and homeless people.	People from diverse communities have increased access to services and improved treatment outcomes	2019/2020
		• Develop outcome measures that inform approaches to commissioning and support service providers to demonstrate	Improved understanding of treatment outcomes and value of commissioned activities	2019/2020

Priority area (from list above)	Director/lead	NWMPHN Activity	Outcome	Timeframe
		impact of AOD treatment delivery • Develop an evidence-based regional mental health, suicide prevention and AOD plan in collaboration with service providers and consumers and carers.	Greater understanding of community needs in relation to AOD service provision	2019/2020
Mental Health	Director, Mental Health and Targeted Care	• Continue to evolve and commission the CAREinMIND™ mental health services model, including Targeted Psychological Support Services, Intensive Support Services, and Suicide Prevention Service. These programs target hard to reach clients, those unable to afford services elsewhere; those from vulnerable communities and from regions of need (i.e. children, youth, Aboriginal people, CALD, refugee and asylum seekers, homeless and LGBTIQ). • Continue to evolve the NWMPHN system of care, including CAREinMIND™ to	People in the NWMPHN region can access mental health services appropriate to their individual needs and at accessible times and locations More primary care providers in high need areas can prevent, treat, support and manage mental health issues. Responsive and sustainable services available to people within the NWMPHN region	Ongoing dependant on funding, seek to move to 3-year contract cycles from 2019 to 2021 2019-2021

Priority area (from list above)	Director/lead	NWMPHN Activity	Outcome	Timeframe
		support an activated stepped model of care that matches supports to an individual's needs including as they change.		
		• NWMPHN will continue to utilise the current referdirect™ intake and assessment approach to ensure coordination of care, clinical governance/compliance and data management is assured.	PHN commissioned mental health services improve outcomes for patients	2019 to 2021
		• Outcomes based commissioning for hard to reach clients, those unable to afford services elsewhere; those from vulnerable communities and from regions of need. This may include forensic populations, those experiencing social isolation, and physical health conditions (e.g. cancer), as well as older adults living in the community.	PHN commissioned mental health services improve outcomes for patients	2019/2020
		• Develop an evidence-based regional mental health, suicide		

Priority area (from list above)	Director/lead	NWMPHN Activity	Outcome	Timeframe
		prevention and AOD plan in collaboration with service providers, consumers and carers. • Continue to embed locally agreed HealthPathways to support management of mental health issues in primary care. • In consultation with consumers; carers and mental health clinicians NWMPHN has developed the You Said™ concept. You Said™ will collect via surveys valuable insights that can be shared but also opportunities for improvement to ensure services are effective for consumers.	Greater understanding of community needs in relation to Mental Health service provision Improved management of mental health issues in primary care Greater understanding and insight of community and providers needs in relation to Mental Health service provision	
Mental Health – Low Intensity	Director, Mental Health and Targeted Care	• Commissioning of evidence based innovative low intensity services for people with or at risk of mental illness in line with our stepped care model. • Enhance awareness of pathways to mental health information	People with low intensity mental health issues can access early intervention and/or information People in our region can access mental health services	2019/2020

Priority area (from list above)	Director/lead	NWMPHN Activity	Outcome	Timeframe
		especially for CALD and refugee communities.	appropriate to their individual needs	
Mental Health – Pyschosocial Support	Director, Mental Health and Complex Care	• Commission services to meet the psychosocial needs of people with severe mental illness who are not eligible for the NDIS (the National Psychosocial Support Measure). • Co-design and commission services that will provide continuity of support (CoS) for current participants in Partners in Recovery (PIR) Personal Helpers and Mentors Services (PHaMs) and Day to Day Living (D2DL) in the NWMPHN region, who do not become eligible for long term NDIS packages of support. • Develop a navigation function which supports linkage between the NDIS, primary mental health and other supports and services to assist people seeking NDIS or alternative services in the region.	People with a Mental Health condition are supported to receive access to high quality care and supports Health care providers in our region have an integrated approach to Mental Health Care Effective navigation and linkage between NDIS and Primary Health for consumers with severe mental illness	2019 to 2021 2019/2020 2019/2020 2019/2020

Priority area (from list above)	Director/lead	NWMPHN Activity	Outcome	Timeframe
		• Continue to develop the Mental Health Nurse led Intensive Support Service to improve health and mental health outcomes for people with severe mental illness through assessment, management and referral in collaboration with the broader health care team	Capacity building of the service system Improved physical health and reduced likelihood of hospital admissions	Continuing from 2019/2020
Mental Health – Youth Services	Director, Mental Health and Wellbeing	• Continue commissioning of services and initiatives to meet the needs of children and adolescents with mental health issues. • Support Orygen in the implementation and continuous review of new early intervention mental health services for young people at risk of severe mental illness regionally in Macedon Ranges, Melton, Moorabool and Sunbury addressing mental health through place-based initiatives. • Development of planning and evaluation resources to support	Homeless and marginalised young peoples are supported through a stepped care model addressing risk of chronic mental and physical health issues. Commissioned Services will address gaps, support the development of a community of practice and targeted capacity building within some services	Ongoing 2019/2020 2019/ 2020

Priority area (from list above)	Director/lead	NWMPHN Activity	Outcome	Timeframe
		headspace services with targeting of services and supports relevant to local context. • Develop strategies for Improved integration of school-based initiatives for primary health and mental health	PHN commissioned services improve outcomes for young people	2019 to 2022
Suicide Prevention	Director, Mental Health and Wellbeing	Lead Site LGBTIQ Trial Continued commissioning of evidence-based strategies to support reduction in suicide prevention risk and improved responsiveness of services for LGBTIQ community Placed Based Trials in Brimbank/Melton and Macedon Ranges • Continued commissioning of evidence-based services for people who have attempted or are at risk of suicide. • Develop and implement strategies to address access and care navigation	PHN commissioned services improve outcomes for clients and their families Health care providers in PHN region have improved practice in working with LGBTQI community in mental health care and suicide prevention. Commissioning of training in a scaffolded way to support	2018 to 2020 2019/20 for LGBTIQ 2018 to 2020 Ongoing

Priority area (from list above)	Director/lead	NWMPHN Activity	Outcome	Timeframe
		• Continue to run place based and targeted population trial in suicide prevention • Increase the number and range of community members and service providers who are able to respond to people who are at risk of suicide.	gatekeepers through to clinicians to meet evolving needs of community Increase percentage of community with skills to support people at risk.	 ongoing
Aboriginal Health	Director, Priority Populations	• Further develop effective relationships with Aboriginal community members and Aboriginal Community Controlled Organisations (ACCOs) • Commission community-based chronic disease care coordination and care navigation services for Aboriginal people • Commission community-based mental health, AOD and suicide prevention services for Aboriginal people.	Increased trust and credibility amongst Aboriginal community members Improved client outcomes associated with delivery of ITC program Improved client outcomes associated with delivery of mental health, AOD, suicide prevention programs	Ongoing Ongoing based on funding availability Ongoing based on funding availability

Priority area (from list above)	Director/lead	NWMPHN Activity	Outcome	Timeframe
		• Support primary care practices to develop quality improvement activities • Further develop NWMPHN cultural understanding through implementation of Reconciliation Action Plan activities and awareness raising initiatives	Enhanced capacity of primary care services to deliver culturally sensitive services Improved delivery of culturally appropriate programs across NWMPHN	Ongoing
Chronic Conditions	Director, Integrated Care	• Outcomes based commissioning of services to improve social connectedness among patients at risk of poor health outcomes. • Commissioning of improvement and innovation initiatives that increase access to integrated person-centred care, including scaling of proven strategies across the region and with consideration to needs in the afterhours period • Evidence based quality improvement strategies delivered in general practice to improve the prevention and	Improved prevention and management of chronic conditions in targeted populations and locations of need.	2018-2021

Priority area (from list above)	Director/lead	NWMPHN Activity	Outcome	Timeframe
		management of chronic conditions and foster team-based care. • Continue to embed locally agreed HealthPathways to support enhanced management of chronic conditions in primary care. • Evidence based workforce development strategies delivered in primary care to support the prevention and management of chronic conditions.		
Older Adults	Director, Mental Health and Targeted Care	• Commissioning of psychological services targeting the mental health needs of people living in residential aged care facilities (RACFs). • Workforce development and capacity building with RACF workforce	Residents of RACFs will be able to access needed mental health services in a stepped care framework	2019 to 2022
Children and Families	Director, Mental Health and Wellbeing	• Outcomes based commissioning of services to improve outcomes for children and families at risk of poor health outcomes.	Address Mental and Physical health needs of children under from vulnerable cohort	2019 to 2020

Priority area (from list above)	Director/lead	NWMPHN Activity	Outcome	Timeframe
		• Workforce development strategies in primary care to support improved prevention and management of priority health issues for children and families.		

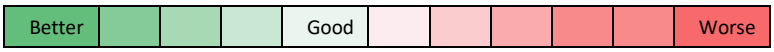
SECTION 5 - CHECKLIST

Requirement	✓
Governance structures have been put in place to oversee and lead the needs assessment process.	✓
Opportunities for collaboration and partnership in the development of the needs assessment have been identified.	✓
The availability of key information has been verified.	✓
Stakeholders have been defined and identified (including other PHNs, service providers and stakeholders that may fall outside the PHN region); Community Advisory Committees and Clinical Councils have been involved; and Consultation processes are effective.	✓
The PHN has the human and physical resources and skills required to undertake the needs assessment. Where there are deficits, steps have been taken to address these.	✓
Formal processes and timeframes (such as a Project Plan) are in place for undertaking the needs assessment.	✓
All parties are clear about the purpose of the needs assessment, its use in informing the development of the PHN Annual Plan and for the department to use for programme planning and policy development.	✓
The PHN is able to provide further evidence to the department if requested to demonstrate how it has addressed each of the steps in the needs assessment.	✓
Geographical regions within the PHN used in the needs assessment are clearly defined and consistent with established and commonly accepted boundaries.	✓
Quality assurance of data to be used and statistical methods has been undertaken.	✓
Identification of service types is consistent with broader use – for example, definition of allied health professions.	✓
Techniques for service mapping, triangulation and prioritisation are fit for purpose.	✓
The results of the needs assessment have been communicated to participants and key stakeholders throughout the process, and there is a process for seeking confirmation or registering and acknowledging dissenting views.	✓
There are mechanisms for evaluation (for example, methodology, governance, replicability, experience of participants, and approach to prioritisation).	✓

APPENDIX A: DATA TABLES

Note that in many of the below tables, regions (by LGA or SA3) are only included if they vary from the Victorian or Australian average. If a region is not listed, this indicates that the area is either near that average, or low or high on the desirable end of the indicator.

Where data has been updated from the previous HNA, new tables have been created and formatted to illustrate the variation across the PHN area. Colour shading has been provided on the data on a red (poorer performance) to green (better performance) scale, similar to the sample below.



Mental health – Perinatal and infancy

Table 1: ATAPS referrals for perinatal depression with NWMPHN region, 2012-2015 and 2015-16. No new data

Period	Program tier	% referrals	% attendance
1 July 2015 – 30 June 2016	Perinatal depression	1.5	1.5
1 July 2012 – 1 July 2015	Perinatal depression	1.3	0.8

Source: Access to Allied Psychological Services (ATAPS) data for the NWMPHN region, October 2016.

Table 2: Adolescents who report being bullied recently (years 5-6 and 7-9), 2015. No new data

Region	LGA	Proportion Years 5-6	Percentile (Victoria) Years 5-6	Proportion Years 7-9	Percentile (Victoria) Years 7-9
Inner City	Maribyrnong	12.3%	26	12.6%	13
	Melbourne	11.8%	20	15.4%	24
	Yarra	15.6%	53	8.9%	6
Suburban	Brimbank	13.1%	39	17.3%	37
	Darebin	12.2%	25	17.1%	35
	Hobsons Bay	11.8%	20	16.0%	27
	Moonee Valley	11.4%	16	14.5%	20
	Moreland	14.0%	44	17.6%	41
Growth Area	Hume	16.4%	63	20.0%	59
	Melton	17.5%	74	18.2%	43
	Wyndham	19.5%	83	16.6%	30
Peri-Urban	Macedon Ranges	12.7%	30	19.3%	53
	Moorabool	13.1%	39	27.3%	91
Victoria		**15.0%**		**18.0%**	

Source: Victorian Child and Adolescent Monitoring System (VCAMS) Indicators 2015

Table 3: Child Protection Substantiations, 2014-2015. No new data

Region	LGA	Number of children on protection substantiations / 1,000 population	Percentile (Victoria)
Inner City	Maribyrnong	9.6	38
	Melbourne	9.4	37
	Yarra	6.9	24
Suburban	Brimbank	16.3	72
	Darebin	8.2	32
	Hobsons Bay	9.1	34
	Moonee Valley	5.3	15
	Moreland	7.2	26
Growth Area	Hume	12	54
	Melton	16.7	75
	Wyndham	12.1	55
Peri-Urban	Macedon Ranges	4	10
	Moorabool	12.7	60
Victoria		**11.4**	

Comment: Rates of substantiated child protection are generally low to average relative to the rest of Victoria.

Source: Victorian Local Government Area profiles 2015

Table 4: Young people with the highest level of psychological distress, 2010. No new data

LGA	Young people with the highest level of psychological distress, % 2010
Hobsons Bay	19.9
Moonee Valley	19.5
Victoria	13.0

Source: Aspex Consulting. In-depth study of mental health and drug treatment needs and services for the NW Melbourne PHN, March 2016.

Table 5: Young people with an eating disorder, 2010. No new data

LGA	Young people with an eating disorder, % 2010
Melbourne	5.6
Brimbank	3.2
Darebin	3.1
Moreland	3.1
Yarra	3.1
Wyndham	2.7
Moonee Valley	2.6
Victoria	**2.4**

Source: Aspex Consulting. In-depth study of mental health and drug treatment needs and services for the NW Melbourne PHN, March 2016.

Table 6: PBS prescriptions dispensed for antidepressant medicines, under 17 years, 2013-2014. No new data

SA4	SA3	Prescriptions Dispensed / 100,000 population (ASR1) 2013-14	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	5,389	17
	Darebin - South	7,816	50
	Essendon	5,345	16
	Melbourne City	2,679	1
	Yarra	6,191	24
Melbourne - North East	Darebin - North	4,400	8
Melbourne - North West	Keilor	4,706	11
	Macedon Ranges	8,097	51
	Moreland - North	4,425	10
	Sunbury	8,930	67
	Tullamarine - Broadmeadows	3,807	5
Melbourne - West	Brimbank	3,609	4
	Hobsons Bay	5,311	14
	Maribyrnong	5,294	13
	Melton - Bacchus Marsh	5,983	22
	Wyndham	6,714	28
Victoria SA3 Median		**7,816**	
Australia		**7,989**	

Note: 1 Age Standardised Rate.

Comment: 14 of the 16 SA3s in the NWMPHN are at or below the Victorian median.

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 7: PBS prescriptions dispensed for antipsychotic medicines, under 17 years, 2013-2014. No new data

SA4	SA3	Prescriptions Dispensed / 100,000 population (ASR1) 2013-14	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	1,316	25
	Darebin - South	2,071	67
	Essendon	876	8
	Melbourne City	1,358	31
	Yarra	1,278	22
Melbourne - North East	Darebin - North	1,786	56
Melbourne - North West	Keilor	799	5
	Macedon Ranges	1,327	27
	Moreland - North	1,270	21
	Sunbury	1,949	62
	Tullamarine - Broadmeadows	1,060	13
Melbourne - West	Brimbank	1,403	34
	Hobsons Bay	1,428	37
	Maribyrnong	1,632	48
	Melton - Bacchus Marsh	1,771	54
	Wyndham	2,077	68
Victoria SA3 Median		**1,652**	
Australia		**2,070**	

Note: 1 Age Standardised Rate.

Comment: 11 of the 16 SA3s in the NWMPHN are below the Victorian Median.

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 8: PBS prescriptions dispensed for ADHD medicines, under 17 years, 2013-2014. No new data

SA4	SA3	Prescriptions Dispensed / 100,000 population (ASR1) 2013-14	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	3,678	8
	Darebin - South	2,513	1
	Essendon	2961	2
	Melbourne City	4,372	28
	Yarra	3,083	4
Melbourne - North East	Darebin - North	3,900	11
Melbourne - North West	Keilor	3,413	7
	Macedon Ranges	4,066	17
	Moreland - North	3,902	13
	Sunbury	8,553	68
	Tullamarine - Broadmeadows	3,949	14
Melbourne - West	Brimbank	3,873	10
	Hobsons Bay	4,376	30
	Maribyrnong	4,090	19
	Melton - Bacchus Marsh	8,979	74
	Wyndham	8,193	65
Victoria SA3 Median		**6,266**	
Australia		**10,780**	

Notes: 1 Age Standardised Rate.

Comment: 13 of the 16 SA3s in the NWMPHN are below the Victorian Median.

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 9: headspace centre service use, FY 2018.

Centre	Occasions of service	Serviced young people	New young people	Average visit frequency
Collingwood	7,392	1,218	678	6.1
Craigieburn	5,044	762	415	6.6
Glenroy	7,445	1,196	622	6.2
Sunshine	6,639	1,295	718	5.1
Werribee	5,481	972	519	5.6

Source: headspace. (2018). Centre Activity Overview Reports, Quarter 1 FY 2018-2019.

Table 10: headspace centre demographic background, 1 July 2018 to 30 September 2018.

Centre	Aboriginal and Torres Strait Islander %	Culturally and Linguistically Diverse Peoples (CALD) %	Lesbian, Gay, Bisexual, Trans, and/or Intersex. (LGBTI) %
Collingwood	3.7	13.7	41.2
Craigieburn	2.5	23.6	19.0
Glenroy	2.6	22.8	32.0
Sunshine	2.5	26.7	27.7
Werribee	2.1	13.9	29.0
National centre average	**8.2**	**10.1**	**25.2**

Source: headspace. (2018). Centre Activity Overview Reports Quarter 1 FY 2018-2019.

Table 11: headspace centre most common diagnosis, 1 July 2018 to 30 September 2018

Centre	Most common diagnosis	Most common diagnosis, %
Collingwood	Stage 2: threshold diagnosis	61.2
Craigieburn	Stage 2: threshold diagnosis	32.4
Glenroy	Stage 2: threshold diagnosis	39.6
Sunshine	Stage 2: threshold diagnosis	46.7
Werribee	Stage 2: threshold diagnosis	42.9
National centre average	**Stage 1a: mild to moderate general symptoms**	**40.9**

Source: headspace. (2018). Centre Activity Overview Reports Quarter 1 FY 2018-2019.

Table 12: headspace centre Kessler 10 (K10) and Social and Occupational Functioning Assessment Scale (SOFAS) average start and end scores, 1 July 2018 to 30 September 2018

Centre	Average K10 score start	Average K10 score end	Average SOFAS score start	Average SOFAS score end
Collingwood	29.1	27.9	62.6	64.4
Craigieburn	29.9	27.1	62.8	66.6
Glenroy	30.7	28.1	63.8	66.4
Sunshine	30.6	28.6	60.7	62.9
Werribee	30.6	28.4	59.6	62.3
National centre average	**29.2**	**27.1**	**63.7**	**66.6**

Source: headspace. (2018). Centre Activity Overview Reports Quarter 1 FY 2018-2019.

Table 13: headspace centre funding and referral sources, 1 July 2018 to 30 September 2018

Centre	% funding from MBS	% formal written referrals	% referrals from GPs	% referrals from school-based services
Collingwood	69.8	46.3	78.7	4.0
Craigieburn	67.7	77.0	94.3	1.5
Glenroy	70.2	70.6	86.2	5.1
Sunshine	63.2	63.5	93.5	1.2
Werribee	85.3	82.6	94.0	1.3
National centre average	**46.6**	**46.6**	**80.9**	**7.1**

Source: headspace. (2018). Centre Activity Overview Reports Quarter 1 FY 2018-2019.

Mental health–Adults

Table 14: Households estimated with food insecurity, 2014. No new data

Region	LGA	Households estimated with food insecurity, % 2014	Percentile (Victoria)
Inner City	Maribyrnong	1.98	13
	Melbourne	NA	NA
	Yarra	4.74	62
Suburban	Brimbank	5.29	67
	Darebin	2.58	26
	Hobsons Bay	2.38	20
	Moonee Valley	2.48	23
	Moreland	4.07	49
Growth Area	Hume	6.16	74
	Melton	3.27	39
	Wyndham	3.88	48
Peri-Urban	Macedon Ranges	3.04	36
	Moorabool	4.26	51
Victoria		**4.26**	

Source: Victorian Population Health Survey 2014, reported VHISS

Table 15: Households estimated to be under mortgage stress, 2016.

Region	LGA	Households estimated to be under mortgage stress, % 2016	Percentile (Victoria)
Suburban	Moonee Valley	5.9	4
	Moreland	7.8	15
	Hobsons Bay	7.9	18
	Darebin	8	22
	Brimbank	16.7	98
Peri-urban	Macedon Ranges	7.8	14
	Moorabool	10	67
Inner city	Yarra	4.2	0
	Maribyrnong	8.2	25
	Melbourne	12	85
Growth area	Melton	12.3	87
	Wyndham	12.6	90
	Hume	16.7	97
Victoria		**10.2**	
Australia		**9.3**	

Note: 1 Simple average of the LGA percentages

Source: Compiled by PHIDU based on the ABS Census 2011 (unpublished) data.

Table 16: Households estimated to be under rental stress, 2016.

Region	LGA	Households estimated to be under rental stress, % 2016	Percentile (Victoria)
Suburban	Moonee Valley	22.2	16
	Hobsons Bay	22.9	17
	Moreland	23.2	19
	Darebin	25.1	27
	Brimbank	31.3	77
Prei-urban	Macedon Ranges	28.8	58
	Moorabool	30.5	71
Inner city	Yarra	16.3	6
	Maribyrnong	24.4	24
	Melbourne	33.6	92
Growth area	Wyndham	26.1	33
	Melton	30.6	72
	Hume	34.7	95
Victoria		**27.2**	
Australia		**27.3**	

Note: 1 Simple average of the LGA percentages

Source: Compiled by PHIDU based on the ABS Census 2011 (unpublished) data.

Table 17: Proportion of people reporting adequate work-life balance, 2011. No new data

LGA	People reporting adequate work-life balance, % 2011	Percentile (Victoria)	Subjective assessment (Victoria)
Moorabool	37.6	1	Extremely low
Hume	46.0	25	Low
Maribyrnong	46.5	28	Low
Victoria (LGA average[1])	**53.1**	-	-

Note: 1 Simple average of the LGA percentages

Source: VicHealth Indicators Survey, 2011, reported in Victorian Local Government Area profiles 2014.

Table 18: Proportion of people reporting less than 7 hours sleep on a typical work-day, 2011. No new data

LGA	People reporting less than 7 hours sleep on a typical work-day, % 2011	Percentile (Victoria)	Subjective assessment (Victoria)
Hume	44.1	99	Extremely high
Moorabool	39.7	96	Extremely high
Melton	39.1	85	Very high
Brimbank	36.2	84	Very high
Wyndham	36.2	84	Very high
Darebin	35.3	81	Very high
Victoria (LGA average[1])	**31.5**	-	-

Note: 1 Simple average of the LGA percentages

Source: VicHealth Indicators Survey, 2011, reported in Victorian Local Government Area profiles 2014.

Table 19: Electronic gaming machine losses by LGA by machines and venues, 2017-18.

Region	LGA	Machines	Venues	Player Loss ($millions)	Loss per machine	Loss per venue ($millions)
Inner City	Maribyrnong	454	9	54.9	120,925	6.1
	Melbourne	746	11	84	112,601	7.6
	Yarra	308	8	31.1	100,974	3.9
Suburban	Brimbank	953	15	139.5	146,380	9.3
	Darebin	754	12	82.1	108,886	6.8
	Hobsons Bay	535	10	47.4	88,598	4.7
	Moonee Valley	732	11	78.6	107,377	7.1
	Moreland	651	14	64.2	98,618	4.6
Growth Area	Hume	833	14	109.6	131,573	7.8
	Melton	503	7	66.1	131,412	9.4
	Wyndham	893	13	105.5	118,141	8.1
Peri-Urban	Macedon Ranges	103	3	9.6	93,204	3.2
	Moorabool	110	3	9.2	83,636	3.1
NWMPHN Total[2]		**7,575**	**130**	**882**	**116,409**	**6.8**
Victoria		**26,520**	**504**	**2695**	**101,621**	**5.3**

NOTES: 1: The LGA is based on the LGA in which the gaming venue is located. 2: The statistics for Macedon Ranges and Moorabool are for the whole LGA rather than the just the NWMPHN parts, the *NWMPHN Total* will be overstated.

Source: Victorian Commission for Gambling and Liquor Regulation, July 2018

Table 20: Gaming machine losses per Adult (18 years and over) population, 2017-18.

Region	LGA	Player Expenditure $ / Adult population 2016	Player Expenditure $ / Adult population 2016 Percentile
Inner City	Maribyrnong	752	80
	Melbourne	634	58
	Yarra	379	22
Suburban	Brimbank	867	89
	Darebin	638	67
	Hobsons Bay	629	64
	Moonee Valley	789	86
	Moreland	446	29
Growth Area	Hume	705	77
	Melton	600	54
	Wyndham	622	52
Peri-Urban	Macedon Ranges	262	12
	Moorabool	357	25
NWMPHN Total[2]		**624**	
Victoria		**550**	

Notes: 1: The LGA is based on the LGA in which the gaming venue is located. 2: The statistics for Macedon Ranges and Moorabool are for the whole LGA rather than the just the NWMPHN parts.

Source: Victorian Commission for Gambling and Liquor Regulation, July 2018

Table 21: Proportion of the population with mental and behavioural problems, 2011-2013. No new data

LGA	People with mental and behavioural problems / 100,000 population (ASR[1]) 2011-2013	Percentile (Australia)	Subjective assessment (Australia)
Melbourne	15.0	79	High
Victoria	**12.7**	-	-
Australia	**13.6**	-	-

Note: 1 Age Standardised Rate

Source: Social Health Atlas of Australia by Local Government Area, August 2016.

Table 22: Proportion of the population with high or very high psychological distress based on the Kessler 10 scale, 18 years and over, 2014-15. No new data

Region	LGA	Age-standardised Rate per 100	Percentile (Victoria)
Inner City	Maribyrnong	13.2	86
	Melbourne	10.8	59
	Yarra	10.7	24
Suburban	Brimbank	15.9	91
	Darebin	13.4	71
	Hobsons Bay	12.7	68
	Moonee Valley	11.6	88
	Moreland	13.2	30
Growth Area	Hume	15.3	79
	Melton	15.5	57
	Wyndham	14.8	53
Peri-Urban	Macedon Ranges	10.5	13
	Moorabool	13.1	33
NWMPHN Total		**12.5**	
Victoria		**12.3**	

Note: 1 Age Standardised Rate

Source: Social Health Atlas of Australia by Local Government Area, August 2017.

Table 23: Primary care diagnosis from an ATAPS referral within NWMPHN, 2012-2016. No new data

Diagnosis	Primary care diagnosis from an ATAPS referral within NWMPHN, % 2012-2016	Rank (NWMPHN)
F3 Depression	37.9	1
F4 Anxiety Disorders	34.9	2
Other diagnosis	10.6	3
F1 Alcohol and Drug use	5.0	4
F40, F41, F41.1 Anxiety	4.8	5
F2 Psychotic Disorders	2.5	6

Source: Access to Allied Psychological Services (ATAPS) data for the NWMPHN region.

Table 24: Proportion of registered mental health clients, 2012-2013. No new data

LGA	Registered mental health clients[1] / 1,000 population 2012-13	Percentile (Victoria)	Subjective assessment (Victoria)
Melbourne	8.8	14	Very low
Wyndham	8.8	14	Very low
Macedon Ranges	8.9	17	Very low
Hobsons Bay	9.5	21	Low
Melton	9.6	24	Low
Moonee Valley	10.9	33	Moderately low
Brimbank	11	36	Moderately low
Victoria	**11.3**	-	-

Note: 1 Residents of an LGA who are registered as clients with a mental health service

Source: Mental Health, Drugs and regions Division, Victorian Department of Health, 2012, reported in Victorian Local Government Area profiles 2014.

Table 25: MBS funded services for the preparation of mental health treatment plans by GPs, 2013-2014. No new data

SA4	SA3	Prescriptions Dispensed / 100,000 population (ASR1) 2013-14	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	5,419	79
	Darebin - South	5,706	88
	Essendon	4671	37
	Melbourne City	3,682	7
	Yarra	5,201	70
Melbourne - North East	Darebin - North	4,301	22
Melbourne - North West	Keilor	4,599	33
	Macedon Ranges	5,093	61
	Moreland - North	4,915	51
	Sunbury	5,748	91
	Tullamarine - Broadmeadows	5,080	57
Melbourne - West	Brimbank	3,841	10
	Hobsons Bay	4,901	50
	Maribyrnong	4,471	28
	Melton - Bacchus Marsh	4,611	34
	Wyndham	4,105	14
Victoria SA3 Median		**4,901**	
Australia		**4,260**	

Note: 1 Age Standardised Rate

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation, August 2016

Table 26: Mental health nurse service utilisation, 2014-2015. No new data

SA3	Mental health nurse services / 100,000 population (ASR[1]) 2014-15
Sunbury	107.3
Melbourne City	62.0
Darebin - North	31.8
Macedon Ranges	31.6
Wyndham	13.7
Brimbank	12.5
Keilor	10.3
Tullamarine - Broadmeadows	10.0
Melton - Bacchus Marsh	6.1
NWMPHN	**18.7**
Victoria	**26.1**

Note: 1 Age Standardised Rate

Source: Aspex Consulting. In-depth study of mental health and drug treatment needs and services for the NW Melbourne PHN, March 2016.

Table 27: Low acuity ambulance (code 3) used for mental health and behaviour problems and psychiatric episodes, 2012-2013. No new data

LGA	Mental health and behavioural problems, %	Psychiatric problem, %
Yarra	12.8	0.2
Melbourne	8.7	0.2
Maribyrnong	7.0	0.0
Hume	6.1	0.0
Darebin	6.0	0.2
Moreland	5.2	0.0
Melton	5.1	0.0
Victoria	**3.8**	**0.1**

Source: Aspex Consulting. In-depth study of mental health and drug treatment needs and services for the NW Melbourne PHN, March 2016.

Table 28: Mental health overnight hospitalisations, 2015–16

SA4	SA3	Hospitalisations per 10,000 people (age-standardised)	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	100	69
	Darebin - South	106	75
	Essendon	120	93
	Melbourne City	108	81
	Yarra	106	75
Melbourne - North East	Darebin - North	102	71
Melbourne - North West	Keilor	83	26
	Macedon Ranges	52	1
	Moreland - North	94	62
	Sunbury	86	31
	Tullamarine - Broadmeadows	83	26
Melbourne - West	Brimbank	79	18
	Hobsons Bay	86	31
	Maribyrnong	93	58
	Melton - Bacchus Marsh	79	18
	Wyndham	66	4
Victoria SA3 Median		**93**	
Australia		**103**	

Source: AIHW, Hospitalisations for mental health conditions and intentional self-harm in 2015–16

Table 29: PBS prescriptions dispensed for antidepressant medication, 18-64 years, 2013-2014. No new data

SA4	SA3	Prescriptions Dispensed / 100,000 population (ASR1) 2013-14	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	85,855	30
	Darebin - South	89,115	37
	Essendon	83522	17
	Melbourne City	64,188	1
	Yarra	88,414	36
Melbourne - North East	Darebin - North	83,782	19
Melbourne - North West	Keilor	87,144	33
	Macedon Ranges	96,307	45
	Moreland - North	84,961	25
	Sunbury	120,866	64
	Tullamarine - Broadmeadows	84,455	22
Melbourne - West	Brimbank	73,896	7
	Hobsons Bay	94,601	41
	Maribyrnong	79,564	11
	Melton - Bacchus Marsh	101,895	51
	Wyndham	83,950	21
Victoria SA3 Median		**101,513**	
Australia		**101,239**	

Note: 1 Age Standardised Rate

Comment: 14 of the 16 SA3s within NWMPHN are below the Australian average.

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 30: PBS prescriptions dispensed for antipsychotic medication, 18-64 years, 2013-2014.
No new data

SA4	SA3	Prescriptions Dispensed / 100,000 population (ASR1) 2013-14	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	20,585	61
	Darebin - South	18,308	44
	Essendon	17642	41
	Melbourne City	19,234	47
	Yarra	26,440	94
Melbourne - North East	Darebin - North	24,942	88
Melbourne - North West	Keilor	16,790	36
	Macedon Ranges	12,038	1
	Moreland - North	20,070	54
	Sunbury	14,168	16
	Tullamarine - Broadmeadows	17,734	42
Melbourne - West	Brimbank	19,267	48
	Hobsons Bay	19,909	53
	Maribyrnong	22,357	71
	Melton - Bacchus Marsh	16,072	27
	Wyndham	13,328	5
Victoria SA3 Median		**19,338**	
Australia		**17,844**	

Note: 1 Age Standardised Rate

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 31: PBS prescriptions dispensed for anxiolytic medication, 18-64 years, 2013-2014. No new data

SA4	SA3	Prescriptions Dispensed / 100,000 population (ASR1) 2013-14	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	18,353	22
	Darebin - South	18,578	24
	Essendon	18242	21
	Melbourne City	19,312	33
	Yarra	23,247	73
Melbourne - North East	Darebin - North	27,666	88
Melbourne - North West	Keilor	19008	31
	Macedon Ranges	15,393	11
	Moreland - North	23,231	71
	Sunbury	21,555	56
	Tullamarine - Broadmeadows	21,797	57
Melbourne - West	Brimbank	19,384	36
	Hobsons Bay	22,437	61
	Maribyrnong	21,895	59
	Melton - Bacchus Marsh	20,031	47
	Wyndham	16,014	14
Victoria SA3 Median		**20,551**	
Australia		**17,201**	

Note: 1 Age Standardised Rate

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 32: Average annual deaths from suicide and self-inflicted injuries, 0-74 years, 2011-2015

Region	LGA	ASR per 100	Percentile (Victoria)
Inner City	Maribyrnong	10	37
	Melbourne	9.5	32
	Yarra	8.2	16
Suburban	Brimbank	9.1	28
	Darebin	8	14
	Hobsons Bay	10.1	39
	Moonee Valley	7.3	7
	Moreland	7.3	8
Growth Area	Hume	6.9	5
	Melton	9.2	29
	Wyndham	7.5	9
Peri-Urban	Macedon Ranges	17	88
	Moorabool	11.3	46
NWMPHN Total		**8.5**	
Victoria		**9.8**	

Note: 1 Age Standardised Rate

Source: Social Health Atlas of Australia by Local Government Area, August 2017.

Mental health – Older adults

Table 33: Persons aged 75 years and older living alone, 2016. No new data

Region	LGA	Persons aged 75 years and older living alone, % 2016	Percentile (Victoria)
Inner City	Maribyrnong	33.1	26
	Melbourne	39.9	87
	Yarra	39.2	84
Suburban	Brimbank	26.1	5
	Darebin	33.4	28
	Hobsons Bay	34.4	35
	Moonee Valley	32.0	23
	Moreland	34.0	31
Growth Area	Hume	25.1	3
	Melton	26.9	9
	Wyndham	27.0	10
Peri-Urban	Macedon Ranges	29.1	17
	Moorabool	33.6	29
NWMPHN Total		**31.2**	
Victoria		**33.6**	

Source: Census of Population and Housing, ABS, 2016

Table 34: Age pension recipients, 2014/15. No new data

Region	LGA	Age pension recipients per 1,000 eligible population
Inner city	Maribyrnong	767.9
	Melbourne	409.8
	Yarra	580.9
Suburban	Brimbank	820.6
	Darebin	768.1
	Hobsons Bay	747.9
	Moonee Valley	700.7
	Moreland	782.1
Growth area	Hume	823.1
	Melton	847.2
	Wyndham	780.9
Peri-urban	Macedon Ranges	664.2
	Moorabool	761.9
Victoria		**707.4**

Source: Victorian Local Government Area profiles, 2016 from Centerlink, ABS 2015

Table 35: PBS prescriptions dispensed for antipsychotic medication, 65 years and over, 2013-2014. No new data

SA4	SA3	Prescriptions dispensed per 100,000 people (age-standardised)	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	45,117	97
	Darebin - South	38,887	91
	Essendon	34991	87
	Melbourne City	44,030	96
	Yarra	57,130	99
Melbourne - North East	Darebin - North	37,986	90
Melbourne - North West	Keilor	29,983	56
	Macedon Ranges	25,158	22
	Moreland - North	33,907	82
	Sunbury	33,800	79
	Tullamarine - Broadmeadows	34,700	85
Melbourne - West	Brimbank	33,403	77
	Hobsons Bay	33,809	81
	Maribyrnong	43,047	94
	Melton - Bacchus Marsh	37,216	88
	Wyndham	30,663	62
Victoria SA3 Median		**29,396**	
Australia		**17,844**	

Comment: 15 of 16 SA3s within the NWMPHN are above the Victorian median.

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 36: PBS prescriptions dispensed for anxiolytic medication, 65 years and over, 2013-2014. No new data

SA4	SA3	Prescriptions dispensed per 100,000 people (age-standardised)	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	47,923	82
	Darebin - South	44,866	62
	Essendon	47625	77
	Melbourne City	40,196	45
	Yarra	49,069	85
Melbourne - North East	Darebin - North	46,746	74
Melbourne - North West	Keilor	41,825	53
	Macedon Ranges	31,833	11
	Moreland - North	46,095	71
	Sunbury	48,885	84
	Tullamarine - Broadmeadows	47,806	81
Melbourne - West	Brimbank	45,981	70
	Hobsons Bay	45,591	67
	Maribyrnong	52,362	91
	Melton - Bacchus Marsh	56,031	97
	Wyndham	47,671	79
Victoria SA3 Median		**40,758**	
Australia		**37,695**	

Comment: 14 of 16 SA3s within the NWMPHN are above the Victorian Median.

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 37: PBS prescriptions dispensed for anticholinesterase medication, 65 years and over, 2013-2014. No new data

SA4	SA3	Prescriptions dispensed per 100,000 people (age-standardised)	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	11,604	31
	Darebin - South	15,377	73
	Essendon	12419	36
	Melbourne City	16,981	84
	Yarra	15,887	77
Melbourne - North East	Darebin - North	16,112	81
Melbourne - North West	Keilor	11,245	25
	Macedon Ranges	13,439	45
	Moreland - North	10,872	24
	Sunbury	13,450	47
	Tullamarine - Broadmeadows	12,959	41
Melbourne - West	Brimbank	8,293	7
	Hobsons Bay	12,440	37
	Maribyrnong	8,736	11
	Melton - Bacchus Marsh	11,296	27
	Wyndham	8,614	8
Victoria SA3 Median		**13,670**	
Australia		**12,650**	

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Mental health–Vulnerable populations

Table 38: People born overseas, 2016. No new data

Region	LGA	People born overseas, % 2016	Percentile (Victoria)
Inner City	Maribyrnong	43.3	93
	Melbourne	63.0	99
	Yarra	32.1	76
Suburban	Brimbank	51.6	97
	Darebin	36.0	83
	Hobsons Bay	32.5	79
	Moonee Valley	29.6	71
	Moreland	36.4	85
Growth Area	Hume	38.3	87
	Melton	32.1	75
	Wyndham	44.1	94
Peri-Urban	Macedon Ranges	13.5	51
	Moorabool	13.3	48
NWMPHN Total		**39.5**	
Victoria		**30.4**	

Source: Australian Census of Population and Housing, ABS, 2016

Table 39: People who speak a language other than English at home, 2016. No new data

Region	LGA	People who speak a language other than English at home, % 2016	Percentile (Victoria)
Inner City	Maribyrnong	45.0	92
	Melbourne	54.3	97
	Yarra	24.5	71
Suburban	Brimbank	62.1	98
	Darebin	39.7	87
	Hobsons Bay	30.7	79
	Moonee Valley	31.6	80
	Moreland	40.5	88
Growth Area	Hume	47.6	94
	Melton	34.4	82
	Wyndham	43.6	90
Peri-Urban	Macedon Ranges	4.8	38
	Moorabool	5.7	46
NWMPHN Total		**41.4**	
Victoria		**27.6**	

Source: Australian Census of Population and Housing, ABS, 2016

Table 40: Proportion of people with low English proficiency, 2016. No new data

Region	LGA	People with low English proficiency, % 2016	Percentile (Victoria)
Inner City	Maribyrnong	9.9	97
	Melbourne	7.7	88
	Yarra	5.6	82
Suburban	Brimbank	14.3	98
	Darebin	7.9	92
	Hobsons Bay	5.2	81
	Moonee Valley	5.0	80
	Moreland	6.8	87
Growth Area	Hume	8.6	94
	Melton	4.2	75
	Wyndham	6.1	85
Peri-Urban	Macedon Ranges	0.5	35
	Moorabool	0.5	32
NWMPHN Total		**7.3**	
Victoria		**4.8**	

Source: Australian Census of Population and Housing, ABS, 2016

Drug and alcohol–Alcohol, tobacco and cannabis

Table 41: Estimated number of people aged 15 years and over who consumed more than two standard alcoholic drinks per day on average, 2014-2015. No new data

Region	LGA	Harmful use of alcohol (100 population (ASR[1]) 2014-2015)	Percentile
Suburban	Brimbank	8.6	2
	Darebin	12.9	10
	Hobsons Bay	14.6	17
	Moonee Valley	14.9	20
	Moreland	13.2	11
Peri-urban	Macedon Ranges	18.2	53
	Moorabool	17.3	42
Inner city	Maribyrnong	12.1	8
	Melbourne	16	30
	Yarra	21.3	87
Growth area	Hume	9.8	3
	Wyndham	11	5
Victoria		**15**	
Australia		**16.7**	

Note: 1 Age Standardised Rate

Source: Social Health Atlas of Australia by Local Government Area, August 2016.

Table 42: Alcohol related ambulance attendances, 2014-2015.

Region	LGA	Alcohol related ambulance attendances (10,000 population (ASR[1]) 2014-2015)	Percentile
Suburban	Brimbank	28.7	41
	Darebin	30.4	45
	Hobsons Bay	32.4	53
	Moonee Valley	35.7	66
	Moreland	32.2	52
Peri-urban	Macedon Ranges	18.6	8
	Moorabool	25.2	28
Inner city	Maribyrnong	49.8	85
	Melbourne	177.2	98
	Yarra	79.3	96
Growth area	Hume	26.5	37
	Melton	25.7	32
	Wyndham	21	17
Victoria		**37**	**68**

Note: 1 Age Standardised Rate

Comment: Higher rates are seen for the 15-24 year age group (63.9), followed by 40-64 years (55.2) and 25-39 years (44.9)

Source: Turning Point 2016, AODstats.

Table 43: Alcohol related ED presentations, 2012-2013. No new data. No longer collected

LGA	Alcohol related ED presentations / 10,000 population (ASR[1]) 2012-13	Percentile (Victoria)	Subjective assessment (Victoria)
Yarra	30.1	99	Extremely high
Melbourne	69.6	94	Extremely high
Maribyrnong	18.8	81	Very high
Hobsons Bay	15.9	73	High
Victoria	**13.8**	-	-

Note: 1 Age Standardised Rate

Comment: Higher rates are seen by males (17.2) than females (10.4).

Source: Turning Point 2016, AODstats.

Table 44: Alcohol related hospitalisations, 2014-2015. No new data

Region	LGA	Alcohol related hospitalisations (10,000 population (ASR[1]) 2014-2015)	Percentile
Suburban	Brimbank	38.3	28
	Darebin	41	40
	Hobsons Bay	48.6	55
	Moonee Valley	44.4	45
	Moreland	39.8	33
Peri-urban	Macedon Ranges	30.9	17
	Moorabool	36.2	26
Inner city	Maribyrnong	51.1	58
	Melbourne	51.9	61
	Yarra	74.3	88
Growth area	Hume	29.2	12
	Melton	28.1	8
	Wyndham	24.5	4
Victoria		**55**	

Note: 1 Age Standardised Rate

Comment: Higher rates are seen from males (67.8) than females (42.5).

Source: Turning Point 2016, AODstats.

Table 45: Alcohol related episodes of care, 2014-2015. No new data

Region	LGA	Alcohol related episodes of care (10,000 population (ASR[1]) 2014-2015)	Percentile
Suburban	Brimbank	26.3	46
	Darebin	26.2	44
	Hobsons Bay	23.5	34
	Moonee Valley	20.6	25
	Moreland	29.8	55
Peri-urban	Macedon Ranges	27.1	50
	Moorabool	18.6	23
Inner city	Maribyrnong	34.8	61
	Melbourne	25.2	41
	Yarra	40.9	74
Growth area	Hume	23.1	33
	Melton	20.9	28
	Wyndham	17.7	21
Victoria		**28.8**	

Note: 1 Age Standardised Rate

Source: Turning Point 2016, AODstats.

Table 46: Alcohol related assaults during high alcohol hours (Friday and Saturday between 8pm and 6am), 2015-2016.

Region	LGA	High alcohol hours – assaults (10,000 population (ASR[1]) 2015-2016)	Percentile
Suburban	Brimbank	9.1	37
	Darebin	5.8	16
	Hobsons Bay	9.4	43
	Moonee Valley	6.4	19
	Moreland	8.2	31
Peri-urban	Macedon Ranges	5.3	15
	Moorabool	9.2	39
Inner city	Maribyrnong	8.4	33
	Melbourne	45.8	98
	Yarra	15.6	78
Growth area	Hume	10.3	54
	Melton	10.2	53
	Wyndham	6.8	22
Victoria		**9.9**	

Note: 1 Age Standardised Rate

Source: Turning Point 2016, AODstats.

Table 47: Alcohol related serious road injuries during high alcohol hours (Friday and Saturday between 8pm and 6am), 2015-2016.

Region	LGA	High alcohol hours - alcohol related serious road injuries (10k population (ASR[1]) 2015-2016)	Percentile
Suburban	Brimbank	2.7	42
	Darebin	2.3	26
	Hobsons Bay	2.2	22
	Moonee Valley	1.1	4
	Moreland	2.2	22
Peri-urban	Macedon Ranges	5.1	75
	Moorabool	5.1	75
Inner city	Maribyrnong	1.7	8
	Melbourne	5.4	80
	Yarra	4.2	68
Growth area	Hume	3.7	61
	Melton	2.3	26
	Wyndham	1.7	8
Victoria		**2.9**	

Note: 1 Age Standardised Rate

Source: Turning Point 2016, AODstats.

Table 48: Alcohol related deaths, 2014-15. No new data

Region	LGA	Alcohol related deaths (10,000 population (ASR[1]) 2014-2015)	Percentile
Suburban	Brimbank	1.2	16
	Darebin	1.6	42
	Hobsons Bay	1.3	24
	Moonee Valley	1.5	36
	Moreland	1.4	31
Peri-urban	Macedon Ranges	2.2	61
	Moorabool	4.2	84
Inner city	Maribyrnong	1.5	36
	Melbourne	1.1	11
	Yarra	1.4	31
Growth area	Hume	1.2	16
	Melton	1.3	24
	Wyndham	1	7
Victoria		**1.7**	

Note: 1 Age Standardised Rate

Source: Turning Point 2016, AODstats.

Drug and alcohol–Other drugs

Table 49: Crystal methamphetamine (ice) related ambulance attendances, 2016-17.

Region	LGA	Crystal meth. related ambulance attendance (100,000 population (ASR[1]) 2016-2017)	Percentile
Suburban	Brimbank	47.6	76
	Darebin	58.1	89
	Hobsons Bay	32.1	48
	Moonee Valley	36.6	54
	Moreland	38.9	60
Peri-urban	Macedon Ranges	14.7	15
	Moorabool	30.6	39
Inner city	Maribyrnong	56.1	84
	Melbourne	146.6	98
	Yarra	103.9	95
Growth area	Hume	53.9	82
	Melton	36	53
	Wyndham	31.6	44
Victoria		**40.7**	

Note: 1 Age Standardised Rate

Source: Turning Point 2017, AODstats.

Table 50: Meth/amphetamine related ambulance attendances, 2016-17.

Region	LGA	Meth/ amphetamine related amb. attendances (100,000 population (ASR[1]) 2016-2017)	Percentile
Suburban	Brimbank	66.1	78
	Darebin	71.6	83
	Hobsons Bay	38.5	37
	Moonee Valley	55.3	69
	Moreland	50.5	63
Peri-urban	Macedon Ranges	18.9	15
	Moorabool	39.8	40
Inner city	Maribyrnong	74.4	84
	Melbourne	219.5	98
	Yarra	134.9	95
Growth area	Hume	66.4	81
	Melton	47.3	59
	Wyndham	42.1	48
Victoria		**53.2**	

Note: 1 Age Standardised Rate

Source: Turning Point 2016, AODstats.

Table 51: Meth/amphetamine related episodes of care, 2014-15. No new data

Region	LGA	Meth/amphetamine related episodes of care (10,000 population (ASR[1]) 2014-2015)	Percentile
Suburban	Brimbank	17.8	67
	Darebin	14.1	50
	Hobsons Bay	12.8	43
	Moonee Valley	15.0	54
	Moreland	20.1	73
Peri-urban	Macedon Ranges	6.9	14
	Moorabool	8.9	26
Inner city	Maribyrnong	17.5	66
	Melbourne	11.2	35
	Yarra	25.6	85
Growth area	Hume	20.0	71
	Melton	21.2	76
	Wyndham	16.2	59
Victoria		**15.1**	

Note: 1 Age Standardised Rate

Comment: the rate is highest in the 15-24 year age group (39.7) followed by 25-39 years (32.7) and 40-64 years (7.4)

Source: Turning Point 2016, AODstats.

Table 52: Illicit substances related ambulance attendances, 2014-2015.

Region	LGA	Illicit substances related ambulance attendances (10,000 population (ASR[1]) 2014-2015)	Percentile
Suburban	Brimbank	20.4	87
	Darebin	21.9	88
	Hobsons Bay	15.9	80
	Moonee Valley	16.7	83
	Moreland	15.2	75
Peri-urban	Macedon Ranges	4.9	8
	Moorabool	9.7	40
Inner city	Maribyrnong	33.7	94
	Melbourne	74.1	98
	Yarra	71.3	97
Growth area	Hume	12.8	68
	Melton	12.9	71
	Wyndham	10	45
Victoria		**15.5**	

Note: 1 Age Standardised Rate

Source: Turning Point 2016, AODstats.

Table 53: Illicit substances related ED presentations, 2012-2013. No new data. No longer reported by Turning Point

LGA	Illicit substances related ED presentations / 10,000 population (ASR[1]) 2012-13	Percentile (Victoria)	Subjective assessment (Victoria)
Melbourne	4.7	98	Extremely high
Yarra	4.6	96	Extremely high
Maribyrnong	3.4	88	Very high
Hobsons Bay	3.3	86	Very high
Darebin	2.7	80	Very high
Moorabool	2.7	80	Very high
Victoria	**2.1**	-	-

Note: 1 Age Standardised Rate

Source: Turning Point 2016, AODstats.

Table 54: Illicit substances related hospitalisations, 2014-15. No new data

Region	LGA	Illicit substances related hospitalisations (10,000 population (ASR[1]) 2014-2015)	Percentile
Suburban	Brimbank	28.8	84
	Darebin	22	56
	Hobsons Bay	22.1	58
	Moonee Valley	22.1	58
	Moreland	23.1	62
Peri-urban	Macedon Ranges	13.6	15
	Moorabool	18.4	36
Inner city	Maribyrnong	27.4	79
	Melbourne	29.6	88
	Yarra	27.4	79
Growth area	Hume	18.8	39
	Melton	20.4	46
	Wyndham	14.3	17
Victoria		**25.3**	

Note: 1 Age Standardised Rate

Source: Turning Point 2016, AODstats

Table 55: Illicit substances related episodes of care, 2014-15. No new data

Region	LGA	Illicit substances related episodes of care (10,000 population (ASR[1]) 2014-2015)	Percentile
Suburban	Brimbank	50.9	77
	Darebin	40.9	61
	Hobsons Bay	41.2	62
	Moonee Valley	33.9	44
	Moreland	42.9	66
Peri-urban	Macedon Ranges	17.6	14
	Moorabool	18	15
Inner city	Maribyrnong	55.7	80
	Melbourne	35.5	46
	Yarra	74.8	88
Growth area	Hume	41.6	63
	Melton	48.3	72
	Wyndham	36.2	49
Victoria		**38.9**	

Note: 1 Age Standardised Rate

Comment: : the rate is higher from males (51.3) than females (26.7). The rate is highest in the 15-24-year age group (112.1), followed by 25-39 years (71.8) and 40-64 years (22.6). Source: Turning Point 2016, AODstats.

Table 56: Pharmaceutical related ambulance attendances, 2014-15

Region	LGA	Pharmaceutical related ambulance attendances (10,000 population (ASR) 2014-2015)	Percentile
Suburban	Brimbank	15.2	42
	Darebin	18	64
	Hobsons Bay	14.7	37
	Moonee Valley	14.2	33
	Moreland	15.5	44
Peri-urban	Macedon Ranges	11.9	23
	Moorabool	19.7	74
Inner city	Maribyrnong	19.4	67
	Melbourne	26.2	92
	Yarra	26.1	91
Growth area	Hume	16.6	53
	Melton	18.7	65
	Wyndham	12.7	26
Victoria		**17**	

Note: 1 Age Standardised Rate

Source: Turning Point 2016, AODstats.

Table 57: Pharmaceutical related emergency department presentations, 2012-2013. No new data. No longer reported by Turning Point

LGA	Pharmaceutical related ED presentations / 10,000 population (ASR[1]) 2013-13	Percentile (Victoria)	Subjective assessment (Victoria)
Hobsons Bay	15.1	80	Very high
Wyndham	14.9	77	High
Hume	14.1	76	High
Melbourne	14.0	74	High
Victoria	**12.6**	-	-

Note: 1 Age Standardised Rate

Comment: the Victorian rate is higher for females (13.0) than males (7.8)

Source: Turning Point 2016, AODstats.

Table 58: Pharmaceutical related hospitalisations, 2014-15. No new data

Region	LGA	Pharmaceutical related hospitalisations (10,000 population (ASR) 2014-2015)	Percentile
Suburban	Brimbank	10.7	18
	Darebin	16.1	61
	Hobsons Bay	12.4	31
	Moonee Valley	16.5	66
	Moreland	15.5	56
Peri-urban	Macedon Ranges	7.6	3
	Moorabool	10.4	15
Inner city	Maribyrnong	12.3	29
	Melbourne	20.1	83
	Yarra	17	70
Growth area	Hume	11.1	21
	Melton	13	33
	Wyndham	10.1	13
Victoria		**16.1**	

Note: 1 Age Standardised Rate

Comment: the rate is higher from females than males

Source: Turning Point 2016, AODstats.

Table 59: Pharmaceutical related episodes of care, 2014-15. No new data

Region	LGA	Pharmaceutical related episodes of care (10,000 population (ASR[1]) 2014-2015)	Percentile
Suburban	Brimbank	2.8	36
	Darebin	3.2	47
	Hobsons Bay	2.1	21
	Moonee Valley	3.7	60
	Moreland	3.2	47
Peri-urban	Macedon Ranges	2.2	23
Inner city	Maribyrnong	6.1	77
	Melbourne	3.1	43
	Yarra	4	64
Growth area	Hume	2.8	36
	Melton	2.7	32
	Wyndham	1.8	18
Victoria		**3.5**	

Note: 1 Age Standardised Rate

Source: Turning Point 2016, AODstats.

Table 60: Other stimulants related ambulance attendances, 2016-17.

Region	LGA	Other stimulants related ambulance attendances (10,000 population (ASR) 2014-2015)	Percentile
Suburban	Brimbank	9.7	45
	Darebin	26.5	91
	Hobsons Bay	6.4	31
	Moonee Valley	21.1	82
	Moreland	23.8	87
Peri-urban	Macedon Ranges	N/A	N/A
	Moorabool	N/A	N/A
Inner city	Maribyrnong	25.2	89
	Melbourne	157.4	98
	Yarra	57.8	94
Growth area	Hume	14.4	68
	Melton	13.4	64
	Wyndham	4.8	28
Victoria		**12.5**	

Note: 1 Age Standardised Rate

Comment: Data not published for Macedon Ranges and Moorabool due to the small number of attendances. Source: Turning Point 2016, AODAmbostats

Table 61: Other stimulants related episodes of care, 2014-2015. No new data

Region	LGA	Other stimulants related amb. attendances (10,000 population (ASR) 2014-2015)	Percentile
Suburban	Brimbank	0.8	81
	Darebin	0.9	87
	Hobsons Bay	0.8	81
	Moonee Valley	0.8	81
	Moreland	0.6	64
Inner city	Maribyrnong	0.7	74
	Melbourne	0.7	74
	Yarra	0.7	74
Peri-urban	Macedon Ranges	N/A	N/A
	Moorabool	N/A	N/A
Growth area	Hume	1.2	95
	Melton	0.6	64
	Wyndham	0.3	48
Victoria		**0.7**	

Note: 1 Age Standardised Rate

Source: Turning Point 2016, AODstats.

Population health–Determinants

Table 62: SEIFA Index of Relative Socio-Economic Disadvantage (IRSD), 2016.

Region	LGA	IRSD Score	Lowest SA1 IRSD score in the LGA	Decile (Victoria)
Suburban	Brimbank	921	694	1
	Darebin	1004	712	7
	Hobsons Bay	1015	655	7
	Moonee Valley	1035	378	9
	Moreland	1014	720	7
Inner city	Maribyrnong	995	698	6
	Melbourne	1010	389	7
	Yarra	1035	341	9
Peri-urban	Macedon Ranges	1060	835	9
	Moorabool	1010	807	7
Growth area	Hume	947	445	2
	Melton	994	795	5
	Wyndham	1009	610	7
Victoria		**1010.5**		

Source: Australian Bureau of Statistics, Socio-Economic Indexes for Areas, 2016

Population health – Perinatal and infancy

Table 63: Potentially avoidable hospitalisations (Ambulatory Care Sensitive Conditions), 0-4 years. 2016/2017.

Age group	Disease	Hospital admissions - NWMPHN residents, % 2016-2017	Rank (NWMPHN)	Hospital admissions - Victoria residents, % 2016-2017	Rank (Victoria)
A0004	Ear, nose and throat infections	30.9	1	36.7	1
A0004	Dental conditions	23.0	2	18.0	2
A0004	Convulsions and epilepsy	14.1	3	15.3	3
A0004	Asthma	9.6	4	7.6	5
A0004	Urinary tract infections, including pyelonephritis	9.0	5	9.2	4

Comment: The rate of ear, nose and throat infections avoidable hospitalisations across the PHN (6.06 SR per 1,000) is lower than the Victorian average (8.31 SR per 1,000). The rate of dental-related avoidable hospitalisations across the PHN (5.02 SR per 1,000) is higher than the Victorian average (4.75 SR per 1,000).

Source: Victorian Ambulatory Care Sensitive Conditions (ACSCs) reports, 2016-17, reported in Victorian Health Information Surveillance System, 2016.

Table 64: Infant death rate, 2011-15.

Region	LGA	Average annual infant deaths per 1000 births (IDR[1]) 2011-2015)	Percentile (Victoria)
Suburban	Brimbank	5.1	96
	Moreland	2.7	32
	Darebin	2.5	26
	Moonee Valley	2.1	14
	Hobsons Bay	1.3	9
Peri-urban	Moorabool	3.4	63
	Macedon Ranges	2.9	39
Inner city	Melbourne	4.1	81
	Maribyrnong	3.3	57
	Yarra	1.7	11
Growth area	Melton	3.4	64
	Hume	2.8	38
	Wyndham	2.8	37
Victoria		**2.9**	
Australia		**3.5**	

Notes: 1 IDR is Infant Death Rate

Source: Social Health Atlas of Australia by Local Government Area, August 2016.

Table 65: Proportion of infants fully breastfed at three months, 2014/15. No new data

Region	LGA	Infants fully breastfed at three months (%) 2014-15	Percentile
Suburban	Brimbank	62.1	56
	Darebin	60.4	73
	Hobsons Bay	62.7	50
	Moonee Valley	64.7	37
	Moreland	62.4	51
Peri-urban	Macedon Ranges	60.8	70
	Moorabool	64.3	40
Inner city	Maribyrnong	63.0	50
	Melbourne	61.3	66
	Yarra	61.3	65
Growth area	Hume	61.1	68
	Melton	64.0	42
	Wyndham	65.5	31
Victoria		**63.4**	
Australia		**67.9**	

Source: Social Health Atlas of Australia by Local Government Area, August 2016.

Table 66: Participation rates for key Maternal and Child Health ages and stages consultations, 3.5 years, 2014/15. No new data

LGA	Participation rate for key Maternal and Child Health ages and stages consultations, 3.5 years, % 2014-15	Percentile (Victoria)	Subjective assessment (Victoria)
Maribyrnong	53.6	4	Extremely low
Melbourne	54.9	5	Extremely low
Wyndham	57.0	9	Extremely low
Melton	59.8	16	Very low
Hume	60.4	20	Low
Moreland	61.1	21	Low
Hobsons Bay	62.1	27	Low
Darebin	62.5	28	Low
Victoria	**66.1**	-	-

Source: Victorian Department of Education and Training Maternal and Child Health Services Annual Report 2014-2015.

Table 67: Participation rates for key Maternal and Child Health ages and stages consultations, 3.5 years, Aboriginal and Torres Strait Islander, 2014/15. No new data

LGA	Participation rates - key Maternal and Child Health ages and stages consultations, 3.5 years - Aboriginal and Torres Strait Islander, % 2014-15	Percentile (Victoria)	Subjective assessment (Victoria)
Maribyrnong	22.2	18	Very low
Darebin	26.4	23	Low
Melbourne	28.6	26	Low
Yarra	28.6	26	Low
Brimbank	32.0	32	Low
Moreland	32.3	33	Low
Victoria	**51.2**	-	-

Source: Victorian Department of Education and Training Maternal and Child Health Services Annual Report 2014-2015.

Population health – Children

Table 68: Potentially avoidable hospitalisations (Ambulatory Care Sensitive Conditions), 5-14 years, 2016/2017.

Age group	Disease	Hospital admissions - NWMPHN residents, % 2016-2017	Rank (PHN)	Hospital admissions - Victoria residents, % 2016-2017	Rank (Vic)
A0514	Dental conditions	18.9	1	16.3	1
A0514	Ear, nose and throat infections	14.8	2	15.7	2
A0514	Cellulitis	12.1	3	11.4	4
A0514	Urinary tract infections, including pyelonephritis	11.7	4	13.8	3
A0514	Iron deficiency anaemia	11.1	5	10.9	5

Source: Victorian Ambulatory Care Sensitive Conditions (ACSCs) reports, reported in Victorian Health Information Surveillance System, 2018.

Table 69: Children developmentally vulnerable on one or more AEDC domains, 2015. No new data

Region	LGA	Children developmentally vulnerable on one or more AEDC domains, % 2015	Children developmentally vulnerable on two or more AEDC domains, % 2015
Inner city	Maribyrnong	18.9	7.5
	Melbourne	23.5	12.6
	Yarra	25.6	14.7
Suburban	Brimbank	31.0	17.5
	Darebin	16.2	7.4
	Hobsons Bay	19.5	8.7
	Moonee Valley	15.9	7.9
	Moreland	20.8	10.4
Growth area	Hume	27.1	14.9
	Melton	21.0	10.2
	Wyndham	26.4	13.3
Peri-urban	Macedon Ranges	13.5	6.3
	Moorabool	21.4	11.0
Victoria		**19.9**	**9.9**

Source: Australian Early Development Census, 2015.

Table 70: Child immunisation rates % fully immunised by age group, 2016-17.

SA4	SA3	Age 1 year	Age 2 year	Age 5 year
Melbourne - Inner	Brunswick - Coburg	93.8	91.5	93.4
	Darebin - South	95.9	90.4	94.6
	Essendon	93.9	89.8	92.8
	Melbourne City	88	84.3	84.8
	Yarra	93.5	91.8	91.8
Melbourne - North East	Darebin - North	92.9	90.1	93.7
Melbourne - North West	Keilor	96.3	90.8	94.5
	Macedon Ranges	96.1	90.8	93.8
	Moreland - North	92.3	88.9	94.3
	Sunbury	95.3	93.8	95.7
	Tulla. - B/meadows	92.3	88.4	93.7
Melbourne - West	Brimbank	92.9	89	94.4
	Hobsons Bay	93.2	91.9	93.3
	Maribyrnong	93.1	91.2	93.3
	Melton - BMarsh	93.7	92	95.2
	Wyndham	92.7	90.9	93

Source: AIHW, Immunisation rates for children. Children aged 1, 2 and 5 years who were fully immunised from 2011–12 to 2016–17

Table 71: Estimated annual asthma and related respiratory hospital admissions, 3-19 years, 2010/11 to 2012/13. No new data

SA3	Hospital admissions / 100,000 population (ASR[1]) 2010-11 to 2012-13	Percentile (Australia)	Subjective assessment (Australia)
Maribyrnong	531	97	Extremely high
Keilor	497	96	Extremely high
Brimbank	470	93	Extremely high
Melbourne City	470	93	Extremely high
Moreland North	452	92	Extremely high
Brunswick-Coburg	435	90	Extremely high
Tullamarine-Broadmeadows	364	72	High
Australia	**309.0**	-	-

Notes: 1 Age Standardised Rate

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 72: PBS prescriptions dispensed for asthma medicines, 3-19 years, 2013/14. No new data

SA3	Asthma medicines - prescriptions dispensed / 100,000 population (ASR[1]) 2013-14	Percentile (Australia)	Subjective assessment (Australia)
Sunbury	32,146	92	Extremely high
Brimbank	26,197	71	High
Macedon Ranges	25,928	70	High
Australia	**25,750**	-	-

Notes: 1 Age Standardised Rate

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 73: Myringotomy hospital admissions, under 17 years, 2012/13. No new data

SA3	Myringotomy hospital admissions / 100,000 population (ASR[1]) 2012-13	Percentile (Australia)	Subjective assessment (Australia)
Sunbury	910	87	Very high
Macedon Ranges	780	76	High
Australia	**621**	-	-

Notes: 1 Age Standardised Rate. Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 74: Tonsillectomy hospital admissions, under 17 years, 2012/13. No new data

SA3	Tonsillectomy hospital admissions / 100,000 population (ASR[1]) 2012-13	Percentile (Australian SA3s)	Subjective assessment (Australia)
Sunbury	801	65	Moderate
Macedon Ranges	786	61	Moderate
Australia	**724**	-	-

Notes: 1 Age Standardised Rate. Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 75: Estimated number of children aged 2-17 years who were overweight (but not obese) (modelled estimates), 2014–15 ASR per 100. No new data

Region	LGA	Measure (+/-95% CI)	Significant
Inner city	Maribyrnong	23.0 (21.5 - 24.5)	* high
	Melbourne	20.1 (17.8 - 22.4)	
	Yarra	22.4 (21.0 - 23.8)	
Suburban	Brimbank	24.4 (23.3 - 25.5)	* (high)
	Darebin	23.6 (22.5 - 24.6)	* (high)
	Hobsons Bay	22.0 (20.8 - 23.2)	
	Moonee Valley	21.1 (20.0 - 22.1)	
	Moreland	23.0 (22.0 - 23.9)	* (high)
Growth area	Hume	22.1 (21.2 - 23.0)	
	Melton	20.6 (19.5 - 21.6)	
	Wyndham	22.4 (21.1 - 23.6)	
Peri-urban	Macedon Ranges	20.2 (18.9 - 21.5)	
	Moorabool	20.1 (18.4 - 21.8)	
Victoria		**21.6 (21.4 - 21.8)**	
Australia		**18.3 (18.2 - 18.4)**	

Source: PHIDU, ABS 2014-15

Table 76: Estimated number of children aged 2-17 years who were obese (modelled estimates), 2014–15 ASR per 100. No new data

Region	LGA	Measure (+/-95% CI)	Significant
Inner city	Maribyrnong	8.3 (7.5 - 9.0)	
	Melbourne	7.6 (6.9 - 8.4)	
	Yarra	6.0 (5.3 - 6.7)	**(low)
Suburban	Brimbank	10.0 (9.3 - 10.7)	* (high)
	Darebin	7.6 (7.1 - 8.1)	
	Hobsons Bay	7.3 (6.7 - 7.9)	
	Moonee Valley	7.3 (6.5 - 8.0)	
	Moreland	7.9 (7.3 - 8.4)	
Growth area	Hume	10.5 (9.7 - 11.4)	* (high)
	Melton	9.8 (9.0 - 10.6)	* (high)
	Wyndham	9.5 (8.9 - 10.1)	* (high)
Peri-urban	Macedon Ranges	6.4 (5.7 - 7.1)	** (low)
	Moorabool	7.9 (7.0 - 8.8)	
Victoria		**7.6 (7.5 - 7.7)**	
Australia		**7.5 (7.5 - 7.6)**	

Source: PHIDU, ABS 2014-15

Table 77: Estimated number of people aged 4-17 years with adequate fruit intake (modelled estimates), 2014–15 ASR per 100 No new data

Region	LGA	Measure (+/-95% CI)	Significant
Inner city	Maribyrnong	61.4 (57.3 - 65.4)	
	Melbourne	68.8 (65.7 - 71.9)	* (high)
	Yarra	66.8 (63.1 - 70.5)	
Suburban	Brimbank	60.8 (58.0 - 63.6)	** (low)
	Darebin	62.4 (59.2 - 65.7)	
	Hobsons Bay	62.0 (58.3 - 65.7)	
	Moonee Valley	65.9 (62.1 - 69.6)	
	Moreland	61.5 (58.4 - 64.5)	
Growth area	Hume	60.2 (56.9 - 63.5)	** (low)
	Melton	61.8 (57.8 - 65.7)	
	Wyndham	60.3 (56.7 - 63.9)	** (low)
Peri-urban	Macedon Ranges	65.8 (61.6 - 69.9)	
	Moorabool	65.6 (60.2 - 71.0)	
Victoria		**64.5 (64.0 - 65.0)**	
Australia		**66.3 (66.0 - 66.6)**	

Source: PHIDU, ABS 2014-15

Population health–Young people

Table 78: Potentially avoidable hospitalisations (Ambulatory Care Sensitive Conditions), 15-24 years, 2016/2017.

Age group	Disease	Hospital admissions –residents of NWMPHN, % 2016-2017	Rank (NWMPHN)	Hospital admissions – residents of Victoria, % 2016-2017	Rank (Victoria)
A1524	Cellulitis	14.0	1	14.9	1
A1524	Urinary tract infections, including pyelonephritis	11.4	2	11.5	2
A1524	Ear, nose and throat infections	10.3	3	10.1	4
A1524	Dental conditions	9.4	4	11.3	3
A1524	Asthma	8.0	5	7.7	5

Source: Victorian Ambulatory Care Sensitive Conditions (ACSCs) reports, reported in Victorian Health Information Surveillance System, 2016.

Population health–Adults

Table 79: Potentially avoidable hospitalisations (Ambulatory Care Sensitive Conditions), 25-44 years, 2016/2017.

Age group	Disease	Hospital admissions –residents of NWMPHN, % 2016-2017	Rank (NWMPHN)	Hospital admissions – residents of Victoria, % 2016-2017	Rank (Victoria)
A2544	Iron deficiency anaemia	19.8	1	19.0	1
A2544	Cellulitis	13.7	2	15.1	2
A2544	Other vaccine-preventable conditions	9.2	3	7.0	5
A2544	Dental conditions	9.1	4	10.4	3
A2544	Diabetes complications	7.6	5	7.0	6

Source: Victorian Ambulatory Care Sensitive Conditions (ACSCs) reports, 2015-16, reported in Victorian Health Information Surveillance System, 2016.

Table 80: Potentially avoidable hospitalisations (Ambulatory Care Sensitive Conditions), 45-64 years, 2016/2017.

Age group	Disease	Hospital admissions – residents of NWMPHN, % 2016-2017	Rank (NWMPHN)	Hospital admissions – residents of Victoria, % 2016-2017	Rank (Victoria)
A4564	Chronic Obstructive Pulmonary Disease (COPD)	13.0	1	14.7	1
A4564	Iron deficiency anaemia	11.6	2	11.6	2
A4564	Diabetes complications	10.3	3	9.2	5
A4564	Cellulitis	8.9	4	9.8	3
A4564	Congestive cardiac failure	8.6	5	7.4	7

Source: Victorian Ambulatory Care Sensitive Conditions (ACSCs) reports, 2015-16, reported in Victorian Health Information Surveillance System, 2016.

Population health–Older adults

Table 81: Potentially avoidable hospitalisations (Ambulatory Care Sensitive Conditions), 65 years and over, 2016/2017.

Age group	Disease	Hospital admissions – residents of NWMPHN, % 2016-17	Rank (PHN)	Hospital admissions – residents of Victoria, % 2016-2017	Rank (Victoria)
A65P	Congestive cardiac failure	25.8	1	22.7	1
A65P	Chronic Obstructive Pulmonary Disease (COPD)	14.4	2	15.9	2
A65P	Iron deficiency anaemia	12.4	3	12.2	3
A65P	Urinary tract infections, including pyelonephritis	8.9	4	10.5	4
A65P	Diabetes complications	7.6	5	6.4	6

Source: Victorian Ambulatory Care Sensitive Conditions (ACSCs) reports, 2015-16, reported in Victorian Health Information Surveillance System, 2016.

Table 82: PBS prescriptions dispensed for anticholinesterase medicines, 65 years and over, 2013-2014. No new data

SA3	Prescriptions dispensed / 100,000 population (ASR[1]) 2013-14	Percentile (Australia)	Subjective assessment (Australia)
Melbourne City	16,981	87	Very high
Darebin North	16,112	84	Very high
Yarra	15,887	83	Very high
Darebin South	15,337	79	High
Brimbank	8,293	20	Low
Wyndham	8,614	22	Low
Maribyrnong	8,736	24	Low
Australia	**12,650**	-	-

Notes: 1 Age Standardised Rate

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Table 83: PBS prescriptions dispensed for opioid medicines, all ages, 2013-2014. No new data

SA3	Prescriptions dispensed / 100,000 population (ASR[1]) 2013-14	Percentile (Australia)	Subjective assessment (Australia)
Sunbury	72,317	79	High
Melton-Bacchus Marsh	69,864	74	High
Yarra	41,781	23	Low
Brunswick-Coburg	41,155	21	Low
Darebin-South	38,462	15	Very low
Essendon	39,918	18	Very low
Melbourne City	36,133	13	Very low
Keilor	38,645	15	Very low
Australia	**55,126**	-	-

Notes: 1 Age Standardised Rate

Source: Australian Commission of Safety and Quality in Health Care and National Health Performance Authority 2015, reported in Australian Atlas of Healthcare Variation.

Population health–Chronic disease, diabetes

Table 84: Potentially avoidable hospitalisations from diabetes (Ambulatory Care Sensitive Conditions), main ages, 2016/2017.

Age group	Disease	Hospital admissions – residents of NWMPHN, % 2016-17	Rank (NWMPHN)	Hospital admissions – residents of Victoria, % 2016-17	Rank (Victoria)
A0004	Diabetes complications	0.6	8	0.8	8
A0514	Diabetes complications	6.1	7	7.4	3
A1524	Diabetes complications	6.3	6	6.1	7
A2534	Diabetes complications	6.4	5	6.2	6
A3544	Diabetes complications	8.7	2	7.6	2
A4564	Diabetes complications	10.3	1	9.2	1
A65P	Diabetes complications	7.6	4	6.4	5
AllAge	Diabetes complications	8.1	3	7.3	4

Source: Victorian Ambulatory Care Sensitive Conditions (ACSCs) reports, 2015-16, reported in Victorian Health Information Surveillance System, 2016.

Table 85: Estimated proportion of the population with diabetes mellitus, 18 years and over, 2011-2012. No new data

LGA	People[1] with diabetes mellitus / 100 population (ASR[2]) 2011-13	Percentile (Victoria)	Subjective assessment (Victoria)
Brimbank	8.8	99	Extremely high
Hume	7.3	95	Extremely high
Maribyrnong	6.9	93	Extremely high
Darebin	6.7	91	Extremely high
Moreland	6.7	91	Extremely high
Melton	6.0	84	Very high
Hobsons Bay	5.7	77	High
Yarra	5.6	76	High
Moonee Valley	5.6	75	High
Wyndham	5.5	71	High
Victoria	**4.7**	-	-
Australia	**5.4**	-	-

Notes: 1 The rate is calculated using an estimate of the population of affected people. 2 Age Standardised Rate.

Source: Social Health Atlas of Australia by Local Government Area, August 2016.

Population health–Chronic disease, respiratory disease

Table 86: Potentially avoidable hospitalisations from respiratory system diseases (Ambulatory Care Sensitive Conditions), main ages, 2016/2017.

Age group	Disease	Hospital admissions – residents of NWMPHN, % 2016-17	Rank (NWMPHN)	Hospital admissions – residents of Victoria, % 2016-17	Rank (Victoria)
A2534	Chronic Obstructive Pulmonary Disease (COPD)	0.6	5	1.3	5
A3544	Chronic Obstructive Pulmonary Disease (COPD)	3.3	4	5.3	4
A4564	Chronic Obstructive Pulmonary Disease (COPD)	13.0	2	14.7	2
A65P	Chronic Obstructive Pulmonary Disease (COPD)	14.4	1	15.9	1
All Ages	Chronic Obstructive Pulmonary Disease (COPD)	10.1	3	12.1	3

Source: Victorian Ambulatory Care Sensitive Conditions (ACSCs) reports, 2016-17, reported in Victorian Health Information Surveillance System, 2016.

Table 87: Potentially avoidable hospitalisations from asthma (Ambulatory Care Sensitive Conditions), main ages, 2016/2017.

Age group	Disease	Hospital admissions – residents of NWMPHN, % 2016-17	Rank (NWMPHN)	Hospital admissions – residents of Victoria, % 2016-17	Rank (Victoria)
A0004	Asthma	9.6	1	7.6	3
A0514	Asthma	8.8	3	7.5	4
A1524	Asthma	8.0	4	7.7	2
A2534	Asthma	9.3	2	7.7	1
A3544	Asthma	5.7	5	5.5	5
A4564	Asthma	3.4	7	3.2	7
A65P	Asthma	1.1	8	1.4	8
All Ages	Asthma	3.9	6	3.4	6

Source: Victorian Ambulatory Care Sensitive Conditions (ACSCs) reports, 2016-17, reported in Victorian Health Information Surveillance System, 2016.

Table 88: Estimated proportion of the population with respiratory system diseases, 2011-2013. No new data

LGA	People with respiratory system diseases / 100 population (ASR[1]) 2011-13	Percentile (Victoria)	Subjective assessment (Victoria)
Hobsons Bay	31.0	68	Moderate
Victoria	**29.7**	-	-
Australia	**28.7**	-	-

Note: 1 Age Standardised Rate.

Comment: While the PHN LGAs generally have low estimated rates relative to Victoria, given the high disease burden particularly amongst the young it remains clinically relevant

Source: Social Health Atlas of Australia by Local Government Area, August 2016.

Table 89: Estimated population with asthma, 2011-2013. No new data

LGA	People with asthma / 100 population (ASR[1]) 2011-2013	Percentile (Australia)	Subjective assessment (Australia)
Macedon Ranges	13.1	91	Extremely high
Moorabool	13.1	91	Extremely high
Victoria	**10.9**	-	
Australia	**10.2**	-	

Note: 1 Age Standardised Rate.

Source: Social Health Atlas of Australia by Local Government Area, August 2016.

Table 90: Average annual rate of deaths from respiratory system diseases, 0-74 years, 2011-2015.

Region	LGA	Average annual deaths - respiratory system diseases 100,000 population (ASR[1]) 2011-2015)	Percentile (Victoria)
Suburban	Hobsons Bay	16.3	58
	Darebin	13.7	42
	Moonee Valley	12.1	27
	Moreland	11.8	23
	Brimbank	10.6	15
Peri-urban	Moorabool	14.1	43
	Macedon Ranges	8.9	9
Inner city	Maribyrnong	18.9	76
	Yarra	10.8	15
	Melbourne	8.5	7
Growth area	Hume	19.1	77
	Melton	16.4	61
	Wyndham	12.7	31
Victoria		**13.1**	**38**
Australia		**15**	**51**

Note: 1 Age Standardised Rate.

Source: Social Health Atlas of Australia by Local Government Area, August 2016.

Table 91: Deaths from chronic obstructive pulmonary disease, 0-74 years, 2011-2015.

Region	LGA	Average annual deaths - chronic obstructive pulmonary disease 100 population(ASR[1]) 2011-2015)	Percentile (Vicotria)
Suburban	Hobsons Bay	10.2	63
	Darebin	7.4	34
	Moreland	6.9	26
	Moonee Valley	6.8	25
	Brimbank	5.1	11
Peri-urban	Moorabool	7.4	37
	Macedon Ranges	6.7	24
Inner city	Maribyrnong	12.5	81
	Melbourne	6.5	22
	Yarra	5.6	13
Growth area	Hume	9.5	59
	Melton	8.7	50
	Wyndham	7.9	41
Victoria		**7.7**	**38**
Australia		**8.8**	**51**

Note: 1 Age Standardised Rate.

Source: Social Health Atlas of Australia by Local Government Area, August 2016.

Population health – Chronic disease, cardiovascular

Table 92: Potentially avoidable hospitalisations from iron deficiency anaemia and congestive heart failure (Ambulatory Care Sensitive Conditions), main ages, 2016/2017.

Age group	Disease	Hospital admissions, NWMPHN residents, % 2016-17	Rank (PHN)	Hospital admissions, Victoria residents, % 2016-17	Rank (Vic)
A0514	Iron deficiency anaemia	11.1	7	10.9	6
A2534	Iron deficiency anaemia	21.3	1	20.3	1
A3544	Iron deficiency anaemia	18.4	2	17.9	2
A4564	Iron deficiency anaemia	11.6	6	11.6	5
A65P	Iron deficiency anaemia	12.4	5	12.2	4
All Ages	Iron deficiency anaemia	13.0	4	12.6	3

Source: Victorian Ambulatory Care Sensitive Conditions (ACSCs) reports, 2015-16, reported in Victorian Health Information Surveillance System, 2018.

Table 93: Proportion of the population with high blood cholesterol, 18 years and over, 2014-15. No new data

Region	LGA	People with high blood cholesterol (100 population (ASR[1]) 2014-2015)	Percentile
Suburban	Brimbank	29.2	93
	Darebin	28.4	92
	Hobsons Bay	27.3	88
	Moonee Valley	22.2	37
	Moreland	31.7	94
Peri-urban	Macedon Ranges	21	22
	Moorabool	21.9	33
Inner city	Maribyrnong	32.5	96
	Melbourne	43.1	99
	Yarra	36.4	98
Growth area	Hume	25.8	86
	Melton	23.9	61
	Wyndham	22.0	33
Victoria		**24.1**	**70**
Australia		**23.1**	**53**

Note: 1 Age Standardised Rate.

Source: Social Health Atlas of Australia by Local Government Area, August 2016.

Table 94: Estimated proportion of the population with circulatory system diseases, 2 years and over, 2011-2012. No new data

LGA	People with circulatory system diseases /100 population (ASR[1]) 2011-2013	Percentile (Victoria)	Subjective assessment (Victoria)
Maribyrnong	18.2	99	Extremely high
Melton	17.5	80	Very high
Darebin	17.4	69	High
Moreland	17.2	58	
Hobsons Bay	17.2	58	
Yarra	17.0	48	
Moorabool	16.8	38	
Victoria	**16.6**	-	-
Australia	**17.3**	-	-

Statistical estimate

Source: Social Health Atlas of Australia by Local Government Area, August 2016.

Table 95: Estimated proportion of the population with hypertensive diseases, 2014-2015. No new data

Region	LGA	People with hypertensive diseases (100 population (ASR[1]) 2014-2015)	Percentile
Suburban	Moreland	31.7	94
	Brimbank	29.2	93
	Darebin	28.4	92
	Hobsons Bay	27.3	88
	Moonee Valley	22.2	37
Peri-urban	Moorabool	21.9	33
	Macedon Ranges	21.0	22
Inner city	Melbourne	43.1	99
	Yarra	36.4	98
	Maribyrnong	32.5	96
Growth area	Hume	25.8	86
	Melton	23.9	61
	Wyndham	22.0	33
Victoria		**24.1**	
Australia		**23.1**	

Notes: 1 Age Standardised Rate.

Source: Social Health Atlas of Australia by Local Government Area, August 2016.

Table 96: Deaths attributed to circulatory diseases, 0-74 years, 2011-2015.

Region	LGA	Average annual deaths - circulatory diseases 100,000 population (ASR[1]) 2011-2015)	Percentile
Suburban	Darebin	51.7	71
	Brimbank	47	59
	Hobsons Bay	49.3	67
	Moreland	45.4	54
	Moonee Valley	39.7	28
Peri-urban	Moorabool	44.6	47
	Macedon Ranges	37.1	20
Inner city	Maribyrnong	62.3	92
	Yarra	40.5	32
	Melbourne	36	15
Growth area	Hume	49.2	66
	Melton	47.9	62
	Wyndham	41.8	36
Victoria		**41.9**	
Australia		**44.8**	

Notes: 1 Age Standardised Rate.

Source: Social Health Atlas of Australia by Local Government Area, July 2018.

Table 97: Deaths attributed to ischaemic heart disease, 0-74 years, 2011-2015.

Region	LGA	Average annual deaths - ischaemic heart disease 100,000 population (ASR) 2011-2015)	Percentile
Suburban	Darebin	27.4	79
	Moreland	24.7	60
	Hobsons Bay	23.7	52
	Brimbank	22.4	45
	Moonee Valley	20.7	35
Peri-urban	Moorabool	21.9	42
	Macedon Ranges	18.4	19
Inner city	Maribyrnong	32.9	92
	Yarra	19.9	30
	Melbourne	18.4	18
Growth area	Hume	27.1	77
	Melton	23.2	48
	Wyndham	19.2	25
Victoria		**21**	
Australia		**23.5**	

Notes: 1 Age Standardised Rate.

Source: Social Health Atlas of Australia by Local Government Area, July, 2018.

Table 98: Deaths attributed to cerebrovascular diseases (stroke), 0-74 years, 2011-2015.

Region	LGA	Average annual deaths - cerebrovascular diseases 100,000 population (ASR[1]) 2011-2015)	Percentile
Suburban	Hobsons Bay	10.1	81
	Darebin	9.4	70
	Brimbank	8.8	61
	Moreland	7.9	41
	Moonee Valley	7	21
Peri-urban	Moorabool	8	49
	Macedon Ranges	6.8	18
Inner city	Maribyrnong	8.4	56
	Yarra	7.3	30
	Melbourne	6.4	17
Growth area	Melton	10	80
	Wyndham	9	65
	Hume	8.1	50
Victoria		**8**	
Australia		**8.1**	

Notes: 1 Age Standardised Rate.

Source: Social Health Atlas of Australia by Local Government Area, July, 2018.

Population health – Chronic disease, cancer

Table 99: National Bowel Cancer Screen Program participation rates, persons aged 50-74, 2015-16.

SA4	SA3	(%) participation of eligible population
Melb - Inner	Brunswick - Coburg	37
	Darebin - South	40
	Essendon	42
	Melbourne City	37
	Yarra	40
Melb - NE	Darebin - North	36
Melb - NW	Keilor	43
	Macedon Ranges	45
	Moreland - North	36
	Sunbury	43
	Tulla. – Broadmeadows	35
Melb - West	Brimbank	38
	Hobsons Bay	41
	Maribyrnong	38
	Melton - Bacchus Marsh	37
	Wyndham	36
Victoria		**43**
Australia		**41**

Source: AIHW, Participation in Australian cancer screening programs in 2015-2016

Population health – musculoskeletal disease

Table 100: Estimated population with musculoskeletal diseases, 2011-2012. No new data

LGA	People with musculoskeletal diseases / 100 population (ASR[1]) 2011-2013	Percentile (Victoria)	Subjective assessment (Victoria)
Moorabool	28.1	59	Moderate
Hume	27.9	56	Moderate
Australia	**27.7**	-	-
Victoria	**26.6**	-	-

Notes: 1 Age Standardised Rate.

Source: Social Health Atlas of Australia, Victoria.; Data by Local Government Area, August 2016.

Population health – pyelonephritis

Table 101: Potentially avoidable hospitalisations from pyelonephritis (Ambulatory Care Sensitive Conditions), main ages, 2016/2017.

Age group	Disease	Hospital admissions from pyelonephritis – residents of NWMPHN, % 2016-17	Rank (PHN)	Hospital admissions from pyelonephritis – residents of Victoria, % 2016-17	Rank (Victoria)
A0004	Pyelonephritis	9.0	3	9.2	5
A0514	Pyelonephritis	11.7	1	13.8	1
A1524	Pyelonephritis	11.4	2	11.5	2
A2534	Pyelonephritis	7.2	6	7.9	6
A3544	Pyelonephritis	6.8	8	7.0	8
A4564	Pyelonephritis	7.1	7	7.6	7
A65P	Pyelonephritis	8.9	4	10.5	3
All Age	Pyelonephritis	8.8	5	9.3	4

Source: Victorian Ambulatory Care Sensitive Conditions (ACSCs) reports, 2015-16, published in Victorian Health Information Surveillance System, October 2016.

Population health – cancer

Table 102: Breast screening participation rate, females aged 50-74, 2015-16

SA4	SA3	50-54	50-69	50-74	55-59	60-64	65-69	70-74
Melb - Inner	Brunswick - Coburg	54	53	51	52	53	52	41
	Darebin - South	53	53	51	52	53	56	38
	Essendon	58	58	58	57	61	58	50
	Melbourne City	40	42	41	40	44	45	37
	Yarra	50	51	49	48	52	52	41
Melb - NE	Darebin - North	49	49	48	45	50	55	43
Melb - NW	Keilor	57	62	60	59	66	66	53
	Macedon Ranges	59	62	61	61	65	61	54
	Moreland - North	54	54	53	52	55	55	49
	Sunbury	55	59	58	57	63	62	52
	Tulla. - B/meadows	51	52	52	50	54	56	46
Melb-West	Brimbank	52	53	52	50	57	56	43
	Hobsons Bay	54	55	54	54	56	58	46
	Maribyrnong	51	52	51	51	54	52	40
	Melton - Bacchus Marsh	50	52	51	50	54	55	45
	Wyndham	49	49	49	47	50	52	44
NWMPHN		**52**	**53**	**52**	**51**	**54**	**55**	**45**
Victoria		**52**	**49**	**59**	**55**	**54**	**52**	**58**
Australia		**48**	**51**	**58**	**54**	**53**	**52**	**57**

Source: AIHW, Participation in Australian cancer screening programs in 2015-2016

Table 103: Breast cancer diagnosis rate, females aged 50-69, 2013-2014

Region	LGA	Breast cancer diagnosis rate - Number positive results 10,000 screens conducted (ASR[1]) 2013-2014)	Percentile
Suburban	Moreland	41.1	81
	Moonee Valley	38.3	70
	Brimbank	37.8	65
	Darebin	30.1	23
	Hobsons Bay	28.7	14
Peri-urban	Macedon Ranges	39.3	77
	Moorabool	36.9	57
Inner city	Yarra	38	67
	Melbourne	36.9	58
	Maribyrnong	33.8	35
Growth area	Wyndham	44.5	91
	Melton	41.6	83
	Hume	31.7	29
Victoria		**35.3**	

Notes: 1 Age Standardised Rate.

Source: Social Health Atlas of Australia, Victoria, Data by Local Government Area, August 2018.

Table 104: Cervical screening participation rate, females aged 20-69, 2015-16

SA4	SA3	Aged 20-69 years
Melb - Inner	Brunswick - Coburg	59
	Darebin - South	64
	Essendon	58
	Melbourne City	38
	Yarra	61
Melb - NE	Darebin - North	52
Melb - NW	Keilor	60
	Macedon Ranges	64
	Moreland - North	53
	Sunbury	49
	Tullamarine – Broadmeadows	49
Melb - West	Brimbank	52
	Hobsons Bay	60
	Maribyrnong	55
	Melton -Bacchus Marsh	52
	Wyndham	49
NWMPHN		**53**
Victoria		**58**
Australia		**55**

Source: AIHW, Participation in Australian cancer screening programs in 2015-2016

Table 105: Cervical screening outcomes, high grade abnormality, females aged 20-69, 2013-2014. No new data

Region	LGA	Cervical screening outcomes - number of screens showing high grade abnormality 10,000 screens (ASR[1]) 2013-2014)	Percentile
Suburban	Hobsons Bay	13.0	62
	Darebin	12.6	56
	Moreland	12.2	43
	Brimbank	10.7	22
	Moonee Valley	10.5	20
Peri-urban	Macedon Ranges	11.9	40
	Moorabool	10.7	23
Inner city	Yarra	16.6	93
	Melbourne	15.9	88
	Maribyrnong	12.6	57
Growth area	Melton	12.1	42
	Hume	10.7	24
	Wyndham	9.7	9
Victoria		**12.5**	

Notes: 1 Age Standardised Rate

Source: Social Health Atlas of Australia, Victoria, Data by Local Government Area, August 2016.

Table 106: Deaths attributed to cancers, 0-74 years, 2011-2015.

Region	LGA	Average annual number of deaths - cancer / 100,000 population (ASR[1]) 2011-2015	Percentile
Suburban	Hobsons Bay	105.6	58
	Darebin	100.7	45
	Moreland	99.4	42
	Moonee Valley	90.7	19
	Brimbank	90.6	18
Peri-urban	Moorabool	114.3	80
	Macedon Ranges	79.2	7
Inner city	Yarra	94.4	28
	Maribyrnong	94.1	25
	Melbourne	67.8	0
Growth area	Hume	101.2	46
	Melton	98.3	38
	Wyndham	97.9	36
Victoria		**96**	
Australia		**100.5**	

NOTES: 1 ASR; Age Standardised Rate

Source: Social Health Atlas of Australia, Victoria, Data by Local Government Area, July, 2018.

Table 107: Deaths attributed to colorectal cancer, 0-74 years, 2011-2015.

Region	LGA	Average annual number of deaths attributed to colorectal cancer / 100,000 population (ASR[1]) 2011-2015	Percentile
Suburban	Moreland	11.3	87
	Hobsons Bay	10.8	84
	Darebin	9.5	60
	Brimbank	9.4	58
	Moonee Valley	9.3	55
Peri-urban	Moorabool	10	74
	Macedon Ranges	6.7	7
Inner city	Yarra	9.9	71
	Maribyrnong	7.9	20
	Melbourne	4.2	1
Growth area	Hume	10.2	75
	Melton	9.7	65
	Wyndham	9.5	62
Victoria		**9.2**	
Australia		**8.9**	

NOTES: 1 ASR; Age Standardised Rate

Source: Social Health Atlas of Australia; Data by Local Government Area, July, 2018.

Table 108: Deaths from lung cancer, 0-74 years, 2011-2015.

Region	LGA	Average annual number of deaths -lung cancer / 100,000 population (ASR[1]) 2011-2015	Percentile
Suburban	Hobsons Bay	23.8	69
	Moreland	20.4	44
	Brimbank	19.4	35
	Darebin	17.3	20
	Moonee Valley	15.6	15
Peri-urban	Moorabool	27.6	89
	Macedon Ranges	12.1	4
Inner city	Yarra	24	72
	Maribyrnong	20.3	43
	Melbourne	11.2	2
Growth area	Wyndham	23.6	68
	Hume	23.1	66
	Melton	20.6	45
Victoria		**19.3**	
Australia		**21**	

Note: 1 Age Standardised Rate

Source: Social Health Atlas of Australia; Data by Primary Health Network, July, 2018.

Table 109: Deaths from breast cancer, 0-74 years, 2011-2015.

Region	LGA	Average annual deaths - breast cancer / 100,000 population (ASR[1]) 2011-2015	Percentile (Victoria)
Suburban	Darebin	17.4	65
	Hobsons Bay	16.6	57
	Moreland	16.6	54
	Moonee Valley	13.7	20
	Brimbank	12.4	11
Peri-urban	Macedon Ranges	11.9	7
	Moorabool	9.5	3
Inner city	Yarra	14.6	22
	Melbourne	10.1	4
	Maribyrnong	9.4	1
Growth area	Melton	16.7	61
	Hume	16.6	56
	Wyndham	13.5	18
Victoria		**16**	
Australia		**16.1**	

Note: 1 Age Standardised Rate

Source: Social Health Atlas of Australia; Data by Primary Health Network, July, 2018.

Service needs – workforce

Table 110: GP patient experience, 2013-2014. No new data

Indicator	Percentage of patients NWMPHN	Percentage of patients Australia (average)	Percentile (Australia)	Subjective assessment (Australia)
Adults who had a preferred GP in the preceding 12 months	76.0	78.3	19	Very low
Adults who felt they waited longer than acceptable to get an appointment with a GP	26.0	23.5	74	High

Source: National Health Performance Authority, 2014.

Table 111: GP attendances, 2016-17

SA4	SA3	No of attendances per person (ASR[1])	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	5.9	56
	Darebin - South	5.1	15
	Essendon	5.6	38
	Melbourne City	6	60
	Yarra	4.8	9
Melbourne - North East	Darebin - North	6.3	72
Melbourne - North West	Keilor	6.3	72
	Macedon Ranges	6.6	80
	Moreland - North	6.7	81
	Sunbury	7.4	93
	Tullamarine - Broadmeadows	8.3	98
Melbourne - West	Brimbank	7.3	90
	Hobsons Bay	6	60
	Maribyrnong	5.9	56
	Melton - Bacchus Marsh	7.7	96
	Wyndham	7.4	93
NWMPHN		**6.6**	
Australia		**5.9**	

Note: 1 Age Standardised Rate

Source: AIHW, 2018. Medicare Benefits Schedule GP and specialist attendances and expenditure from 2013–14 to 2016–17, https://www.myhealthycommunities.gov.au/explore-the-data#download-data-tab-content

Table 112: MBS expenditure on GP attendances, 2015-16

SA4	SA3	$ per person (ASR[1])	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	303.6	71
	Darebin - South	260.5	18
	Essendon	276.2	40
	Melbourne City	328.4	78
	Yarra	246.8	10
Melbourne - North East	Darebin - North	312.8	77
Melbourne - North West	Keilor	302	68
	Macedon Ranges	330.4	81
	Moreland - North	333.9	84
	Sunbury	344.3	89
	Tullamarine - Broadmeadows	399.5	98
Melbourne - West	Brimbank	346.5	90
	Hobsons Bay	295.1	59
	Maribyrnong	292	57
	Melton - Bacchus Marsh	370.5	96
	Wyndham	361.7	95
NWMPHN		**325.8**	
Australia		**289.6**	

Note: Age Standardised Rate

Source: AIHW, 2018. Medicare Benefits Schedule GP and specialist attendances and expenditure from 2013–14 to 2016–17, https://www.myhealthycommunities.gov.au/explore-the-data#download-data-tab-content

Table 113: Proportion of bulk-billed GP attendances, 2016-17.

SA4	SA3	% attendances bulk-billed (ASR[1])	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	83.8	48
	Darebin - South	73.2	10
	Essendon	80.9	36
	Melbourne City	80.6	30
	Yarra	73.4	12
Melbourne - North East	Darebin - North	91.9	86
Melbourne - North West	Keilor	84.6	53
	Macedon Ranges	81.8	42
	Moreland - North	91.1	84
	Sunbury	92.2	87
	Tullamarine - Broadmeadows	97.4	98
Melbourne - West	Brimbank	95.8	95
	Hobsons Bay	87.7	74
	Maribyrnong	86.9	67
	Melton - Bacchus Marsh	93.3	90
	Wyndham	96.6	96
NWMPHN		**90.4**	
Australia		**85.7**	

Note: 1 Age Standardised Rate

Source: AIHW, 2018. Medicare Benefits Schedule GP and specialist attendances and expenditure from 2013–14 to 2016–17

https://www.myhealthycommunities.gov.au/explore-the-data#download-data-tab-content

Table 114: Selected GP and medical specialist access indicators, 2016-17

Indicator	NWMPHN	Australia	Significant at 95% CI	Year
% of adults who saw a GP in the last 12 mth	83.4 (79.7-87.0)	82.2 (81.7-82.5)		2016-17
% of adults who saw a GP more than 12 times in the last 12 mth	11.1 (9.8-12.5)	12.1(11.5-12.6)		2016-17
% of adults who saw a GP for urgent medical care in the last 12 mth	11.5 (9.5-13.5)	11.2 (910.7-11.8)		2016-17
% of adults who saw a dentist, hygienist or dental spec. in the last 12 mth	46.1(42.3-49.9)	48.1 (47.2-48.9)		2016-17
% of adults who saw a medical specialist in the last 12 mth	35.7 (32.4-39.1)	36.0 (35.2-36.8)		2016-17
% of adults who had a preferred GP in the last 12 mth	76 (71.4-80.6)	79.7 (79.2-80.2)		2013-14
% of adults who could not access their preferred GP in the last 12 mth	28 (23.5-32.4)	28.5 (27.8-29.2)		2013-14
% of adults who felt they waited longer than acceptable to get an appointment with a GP	25.6 (22.6-28.7)	22.6 (22-23.3)		2013-14
% of adults who felt their GP always or often listened carefully in the last 12 mth	92.4 (88.5-96.4)	91.6 (91.2-92.0)		2016-17
% of adults who did not see or delayed seeing a GP due to cost in the last 12 mth	3.8 (2.7-5.0)	4.1 (3.8-4.5)		2016-17
% of adults who delayed or avoided filling a prescription due to cost in the last 12 mth	8.4 (6.0-10.7)	7.3 (6.9-7.8)		2016-17
% of adults who did not see or delayed seeing a dentist, hygienist or dental specialist due to cost in the last 12 mth	21.0 (17.7-24.3)	18.4 (17.7-19.1)		2016-17
% of adults who needed to see a GP but did not in the last 12 mth	13.8 (11.7-15.9)	14.1 (13.4-14.7)		2016-17

Source: AIHW, 2018. Patient experiences in Australia 2013-14 to 2015-16 from the Australian Bureau of Statistics, Patient Experience Survey, 2013–14, 2014–15, 2015–16 and 2016–17

https://www.myhealthycommunities.gov.au/explore-the-data#download-data-tab-content

Table 115: After-hours GP attendances, 2016-17.

SA4	SA3	No of attendances per person (ASR[1])	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	0.58	61
	Darebin - South	0.39	42
	Essendon	0.6	64
	Melbourne City	0.67	72
	Yarra	0.32	31
Melbourne - North East	Darebin - North	0.79	86
Melbourne - North West	Keilor	0.67	72
	Macedon Ranges	0.34	37
	Moreland - North	0.81	87
	Sunbury	0.72	81
	Tullamarine - Broadmeadows	1.41	98
Melbourne - West	Brimbank	0.86	89
	Hobsons Bay	0.71	80
	Maribyrnong	0.7	78
	Melton - Bacchus Marsh	0.96	92
	Wyndham	1.22	96
NWMPHN		**0.83**	
Australia		**0.49**	

Note: 1 Age Standardised Rate

Source: AIHW, 2018. Medicare Benefits Schedule GP and specialist attendances and expenditure from 2010–11 to 2016–17

https://www.myhealthycommunities.gov.au/explore-the-data#download-data-tab-content

Table 116: MBS expenditure on after-hours GP attendances, 2016-17.

SA4	SA3	$ per person (ASR[1])	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	39.6	66
	Darebin - South	29.1	46
	Essendon	37.82	60
	Melbourne City	53.07	89
	Yarra	24.33	36
Melbourne - North East	Darebin - North	48.39	84
Melbourne - North West	Keilor	42.56	77
	Macedon Ranges	19.51	28
	Moreland - North	52.25	87
	Sunbury	39.83	69
	Tullamarine - Broadmeadows	81.69	98
Melbourne - West	Brimbank	51.48	86
	Hobsons Bay	44.32	80
	Maribyrnong	43.69	78
	Melton - Bacchus Marsh	55.69	92
	Wyndham	71.44	96
NWMPHN		**50.84**	
Australia		**32.43**	

Note: 1 Age Standardised Rate

Source: AIHW, 2018. Medicare Benefits Schedule GP and specialist attendances and expenditure from 2010–11 to 2016–17

https://www.myhealthycommunities.gov.au/explore-the-data#download-data-tab-content

Table 117: Specialist attendances, 2016-17.

SA4	SA3	No of attendances per person (ASR[1])	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	0.98	59
	Darebin - South	1.08	81
	Essendon	1.03	74
	Melbourne City	1.02	71
	Yarra	1.04	77
Melbourne - North East	Darebin - North	0.95	50
Melbourne - North West	Keilor	1.11	87
	Macedon Ranges	0.92	41
	Moreland - North	0.92	41
	Sunbury	1.04	77
	Tullamarine - Broadmeadows	0.96	53
Melbourne - West	Brimbank	0.84	24
	Hobsons Bay	0.97	56
	Maribyrnong	0.84	24
	Melton - Bacchus Marsh	0.9	37
	Wyndham	0.88	31
NWMPHN		**0.94**	
Australia		**0.89**	

Note: 1 Age Standardised Rate

Source: AIHW, 2018. Medicare Benefits Schedule GP and specialist attendances and expenditure from 2010–11 to 2016–17, https://www.myhealthycommunities.gov.au/explore-the-data#download-data-tab-content

Table 118: MBS expenditure on specialist attendances, 2016-17.

SA4	SA3	$ per person (ASR[1])	Percentile (Victoria)
Melbourne - Inner	Brunswick - Coburg	90.71	78
	Darebin - South	105.42	90
	Essendon	88.05	74
	Melbourne City	95.04	83
	Yarra	100.49	87
Melbourne - North East	Darebin - North	82.06	56
Melbourne - North West	Keilor	93.11	80
	Macedon Ranges	76.97	43
	Moreland - North	77.92	48
	Sunbury	86	68
	Tullamarine - Broadmeadows	79.79	50
Melbourne - West	Brimbank	68.88	25
	Hobsons Bay	82.22	57
	Maribyrnong	72.52	33
	Melton - Bacchus Marsh	73.92	36
	Wyndham	71.89	31
NWMPHN		**80.32**	
Australia		**74.98**	

Note: 1 Age Standardised Rate

Source: AIHW, 2018. Medicare Benefits Schedule GP and specialist attendances and expenditure from 2010–11 to 2016–17

https://www.myhealthycommunities.gov.au/explore-the-data#download-data-tab-content

Table 119: Emergency department primary care type (PCT) presentations, 2015-16. No new data

Region	LGA	PCT presentations per 1000 people (crude rates)- 2015-16	Victorian percentile
Inner city	Maribyrnong	121	78
	Melbourne	98	67
	Yarra	107	75
Suburban	Brimbank	105	72
	Darebin	93	61
	Hobsons Bay	169	85
	Moonee Valley	92	59
	Moreland	107	73
Growth area	Hume	94	65
	Melton	86	54
	Wyndham	104	71
Peri-urban	Macedon Ranges	40	14
	Moorabool	59	30
NWMPHN		**101**	**69%**
Victoria		**98**	**67%**

Source: VEMD, ABS ERP

Note: The measure of PCT presentations has been developed as an estimate of the activity that could be managed in a well-equipped and staffed primary care centre. It is defined as presentations that have all of the following characteristics: ATS 4 or 5; Not referred by a GP or other provider; Arrived by self; Not admitted or transferred to another hospital; Discharge home or to a residential facility.

Table 120: Districts of workforce shortage. % of SA1s within region defined as a District of Workforce Shortage, 2017. No new data

SA4_NAME_2011	SA3_NAME_2011	GP	Diagnostic Radiology	Anaesthetics	Cardiology	Psychiatry	Ophthalmology	Obstetrics and Gynae.	General Surgery	Medical Oncology
Melbourne - Inner	Brunswick - Coburg	0%	0%	0%	0%	0%	100%	0%	100%	100%
	Darebin - South	0%	100%	100%	100%	100%	100%	100%	100%	100%
	Essendon	0%	100%	100%	0%	0%	100%	0%	0%	100%
	Melbourne City	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Yarra	0%	0%	0%	0%	0%	0%	0%	0%	0%
Melbourne - North East	Darebin - North	0%	100%	100%	100%	100%	100%	100%	100%	100%
Melbourne - North West	Keilor	0%	100%	100%	100%	100%	100%	100%	100%	100%
	Macedon Ranges	33%	100%	100%	100%	100%	100%	100%	100%	100%
	Moreland - North	0%	100%	100%	100%	100%	100%	100%	100%	100%
	Sunbury	0%	0%	100%	100%	100%	100%	100%	100%	100%
	Tullamarine - Broadmeadows	0%	100%	100%	100%	100%	100%	100%	100%	100%
Melbourne - West	Brimbank	75%	100%	100%	100%	100%	100%	100%	100%	0%
	Hobsons Bay	46%	100%	100%	100%	100%	100%	100%	100%	100%
	Maribyrnong	0%	100%	100%	0%	100%	100%	0%	0%	0%
	Melton - Bacchus Marsh	48%	100%	100%	100%	100%	100%	100%	100%	100%
	Wyndham	100%	100%	100%	100%	100%	100%	100%	100%	100%
NWMPHN		**28%**	**79%**	**82%**	**72%**	**77%**	**88%**	**72%**	**78%**	**69%**
Victoria		**29%**	**58%**	**74%**	**68%**	**69%**	**71%**	**63%**	**63%**	**67%**
Australia		**39%**	**63%**	**75%**	**69%**	**78%**	**75%**	**65%**	**66%**	**73%**

Source: Doctor's Connect Districts of Workforce Shortage, October 2017 http://www.doctorconnect.gov.au/internet/otd/publishing.nsf/Content/downloads

Infectious diseases

Table 121: HPV vaccine coverage, 2016. No new data

Region	LGA	No. of females aged 12-13 years at 30 June 2013 who received Dose 3 of the HPV vaccine by June 2016 / 100 females aged 12-13 years (%) 2016	Percentile (Victorian)	Subjective assessment (Victoria)
Suburban	Brimbank	83.8	63	-
	Darebin	81.2	45	-
	Hobsons Bay	91.5	85	-
	Moonee Valley	81.9	49	-
	Moreland	82.7	53	-
Peri-urban	Macedon Ranges	77.5	28	Low
	Moorabool	85.0	65	-
Inner city	Maribyrnong	85.1	66	-
	Melbourne	73.3	15	Very low
	Yarra	85.2	68	-
Growth area	Hume	78.0	30	Moderately low
	Melton	70.3	10	Very low
	Wyndham	87.9	78	-
Victoria		**81.3**		-
Australia		**79.2**		-

Source: Social Health Atlas of Australia; Data by Local Government Area, August 2016.

Table 122: Hepatitis B and C notifications, 2017-18.

Region	LGA	Hepatitis B – Unspecified Notifications 1,000 population (2014-2015)	Percentile	Hepatitis C – Unspecified Notifications 1,000 population (2014-15)	Percentile
Suburban	Brimbank	80.1	95	28.3	49
	Darebin	40.5	86	28	48
	Hobsons Bay	17.2	64	29.8	55
	Moonee Valley	24.9	78	15.1	16
	Moreland	23.2	74	23.2	34
Peri-urban	Macedon Ranges	4.7	27	14	15
	Moorabool	0	9	17.5	24
Inner city	Maribyrnong	65.1	93	57.1	92
	Melbourne	90.4	98	79.5	96
	Yarra	22.8	71	29.1	51
Growth area	Hume	35.4	82	33.7	69
	Melton	N/a	N/a	N/a	N/a
	Wyndham	77.7	94	41	77

Comment: for privacy reasons, notification data for LGAs by age and sex was not available for publication. Source: Victorian Department of Health and Human Services data request: BBVs and STIs by LGA. January 2018.

Table 123: STI notifications (chlamydia, gonorrhoea, and syphilis), 2017-18.

Region	LGA	STI Notifications 1,000 population (2014-2015)	Percentile
Suburban	Brimbank	480.4	79
	Darebin	618.6	87
	Hobsons Bay	430.5	70
	Moonee Valley	419.5	67
	Moreland	759.6	89
Peri-urban	Macedon Ranges	427.8	69
	Moorabool	97.9	5
Inner city	Maribyrnong	790.2	91
	Melbourne	2034.6	98
	Yarra	1838.9	97
Growth area	Hume	421	68
	Melton	N/a	N/a
	Wyndham	531.8	84

Comment: for privacy reasons, notification data for LGAs by age and sex was not available for publication. Source: Victorian Department of Health and Human Services data request: BBVs and STIs by LGA. January 2018.

Table 124: Estimated rates of homelessness, 2013. No new data

LGA	Estimated homeless people / 1,000 population 2013	Percentile (Victoria	Subjective assessment (Victoria)
Melbourne	10.6	99	Extremely high
Yarra	10.0	96	Extremely high
Maribyrnong	8.9	95	Extremely high
Darebin	6.8	92	Extremely high
Brimbank	5.8	91	Extremely high
Moreland	4.9	86	Very high
Hume	4.7	83	Very high
Victoria	4.0	-	-

Source: Victorian Local Government Area profiles, 2015, from ABS Census 2011.

Family incidents

Table 125: Family incidents, 2017-18.

Region	LGA	Family Incidents 100,000 population 2017-18	Percentile
Suburban	Brimbank	1159.2	50
	Hobsons Bay	1039.4	43
	Moreland	1005.6	37
	Darebin	820.9	21
	Moonee Valley	991.8	33
Peri-urban	Moorabool	799.3	18
	Macedon Ranges	1397.5	62
Inner city	Maribyrnong	860	23
	Melbourne	929.5	27
	Yarra	939.3	28
Growth area	Hume	1422.5	65
	Melton	1284.1	55
	Wyndham	1014.4	40
Victoria		**1163.4**	

Source: Crime Statistics Authority, 2018.

APPENDIX B: REFERENCES AND BIBLIOGRAPHY

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NORTH WESTERN
MELBOURNE

An Australian Government Initiative

ADDENDUM

National Psychosocial Support Needs Analysis Update

Update as at 1 December 2019

TABLE OF CONTENTS

INDEX OF FIGURES AND TABLES

INTRODUCTION

This needs analysis provides an update to the psychosocial part of the NWMPHN Needs Assessment 2018. The needs analysis provides an update to the current situation and emerging themes and issues for system of care for people living in North Western Melbourne who have severe mental health and psychosocial support needs.

National Psychosocial Support Measure:

The Department of Health has established funding schedules with PHNs to enable psychosocial support activities.

The North Western Melbourne PHN has commissioned service responses under each of the funding schedules to support consumers including interface activities for the regional Mental Health service system with the National Disability Insurance Scheme (NDIS). The National Psychosocial Support Measures (NPSM) include:

- National Psychosocial Support (NPS) provides psychosocial support for people who are not eligible for the NDIS and who have not recently been registered consumers of commonwealth and/or state funded mental health psychosocial services.
- Continuity of Support (CoS) for those people who previously accessed (as of 30 June 2019) Commonwealth funded community mental health services i.e. Day to Day Living (D2DL), Personal Helpers and Mentors Services (PHaMS) and Partners in Recovery (PIR) programs, and have been determined as not eligible for the NDIS;
- National Psychosocial Support Transition (NPST) which extends the period of service for consumers of the former Commonwealth community mental health services who are waiting to test for and/or waiting to activate their NDIS plans.

NWMPHN is also establishing activities that support the interface between the NDIS, community and clinical mental health and, primary health sectors. The focus of this work will be assisting consumers and their support networks to more confidently navigate the system and find the services that best meet their individual needs.

The psychosocial activities will also aim to build psychosocial functional capacity of people with severe mental illness and associated psychosocial functional impairment, who are not more appropriately supported through the National Disability Insurance Scheme.

NDIS PACKAGES AND PSYCHOSOCIAL NEEDS ANALYSIS

The Commonwealth Government has tasked PHNs nationally with providing psychosocial support services in the gap between the current NDIS and mainstream health and disability services. PHNs, since 2018/2019, have begun to commission services for people with psychosocial need who do not receive NDIS funded services. This Needs Analysis attempts to define the levels of service demand being provided both by the NDIS and through PHN resources in North Western Melbourne.

SEVERE AND PROFOUND DISABILITY & ESTIMATED TOTAL NDIS PACKAGES

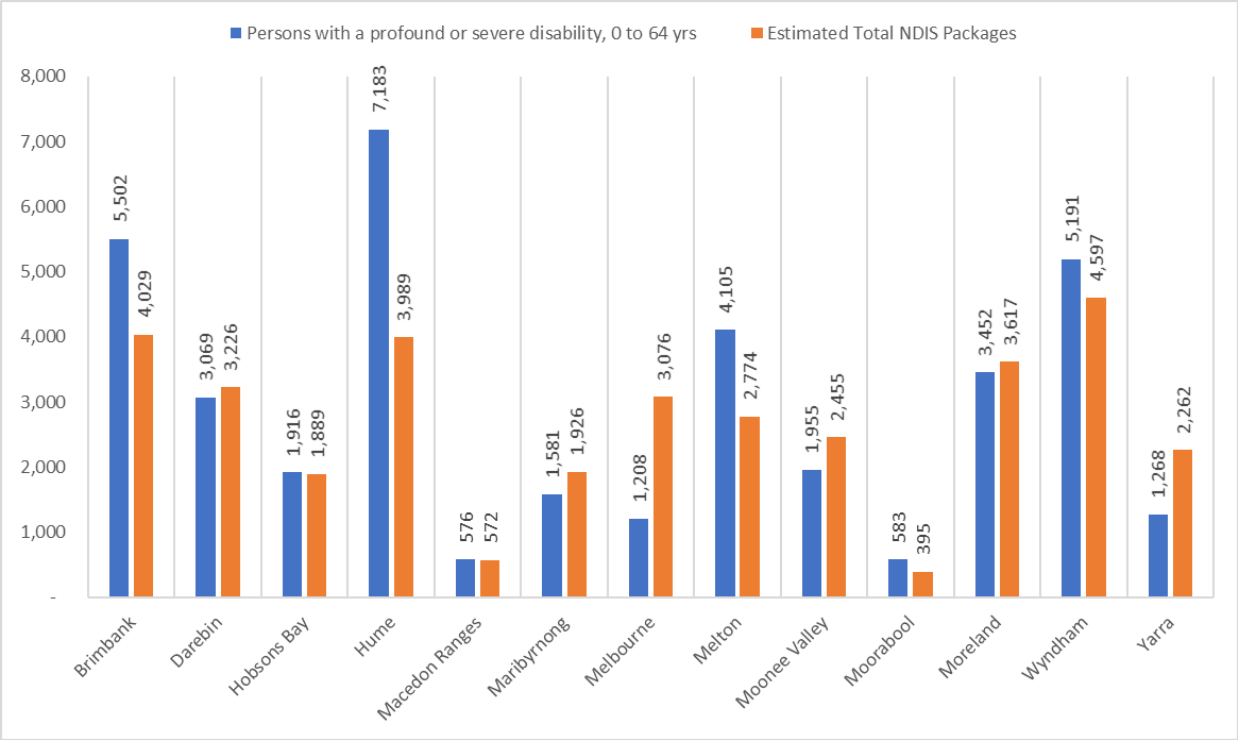


Figure 3: The Number of people with a severe or profound disability (PHIDU, 2018) compared with Estimated Total NDIS Packages (All Disability) for NWMPHN by LGA.

The above **Figure 1** represents a comparison between those identified as living with profound disability and predicted allocation of NDIS packages at full roll out in the local government areas within North Western Melbourne PHN.

The chart indicates that the prevalence of profound disability does not map consistently with estimated NDIS packages across the NWMPHN LGAs. Hume stands out as an area where there is a risk that NDIS packages may not meet the level of disability need (up to 45% shortfall), in Brimbank there is an estimated 27% shortfall. In the City of Melbourne there is an estimate of over 250% above the level of profound disability, however these figures may be distorted by the numbers of non-City residents who present to City based NDIS sites, likewise in Yarra where the estimate exceeds the population need by 178%.

Overall the NWMPHN region PHIDU data indicates approx. 37,590 people live with profound disability while 34,800 may receive packages at full NDIS roll-out. This would indicate that approximately 2,800 people living with profound disabilities might not have access to NDIS supports, post 2021.

ESTIMATED VS ACTUAL TOTAL NDIS PACKAGES

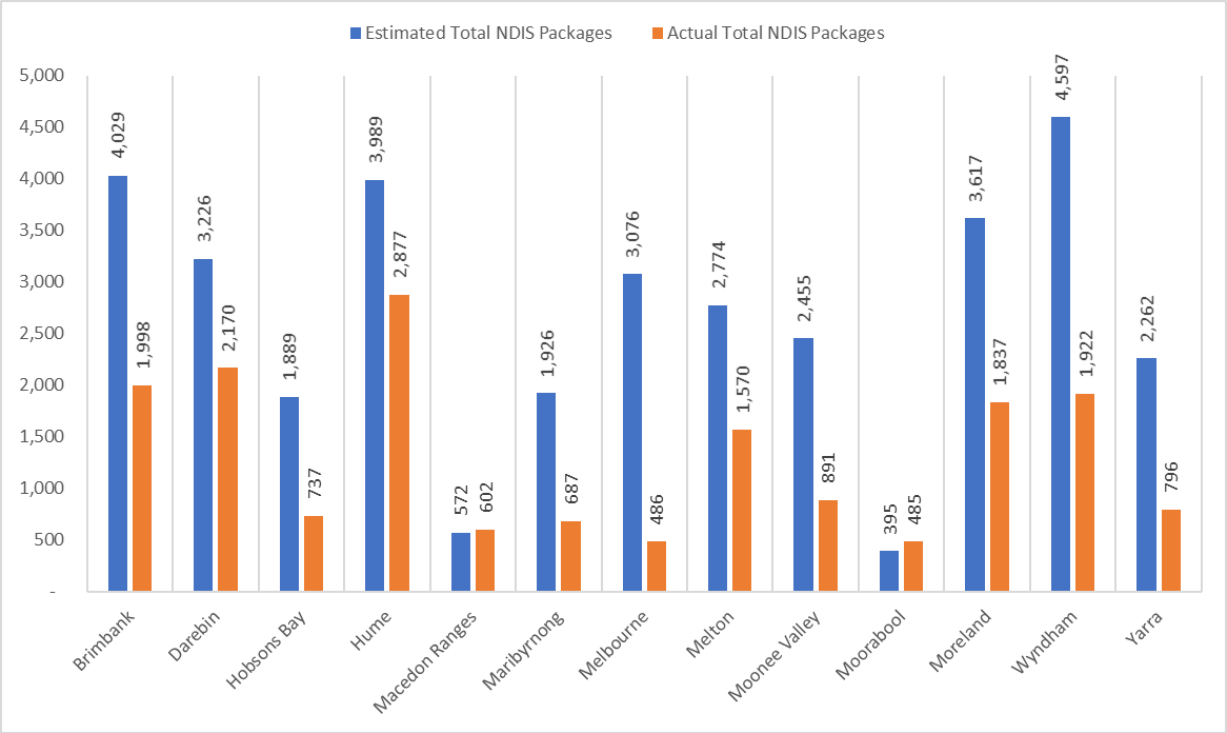


Figure 4: Estimated vs Actual NDIS packages for 'All Disability' (covered under the NDIS) in the NWMPHN catchment by LGA.

Source, NDIS: https://www.ndis.gov.au/about-us/data-and-insights/data/participant-data

Figure 2 displays an estimate of the number people who could be eligible for NDIS Psychosocial Disability Packages (Total estimate of 4,791 packages) funding in the NWMPHN catchment. The values are based upon the estimated 64,000 packages, for people with psychosocial disability, which will be made available across the country. This proportion is then applied to the respective LGAs and the age group 25-64 years. Data is sourced from PHIDU 2018 for people in the age group as a denominator.

Figure 2 compares the LGA based predicted estimates of NDIS eligibility with the actual number of allocated packages, as recorded by the NDIA until 30 June 2019. This data indicates that by the 30th June 2019 almost 50% of NDIS packages have been allocated in the NWMPHN catchment.

This early data might also be indicating that the initial estimates noted under Figure 2 regarding Yarra and the City of Melbourne might not be reached and that the PHIDU figures of profound disability in the region might be more closely matched by NDIS allocation once full roll out is achieved.

ESTIMATED VS ACTUAL PSYCHOSOCIAL NDIS PACKAGES

To monitor the progress of the psychosocial NDIS roll out across the NWMPHN catchment we have focused on 3 NDIS districts and these accommodate approx. 75% of the NWMPHN population. All 3 of these NDIS areas are within the NWMPHN catchment. Other NDIS regions which cover North Western Melbourne also contain LGAs' that are in neighboring PHN boundaries. For instance, the North East Melbourne NDIS region contains Yarra and Darebin (NWMPHN LGAs) and Whittlesea, Banyule and Nillumbik which sit within Eastern Melbourne PHNs' boundaries.

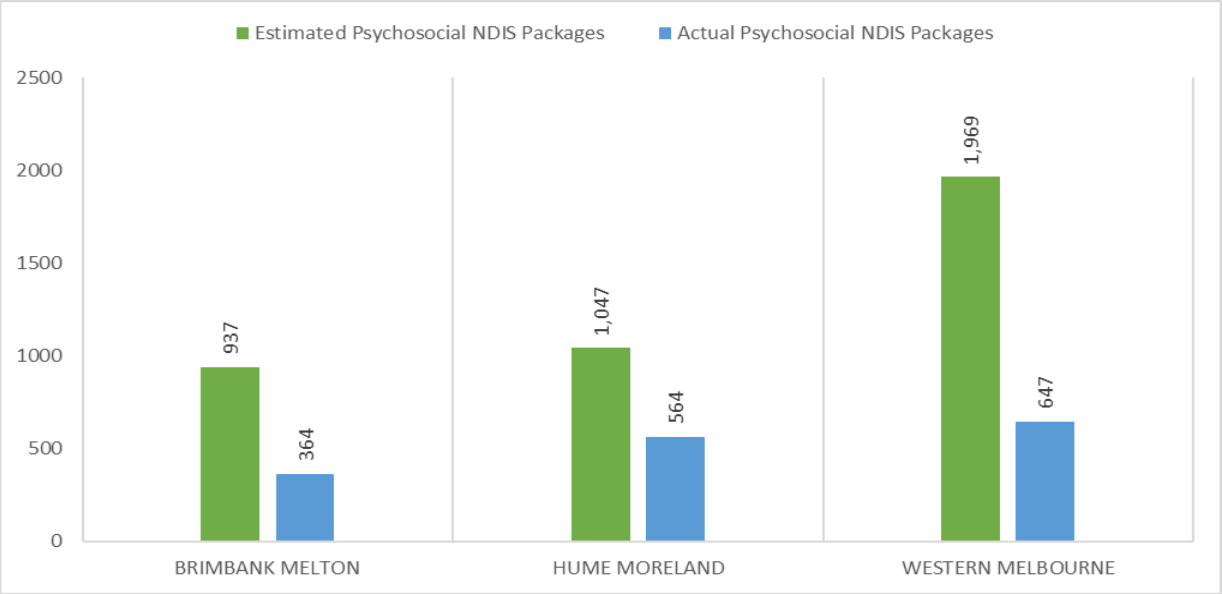


Figure 5: Estimated vs Actual Psychosocial NDIS packages for the NWMPHN catchment.

Actual NDIS data as of 30 June 2019: https://www.ndis.gov.au/about-us/data-and-insights/data/participant-data

NDIS SERVICE DISTRICT	NWMPHN LGA	Estimated	30 June 2019 Actual	YTD % attained
BRIMBANK MELTON	BRIMBANK, MELTON	937	364	39%
HUME MORELAND	HUME, MORELAND	1,047	564	54%
WESTERN MELBOURNE	HOBSONS BAY, MARIBYRNONG, MELBOURNE, MOONEE VALLEY, WYNDHAM	1,969	647	33%
	Totals	**3,953**	**1,575**	**40%**

Table 126: Estimated NDIS packages for NWMPHN by NDIS Service district.

The lower NDIS allocation rate in Western Melbourne is not unexpected, due to the latter rollout across the Western areas of Melbourne. Hume and Moreland areas began to be phased into the scheme approximately 12 months before most of the Western Melbourne district. Considering that in Hume-Moreland, over 45% of consumers who are expected to receive an NDIS plan, are still in transition is an

indicator that full rollout is unlikely to be achieved before 30 June 2020 for the whole of the NWMPHN catchment.

RELATIVE NEED FOR PSYCHOSOCIAL SUPPORT BASED ON RATE OF INCIDENCE

Key indicators of psychosocial need referenced here include:

1) **Mental health need:**
   - Psychological distress (ABS)
   - Mental health related hospital admissions (AIHW)

2) **Social need:**
   - Unemployment rate (Dept. of Jobs and Small Business)
   - Homelessness (ABS)
   - Social isolation (VPHS composite measure)
   - Number of people who spoke with less than 5 people in the previous day (VPHS measure)

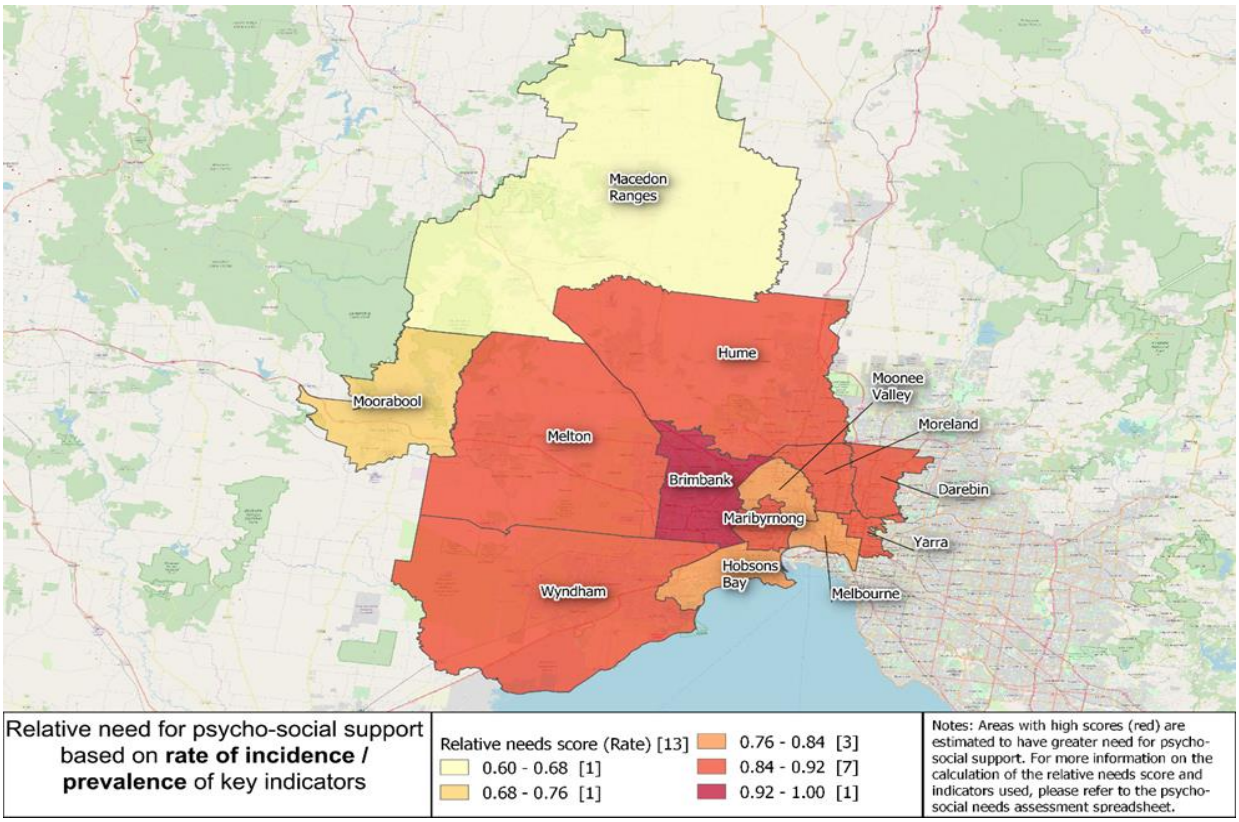
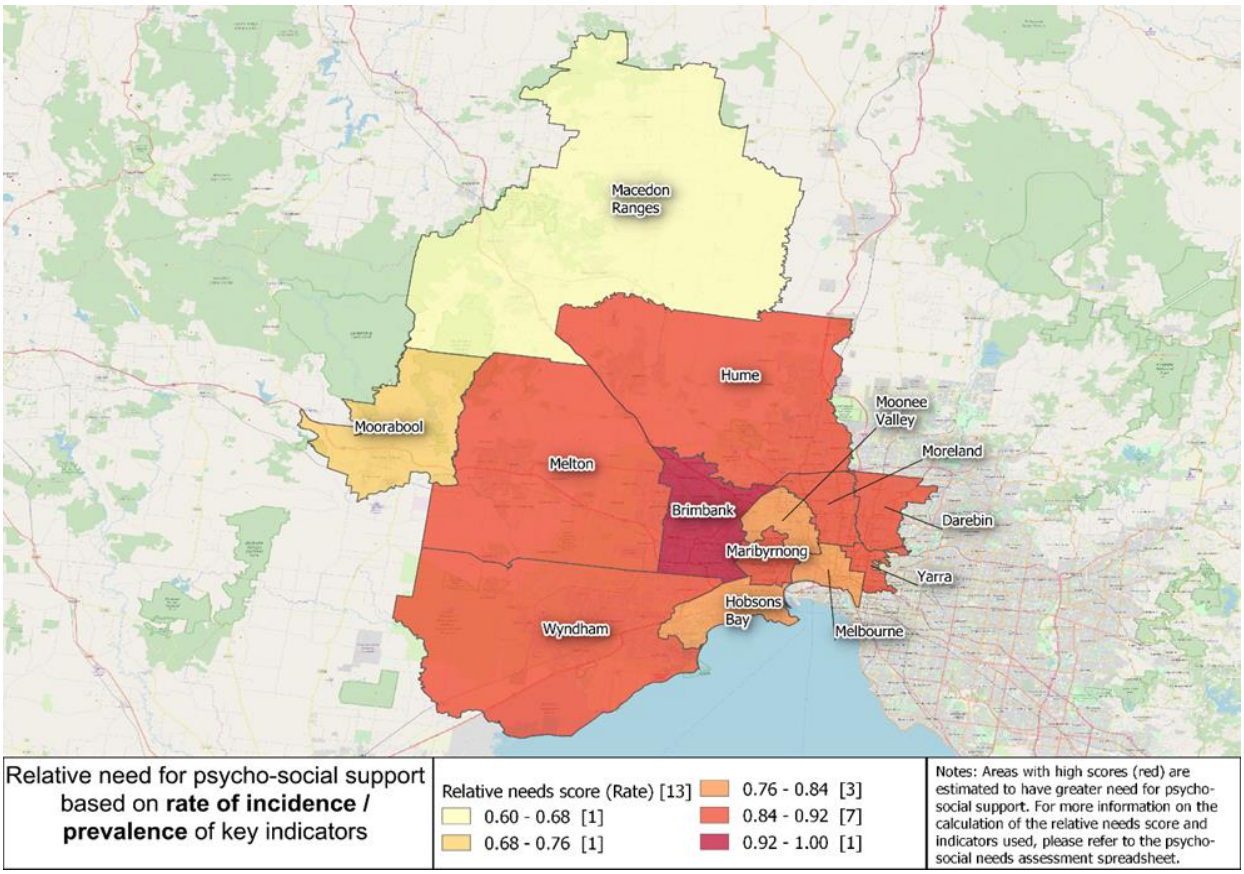


Figure 6: Relative Need for Psychosocial Support Based on Rate of Incidence.

This map reveals that Brimbank has the highest prevalence of key indicators of psychosocial need.

RELATIVE NEED FOR PSYCHOSOCIAL SUPPORT BASED ON



TOTAL NUMBER OF PEOPLE ACROSS KEY INDICATORS

Figure 7: Relative Need for Psychosocial Support Based on Total Number of People.

This map reveals that Wyndham, Brimbank, Hume and Yarra have the highest number of people who may present with psychosocial needs.

FUNDED PROGRAMS

Regional demand on NWMPHN Commissioned Psychosocial Services:

In the 12 months, since the submission of the initial Psychosocial Needs Assessment, NWMPHN has commissioned a range of psychosocial services. The primary focus of these service is to provide support options for two groups of consumers

- People with severe and complex mental health need who are not eligible for NDIS services, and;
- People who were previously supported by Commonwealth funded community mental health services (PIR, PHaMs and D2DL) and are now waiting for NDIS outcome decisions, waiting for NDIS plan activation or, those who are yet to apply for NDIS supports. These consumers are supported by the National Psychosocial Support Transition (NPST) arrangements.

NWMPHN has commissioned services to target those who have not accessed State or Commonwealth funded mental health community supports, but are now presenting for service, and for those people who were previously consumers of Commonwealth funded community mental health services (NPST consumers). By June 2020, it is anticipated that up 1500 people will have accessed the suite of NWMPHN commissioned psychosocial support services.

Transitional circumstances	Current Activity: Oct 2019
NPST consumers who have completed NDIS applications	258
NPST consumers who have been approved and transitioned to the NDIS	172
NPST consumers who have been deemed ineligible and will transition to CoS funded programs	234
NPST consumers who have not tested (so may transition to NPS funded programs)	173
Current consumers in NPS funded programs	50
Current consumers of CoS funded programs.	62

Table 127: Current and anticipated levels of commissioned Psychosocial Services in NWMPHN region 2019-2020

Predicted Service Demand 2020-2021		Assumptions
Annual capacity of NPS service at full operation	380	Number of consumers that could be supported in a 12month period
Anticipated CoS demand at full rollout	364	Based on current CoS eligible and pending CoS 306 + 1/3 of NPST consumers who have not yet tested however do before 30 June 2020 and are found to not be eligible for NDIS (58).
Total Anticipated Psychosocial Consumers supported 2020-2021	802	Based on predicted CoS demand and NPS uptake and 1/3 of NPST who choose not to test for NDIS (58)

Table 128: Anticipated levels of Psychosocial Service in the NWMPHN region 2020-2021

SUMMARY

Anticipated Service Gaps:

Across the whole of the NWMPHN catchment Figure1 suggests that approximately 2,800 people who live with profound disabilities might not eventually access NDIS supports. If this were equally distributed across the range of disabilities, then this could equate to approximately 380[15] people with severe and enduring mental health needs not accessing NDIS psychosocial supports at full scheme implementation.

Ongoing NDIS Transition and likely further delays:

As reflected in Figures 2 and 3 above, the NDIS is still in an early to middle stage of rollout in the North Western areas of Melbourne. About 40% of psychosocial support allocations had been made by July 2019. Much of NWMPHN is rolling into the NDIS later than other parts of the country so it is anticipated that the transition and adoption period will be delayed compared with other jurisdictions. Up to 250 Consumers of NPST supports have either not yet tested, or are currently declining to test their eligibility, for the scheme or may be still waiting for the outcome of applications and appeals to the NDIS. Given the pace of NDIS testing and plan activation and the example from regions who began the transition in previous years, it is anticipated that the scheme will not be fully rolled out in the region by the end of June 2020. This could indicate that a significant number of people with severe and complex mental health need and an associated level of reduced psychosocial functional capacity will still be requiring transitional psychosocial supports and NDIS transition assistance post July 2020.

NWMPHN will continue to collect data from commissioned providers to inform insights and understanding of the psychosocial needs and access to supports in the region. This will be valuable data to inform future planning and reporting including to regional stakeholders and the Department of Health.

[15] *The productivity commission estimates the level of psychosocial disability within the NDIS to be 13.7% of total.*