Mental Health

Health Needs Assessment

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Disclaimer

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Acknowledgements

We acknowledge the people of the Kulin nations as the Traditional Custodians of the land on which our work in the community takes place. We pay our respects to their Elders past and present.

We also recognise, respect and affirm the central role played in our work by people with lived experience, their families and carers, and extend our gratitude to the numerous service providers, community groups and associations that have played a vital role in making this work possible. Their support is instrumental in enhancing our understanding of the health needs within the North Western Melbourne Primary Health Network catchment.

We also acknowledge the Victorian Department of Health as the source of Victorian Admitted Episodes Dataset (VAED) and Victorian Emergency Minimum Dataset (VEMD) data used for this report.

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This report was completed in December 2023 and published in June 2024.

Contributors

North Western Melbourne Primary Health Network (NWMPHN) wishes to acknowledge the contributions of the following community members, health care and community service providers, organisations and other experts.

Community representatives

NWMPHN People Bank
Self Help Addiction Resource Centre (SHARC)
Tandem Carers
Victorian Mental Illness Awareness Council (VMIAC)

NWMPHN committees, project advisory groups (PAG) and expert advisory groups (EAG)

Aboriginal Health EAG
Alcohol and Other Drugs EAG
General Practice EAG
Mental Health EAG
Mental Health PAG
Older Adults EAG

Government

Brimbank City Council
City of Darebin
Department of Health, Victoria
Hobsons Bay City Council
Hume City Council
Maribyrnong City Council
Moonee Valley City Council
Moorabool Shire Council
Wyndham City Council

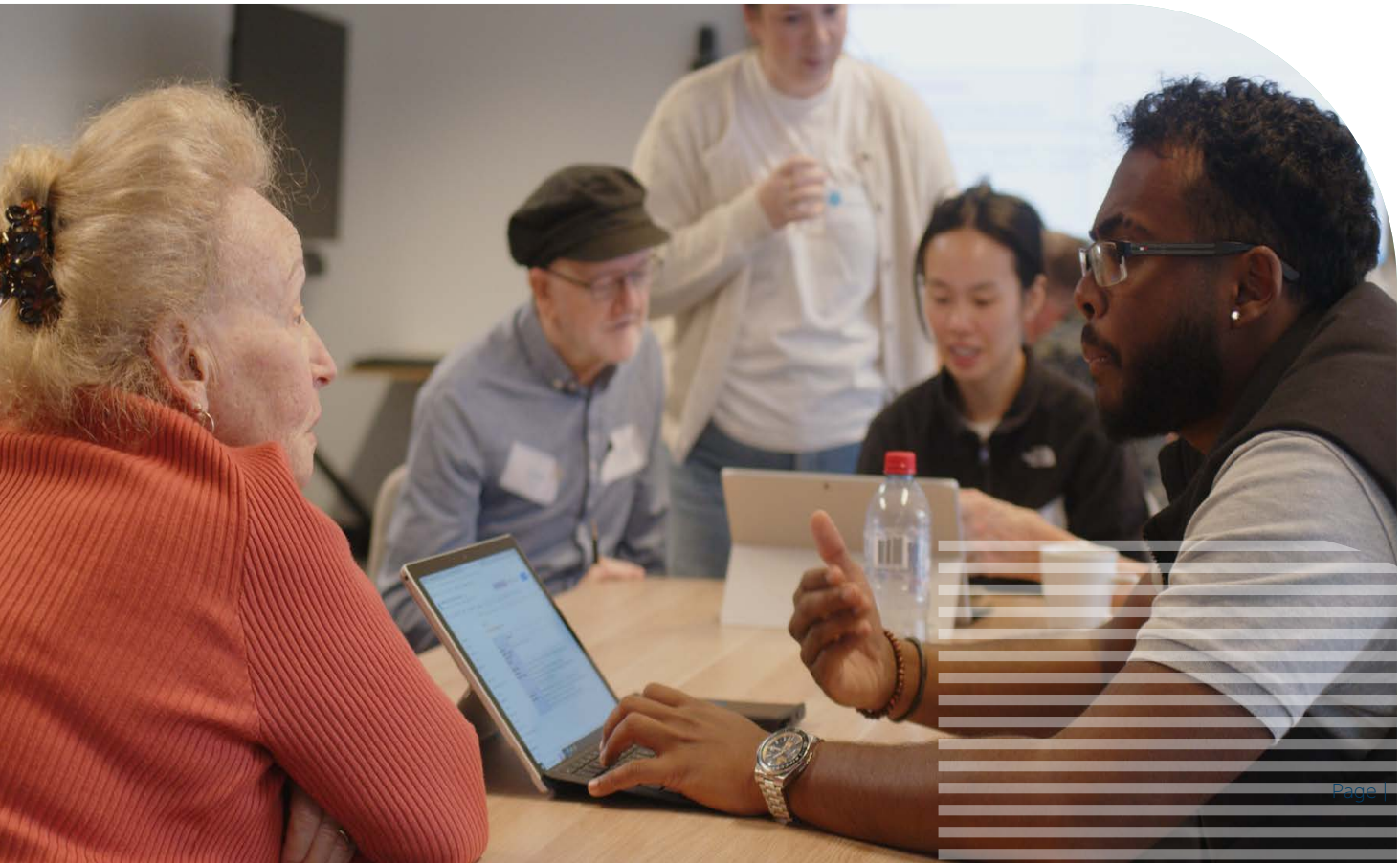
Health service providers, general practitioners, community health service providers, community organisations, non-government organisations

Ambulance Victoria
Asylum Seeker Resource Centre
Australian Association of Social Workers
Australian Counselling Association
Australian Psychological Society
CAREinMIND™
Clarity Health Care
cohealth: Brimbank Mental Health and Wellbeing Local
DPV Health
Drummond Street Services
Emerging Minds
Evans Street Medical Clinic
Fitzroy Legal Centre
Foundation House
IPC Health
Melbourne City Mission
Mental Health Legal Centre
Mental Health Professionals' Network
Merri Health
Neami National: Mental Health and Wellbeing Local Whittlesea
Occupational Therapy Australia
Peter MacCallum Cancer Centre
Perinatal Anxiety and Depression Australia
Pola Practice
Shooters Shoot
Sunbury and Cobaw Community Health
Switchboard Victoria
St Vincent's Hospital Melbourne
The Royal Children's Hospital
The Royal Melbourne Hospital
The Royal Women's Hospital
Thorne Harbour Health
Transgender Victoria
Tweddle Child and Family Health Service
Victorian Centre of Excellence in Eating Disorders
Victorian Aboriginal Health Service
Victorian Transcultural Mental Health
Weily Psychology
Werribee Mercy Hospital, Mercy Health
Your Community Health
Youth Support and Advocacy Service

Purpose

The evidence presented in this Mental Health focused HNA and supporting supplementary document serves as a primary reference tool for NWMPHN and stakeholders working in our region. Its purpose is to facilitate discussions, nurture strategic partnerships, guide evidence-informed planning, and aid in the prioritisation of commissioning activity investment and advocacy work to enhance our community's mental health and wellbeing.

By aligning commissioning frameworks with community outcomes, and ensuring fairness in resource allocation, there is potential to uplift the overall effectiveness and responsiveness of mental health services in the NWMPHN region.



About this report

This report presents the key findings of the Mental Health focused Health Needs Assessment (MH HNA). The HNA provides an in-depth view of the mental health needs of people in the NWMPHN region, which includes 13 Local Government Areas (LGAs). See Figure 1.

The NWMPHN region covers 3,212 square kilometres. It stretches from Richmond in the inner eastern suburbs to past Bacchus Marsh in the west, and from the Western Treatment Plant in the southwest to beyond Lancefield in the north.

The HNA findings will be used to support decision-making on strategic investment, advocacy, and stakeholder engagement.

This report was developed by the NWMPHN Research and Evaluation team. An accompanying supplementary file provides detailed data analysis.

For any queries, please contact HNA.admin@nwmphn.org.au.

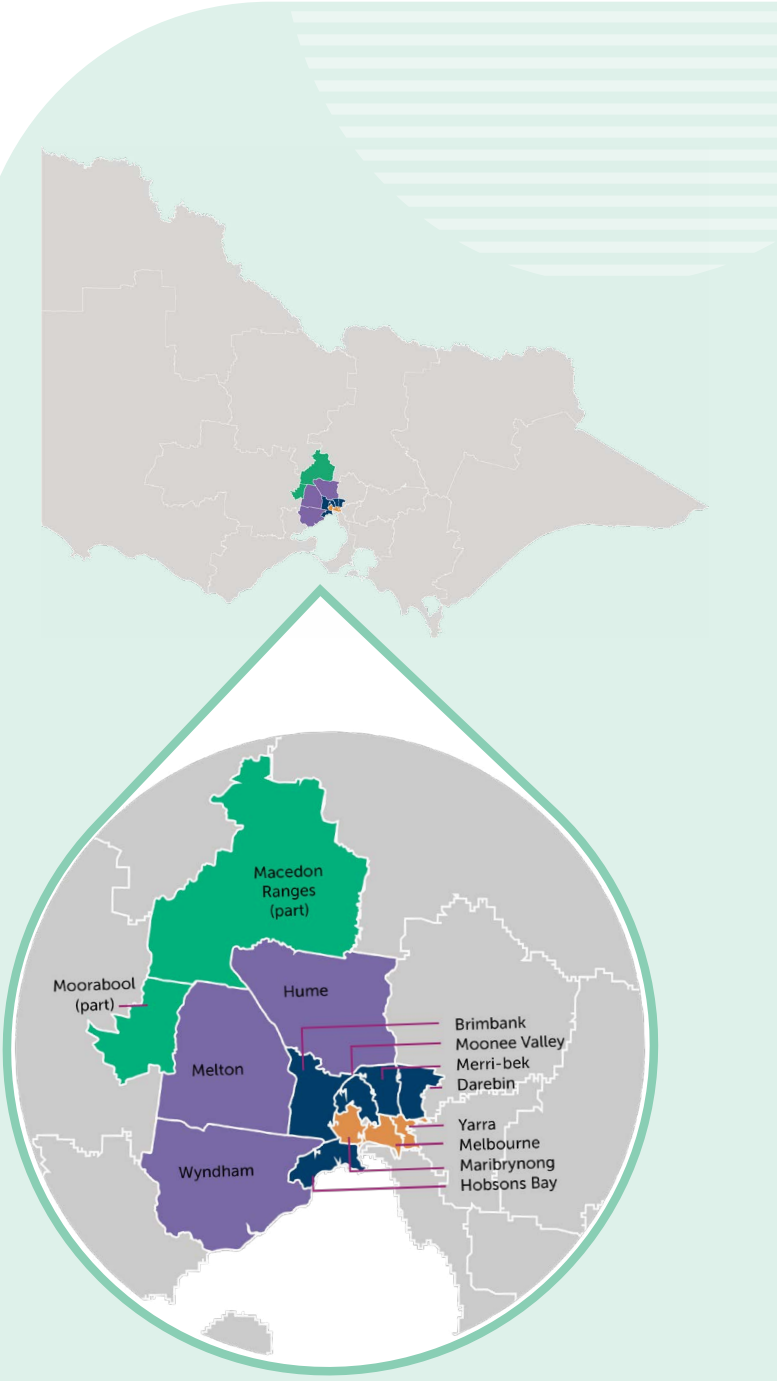


Figure 1. Local Government Areas included in the NWMPHN catchment

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Acronyms

AEDC	Australian Early Development Census
AIHW	Australian Institute of Health and Welfare
CALD	Culturally and linguistically diverse
DH	Victorian Department of Health
ED	Emergency Department
ERP	Estimated Resident Population
HNA	Health Needs Assessment
IAR-DST	Initial Assessment and Referral Decision Support Tool
ICD-10	International Classification of Diseases, 10th Revision
IRSD	Index of Relative Socio-economic Disadvantage
LGA	Local Government Area
LOTE	Language other than English
METEOR	Metadata Online Registry
KLOE	Key line of enquiry (questions)
MHFA	Mental health first aid (training)
MH HNA	Mental Health - Health Needs Assessment
NES	Non-English-speaking
NWMPHN	North Western Melbourne Primary Health Network
PHIDU	Public Health Information Development Unit
PMHC-MDS	PMHC-MDS Primary Mental Health Care Minimum Data Set
SDH	Social determinants of health
SEM	Social Ecological Model
URP	Usual Resident Population
VAED	Victorian Admitted Episodes Dataset

EXECUTIVE SUMMARY

The Mental Health - Health Needs Assessment presents a systematic analysis of the mental health and care needs of the community in the North Western Melbourne Primary Health Network catchment. Its purpose is to facilitate discussions, nurture strategic partnerships, guide evidence-based planning and aid in the prioritisation of commissioning activity investment and advocacy work to ensure our community's mental health and wellbeing.

Context

The Mental Health- Health Needs Assessment (MH HNA), conducted by NWMPHN in 2023 and published in 2024, is an evidence-based initiative that defines, identifies, and measures population health need in our region. Guided by the NWMPHN HNA Framework, it is tailored to mental health needs and provides key insights, informed through quantitative analyses based on population growth and social determinants, that influence mental health and wellbeing.

Integral to this project is the involvement of people with lived experience and mental health subject matter expertise. This is particularly evident in the third section of this report, titled Community and Health Service Provider Engagement, which imparts insights that contribute to a nuanced understanding of the complex social, cultural and economic factors and experiences related to mental health need in the NWMPHN region.

Method

This report used a mixed-methods approach guided by the Framework, combining quantitative analysis of population health data and mental health service mapping in the NWMPHN region, as well as a qualitative analysis of the consultations that were held with key stakeholders.

Comparative need analyses examined epidemiological data across 5 metrics: population; socio-demographics; risk factors; health service access and geographic environment; and mental health conditions and consequences. Quantitative data sources were used to generate insights about mental health needs, including in hospital and primary care settings. However, only those that met set selection criteria were then included in the quantitative model (Section 2.1).

Community and health provider consultations were guided by key lines of enquiry across online interviews and focus groups. There were 174 participants, comprising 20 consumers and 68 organisations. A deductive approach to qualitative analysis was used to categorise excerpts using the Social Ecological Model, across 7 priority populations which frequently experience poorer health outcomes and greater health disparities than the general population.

Key Findings

Results from the quantitative population health need analyses identified Hume, Wyndham, and Brimbank LGAs as having the highest quantified mental health need when adjusted for the social determinants of health. The results across each of the 5 metrics are summarised below.

Metric 1.
Projected population

By 2030, the NWMPHN region's population is projected to grow by 28 per cent (amounting to 600,000 people) and surpass growth rates across all age cohorts in Victoria as a whole.

Our analysis indicates that Wyndham exhibits the highest level of need based on the projected 2025 population, with nearly half of the NWMPHN region's residents residing there, Hume, Brimbank, and Melton.

Metric 2.
Socio-demographic factors associated with mental health need

Brimbank had the highest level of need based on socioeconomic status. When the population was adjusted for socioeconomic factors, Wyndham, Hume, and Brimbank consistently displayed the highest need relative to other LGAs in the NWMPHN region.

With over 40 per cent of residents born in non-English speaking countries and speaking a language other than English at home, the NWMPHN region is more culturally and linguistically diverse than the rest of Victoria.

English proficiency across the region varied, with notably lower levels in Brimbank, Hume, and Maribyrnong.

The same 3 LGAs recorded ED presentation and hospital admission rates lower than the Victorian average.

Metric 3.
Risk factors associated with mental health need

Brimbank presented the highest level of need based on risk factors influencing mental health and wellbeing, among LGAs in the NWMPHN region. The risk factors influencing poor mental health and wellbeing include child developmental vulnerability, family violence, obesity, and high levels of widowhood.

Adjusting for risk factors, Wyndham, Hume, and Brimbank continued to demonstrate the highest need.

Metric 4.
Access and geographic environment

Access indicators showed that the most disadvantaged LGAs were marked by significant workforce shortages and less health infrastructure compared with Victoria overall.

These LGAs also had lower GP utilisation rates than others in the NWMPHN region – which collectively were higher than the state average. Psychiatry and psychology service utility were also lower in disadvantaged areas, as well as in Melbourne, Darebin, and Hobsons Bay. Across the catchment, the GP workforce declined while the psychologist workforce grew.

Metric 5.
Mental health conditions and consequences

Yarra, Melbourne, and Merri-bek demonstrated the highest need related to mental health conditions, with higher rates compared with Victoria of hospitalisations due to suicidal ideation or self-inflicted injury. Rates were disproportionately high among young females (10-19). ED presentation rates due to mental and behavioural disorders were also greater than most LGAs in the region.

The analysis also identified specific conditions that contribute to the mental health burden in our region. Anxiety and depression were the leading self-reported chronic mental health conditions across all LGAs, with depression being more prevalent in adults aged over 80 than any other age cohort.

Although less common, schizophrenia emerged as the leading cause of mental health related hospitalisations since 2019, with the highest rates in Brimbank, Moonee Valley, and Maribyrnong. Additionally, it was one of the top mental health conditions resulting in ED presentations.

Community and health provider consultations

Findings from consultations with community members and health service providers included:

Mental health needs of the community are influenced by intersecting social, cultural, and economic factors, such as discrimination, housing, income, family violence, and trauma.

Coordination between healthcare and social service providers was consistently identified as a challenge across interviewee types. Unsurprisingly, this was also a common theme when discussing solutions, such as streamline resource location, minimise duplication, and optimise the patient experience within an efficient system.

Consumers emphasised the need to be included in mental health service development, to support the creation of safe and inclusive environments, particularly for marginalized groups.

It was noted across interviewee types that providing person-centred care requires a culturally competent and diverse workforce.

Lived experience consumers highlighted that trauma-informed approaches can facilitate the provision of sensitive mental health care; however, the workforce requires support and training to build capacity and competency to meet demand.

There was broad recognition that social connection plays a vital role in promoting positive mental health and wellbeing.

Consumers, carers, and health providers experience challenges navigating the health system.

Carers play a crucial role in mental health support and improving outcomes, yet they often face unique unmet needs, such as insufficient follow-up care, health literacy gaps, and a lack of social recognition of their role.

An increase in acuity and complexity of mental health conditions was reported by mental health service providers, including a growing number of patients diagnosed with more than one condition.

There was also a reported trend towards more severe symptoms and an increase in incidences of self-harm and suicidality. The age of symptom onset was also reported to be decreasing.

Interviewees also communicated that commissioning approaches which promote collaboration, sustainability, and innovation, should be prioritised.

Interviews also highlighted issues with workforce, specifically that increasing workforce demands are not being met and there is service disparity between availability of services for low acuity cases versus people needing more intensive intervention and structured support.

Flexible service delivery models with "multiple open doors" were perceived to help address service access inequities for diaspora communities and at-risk cohorts.

Lack of vertical integration within the mental health sector was noted. As was a need for better collaboration between service providers in the public and private health sectors.

Discussion

This report to provides a comprehensive understanding of the mental health and wellbeing needs of people in the NWMPHN catchment by combining quantitative findings from several large data sources with in-depth perspectives from consultations with community members, people with lived experience, and mental health service providers.

Service accessibility, availability, and mental health outcomes

- LGAs with lower levels of social disadvantage compared with the NWMPHN catchment as a whole demonstrated higher rates of new GP mental health related diagnoses. This indicates higher levels of access to, and utilisation of, mental health service providers.
- Social disadvantage, characterised by indicators such as low English proficiency and financial stress, contributes to access disparities in mental health services, creating cultural and financial barriers. This limitation was notable in LGAs with low socioeconomic status and in growth areas in the catchment.
- Disadvantaged postcodes within metropolitan areas have better access to service providers compared to those located in outer LGAs.
- Compared to less disadvantaged metropolitan areas, they also exhibit higher hospitalisation rates and ED presentations related to mental health conditions.

Underrepresentation of diversity in the health sector

- Consultation groups identified levels of cultural safety, competency, and responsiveness in health services as drivers influencing mental health outcomes for some cultural, ethnic, and language communities seeking care in the NWMPHN catchment.
- Several marginalised populations are under-represented or unidentified in key population health datasets. These include people with disability, LGBTIQ+ people, refugees, and asylum seekers. This entrenches health system inequity.

Mental health acuity and complexity is increasing

- Psychosocial issues, including social isolation exacerbated by the COVID-19 pandemic, were identified in consultations as drivers leading to increasing presentations to services by patients with acute or complex needs. This was particularly pronounced among young people.
- Better indicators are needed to measure complexity and treatment effectiveness in primary care.

- Analyses of GP information, commissioned service data and the Victorian Department of Health data ranked anxiety and depression as the common diagnoses of mental health conditions. Schizophrenia is the leading cause of hospitalisations and fourth leading cause of ED presentations for mental health conditions in the NWMPHN catchment.
- Gaps in service as well as workforce competency and capacity amplify the challenges associated with managing complex mental health conditions.

Workforce capacity and capability

- Consultations conveyed heightened concerns among mental health professionals regarding inadequate workforce capacity to meet the increasing community demand and complexity.
- Workforce burnout and shortages of GPs, psychologists and psychiatrists further compound the issue.
- The majority of mental health and wellbeing services available to NWMPHN residents offer services with a low to moderate intensity level of care (as defined by the Initial Assessment and Referral (IAR) – Decision Support Tool (DST). NWMPHN commissioned services and Head to Health data reflects a greater proportion of need for higher intensity level mental health care, suggesting there may be a service gap related to more intensive or complex care needs.

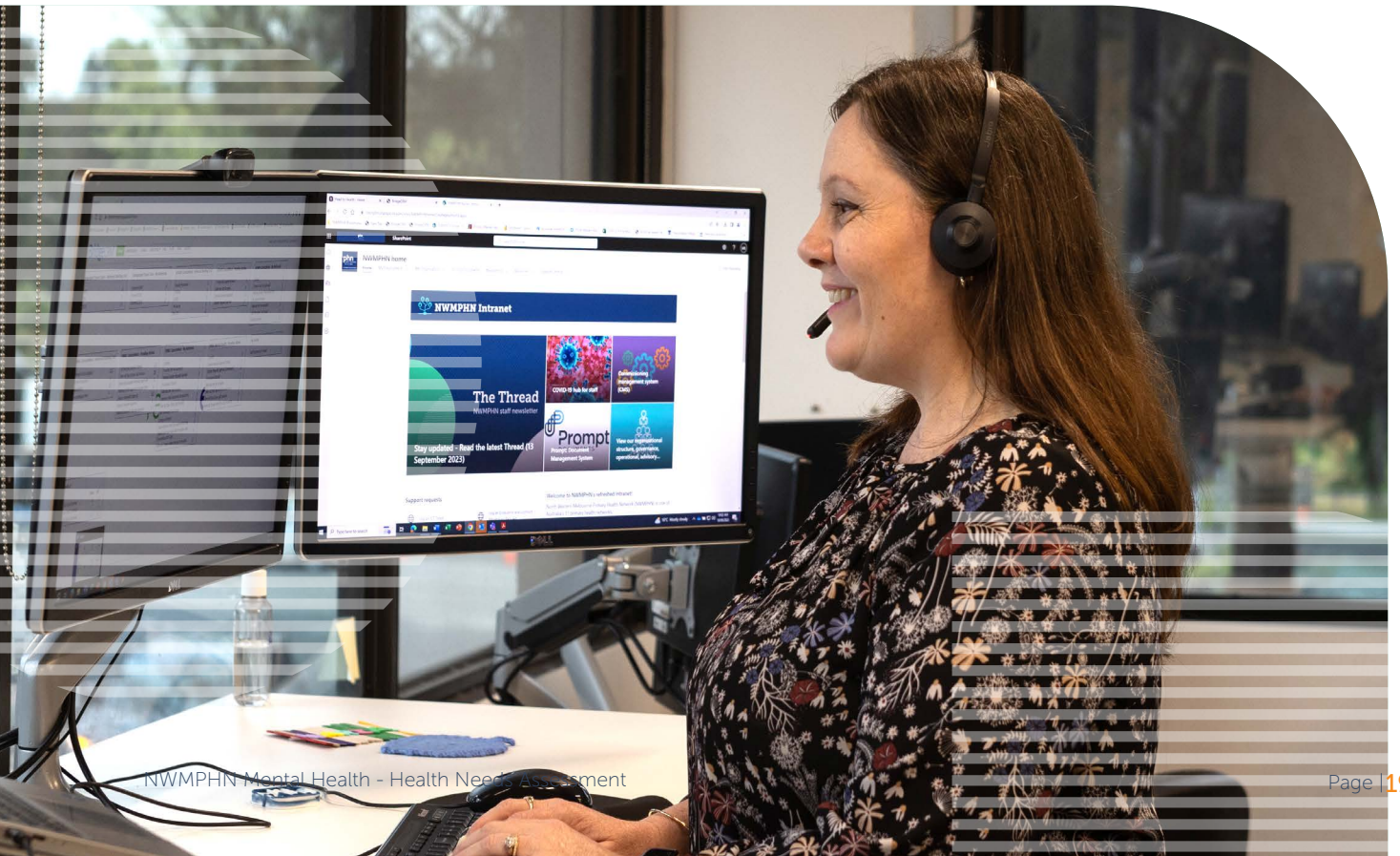
Mental health service multidisciplinary care coordination, navigation, and integration

In the context of challenges around workforce capability and capacity to manage increasing mental health acuity and complexity, there are opportunities to streamline cross-sector coordination and collaboration, including prioritising integrated services such as multidisciplinary health hubs.

Directions

The analyses presented in this MH HNA and its supplementary document offer comprehensive contextual information into our region's current state of mental health need. It serves as a reference for NWMPHN, its commissioned partners and other mental health stakeholders.

It reveals the complexity of social determinants on individual mental health, and offers insights into potential gaps, challenges, and areas for further focus and exploration to address unmet mental health needs in the NWMPHN region. Plans for disseminating the report to build awareness and contribute towards a collective understanding of the mental health landscape in our community are in place.



Future actions and use of this report

The evidence presented in this MH HNA and supporting supplementary document serves as a primary reference tool for NWMPHN and stakeholders working in our region. Its purpose is to facilitate discussions, nurture strategic partnerships, guide evidence-informed planning, and aid in the prioritisation of commissioning activity investment and advocacy work to enhance our community's mental health and wellbeing.

By aligning commissioning frameworks with community outcomes, and ensuring fairness in resource allocation, there is potential to uplift the overall effectiveness and responsiveness of mental health services in the NWMPHN region.

1.

Introduction

1.1 Purpose and objectives

In 2023, North Western Melbourne Primary Health Network (NWMPHN) conducted a mental health focused Health Needs Assessment to gain insights into the current state of mental health and wellbeing within our community.

The *Mental Health focused Health Needs Assessment* (MH HNA) provides an in-depth view of the mental health needs of the population within the NWMPHN region. The findings will serve as a foundation for data-driven decision-making, guiding strategic planning and investment, service design and integration, and prioritisation of activities related to population mental health needs. They will also support our partnerships, community engagement, and advocacy work with key stakeholders.

The following key lines of enquiry (KLOEs) were established during the initial stages of the project:

What is the profile of people living with mental illness, psychological distress, and associated risk factors?	How and what mental health and wellbeing services are accessed by people living with mental illness or psychological distress?	What treatments or therapies are used to help people with mental illness or psychological distress?
What is the profile (including distribution, service type, and funding source) of mental health and wellbeing services currently available for people living with mental illness or psychological distress?	To what extent do existing services meet the needs of people living with mental illness or psychological distress?	
What is the profile (including age, qualification, and experience level) of the workforce delivering mental health and wellbeing services?	What barriers and enablers to service access are experienced by people living with mental illness or psychological distress?	

1.2 Staged Approach

The project was delivered across 4 stages. Throughout all stages, engagement with key stakeholders included regular fortnightly meetings with the Mental Health Project Advisory Group (PAG), workshops with the PAG and members from NWMPHN's Mental Health, Alcohol and Other Drugs, Older Adults, General Practice, Aboriginal and Torres Strait Islander Health Expert Advisory Groups.

Table 1. Approach to developing the MH HNA.

Stage 1: Project initiation	Determined shared project scope, objectives, and governance.	April – June 2023
Stage 2: Developing the evidence base	Undertook quantitative data analysis (examining need as determined by population growth and social determinants of mental health), and qualitative data analysis (examining need through consumer and service provider interviews and focus groups). Joint expert advisory group (EAG) workshop: Presentation of HNA approach, share MH HNA objectives and engagement strategies (community and service providers). KLoE workshop: Developed a shared understanding of the key lines of enquiry. Data consolidation workshop: Present findings of quantitative analysis from published HNAs. MH and AOD EAG workshop: Key insights from published HNAs.	July – September 2023
Stage 3: Testing and validation	Explore and validate main messages with key stakeholders, including the project advisory group and EAG members. Community and service provider engagement workshop: Key insights from community and service provider consultations. Quantitative insights workshop – part a: Present key insights and explore gaps and areas for deeper analysis. Quantitative insights workshop – part b: Bringing together the key findings. Joint EAG workshop: Sharing, testing and validating findings.	September – October 2023
Stage 4: Report drafting and finalisation	Consolidate findings and develop the technical report.	October – December 2023

1.3 Strengths and limitations

This health needs assessment explores the mental health needs in the NWMPHN catchment to support evidence-informed commissioning. Several key lines of enquiry informed our approach, while taking care to balance delving deeply into specific aspects and capturing a broad overview of the complex issues within the diverse population of the region.

A key benefit of using 'the Framework' to inform our approach to analysis includes the triangulation of a range of quantitative and qualitative data sources to provide a comprehensive and nuanced understanding of mental health needs. This approach enhances the reliability and validity of our findings, allowing for a more robust and evidence-based analysis that can better inform targeted interventions and initiatives within the community. The broad stakeholder representation involved in this HNA also enabled the identification of improvement ideas based on lived experience and subject matter expertise. Application of the social-ecological model to organise and interpret findings is another strength.

On a qualitative level, we consulted widely with health service providers, subject matter experts and people with lived experience of mental health challenges.

We relied in part on large datasets gathered by bodies such as the Victorian Department of Health, the Public Health Information Development Unit (PHIDU), and the Australian Bureau of Statistics (ABS). These were augmented by de-identified data provided by hundreds of general practices across the NWMPHN catchment. All datasets have limitations. These are summarised in Table 4 and in Appendix B.

There are also some important limitations that must be acknowledged. As outlined throughout the relevant sections of the report, there are specific data limitations that affect the generalisability of some of the analyses.

For example, whilst we use the term 'CALD' in several sections of the report to capture diversity, we acknowledge that collectively grouping cultural and linguistic subpopulations can mask invisible and underserved communities given the term is large and heterogeneous.

Furthermore, other population groups are also largely absent from data collection mechanisms, such as LGBTIQ+ people, people with a disability, asylum-seekers and refugees, and people living in prisons.

Many datasets use a strict male-female binary, which does not reveal non-binary, trans or intersex people. Equally, there is a notable absence of data related to intersectionality.

It is also likely that our region's Aboriginal and Torres Strait Islander population is under-represented. Incomplete and inaccurate identification of the Aboriginal and Torres Strait Islander population is commonplace in administrative and clinical information systems in health service organisations across Australia (Australian Commission on Safety and Quality in Health Care, 2021).

We acknowledge that data collection needs to better capture quality indicators of diversity in order to improve investment decisions in multicultural health and other high-risk populations in order to improve the health and wellbeing of all residents on the NWMPHN region.

1.4 Methodology

The NWMPHN HNA Framework is used to produce a comprehensive and evidence-based assessment of the mental health needs of people within the catchment. Epidemiological, qualitative, and comparative methods are used to describe the health issues of the region, identify inequalities in health and access to services, and determine priorities for action.

This section provides a detailed account of the methodology undertaken, including a list of key terms (see Table 2). We also provide a summary view at the start of each section to provide helpful signposts along the way.

Table 2. Mental Health Needs Assessment – key terms and definitions.

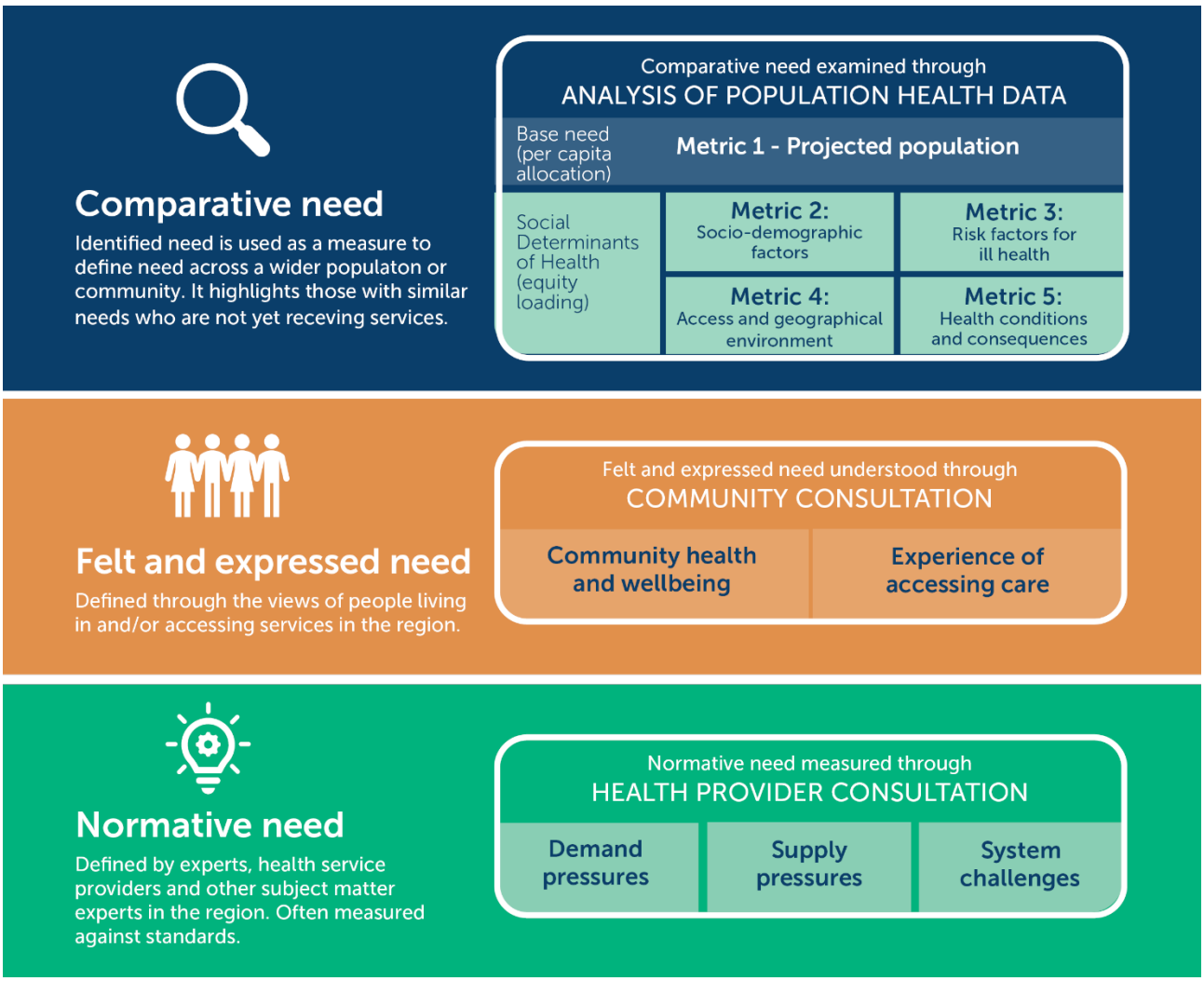
Term	Definition
The NWMPHN Framework	Uses mixed methods to define and understand need
Metrics	A measure of quantitative assessment – we have used the term 'metric' to refer to 5 domains or categories in which we have organised the quantitative data.
Indicators	Individual measures of a concept of interest (for instance, the rate of psychological distress by LGA).
The Model	Comprises 5 metrics (or domains). Each comprises several robust indicators that contribute to a method of quantifying need. *Note that not all indicators in the report contribute to the Model.*

Defining need

A health needs assessment is a systematic approach to ensuring we use our resources to improve the health of the population in the most efficient way. A needs assessment implies a gap or discrepancy between the current conditions - 'what is' - and the ideal conditions - 'what should be'. This gap - the difference between the current condition and the ideal condition - is the 'need' (Smart, 2019).

Needs are relative and what is necessary depends on your point of view, so our evidence-based approach considers 4 different types of need (Bradshaw, J., 1972) and draws on 3 types of evidence.

Figure 2. NWMPHN Health Needs Assessment Framework.



Analysis of population health data (comparative need)

The social determinants of health (SDH) are the conditions in which people are born, grow, work, live and age. They provide a systematic way of analysing differences in health status across the region to identify and quantify need.

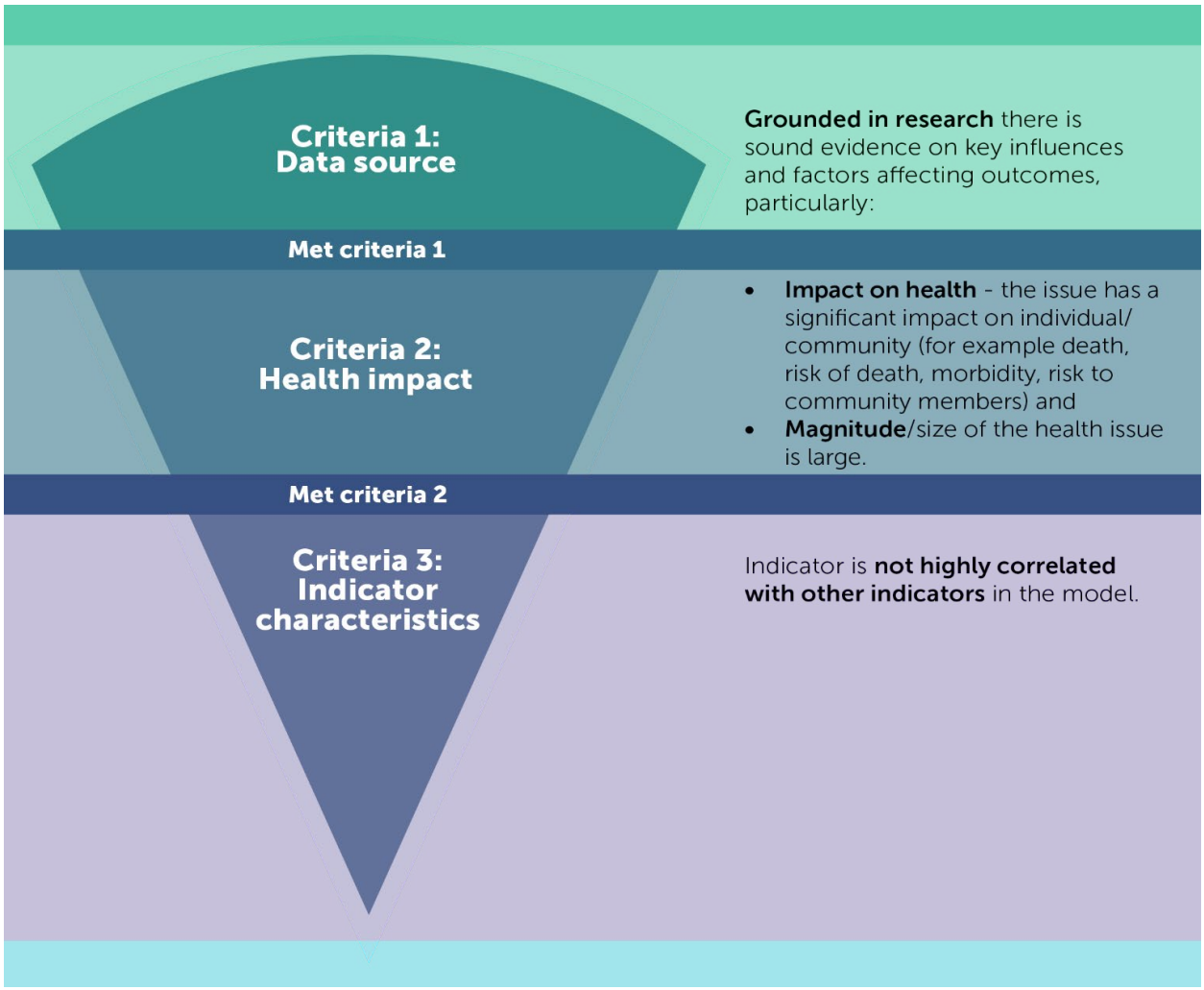
The method to quantify need based on the SDH is briefly outlined in Table 3. The population health data is grouped into 5 metrics. The base need is identified using a per capita (or population) allocation. Equity loadings are then applied based on disparities arising from the differences in the SDH.

Table 3. Method of quantifying need based on the social determinants of health

Metric	Description
Metric 1. Projected population (base need)	Attributing a significant proportion of 'need' to the projected population recognises that demand and economies of scale are important attributes of resource allocation (Radinmanesh et al., 2021).
Metric 2: Socio-demographic factors	Recognising that a person's social position can shape experiences and vulnerability to health-compromising conditions. Socio-demographic factors also significantly impact health, including negative mental health and wellbeing consequences.
Metric 3: Risk factors for mental ill-health	Risk factors capture attributes, characteristics and exposures that increase the likelihood of poor health. These are distributed unevenly across the population. A large quantum of evidence demonstrates the impact of certain risk factors on someone's mental health and wellbeing (Arango et al., 2021).
Metric 4: Access to mental health-related services and geographical environment	Recognising that the health system itself is a social determinant and plays an important role in mediating the differential consequences of illness in people's lives. Geographical maldistribution of health professionals and attributes that affect the liveability of an area also contribute to poorer outcomes.
Metric 5: Mental health conditions and consequences	Recognising that mental health conditions and consequences play an important role in the mental health needs of the population.

Although this report includes a wide range of data indicators that provide important contextual information about the people who live in the NWMPHN region across the 5 metrics, the quantitative model uses only selected variables. The indicators selected for the model must meet predetermined criteria. This is to ensure only the most robust, reliable and impactful data points are used.

Figure 3. Criteria for determining quantitative model indicators.



Note: criteria 2 was adapted from the National Institute for Health and Care Excellence guidelines (Cavanagh & Chadwick, 2005).

Data sources and data quality

Table 4 provides a summary of the main data sources used, a brief description, and a statement about the data quality. Although the data quality varies, the report brings together insights across different sources to enable a triangulation of messaging that helps to describe a more complete picture of the mental health and wellbeing needs of the NWMPHN region. This summary, however, should be used to understand some of the key strengths and limitations of each source, especially when considered in isolation.

Table 4. Summary of main data sources used in the MH HNA quantitative analysis.

Data sources	Organisation	Description	Data quality (strengths and limitations)
2021 Census, 2022 ERP	ABS	The Australian Bureau of Statistics (ABS) is the national statistical agency that provides official statistics on a wide range of economic, social, population and environmental related matters.	✓ Comprehensiveness and breadth; the ABS collects and publishes a wide range of data on a variety of topics and produces high quality statistics that undergo a rigorous quality assurance process. ✗ Suppression and aggregation methods are used to protect data privacy; however, data is not always disaggregated to a fine enough level. Some data may take a long time to release and may not always be up to date.
VEMD, VAED	DH	The Victorian Department of Health reports and dashboards on health and wellbeing, using data from various sources such as the Victorian Population Health Survey, hospital data, mental health data, and others.	✓ Rigorous quality assurance processes to protect the integrity of health data in key dataset; monitors and improves data controls in health services. ✗ The VEMD and VAED datasets lack information on gender diversity, potentially misrepresenting the true gender make-up of the catchment area. Some data may be outdated or incomplete.
Social Health Atlas	PHIDU	The Public Health Information Development Unit (PHIDU) provides detailed data on the health and wellbeing of Australians and the social determinants of health outcomes at national and regional levels.	✓ Comprehensiveness and breadth of health and social indicators. Longitudinal data allows monitoring over time. ✗ Data gaps and delays, data may not cover all the topic of interest; Some data may include selection bias such as survey data.
PHMC-MDS	NWMPHN	A system developed by the Australian Government system, managed by PHNs to collect information about the delivery of primary mental health care services in Australia, including Head to Health and CAREinMIND.	✓ Comprehensive and diverse range of data on mental health including clinical data. ✗ Potential gaps and biases due to representing patients within commissioned services (that is, not representative of all the MH services in NWMPHN).

Data sources	Organisation	Description	Data quality (strengths and limitations)
PAT CAT	General practice	Data is representative of general practices within the region. However, it does not encompass all practices within the NWMPHN catchment area.	✓ Provides general practice data on regional levels; easy to interpret and visualise data. ✗ The report is based on data from 75 per cent of the general practices in the NWMPHN region, which provide anonymised data monthly about their patients, tests administered, diagnoses and prescribed medications using the PAT CAT system. ✗ Free text information (for example, demographics such as country of birth) cannot be analysed; data does not account for patients who have seen multiple GPs in the time period.
Service mapping	NWMPHN	NWMPHN undertook a service mapping exercise to understand the mental health and wellbeing services available in NWMPHN and key information regarding the services including intensity of support provided and services targeted towards population groups.	✗ Service mapping analysis is one point in time due to ongoing change in service provision. ✗ Data collection focused on publicly available information only based on 14 variables.

Consultation with community to assess felt and expressed need, and with health service providers to assess normative need

Using the KLoEs, stakeholder engagement and consultation set out to:

- Contextualise the quantitative findings from the comparative need assessment.
- Explore and understand the felt and expressed needs of people living in or accessing mental health-related services in the NWMPHN region.
- Explore and understand the normative need, defined by what subject matter experts and mental health service providers view as demand, supply pressures, and system challenges.
- Identify barriers and enablers to accessing mental health services.

During May and June 2023, we conducted online consultations with community members and health service providers living, accessing, and providing mental health services in the NWMPHN region. In summary:

- **25 consultations**, including 9 2-hour focus groups and 16 one-hour targeted consultations were held;
- **20 consumers and 68 organisations** out of 88 invited participated, including community health providers and GPs;
- **174 people** participated in the consultations.

The approach to consultation participant recruitment, data collection and analysis is outlined in Section 3.2.

2.

Examining comparative need through the analysis of population health data

A social determinants of health approach to quantifying mental health need in the NWMPHN region.

2.1

Overview

- Quantified population health need
- Mental health need by geographical location
- Mental health need by population group
- Mental health conditions identified as areas of need

2.1 Overview

Quantified population health need

Wyndham, Brimbank, and Hume have the highest level of per capita need and continue to be the highest areas of need when adjusted for the SDH.

The SDH provide a systematic way to identify and quantify need by analysing the differences in health status across the region. The 5 SDH metrics are:

1. Projected population (base need)
2. Socio-demographic factors
3. Risk factors
4. Access and geographic environment
5. Health conditions and consequences.

The modelling shows that population trends are quite closely associated with disadvantage. However, the equity loadings change as a function of the SDH. Compared to solely per capita need allocation, adjusting for SDH reveals a higher need allocation for Yarra, Hobsons Bay, Macedon Ranges-*part a* and Moorabool-*part a*.

Table 5. Quantified population health need based on the social determinants of health.

Region	LGA	Metric 1	Metric 2	Metric 3	Metric 4	Metric 5	Change	Adjusted need
Inner city	Melbourne	9.8%	0.07	0.07	0.07	0.10	-12%	8.6%
	Maribyrnong	5.3%	0.08	0.07	0.07	0.08	22%	6.5%
	Yarra	4.9%	0.03	0.07	0.06	0.10	25%	6.1%
Suburban	Brimbank	10.5%	0.18	0.09	0.08	0.08	-3%	10.2%
	Darebin	8.3%	0.07	0.07	0.07	0.09	-6%	7.8%
	Hobsons Bay	5.1%	0.07	0.08	0.08	0.07	28%	6.5%
	Moonee Valley	6.5%	0.03	0.07	0.06	0.07	-3%	6.3%
	Merri-bek	9.6%	0.06	0.08	0.07	0.09	-11%	8.5%
Growth area	Hume	12.7%	0.15	0.09	0.09	0.07	-15%	10.8%
	Melton	9.2%	0.10	0.08	0.11	0.08	0%	9.2%
	Wyndham	15.3%	0.08	0.07	0.10	0.05	-30%	10.7%
Peri-urban	Macedon Ranges–part a	1.6%	0.01	0.07	0.06	0.05	131%	3.7%
	Moorabool-part a	1.1%	0.08	0.09	0.06	0.08	356%	5.0%

Table note: Blue indicates the need based only on projected population; pink highlights the top LGAs by need by metric; yellow denotes the LGAs that had the highest change in need, and purple denotes need adjusted for the SDH.

The next section outlines the findings that emerged, summarised by geographical locations, population groups and health conditions and consequences.

Mental health need by geographical location

Refer to Appendix D for a summary of mental health need across all LGAs.

Wyndham	Drivers of need: population and access • Wyndham is the NWMPHN region's fastest growing and most populous LGA. It experiences high levels of social disadvantage. In particular, high levels of housing stress and low individual income are health determinants that exacerbate mental health need. • A younger demographic and notable cultural diversity, including a higher proportion of its population with low English proficiency relative to Victoria, highlighting the importance of tailoring services and programs to address specific needs. • Compared with the Victorian average, Wyndham contends with various mental health risk factors, including high rates of babies born with a low birth weight, higher proportion of children developmentally vulnerable, and high rates of adult obesity. This indicates a need for interventions targeted to families and early childhood. • Wyndham's low liveability index highlights deficiencies in public transport, affecting access to fresh food, and overall availability of health infrastructure. • Wyndham also has a shortage of health professionals, particularly psychologists compared with other LGAs and the Victorian average. • Compared with other LGAs, and to the Victorian average, residents of Wyndham have low utilisation rates of Turning Point's Directline AOD counselling service and other online counselling services. • It shows low utilisation of essential services such as Medicare-subsidised mental health, nursing, and Aboriginal health services. • Although relative to Victoria Wyndham has a lower prevalence of individuals with 2 or more chronic conditions, the ED presentation rate due to chronic conditions was higher than the Victorian average.

Brimbank	Drivers of need: population, disadvantage, risk factors and access • A highly populated area, Brimbank stands out as the LGA in our region with the greatest level of social disadvantage. It also has a high level of need related to risk factors that research shows have negative effects on mental health and wellbeing. These include low income, food insecurity, low English proficiency, developmental vulnerability, family violence and high rates of adult obesity. • A relatively low liveability index in Brimbank indicates there is insufficient public transport access, health infrastructure or access to healthy food. • These factors could be impacting the mental health and wellbeing of residents. A high proportion of residents in Brimbank report high or very high psychological distress. • Barriers to accessing care are further exacerbated by psychologist workforce shortages in this LGA. • High hospitalisation rates due to mental health in Brimbank are driven by schizophrenia, depressive episodes, and delirium. These, coupled with high hospitalisation and ED presentation rates due to suicidal ideation, indicate complex mental health needs in the population and underscore the critical importance of targeted mental health support. • Brimbank is the third highest ranked LGA for percentage of population with 2 or more chronic health conditions. However, this is lower than the Victorian average. Brimbank also exhibited higher hospitalisation rates but lower ED presentations than the Vic average. Except for Brimbank's Aboriginal and Torres Strait Islander peoples who exhibited higher hospitalisation and ED presentation rates, when compared to the Victorian average.
Melton	Drivers of need: disadvantage, risk factors and access • Relative to Victoria, Melton has higher rates of social disadvantage across multiple indicators that can affect mental health and wellbeing. Housing stress and food insecurity figure prominently. • Melton has high populations of young people and Aboriginal and Torres Strait Islanders in the region compared to Victoria, indicating the need for tailored services to address the specific challenges faced by these communities. • Melton has a high level of need related to risk factors associated with poor mental health, in particular, developmental vulnerability, family violence and high rates of children living with obesity. This highlights a need for support geared towards childhood development and family.

	• Melton experiences significant shortages in the health care workforce, particularly in the availability of GPs and psychologists. The low liveability index, reflecting deficiencies in public transport and overall health infrastructure, in combination with workforce shortages, poses environmental barriers that may contribute to low utilisation of essential services, including mental health services.
Hume	Drivers of need: population, disadvantage, risk factors and access • Hume is one of the most populated areas in the NWMPHN region and experiences social disadvantage across multiple indicators that can have negative consequences for mental health and wellbeing. These include housing stress and low individual and household incomes. • Being more disadvantaged than most LGAs, coupled with a younger age profile and high cultural diversity, including a higher proportion with low English proficiency, emphasises the importance of targeted services that cater to varying and specific needs. • Hume also benchmarks below Victorian state averages in multiple risk factors that can affect mental health and increase need. Specifically, there is a high proportion of children who are developmentally vulnerable, plus high levels of family violence and a large proportion of adults who are living with obesity. • A low liveability index in Hume is driven by insufficient public transport access, low health infrastructure and difficulties accessing healthy food. Barriers to accessing care for mental health and wellbeing needs are further exacerbated by GP and psychologist workforce shortages. • Above average rates of ED presentations and hospitalisations due to suicidal ideation highlight the need for tailored interventions to address severe mental health outcomes.
Other LGAs	• Melbourne shows a high level of need related to health conditions and consequences, driven by hospitalisations and ED presentations due to mental health conditions or suicidal ideation. • Moorabool–*part a* shows a 356 per cent increase in need when adjusted for SDH due to consistently high rates across indicators for risk factors and health conditions and consequences. • Yarra shows a 25 per cent increase in need when adjusted for SDH due to high rates of avoidable ED presentations, hospitalisations, and ED presentations with a principal diagnosis of any mental health condition.

Mental health need by population group

Children and adolescents (aged 0 to 19)[1]	• Children aged 0 to 9 show high rates of developmental vulnerability. A larger proportion of this cohort than any other represent avoidable mental health-related ED presentations. These factors indicate a need for interventions targeted to early childhood. • Although there are more mental health and wellbeing services targeted at children and young people compared to other target populations[2] in the NWMPHN catchment, there is a lack of high intensity care and specialised services. Coupled with the high ED presentation rates for suicidal ideation in young people aged 10-29 years, this highlights the urgent need for more specialised mental health support for adolescents. • The highest proportion of mental health community service referrals in the LGA post-ED discharge are in children aged 0 to 9 and young people aged 10 to 19, indicating the need for continued care after presenting to the ED. • In 2022, more than half of mental health services clients were teenagers and adults aged 15 to 44. There were higher mental health diagnoses rates in females, aged 10 to 19, than males. Available data do not adequately identify non-binary patients. • Anxiety followed by depression are the most common mental health diagnoses.
Older people (aged 65+)	• Adults aged 80 and over had the highest rates of mental health-related hospitalisations and ED presentations. These were mostly driven by delirium not due to alcohol or other psychoactive substances. • Females aged 70 to 79 were more likely to be hospitalised than males of the same age, with admissions driven by delirium and depression. This underscores the pressing need for targeted mental health services for older women, addressing the existing gap in resources available to meet their needs. • Adults aged 80 and over had the lowest referral rates to GPs and mental health community services upon discharge to home from the ED. • More than 80 per cent of ED presentations in this age cohort resulted in admission to the ward. • Older adults had the highest referral rates to GPs after discharge from hospital (in contrast to ED as above).

[1] Age range for children and adolescents is 0 to 19 years as age breakdowns is in 10-year groups, not 5 years.
[2] Target populations included – Aboriginal and/or Torres Strait Islander, LGBTIQ+, Culturally and Linguistically Diverse (CALD) and Alcohol and Other Drugs (AOD).

Women	• Hospitalisation rates and ED presentation rates due to suicidal ideation are significantly higher in females aged 10 to 29 compared to males and other age cohorts. • In 2021, the average rate of having either anxiety or depression across the region was higher for females, at 10 per cent, compared with 6.3 per cent in males. It was most prevalent in females aged 20 to 30. • Compared to males, females had a higher number and rate of mental health conditions diagnosed by a GP across all age groups. Young females, aged 20 to 29, had the highest rate of mental health diagnoses and females aged 10 to 19 had more than double the number of diagnoses recorded by males the same age. • Females aged 10 to 29 had high ED presentation rates due to mental health conditions driven by anxiety, alcohol use and acute and transient psychotic disorders. • Hospitalisation rates due to mental health were also high in young adult females aged 20 to 29. The top conditions attributed to hospitalisations in young females were depression and schizophrenia. • Available data do not adequately identify nonbinary patients.
Aboriginal and Torres Strait Islander people	• For Aboriginal and Torres Strait Islander people, 61.5 per cent of mental health-related hospital admissions and 23.8 per cent of ED presentation rates across LGAs in the NWMPHN region were above the Victorian average. • In Yarra, hospitalisations and ED presentation rates due to mental health conditions are more than 4 times higher than the Victorian average. • Aboriginal and Torres Strait Islander males aged 40 to 49, and females aged 30 to 39, have the highest ED presentation and hospitalisation rates due to mental health conditions in the NWMPHN region. • Alcohol use and schizophrenia were the leading causes of hospitalisations in Aboriginal and Torres Strait Islander people in 2022-23. Multiple drug use, acute and transient psychotic disorders and alcohol use were the top reasons attributed to ED presentations between 2019-20 and 2022-23. • There are relatively few services that self-identified as specialising in treating Aboriginal and Torres Strait Islanders. Of these, most offer low and moderate levels of care. • Addressing the complexities of mental health need in the First Nations population requires more specialised and culturally appropriate support.

Culturally and linguistically diverse (CALD) communities	• Brimbank and Wyndham have higher numbers of non-English-speaking residents than other LGAs in the region. They also have lower than average hospital admission rates. It is unclear if there is any causative relationship between these 2 findings. • Yarra had the highest hospitalisation and ED presentation rates in people from culturally and linguistically diverse backgrounds. • For people from culturally and linguistically diverse backgrounds, hospitalisation numbers were highest in females aged 60 and older.

Mental health conditions identified as areas of need

Anxiety	• Anxiety has ranked as the leading condition attributed to avoidable ED presentations since 2019-20. • Anxiety is the leading diagnosis at NWMPHN-commissioned mental health services. • Anxiety is the top GP mental health diagnosis across all ages under 80 in all LGAs within the NWMPHN catchment. Rates of anxiety diagnoses are highest in patients aged 20 to 49. • Of all mental health conditions, "other anxiety disorders" has been one of the top 2 conditions driving ED presentations since 2019-20. • Anxiety is ranked in the top 3 mental health-related conditions driving ED presentations in people aged between 0 and 39, and those over 60. • Yarra, followed by Melbourne and Merri-bek, had the highest rate for ED presentations due to anxiety.
Depression	• Depression is the top mental health condition diagnosed by GPs in adults aged 80 and over, and the second highest diagnosis across all other age groups. This holds across all LGAs in the NWMPHN catchment in 2022-23. • Of all mental health conditions, depressive episodes have been in the top 3 conditions attributed to hospitalisations since 2019-20. • The highest rates of hospitalisation due to depression were in Brimbank, Moorabool-*part a* and Maribyrnong; all 3 LGAs also had high GP diagnosis rates of depression. • Depression is ranked in the top 3 mental health-related conditions driving ED presentations in people aged 10 to 29 and over 60.
Schizophrenia	• Of all mental health conditions, schizophrenia has been the leading cause of hospitalisations since 2019-20.

	• In 2022-23, rates of hospitalisations due to schizophrenia were highest in Brimbank, Moonee Valley and Maribyrnong. GP diagnoses rates are also high in Brimbank and Maribyrnong. • In 2022, schizophrenia was the top mental health condition attributed to hospitalisations in people aged 20 to 69. • It was the fourth leading cause of mental health-related ED presentations in 2022-23. • It was also the second highest condition driving ED presentations in people aged 40 to 59. GP diagnoses rates of schizophrenia were highest in people aged 40 to 59.
AOD	• Alcohol use was consistently one of the top drivers of hospitalisations and ED presentations between 2019-20 and 2022-23. • Alcohol use was the leading cause of ED presentations in adults aged 30 to 59 and the second highest leading cause of hospitalisations in adults aged 30 to 69. • Of all LGAs, Yarra had the highest hospitalisation and ED presentation rates due to alcohol use in 2022-23. Additionally, for people who consume more than 2 standard drinks a day[3], Yarra ranks second of the LGAs in NWMPHN region.

[3] Please note, since this data was gathered, the NHMRC has adjusted is alcohol guidelines downwards. https://www.nhmrc.gov.au/health-advice/alcohol

2.2

Metric 1: Projected population

- Quantified need based on projected population
- Projected population

2.2 Metric 1 : Projected population

Quantified need based on the projected population

Wyndham, Hume, and Brimbank have the highest level of need based on the projected 2025 population.

Identifying the population-based need is determined by data projections of the population size and distribution.

Metric 1 constitutes the 'base need' by LGA relative to the overall population size of the NWMPHN region. It accounts for 40 per cent of the overall need in the quantitative model. Attributing a significant proportion of 'need' to the projected population recognises that demand and economies of scale are important attributes of resource allocation (Radinmanesh et al., 2021).

Table 6. Quantified need based on the projected population.

Area	LGA	Estimated Resident Population ERP 2022	Projected Population (2025)	Projected % of NWMPHN region (2025)	Projected Population (2030)	Projected % of NWMPHN region (2030)
Inner city	Melbourne	159,993	219,220	9.8%	241,478	9.7%
	Maribyrnong	87,526	109,775	5.3%	121,643	4.9%
	Yarra	92,301	119,337	4.9%	132,445	5.3%
Suburban	Brimbank	193,256	234,060	10.5%	248,533	10.0%
	Darebin	150,483	184,959	8.3%	199,681	8.0%
	Hobsons Bay	91,803	113,968	5.1%	122,593	4.9%
	Moonee Valley	123,038	144,228	6.5%	155,028	6.2%
	Merri-bek	174,735	213,680	9.6%	234,972	9.4%
Growth area	Hume	252,987	283,790	12.7%	323,540	13.0%
	Melton	193,155	205,059	9.2%	239,147	9.6%
	Wyndham	309,125	340,353	15.3%	400,706	16.1%
Peri-urban	Macedon Ranges - part a	33,651	35,312	1.6%	37,607	1.5%
	Moorabool - part a	25,615	24,824	1.1%	26,692	1.1%

Table notes: Orange shading indicates the top 3 LGAs based on projected population relative to other LGAs in the region.
Abbreviations: ERP, estimated residential population; LGA, local government area.

Source: (Australian Bureau of Statistics (ABS),2022; PHIDU,2022):

Projected population

The population in the NWMPHN region is large and growing quickly. By 2030, almost a third of Victoria's population will live in our region.

- The population of the NWMPHN catchment is projected to grow by 28 per cent (or 600,000 people) between 2022 and 2030.
- As of 2022, more than 1.9 million residents lived in the catchment's 13 LGAs, across inner city, suburban, growth and peri-urban areas.
- The population will shift westward and be increasingly based in the central and north-western parts of the region, particularly Wyndham, Melton and Hume.
- By 2030, almost half of the NWMPHN's population will reside in Wyndham, Hume, Brimbank, and Melton.
- Wyndham and Melton rank first and second for crude birth rate across all Victorian LGAs.
- NWMPHN's growth rate across all age cohorts will outstrip that of Victoria by 2030.
- The population aged 65 and older is experiencing the fastest growth rate, at 39.8 per cent. Inner-city and growth area LGAs account for most of this growth.
- The 15 to 24 age cohort is growing slowest, at 20.9 per cent, but still faster than Victoria as a whole, which is growing at 16.2 per cent.
- Most age cohorts living in the peri-urban areas of Macedon Ranges–*part a* and Moorabool–*part a* are estimated to grow at a rate well below other LGAs in the NWMPHN region and the state. The cohort comprising those 65 and older will grow the most.

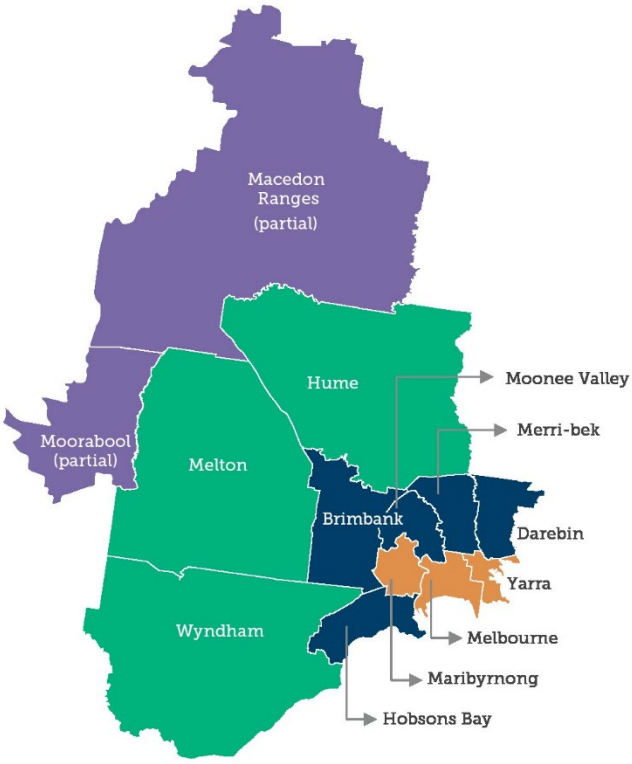


Figure 4. The 4 area types of NWMPHN

2.8 per cent of our population is in peri-urban areas: Macedon Ranges and Moorabool.

37.2 per cent of our population are in growth areas: Hume, Melton, Wyndham.

40 per cent of our population are in suburban areas: Brimbank, Darebin, Hobsons Bay, Moonee Valley and Merri-bek.

20 per cent of our population are in the inner city: Maribyrnong, Melbourne and Yarra.

Source: (Australian Bureau of Statistics (ABS), 2022; PHIDU, 2022)

Figure 5. Projected population 2022, 2025, 2030 and proportion growth by LGA.

Source: (Australian Bureau of Statistics (ABS), 2022; PHIDU, 2022).

2.3

Metric 2: Socio-demographic factors

- Quantified need based on socio-demographic factors
- Demographic factors
- Social disadvantage

2.3 Metric 2: Socio-demographic factors

Quantified need based on socio-demographic factors

Brimbank, Hume, and Melton have the highest level of need based on the Index of Relative Social Disadvantage (IRSD), a general socio-economic index that summarises a range of information about the economic and social conditions of people and households within an area.

The Australian average IRSD score is 1000. A lower score indicates a higher level of disadvantage. When the population is adjusted for socio-economic factors, Wyndham, Hume, and Brimbank continue to have the highest need.

Metric 2 recognises that a person's position in society can shape differences in experiences and vulnerability to health-compromising conditions. Socio-demographic factors also significantly impact health, including negative mental health and wellbeing consequences (Enticott et al., 2016; Kiely & Butterworth, 2013; Steele et al., 2015). IRSD[4] is used to identify the areas of most need as they relate to socio-economic status across the NWMPHN region.

Table 7. Quantified need based on socio-economic factors.

Area	LGA	Base need % of Projected population (2025)	% of SA1s with an IRSD index in deciles 1-4	Index of population with IRSD in deciles 1-4 by LGA	Adjusted population need
Inner city	Melbourne	9.8%	30.3%	0.07	9.5%
	Maribyrnong	5.3%	36.3%	0.08	5.6%
	Yarra	4.9%	12.8%	0.03	4.7%
Suburban	Brimbank	10.5%	83.1%	0.18	11.2%
	Darebin	8.3%	33.2%	0.07	8.2%
	Hobsons Bay	5.1%	33.3%	0.07	5.3%
	Moonee Valley	6.5%	12.3%	0.03	6.1%
	Merri-bek	9.6%	26.3%	0.06	9.2%
Growth area	Hume	12.7%	70.5%	0.15	13.0%
	Melton	9.2%	47.4%	0.10	9.3%
	Wyndham	15.3%	38.1%	0.08	14.6%
Peri-urban	Macedon Ranges - part a	1.6%	2.8%	0.01	1.5%
	Moorabool - part a	1.1%	36.4%	0.08	1.8%

Table notes: Pink shaded cells represent the top 3 LGAs with the highest indices for socio-economic factors. Purple shaded cells represent the top 3 LGAs with the highest proportion of need relative to other LGAs in the region.

[4] The Index of Relative Socio-economic Disadvantage (IRSD) summarises 20 variables that directly or indirectly contribute to disadvantage in a particular geographic location. The Australian average IRSD score is 1000. IRSD is calculated for each Statistical Area 1 (SA1) in Australia, each of which generally has a population of between 200 and 800 people. A lower score indicates a higher level of disadvantage.

Demographic factors

The NWMPHN catchment is culturally and linguistically diverse. The population is slightly younger on average compared to the rest of Victoria and, in some areas, has a higher proportion of people who are Aboriginal and Torres Strait Islander or LGBTIQ+.

- The region is more culturally and linguistically diverse than Victoria's overall profile, with more than 33 per cent of the population born in predominantly non-English speaking (NES) countries. The Victorian average is 24 per cent.
- Approximately 46 per cent of the NWM population speak a language other than English at home, with 240 languages spoken (33% in Victoria and 290 languages)(Australian Bureau of Statistics (ABS), 2021).
- More than 40 per cent of the population in Melbourne, Brimbank and Wyndham were born in a predominantly NES country, whereas only 5.5 per cent of the population of Macedon Ranges–*part a* were born in an NES country.
- Aboriginal and Torres Strait Islander people represent a slightly greater proportion of the population in the peri-urban area of Moorabool part a, at 1.4 per cent, compared with most other LGAs. The population in Darebin is one per cent, and Melton has 1.2 per cent. The Victorian figure is one per cent.
- The proportion of people who require assistance with core activities[5] such as self-care, mobility and communication ranges from 2.3 per cent in Melbourne to 7.7 per cent in Brimbank, noting a correlation with the numbers of older residents. The overall figure in Victoria is 6 per cent.
- The Victorian overall population of LGBTIQ+ people is 6 per cent. It is higher in Darebin (10.6 per cent), Yarra (10 per cent), Merri-bek (9.9 per cent), Melbourne (9.2 per cent), and Moonee Valley (8 per cent).
- The Victorian overall population of young people aged 0 to 24 is 30 per cent. It is higher in Melton (37 per cent), Wyndham (37 per cent), Hume (35.5 per cent), Macedon Ranges–*part a* (32 per cent), and Moorabool–*part a* (32 per cent).

[5] The "core activity need for assistance" variable from the ABS, records the number of people with a profound or severe core activity limitation. People with a profound or severe core activity limitation are those needing assistance in their day to day lives in one or more of the three core activity areas of self-care, mobility and communication because of a long-term health condition (lasting six months or more), a disability (lasting six months or more) or old age.

Figure 6. Priority populations as a percentage of LGA population.

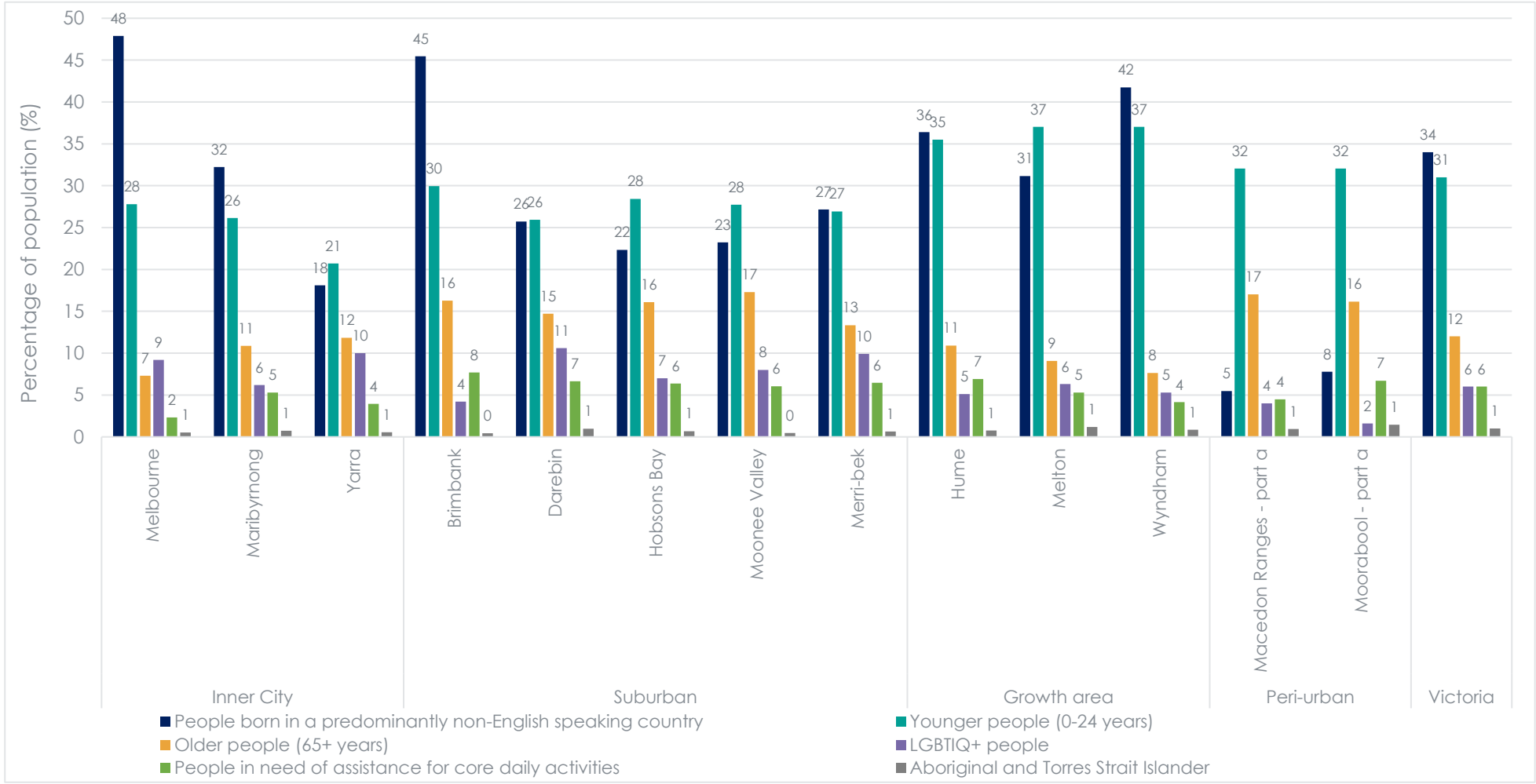


Figure note: Data labels are provided for younger people only to provide a point of reference, but a full view of proportions is provided in the supplementary file. LGBTQI+ is for Victoria and for people aged 18 years and older, calculated using data from The health and wellbeing of the lesbian, gay, bisexual, transgender, intersex and queer population in Victoria: Findings from the Victorian Population Health Survey 2017. The "core activity need for assistance" variable from the ABS, records the number of people with a profound or severe core activity limitation. People with a profound or severe core activity limitation are those needing assistance in their day to day lives in one or more of the three core activity areas of self-care, mobility and communication because of a long-term health condition (lasting six months or more), a disability (lasting six months or more) or old age.

Source: Census 2021, ABS; Victorian Population Health Survey 2017, Victorian Department of Health

Social disadvantage

There are areas of significant social disadvantage throughout the region. Brimbank LGA, however, ranks highly on all measured indicators.

High levels of socioeconomic disadvantage exist across Brimbank, Melton and Hume. Brimbank and Hume also had the greatest projected population growth. On the other hand, Wyndham, the fastest growing LGA in the catchment, did not rate highly in social disadvantage.

- There is localised disadvantage, concentrated in small areas, in all the LGAs in the NWMPHN region.
- Correlation between low English proficiency and socioeconomic disadvantage is higher for the NWMPHN region than in Victoria as a whole. Correlation does not imply causation.
- Highest levels of low English proficiency are found Brimbank, at 14 per cent, then Hume and Maribyrnong, both with 8 per cent.
- The individual income profile of the NWMPHN region is broadly similar to the Victorian distribution. The largest proportion of residents earning low incomes, defined as less than $41,600 a year, are found in Brimbank (54 per cent) and Hume (51 per cent). The average for the NWMPHN catchment is 44 per cent, slightly lower than the Victoria figure of 46 per cent.
- Five LGAs in the NWMPHN region – Brimbank, Hume, Moorabool–*part a*, Darebin, and Hobsons Bay – have a larger proportion than the Victorian figure of households which earned a very low or low income. Almost one-third of households in Brimbank (32 per cent) are very low or low income.

Table 8. Social disadvantage indicators; top 5 LGAs at greatest risk.

Low English proficiency (%)	Low individual income (<$41,600) (%)	Low or very low household income (<$65K) (%)	Housing stress (%)	Food insecurity (%)
Brimbank (14)	Brimbank (54)	Brimbank (32)	Melbourne (26)	Brimbank (10)
Hume (8)	Hume (51)	Hume (28)	Moorabool –part a (22)	Maribyrnong (8)
Maribyrnong (8)	Melton (46)	Moorabool –part a (28)	Hume (18)	Melton (7)
Wyndham (6)	Moorabool – part a (45)	Darebin (27)	Melton (16)	Moonee Valley (7)
Melton (5)	Wyndham (44)	Hobsons Bay (26)	Wyndham (16)	Hobson Bay (6)
Victoria (4)	**Victoria (46)**	Victoria (27)	-	**Victoria (6)**

Table note: Indicators are presented as a proportion of the population; colours represent specific LGA; "-": data is not available for Victoria. Proportion of low individual income: numerator is'<$41600 + Nil income' and denominator is 'Total population – Not applicable'.

Source: (Australian Bureau of Statistics (ABS), 2021)

2.4

Metric 3: Risk factors

- Quantified need based on risk factors
- Risk factors that affect mental health and wellbeing

2.4 Metric 3: Risk factors

Quantified need based on risk factors

Brimbank had the highest level of need related to risk factors, driven by child developmental vulnerability, family violence, obesity, and the number of people who are widowed. When the population is adjusted for risk factors, Wyndham, Hume, and Brimbank have the highest need.

Metric 3 captures attributes, characteristics, actions, and exposures that increase the likelihood of poor mental health and wellbeing. A large quantum of evidence demonstrates this relationship (Arango et al., 2021).

Table 9. Quantified need based on risk factors.

Area	LGA	Base need % of projected population (2025)	Index of population vulnerable 1+ domains AEDC*	Index of FV rates by 100,000*^	Index of population who have 2+ standard drinks per day* [6]	Index of population who are obese*^	Index of population who are widowed*	Adjusted average index	Average index as % of all LGAs	Adjusted population need
Inner city	Melbourne	9.8%	1.04	1.01	0.83	0.47	0.31	0.76	6.7%	9.5%
	Maribyrnong	5.3%	0.77	0.95	0.74	0.53	0.62	0.75	6.6%	5.4%
	Yarra	4.9%	0.93	0.88	1.24	0.50	0.52	0.82	7.2%	5.1%
Suburban	Brimbank	10.5%	1.47	1.04	0.51	1.15	0.90	1.04	9.2%	10.4%
	Darebin	8.3%	0.79	0.81	0.88	0.67	0.87	0.82	7.2%	8.2%
	Hobsons Bay	5.1%	0.82	0.80	0.96	0.93	0.87	0.86	7.6%	5.3%
	Moonee Valley	6.5%	0.67	0.75	0.98	0.77	0.89	0.80	7.1%	6.6%
	Merri-bek	9.6%	1.00	0.87	0.80	0.79	0.84	0.88	7.7%	9.4%
Growth area	Hume	12.7%	1.44	1.08	0.60	1.50	0.62	1.03	9.0%	12.3%
	Melton	9.2%	1.20	1.10	0.67	1.08	0.49	0.90	8.0%	9.1%
	Wyndham	15.3%	1.09	1.00	0.54	1.12	0.46	0.83	7.3%	14.5%
Peri-urban	Macedon Ranges - part a	1.6%	0.77	0.63	1.37	1.10	0.65	0.83	7.3%	2.2%
	Moorabool - part a	1.1%	1.10	0.93	1.13	1.50	0.83	1.03	9.1%	1.9%

Table notes: Index scores are an indicator of advantage (scores lower than 1) and disadvantage (scores greater than 1); *Indicators are an index of the Victorian average (calculated by the rate or % of LGA divided by the Victorian rate or %). Pink shaded cells represent the top 3 LGAs with the highest indices for individual risk factors. Purple shaded cells represent the top 3 LGAs with highest proportion of need relative to other LGAs in the region. ^Data only available at the LGA level, therefore, all of Macedon Ranges and Moorabool included.

[6] Please note, since this data was gathered, the NHMRC has adjusted its alcohol guidelines downwards. https://www.nhmrc.gov.au/health-advice/alcohol

Risk factors that affect mental health and wellbeing

The LGAs in the NWMPHN region with greatest disadvantage - Brimbank, Hume and Moorabool - have higher rates of risk factors that can affect mental health and wellbeing.

- These include developmental vulnerability in children, instances of family violence, and adults living with obesity (defined as a body mass index greater than 30). Additionally, these LGAs experience heightened levels of social disadvantage.
- Compared to the Victorian average, Melbourne, Brimbank, Hume, Melton, Wyndham, and Moorabool - part a exhibit high rates of developmental vulnerability in children.
- Melton, Hume, and Brimbank also have high rates of family violence incidents relative to the Victorian average.
- Generally, alcohol consumption at 'risky levels' was lower across NWMPHN LGAs compared with Victoria, except for Macedon Ranges–*part a*, Yarra, and Moorabool–*part a*.
- While the rates of adults living with obesity across the catchment were generally below the state average, Moorabool – part a and Hume had very high rates.
- The rate of people who were widowed in all catchment LGAs was below the Victorian average.

Table 7. Risk factors that affect mental health and wellbeing, top 5 LGAs with highest proportion of risk.

Vulnerable 1+ domains AEDC (%)	Rate of FV* by 100,000*	2+ standard drinks[7] (%)	Obese adults (%)*	Population who are widowed (%)
Brimbank (29)	Melton (1532)	Macedon Ranges – part a (20)	Moorabool (31)	Brimbank (4)
Hume (29)	Hume (1509)	Yarra (18)	Hume (31)	Moonee Valley (4)
Melton (24)	Brimbank (1454)	Moorabool – part a (16)	Brimbank (24)	Darebin (4)
Moorabool (22)	Wyndham (1398)	Moonee Valley (14)	Wyndham (23)	Hobsons Bay (4)
Wyndham (22)	Maribyrnong (1320)	Hobsons Bay (14)	Macedon Ranges (23)	Merri-Bek (4)
Victoria (20)	**Victoria (1394)**	**Victoria (14)**	**Victoria (21)**	**Victoria (5)**

Table note: Indicators are presented as a proportion of the population; colours represent specific LGA. *data available at LGA level only, therefore, all of Moorabool and Macedon Ranges included.

[7] Please note, since this data was gathered, the NHMRC has adjusted its alcohol guidelines downwards. https://www.nhmrc.gov.au/health-advice/alcohol

2.5

Metric 4: Access and geographical environment

- Quantified need based on access and geographical environment
- Geographical environment
- Framing access to primary health care
- Summary of key findings - access to primary health care indicators
- Availability coverage
- Accessibility coverage
- Contact coverage
- Effective coverage

2.5 Metric 4: Access and geographical environment

Quantified need based on access and geographical environment

Wyndham and Melton have the highest level of need related to access and geographical environment. Wyndham, Hume and Brimbank continue to have the highest need when population is adjusted for access and geographical environment.

Metric 4 refers to factors that affect access to health care, as well as the physical environment in which individuals live. The health system itself is a social determinant and plays an important role in mediating the differential consequences of illness and mental health conditions (World Health Organisation, 2021). Geographical maldistribution of health professionals and attributes that affect the liveability of an area also contribute to poorer mental health outcomes. These attributes include the location of parks and other social infrastructure.

General practitioners perform a gatekeeping role to the rest of the health system in Australia, regulating access to specialists, for example, through referrals (Farrer et al., 2018). Often GPs are the first point of contact and play a substantial role in facilitating access to other health providers for chronic disease management, including mental illness.

Thus, understanding access to GPs is critical when determining the mental health needs of any population. Access to mental health care facilities, medications, specialists and allied health care professionals such as psychologists, psychiatrists, nurses, and support staff are important determinants of the mental health need in a region. However, this analysis is limited by the availability of workforce data, which we only have access to at an LGA-level for GPs, psychologists, and nurses and midwives.

Table 10. Quantified need based on access and geographic environment factors.

Area	LGA	Base need % of projected population (2025)	Liveability index*	Index of GP workforce (FTE) per 100,000 people**	Index of psychologist workforce (FTE) per 100,000 people**	Index of avoidable ED presentation due to mental and behavioural disorders per 100,000^	Adjusted average index	Average index as % of all LGAs	Adjusted population need
Inner city	Melbourne	9.8%	0.93	1.32	0.22	1.57	1.01	7.3%	9.3%
	Maribyrnong	5.3%	0.96	0.83	0.83	1.19	0.96	6.9%	5.6%
	Yarra	4.9%	0.93	0.78	0.24	1.57	0.88	6.3%	5.2%
Suburban	Brimbank	10.5%	1.01	0.83	1.76	1.01	1.15	8.3%	10.1%
	Darebin	8.3%	0.97	1.12	0.72	0.93	0.94	6.7%	8.0%
	Hobsons Bay	5.1%	0.99	1.24	1.12	1.02	1.09	7.8%	5.6%
	Moonee Valley	6.5%	0.97	0.88	0.57	1.17	0.90	6.5%	6.5%
	Merri-bek	9.6%	0.97	0.98	0.84	1.32	1.03	7.4%	9.2%
Growth areas	Hume	12.7%	1.02	1.04	2.45	0.64	1.29	9.3%	12.0%
	Melton	9.2%	1.04	1.46	2.77	0.74	1.50	10.8%	9.5%
	Wyndham	15.3%	1.02	1.00	2.79	0.64	1.36	9.8%	14.2%
Peri-urban	Macedon Ranges - part a	1.6%	1.05	0.89	1.38	0.30	0.90	6.5%	2.6%
	Moorabool - part a	1.1%	1.03	0.86	1.34	0.33	0.89	6.4%	2.2%

Table notes: Index scores are an indicator of advantage (scores lower than 1) and disadvantage (scores greater than 1); *Index of Greater Melbourne average (calculated by Greater Melbourne liveability index divided by LGA liveability index); **Index of Victorian rate (Victorian rate divided by LGA rate); ^Index of Victorian rate (LGA rate divided by Victorian rate). Pink shaded cells represent the top 3 LGAs with the highest indices for individual access indicators. Purple shaded cells represent the top 3 LGAs with highest proportion of need relative to other LGAs in the region

Geographical environment

The physical environment is an important factor that influences people's decisions and behaviours, which can impact mental health and access to health care services. Liveability and safety levels of a person's residence can affect overall health outcomes, including mental health and wellbeing.

Liveability is the sum of the factors that add up to a community's quality of life. These include the built and natural environments, economic prosperity, social stability and equity, educational opportunity, and cultural, entertainment and recreation possibilities (Davern et al., 2023; Gunn et al., 2020). Research has shown that perceived liveability is linked to self-reported mental health (Oviedo et al., 2022).

Feeling safe is crucial for personal wellbeing. Being victimised or witnessing a crime can lead to negative consequences, including short and long-term physical, psychological, emotional, and financial suffering. Furthermore, the fear of crime can have adverse effects on emotional and physical wellbeing. It may prompt individuals to take precautions to protect themselves from physical harm and secure their belongings. Neighbourhood crime may be associated with important barriers to accessing health-enabling resources in urban communities (Tung et al., 2018).

- Improved 'liveability[8]' broadly correlates with proximity to the Melbourne city centre.
- Offender rates[9] have seen a general decline since 2020 across the NWMPHN catchment. However, Melbourne, Yarra and Maribyrnong have alleged offender incident rates higher than the Victorian average, recording 6,889, 3,366 and 2,828 per 100,000 people respectively.

More data about the geographical environment can be found in the supplementary file (metric 3).

For detailed information on the specific measures and indicators that contribute to the Liveability Index please follow this link or visit the Australian Urban Observatory website.

[8] Liveability uses the following measures; social infrastructure, walkability, public transport, public open space, housing affordability, and local employment to create an overall Liveability Index.
See (Gunn et al., 2020) for more detail.

[9] Victorian data provides information about incidents which have been linked to an alleged offender and of which the majority are property and deception offences or 'crimes against the person' (for example, assault) (Crime Statistics Agency Victoria, 2022).

Table 11. Summary of Liveability Index by LGA, 2021.

Region	LGA	Liveability Index	Liveability indicators with disadvantage*	Score for disadvantaged indicators
Inner city	Melbourne	106.3	Alcohol environment	0.2
	Maribyrnong	102.5	Alcohol environment	0.5
	Yarra	105.9	Alcohol environment	0.2
Suburban	Brimbank	98.1	Health Infrastructure; Public Transport Access; Food environment	1.7 40 1.3
	Darebin	101.9	Alcohol environment	0.6
	Hobsons Bay	100.2	Alcohol environment	0.7
	Moonee Valley	101.6	Alcohol environment	0.6
	Merri-bek	101.5	Alcohol environment	0.5
Growth area	Hume	96.5	Health Infrastructure; Access to bulk-billing GP clinics; Public Transport Access; Food environment	1.3 1.4 34 1.6
	Melton	95.1	Health Infrastructure; Access to bulk-billing GP clinics; Public Transport Access; Food environment	0.9 2.3 22 1.7
	Wyndham	96.5	Health Infrastructure; Access to bulk-billing GP clinics; Public Transport Access; Food environment	1.1 1.4 25 1.5
Peri-urban	Macedon Ranges – part a	94.6	Health Infrastructure; Access to bulk-billing GP clinics; Public Transport Access**; Food environment**	1.0 2.9 3 1.7
	Moorabool– part a	96.4	Health Infrastructure; Access to bulk-billing GP clinics; Public Transport Access**; Food environment**	1.1 1.4 11 1.8

Table notes: *Disadvantage when compared with the Greater Melbourne average (Liveability index = 98.9, Health infrastructure = 2.2, access to bulk-billing GP clinics = 1.3, public transport = 46, food environment = 1.3, alcohol environment = 0.9). **Public transport and food environment data comes from the entire LGA of Macedon Ranges and Moorabool, which include areas not in the NWMPHN catchment. Alcohol environment measures the distance (km) to the closest off-licence [10] retailer. Access to GP clinics: Average distance (km) to the nearest GP clinic offering a Medicare bulk-billing payment system where a patient has no out-of- pocket expenses. Food environment: Average distance (km) to closest healthy food outlet including supermarket or greengrocer. Public transport: Percentage of dwellings within 400 m of public transport with a regular 30-minute weekday service.

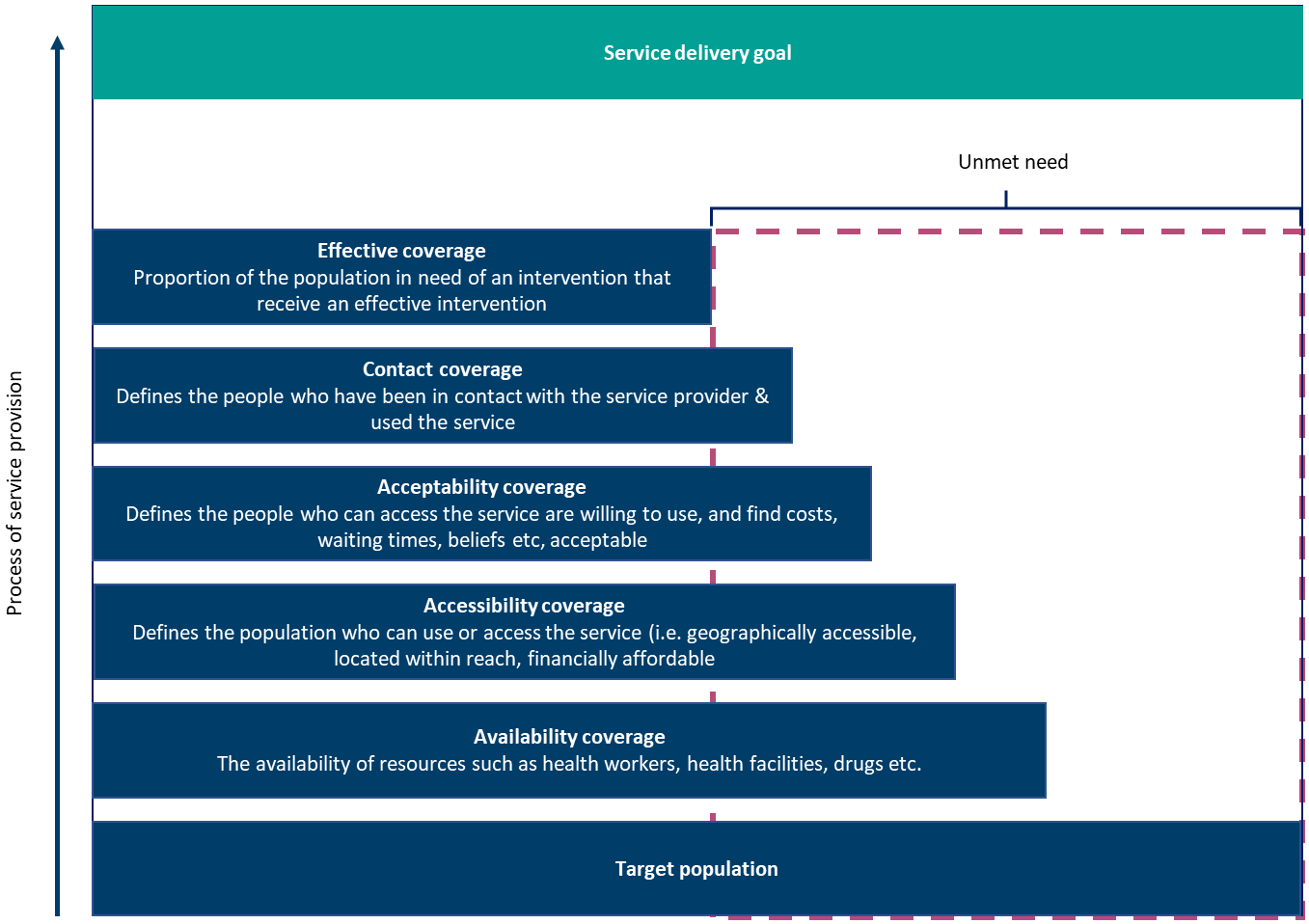
Data Source: Australian Urban Observatory, 2021 (Davern et al., 2023).

[10] Outlets that sell alcohol which can be purchased and taken away to consume elsewhere are known as off-licence retailers.

Framing access to primary health care

Consistent with the NWMPHN Access and Equity Framework (NWMPHN, 2021), we use Tanahashi's model of evaluating health service coverage (Tanahashi, 1978). Tanahashi considers 5 elements necessary for effective health service coverage, as shown in Figure 7. At each coverage level, various factors within the health system interact to influence who has access to services. The following section is organised according to these concepts.

Figure 7. Tanahashi's model of evaluating health service coverage.



This section includes reference to several technical indicators, variables and specific mental health services. Table 12 provides definitions to help with the navigation and understanding the key insights.

Table 12. Key terms and definitions used in Metric 4 – Access and geographic environment.

Term	Definition
Health infrastructure subdomain	Health infrastructure subdomain is an indicator measured in the Liveability Report for Australia's 21 largest cities included in the Australian Urban Observatory. The health Infrastructure subdomain is derived from the Social Infrastructure[11] Index which includes access to residential aged care facilities, dentists, general practitioners, pharmacies, community health centres and maternal child and family health centres, with a minimum score of 0 and maximum score of 6.
DirectLine telephone service	Data for counselling, information and referral-based telephone calls are extracted from Turning Point's DirectLine database, which includes 24-hour services provided to Victorians to discuss alcohol and other drug related issues. Directline is only one of many helplines which provide services to people across the country or state
Head to Health	Head to Health is a phone service that offers mental health navigation and access for people seeking support for their mental health needs. Head to Health services are provided from within each primary health network, and from hubs and commissioned treatment centres. The primary health network phone service operators conduct assessments, make referrals or provide information to clients on where to seek alternative support.
The Initial Assessment and Referral Decision Support Tool (IAR-DST)	The IAR-DST uses a standardised approach to assess aspects of a person's mental health, including symptoms, functioning, risk of harm, and co-existing conditions. This assessment is usually done by a health care professional, such as a GP or mental health clinician. For more detail, see Appendix A.
CAREinMIND™	CAREinMIND is a program that provides primary mental health care for people who face barriers to accessing or affording other services. It is funded by North Western Melbourne Primary Health Network and delivers: telephone counselling, psychological support, case management, clinical care coordination and suicide prevention support.
Avoidable ED	There is a lack of consensus regarding the definition of a potentially avoidable ED presentation. The Australian Institute of Health and Welfare (AIHW) has proposed a definition for 'potentially avoidable general practitioner-type presentations to emergency. For the purpose of our analysis specific to mental health, we have adapted AIHW's definition. Thus: Presentations to public hospital emergency departments with a type of presentation where the patient: • had a principal diagnosis of any mental health condition and • was allocated a triage category of 4 (semi-urgent: within 60 minutes) or 5 (non-urgent: within 120 minutes) and • did not arrive by ambulance, or police or correctional vehicle and • departure status was to "Home" or "Referred to GP" or "Residential care facility" and • was not admitted to the hospital, not referred to another hospital, or did not die.
PAT CAT	The Practice Aggregation Tool for the Clinical Audit Tool (PAT CAT) is a tool used by general practices in the region to submit de-identified data to NWMPHN. In 2020-21, there were 390 general practices actively using PAT CAT. GPs can review any submitted data for quality checking purposes.

[11] Social infrastructure includes community and individual support services and resources such as health, education, early childhood, community support, community development, culture, sport and recreation, parks and emergency services. It is associated with people's improved physical and mental health and their increased satisfaction with the area in which they live.

Summary of key findings - access to primary health care indicators

The most populated and disadvantaged LGAs had the highest levels of disadvantage related to indicators of access.

Table 13 provides an overview of the key access to primary health care indicator findings. Further detail is provided in the supplementary file (metric 4).

	The most populated and disadvantaged LGAs – Brimbank, Wyndham, Hume, and Melton – have significant workforce shortages and less health infrastructure[12] compared with Victoria overall. Residents also have further to travel to the closest bulk-billing GP clinic and generally higher utilisation rates.
	The most populated and disadvantaged LGAs – Brimbank, Wyndham, Hume, and Melton – have significant workforce shortages and less health infrastructure[13] compared with Victoria overall. Residents also have further to travel to the closest bulk-billing GP clinic and generally higher utilisation rates.
	The same LGAs also have lower than average rates of avoidable ED presentations.
	Inner city areas were less likely to have workforce shortages – except for Melbourne LGA, which has a GP shortage – and higher out-of-pocket costs for psychiatrists and psychologists. Despite the higher relative cost, the utilisation rates are higher for psychiatrists, psychologists and GPs.
	Across suburban areas, the pattern was less clear. As noted, Brimbank had relative disadvantage across many of the indicators. However, Hobsons Bay was the only other LGA with psychiatrist and psychologist workforce shortages. Unlike Brimbank, out-of-pocket costs were more likely in Hobsons Bay, Darebin (which also had lower utilisation rates of psychiatry and psychology services), and Merri-bek. Avoidable EDs were higher in Hobsons Bay, Moonee Ponds, and Merri-bek.
	The peri-urban LGAs of Macedon Ranges–*part a,* and Moorabool–*part a*, have psychologist workforce shortages and less health infrastructure. Out-of-pocket costs were relatively higher in Macedon Ranges–*part a*, and there was a lower rate of avoidable ED presentations.

[12] The Health Infrastructure Index (0-6) is based upon the availability of residential aged care, GPs, pharmacies, community health and MCH centres in an area (SA1)
[13] The Health Infrastructure Index (0-6) is based upon the availability of residential aged care, GPs, pharmacies, community health and MCH centres in an area (SA1)

Table 13. Summary findings across key indicators of mental health care access, 2021-22.

Section	Indicators	Inner city			Suburban					Growth area			Peri-urban	
		Melbourne	Maribyrnong	Yarra	Brimbank	Darebin	Hobsons Bay	Moonee Valley	Merri-bek	Hume	Melton	Wyndham	Macedon Ranges	Moorabool -
Availability coverage	General practitioners workforce shortages in 2022*	■				■	■			■	■	■		
	Nurses and midwives workforce shortages in 2021*		■		■	■	■	■	■	■	■	■	■	■
	Psychologist workforce shortages in 2021*				■		■			■	■	■	■	■
	Health Infrastructure Index^				■					■	■	■	■	■
Accessibility coverage	Distance to closest bulk-billing GP clinic with no out-of-pocket costs^									■	■	■		■
	Out-of-pocket cost per service - GP in 2021-22**			■		■			■				■	
	Out-of-pocket cost per service – psychiatrists and psychologists in 2021-22**	■	■	■		■	■		■				■	
	Out-of-pocket cost per service - nursing and Aboriginal health workers in 2021-22**	■	■	■		■			■	■				
Contact coverage	Utilisation rate of Medicare-subsidised service - GP in 2021-22**				■						■	■		■
	Utilisation rate of Medicare-subsidised service – psychiatry and psychology in 2021-22**	■				■	■			■	■	■		■
	Utilisation rate of Medicare-subsidised service - Nursing and Aboriginal Health Workers in 2021/22**	■	■	■	■	■	■	■	■	■	■	■	■	■
	DirectLine telephone services per 100,000 population*				■		■	■		■	■	■	■	■
	Rate of Head to Health IAR per 100,000 population in 2022-23***	■	■	■	■	■	■	■			■			
	Rate of CAREinMIND referrals per 100,000 population in 2022-23***	■				■	■	■		■	■		■	
Effective coverage	Rates of Avoidable ED presentation per 100,000 population in 2022-23^^	■	■	■	■		■	■	■					

Data sources: (Department of Health and Aged Care (DoHAC), 2022); (Australian Government Department of Health and Aged Care (DoHAC), 2021); (North Western Melbourne Primary Health Network (NWMPHN) Pen CS, 2023); (Australian Institute of Health and Welfare (AIHW), 2022); Victorian Admitted Episodes Dataset, Victorian Department of Health, 2022/23;ABS, 2021; ABS, 2022
Table notes: LGAs with disadvantages are highlighted in pink.

*LGAs with disadvantage are defined when their rates are lower (or costs/distance are higher) than Victorian level.
**LGAs with disadvantage are defined when their rates are lower (or costs/distance are higher) than national level.
***LGAs with disadvantage are defined when their rates are lower (or costs/distance are higher) than NWMPHN level.
^LGAs with disadvantage are defined when their rates are lower (or costs/distance are higher) than the Greater Melbourne level.
^^ LGAs with disadvantage are defined when their rates are higher than Victorian level.

Availability coverage

The GP workforce is declining, and the psychologist workforce is growing across the NWMPHN region. However, there are still shortages of psychologists, most prevalent in the growth areas of Hume, Melton, and Wyndham.

The vast majority of mental health and wellbeing services are offered as low and moderate intensity levels of care. There are relatively few services that specifically identify Aboriginal and Torres Strait Islander, culturally and linguistically diverse, LGBTIQ +, or patients with alcohol and other drugs challenges as target cohorts.

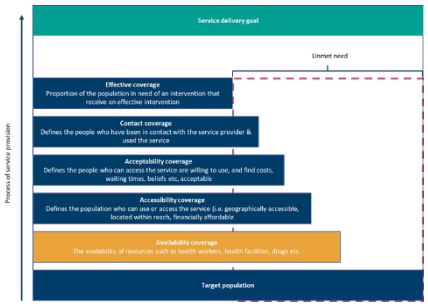


Figure 8:-Tanahashi's model - availability coverage

Health workforce

- Melton and Hume have fewer GPs and psychologists per capita than the Victorian average. In addition, Wyndham and Macedon Ranges–*part a* have psychologists and nurses and midwives FTE rates lower than the Victorian average.
- The trend of declining GPs per capita from 2021 to 2022 in the region is also concerning, particularly for Hume, Melton, and Moorabool- *part a*. In addition, there are significant GP workforce shortages in Melbourne and Hobsons Bay.
- Availability of psychologists declined from 2020 to 2021 in Hobsons Bay, Macedon Ranges- *part a*, Melton, and Brimbank. These LGAs also have psychologists FTE rates below the Victorian average.

Table 14. Top 5 LGAs with workforce shortages.

GP FTE per 100,000 population in 2022	Psychologists FTE per 100,000 population in 2021	Nurses and midwives FTE per 100,000 population in 2021
Melton (82)	Wyndham (22)	Moorabool - part a (100)
Melbourne (90)	Melton (22)	Moonee Valley (116)
Hobsons Bay (96)	Hume (25)	Macedon Ranges - part a (120)
Darebin (106)	Brimbank (35)	Darebin (120)
Hume (115)	Macedon Ranges - part a (45)	Wyndham (121)
Victoria (120)	**Victoria (61)**	**Victoria (220)**

Table notes: The top 5 LGAs ranked with the lowest FTE rates. Rates calculated are crude rates using the total FTE as the numerator and the population of the LGA as the denominator. 2022 ERP was used to calculate GP FTE rates. 2021 URP was used to calculate psychologists and nurses/midwives FTE rates.

Data Source: HeaDSUPP, 2021-2022

Social infrastructure and mental health service providers

In 2023, NWMPHN undertook a service mapping exercise which included collating information about the availability of mental health and wellbeing services and the intensity of support offered. It found:

- The availability of social infrastructure is highest in inner city LGAs.
- There are 515 mental health and wellbeing services available to people within the NWMPHN catchment. Of these, 314 are located physically within the catchment.
- 96 per cent of the available mental health services are delivered in-person.
- As shown in Figure 8, the majority of mental health and wellbeing services available to NWMPHN residents offer services with a low to moderate intensity level of care, as defined by the Initial Assessment and Referral – Decision Support Tool. (See Appendix A. for full definitions of the IAR-DST levels of care.)

Figure 9. Number of services available for NWMPHN mapped to level of care as defined by the IAR-DST

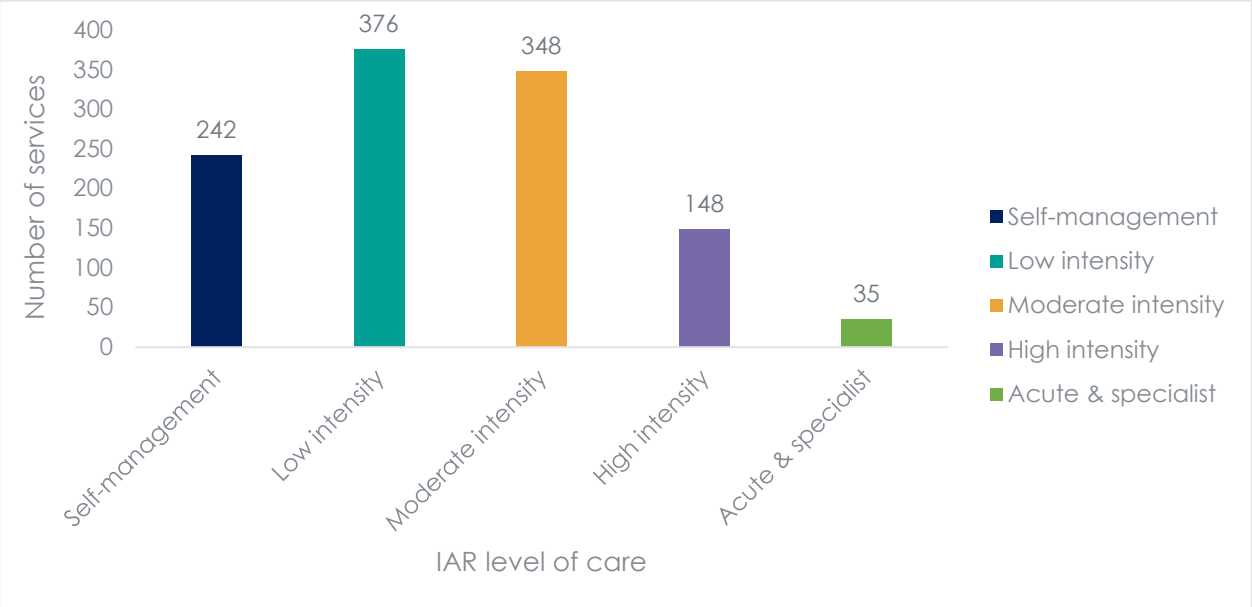


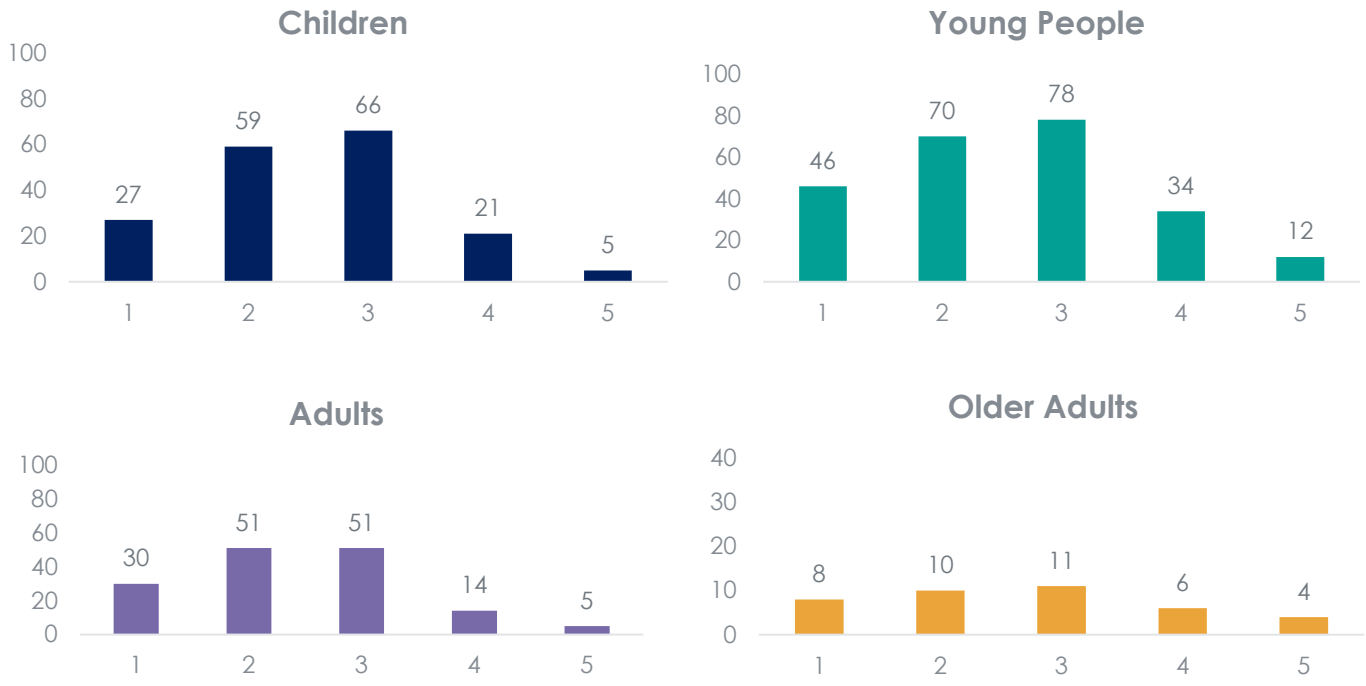
Figure note: Some services may deliver support across multiple levels of care. This chart reports the total number of services available for NWMPHN at that IAR level.

Targeted mental health and wellbeing services

The service mapping exercise looked at the availability of targeted services. This was when a service self-identified as providing support to a 'target' population via publicly recorded information. It does not include services that do not self-nominate as catering to a particular population.

- In terms of services available to different age cohorts there were only 19 that specifically identified as targeting older adults compared with the other age cohorts. Young people (12- 25 years) were the most identified targeted cohort, with 100 service providers active.
- Similar to the levels of care overall, most services offered low and moderate intensity care across all age cohorts. Very few offered acute and specialist services.

Figure 10. Number of services targeted to different age cohorts by IAR intensity distribution.



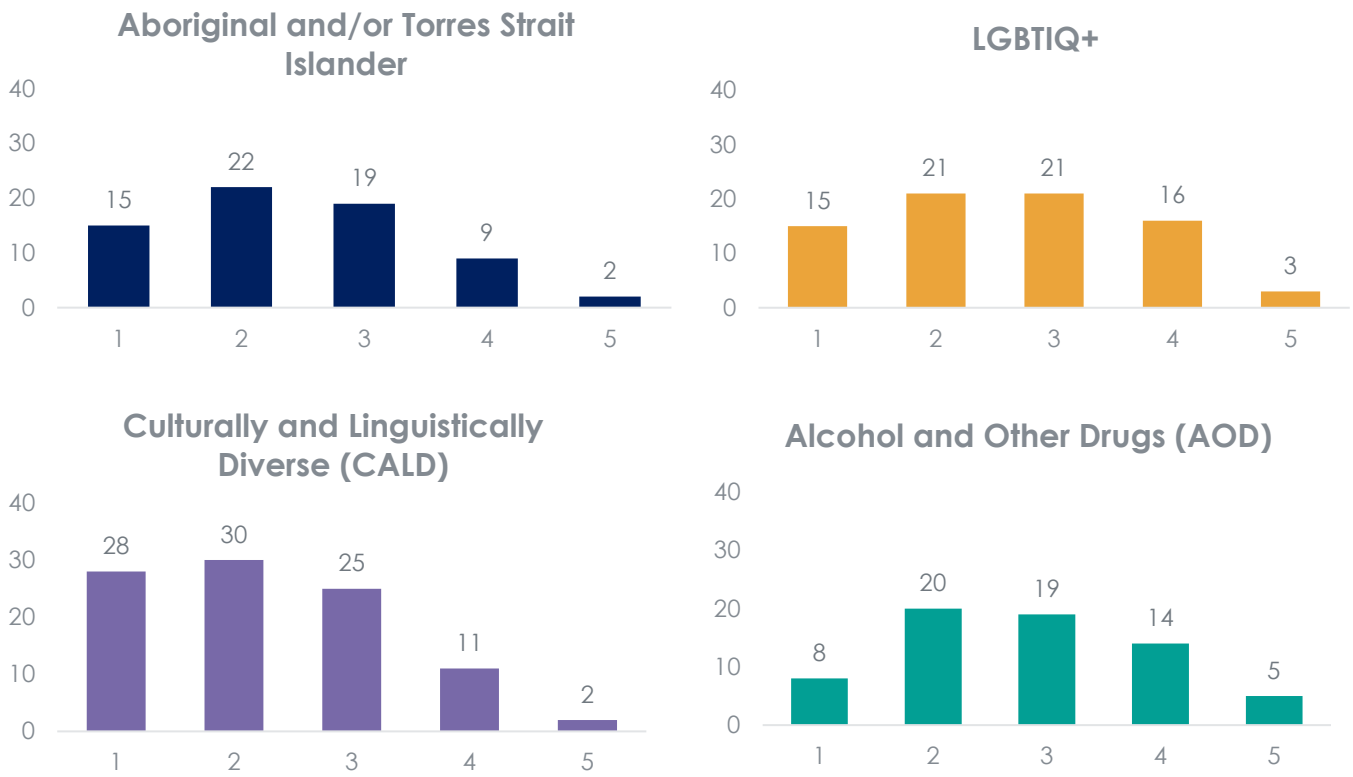
1. Self-management 2. Low intensity 3. Moderate intensity 4. High intensity 5. Specialist

Figure notes: Services that target certain age demographics refers to services that specifically target that population to use their service and does not include services that are catered for all demographics. Some services may deliver support across multiple levels of care.

There were also several subpopulations of interest: Aboriginal and Torres Strait Islanders, culturally and linguistically diverse people, LGBTIQ+ people, and people with alcohol and other drugs challenges. The key insights are:

- There were relatively few services that self-identified as targeting each of the subpopulations.
- Following a similar pattern to the age cohorts and findings overall most services offered low and moderate levels of care and very few acute and specialist services (i.e. high intensity and/or complexity).
- Note that a limitation of these findings is that it relies on publicly available information and does not account for services that may have programs in place or provisions such as translators for specific populations. Thus, is not necessarily reflective of "true accessibility" within the catchment.

Figure 11. Number of services by IAR-DST intensity distribution across target populations.



1. Self-management 2. Low intensity 3. Moderate intensity 4. High intensity 5. Specialist

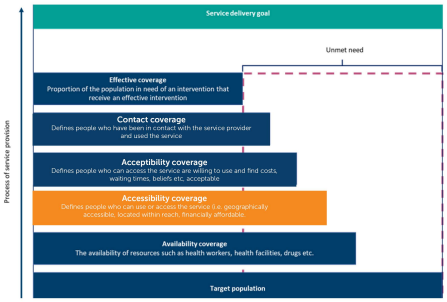
Figure note: Services that target populations refers to services that specifically target that demographic to use their service. Some services may deliver support across multiple levels of care.

Accessibility coverage

Accessibility coverage includes geographic accessibility, financial affordability, and physical accessibility to health care services. Specifically relevant to mental health are GP, psychological and psychiatric accessibility.

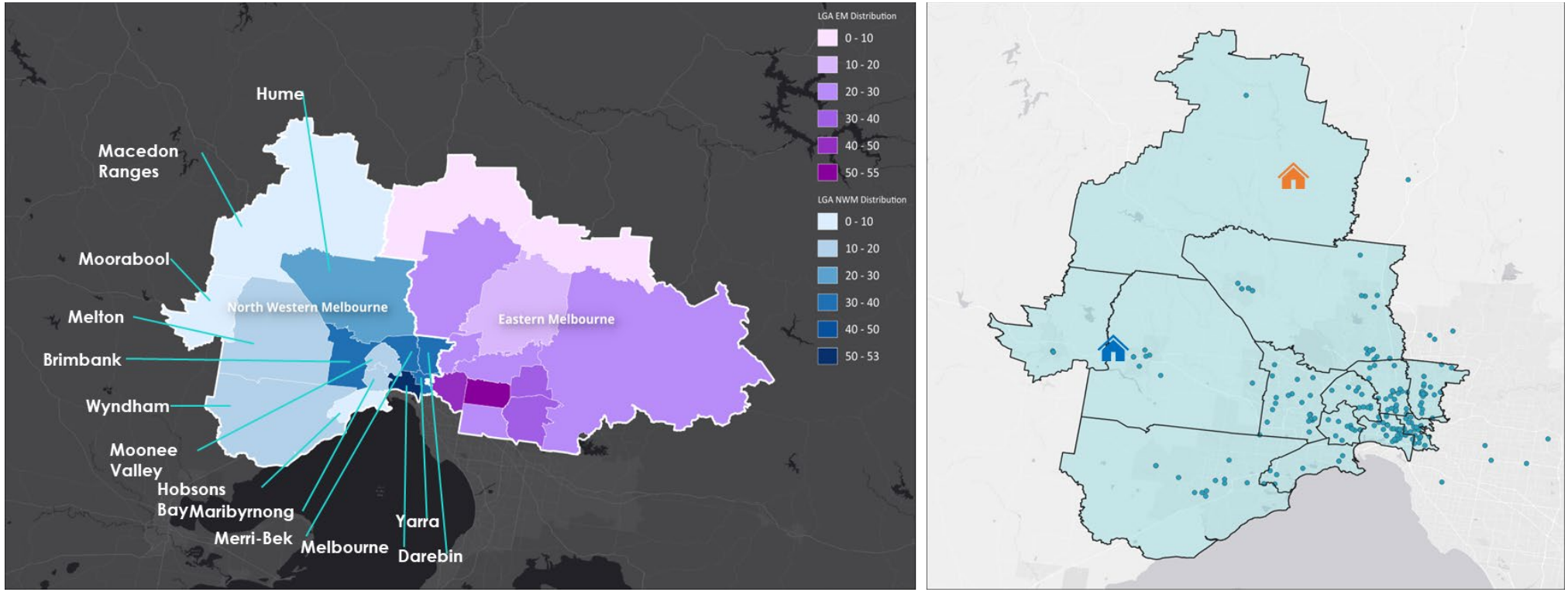
Mental health services are concentrated in the inner-city area.

Out-of-pocket costs are also higher in inner-city areas, Darebin, Hobsons Bay, and Merri-bek.



- Melton, Wyndham, Hume and Moorabool-*part a* have relative disadvantage in terms of distance to the closest bulk-billing GP clinic. However, they also have lower out-of-pocket costs than the national average on Medicare services for GPs, psychologists and psychiatrists.
- Yarra, Darebin, Merri-bek and Macedon Ranges-*part a* have a higher NWMPHN region average out-of-pocket spending on general practice and mental health services such as psychiatrists and psychologists.
- Mental health services based in the NWMPHN region (identified through desktop service mapping) are mainly concentrated in the Melbourne LGA. Accessibility decreases with distance from the CBD (Figure 12).
- Over 60 per cent of the services identified in the NWMPHN region service mapping are in Yarra, Darebin, Merri-bek and Melbourne LGAs.
- There are much fewer mental health services available in the peri-urban areas of Moorabool and Macedon Ranges.
- Despite large populations, the growth area LGAs of Melton, Wyndham and Hume also have fewer mental health services compared with the CBD, noting that distance from the CBD doesn't tell the full story. See Figure 12 for a depiction of 2 houses equidistant from the CBD but with very different patterns of access.
- According to data from Medicare Benefits Scheme (MBS) mental health-related out-of-pocket costs constitute 47 per cent of the total out-of-pocket costs in the NWMPHN catchment (Figure 13).

Figure 12. (LHS) Heat map of the density of in-person services and postcode 'pockets' within some LGAs with varying levels of in-person accessibility (especially in outer LGAs including Wyndham, Macedon Ranges and Hume).



Note: Map 1 (LHS) heat map – darker for higher density of in-person services compared to Map 2 (RHS) scatterplot – shows access varies within LGAs even in outer regions (blue house – good access to services, orange house similar distance from CBD but longer distance to services).

Figure 13. Distribution of all MBS items by total out-of-pocket costs in NWMPHN catchment area, 2021-22.

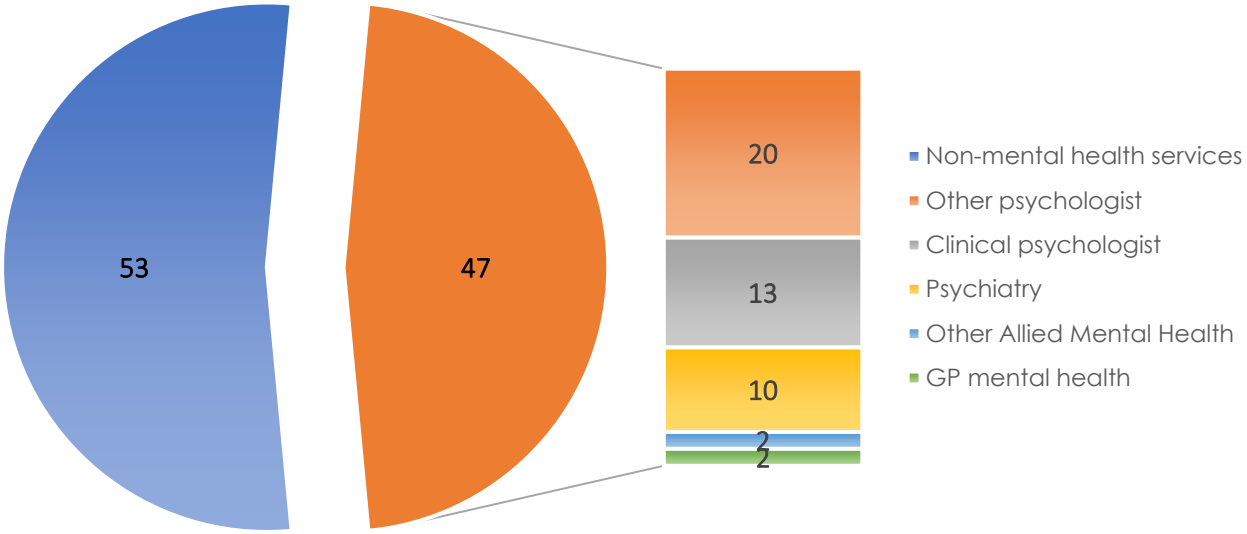


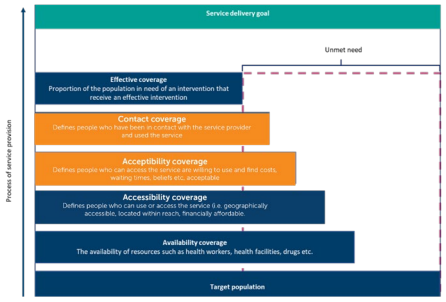
Figure notes: Left part of the chart indicates non-mental health services (53%) while the dark orange indicates all mental health services (47%). Out-of-pocket costs are calculated as 'Total provider fees' – 'Total Medicare benefits paid'

Data source: Australian Institute of Health and Welfare (AIHW) analysis of Department of Health and Aged Care, Medicare Benefits Schedule (MBS) claims data, 2022

Acceptability coverage

Acceptability coverage refers to the extent to which people are willing to access the health care services because they find the costs, wait times, and attitudes toward treatment acceptable.

Due to the absence of relevant available quantitative data, findings related to acceptability are covered through consultation with Community and Health Service Providers.



Contact coverage

Contact coverage is an important measure of health care access because it reflects the ability of individuals to obtain the care they need, including mental health services, when they need it.

According to an Australian study, users of mental health services from all categories of mental health disorders visited GPs more often than non-users. Those with more severe mental illness visited GPs more often than those with less severe mental illness. The results were similar in metropolitan, rural or remote areas (Mai et al., 2010).

Previous Australian research has also indicated that individuals diagnosed with affective, anxiety, or substance abuse disorders, and those who self-identify as experiencing depression or anxiety, are strong predictors of mental health service utilisation (Parslow & Jorm, 2000).

However, research has also found that many people with mental health problems attend primary medical care practitioners without presenting these problems to their physicians. When patients do present with mental health problems, they tend to perceive needs for medication as well met, but there is substantial unmet perceived need for interventions in social and occupational domains, including housing and financial difficulties, and self-care. Perceived needs of patients for counselling are less well met where the GP is the sole provider (Meadows et al., 2001).

Utilisation rates

This section presents key findings pertaining to the utilisation rates of Medicare-subsidised services provided by GPs, psychologists and psychiatrists. Utilisation rates indicate the population accessing these services.

GP utilisation rates in the NWMPHN catchment were higher than the state average, except in areas of higher disadvantage. There were more LGAs with relatively lower utilisation rates of psychiatry and psychology services. These areas encompassed highly disadvantaged regions, including Melbourne, Darebin, and Hobsons Bay.

- Utilisation rates of Medicare-subsidised mental health services were low in the growth areas of Wyndham and Melton, as well as in areas with relatively more disadvantage, such as Brimbank. However, utilisation of Medicare-subsidised GP services in these areas were above average.
- Out-of-pocket costs for mental health services were high in Yarra, Darebin and Merri-bek, but utilisation rates of these services were greater compared with other LGAs in the region.
- Utilisation rates of MBS items concerning general health care services for nursing and Aboriginal health workers were low across all LGAs (noting there are only 2 Aboriginal Community Controlled Health Organisations in the NWMPHN).

Table 15. Out-of-pocket cost and utilisation rates of Medicare-subsidised service by SA3 in NWMPHN, FY 2021/22

SA3 name [14]	Estimated resident population	GP attendances			Mental health services attendances			Nursing and Aboriginal Health Workers		
		Percentage of people who had the service (%)	Services per 100 people	Out-of-pocket cost per Service ($)*	Percentage of people who had the service (%)	Services per 100 people	Out-of-pocket cost per Service ($)*	Percentage of people who had the service (%)	Services per 100 people	Out-of-pocket cost per Service ($)*
Brimbank	188,119	93%	866	$1	4.0%	21	$38	7.2%	12	$1
Brunswick - Coburg	91,088	86%	718	$7	11.0%	77	$64	5.4%	10	$6
Darebin - North	96,454	87%	764	$4	6.9%	45	$56	5.3%	9	$3
Darebin - South	53,881	89%	680	$11	11.6%	82	$67	4.0%	6	$5
Essendon	69,440	90%	718	$6	7.4%	45	$64	4.2%	7	$5
Hobsons Bay	87,464	92%	750	$4	6.6%	40	$62	5.2%	9	$4
Keilor	62,120	95%	895	$4	6.0%	33	$57	6.1%	10	$4
Macedon Ranges	33,198	98%	811	$6	7.0%	38	$57	7.3%	14	$3
Maribyrnong	86,398	87%	708	$5	7.8%	50	$59	3.7%	7	$6
Melbourne City	153,655	65%	533	$8	5.6%	37	$65	3.5%	7	$3
Melton - Bacchus Marsh	200,971	91%	801	$2	4.5%	23	$36	8.0%	13	$1
Moreland - North	81,492	87%	816	$3	6.2%	37	$52	6.8%	13	$3
Sunbury	45,444	95%	897	$2	6.9%	39	$47	7.2%	13	$2
Tullamarine - Broadmeadows	206,700	93%	865	$1	4.2%	21	$30	8.7%	14	$1
Wyndham	301,004	90%	795	$1	3.3%	17	$42	6.4%	9	$1
Yarra	92,504	83%	608	$11	10.0%	68	$70	3.0%	5	$7
National	**25,688,079**	**90%**	**735**	**$5**	**5.1%**	**28**	**$53**	**8.1%**	**16**	**$2**

Table notes: *SA3s with disadvantages (higher cost/lower rates) relative to the national average level are highlighted in pink. Note: 1) All results are based on the patient's Medicare enrolment postcode, not where they received the health care service. Patients may use services outside of their Medicare enrolment postcode. 2)This release includes non-hospital Medicare-subsidised services only. 3) Out of pocket cost per Service: calculated as the total out-of-pocket cost ('Total provider fees' - 'Total Medicare benefits paid') divided by the total number of attendances who reside in the area who claimed the specified service type ('No. of services').

Data Source: Australian Institute of Health and Welfare (AIHW) analysis of Department of Health and Aged Care, Medicare Benefits Schedule (MBS) claims data, 2021–22 (Australian Institute of Health and Welfare (AIHW), 2022)

[14] SA3 refers to Statistical Area Level 3, a geographical unit defined by the Australian Bureau of Statistics (ABS) and provides a regional data breakdown characterised by populations between 30,000-130,000 people. They are built by grouping together whole SA2, which represent smaller communities.

NWMPHN general practice data

This section presents key findings about people in the NWMPHN region obtaining care from their GP for diagnosed mental health conditions, analysed using GP data from Practice Aggregation Tool for the Clinical Audit Tool (PAT CAT).

Importantly, there are several limitations associated with the GP data that should be considered when interpreting the findings (see Appendix B. Data limitations). In addition, these findings only relate to new diagnoses of mental health conditions, MBS service dates and prescription dates in 2022-23. NWMPHN catchment residence is assumed from patient address.

Potential selection bias may exist in the GP diagnosis data by LGAs, as there are varying ratios of GP clinics contributing data to NWMPHN across different LGAs.

Adults aged between 20 and 39 have the highest rate of mental health treatment plans. Adults aged 70 and over have the lowest.

- Rates of patients with active mental health treatment plans were low in Melbourne and in the growth areas of Wyndham, Hume, and Melton.
- Mental health treatment plans are required for referrals to Medicare-subsidised psychological services, including psychologists and psychiatrists. Therefore, low treatment plan rates in Wyndham and Melton may explain the low utilisation rates of Medicare-subsidised mental health services.
- Mental health treatment plan rates are highest among adults aged 20 to 39. In contrast, adults aged 70 and over showed lower rates of mental health treatment plans. Despite the elevated prevalence of mental health diagnoses among older adults, their utilisation of treatment plans is lower compared to the 20 to 29 age cohort (refer to Metric 5 – Mental health conditions and consequences). This suggests a potential disparity where older adults may be experiencing mental health issues but are not accessing or receiving adequate treatment plans.
- Prescription data from GP clinics within the NWMPHN region indicate that antidepressants are the most prescribed medication to patients with a mental health diagnosis. This increased steadily throughout 2023.
- Antidepressants are the most prescribed medication for patients with a mental health treatment plan.
- Anti-anxiety medication prescribing also increased throughout 2023.
- See the supplementary file charts related to these findings.

NWMPHN-commissioned mental health services

Data from the Head to Health telephone services in NWMPHN shows that most self-referred callers are assessed as requiring a moderate level of intensity of care[15]. This is consistent with service mapping data showing that most services offered in the region are also at this level.

However, the highly disadvantaged LGAs of Brimbank and Melton and Moonee Valley have higher proportions of consumers assessed as requiring high or specialist level care. These LGAs also have high rates of avoidable ED presentations.

Table 16. Head to Health referrals and assessments completed with distribution of derived level of care by LGA in FY2022/23.

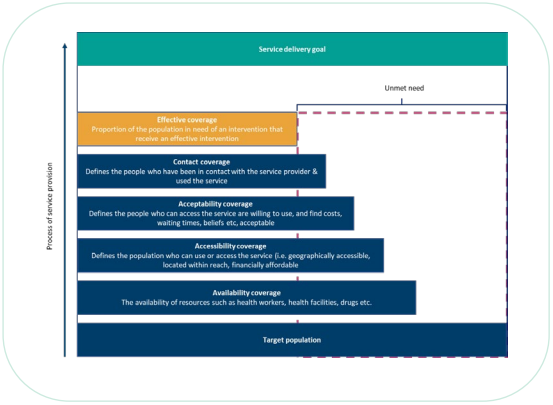
LGA	Number of IAR-DSTs completed	% Derived level<3	% Derived level 3	% Derived level >3
Brimbank	82	1%	78%	21%
Darebin	72	1%	83%	15%
Hobsons Bay	52	4%	81%	15%
Hume	262	3%	81%	16%
Macedon Ranges	8	13%	88%	0%
Maribyrnong	39	3%	90%	8%
Melbourne	79	3%	85%	13%
Melton	122	2%	80%	17%
Merri-bek	137	1%	92%	7%
Moonee Valley	53	0%	77%	23%
Moorabool	47	2%	83%	15%
Wyndham	302	3%	84%	13%
Yarra	45	7%	84%	9%
NWMPHN Total	1,300	3%	83%	14%

Table notes: Pink shaded cells represent the top 3 LGAs with the highest proportions for each level of care category. Based on the IAR-DST assessment, the derived level of care uses the clinician's assessed level of care if it is provided, or the IAR-DST recommended level of care if it is not. Level of care <3 involves self-management or low intensity support services. Level of care =3 involves moderate intensity support services and is generally the recommended level of care. Level of care >3 entails high intensity support services or Acute and Specialist Community Mental Health Services.

Data Source: Head to Health, 2023

[15] Moderate intensity interventions may include individual or group therapy, cognitive behavioural therapy (CBT), dialectical behaviour therapy (DBT), medication, and day program treatment.

Effective coverage



Effective coverage is the proportion of the population in need of an intervention that receives an effective one. A key aim of effective coverage is to reduce avoidable ED presentations, which can be seen as indicators of gaps in primary care (Rosano et al., 2013).

Since 2019 the proportion of ED presentations that meet the definition of avoidable with a principal diagnosis of any mental health condition has ranged between 9 and 11 per cent.

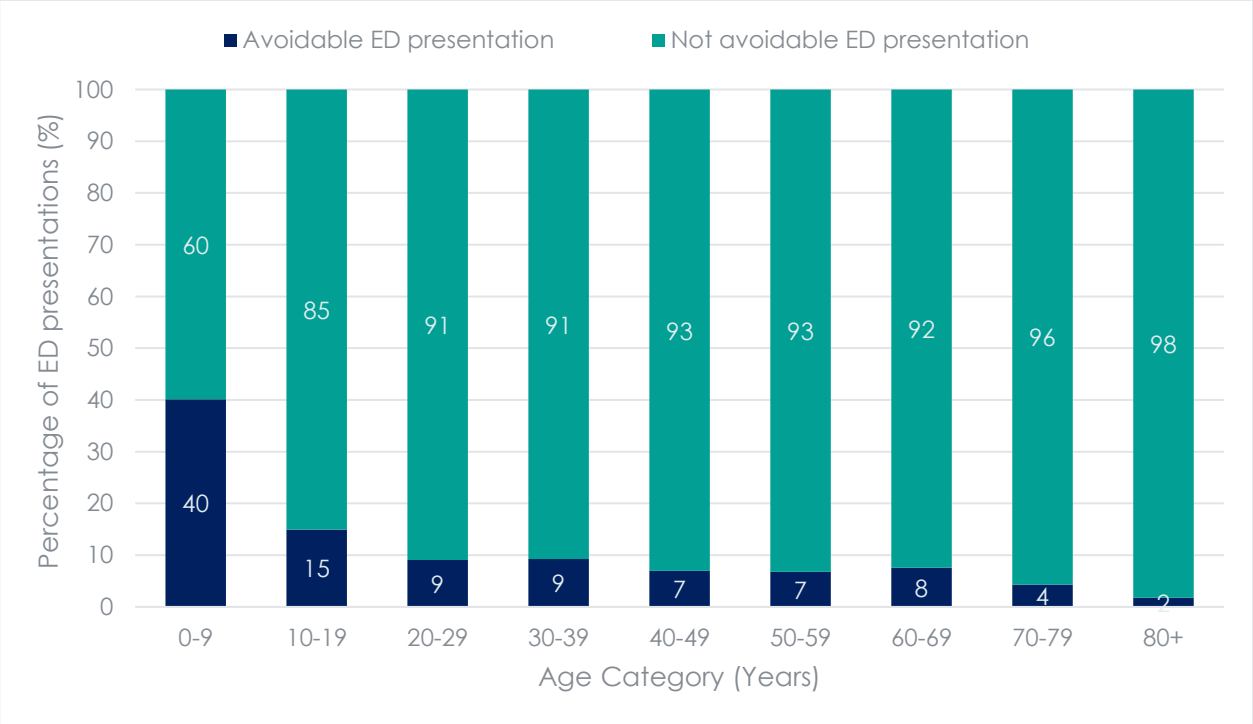
- Melbourne and Yarra have consistently had the highest rates of avoidable ED presentations from 2019-20 to 2022-23.
- For children aged 0 to 9, 40 per cent of avoidable ED presentations are due to any mental health condition, compared to 10 per cent for adults aged over 25.
- Anxiety ranks as the leading condition attributed to avoidable ED presentations since 2019.

Figure 14. Avoidable ED presentations with a principal diagnosis of any mental health condition by LGA in FY2022/23.

Figure notes: Rates are crude rates. Red line indicates the Victorian rate (70 per 100,000 population). Population data from 2022 estimated residential population, ABS.

Source: Victorian Admitted Episodes Dataset, DH, 2022/23; ABS, 2022)

Figure 15. Avoidable versus non-avoidable ED presentations by age in FY 2022/23.

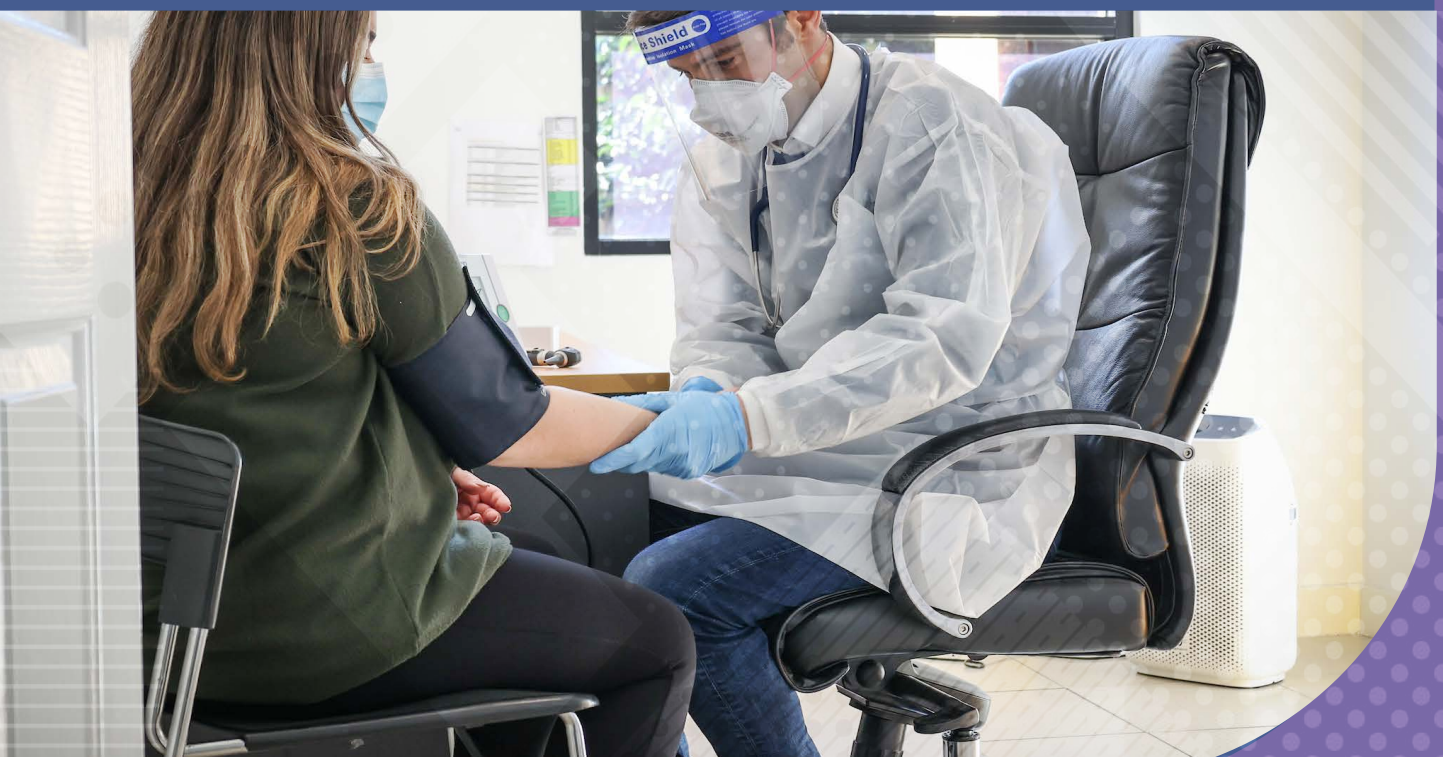


Source: Victorian Admitted Episodes Dataset, DH, 2022/23

2.6

Metric 5: Mental health conditions and consequences

- Quantified need based on mental health condition and consequences
- Chronic conditions
- Mental ill health profile
- Hospitalisation and Emergency Department presentations
- Suicidal ideation, self harm, and suicide
- Mortality due to suicide



2.6 Metric 5: Mental health conditions and consequences

Quantified need based on conditions and consequences.

Across the NWMPHN catchment, Yarra had the highest level of need related to mental health conditions and consequences, driven by hospitalisations and ED presentations due to mental health conditions or suicidal ideation. When the population is adjusted for health conditions and consequences, Wyndham, Hume and Brimbank continue to have the highest need.

Metric 5 refers to the prevalence and impact of mental health conditions and related outcomes, including diagnoses, hospitalisations, ED presentations and mortality. Understanding the most common mental health conditions and their consequences can help to prioritise interventions and allocate resources to areas of greatest need.

Table 17. Quantified need based on health conditions and consequences.

Area	LGA	Base need % of projected population (2025)	Index of population with chronic health condition (2 or more)	Index of population high or very high psychological distress based on K10*	Index of hospitalisation rate per 100,000 population due to mental and behavioural disorders	Index of ED presentation rate per 100,000 population due to mental and behavioural disorders	Index of ED presentation rate per 100,000 population due to suicidal ideation or self-inflicted injury	Index of hospitalisation rate per 100,000 population due to suicidal ideation or self-inflicted injury	Index of average annual ASR per 10,000 population (0-74 years) of death by suicide and self-inflicted injury	Average index	Average index as % of all LGAs	Adjusted population need
Inner city	Melbourne	9.8%	0.5	0.9	1.2	1.4	1.0	3.0	1.0	1.3	9.5%	9.7%
	Maribyrnong	5.3%	0.8	1.0	1.3	1.1	1.4	0.8	1.0	1.1	7.7%	5.8%
	Yarra	4.9%	0.8	0.8	1.4	1.6	1.0	2.4	1.1	1.3	9.6%	5.8%
Suburban	Brimbank	10.5%	0.9	1.1	1.3	0.9	1.1	1.3	1.0	1.1	7.9%	10.0%
	Darebin	8.3%	0.9	1.3	1.1	1.2	1.2	1.5	1.1	1.2	8.6%	8.4%
	Hobsons Bay	5.1%	0.9	1.1	0.8	1.0	1.3	0.8	1.2	1.0	7.3%	5.5%
	Moonee Valley	6.5%	0.7	0.9	1.1	1.0	0.8	1.5	0.8	1.0	7.1%	6.6%
	Merri-bek	9.6%	1.3	1.2	1.1	1.1	1.0	2.1	1.1	1.3	9.3%	9.5%
Growth area	Hume	12.7%	0.9	1.0	1.0	0.8	1.1	1.3	1.0	1.0	7.3%	11.6%
	Melton	9.2%	0.8	0.9	0.9	0.8	1.2	1.5	1.2	1.0	7.5%	8.9%
	Wyndham	15.3%	0.6	1.0	0.6	0.7	0.8	0.5	1.1	0.7	5.4%	13.3%
Peri-urban	Macedon Ranges - part a	1.6%	1.0	0.7	0.5	0.4	0.4	0.5	1.2	0.7	4.8%	2.2%
	Moorabool - part a	1.1%	1.3	1.0	0.9	0.7	0.9	1.4	1.5	1.1	8.0%	2.5%

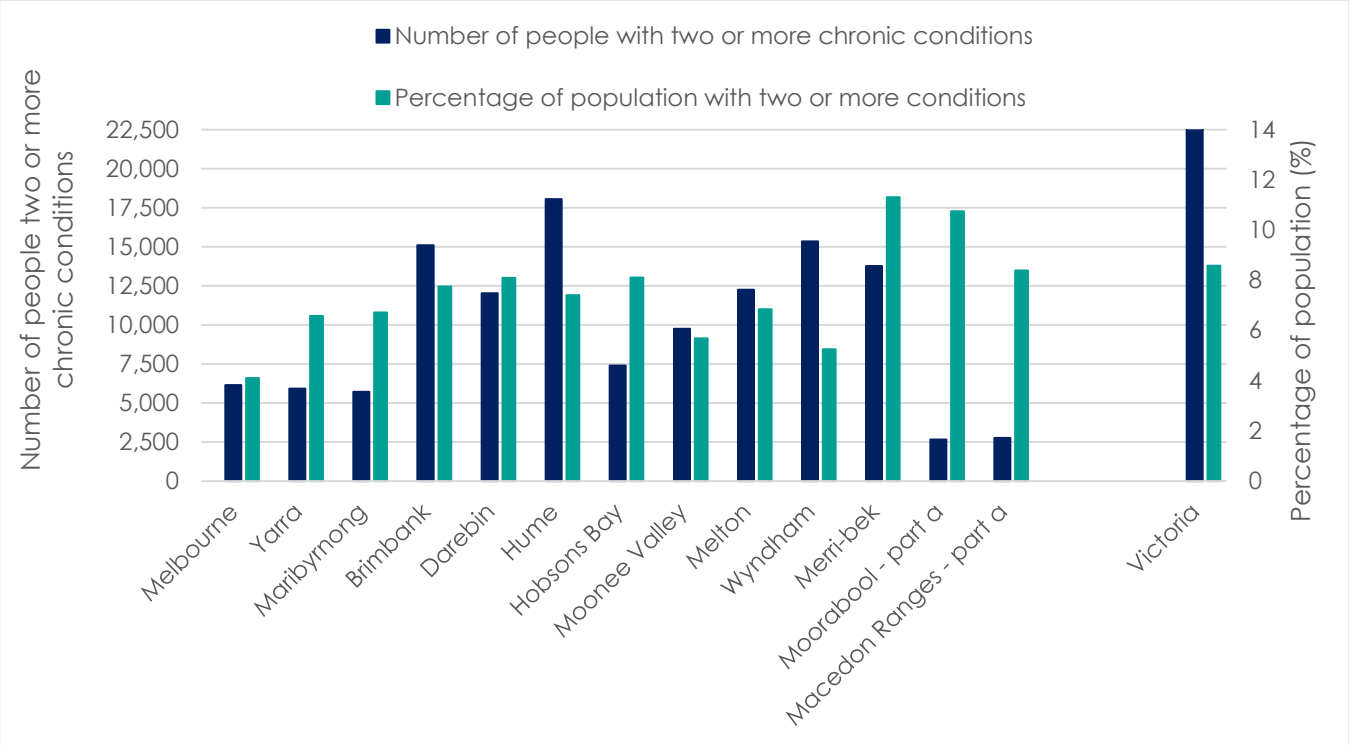
Table note: All indicators are an index of the Victorian rate or % (LGA rate or % divided by Victorian rate or %). Pink shaded cells represent the top 3 LGAs with the highest indices for individual access indicators. Index scores are an indicator of advantage (scores lower than 1) and disadvantage (scores greater than 1); Purple shaded cells represent the top 3 LGAs with highest proportion of need relative to other LGAs in the region.

Chronic conditions

Individuals with multiple chronic conditions face at least a twofold increased risk of depression compared to those without any (Read et al., 2017). Therefore, understanding their prevalence provides important context to population mental health needs.

- Merri-bek followed by the peri-urban areas Macedon Ranges–*part a* and Moorabool–*part a* have the highest prevalence of residents with 2 or more chronic conditions, according to census data from 2021.
- However, when considering the absolute number of people, then Brimbank, Hume, and Wyndham have high numbers of people with 2 or more chronic conditions, suggesting that there could also be higher numbers of mental ill health as well (Figure 15).
- Further analysis of the 2021 census data shows that anxiety and depression stand out as the most self-reported chronic conditions across the NWMPHN catchment. While rates are higher for females (average 10%; range: 7.1-14.3%), compared with males (average 6.3%; range: 4.3- 9.3%) across the catchment see table 18), it is noteworthy that all but 4 LGAs reported rates higher than the Victorian average for males. Among females, 6 of 13 LGAs had rates exceeding the Victorian average (Table 18).
- Available data do not adequately identify non-binary patients.

Figure 16. Percentage of population with 2 or more chronic health conditions by LGA, 2021.



Source: Census 2021, ABS

Table 18. Prevalence of chronic condition type by LGA, 2021.

Condition	Mental health condition (including anxiety or depression)		Asthma		Diabetes		Heart disease		Arthritis		Cancer		Stroke	
LGA	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Brimbank	4.9%	7.6%	6.9%	7.6%	6.7%	6.2%	4.2%	2.6%	4.7%	9.3%	2.0%	2.2%	1.1%	0.9%
Darebin	8.4%	13.5%	7.8%	9.1%	4.6%	3.9%	3.9%	2.5%	4.9%	9.5%	2.1%	2.5%	0.9%	0.8%
Hobsons Bay	6.6%	10.1%	7.6%	8.8%	5.1%	4.4%	4.3%	2.9%	5.3%	9.7%	2.4%	2.7%	1.0%	0.9%
Hume	5.3%	8.6%	6.8%	8.3%	5.8%	5.1%	3.8%	2.4%	4.4%	8.8%	1.8%	1.9%	0.8%	0.6%
Macedon Ranges*	7.1%	11.0%	8.3%	9.5%	4.6%	3.4%	5.3%	2.8%	6.6%	11.2%	3.5%	3.3%	1.0%	0.8%
Maribyrnong	7.6%	12.2%	8.0%	9.0%	4.2%	3.7%	2.8%	1.8%	3.6%	6.9%	1.7%	2.0%	0.8%	0.6%
Melbourne	6.5%	9.8%	6.2%	6.5%	2.2%	1.5%	2.0%	1.2%	2.3%	3.7%	1.4%	1.5%	0.5%	0.4%
Melton	5.5%	8.9%	7.7%	9.0%	5.4%	4.4%	3.1%	1.9%	3.9%	7.5%	1.5%	1.9%	0.7%	0.6%
Moonee Valley	6.6%	10.1%	7.4%	8.4%	4.7%	3.9%	4.6%	2.9%	5.2%	9.8%	2.9%	2.8%	1.0%	0.8%
Moorabool*	7.7%	12.7%	8.6%	11.1%	5.6%	4.3%	5.3%	2.9%	7.1%	12.5%	2.9%	3.3%	1.2%	1.1%
Merri-bek	8.3%	13.6%	8.0%	9.1%	4.6%	4.0%	3.6%	2.6%	4.5%	9.0%	2.0%	2.5%	0.9%	0.7%
Wyndham	4.3%	7.1%	5.9%	7.2%	4.8%	3.9%	2.7%	1.6%	3.1%	6.0%	1.2%	1.5%	0.5%	0.5%
Yarra	9.3%	14.3%	8.9%	9.7%	3.0%	2.3%	2.9%	1.7%	3.7%	6.8%	2.3%	2.3%	0.7%	0.5%
NWMPHN	6.3%	10.0%	7.2%	8.3%	4.9%	4.1%	3.5%	2.2%	4.2%	8.0%	1.9%	2.1%	0.8%	0.7%
Victoria	6.8%	10.7%	7.6%	9.1%	5.2%	4.2%	4.6%	2.9%	5.7%	10.2%	2.7%	2.8%	1.0%	0.8%

Table notes: LGAs with average higher than Victoria highlighted in yellow. * Data comes from the entire LGA of Macedon Ranges and Moorabool, which include areas not in the NWMPHN catchment.

Source: Census 2021, ABS

Mental ill health profile

Nearly half of Australians aged 16 to 85 reported having experienced a mental health condition at some time in their life and 21 per cent reported having experienced one in the previous 12 months (Australian Bureau of Statistics, 2023). Consistent with these statistics, some of the most commonly recorded conditions GPs report managing are psychological conditions (NPS MedicineWise, 2021).

Data from GP and commissioned services relating to mental health in our region show that mental health diagnoses, particularly depression and anxiety, are highly prevalent in females aged 20 to 39. High rates of mental health diagnoses are shown in peri-urban and some suburban areas. Maribyrnong-*part a* and Moorabool-*part a* feature prominently as the top LGAs for GP diagnoses of anxiety and depression and episodes of mental health-related care.

Victorian Population Health Survey data

The Victorian Population Health Survey, conducted by the state's Department of Health, includes a mental health outcome measure using the Kessler Psychological Distress Scale (K10) questionnaire. The K10 measure differs from GP and commissioned service data because it estimates the prevalence of levels of psychological distress rather than diagnosed mental health conditions.

This makes it an important indicator because a high psychological distress score indicates the presence of multiple depressive or anxiety symptoms, suggesting a high chance of having or developing serious mental health conditions (Lawrence et al., 2015).

- The proportion of adults with self-reported high or very high levels of psychological distress in Darebin and Merri-bek is substantially higher than the Victorian average.
- Rates are also above the Victorian average in Brimbank, Hobsons Bay, and Wyndham.

Figure 17. Proportion of adult population (18+ years) with high or very high psychological distress by LGA in 2020.

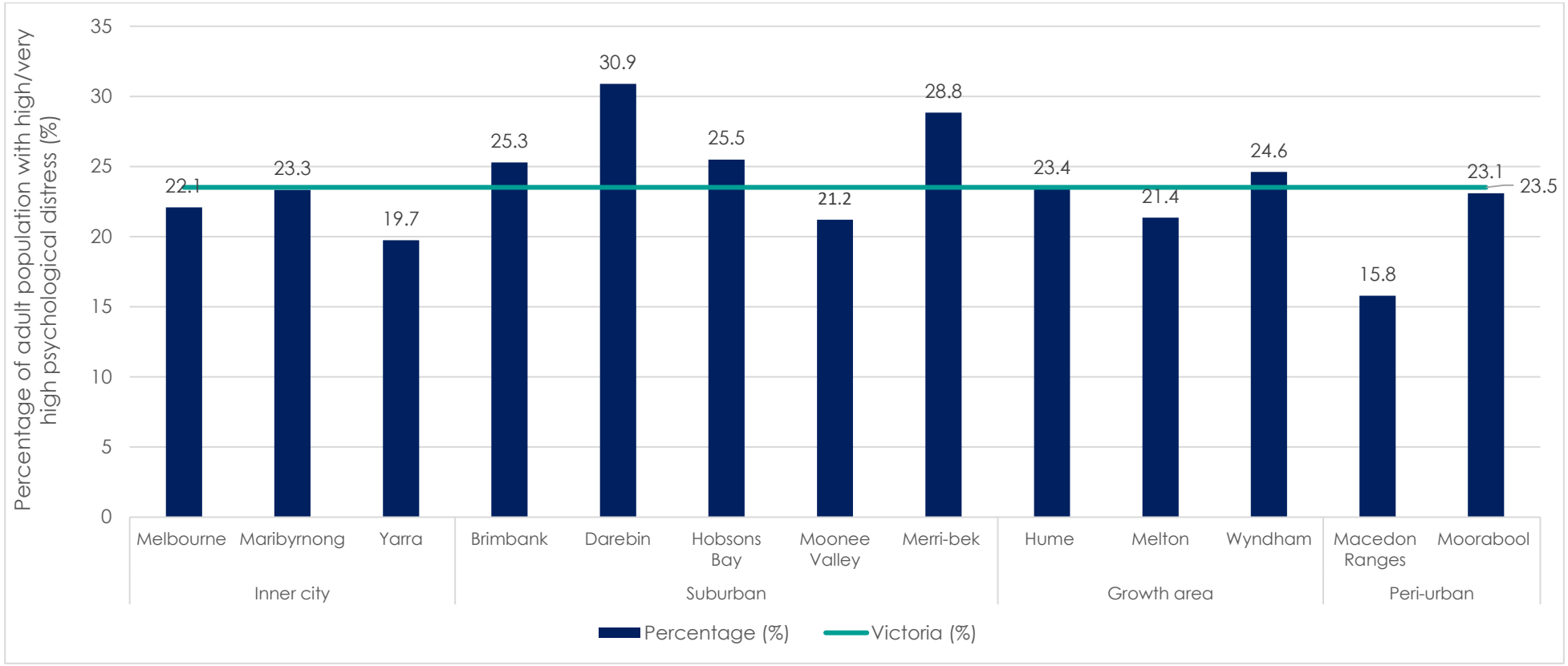


Figure note: Green line indicates the Victorian average (23.5%). Psychological distress was measured using the K10 questionnaire.

Source: Victorian Population Health Survey, DH, 2020

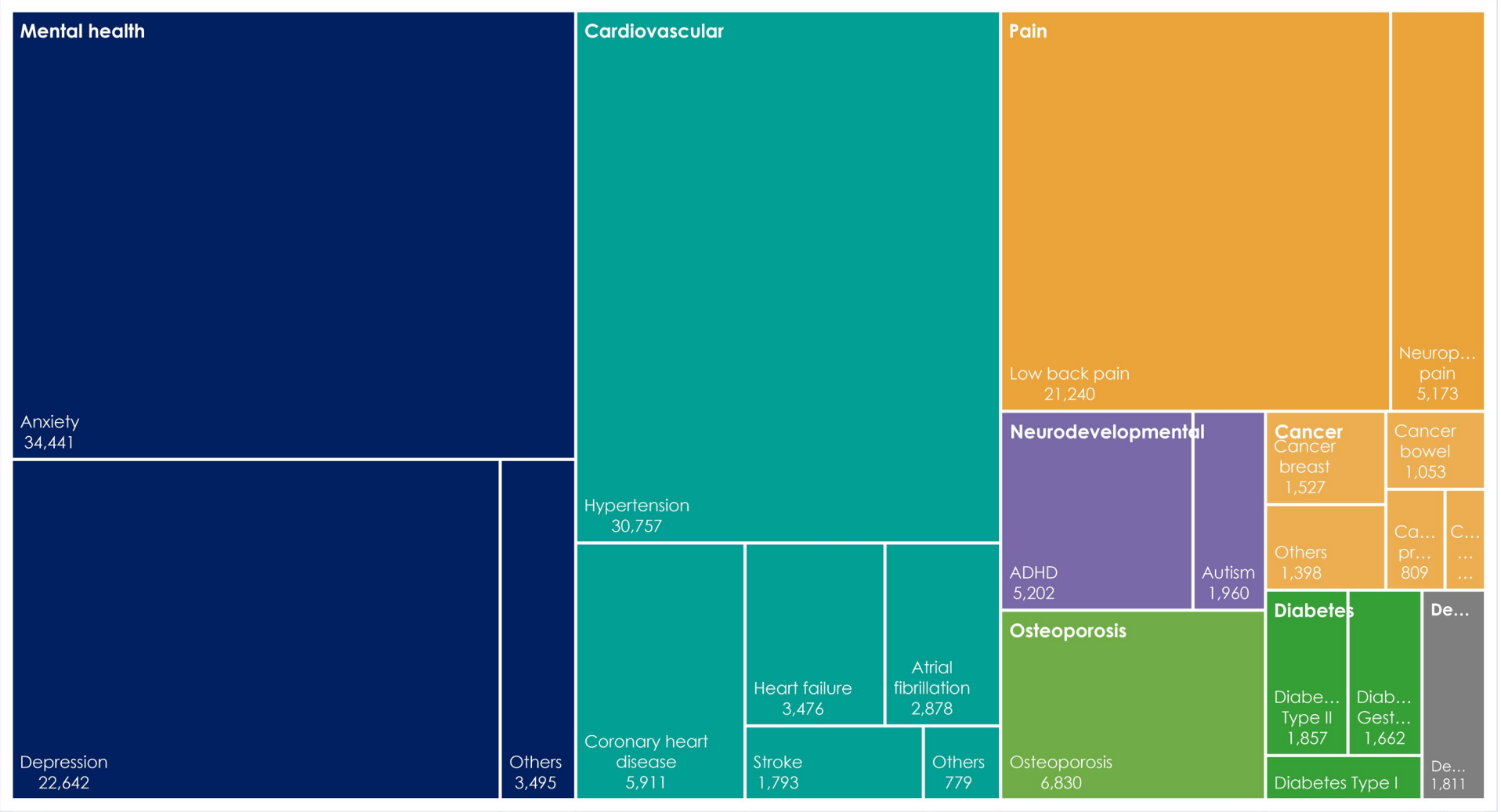
NWMPHN General Practice data

This section presents key findings pertaining to the prevalence and type of diagnoses due to mental health conditions analysed using GP data from PAT CAT in the NWMPHN region. (For caveats about GP data and analysis, see Appendix B. Data limitations.)

These findings only relate to diagnoses made during 2022-23 for residents of the NWMPHN region. There is potential selection bias, given there are different numbers of GP clinics providing data to the organisation.

- In alignment with the ABS 2023 census data, which revealed elevated levels of self-reported anxiety and depression in the region, GPs' data indicate that mental health diagnoses, particularly anxiety and depression, constituted the most frequent new diagnoses in 2022-23.
- GP data for the catchment shows that females aged 20 to 39 had the highest number and rates of mental health diagnoses compared to males and across all age groups (Figure 18) in 2022-23. Diagnosis rates were also high in females aged 70 and over.
- In males, mental health diagnoses were most prevalent for patients aged 40 to 49.
- The data do not distinguish non-binary people.
- GP diagnosis rates of mental health conditions (particularly anxiety and depression) are highest in Moorabool-*part a*, Maribyrnong, Hobsons Bay and Brimbank. However, not all GP clinics provide data to NWMPHN, with reporting from 86 per cent in Moorabool-*part a,* 66 per cent in Maribyrnong, 72 per cent in Hobsons Bay and 79 per cent in Brimbank.
- Anxiety and depression were the top 2 mental health diagnoses across all LGAs and age groups in 2022-23. Rates of anxiety diagnoses were highest in patients aged 20 to 49, whereas depression diagnosis rates were highest in older adults aged 80 and above.

Figure 18. New diagnoses recorded by general practice in 2022.



Notes: 35 diagnoses were included in the analysis and were counted if a patient had a valid diagnosis recorded during a GP clinic visit between 1 January 2022 and 31 December 2022 and data was received by NWMPHN (i.e., through the PATCAT system). The diagnosis counts were calculated as the number of distinct patients by the selected health condition for residents of the NMPHN region (based on patient postcode). NWMPHN does not receive data from all General Practices across the region, so these numbers are likely to be underrepresented. Further, the data will not account for patients who have seen multiple GPs in the time period, therefore single patients could have a single diagnosis reported more than once.

Source: PAT CAT, February 2023 (North Western Melbourne Primary Health Network (NWMPHN) Pen CS, 2023)

Figure 19. Rate of mental health diagnoses by age and sex per 100,000 population in FY2022/23.

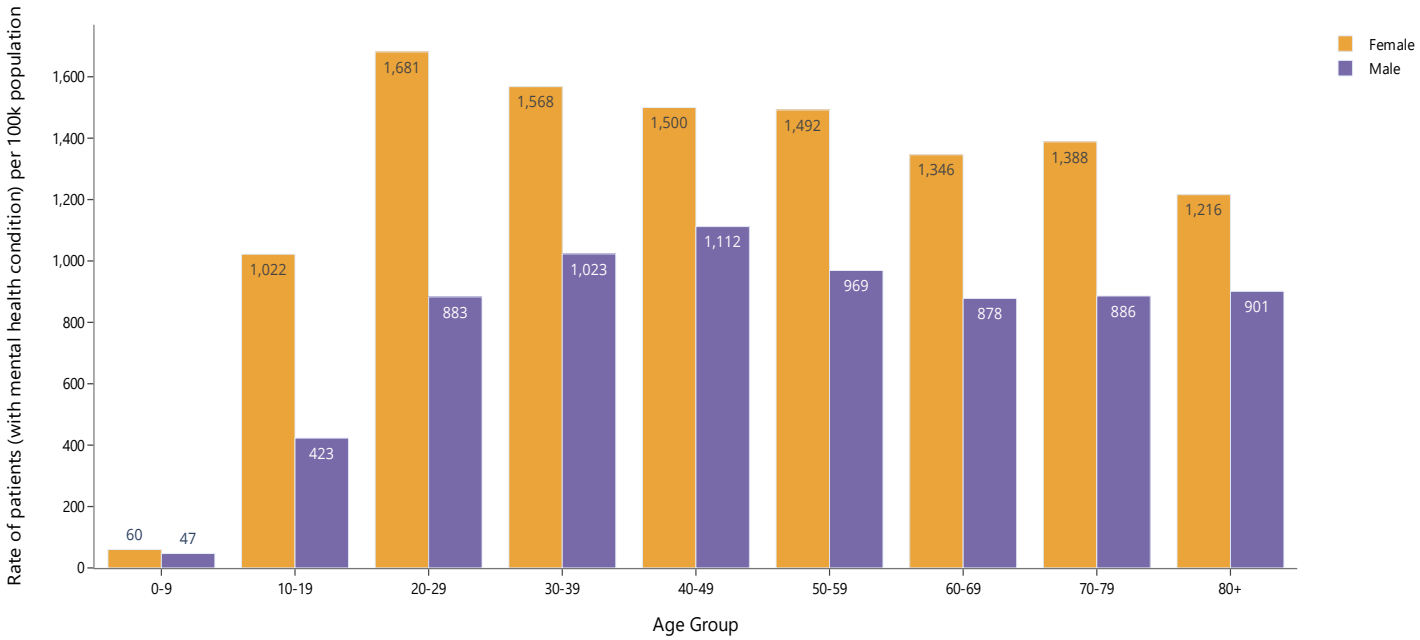


Figure notes: Population data is based on 2022 ERP from the ABS. Mental health diagnoses are defined as active patients with a diagnosis of a mental health condition between 1/7/2022 and 30/6/2023.

Source: PAT CAT, 2023; ABS, 2022

Figure 20. Rate of mental health diagnoses per 100,000 population by LGA in FY2022/23.

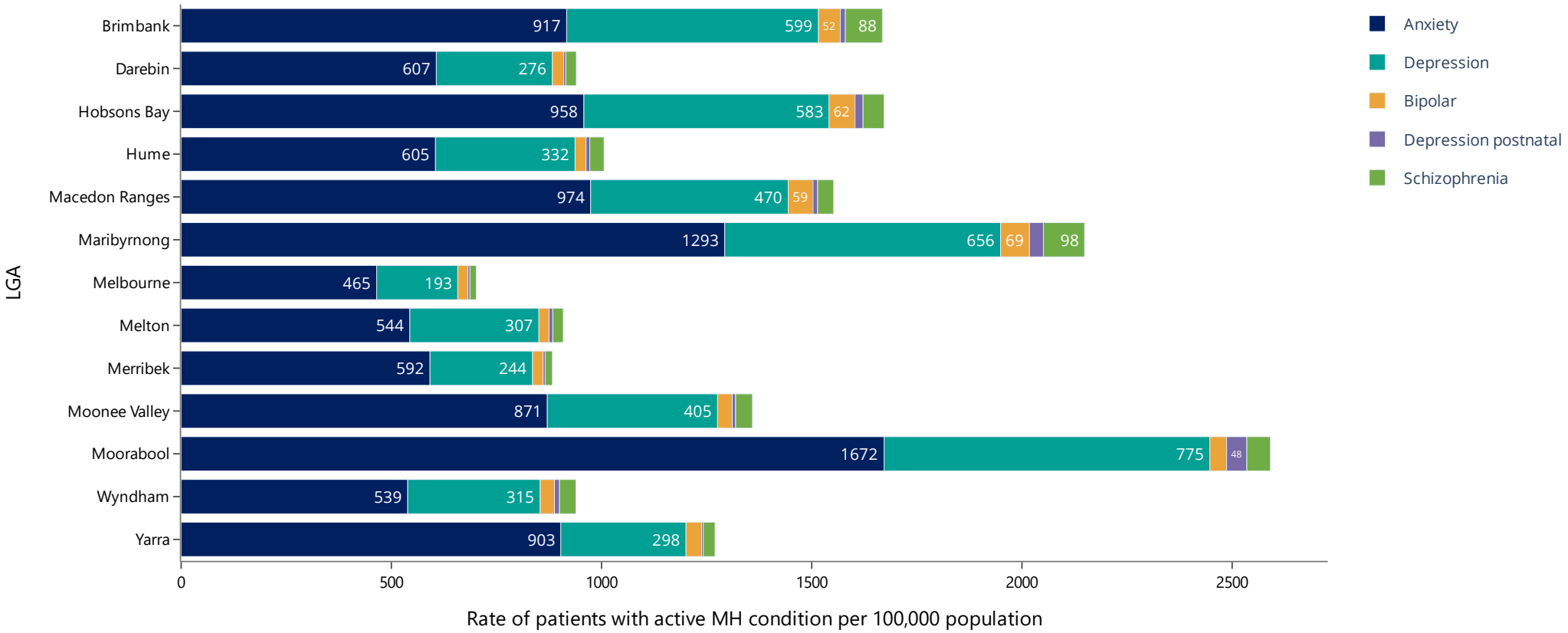


Figure notes: Population data is based on 2022 ERP from the ABS. Population data is based on 2022 ERP from the ABS. Mental health diagnoses are defined as active patients with a diagnosis of a mental health condition between 1/7/2022 and 30/6/2023. Value labels only displayed for rates greater than 48 per 100,000 population.

Source: PATCAT, 2023; ABS, 2022

NWMPHN-commissioned primary mental health services

This section presents key findings pertaining to the prevalence and type of diagnoses due to mental health conditions in 2022-23, analysed using NWMPHN-commissioned mental health services data recorded in the Primary Mental Health Care Minimum Data Set (PMHC-MDS).

The PMHC-MDS includes program data from key NWMPHN commissioned services, such as CAREinMIND and Head to Health. It provides the basis for primary health networks and the Department of Health and Aged Care (DoHAC) to monitor and report on the quantity and quality of service delivery, and to inform future improvements in the planning and funding of primary mental health care services funded by the Australian Government.

- Maribyrnong, Moorabool-*part a*, and Melbourne were the top 3 LGAs with increased rates of mental health episodes of care. The PHMC-MDS data only includes services commissioned by NWMPHN. While it provides insight regarding patients who used these services, these do not necessarily account for all those who need services in our region.
- There were nearly double the number of females aged between 10 to 39 with mental health episodes of care compared to males of the same age bracket. This aligns with the GP data that shows that females aged 20 to 39 had the highest number and rates of mental health diagnoses compared to males and across all age groups. The data does not distinguish non-binary people.
- Anxiety was the top recorded principal diagnosis for people receiving treatment via an NWMPHN-commissioned mental health service.

Figure 21. Number of mental health episodes of care by principal diagnosis condition type in 2022-23.

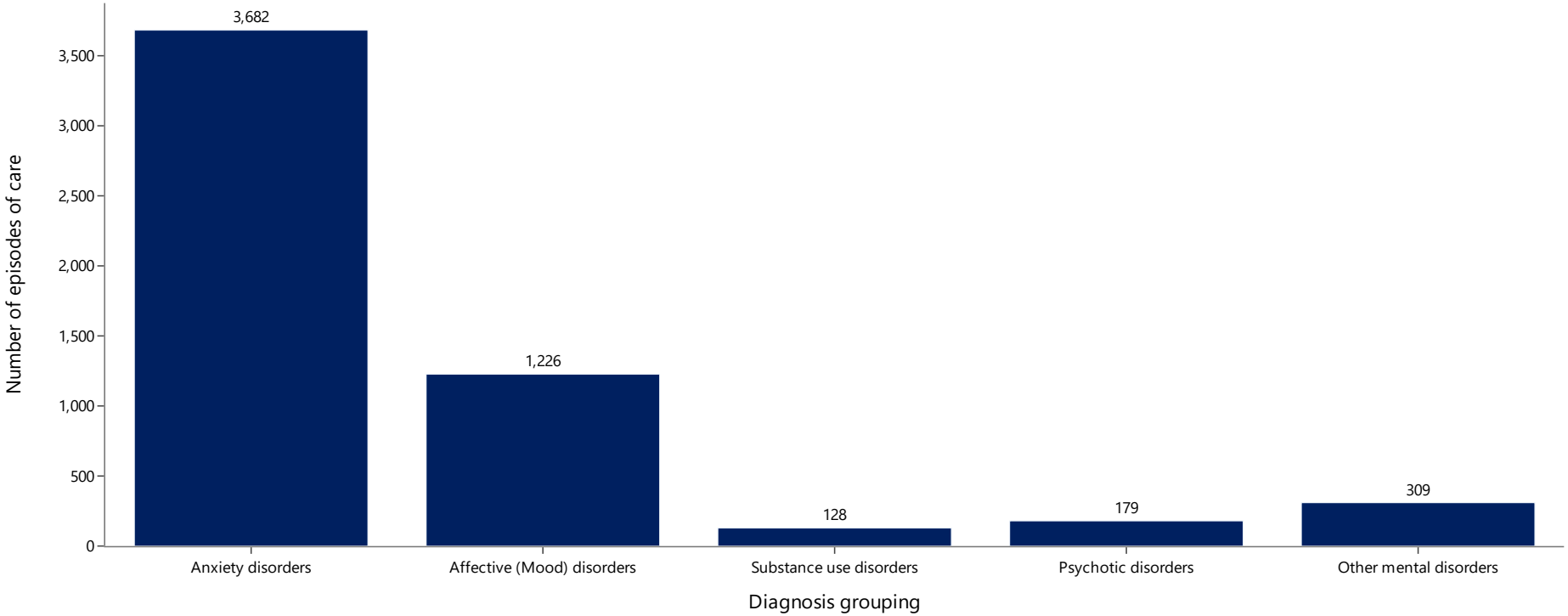


Figure note: The episode data allows for a principal and additional diagnosis for each record. These diagnoses are grouped into categories as in the figure. Within the "anxiety disorders" group, there are 8 possible diagnoses (comprising acute stress disorder, agoraphobia, generalised anxiety disorder, obsessive-compulsive disorder, panic disorder, post-traumatic stress disorder, social phobia, and other anxiety disorder). Depression falls into the affective(mood) disorder category.

Data Source: NWMPHN PMHC-MDS, 2023

Hospitalisation and Emergency Department presentations

In Australia, people experiencing mental distress have access to a variety of mental health care services provided by various health care professionals in different care settings. Public hospital EDs play an important role in treating mental health challenges (AIHW, 2019). They can be the initial point of care for those seeking mental health-related services for the first time, as well as an alternative point of care for people seeking after-hours mental health care (ACEM 2018).

Overnight mental health-related hospitalisations occur in public acute, public psychiatric, or private hospitals. These hospitalisations can take place on a general ward or in psychiatric units (AIHW, 2019).

Hospitalisations and ED presentations due to mental health conditions were concentrated in the inner-city and areas of socioeconomic disadvantage.

Adults 80 and over had the highest rates of hospitalisations and ED presentations due to a principal diagnosis of mental health conditions. Brimbank and Moorabool-*part a* have low referral rates to mental health community services and GPs following discharge from hospital.

In line with findings on health service access, these LGAs also have low utilisation rates of Medicare-subsidised mental health services. In the NWMPHN region, there are disproportionally higher rates of suicidal ideation in females aged 10 to 19 in hospitalisations and ED presentations.

Hospitalisations and emergency department presentations for mental health

This section presents findings pertaining to the prevalence and type of hospitalisations and ED presentations due to a principal diagnosis of mental health conditions from 2019 to 2022 within the NWMPHN region.

They arise from analysis using the Victorian Admitted Episodes Dataset (VAED) and Victorian Emergency Minimum Dataset (VEMD).

Yarra, Melbourne, Merri-bek and Darebin have comparatively less socio-economic disadvantage relative to other LGAs in the region, but had hospitalisation and ED presentation rates above the state average.

In 2022-23 Melbourne had low referral rates to mental health community services after discharge from hospital. Melbourne and Merri-bek had low referral rates to GP after home discharge from the ED, despite high ED presentation rates.

Prevalence and demographic characteristics

- The hospitalisation rate due to any mental health condition has increased slightly year on year from 2019-20 to 2022-23, rising from 725 to 748 per 100,000 population. Rates across LGAs in 2022-23 ranged from 428 per 100,000 in Wyndham to 1,030 per 100,000 in Yarra (see Figure 22).
- There was no evidence that hospitalisation rates for mental health meaningfully increased or decreased over time across most LGAs. The exception was Yarra, which had a large increase from 2020-21 to 2021-22 and has remained high since.

- On the other hand, ED presentations due to any mental health condition decreased by 9 per cent from 2020-21 to 2021-22, recording a further fall of 2 per cent across the NWMPHN region the following year. Rates across LGAs in 2022-23 ranged from 330 per 100,000 population in Macedon Ranges–*part a* to 1,229 per 100,000 in Yarra (see Table 19).
- Brimbank, Darebin, Maribyrnong, Merri-bek, and Yarra consistently had higher hospitalisation rates than the Victorian average and relative to other LGAs in the region (see Supplementary file).
- Despite ED presentations decreasing across the region, Yarra, Melbourne and Merri-bek consistently rank as the LGAs with highest ED presentation rates. These were well above the Victorian average from 2019-20 to 2022-23 (see Supplementary file).
- Females and males aged 20 to 39 had the largest number of hospitalisations and ED presentations. However, when accounting for population size, females and males aged over 80 had the highest rates -- over 1,800 per 100,000 for hospitalisations and 1,100 for ED presentations. The data do not distinguish non-binary people.
- Rates were also high in males aged 40 to 49 (1083 per 100,000) for hospitalisations and ED presentations (Figure 24 and Figure 25).
- The data do not distinguish non-binary people.

Figure 22. Rate of hospitalisation due to a principal diagnosis of any mental health condition by LGA from 2019-20 to 2022-23.

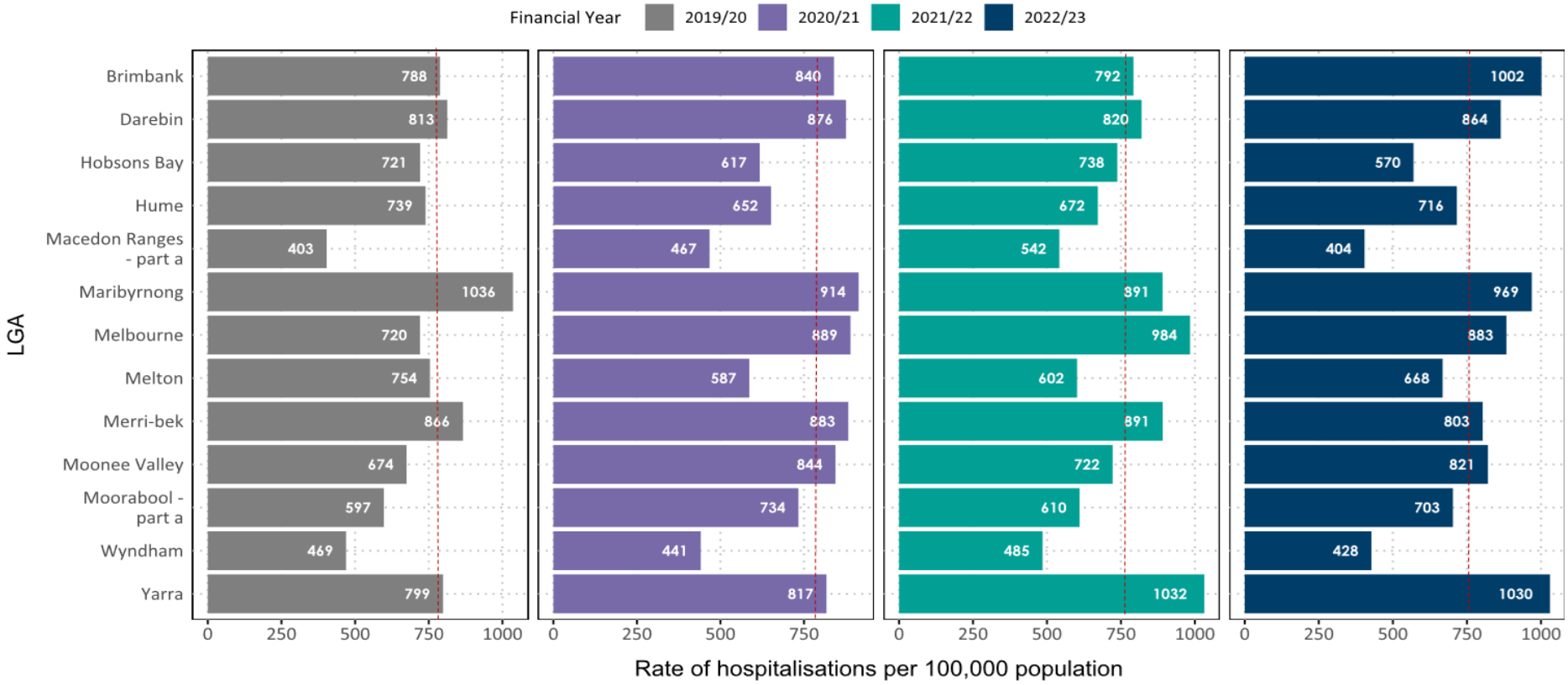


Figure notes: Red dotted line indicates the Victorian rate (775 per 100,00 in 2019, 780 per 100,000 in 2020, 766 per 100,000 in 2021 and 752 per 100,000 in 2022).

Source: Victorian Admitted Episodes Dataset, DH, 2022/23; ABS, 2022

There was a large increase in ED presentations due to mental health from 2021-22 to 2022-23 in Moorabool-*part a*. However, ED presentation rates were highest in Melbourne and Yarra.

Figure 23. LGA map of percentage change from FY2021 to FY2022 and rate of ED presentations due to a principal diagnosis of any mental health condition in FY2022/23.

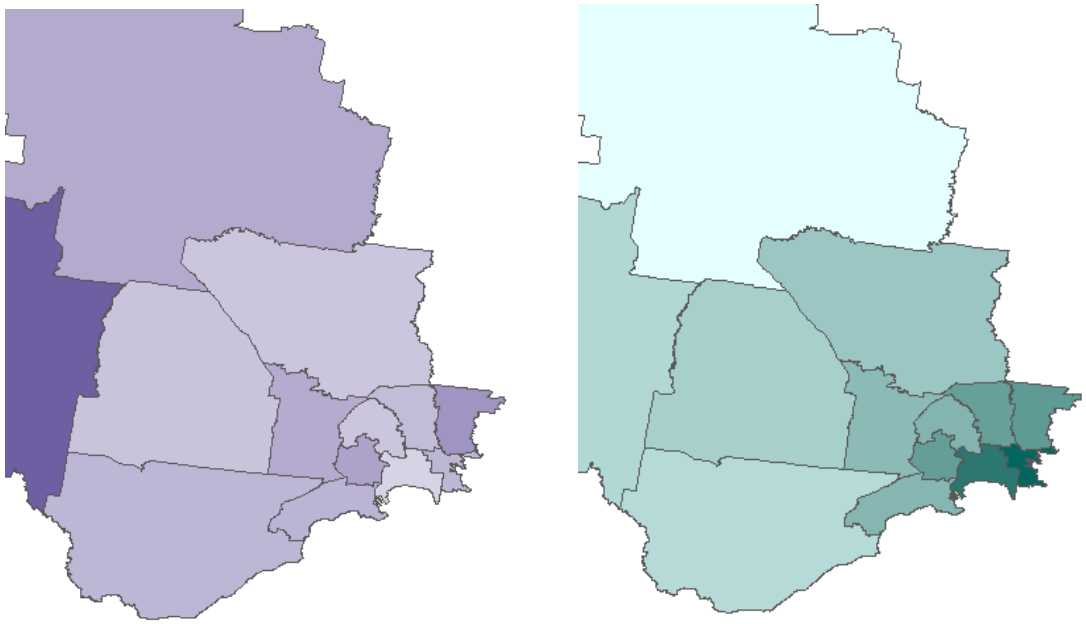


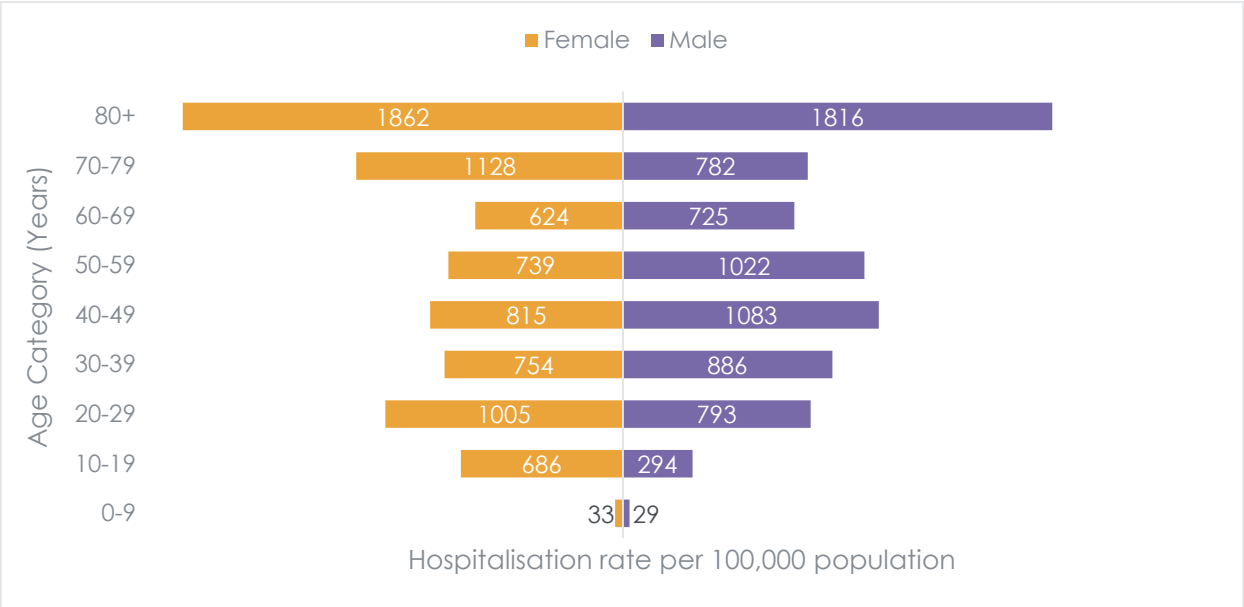
Figure notes: Purple shading corresponds to the % change in FY22 values in Table 19. The green shading corresponds to the Rate values in Table 19

Table 19. ED presentations due to any mental health condition in the principal diagnosis in FY2022/23.

LGA	ED presentations due to any mental health condition in FY2022/23		
	Number	% change in FY2022/23	Rate
Brimbank	1,386	6.0%	717
Darebin	1,371	18.1%	911
Hobsons Bay	685	1.2%	746
Hume	1,645	-7.4%	650
Macedon Ranges - part a	111	6.7%	330
Maribyrnong	778	10.4%	889
Melbourne	1,800	-14.8%	1,125
Melton	1,154	-6.7%	597
Merri-bek	1,540	-2.8%	881
Moonee Valley	929	-7.4%	755
Moorabool - part a	141	48.4%	550
Wyndham	1,655	0.0%	535
Yarra	1,134	0.3%	1,229
Victoria	51,472	-3%	778

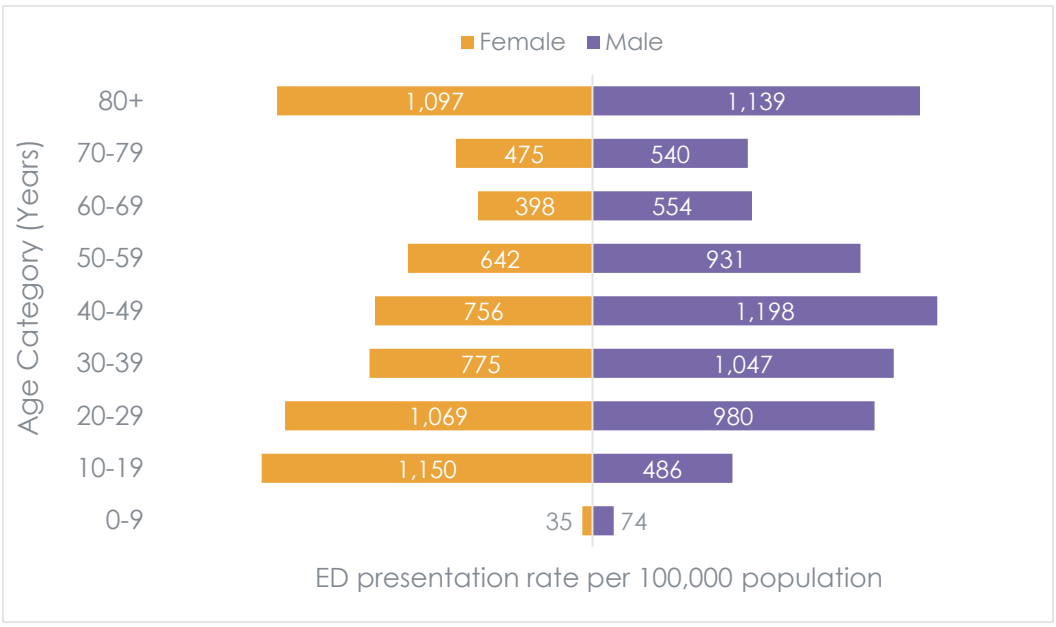
Source: Victorian Emergency Minimum Dataset, DH, 2022/23; ABS, 2022

Figure 24. Hospitalisation rate due to a principal diagnosis of any mental health condition by age and sex in FY2022/23.



Source: Victorian Admitted Episodes Dataset, DH, 2022/23; ABS, 2022

Figure 25. Rate of ED presentations due to any mental health condition per 100,000 population by age and sex in FY2022/23.



Source: Victorian Emergency Minimum Dataset, DH, 2022/23; ABS, 2022

Diagnosis type

Alcohol use was consistently one of the top 3 conditions attributed to hospitalisations and ED presentations between 2019-20 to 2022-23. The Yarra and Melbourne inner city areas, as well as Merri-bek, had the highest rates of hospitalisations and ED presentations due to alcohol use in 2022-23.

Schizophrenia was the leading cause of hospitalisations and fourth leading cause of ED presentations in 2022-23, with Darebin, Yarra and Maribyrnong featuring prominently in the top 5 LGAs with highest rates.

- Of all mental health conditions, schizophrenia was by far the most common reason for hospitalisation in each year explored – that is, 2019-20 to 2022-23 – followed by depressive episodes due to alcohol.
- Rates of hospitalisations due to schizophrenia were particularly high in Brimbank, at 257 per 100,000 population. This was in line with the GP diagnoses data, where schizophrenia rates were highest in people aged 40 to 59.
- Brimbank also had relatively higher rates of depressive episodes and delirium not induced by alcohol and other psychoactive substances compared to most other LGAs (Table 20).
- The highest rates of hospitalisation due to depression were in Brimbank, Moorabool-*part a* and Maribyrnong; additionally, all had high GP diagnosis rates of depression.
- Hospitalisation rates due to alcohol use were largest in the inner-city areas of Yarra and Melbourne.
- Of all mental health conditions, alcohol use and other anxiety disorders were the leading cause for ED presentations in 2022-23. These were prevalent across all age cohorts, except 0 to 9 for alcohol use. Yarra, followed by Melbourne and Merri-bek, had the highest rate for ED presentations due to alcohol use and anxiety.
- For people aged 20 to 29, anxiety disorders were the top mental health condition attributed to ED presentations. Consistent with GP findings, anxiety was the top diagnosis for this age group.

Table 20. Hospitalisation rates by top 5 mental health conditions (in the principal diagnosis) ranked by top 5 LGAs with highest rates in 2022-23.

	Schizophrenia	Mental and behavioural disorders due to use of alcohol	Depressive episode	Bipolar affective disorder	Delirium, not induced by alcohol and other psychoactive substances
Rank 1	Brimbank (257)	Yarra (220)	Brimbank (134)	Hume (101)	Moonee Valley (106)
Rank 2	Moonee Valley (180)	Melbourne (161)	Moorabool-*part a* (105)	Moonee Valley (88)	Brimbank (97)
Rank 3	Maribyrnong (171)	Merri-bek (118)	Maribyrnong (99)	Darebin (65)	Merri-bek (77)
Rank 4	Darebin (165)	Darebin (110)	Melbourne (86)	Melbourne (63)	Hobsons Bay (74)
Rank 5	Yarra (165)	Moorabool-*part a* (98)	Hobsons Bay (83)	Macedon Ranges-*part a* (56)	Darebin (67)

Table notes: Table includes the top 4 categories of mental health conditions (principal diagnosis) in 2022/23 ranked by the top 5 LGAs with the highest hospitalisation rates for those conditions. Rates are presented as per 100,000 population using 2022 ERP. Colours represent specific LGA, e.g., dark blue = Maribyrnong.

Source: Victorian Admitted Episodes Dataset, DH, 2022/23; ABS, 2022

Table 21. ED presentations by top 4 mental health conditions (in the principal diagnosis) ranked by top 5 LGAs with highest rates in 2022-23.

	Mental and behavioural disorders due to alcohol use	Other anxiety disorders	Acute and transient psychotic disorders	Schizophrenia
Rank 1	Yarra (256)	Yarra (153)	Maribyrnong (157)	Yarra (169)
Rank 2	Melbourne (252)	Merri-bek (135)	Melbourne (135)	Darebin (113)
Rank 3	Merri-bek (201)	Melbourne (134)	Brimbank (120)	Melbourne (98)
Rank 4	Maribyrnong (179)	Hobsons Bay (127)	Yarra (108)	Maribyrnong (91)
Rank 5	Darebin (166)	Hume (125)	Darebin (105)	Merri-bek (66)

Notes: Table includes the top 4 categories of mental health conditions (principal diagnosis) in 2022-23 ranked by the top 5 LGAs with the highest ED presentation rates for those conditions. Rates are presented as per 100,000 population using 2022 ERP. Colours represent specific LGA, e.g., dark purple = Maribyrnong.

Source: Victorian Emergency Minimum Dataset, DH, 2022/23; ABS, 2022

Referrals upon hospital and emergency department (ED) discharge

The Victorian Admitted Episodes Dataset (VAED) and Victorian Emergency Minimum Dataset (VEMD) include data relating to referrals post-hospitalisation or ED discharge. Referral status in the VAED provides information regarding clinical care and support services arranged by the hospital to meet the patient's recuperative needs in primary care.

Referral status in the VEMD relates to ED presentations and is defined as the agency to which the patient was referred (arranged by the hospital) for continuing care.

Importantly, there are limitations associated with referral data that should be considered when interpreting the findings.

Notably, not all episodes have a recorded referral status in the VAED (approximately 22 per cent do not). Only episodes that are separated to private residence/accommodation have referral status recorded; referral status is not recorded for all other types of separations (for example, transfer to a health care facility).

In addition, not all episodes have a known or specific referral status recorded in the VEMD (less than 5% of VEMD episodes have a referral status of Unknown or Other). It is also noteworthy that, when focusing on referral status for patients exclusively discharged home, in this subgroup, less than 3 per cent have an unknown or other referral status.

The vast majority of referrals arranged by the hospital or ED were to community mental health services or GPs.

- The proportion of total discharges from hospital referred to mental health community services has decreased by nearly 10 per cent since 2019-20.
- The proportion of patients for whom no referral or support services were arranged from the hospital and ED were 16.1 percent and 9.1 percent, respectively. The proportion of people without a referral from hospitalisation has increased by approximately 5 percent since 2019-20.
- Referral rates to GPs after hospital discharge were low in Moorabool-*part a* and the disadvantaged areas of Brimbank, Wyndham, and Hume. Referral rates for mental health community services were lowest in Brimbank, followed by Moonee Valley. (Figure 26).
- Adults aged 80 and over had the highest proportion of referrals to GPs after hospital discharge compared to any other age cohort. In contrast, children and young people (0-19) had significantly higher referral to clinical care or support services (other than mental health or GP) and lowest referral to GPs.

Table 22. Proportion of total discharges after hospitalisation due to any mental health condition (principal diagnosis) by top 10 referral statuses for 2019-20 to 2022-23.

Top 10 referral statuses upon discharge from hospital	Proportion of total discharges from hospital (▲ or ▼ from previous FY)			
	2019-20	2020-21	2021-22	2022-23
Mental health community services*	48.0%	45.5% ▼	44.8% ▼	39.0% ▼
Referral to GP*	29.8%	31.8% ▲	32.2% ▲	35.3% ▲
No referral or support services arranged	11.5%	11.9% ▲	13.0% ▲	16.1% ▲
Other clinical care and/or support services*	6.3%	6.6% ▲	5.2% ▼	5.8% ▲
Referral to both GP and mental health community services*	1.2%	1.4% ▲	1.9% ▲	1.6% ▼
Referral to private psychiatrist*	0.8%	0.6% ▼	0.6% ▼	0.5% ▼
Referral to both GP and other clinical care and/or support services*	0.5%	0.6% ▲	0.5% ▼	0.4% ▼
Alcohol and drug treatment service*	0.3%	0.2% ▼	0.2% —	0.1% ▼
Referral to Transition Care home-based program*	0.1%	0.0% ▼	0.1% ▲	0.1% —
Referral to both GP and private psychiatrist*	<0.1% —	<0.1% —	0.1% ▲	0.1% —

Table note: * referrals arranged by the hospital before discharge. ▲ = increase, ▼= decrease, — = no change. This data includes patients who were discharged from hospital and excludes patients who died in hospital, were transferred to another hospital, or had a change in care type.

Source: Victorian Admitted Episodes Dataset, DH, 2022/23.

Table 23. Proportion of total discharges to usual residence from the ED (with a principal diagnosis of any mental health condition) by top 10 referral statuses from FY2019/20 to FY2022/23.

Top 10 referral statuses upon discharge to home/usual residence	Proportion of total discharges from ED (▲ or ▼ from previous FY)			
	2019/20	2020/21	2021/22	2022/23
GP/Local Medical Officer	56.8%	56.3% ▼	57.9% ▲	57.8% ▼
Review in ED - as required	15.7%	16.2% ▲	15.7% ▼	15.3% ▼
Mental health community services	10.4%	9.8% ▼	9.1% ▼	10.4%▲
No referral	9.3%	10.1% ▲	10.0% ▼	9.1% ▼
Other	2.0%	2.4% ▲	2.1% ▼	2.1% —
Other specialist health practitioner	1.3%	1.3% —	1.2% ▼	1.7% ▲
Not known	0.8%	0.9% ▲	0.7% ▼	0.8% ▲
Outpatients	0.9%	0.6% ▼	0.8% ▲	0.7% ▼
Other community service	1.0%	0.7% ▼	0.7% —	0.7% —
Alcohol and drug treatment	0.8%	0.6% ▼	0.6% —	0.7% ▲

Note: ▲ = increase, ▼= decrease, — = no change. Discharge to usual residence includes home, correctional/custodial facility, mental health residential facility and residential care facility. This does not include patients who were admitted to the ward, transferred to another hospital, or departed the ED before treatment was completed.

Source: Victorian Emergency Minimum Dataset, DH, 2022/23

Figure 26. Proportion of hospitalisations due to any mental health condition by LGA and top 4 referral statuses upon discharge from hospital in 2022-23.

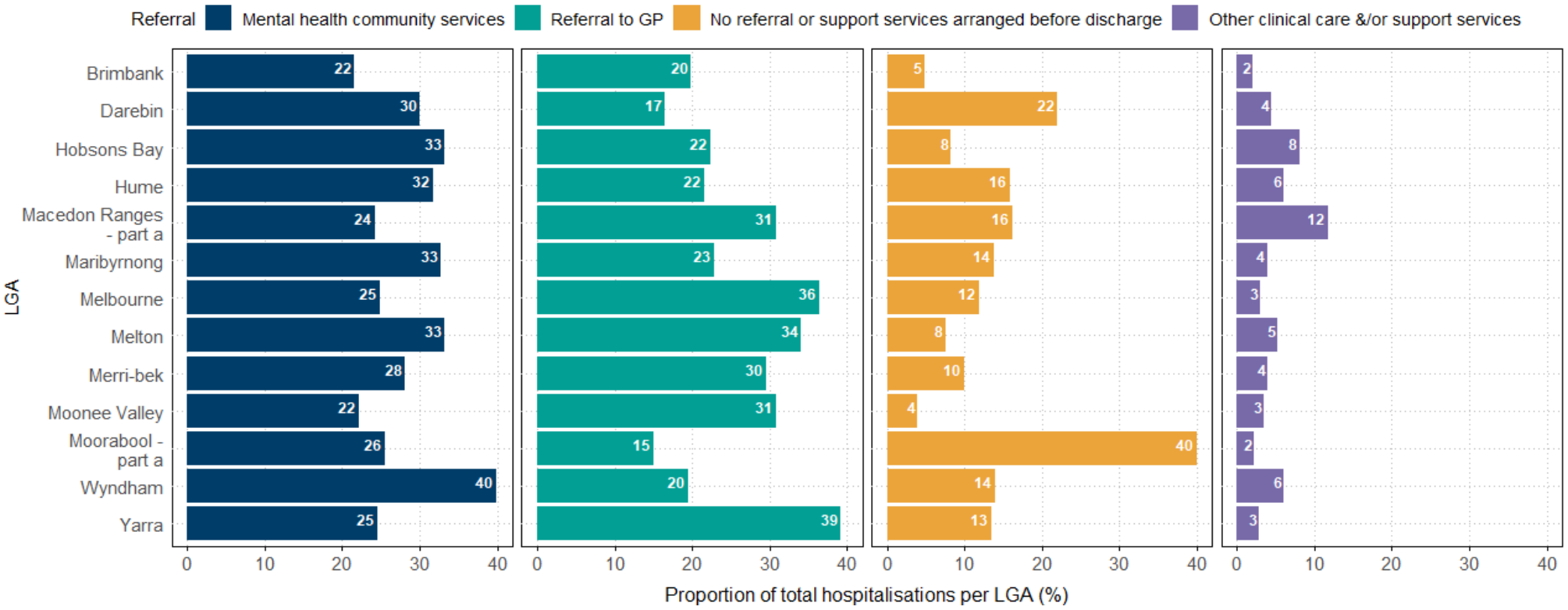


Figure notes: Proportions for each LGA calculated by the number of referrals divided by the total number of hospitalisations (due to any mental health condition) for the LGA.

Source: Victorian Admitted Episodes Dataset, DH, 2022/23.

The highest proportions of mental health community service referrals post-ED discharge are seen in children and young people. GP referrals upon ED discharge are more prevalent in those under 70 compared with those over 70. However, older adults are more likely to be admitted to the ward than discharged home.

Figure 27. Proportion of ED presentations by age and top 4 referrals upon discharge to usual residence in FY2022/23.

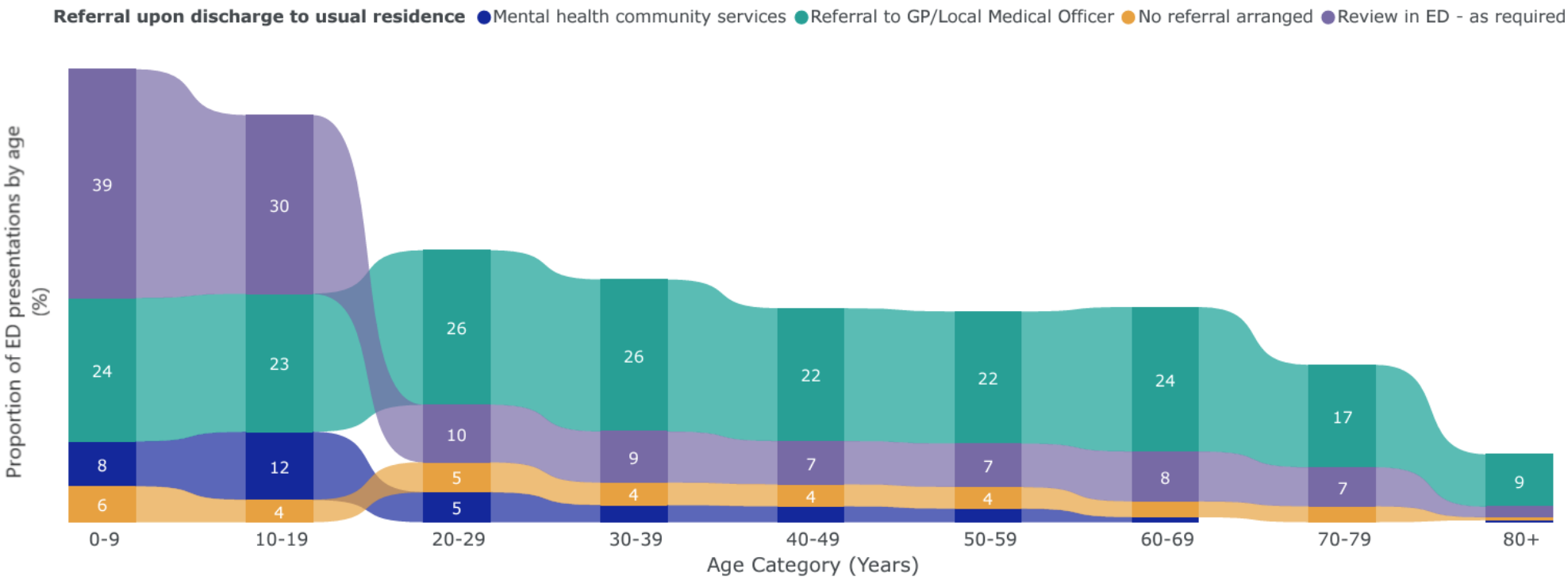


Figure notes: Proportions for each age group calculated by the number of referrals divided by the total number of ED presentations (due to any mental health condition) in the age group. Discharge to usual residence includes home, correctional/custodial facility, mental health residential facility and residential care facility. This does not include patients who were admitted to the ward, transferred to another hospital, or departed the ED before treatment was completed.

Source: Victorian Emergency Minimum Dataset, DH, 2022/23

People from culturally and linguistically diverse backgrounds

A person from a culturally and linguistically diverse background is defined in the VAED and VEMD as born in a non-English-speaking country and who speaks a language other than English at home.

Yarra had the highest rates of hospitalisation and ED presentations due to mental health for people from culturally and linguistically diverse backgrounds compared to other LGAs in the NWMPHN catchment.

Brimbank and Wyndham, the LGAs with higher populations from highly diverse backgrounds, had lower hospitalisation and ED presentation rates. However, Hume, which also has a high population from highly diverse backgrounds, had ED presentation rates above the state average.

From the available data, it is not possible to ascertain whether cultural background influences hospitalisation or ED presentation rates.

- Yarra, Moonee Valley and Merri-bek had higher hospitalisation and ED presentation rates due to mental health in people from culturally and linguistically diverse backgrounds compared to the average rate of other LGAs in the NWMPHN region.
- Females aged 60 and above and males aged over 80 had the largest number of hospitalisations. Similarly, males and females aged over 80 accounted for the largest number of ED presentations. Non-binary status was not captured in the data.
- Of all mental health conditions, delirium not due to alcohol or other substances was by far the most common reason for hospitalisations and ED presentations in 2021-22 and 2022-23 (refer to Figure 76 Supplementary File).

Figure 28. Hospitalisations due to a principal diagnosis of any mental health condition by LGA in culturally and linguistically diverse communities for 2022-23.

Figure notes: Orange dotted line indicates NWMPHN rate (11 per 10,000 population). The population denominator to calculate rates was defined by the variables from the 2021 ABS Census data (the number of people born overseas who speak English not well or not at all). Macedon Ranges- *part a* and Moorabool- *part a* were not included as numbers were too small (3 hospitalisations in Macedon, 2 hospitalisations in Moorabool).

Source: Victorian Admitted Episodes Dataset, DH, 2022-23; ABS Census, 2021

Figure 29. ED presentations due to a principal diagnosis of any mental health condition by LGA in culturally and linguistically diverse communities for 2022-23.

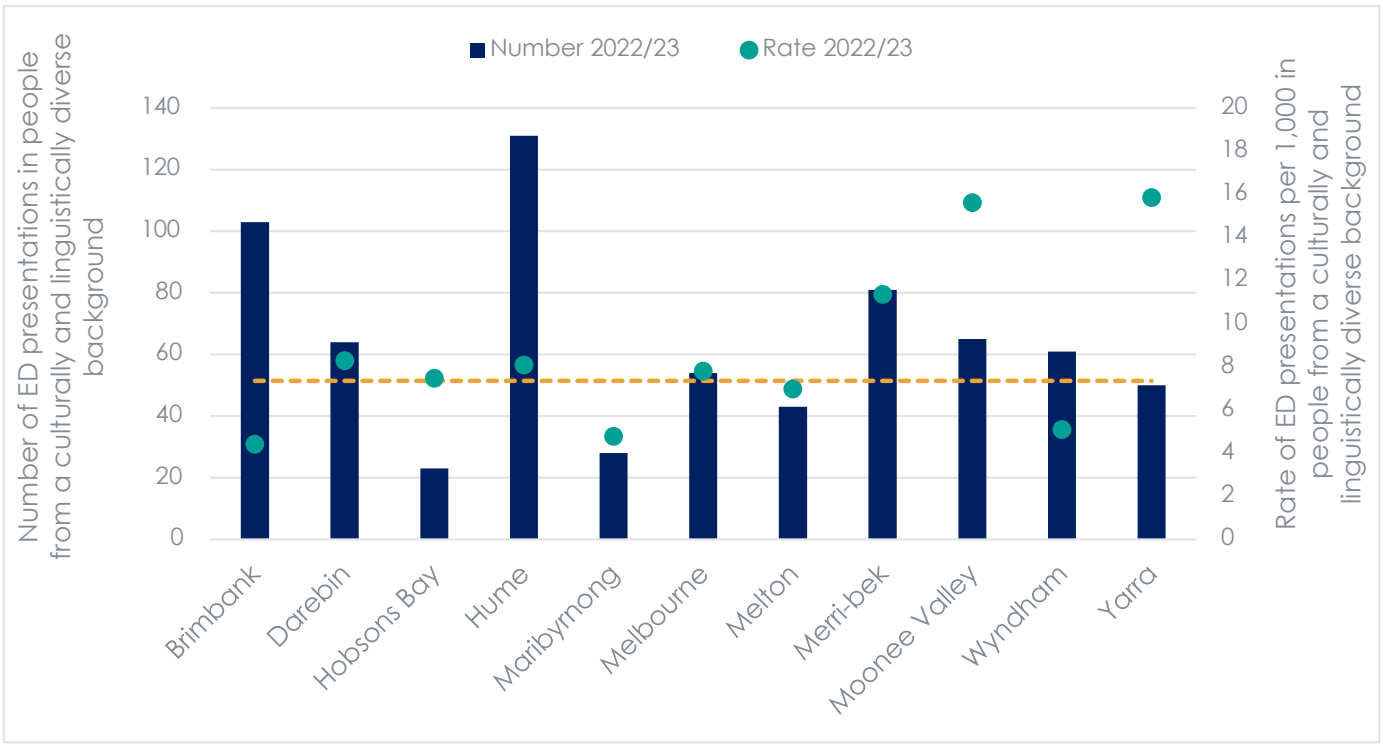


Figure notes: Macedon Ranges and Moorabool- *part a* were not included as numbers too small (1 ED presentation in Macedon, 0 in Moorabool) to calculate rates. Orange dotted line indicates NWMPHN rate (7 per 1,000 population). The population denominator to calculate rates was defined by the variables from the 2021ABS Census data (the number of people born overseas who speak English not well or not at all).

Source: Victorian Emergency Minimum Dataset, DH, 2022/23; ABS Census, 2021

Aboriginal and Torres Strait Islander people

In Yarra, hospitalisation and ED presentation rates due to a principal diagnosis of any mental health condition in Aboriginal and Torres Strait Islander people are more than 3 times higher than the state average.

The LGA has a lower Indigenous population compared to other LGAs in the region.

- Yarra followed by Melbourne had the highest hospitalisation and ED presentation rates in Aboriginal and Torres Strait Islander people in 2022-23, well above the state average.
- Merri-bek, Brimbank and Darebin also had hospitalisation and ED presentation rates above the Victorian average in 2022/23.
- Aboriginal and Torres Strait Islander males aged 40 to 49 had the significantly higher rates of hospitalisations and ED presentations due to mental health compared to all other age groups and over twice the rate for females in the same age cohort.
- ED presentations for a principal diagnoses of a mental health condition in Aboriginal and Torres Strait Islander females 10-19 years were nearly 4 times higher than males in the same age cohort (57 per 1000 Aboriginal and Torres Strait Islander people and 13 per 1000 Aboriginal and Torres Strait Islander people).
- Hospitalisations in 2022-23 were due to alcohol use, schizophrenia, and stimulant use, all of which increased from 2021-22.
- The top 2 conditions attributed to ED presentations were due to multiple drug and alcohol use, and acute and transient psychotic disorders.

Figure 30. Hospitalisation rate due to a principal diagnosis of any mental health condition in Aboriginal and Torres Strait Islander people by LGA in 2022-23.

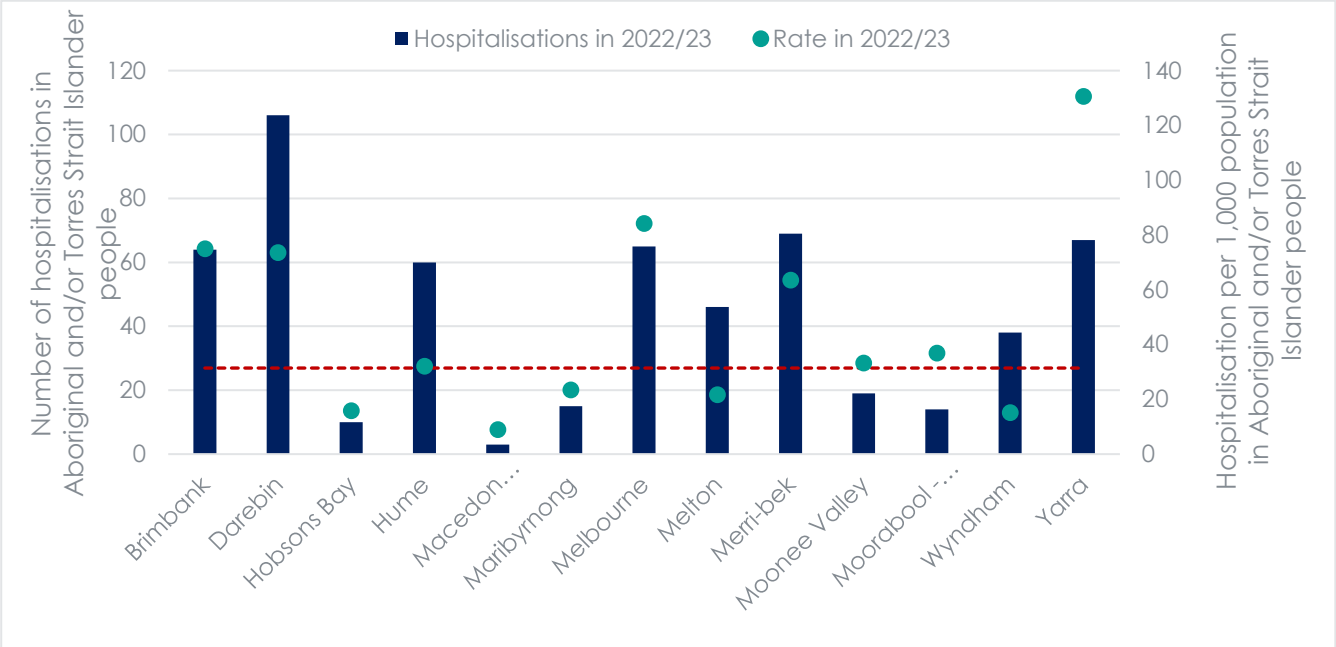


Figure notes: Rates calculated from 2021ABS Census data of Aboriginal and Torres Strait Islander population. Red line indicates 31 per 1,000 population, the Victorian rate in 2022-23.

Source: Victorian Admitted Episodes Dataset, DH, 2022/23; ABS Census, 2021

Figure 31. ED presentations due to a principal diagnosis of any mental health condition in Aboriginal and Torres Strait Islander people by LGA in 2022-23.

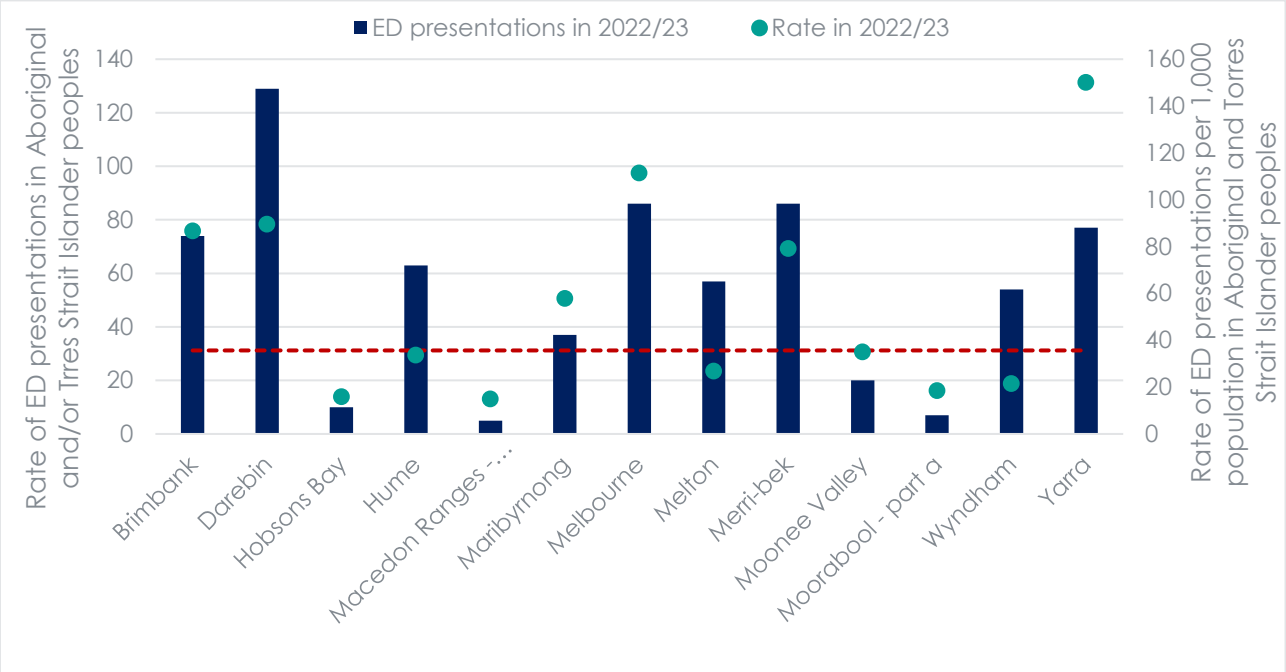


Figure notes: Rates calculated from 2021ABS Census data of Aboriginal and Torres Strait Islander population. Red line indicates 36 per 1,000 population, the Victorian rate in 2022-23.

Source: Victorian Emergency Minimum Dataset, DH, 2022/23; ABS Census, 2021

Figure 32. Rate of hospitalisations due to a principal diagnosis of any mental health condition in Aboriginal and Torres Strait Islander people by sex and age in 2022-23.

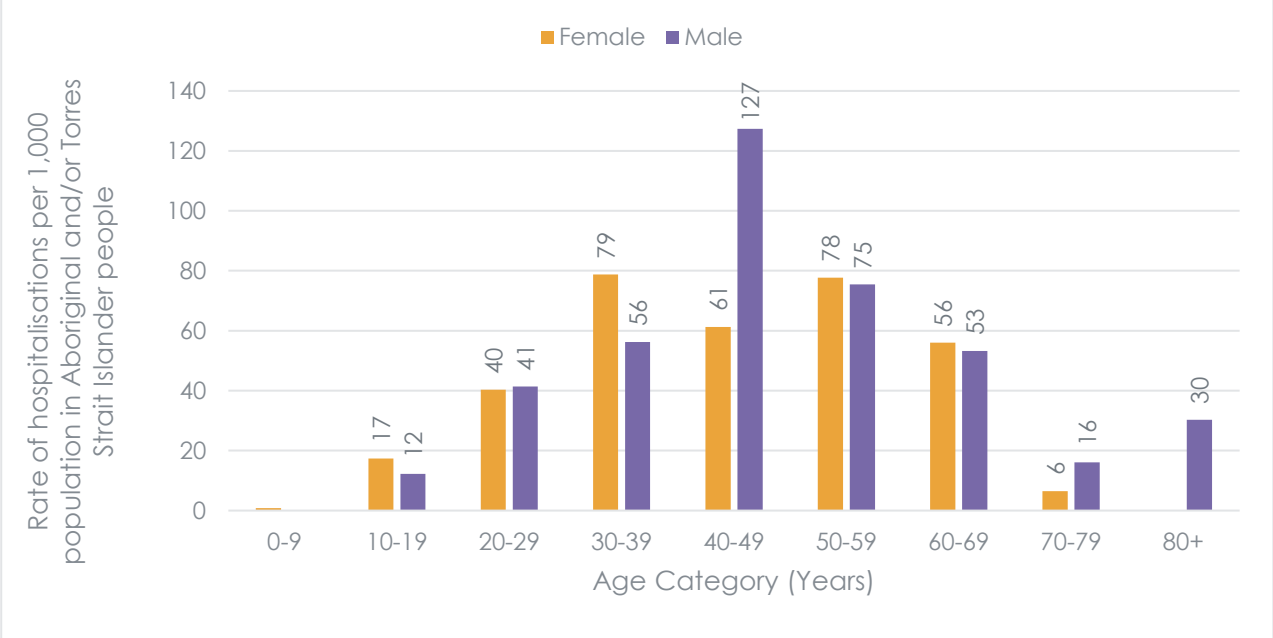


Figure notes: Rates calculated from 2021ABS Census data of Aboriginal and Torres Strait Islander population.

Source: Victorian Admitted Episodes Dataset, DH, 2022/23; ABS Census, 2021

Figure 33. Rate of ED presentations due to a principal diagnosis of any mental health condition in Aboriginal and/or Torres Strait Islander people by sex and age in FY2022/23.

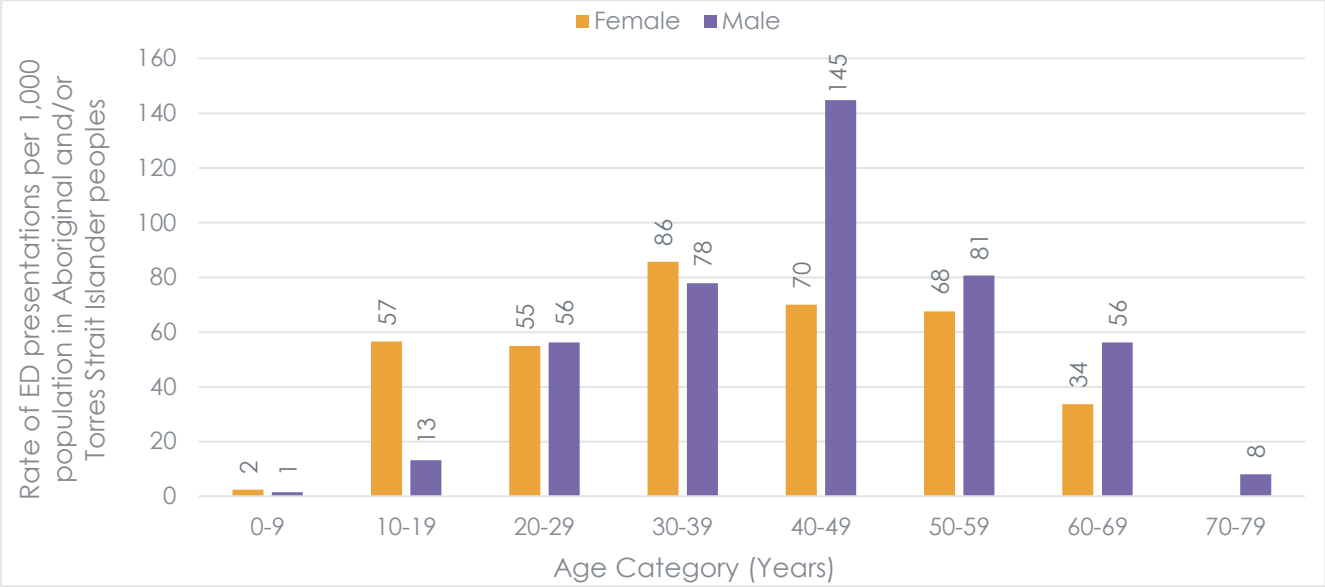


Figure notes: Rates calculated from 2021ABS Census data of Aboriginal and Torres Strait Islander population.

Source: Victorian Emergency Minimum Dataset, DH, 2022/23; ABS Census, 2021

Hospitalisations and emergency department presentations as a function of socio-demographic disadvantage

The IRSD quintiles provide a way to understand the distribution of socio-economic disadvantage across different geographic areas. Lower quintiles (Q1 and Q2) typically indicate areas with higher levels of socio-economic disadvantage, while higher quintiles (Q4- Q5) indicate areas with higher levels of advantage. The third quintile (Q3) represents the national average (Australian Bureau of Statistics (ABS), 2023).

- Variation in hospitalisation rates for mental health conditions was observed across postcodes particularly in lower SES quintiles (IRSD Q1-Q2) and inner-city areas. For example, residents living in pockets of disadvantaged postcodes within metro areas such as Yarra had higher rates of hospitalisation and ED presentations for mental health conditions.
- Hospitalisation rates for mental health conditions also was shown to differ across postcodes within the same LGA, such as Brimbank (3021), where high hospitalisation rates (approximately 1,650 per 100,000 people) for mental health conditions were identified, in contrast to much lower rates in Brimbank of less than 400 per 100,000 people.
- Higher IRSD quintiles (Q4- Q5), for example Maribyrnong, or geographic area, for example, Macedon Ranges-*part a*.
- Peri-urban areas, specifically in Macedon Ranges- *part a*, have lower ED presentations and hospitalisation rates compared with other NWMPHN regions.

Figure 34. Rate of hospitalisations due to any mental health condition by postcodes, IRSD and areas in 2022-23.

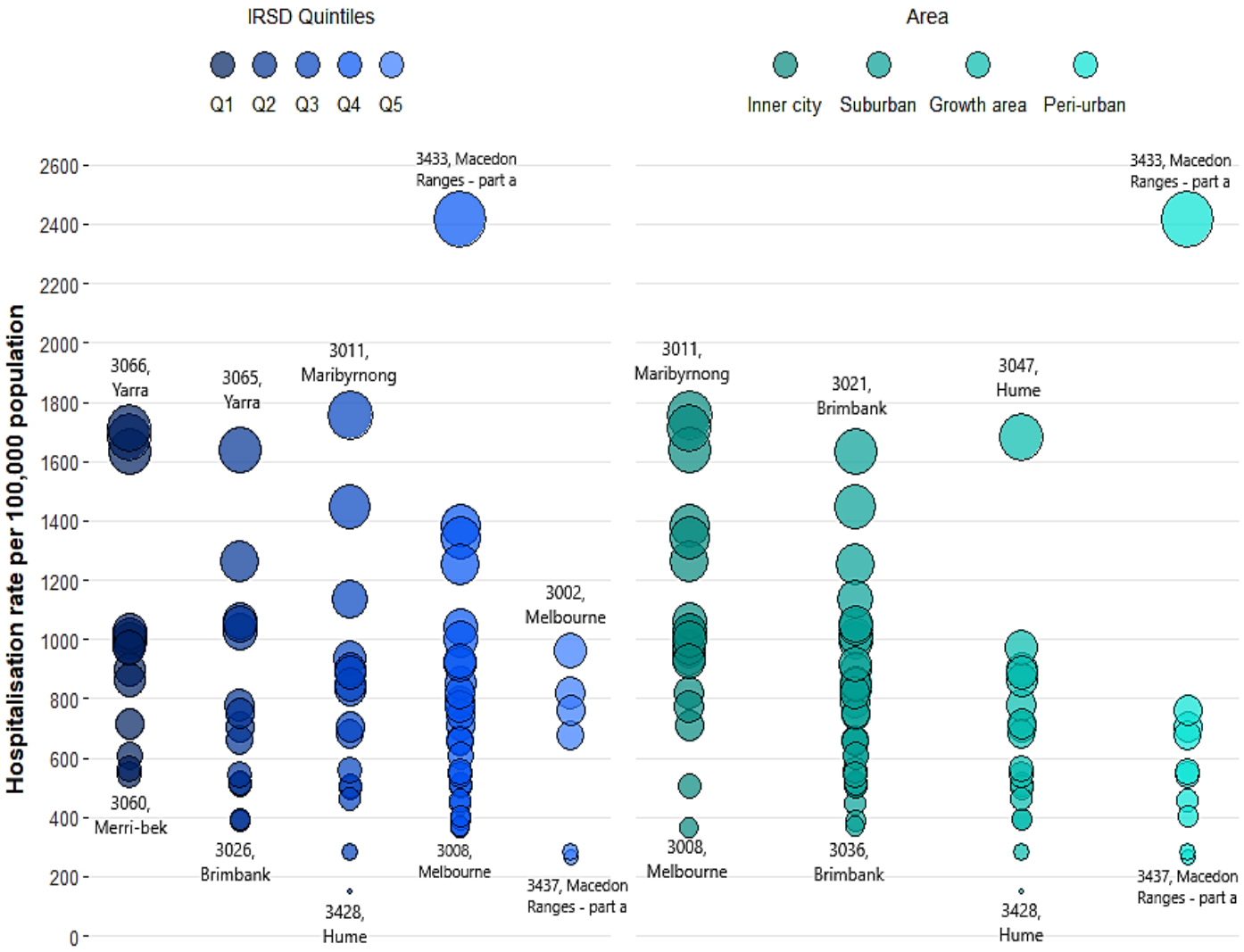


Figure notes: Each circle represents a postcode, and the size represents the rate of hospitalisations due to mental health conditions per 100,000 population. The bigger the circle, the higher the rate for that postcode. Some postcodes belong to two LGAs. The LGA that had a higher postcode population was included to be grouped into one of the area categories.

Source: Victorian Admitted Episodes Dataset, DH, 2022/23; ABS Census 2021

Figure 35. Rate of ED presentations due to any mental health condition by postcodes, IRSD and areas in 2022-23.

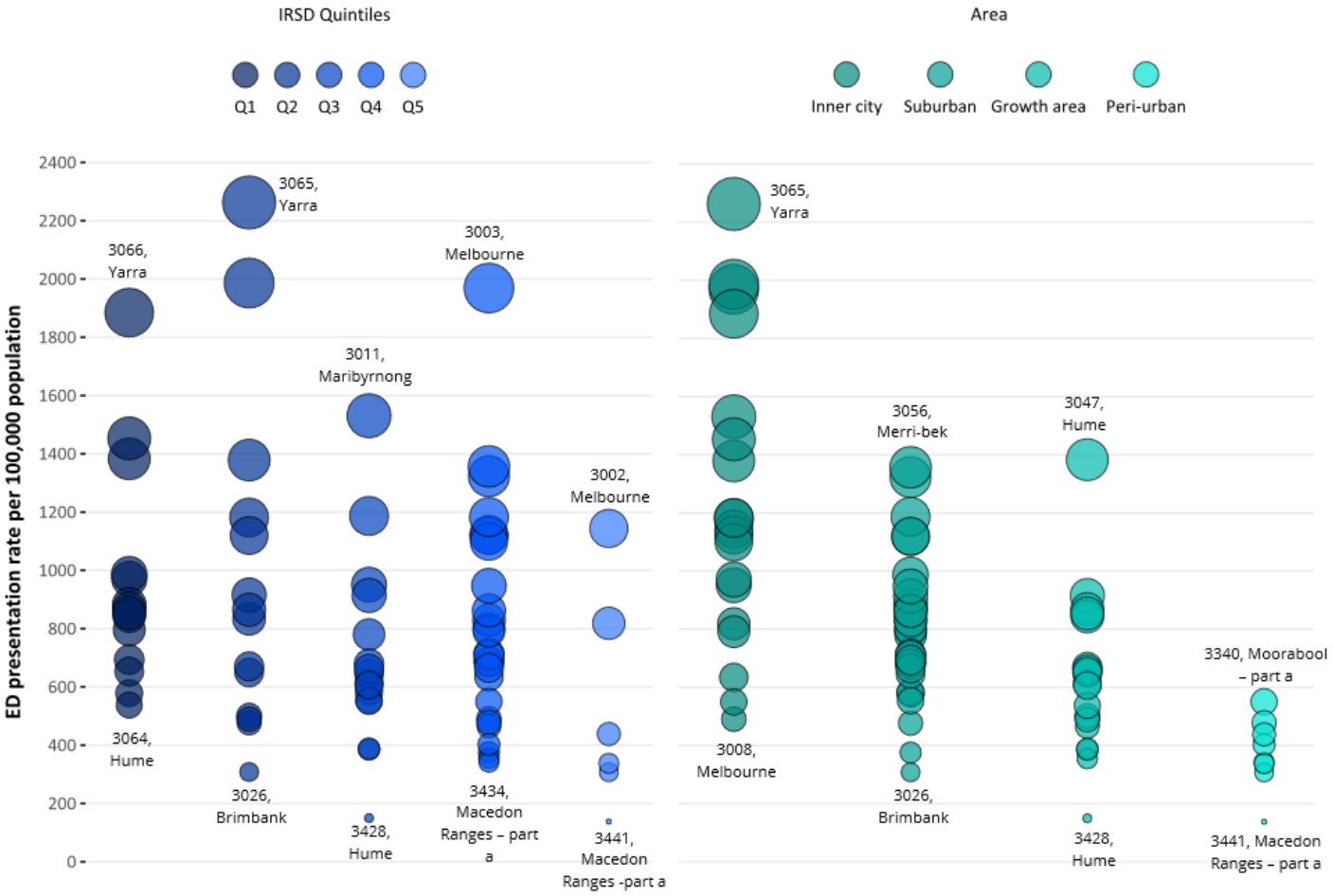


Figure notes: Each circle represents a postcode, and the size represents the rate of ED presentations due to mental health conditions per 100,000 population. The bigger the circle, the higher the rate for that postcode. Some postcodes belong to two LGAs. The LGA that had a higher postcode population was included to be grouped into one of the area categories.

Source: Victorian Emergency Minimum Dataset, Victorian Department of Health, 2022/23; ABS Census, 2021

Suicidal ideation, self-harm, and suicide

Hospitalisations and emergency department presentations due to suicidal ideation or self-harm

This section presents key findings pertaining to hospitalisations and ED presentations from 2019 to 2022 due to suicidal ideation, based on principal diagnosis during the episode. The Victorian Admitted Episodes Dataset (VAED) and Victorian Emergency Minimum Dataset (VEMD) were used, extracting material for the NWMPHN region.

High hospitalisation rates due to suicidal ideation were prevalent in the inner-city areas of Yarra and Melbourne. ED presentation rates were higher in areas of greater socioeconomic disadvantage – Brimbank, Hume and Melton. Females aged 10 to 19 were disproportionately represented by hospitalisations and ED presentations due to suicidal ideation, especially in Moorabool-*part a*, Hobsons Bay and Brimbank.

Suicidal ideation – prevalence and demographic characteristics

- ED presentations due to suicidal ideation were highest in Maribyrnong but also high in areas of disadvantage -- Brimbank, Hume and Melton.
- ED presentation and hospitalisation rates were also high in females aged 20 to 29.

Figure 36. Hospitalisations due to a principal diagnosis of suicidal ideation by LGA in 2022-23.

Figure notes: Red line indicates the Victorian rate of 39 per 100,000 population. Rate was calculated using 2022 ERP population.
Source: Victorian Admitted Episodes Dataset, DH, 2022/23; ABS, 2022

Figure 37. ED presentations due to a principal diagnosis of suicidal ideation by LGA in 2022-23.

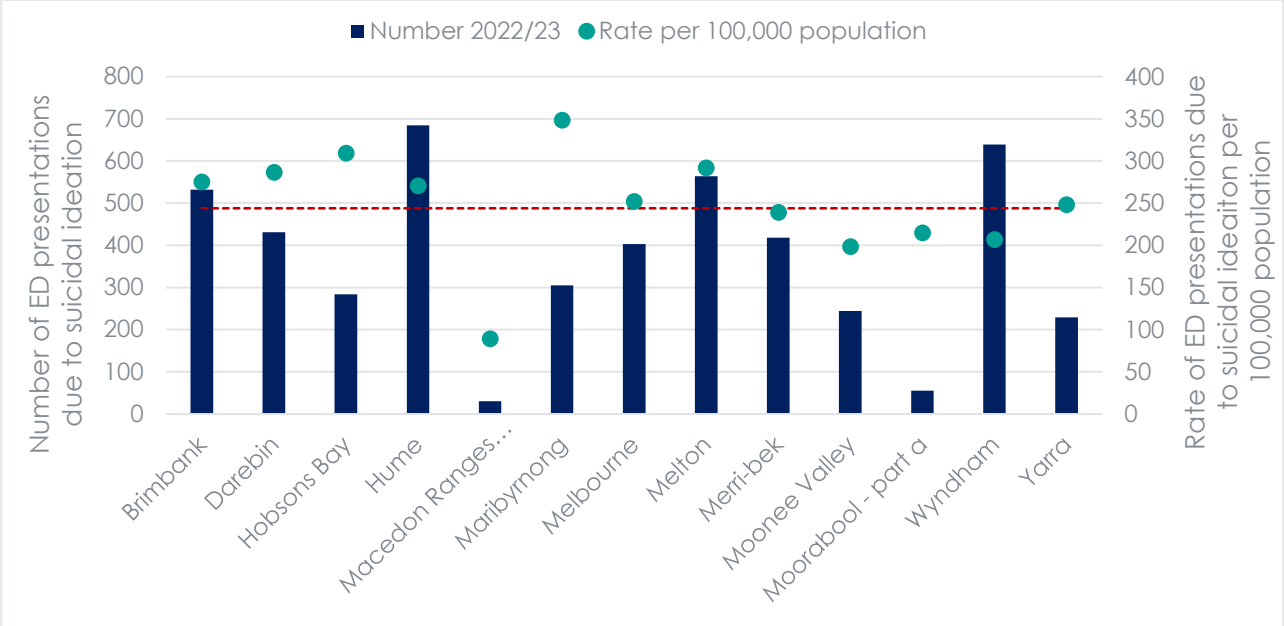


Figure notes: Red line indicates the Victorian rate of 244 per 100,000 population. Rate was calculated using 2022 ERP population.

Source: Victorian Admitted Episodes Dataset, DH, 2022/23; ABS, 2022

Figure 38. Hospitalisation rates due to a principal diagnosis of suicidal ideation by sex and age in 2022-23. The data does not identify non-binary or trans people.

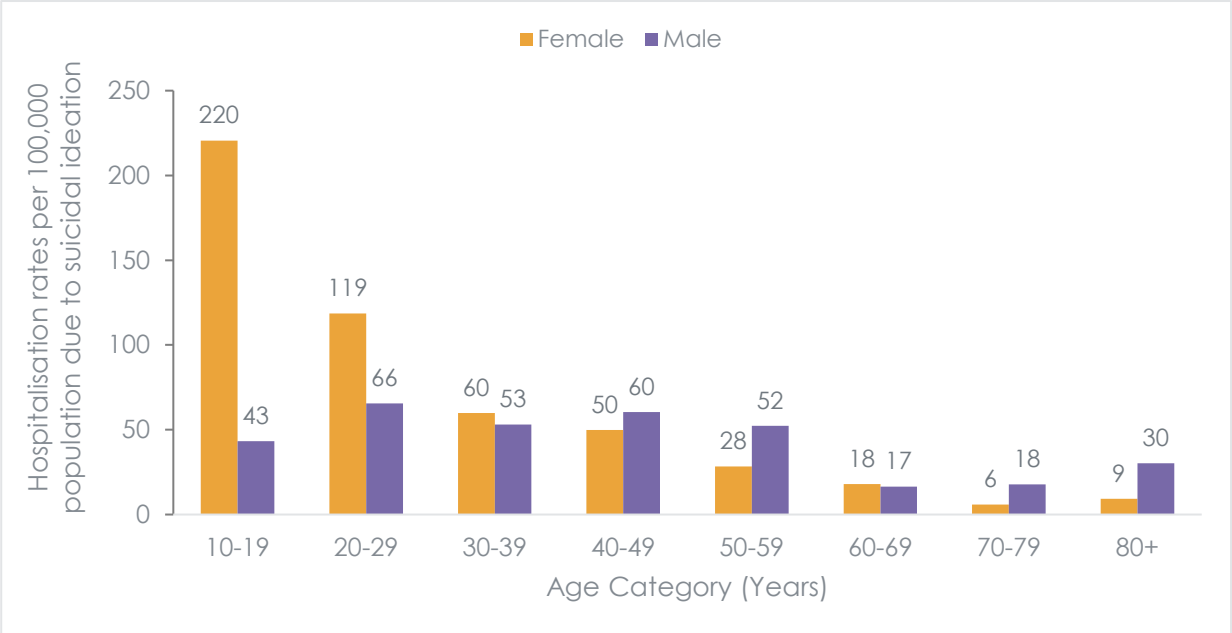


Figure note: Rate was calculated using 2022 ERP population.

Source: Victorian Admitted Episodes Dataset, DH, 2022/23; ABS, 2022

Figure 39. ED presentation rates due to a principal diagnosis of suicidal ideation by sex and age in 2022-23. The data does not identify non-binary or trans people.

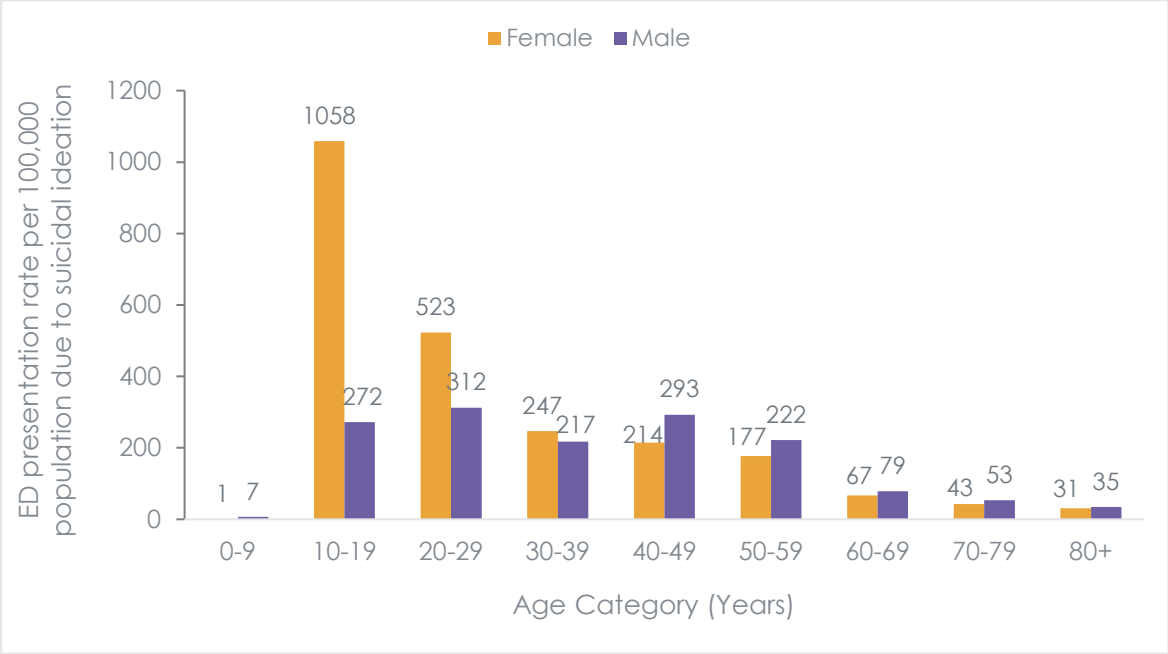


Figure note: Rate was calculated using 2022 ERP population.

Source: Victorian Emergency Minimum Dataset, DH, 2022/23; ABS, 2022

Suicidal ideation - females aged 10 to 19

Table 24: Top 5 LGAs ranked by hospitalisation and ED presentation rate due to suicidal ideation for females aged 10-19 in 2022-23.

Hospitalisations	ED presentations
Moorabool-*part a* (614)	Hobsons Bay (1761)
Brimbank (500)	Moorabool-*part a* (1413)
Hobsons Bay (340)	Merri-bek (1288)
Hume (272)	Brimbank (1269)
Melton (231)	Moonee Valley (1191)
Victoria (139)	Victoria (831)

Table notes: Table includes the top 5 LGAs with the highest hospitalisation and ED presentations rates for females aged 10 to 19. Rates are presented as per 100,000 population using 2022 ERP. Colours represent specific LGA, e.g., purple = Melton.

Source: Victorian Emergency Minimum Dataset and Victorian Admitted Episodes Dataset, DH, 2022-23; ABS, 2022

ED presentations due to self-harm

The numbers of ED presentations due to a principal diagnosis of self-harm were small. However, self-harm with an additional diagnosis of any mental health condition increased from 2021-22 to 2022-23. Self-harm with an additional diagnosis of suicidal ideation decreased from 2020-22 to 2022-23.

Figure 40. Number of ED presentations due to a principal diagnosis of self-harm from 2019-20 to 2022-23.

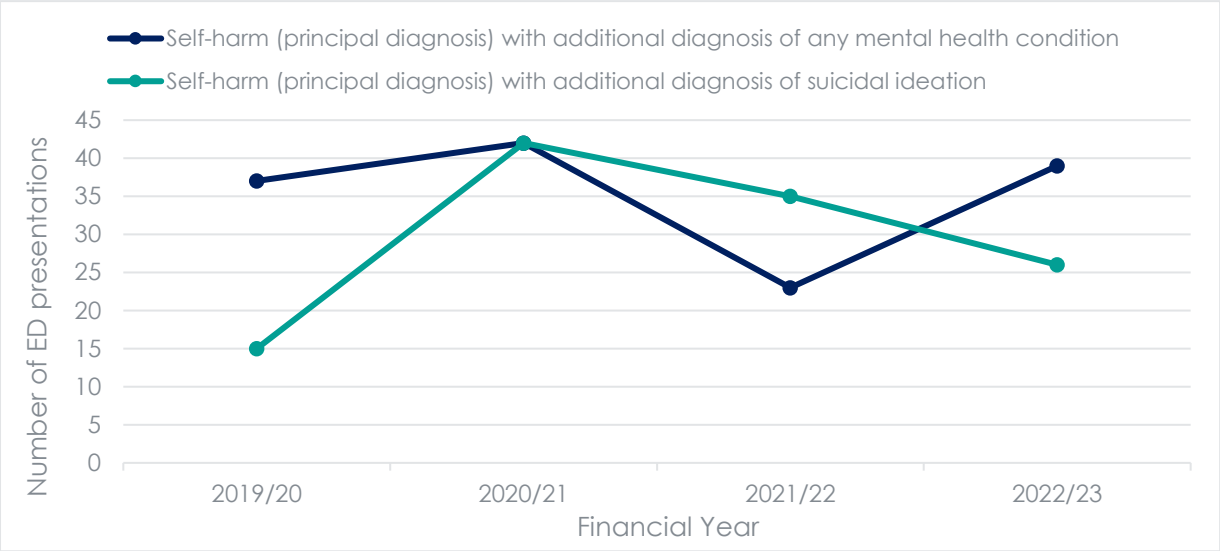


Figure notes: Self-harm was derived from the human intent variable, which is only recorded in the principal diagnosis. Self-harm in the principal diagnosis with additional diagnosis of any mental health condition and self-harm in the principal diagnosis with an additional diagnosis of suicidal ideation are shown separately.

Source: Victorian Emergency Minimum Dataset, DH, 2022-23

Mortality due to suicide

Suicide is a major public health issue. Death by suicide is relatively rare, with AIHW figures estimating they accounted for approximately 1.7 per cent of all deaths across Australia recorded in 2022. However, the human costs are substantial and have long-lasting effects across communities (*Suicide Self-Harm Monitoring Data*, 2023). Thus, suicide prevention is a key focus for government agencies and non-government organisations (Department of Health and Aged Care, 2023).

Only 4 LGAs -- Brimbank, Hume, Melbourne and Moonee Valley – had mortality rates due to suicide and self-inflicted injury below the state average. However, these rates are derived from data for the period 2016 to 2020, which pre-dates other indicator measures presented in earlier sections. In addition, this data excludes individuals aged over 85, a cohort in which females had the highest suicide rate among all female age groups (10.6 per 100,000), and males had the highest age-specific suicide rate (Australian Bureau of Statistics, 2022).

Figure 41. Average annual age-standardised rate per 100,000 population (0 to 74 years) of death by suicide and self-inflicted injury from 2016 to 2020.

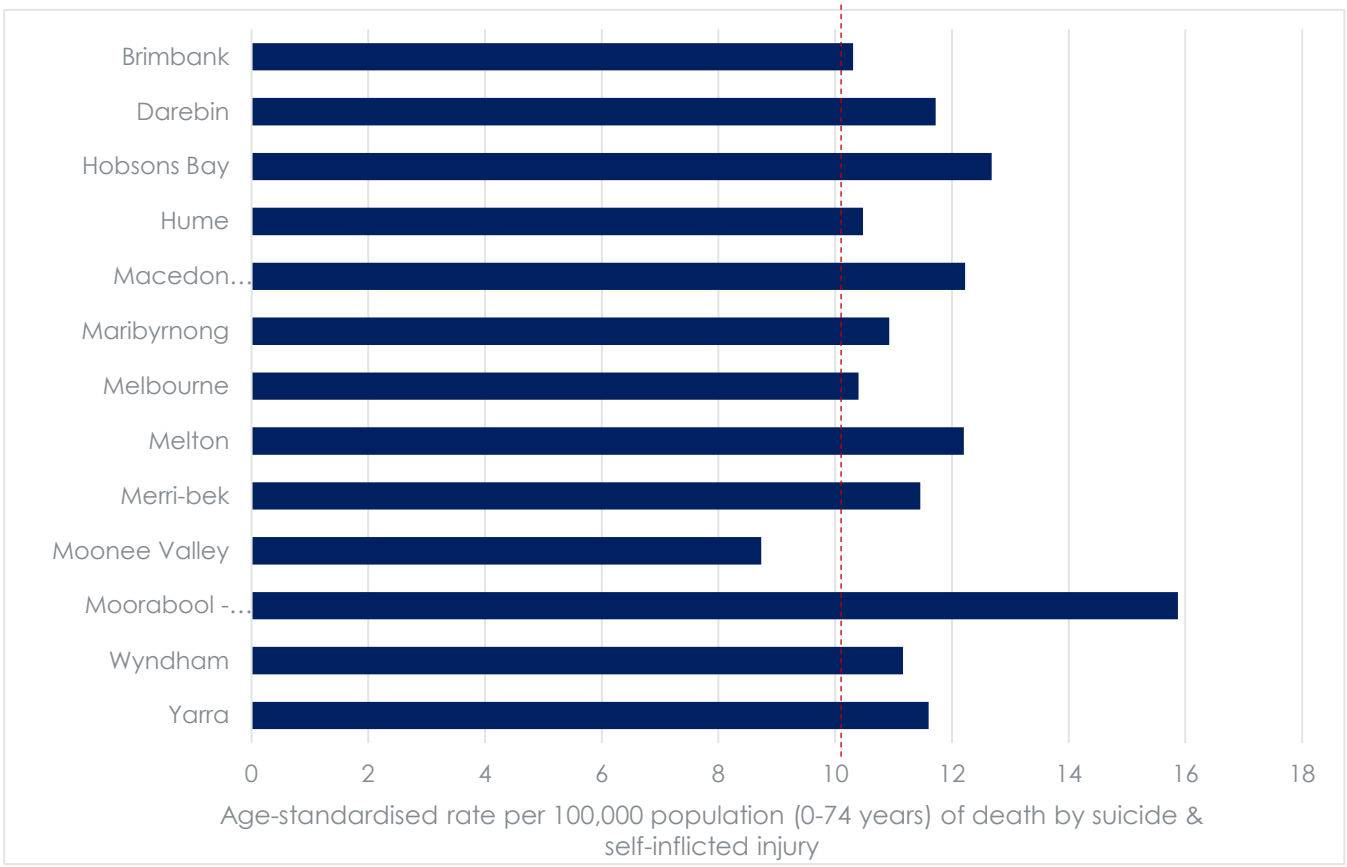


Figure notes: Red dotted line indicates Victorian rate (10.6 per 100,000 population).

Data source: Data compiled by PHIDU, an analysis of deaths data based on the 2016 to 2020 Cause of Death Unit Record Files, (PHIDU), 2023)

3.

Community and health service provider consultation

Building our understanding about the drivers that influence mental health need and access in the NWMPHN region.

3.1

Overview

- Primary objectives
- Key lines of enquiry

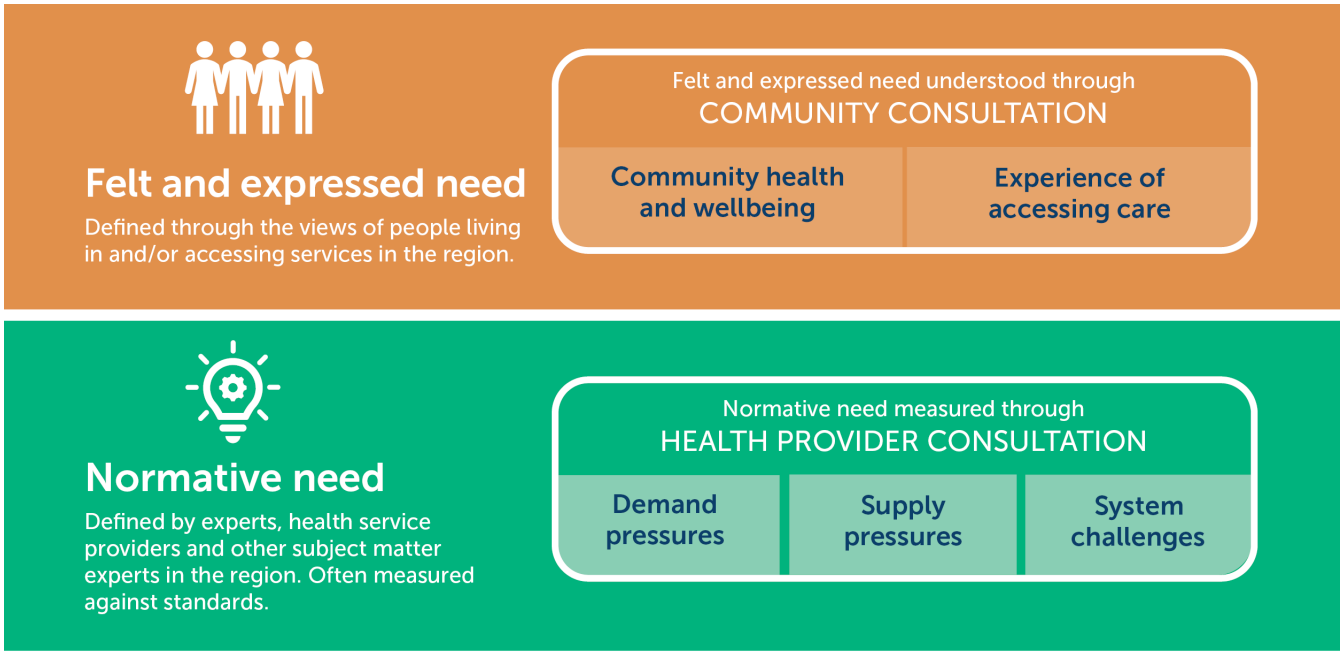
3.1 Overview

This section summarises the main findings from our consultation sessions about expressed and felt need with community members, and about normative need with service providers. These were to understand factors influencing people's mental health needs and experience accessing services in the NWMPHN region. A summary of opportunities to address mental health need is detailed at the end of this section.

We focused on exploring mental health needs in priority populations with complex needs, and disparities in access and health outcomes. The populations were:

- People from culturally diverse backgrounds
- LGBTIQ+ people
- Older adults
- People experiencing homelessness
- Refugees and people seeking asylum
- Children and young people
- Aboriginal and Torres Strait Islander people

Figure 42. Understanding felt, expressed and normative need through community and health provider consultation.



Primary objectives

Using the key line of enquiry questions (KloEs), the purpose of stakeholder engagement and consultation was to:

- Contextualise the quantitative findings from the comparative need assessment.
- Explore and understand the felt and expressed needs of people living in or accessing mental health-related services in the NWMPHN region.
- Explore and understand the normative need, defined by what subject matter experts and mental health service providers view as demand, supply pressures, and system challenges.
- Identify barriers and enablers to accessing mental health services.

Key lines of enquiry

The KLoEs were developed with members of the MH PAG and served as a guide during the stakeholder consultations. Using the KloEs helped generate meaningful insights that contributed to a more nuanced and informed understanding of mental health need in the NWMPHN region. The KLoEs were:

What is the profile of people living with mental illness, psychological distress, and associated risk factors?	How and what mental health and wellbeing services are accessed by people living with mental illness or psychological distress?	What treatments or therapies are used to help people with mental illness or psychological distress?
What is the profile (including distribution, service type, and funding source) of mental health and wellbeing services currently available for people living with mental illness or psychological distress?	To what extent do existing services meet the needs of people living with mental illness or psychological distress?	
What is the profile (including age, qualification, and experience level) of the workforce delivering mental health and wellbeing services?	What barriers and enablers to service access are experienced by people living with mental illness or psychological distress?	

3.2

Methods

- Recruitment and data collection
- Qualitative data analysis

3.2 Methods

Between May and June 2023, we conducted online consultations with community members and service providers living, accessing, and providing mental health services in the NWMPHN region. The study design is set out in Table 25.

Table 25. Study design for qualitative analysis.

Sample	Sample of n=174 adults aged over 18 including mental health service users (n= 20) and providers (n= 154) in the NWMPHN region.
Phenomena of interest	Determinants influencing mental health need and access to mental health services from the perspectives of community members and service providers.
Design	Semi-structured, qualitative focus groups and interviews guided by a set of key line of enquiry questions.
Evaluation	Deductive thematic analysis using the Social Ecological Model (SEM).
Research type	Qualitative.

In summary, the qualitative analysis was informed by a total of:

- **25 consultations,** including 9 2-hour focus groups and 16 one-hour targeted consultations were delivered.
- **20 consumers and 68 organisations participated** (out of 88 invited), including GPs, community health providers and non-health services such as legal services.
- **174 people participated** in the consultations.

A list of stakeholders participating in the consultations is provided in the beginning of this report under Contributors.

Recruitment and data collection

Stakeholders were recruited in the following stages:

- **Stage 1. Stakeholder identification:** A consolidated list of stakeholders was developed through a stakeholder mapping exercise undertaken with the MH PAG to ensure adequate breadth of mental health subject matter expertise and people with mental health lived experience, including carers.
- **Stage 2. Promotion and recruitment:** Stakeholders were invited to participate through email and promotion through NWMPHN communication channels and networks (for example, newsletters, reference groups). Consumers were recruited through People Bank, SHARC, VMIAC and Tandem. Participants were provided with information about the purpose of the consultations, how the information would be used ahead of time and during the consultations.
- **Stage 3. Participation in consultations:** Semi-structured 60-to-120-minute targeted consultations and focus groups were held online (using MS Teams) and facilitated by 2

NWMPHN staff members plus a scribe to record written notes. A consultation guide, developed based on the KLoEs, was used and included open-ended questions and prompts. A sample of the consultation questions are provided in Appendix E.

- **Stage 4. Post-consultation:** For consumer participants, a trained mental health counsellor was available immediately after each consultation session to offer a debrief, support or information if needed. Additionally, an anonymous survey link was shared with all participants to provide feedback about their experience. Consumers and GPs were remunerated for their time as described in the NWMPHN stakeholder reimbursement policy. A thank you email was sent to all participants along with a summary of key points from the consultation to validate or amend the findings within a week of the consultation.

Qualitative data analysis

Theoretical framework used for qualitative analysis

To guide the qualitative data analysis, the Social Ecological Model (SEM) was used. The SEM is a theory-based framework that describes 4 hierarchical societal factors; individual, interpersonal, service/program, and policy/enabling environment (see Figure 41).
Using the SEM for the analysis enabled organisation and interpretation of the data across these 4 factors to understand the key drivers that influence mental health need, experience, and health outcomes in the NWMPHN region.

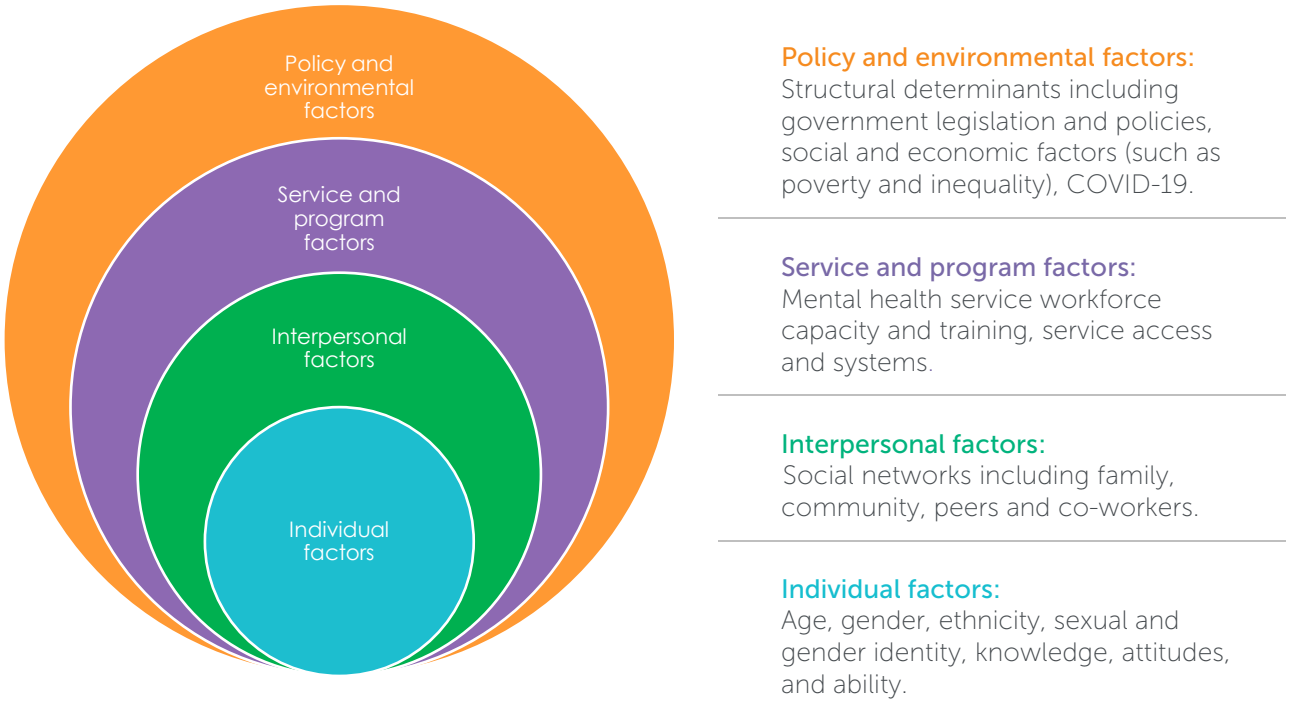


Figure 43. Social Ecological Model (SEM) used to frame the qualitative analysis in the Mental Health focused Health Need Assessment.

Process for qualitative analysis

Deductive analysis was used to group excerpts based on the SEM in Excel. These data were numerically coded using the socioecological model (SEM), labelling data items from one to 4 with responses assigned to the SEM levels (individual, interpersonal, program/service and policy/environment). The data was also organised by mapping de-identified excerpts to stakeholder group, and to the priority cohort where it applied.

3.3

Key findings accross consultations

- Consumer lived experience
- carers, including parents and guardians
- Mental health service providers

3.3 Key findings across consultations

Here is a summary of the key findings highlights areas of mental health need in NWMPHN region from the perspective of consumers, carers and organisations receiving and providing mental health support services and treatment.

Consumer lived experience

	**Mental health needs of the community are influenced by intersecting social, cultural, and economic factors, such as discrimination, housing, income, family violence, and trauma.** Actively involving community voices in program and service development ensures a nuanced understanding and ability to respond effectively to complex factors that underlie mental health and wellbeing in marginalised communities.
	**Engaging marginalised populations, creating safe and inclusive environments, and providing person-centred care requires a culturally competent and diverse workforce.** Experiences where people felt judged, or their concerns were not listened to or dismissed by service providers, can lead to disengagement, fear, and not receiving the care they need. First Nations people and other marginalised groups face power imbalance and structural discrimination, contributing to distrust of mainstream services, fear and reluctance to seek support. Experience shared through word-of-mouth is a powerful tool, influencing where people seek (or avoid) mental health care.
	**Social connection plays a vital role in promoting positive mental health and wellbeing.** The disruption caused by COVID-19, including a lack of in-person social gatherings and social isolation has significantly contributed to increased feelings of loneliness across cohorts, as well as social anxiety, difficulty readjusting to social settings and behavioural disorders, particularly in young people.
	**Community members continue to experience challenges navigating the health system**, creating barriers to timely access to mental health services. Consumer experience is further hindered by extended waitlists, difficulties in finding resources in their language, and uncertainty in locating a suitable counsellor.
	**Trauma-informed approaches can facilitate the provision of sensitive mental health care**. Building service provider capability supports and empowers individuals without re-triggering past trauma experiences to reduce or prevent negative impacts on mental health and wellbeing.

Carers, including parents and guardians

	**Carers' mental health needs are often overlooked or dismissed by health providers.** The importance of follow up support for parents and guardians after a child is diagnosed was identified as important to the provision of holistic care.
	**Understanding the unique needs of carers is necessary to prioritise accessible and responsive mental health support services,** including peer support groups, resources and carer respite services.
	**Advocating for social recognition of the carers' experience** is important to increase understanding, reduce stigma and promote mental health awareness. It can also help create supportive social networks that can contribute to improving mental health outcomes.
	**Increasing carer health literacy, skills and knowledge through education** including mental health first aid courses, can empower carers to provide effective and informed support.
	**There is a need for collaboration and improved communication between health professionals and other mental health service providers** and inclusion of carers in the communication process to help coordinate care for individuals with mental health needs.

Mental health service providers[16]

	**An increase in acuity and complexity of mental health conditions** were reported by mental health service providers with patients receiving mental health disorder diagnoses for multiple conditions, increased severity of symptoms, increased incidences of suicidality and self-harm, and younger age of presentations. Complexity root causes include social determinants, requiring a holistic approach beyond medical issues alone. Using GP mental health care treatment plans and prescribed medications were not perceived as reliable indicators for measuring mental health acuity, complexity, or treatment effectiveness due to various barriers to accessing care. Rather, the use of patient reported outcome measures to monitor access and assess treatment effectiveness for complex mental health conditions were suggested by GPs as a better alternative.
	**The workforce currently is not meeting increasing demand and there is service disparity between availability of services for low acuity vs high intensity and complex cases.** Under-resourcing, workforce shortages and burnout span across health and community services. Enhanced social awareness and reduced stigma surrounding mental health since the start of the COVID-19 pandemic have contributed to increased demand for services.

[16] Mental health service providers included: GPs and primary health services, community health services and NGOs, community social services, tertiary health services and local and state government.

	A lack of service options for higher intensity cases is exacerbated by challenges accessing and referring to psychiatrists for critical or complex conditions. Enhancing workforce capacity to manage rising complexity through training and support for primary and community health services and other organisations providing mental health services is essential.
	Flexible service delivery models with multiple open doors will help to address service access inequities for marginalised and culturally diverse communities, further enhanced through a diverse workforce and multilingual services. Cultural training is now broadly considered necessary but is often too superficial and lacks practical application. Collaboration with outreach services, consumers and community leaders can help build trust and cultural awareness and engage marginalised populations. Improvement in data collection and research is also needed to understand and assess mental health needs across marginalised groups.
	Lack of vertical integration within the mental health sector and need for better collaboration between service providers in the public and private health sectors, including community-based social services, pharmacy, AOD, schools, aged care, NDIS and psychiatry. Commissioning one-stop-shop health hubs and models of care that enable multi-disciplinary teams to operate in private practice settings can reduce duplication of effort and resources, streamline system coordination and foster partnerships and referral pathways between different services.
	Prioritising successful community-based programs in commissioning fosters collaboration and innovation. There is an opportunity to enhance cooperation between services and ensure inclusivity to support smaller, less resourced organisations. Adequate consultation with marginalised communities and health providers in service design is essential, leading to more inclusive and effective outcomes.

3.4

People from culturally and linguistically diverse backgrounds

"It's important to acknowledge this discussion involves people with different backgrounds that have different experiences and journeys and how our lived experiences are impacted rather than lumping them into a single 'culturally and linguistically diverse' box".

- Service Provider

3.4 People from culturally and linguistically diverse backgrounds

Summary of consultation findings – people from culturally and linguistically diverse (CALD) backgrounds

- Across consultations, language and cultural barriers were identified as primary obstacles to seeking mental health care. Low English language proficiency was associated with less effective communication between mental health professionals, leading to less inclusive treatment planning and unmet needs.
- Community services providing mental health services addressed the common misconception "some CALD communities lacked an understanding of their mental health conditions or diagnoses." A difference in cultural understanding of 'holistic wellness,' and unfamiliarity of conventional or Western terms and definitions can lead health providers to assume low levels of health literacy or lack of understanding.
- However, low mental health literacy was most associated with challenges navigating the health care system. Specifically, consumers expressed the difficulty of finding culturally competent GPs, highlighting that there could still be a lack of cultural competence or rapport from a GP of the same background.
- Social stigma surrounding mental illness emerged as a significant cultural barrier preventing individuals from openly discussing mental health concerns within some families or communities or seeking professional help. Fear of judgment, the desire to preserve family reputation, and the criminalisation of mental health issues in some cultures were identified as factors exacerbating stigma.

> *"In many East Asian cultures, there is a strong emphasis on saving face and maintaining a strong family front, which can lead to the suppression of mental health discussions."*
>
> *- Community Service Provider*

- A common theme across service provider consultations included workforce[17] burnout. They reported the unsustainable impact of "cultural load", a term that described the substantial effort and difficulty associated with integrating cultural diversity into the workforce.
- A shared sentiment among consumers and organisations was that 'diversity roles' in health services often lacked essential support and resources, indicating low value or tokenism. Accountability was noted to be "tied to individuals or small services supporting underserved populations" accelerating burnout and adversely impacting health and wellbeing.

[17] Workforce in this context references to the general workforce, not just the bi-cultural workforce.

- Additionally, a lack of access to translators and under-representation in the workforce were identified as leading some CALD communities to feel excluded and disengaged from health services. Marginalised groups need to be better represented at all levels of service delivery to provide comprehensive care sensitively.
- Various suggestions for improving organisational cultural competency were identified (section 3.11). However, cultural safety training for health care professionals, particularly GPs, was a recurrent theme, with emphasis on building practical skills beyond "basic cultural awareness".
- Health services reported the impact of the COVID-19 pandemic as disproportionately impacting marginalised groups, including some diaspora and language communities. Social and economic factors, such as stress related to lockdowns and social isolation, as well as financial stressors due to higher rates of lower-paid employment and casual positions, influenced increased mental health needs.
- Health services also expressed concerns about observing an increase in suicidality, and in neurodevelopmental delay in children. COVID-19 was also noted to have helped to increase mental health awareness in some communities, encouraging open dialogue around the topic.

> *"After COVID, religious centres asked our service to run a session [about mental health] – there was huge change – people have been more open to speaking about mental health and more women are asking for support, and we had to refer them to services."*
> *– Community outreach worker*

- Cultural emphasis on familial community support was identified as a potential deterrent for individuals seeking professional or external help for mental health concerns. Spiritual programs and organisations were reported as often overlooked. They were recommended as valuable partners for health services to improve reach and enable access to mental health support for individuals who may not have previously been engaged.

Table 26. Factors influencing mental health needs of culturally and linguistically diverse communities in the NWMPHN region, mapped against the Social Ecological Model

 Individual level	 Interpersonal level	 Program and service level	 Policy and environment level
Stigma Stigma and shame surrounding mental health are significant barriers to seeking support for certain communities.	Societal stigma surrounding mental health Mental health was reported as being considered a taboo topic in some cultures and is a barrier to help-seeking. In some East Asian cultures, social attitudes support maintaining a 'strong family front' which can suppress mental health discussion and intervention.	Cultural competency Health care providers may need further training to improve cultural competency. Difficulty building trust or sharing mental health challenges with service providers who are not culturally competent, leading to disengagement from services. Culturally competent providers have long waitlist or are in significant demand.	Safeguarding cultural workforce Policies and procedures to support and safeguard cultural workforce from burnout were identified as a need.
Financial determinants Financial insecurity arising from casual jobs, lower pay, coupled with costs of healthcare was a key barrier to accessing mental health support.	Social isolation Social isolation, loneliness, and lack of social networks are prevalent issues, exacerbated from COVID-19.	Community partnerships Need for holistic care more pronounced in CALD communities supported through mutual partnerships between community services and NGOs working with CALD communities and health services.	Recognition of community voice The need to recognise community-level voices was emphasized. Gaps in collaboration with religious organisations and community leaders in the development of services were discussed.
Treatment preferences Consultation participants reported that individuals from some cultural backgrounds could be reluctant to accept medication-based care for treatment and/or management of mental health conditions. Individuals noted they struggled to find service providers that offered care pathways that did not involve taking medication. Consultation participants reported that self-diagnoses of ADHD is increasing among adults aged 20-44 years.	Religious and cultural community leadership Lack of community or religious leader support for services may hinder buy-in and uptake for services.	Workforce burnout Burnout is a key issue particularly among peer workers and culturally diverse staff, who are burdened by carrying "cultural load" responsibility and "obligation to community". Access to in-language services A lack of in-language services, as well as resources and culturally sensitive communications about services is a barrier to individuals fully expressing concerns, understanding health information, and receiving appropriate care. Peer support service demand Service providers noted community groups with peer support sessions may be overburdened and lack resources for ongoing treatments.	Data systems Need for improved systems and processes to capture accurate demographics and adequately address the needs of different populations was identified.
Children and adolescents Improved health literacy through internet however, gaps in access to services which does not involve parental notice or permission. Providers noted an increase in neurodevelopmental delay in children.			
Health literacy, language, and cultural barriers Language barriers and cultural misunderstandings a key barrier to seeking support.			

3.5

LGBTIQ+

"We are constantly trying to figure out if we are being profiled or if we are going to be treated unfairly due to being queer. This makes accessing services difficult because of the mental energy it takes – we are not only communicating our health needs but also thinking about how we are going to be perceived due to our LGBTIQA+ status."

- Community service provider for LGBTIQ+ people

3.5 LGBTIQ+

Summary of consultation findings – LGBTIQ+

- LGBTIQ+ people are disproportionately affected by the social determinants of health and negative community sentiment, including homophobia, transphobia, prejudice, bias, or discriminatory practices from all sections of society, including health services.
- These factors contribute to mental health stress, internalised stigma, and shame, leading to poorer mental health outcomes including a higher risk than the cis-heterosexual population of suicide and self-harm.
- The LGBTIQ+ community is diverse. It is crucial to acknowledge and respect the varying needs within sub-communities. Group respondents added that intersex, trans, gay and lesbian people, as well as others within the LGBTIQ+ ambit, may face distinct challenges in health care.
- LGBTIQ+ people were considered more likely to avoid services that are not inclusive, preferring instead safe spaces in which to disclose health concerns without judgment and discrimination. Participants explained that being in a heteronormative space often meant that LGBTIQ+ people had to justify and explain themselves or educate health providers. Services might not be therapeutic and, in some instances, can cause emotional harm. This was particularly relevant transgender, intersex, queer, questioning, and asexual people, whose needs were less well understood.
- Consultation discussions raised the absence of LGBTIQ+ representation in data collections (such as surveys and forms) and how this could leave queer individuals feeling excluded and invisible. Gaps in gender diversity statistical information at all levels of the system, including in the Australian Census, were seen as concealing the needs of LGBTIQ+ people, with significant negative impacts on advocacy, policymaking, and program commissioning.

> *"I would add on, even from the outset, forms and data collection, if we are not visible in space, already from the outset there is an idea that people are not going to be aware of who we are and what our health needs are." – Community health service provider*

- Community and peer-led services within the LGBTIQ+ community, especially those staffed by queer people, are crucial for fostering safety, trust, and understanding, thereby reducing the risk of harm for those seeking mental health support. However, safe and inclusive services for LGBTIQ+ communities are often limited to metropolitan areas, leading people to travel significant distances for inclusive care.

Strained and limited workforce capacity was reported as a key concern for not being able to meet the current demand for safe and inclusive services, resulting in overbooking, long waitlists, and workforce burnout.

> *"There are queer people everywhere and there are queer people who never see a queer service, but they are well connected with community – this is how they will have access to information." – Community service provider*

- Multiple workforce challenges impacting capacity and sustainability were identified, including funding uncertainty for programs and workforce and burdensome administrative and reporting requirements, contributing to a transient workforce, and burnout. Funding was strongly agreed by respondents as being "reactionary to community or political events", emphasising a need for stable funding to assure certainty, long-term planning and increased service capacity to provide safe, holistic and reliable mental health services for LGBTIQ+ people.
- Social media, community services, positive relationships with peers, families, and allies, were all agreed across consultations to play a vital role in providing support and health information and for building a sense of belonging and source of mental health support, which was a strong factor recognised as protecting trans and gender diverse people against suicide. "Word of mouth" was also described as a significant factor in decision-making about the choice of service providers and practitioners.

> *"There is some training and capacity building out there, but we need to be conscious that we don't just do rainbow 101." – Community health service provider*

- There was unanimous agreement to enhance education and competency within mainstream services to provide safe and inclusive care for trans and gender-diverse communities. Continuous, targeted workforce training and support are necessary to adopt a person-centred approach that respects and celebrates individual identity. Community providers stressed that LGBTIQ+ people know what they need, indicating that mainstream services, by adopting respectful curiosity and attentive listening, can mitigate biases and assumptions about necessary care.

Table 27. Factors influencing mental health needs of LGBTIQ+ people in the NWMPHN region, mapped against the Social Ecological Model

Individual level	Interpersonal level	Program and service level	Policy and environment level
Stigma and safety LGBTIQ+ individuals may face internal struggles related to self-discovery, acceptance and internalised stigma which may lead to reluctance seeking mental health care due to fear of discrimination and judgment. Trans and gender diverse people experience higher rates of suicidal distress. **Geography** LGBTIQ+ individuals are often required to travel significant distances to find services. People living in inner regions may still be required to travel to find safe, inclusive services. **Physical side effects** Some individuals' reported experiencing adverse side-effects related to the concurrent use of hormone replacement therapies with a prescribed medication/s used to manage their mental health condition during their transition.	**Community and social support** Positive and shared experience with LGBTIQ+ allies, peers, and community members fosters a sense of belonging and supports mental health and wellbeing. Networks are important for finding inclusive and safe support services, practitioners, and resources. **Family dynamics** Family acceptance plays a crucial role in mental health. Supportive families can positively impact mental wellbeing, while rejection may contribute to stress and anxiety. **Discrimination and stigma** Stigma, homophobia, transphobia, sexism, and fear of encountering discrimination can delay or deter individuals accessing services, negatively impacting mental health and wellbeing. Experience influenced willingness to engage with health services. Strong preference for culturally safe community-controlled health care that liaises with mainstream services.	**Access to inclusive services** Limited or no services for trans people in regional Victoria. The cost to travel and pay for services is a significant barrier. **Peer support and outreach workers** Play a pivotal role in providing individualised and culturally safe support while promoting mental health resilience. Burnout and isolation experienced by LGBTIQ+ workers, particularly in these areas. **Workforce attitudes, beliefs and cultural competency** Additional training and support required for mainstream services to provide culturally safe environments that are inclusive and affirming. Power imbalance and discrimination faced by individuals and carers in health settings is common. **LGBTIQ+ diversity and intersectionality** LGBTIQ+ communities are diverse, often aware of their needs, and find it difficult to find inclusive services that meet them. **Rainbow family support** Parent and carer education is needed to increase understanding, ability to advocate and support their children.	**Funding** More stable funding, rather than in response to community or political events, could make mental health and wellbeing services more holistic and reliable for LGBTIQ+ communities. **Institutional and cultural opposition to LGBTIQ+ identity** Religious, cultural or conservative views and beliefs about LGBTIQ+ community influence health care and health policy. Examples include marriage, participation in sport, medical procedures. **Workforce contracts** Current working contracts are short, causing uncertainty in sustainability of workforce that could support LGBTIQ+ people. **Rainbow washing** Increased LGBTIQ+ commercialisation can lead to superficial organisation support or "rainbow washing". **Representation, research, and evidence-base** Not reflected in the census and various health service systems, forms, and data. Makes advocating for inclusive services difficult as data doesn't reflect need.

3.6
Older adults

"Older people often find it harder to access mental health services, there is an assumption that what they're presenting with is not a mental health issue, but rather an age-related decline."

- *Legal service provider*

3.6 Older adults

Summary of consultation findings - older adults

- Health services and GPs identified loneliness and social isolation as crucial drivers of psychological distress in older adults, stating the need for companionship and community support as vital for mental wellbeing. Providers reported limited options for building social connections and the impact post-COVID. The pandemic exacerbated family and community disconnect, noting older adults calling customer service teams to have a chat as well as an increase in depression, suicidal ideation and self-harm.
- Older LGBTIQ+ adults were identified as least likely to have strong social support.
- Health providers reported the influence of social determinants on mental health, including lower societal regard for older adults in sections of some cultures, demonstrated through observing ageist discrimination, and dismissing mental health concerns as age-related decline.
- Elder abuse is multifaceted, encompassing physical, financial, and emotional mistreatment. It is widespread and frequently perpetrated by family members, caregivers, or aged care facilities. This form of abuse was described by GPs as having severe implications for physical and emotional health, with related trauma and stress contributing to anxiety, depression, social withdrawal or disengagement and a decline in overall psychological wellbeing.
- Despite improved social awareness about mental health, older adults may still carry stigma from their formative years. Transcending multiple cultural contexts, GPs highlighted that some older individuals may have a fear of judgement, a perception of failure to cope independently, and concerns about repercussions, including the fear of entering aged care. These may hinder them from seeking professional assistance.
- Consultations with older adults and health services demonstrated a preference for face-to-face health services. Older individuals were perceived as facing greater challenges in adapting to technology-driven mental health services compared to other age groups, potentially limiting their effective utilisation of online services, which have become more prevalent since the COVID-19 pandemic.
- GPs expressed concerns about older adults living alone or in residential aged care, due to increased likelihood to depend on caregivers, or social networks for transport and financial support, which can provide a barrier to receiving care for health. The growing demand for aged care services requires a focus on designing flexible service models that tailor to the unique needs of older adults.
- GPs and health service providers reported that aged care services had long been underestimated and underserviced, considering the ageing population. GPs emphasised that general practice workforce shortages and difficulty attracting medical students to General Practice.

- Key factors were GP workload and time constraints, limited mental health care training, inadequate compensation and health system fragmentation, and a lack of coordination between primary, community and tertiary services. Addressing workforce capacity and capability building within the aged care sector was stressed as a priority to address the increasing demand and complexity of older adults' physical and mental health needs, and to prevent or reduce crisis-driven care in acute settings.

> "GPs are important stakeholders on this journey, and efforts should be made to bring them along and keep them engaged." – GP providing care to older people

- The mental health needs of older adults had not been actively monitored or adequately recognised in the past.
- Lower health literacy in older adults was identified as a barrier to finding appropriate local services, compounded by the financial constraints of locating affordable or bulk-billed services. Gaps in the National Disability Insurance Scheme (NDIS), such as excluding access to people over 65, were concerns. Consumers and primary health care providers added that government rebates, including Mental Healthcare Treatment Plan (MHTP) sessions, Medicare subsidies, and Enhanced Primary Care (EPC) sessions, were not sufficient or affordable for older adults.

Table 28. Factors influencing mental health needs of older adults in the NWMPHN region, mapped against the Social Ecological Model

Individual level

Attitudes and stigma around mental health

Stigma associated with age-related decline or mental health concerns.

Comorbidities

Older adults are more likely than the general population to have one or more chronic diseases. Mobility issues may also hinder access to health services.

Transport

Getting to and from health services is a barrier for older adults which can prevent or delay mental health care. Adults in aged care may depend on facility transportation.

Digital literacy

Older individuals may face difficulty using digital technologies and prefer in-person services and information.

Health system navigation

Older people not linked to aged care packages often face difficulty navigating between NDIS and aged care services.

Interpersonal level

Loneliness and social isolation

Older adults often experience loneliness and social isolation, leading to a need for companionship and community support. Providers reported examples of older adults contacting customer service teams for a chat out of need for social interaction.

Family disconnection

Absconding from home and increased family disconnection contribute to low mood and loneliness.

Social support groups

Older people who were part of social support groups before the COVID-19 pandemic are reluctant to return to these settings, impacting their social connections and wellbeing.

Mobility and dependency on networks

Some older individuals in residential settings find it challenging to access services outside their homes, leading to difficulties receiving necessary support.

Program and service level

Aged care service supply

Shortage of a skilled aged care workforce particularly within residential settings, coupled with an ageing population was noted.

GP assessment and consultation

GP consultation duration is not long enough for comprehensive assessment and discussion.

Cost of health services

Cost of health services, especially private health care, and lack of access to bulk-billed services are barriers for many older adults.

Health providers wait times

Wait times for health services were identified as a significant barrier for accessing care.

Attitudes and beliefs

Mental health needs can be dismissed by health providers and family as age-related decline.

Policy and environment level

Government funding

Funding models such as the Commonwealth Home Support Program (CHSP) may not adequately address long-term care needs or access issues. Funding to increase GP consultation time enables person-centred care provision.

Health care policy and NDIS eligibility

NDIS is not available to those over 65 and contributes to service gaps for older adults with disability which can adversely impact mental health and wellbeing.

Pension, disability pension and rebates

The pension and disability pension was strongly perceived as insufficient to cover health care needs for older adults. The out-of-pocket gap for mental health care is a barrier for older adults, especially from marginalised groups.

3.7

People experiencing or at risk of homelessness

"A lack of stable and secure housing is a fundamental determinant. Homelessness itself is a major stressor, and the absence of a safe and stable living environment can exacerbate mental health issues."

- Community service provider

3.7 People experiencing or at risk of homelessness

Summary of consultation findings – People experiencing homelessness

- Health services presented a complex, 2-way relationship between homelessness and mental illness, indicating people experiencing homelessness are at increased risk of mental ill health, and people with a mental health condition are more susceptible to homelessness.
- Homelessness is linked to broader social determinants of health, such as poverty, unemployment, and limited access to education. Social and economic issues, including intimate partner or family violence, food insecurity or financial instability from insecure or low-paid employment, were agreed to "intensify mental health struggles."
- Successfully addressing the mental health needs of people experiencing homelessness requires a comprehensive and integrated approach involving mental health professionals, social workers, community organisations, and policymakers to create supportive environments for homeless individuals that consider these determinants.

> *"Substance abuse issues are commonly intertwined with homelessness. Substance abuse and can both contribute to, and result from mental health issues, creating a cycle that is challenging to break without comprehensive support."*
>
> *– Community service provider*

- Experiences of trauma, violence, and abuse are prevalent among individuals who are homeless. These traumatic experiences can have lasting effects on mental health, leading to conditions such as post-traumatic stress disorder and increased vulnerability to mental health challenges.
- Many experiencing homelessness have high rates of chronic and co-occurring health conditions, mental and substance use disorders. Individuals who are homeless also may be dealing with trauma, and children experiencing homelessness are at risk of emotional and behavioural problems.
- Systematic factors, including policies that indirectly criminalise certain behaviours that disproportionately affect vulnerable people, including people experiencing homelessness, were said by community health services to increase encounters with law enforcement. They also contribute to heightened stress and poor mental health. Similarly, legal barriers restricting access to housing, employment, and social services were associated with poorer mental health outcomes.

- Providers emphasised that the safety and security of having a home is essential for optimal health and wellbeing. According to consultations, finding housing and accommodation was generally the individuals' priority over their health and accessing health services. Emphasis was placed on the need for services and the government to view "housing as health care."
- However, for those who do seek help, there are systemic barriers including lack of bulk-billed services, transportation issues, and stigma, preventing homeless individuals from seeking and receiving adequate mental health care. Young people who were homeless were reported to be particularly affected by social stigma, preventing them from reaching out to social networks or help-seeking due to fear of judgement. Older women were also identified as a sub-group vulnerable to homelessness.
- An increase in the complexity of cases involving drug use, family violence and other health conditions, coupled with an increase in presentation of personality disorders and challenging behaviours. Respondent groups working with homeless populations described inadequate levels of resourcing, experience, and support for workers who were under pressure to "work miracles."
- Indirect presentations often occur when homeless individuals seek customer support services due to financial challenges with utilities and housing or reach crises. Mental health issues in this group often coincide with other challenges, including substance abuse, chronic medical conditions, and lack of access to necessities like food and shelter. A holistic, multidisciplinary approach is essential, as addressing mental health alone is insufficient.
- The transient nature of the homeless population poses significant challenges for the workforce in providing continuity of care. Despite these barriers, examples of successful initiatives directing efforts to maintain communication, focusing on health, housing and homelessness were reported.

Table 29. Factors influencing mental health needs ofpeople experiencing homelessness , mapped against the Social Ecological Model

Individual level	Interpersonal level	Program and service level	Policy and environment level
Unstable housing Addressing unstable or lack of housing and financial hardship are priorities for people experiencing or at risk of homelessness above their physical and mental health needs or concerns. A lack of address, limited transportation, and the transient nature of their living situations are also challenges. **Stigma and trust** Young homeless people experience stigma and shame, impeding help-seeking. **Substance abuse** Individuals experiencing homelessness may have increased risk of alcohol and substance abuse. Building rapport and establishing trust can be a prolonged process. **Trauma** Trauma is often associated with increased levels of anxiety and depression and can overwhelm ability to cope, impact self-worth and relationships.	**Family violence and family dynamics** Families experiencing homelessness often experience complex social issues including family violence, challenges navigating family life and early parenting. **Social isolation and displacement** People experiencing homelessness may not have strong family or social supports or reliable internet or phone access. Public libraries frequently encounter presentations related to ill mental health, social isolation and people experiencing homelessness. **Communication** Homeless individuals may lack consistent means of communication, such as phones or internet access, which can increase social isolation. It also creates barriers between individuals and health providers to schedule appointments, follow up, and provide ongoing support.	**Complexity of mental health need** Homeless individuals often present with complex cases involving mental health issues, substance abuse, and other social determinants of health. Addressing these multifaceted challenges requires a comprehensive and integrated approach. **Barriers to continuous care provision** Providers reported the transient nature of this population as a major barrier to continuous service support and adds administrative burden for services to try to maintain continuity or reorient these clients. **Service provider cost and eligibility** The lack of free or low-cost health services and exclusionary criteria on forms (such as address, email, or phone number) are barriers for people to access support services. Underestimation of need based on lack of data. **Indirect presentations** Indirect presentations occur through customer support services often related with financial hardship with service utilities and housing.	**Infrastructure** Lack of government funding to provide affordable social housing contributes to increased risk of homelessness, with financial strain exacerbating mental health. **Government policy and legislation** Policies that indirectly criminalise certain behaviours that disproportionately affect people vulnerable to or experiencing homelessness lead to increased encounters with law enforcement. Legal barriers restricting access to housing, employment, and social services (due to lack of address, visa status, for example) were associated with poorer mental health outcomes.

3.8

Refugees and people seeking asylum

"Mental health and wellbeing issues are often detected by non-clinical contacts such as legal and food bank staff, demonstrating importance of a 'hub' model where asylum seekers can access multiple services at once in a single location."

- NGO supporting refugees and people seeking asylum

3.8 Refugees and people seeking asylum

Summary of consultation findings – Refugees and people seeking asylum

- Refugees and asylum-seekers experience trauma from exposure to war, conflict or natural disaster. They experience family separation and displacement and may spend time in refugee camps and detention centres during their journey to safety. These factors make them susceptible to significant psychological distress.
- Consultations highlighted that mental health services working with asylum seekers and refugees needed to be equipped with skills and training to address these specific trauma-related issues sensitively and safely.

> "We use a trauma-informed framework and are mindful not to unpack the trauma by making them repeat their story."
>
> *- NGO supporting refugees and asylum seekers*

- Trauma-related issues are prevalent among refugee families, and loss of community structures and support networks during adjustment can exacerbate psychological distress. Substance abuse, aggression, domestic and family violence, sleep disturbance and other behaviours associated with trauma can be misunderstood by service providers.
- Providing opportunities to connect refugees and people seeking asylum to community groups and gatherings, including sports and peer support groups, were considered effective approaches to promoting mental health and wellbeing. By creating safe and inclusive spaces, providers can offer targeted language campaigns to educate, create awareness and reduce stigma.

> *"Mental health is often not talked about or recognised in community groups. Some are very closed, but they might open up once you've built rapport. Most people are pretty good at asking for help or taking that olive branch when offered."*
>
> *- NGO supporting refugees and asylum seekers*

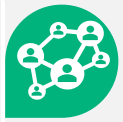
- Refugees and people seeking asylum experience language proficiency and communication barriers, limiting their ability to access mental health services. Additionally, financial barriers to accessing therapy sessions are often unaffordable. While NDIS financial support is available to eligible refugees for mental health disability, the process was identified as particularly complex and challenging.

- Community health services indicated that telehealth was not considered always appropriate for this cohort, due to sometimes unreliable access and the cost of internet and phone, as well as increased difficulty establishing rapport via computer.
- To enhance accessibility and cultural safety of mental health services for this cohort, respondents suggested providing options to choose clinician gender and ensuring access to bi-cultural workers and clinicians who speak the same language, providing content knowledge advantages over translators.
- Additionally, making resources available in different languages and 'easy English' were deemed necessary.
- Organisations providing culturally accessible services for asylum seekers reported that timely and responsive communication around referrals, including detailed case notes and handovers with health providers, is essential to coordinate care effectively. Providing updates on referrals and offering clear, accessible information on how to submit a referral to health services, including a comprehensive list of options available on the website, needs to be encouraged.
- Access to a "hub-style, one-stop shops" was perceived as an ideal integrated model of care to enable asylum seekers and other vulnerable populations with various complex health issues, including social, psychological, financial, and physical health needs, to access multiple services in a single location. Mental health and wellbeing issues were also reported and often detected by non-health providers, including volunteers, legal teams or food bank staff, further demonstrating the importance of an integrated multidisciplinary model.

> *Complete communication loop between referrer, receiving service and consumer is critically important as asylum seekers rarely have a GP at the center of their care (due to Medicare ineligibility)*
> *- NGO supporting refugees and asylum seekers.*

- Systemic issues for refugees and asylum seekers, including Medicare ineligibility and limited or no working rights, are substantial barriers to accessing health care, including GPs and mental health services. Even for eligible individuals, the reduced fee is still unaffordable due to lack of income and the limited number of specialist services available for asylum seekers.

Table 30. Factors influencing mental health needs of refugees and people seeking asylum, mapped against the Social Ecological Model

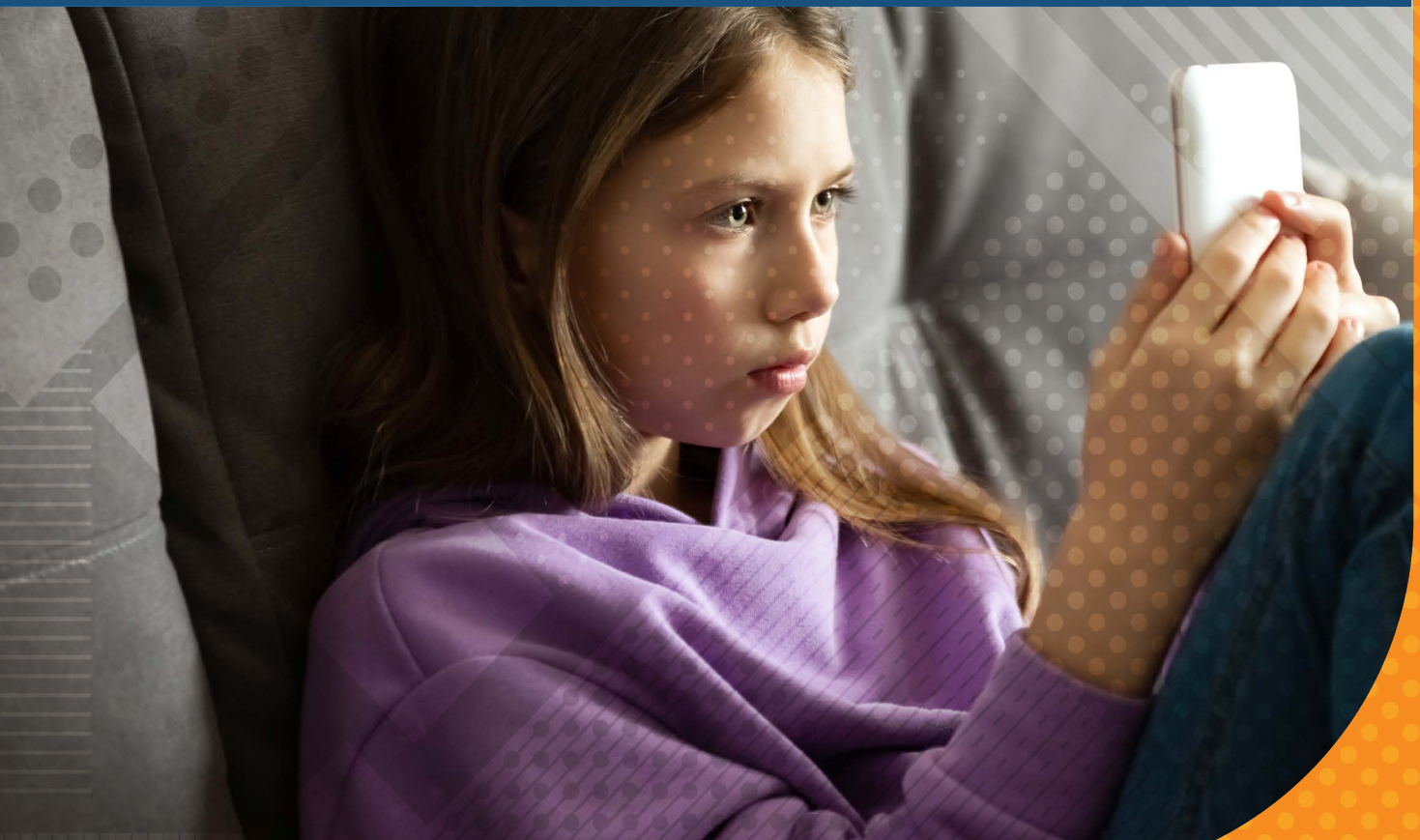
 Individual level	 Interpersonal level	 Program and service level	 Policy and environment level
Trauma and displacement Many refugees and asylum seekers have experienced traumatic events in their home countries and in refugee camps or detention during their journey to safety. These experiences make this cohort vulnerable to psychological distress and overall poor emotional health. **Cultural norms and beliefs** Some cultural norms and beliefs about mental health and illness are associated with low levels of health care-seeking behaviour. **Australian health service navigation** Language and cultural differences can pose additional barriers for refugees and asylum seekers to understand and navigate a new health care system effectively. NDIS was highlighted as a particularly complex and challenging process. **Geography and distance to services** Distance to services was identified as another barrier to accessing care.	**Family and intimate partner violence** Trauma and other complex sociocultural factors can contribute to increased risk of family and partner violence, especially against women and exacerbate mental and physical health need. **Social isolation** Social isolation, loneliness due to lack family or community support networks were issues, particularly among recently arrived refugees. This is especially so for females, who are more likely to experience unsafe environments, be financially dependent, and have a barrier accessing necessary medication. **Poor engagement with school services** Refugee families sometimes find language and cost make it difficult to access the education system. The lack of relationship with school and resultant missed appointments contribute to poor peer and teacher relationships, creating additional hurdles for mental wellbeing.	**Service provider cultural sensitivity and gender-specific services** Health care providers may not always be culturally sensitive or aware of the unique needs and preferences of refugees and asylum seekers. This can lead to suboptimal care. **Improving reach through technology** Service use of health technology, including telehealth, was identified by some respondents as an enabler to increasing reach and engagement, improving the feeling of safety of receive support in the comfort of their own homes. **Cost** Medications and services need to be free. Cost was a major barrier to service access. **Complexity of care** Services are evolving to meet diverse and complex needs; however, community services are not always able to provide specialist care needed.	**Visa restrictions and legal sanction access to mental health care** Visa conditions and restrictions can impact work rights and financial security. Additionally, some refugees and asylum seekers are ineligible for government social support, including Medicare, limiting access to mental health services and prescribed medication. **Legal and asylum process stressors** The stressors associated with the legal and asylum-seeking process, including uncertainty about status, can have a significant impact on the mental health of refugees and asylum seekers. **Political sanction** Political measures may be influenced by public opinion, and political ideologies towards immigration and can have profound impacts on mental and physical health of refugees and asylum. **Fear of deportation** Fear of deportation can deter refugee and asylum seekers from seeking health care.

3.9

Children and young people

"Some young people are 'collecting' multiple diagnoses which affect the care they are able to access. There is need for health services to provide diagnostic clarification."

– Youth mental health worker



3.9 Children and young people

Summary of consultation findings – young people, aged 0 to 24

- Health service providers reported increasing complexity of mental health conditions in people aged 0 to 24. This included rises in suicidality and self-harm.
- A rise in the presentation of eating disorders, particularly among the 11 to 16 cohort was also observed by some health service providers.
- Concerns about body image, anxiety, and stress were observed in primary school-aged children.
- Across consultations, an increase in risk-taking behaviours such as vaping and substance abuse, a lowered age of homelessness, and increased criminal activity also emerged.
- There has been a noticeable increase in the demand for mental health services among young people. Teachers reported more students facing challenges readjusting to school since the COVID-19 pandemic, exhibiting disengagement, a lack of interest in learning, and concerns about their future.
- School refusal was agreed to be more prevalent, leaving parents, guardians and teachers grappling with how to address these issues. Associated factors included struggling with identity formation and uncertainty about the future, as well as family dynamics, including exposure to parent or guardian stress and family violence, exacerbated by environmental factors.
- Respondents agreed there continues to be an insufficient prioritisation of social connectivity for young people who experienced increased social isolation and are now having difficulty rebuilding social connections. Examples of collaborative school-based strategies were identified, including kitchen garden programs and the NWMPHN-administered Doctors in Secondary Schools program, to build social connectivity and identify mental health issues early.

> *There is a need for early intervention in schools to address mental health issues among students. It is essential to tap into the existing workforce within schools to provide timely support."*
> *– Youth mental health worker*

- While high social media usage in young people can enhance connectivity, emotional support, and information sharing, teachers reflected on the adverse impacts on mental health and wellbeing. These included superficial connections, exposure to cyberbullying, and idealised representations leading to feelings of inadequacy and low self-esteem. While tech literacy in young people also provided opportunities to improve health literacy and overcome existing barriers to mental health services, access to face-to-face sessions was also important.

> *"Private practice settings need guidance and support for working with young people who are neurodiverse or gender diverse, as their conditions can exacerbate mental health needs. Practitioners may feel unequipped or concerned about working with this population due to a lack of guidance and resources in private practice settings.*
> *– Mental health practitioner*

- Young people with disability faced additional barriers to accessing mental health support. Individual concerns and reports of being overlooked by mental health services, which tended to focus on diagnoses and treatment, were factors negatively impacting experience.
- Prolonged waitlists result in delayed diagnoses, emphasising the importance of early responses to mitigate issues such as anger, self-harm, and aggression.
- Specialised mental health training to equip community members, educators, and service providers with the necessary skills may better support growing complexity and demand. However, training opportunities are fragmented and often costly.
- Fragmented service delivery limits outreach and engagement with young people, with all respondents emphasising a need for establishing strong connections and partnerships between schools, community and health service providers, youth outreach centres and councils to establish prevention programs and support networks.
- Despite an increase in social awareness and reduced stigma surrounding mental health, people still face challenges in navigating the health system and locating the available services, which can be limited for young people and their families. Respondent groups perceived a lack of information about wait times, service provider skill sets, and transferability of services specific to the needs of young people.

> *"In Melton, [NGO name- withheld for confidentiality] faces the challenge of being a one-stop shop for a diverse and complex range of issues faced by young people. Limited referral options available have resulted in a shift from early intervention to crisis and case management."*
> *– Mental health service representative supporting young people*

- Mental health and community services reported challenges of providing care for youth with multiple mental health diagnoses (diagnosed by multiple clinicians). Making it difficult for service providers when faced with an unclear primary diagnosis. Additionally, clinician biases tied to specific labels can affect quality of engagement with young people.

- Health services suggested that talk therapies may not be suitable or effective for all young people, with a need for increased awareness within the system about alternative approaches and interventions. Additionally, improved access to trauma-focused services such as art therapy can benefit young people, their family and community.
- Tertiary health providers described GPs, primary care and the community more broadly as having a relatively low level of health literacy and confidence to have discussions with people regarding eating disorders. Improved understanding and ability to open dialogue around these conditions can encourage help-seeking behaviour and early intervention. This is crucial because individuals with eating disorders often delay seeking help until their health has significantly deteriorated, occasionally requiring emergency care.

*Table 31. Factors influencing mental health needs of **young people** in the NWMPHN region, mapped against the Social Ecological Model*

 Individual level	 Interpersonal level	 Program and service level	 Policy and environment level
Mental health complexity Increase in young people presenting with self-harm and suicidality and eating disorders. **Increased risk-taking behaviour** Increase in vaping from a young age. **Social disadvantage** Intergenerational poverty and a rise in youth homelessness are drivers of mental ill health, and are barriers to help-seeking. **Health literacy and service navigation** Mental health literacy levels vary among young people in different regions. **Body image** Body image is a driver of anxiety and stress among children, pushing a rise in eating disorders **Mental health awareness** Digital literacy and school-based education are enablers for increasing mental health awareness and service access. **Gender diversity** More comfortable "to come out" than older generations; but can still be impacted by discrimination.	**Social isolation** Young people are more socially isolated and face difficulty rebuilding social connections and support systems. **Social media and cyber bulling** Cyberbullying is prevalent and has an adverse impact on mental health and self-esteem. **Parental stress and support** Need support including mental health literacy, and help navigating health system. Stress and social isolation influence children's mental wellbeing. **Domestic family violence** Trauma from domestic family violence is a major contributor to mental health concerns. **Disengagement** A rise in disengagement at school and social anxieties and challenges – young people have not fully re-adjusted after the COVID-19 pandemic.	**Wait lists for mental health services** Increase in social awareness and demand for mental health service and MHTP – long waitlists exacerbate MH condition and lead to parents diagnosing children, increased risk of aggression. **Early intervention and service collaboration** Schools are an opportunity for early identification and intervention. Need for prevention programs between schools, councils, and health services. **Access to alternative mental health supports** Talk therapies are not always the preferred support; access to alternative supports to improve mental health and wellbeing including art or peer group therapies. **Flexible service providers** Telehealth and outreach services are crucial for overcoming financial, geographical, barriers and privacy from parents or guardians for young people. **Complex and multiple diagnoses** Clinicians face difficulty determining appropriate care for young people with multiple diagnoses.	**NHMRC Clinical Practice Guidelines** Guidelines for ADHD have increased public awareness and interest and are a driver of service use and supports. **Infrastructure** Lack of safe and affordable housing and refuge. Increasing number of homeless young people. **Post-COVID-19 stress and burnout** Young people experienced chronic stress and higher prevalence of burnout after the COVID-19 pandemic. **Increased awareness of mental health** Increased social awareness of mental health and wellbeing may contribute to increased demand for services. **Environmental factors** Young people feel uncertain and concerned for about their future influenced by external factors including-global politics, social division, climate change, COVID-19 and cost of living.

3. 10

Aboriginal and Torres Strait Islander people

"Engage them as a person. Talk to them. Treat people like people. Drop your ego and drop your power."

- ACCHO representative on the best way to engage Aboriginal and Torres Strait Inlander communities to promote mental health and wellbeing.

3.10 Aboriginal and Torres Strait Islander people

Summary of consultation findings – Aboriginal and Torres Strait Islander people

- Trauma prevalence among First Nations people across all age groups is linked to historic assimilation policies, structural racism and discrimination. These factors lead to over-policing, and over-representation in incarceration, family violence and rates of suicide. Aboriginal health workers described how years of trauma hinder or deter help-seeking, resulting in delayed or crisis-driven presentations that may not always be managed with trauma-informed approaches. Early intervention is needed to avert crises and address the underlying determinants contributing to trauma impact on mental health and wellbeing.

> *"Mob working with mob, we try and reduce the power imbalance- we assess risk differently."*
> *- ACCHO representative*

- Group respondents emphasised that distance, cost and transport to health services constitute substantial barriers for Indigenous people.
- A community-based physical presence was highly regarded as the most appropriate way to offer services for Indigenous communities. Workforce drawn from the community are more understanding of the contextual nuances of that impact individuals when engaging with their health.

> *"Teams must be adequately sized and diverse to effectively address the needs of the community. Metro is different to regional. These matter."*
> *- ACCHO representative*

- Incorporating intersectionality, including family violence and cultural beliefs, into service delivery models is crucial. Respondents explained that there were many different therapies that are not mainstream and not just focused on mental health. These give community members the opportunity to focus on other social or cultural aspects of life.
- This emphasises the need for support services to connect with Indigenous people on a social level. When staff are community members and have lived experience people seeking help are more likely to feel safe, seen and heard.
- Service-positive experience shared through word-of-mouth about how individuals are treated as a whole person was identified as an important referral decision-making tool for patients and clinicians. However, it can also lead to cultural loading on clinicians and services.

> *"It's important to understand the Koorie grapevine 'vouching system'. Community will recommend services they like and they will recommend clinicians they like. Similarly, if they don't like you, they will share this. In the ACCHO/AMS and mainstream services this can result in individual clinicians being inundated and burning out."*

- Respondents highlighted the importance of health services and commissioners needing to establish and build stronger relationships with Elders and community-controlled health organisations, and to share power. Learning from the community is essential to understand trauma and its impact on the community.
- The ability to move beyond theoretical knowledge of trauma to practical implementation is crucial. To increase workforce diversity, young people need more options to get into the health space. There need to be better pathways and options for them to get on the ground experience.
- Health service disengagement with the Indigenous community increases pressure on mental health services. First Nations young people often experience overshadowing of their cultural connections by diagnostic labels, leading to worsening mental health conditions and lack of growth. Respondents also described a community sense of foreboding that if the current approach continues, people's needs will not be adequately met.
- Health services need to positively discriminate in favour of Aboriginal people, in patient interactions and workforce representation and recruitment. Representation at all organisational levels of is crucial to supporting non-racist governance structures and avoid cultural load and burnout on Indigenous workers.

> *"You also need representation at all levels of the organisation and release some of the colonial power. This is how you support non-racist governance structures."*
> *- ACCHO representative*

- Aboriginal health services advised that programs and funding should be based on community outcomes, and informed by community preference and experience, rather prescriptive funding. Shortage of funding for ACCHOs was reported as a barrier to providing competitive wages compared to mainstream services, leading to workforce shortages and burnout.

Table 32. Factors influencing health needs of Aboriginal and Torres Strait Islander people in the NWMPHN region, mapped against the Social Ecological Model.

Individual level	Interpersonal level	Program and service level	Policy and environment level
Trauma and intergenerational trauma High prevalence of trauma presentations among First Nations individuals. **Social determinants of health** Compared to non-Indigenous Australians First Nations people are more likely to live in poverty; less likely to complete Year 12, affecting employment opportunities; more likely to live in substandard housing; more likely to be incarcerated and experience over policing. All of these impact mental health and wellbeing, leading to higher suicide rates. **Health literacy** If material is not available in culturally sensitive formats, the capacity to make informed decisions is hampered. **Geography** Travelling to services is a barrier (costs, caretaking, time) to accessing healthcare. **Stigma around mental health** Stigma related to mental illness concerns and distrust of medical services can delay or inhibit help seeking.	**Prioritisation of family and community need** Family members often neglect their own health needs while caring for others. **Over-policing of Aboriginal and Torres Strait Islander women** **Family and intimate partner violence:** women are often misidentified as perpetrators in family violence – especially Aboriginal and Torres Strait Islander women and women from culturally diverse backgrounds. Individuals may not engage health services in fear of child removal. **Mistrust of health care system** Government policies and racial discrimination have led to community distrust and fear of engaging with government and health services. **Elders** Elders are respected community leaders whose guidance is sought in decision-making processes. They often provide emotional and spiritual support to community members and play a vital role in passing on health-related knowledge to young generations.	**Mob working with mob** Health services delivered in mainstream settings create power imbalances and places barriers on receiving holistic care. There was a noted lack of support for 'mob working with mob' which supports the reduction of power imbalances and allows addressing risks differently when working within the community. **Community-controlled service model** Service providers identified a need for all health services to be based on a community-controlled model, designed according to community needs. **Context and cultural understanding** Gaps in competency in mainstream services to consider the context of someone's life and cultural load when engaging with their health increases barriers to effective care for First Nations people. **Burnout in cultural expertise** Heavy reliance on First Nation workers' opinions and cultural expertise without recognition is leading to burnout and high cultural load. **Service flexibility** Barriers leading to no-shows at appointments, especially Aboriginal and Torres Strait Islander and marginalised women. Lack of case worker capacity to re-engage women. Recurrent 'no-shows' often not accepted by services.	**Legacy of government policies and ongoing societal discrimination** Reluctance to access government and health care services can be attributed to the historical impact of discriminatory and assimilation policies, including the disproportionately high rates of child removal, which continue to affect Aboriginal and Torres Strait Islander communities. **Government policy addressing social determinants** Housing, legal system, education and low SES strongly impact health, social and emotional wellbeing. Need to support underlying issues. **Supporting pathways to education and employment** A lack of pathways and support to study and work in the social emotional and wellbeing space for First Nations workforce. **School-based curriculum** Australian history and policy and the impact on Aboriginal and Torres Strait Islander people must be accurately represented and included in school curriculum.

3.11 Opportunities and enablers to address mental health need in the NWMPHN region

We asked participants across the consultations to generate ideas, potential opportunities and actions that can support a more effective, equitable and sustainable health system to better meet the mental health needs of the community in the NWMPHN region.

This section draws on the diverse perspectives across the consultations to compile a comprehensive list of opportunities to address mental health needs in the NWMPHN region (see Table 33). Opportunities for improvement have been set out across the four SEM levels and mapped to the priority population impacted by the participants' subject matter expertise or the focus area of the topic.

When suggesting opportunities and enablers, focus groups and interview participants were asked to indicate which priority population was most likely to be impacted. What emerged, however, was often relevant to multiple focus cohorts.

Improvement ideas that were identified across all priority population are shown in **bold** in Table 33 and Table 36. They include:

- Interventions must address social determinants to provide holistic care and not just focus on mental and physical conditions. This is crucial for improving mental health on a broader scale including access to health care, education, healthy food, affordable housing, improved employment opportunities, income equality, community, and childhood interventions.
- Recreational activities and programs that improve community connectedness and reduce social isolation.
- Community programs to educate, advocate and change negative social sentiment and attitudes such as racism, ageism, LGBTIQA+ (homophobia/ transphobia), gender equality and violence against women. These conversations help build resilient communities, reduce social isolation, and empower individuals to advocate for positive change.
- Expanding peer-work and outreach services and collaboration with mainstream services will help improve reach and cultural safety.
- Developing a centralised system that helps consumers and service providers navigate the health system and locate relevant resources, programs and services and understand more about who is providing them to coordinate care effectively.

Individual level

Table 33. Opportunities and enablers to address mental health need in the NWMPHN region at the individual level of the Social Ecological Model.

SEM level /Areas for opportunity	Perceived community benefit on mental health and wellbeing	Subject matter expert or focus area						
		CALD communities	LGBTQA+ people	Older adults	People experiencing homelessness	Refugees and people seeking asylum	Young people	Aboriginal and Torres Strait Islander people
Building trust with community members.	Particularly important for engaging Aboriginal and Torres Strait Islander people and other 'seldom heard' communities.	✓	✓		✓	✓		✓
Addressing the social determinants of health.	Crucial for improving mental health on a broader scale including access to health care, education, healthy food, affordable housing, improved employment opportunities, income equality, community, and childhood interventions.	✓	✓	✓	✓	✓	✓	✓
Health literacy and awareness								
Introduce digital health campaigns for early parenting and new families.	Can improve mental health by fostering supportive communities, providing access to resources, and promoting awareness and understanding of mental health issues (e.g., reduced stigma, post-natal depression, and coping strategies).	✓					✓	
Provide mental health literacy programs in multiple languages.	May enhance accessibility and inclusiveness and improve understanding of mental wellbeing across diverse communities, enable dialogue to reduce stigma around mental health and promote early intervention and support.	✓				✓		
Mental health first aid training provided through schools, aged care, workplaces.	Empowers individuals to enabling individuals to approach and support someone experiencing mental health distress with empathy, active listening, and appropriate language.			✓			✓	
Deliver school-based education and prevention programs in schools to identify mental health issues at an early stage.	Benefits include building a positive school culture to reduce stigma, involve parents and family to promote MH awareness, early identification, and awareness of MH issues– particularly in resilience, stress management and antenatal care and eating disorders. Prevent more severe mental health crises (reduced burden on acute/ health system	✓	✓			✓	✓	

Interpersonal level

Table 34. Opportunities and enablers to address mental health need in the NWMPHN region at the interpersonal level of the Social Ecological Model.

SEM level /Areas for opportunity	Perceived community benefit relating to mental health and wellbeing	Subject matter expert or focus area						
		CALD communities	LGBTIQA+ people	Older adults	People experiencing homelessness	Refugees and people seeking asylum	Young people	Aboriginal and Torres Strait Islander people
Social networks, social isolation, and community attitudes								
Recreational programs and events that address social isolation.[18] (e.g., gardening/ food growing and cooking, sports, peer support groups, community events.)	Creates social connections, companionship and responsive, supportive communities which is vital for mental wellbeing.	✓	✓	✓	✓	✓	✓	✓
Connecting people with similar mental health conditions.	Can provide emotional and practical benefits including validation and reduced isolation through shared understanding that contributing to overall wellbeing and resilience.						✓	
Training library staff to recognise mental health challenges and provide initial support.	Improve social connectedness, reduce stigma (especially for elderly and the homeless) and opportunity for intervention and support through linkage to support services / resources.			✓	✓		✓	
Community programs to educate, advocate and change negative social sentiment and attitudes - racism, ageism, LGBTIQA+ (homophobia/ transphobia), gender equality and violence against women.	Community dialogue that addresses discriminatory attitudes contributes to the creation of inclusive, supportive environments that benefit mental health and wellbeing. These conversations help build resilient communities, reduce social isolation, and empower individuals to advocate for positive change.	✓	✓	✓	✓	✓	✓	✓
Carers								
Support initiatives for rainbow families (families with LGBTIQA+ parents or caregivers and their children) including counseling, parenting workshops, family support organisations and resources.	Supports and empowers parents/carers to by providing affirming and inclusive resources and community connections that acknowledge and respect their diverse experiences and contribute to the wellbeing of whole families.	✓	✓				✓	

[18] Table note: **Bold** = where areas of opportunity identified across all cohorts.

Peer support programs and education/training (e.g., MHFA) for carers, parents/guardians to support someone with their mental health diagnoses.	Build carer confidence and skills to talk about mental health, express empathy, and maintain open and non-judgmental communication and to effectively advocate for the needs of dependents with a mental health diagnosis at both individual and systemic levels. Reduce care social isolation and stress.	✓	✓	✓			✓	
New parent programs including screening and support and regular check-ins and referral to appropriate supports.	Acknowledges the need to address the mental health and wellbeing of new parents navigating parenthood and early intervention of mental health distress and holistic / peer support.	✓				✓	✓	✓

Program and service level

Table 35. Opportunities and enablers to address mental health need in the NWMPHN region at the program and service level of the Social Ecological Model.

SEM level /Areas for opportunity	Perceived community benefit on mental health and wellbeing	Subject matter expert or focus area						
		CALD communities	LGBTIQA+ people	Older adults	People experiencing homelessness	Refugees and people seeking asylum	Young people	Aboriginal and Torres Strait Islander people
Workforce capacity and capability building								
Increase the bicultural workforce to enable provision of bilingual or multilingual counselling services- this includes interpreters/multilingual staff accessing phones.	Can promote psychological and cultural safety; may help facilitate workforce capability and knowledge of cultural safety and strengthen engagement with marginalised and diverse communities.	✓				✓		
Active promotion and expansion and incorporation of peer-work and outreach services.	Is an inclusive strategy that "fosters a collaborative and holistic approach to mental health support," making it more accessible and reducing barriers to entry. This proactive approach can engage individuals who may not actively seek traditional mental health services.	✓	✓	✓	✓	✓	✓	✓
Specialist training programs for GPs, community health services focused on mental health that cover areas including counselling, psychiatric care and trauma-informed approaches.	Facilitates stronger patient-provider relationships, enabling holistic, timely and appropriate interventions and positive experience. Builds confidence and capability to support complex mental health needs.	✓	✓		✓	✓	✓	✓

Community/primary workforce are trained in and offer telehealth services.	Increased access to telehealth services can help overcome cost/travel barriers to enhance accessibility and convenience.	✓					✓	
Building workforce capacity through Community Mental Health Nurse (CMHN) training.	Can build primary care capacity to promote early intervention, reduce stigma, and foster a holistic and community-centered approach to mental health care.	✓					✓	
Creating culturally safe, inclusive mental health services								
Health services hire people from diverse backgrounds and support them with training and resources. Organisations develop and have policies in place to treat everyone fairly, and strive to avoid cultural biases, creating a workplace where everyone feels valued.	Benefits for workforce and community: a) Can contribute to a workplace that values diversity and inclusion and supports the mental health and well-being of its employees; reduce cultural load burnout b) Health services can understand and respond to the unique needs of patients from diverse backgrounds; reduce health disparities through inclusive healthcare; improve language access (and better-informed healthcare decision making) and positively influence the mental health of patients as individuals feel understood, respected, and well-supported.	✓	✓		✓		✓	✓
Cultural training for GPs, and healthcare professionals.	Can prevent misdiagnoses of mental health conditions and provide person-centered care respectful of personal values and beliefs. Training beyond basic 'cultural awareness,' that provided practical skills and tools to effectively engage and work with diverse populations and services was emphasized.	✓	✓		✓	✓		✓
Engaging with Elders to help health services learn and understand trauma and implement trauma-informed practices and its impact on the community.	Build community trust and respect and promote cultural safety and empower communities by enabling them to contribute to interventions that are culturally appropriate, resonant and reflective of the community.							✓
Well-developed education for health professionals. A portal of rigorous, accredited, and multidisciplinary training modules that includes intersectionality.	Foster genuine understanding of diverse and intersectional needs of LGBT community and signal allyship and knowledge.		✓					
Training mainstream services: AOD intake providers on asking appropriate questions without assumptions.	Builds cultural competence of AOD intake providers by building workforce capability to build trust/ reduce stigma when working with diverse communities and provide a more sensitive and effect approach to mental health support.				✓		✓	

Referral pathways and care coordination for mental health conditions								
Develop a central repository of health information and local service providers (app or web-based) that appropriate for different cohorts (e.g., young people, LGBTIQA+, multilingual)	Will help consumers, health providers, community services and other stakeholders to navigate the health system to find and access local, timely, coordinated and culturally appropriate care.	✓	✓	✓	✓	✓	✓	✓
Develop tools to help simplify and navigate referral pathways (complex with limited resources) to support teachers in navigating the system to support young people.	Providing (time poor) teachers with user-friendly tools empowers them to actively contribute to the mental well-being of their students by ensuring that they receive the appropriate mental health support suitable for young people /tailored to their individual requirements.	✓	✓				✓	
Dedicated patient journey navigators (e.g., care coordinators and clerical staff)	Alleviate workforce pressure and assist patients and providers in navigating a complex system, connecting them to appropriate programs and services while reducing redundancy in tests and procedures (cost benefit).	✓			✓		✓	
Develop a governance framework that encourages collaboration, coordination and integration among PHN commissioned services.	Can help optimise mental health care, improve access, and develop innovative, consumer-centric responses to providing a more efficient and coordinated response to mental health care in NWMPHN.		✓					
Commissioning model sharing to facilitate the exchange of commissioning models between PHNs and the Department of Health.	Sharing of models to provide valuable insights and improve alignment and strengthen the service provider landscape to ensure consistency of a diverse and responsive range of mental health services,	✓	✓					
Mental health service integration, models of care and cross-sector collaboration								
Engagement with community leaders.	Community leaders and influencers endorsing mental health support can positively impact community attitudes and incorporate cultural practices, norms, and preferences into the design of mainstream services.	✓	✓					✓
Engaging in community consultations with diverse backgrounds and sharing back information.	Create service-user informed/ culturally appropriate and effective services. Build trust (when sharing back information), improve community health literacy and advocacy skills.	✓	✓					✓
Prioritising "one stop shop" hub models for complex mental health need – accessing multiple services in one place.	Key range of identified benefits included that can support complex metal health needs: improved accessibility; streamlined service delivery and care coordination (timely care); holistic assessment; enhanced collaboration, cost efficiency.	✓		✓	✓	✓	✓	

Using community-controlled models where a place-based service model is used and designed based on community health needs.	Community-controlled models are accountable to community and therefore shaped by, and are adapted to changing needs. Power dynamics are balanced and focused on treating "people as a whole."							✓
Collaboration with local services such as community centers, religious institutions, or businesses, to establish regular visits by mobile mental health services.	Can help "tap into a population who may not have considered seeking support before" and improve health literacy, break down stigma and access barriers; improve community engagement and build trust.	✓			✓	✓		
Better integration of AOD and mental health services through understanding availability and accessibility of AOD services.	Improved line-of-sight across services in the NWMPHN would facilitate more comprehensive support for young people facing co-occurring AOD and mental health issues to provide holistic care.				✓		✓	✓
Councils identified a need to establish processes for sharing resources and knowledge between schools, government, and other service providers.	Can support a comprehensive and coordinated approach to mental health. It enhances early intervention, promotes efficient resource utilisation	✓	✓				✓	
Improved access and awareness of available therapeutic supports including creative work (art therapy) or peer group therapies were identified.	May offer benefits including alternative means of expression, holistic approaches to wellbeing, community support, stress reduction, and cultural sensitivity. Creative expression can be beneficial as a form of non-verbal communication.	✓	✓				✓	
Share lessons learned from successful projects, data with other health services.	Builds professional networks to enhance collaboration/ new partnerships, continuous improvement, and innovation in mental health services. It can promote efficiency, enhances program effectiveness, and contributes to the overall advancement of mental health care practices.	✓						
Flexible mental health service delivery models								
Gaining parent permission from/ involving parents in seeking mental health care can be a barrier (especially for CALD people. Student-run clinics as a positive alternative for young people need support and they don't want to involve them.	Anonymity, early intervention to enhance collaboration and ensure a coordinated approach in supporting young people	✓	✓		✓		✓	
Outreach in underserved areas and less obvious pathways to identify mental health presentations.	Recognition of less obvious pathways for identifying mental health concerns (e.g., animal management services indicating signs of family violence, public spaces - libraries and transport centres) can help identify and support underserved individuals.	✓	✓	✓	✓	✓	✓	✓

Increased effort to support community organisations with community level networking and engagement work.	Perceived benefits included improving mental health by providing localised support, ensuring cultural relevance, tailoring interventions and building social support networks in the community.	✓	✓			✓	✓	
Research, data collection and evaluation								
Addressing gaps in data collection for culturally diverse and marginalised groups (e.g., updating forms in health services that are inclusive of gender, ethnic background, ability etc.)	Allows for identification of health disparities in mental health outcomes among different demographic groups which is essential to inform resource allocation to meet diverse need.	✓	✓		✓	✓		✓
Improve representation of marginalised and culturally diverse populations in mental health focused research and studies.	Is important for promoting equity, enhancing cultural relevance, understanding diverse experiences, identifying health inequities and promote cultural competency.	✓	✓					

Policy and environment level

Table 36. Opportunities and enablers to address mental health need in the NWMPHN region at the policy and environment level of the Social Ecological Model.

SEM level /Areas for opportunity	Perceived community benefit on mental health and wellbeing	Subject matter expert or focus area						
		CALD communities	LGBTIQA+ people	Older adults	People experiencing homelessness	Refugees and people seeking asylum	Young people	Aboriginal and Torres Strait Islander people
Funding and Commissioning								
Commissioning Models support collaborative goals, based on outcomes and are co-developed to promote a more collaborative and integrated approach to mental health services.	Multiple benefits included: equitable opportunities for funding (if an outcome-focused approach), more collaborative developments/ partnerships, integrated service delivery, resource optimisation, flexibility, community engagement, accountability, improved service quality and enhanced population health.	✓	✓			✓	✓	✓
Funding to expand training bicultural / multilingual workers.	Can help improve mental health outcomes by promoting cultural competence, reducing stigma, enhancing communication, tailoring interventions, engaging communities, increasing access to services, addressing system disparities, preventing misunderstandings (patient-provider), ensuring cultural safety, and empowering advocacy efforts.	✓				✓		✓
Funding for additional community groups that have peer support sessions. Community Groups that have peer support sessions.	Increased psychological/ cultural safety/ improves access and attendance are overburdened and do not have the resources for ongoing treatments- provides a safe, therapeutic space in a 'non-threatening, non-clinical', and warm and respectful environment, offering support and linkages through contact with peer support workers and a mental health clinician.	✓		✓		✓		
Funding to address the shortage of psychologists and improve access, especially for provisional psychologists.	Key benefits identified included increased service capacity to meet growing demand/complexity for mental health support, reducing wait times and ensuring timely access to care.						✓	

Increased GP funding (increase time for consultations to support people to live with diagnoses)	Allows GPs to provide a comprehensive / holistic assessment (important for increasing complexity of cases, comorbidities, and psychosocial issues) and allow for more effective management and care plans. Will also provide increased GP satisfaction to be able to provide quality patient care.			✓			✓	
Policy and legislation								
Increase current patient rebates for Mental Healthcare Plans and EPC which are perceived by consumers/ GPs as insufficient.	Increase access to timely, community healthcare for older adults with complex morbidities who require a greater number of sessions. Improve access to reduce financial barriers.		✓	✓	✓	✓		
Advocacy for policy reforms (Medicare)including reducing co-payments and expanding coverage for essential medications.	Policy reforms that prioritise equitable access to healthcare and pharmaceutical can improve mental health by reducing/ removing financial barriers to access.		✓	✓	✓	✓		
Mental health campaigns and state education (curriculum)								
Enhancing TAFE/University course design: Inclusion of trans/queer-specific modules from the beginning, not as electives or projects.	Can contribute to improved mental health through the education and development of informed and inclusive health professionals (and community members) – reduce stigma, enhance cultural competence, promote acceptance/ celebration of diversity and social cohesion.		✓					
Embedding mental health and wellbeing into school systems including mental health first aid training.	Can help to promote early intervention, reduce stigma, build individual resilience, create a supportive environment, and empower both students, staff and parents/guardians.	✓				✓	✓	
State and national health promotion campaigns to challenge the heteronormative paradigm and limited understanding about LGBTIQ+ need in the system.	Promote diversity and inclusivity by increasing awareness and understanding of diverse gender identities and sexual orientations and unique health needs and challenges faced by LGBTIQA+ individuals. Help to dispel stereotypes, foster a more informed and empathetic healthcare environment (and society).		✓					

4.

Examining comparative need through the analysis of population health data

4.1 Discussion

Using epidemiological, qualitative, and comparative methods the MH HNA provides extensive analysis to describe the health issues of the region, identify inequalities in health and access to services, and highlight priorities for action with the view to improve community mental health and wellbeing.

Key findings emerged through a synthesis of quantitative data, community consultation, and interactions with service providers and subject matter experts. Through this, the concept of need was examined through comparative, felt, expressed, and normative lenses.

Association between service accessibility, availability and mental health outcomes

Data clearly demonstrates areas with higher disadvantage (namely Brimbank, Hume, and Melton) provide less access to health facilities and services. They also experience mental health workforce shortages and tend to have lower utilisation rates for mental health services.

These LGAs also show lower prevalence of chronic health conditions, lower self-report of high or very high psychological distress, fewer "new" GP mental health diagnoses, and less ED presentations and hospitalisations due to a mental health condition, when compared with other LGAs in the region.

Less socially disadvantaged areas, such as Yarra, Moonee Valley, and Merri-bek, have access to more health infrastructure and fewer workforce shortages. They tend to have higher rates of "new" GP mental health diagnoses and higher utilisation rates compared with other LGAs in the region.

These data could be interpreted in multiple ways. It might indicate that areas with greater disadvantage have fewer mental health concerns and demand for services and service utilisation rates are therefore lower. The research literature would refute this conclusion (see for example (Harvey et al., 2017; van Lenthe & Machenbach, 2021)).

Another, potentially more plausible, interpretation is that areas with relatively less disadvantage have more diagnoses of mental health-related conditions by virtue of greater access and thus might suggest that identification and management are better in these areas.

It is important to note that ED presentations and hospitalisation rates are higher in less disadvantaged areas.

Other factors that could include evidence that shows some subgroups of people are less likely to seek help for mental health issues (Reshmy et al., 2023). Australian research has also shown that many people with mental health problems attend primary medical care practitioners without presenting these problems to their medical practitioner, and patients report needs related to counselling support are less well met where the GP is the sole provider (Meadows et al., 2001).

Further, examination of service mapping data and in-depth qualitative insights demonstrated clear disparities in determinants that impact mental health service access in the NWMPHN region, namely legal, financial, and psychosocial services in lower socio-economic areas.

For instance, while metro and inner NWMPHN regions, such as Melbourne, have a culturally and linguistically diverse population, social disadvantage indicators, such as low English proficiency and financial stress, were generally higher in the growth area LGAs. This likely results in additional cultural and financial barriers that limit access to mental health care.

Notably, people living in pockets of disadvantaged postcodes within metro areas such as Yarra had higher rates of hospitalisations and ED presentations for mental health conditions, highlighting the impact of financial determinants on mental health outcomes.

Under-representation of CALD people in service data, related to the acceptability of care

Challenges relating to health service cultural competency and responsiveness were highlighted as drivers for influencing mental health outcomes of people from culturally diverse communities seeking services in the NWMPHN region. A lack of cultural safety and competence in mainstream services emerged as a major theme in qualitative interviews.

Despite the regions' diverse population, there is a lack of cultural representation in primary mental health services, ED presentation and hospitalisation data, highlighting that available services do not necessarily translate to accessible services for CALD people.

For example, while there is a high proportion of CALD people living in Melbourne, Brimbank, Wyndham and Hume (section 2.3, Figure 6), they are significantly underrepresented in ED presentations and mental health hospitalisations in comparison to other LGAs, such as Yarra.

This might suggest that individuals from culturally and linguistically diverse backgrounds residing in these areas may perceive current services as lacking in cultural sensitivity and responsiveness to their unique needs and perspectives. This perception, in turn, can impact their willingness to access healthcare services. Another possible explanation is limitations in data reporting.

It is important to also note that other subgroups of people are also missing from datasets and this was raised as an issue throughout the consultation process. For example, people with disability, LGBTIQ+ people, refugees and asylum seekers, and people experiencing homelessness are all under-represented or invisible in many data sources.

Complexity and acuity of mental health need

High prevalence of complexity in young people

Health and community service providers have highlighted a noticeable increase in the acuity and complexity of mental health conditions presenting to their services. This was particularly evident among young people, with reports of multiple diagnoses, suicidality and self-harm becoming more prevalent. The consistent drivers behind these challenges were psychosocial issues, such as domestic violence, social isolation, and housing affordability, exacerbated by the pandemic. This occurs within the broader context of a growing and ageing population and an increased societal awareness surrounding mental health.

Capability of community-based services to manage complex mental health disorders

Although anxiety and depression have consistently been the leading diagnoses of mental health outcomes and thus continue to be large drivers of need, our analyses revealed that there are unmet needs related to less common but complex and high acuity conditions.

Schizophrenia and other psychotic disorders are often described as complex and high acuity mental health conditions. Schizophrenia continues to be the leading cause of hospitalisations and fourth leading cause of ED presentations in the NWMPHN catchment. Findings from the 2010 Survey of High Impact Psychosis, the most recent data available, suggest that 240 per 100,000 people have a diagnosis of schizophrenia in Australia (Morgan et al., 2012), which translates to approximately 4,500 people living in the catchment.

These insights indicate that there may be a need to look at the services and pathways across north west Melbourne, particularly for people with more complex mental disorders, and whether access to care and capacity to manage more complex conditions can be improved health care setting there is the potential to better manage some people's care.

Engagement with key service providers in the region is required to explore the role different parts of the system could play in treating or supporting people with psychotic disorders to support earlier access to care for more complex presentation and appropriate care for people where their symptoms are well managed. Further exploration is required to understand to what extent the scope of PHN commissioned mental health services could or should include to support the needs of people who experience psychotic disorders and how future services may be able to complement management of psychotic disorder presentations in general practice.

Need for indicators to support understanding of complex needs to inform service design and patient outcomes

Health and community service providers identified a range of factors that are contributing to an increase in the acuity and complexity of mental health conditions presenting to their services. Addressing the mental health complexities within this population and the broader NWMPHN catchment community requires further efforts to identify appropriate indicators of mental health and wellbeing. Specifically, some health providers expressed reservations about the reliability and reflective nature of indicators like rates of mental health care treatment plans and medications prescribed by GPs. A need to also enhance measurement approaches to improve understanding of mental health service effectiveness by incorporating Patient-

Reported Outcome Measures (PROMs) and Patient-Reported Experience Measures (PREMs) was one identified opportunity.

Workforce to support growing complexity of consumers

Consultations underscored concern regarding the workforce's lack of capacity and capability to meet increasing demand and complexity in the community, with many providers perceiving this is resulting in unmet need. This concern is substantiated by consumer lived experience, and reports of long wait lists for specialist mental health care.

Concurrently, there are significant workforce shortages, including GPs and mental health specialists, including psychologists and psychiatrists (Australian Government Department of Health and Aged Care (DoHAC), 2021). And our findings reinforce well documented challenges surrounding system-wide workforce burnout, highlighting the necessity to explore options that are practical and do not contribute to additional strains on the workforce.

Regarding complexity, analyses of service mapping showed that approximately 80 per cent of mental health services in the region intend to service the needs of consumers rated as an IAR level 3 or less, whereas, NWMPHN data from Head to Health showed that there are more people assessed requiring care at an IAR of level 4 than would be expected when compared to the National Mental Health Service Planning Framework (*National Mental Health Service Planning Framework*, 2023). These findings suggest higher intensity support (IAR4 to IAR5) might be needed.

It should be noted that, in response to recommendations of the Royal Commissioning into Victoria's Mental Health System, the Victorian Government is establishing a new service stream known as Mental Health and Wellbeing Locals. This new service stream is intended to provide an easy way to access treatment for adults (aged 26 and over) who:

- Need more support than they can get from primary and secondary care providers.
- Do not need the type of specialist treatment, care and support available in Area services.

Multidisciplinary care, service integration and mental health service system navigation

System fragmentation is a well-documented challenge in Victoria (Victorian Department of Health, 2021)and a prominent theme throughout previous NWMPHN HNAs (NWMPHN, 2021). System fragmentation often limits health and social services sector coordination and collaboration, and therefore the provision of holistic care required to address mental health needs.

In working towards an optimal future state of service delivery, prioritisation of vertically integrated "one-stop shop" multidisciplinary hubs was identified as important by health providers and community members. Hubs would mitigate challenges and leverage multidisciplinary health, sociocultural expertise and skills and help to address the complex challenges presented in this report. The result will foster meaningful progress towards improving populations who experience inequitable mental health outcomes. As noted on the previous page, multidisciplinary care is part of the model for the Mental Health and Wellbeing Locals but should also be kept in mind for future services that might be implemented.

For example, the complex interconnectedness between intergenerational and individual trauma experienced by First Nations people has had profound impact on psychological wellbeing, risk of homelessness, rates of incarceration and substance abuse. This impact is illustrated through the Victorian Emergency Minimum Dataset analyses such as multiple drug and alcohol use and acute and transient psychotic disorders as the leading cause of ED presentations in Aboriginal and Torres Strait Islander people (2022/23).

This collaborative strategy not only ensures culturally sensitive and community-specific interventions but also fosters a supportive environment that is conducive to healing and wellbeing. The integration of these services and partnerships has the potential to mitigate the impact of trauma.

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Appendices

A. Data limitations

B. Full list of mental health indicators

C. Drivers of mental health need by LGA

D. Community Engagement – Consultation guide

E. Factors influencing health needs across priority groups in the NWMPHN mapped against the Social Ecological Model

Appendix A. Key Definitions

Aboriginal health worker services	Aboriginal health worker services are based on specific MBS items where the service is by a practice nurse, Aboriginal health worker or Aboriginal and Torres Strait Islander health practitioner provided on behalf of, and under the supervision of, a medical practitioner. This group includes telehealth patient-end support services. These services do not require a referral.
Acceptability coverage	Defines the people who can access the service, are willing to use, and find costs, waiting times, beliefs and so forth acceptable (Tanahashi, 1978).
Accessibility coverage	Defines the population who can use or access the service – that is, in terms of geographical location, affordability, and so forth (Tanahashi, 1978).
Availability coverage	The availability of resources such as health workers, health facilities, drugs and so forth (Tanahashi, 1978).
Avoidable Emergency Department presentations	Avoidable ED presentations are based on the AIHW variables[19]: Presentations to public hospital emergency departments with a type of visit of emergency presentation where the patient: • was allocated a triage category of four (semi-urgent: within 60 minutes) or five (non-urgent: within 120 minutes) and • did not arrive by ambulance, or police or correctional vehicle and • departure status was to "Home" or "Referred to GP" or "Residential care facility" and • was not admitted to the hospital, not referred to another hospital, or did not die.
CAREinMIND™	CAREinMIND is a program that provides mental health care for people who face barriers to accessing or affording other services. It is funded by the North Western Melbourne Primary Health Network and aims to deliver person-centered, integrated, and quality care for people with different levels of mental health needs. It offers 4 types of services: telephone counselling, psychological support and care coordination.
Comparative need	Identified need is used as a measure to define need across a wider population or community through analysis of population data. It highlights those with similar needs who are not yet receiving services (Bradshaw, J.,1972).
DirectLine telephone service	Directline is only one of many helplines which provide services to people across the country or state. Data for counselling, information and referral-based telephone calls are extracted from Turning Point's DirectLine database, which includes 24-hour services provided to Victorians to discuss alcohol and other drug related issues.

[19] Refer to the Metadata Online Registry https://meteor.aihw.gov.au/content/740847 *for the definition of avoidable ED presentations.*

Effective coverage	The proportion of the population in need that receive an effective intervention (Tanahashi, 1978).
Episodes of care	An episode is a period of health care with a defined start and end. A new episode record is created when a client is referred to a primary mental health care minimum data set (PMHC-MDS) reporting treatment commissioned service provider.
Felt and expressed need	Defined through the view of people living in or accessing services in the region. Felt and expressed needs understood through community consultation.
Head to Health	Head to Health is a free confidential service from the Australian Government. It connects you with the help and support you need to keep mentally healthy. The Service can refer to PHN commissioned services or other local services based on need identified though assessment using the Initial Assessment and Referral Decision Support Tool (IAR-DST)
Health infrastructure index	Health infrastructure index is an indicator measured in the Liveability Report for Australia's 21 largest cities included in the Australian Urban Observatory. The health Infrastructure subdomain is derived from the Social Infrastructure Index which includes access to residential aged care facilities, dentists, general practitioners, pharmacies, community health centres and maternal child and family health centres, with a minimum score of 0 and maximum of 6.
Index of Relative Socio-economic Disadvantage	The Index of Relative Socio-economic Disadvantage (IRSD) summarises 20 variables that directly or indirectly contribute to disadvantage in a particular geographic location. The Australian average IRSD score is 1000. IRSD is calculated for each Statistical Area 1 (SA1) in Australia, each of which generally has a population of between 200 and 800 people. A lower score indicates a higher level of disadvantage.
Indicators	Are individual measures of a concept of interest, such as the rate of psychological distress by LGA.
The Initial Assessment and Referral Decision Support Tool **(IAR-DST)**	The IAR-DST is an evidence-based tool used for conducting initial assessment and referral of individuals presenting with primary mental health conditions in primary care settings. This assessment is usually done by a health care professional, such as a GP or mental health clinician. The tool is not diagnostic but is used to categorise the person's needs into one of five levels of care: Level 1: Self-management (mild problems, resources available) Level 2: Low intensity services (e.g., online programs, group therapy) Level 3: Moderate intensity services (e.g., individual therapy, medication management) Level 4: High intensity services (e.g., specialized care for complex conditions) Level 5: Urgent or emergency care (immediate risk of harm)
Metrics	A measure of quantitative assessment. We have used the term 'metric' to refer to 5 domains or categories of which we have organised the quantitative data.
The (NWMPHN) Model	Comprises the 5 metrics. Each of the domains comprises several selected robust indicators that contribute to a method of quantifying need. Nb. *Not all indicators in the report contribute to the Model.*

NWMPHN Framework	Uses mixed methods to define and understand need (NWMPHN, 2021).
Normative need	Defined by health service providers and other subject matter experts in the region. Often measured against standards and measured through health provider consultation.
Quantified need	Quantified need is a concept that refers to the capacity to benefit from the health care system for a specific population or group of individuals. It is based on the idea that health care resources should be allocated according to the potential for improving health outcomes and reducing health inequalities.
PAT CAT	PAT CAT is tool used by general practices in the regions to submit deidentified data to NWMPHN. As of FY 2020-2021, there were 390 general practices actively using PATCAT to submit their patient data. GPs have the opportunity to review any submitted data for quality checking purposes.
People Bank	People Bank is a register of people who represent the NWMPHN region community. They take part in a range of different activities including events, surveys, tender evaluation panels and consultations, with the aim of improving the health of people in the north, west and central Melbourne area. Everyone in our community is welcome to join.
Social Determinants of Health	The social determinants of health (SDH) are the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems (World Health Organisation, 2022).
Social Ecological Model	The social ecological model (SEM) is a theory-based framework that can be used to understand the multifaceted and interactive effects of personal and environmental factors that determine health related behaviour, and for identifying behavioural and organisational leverage points and intermediaries for health promotion within organisations. The model describes four nested, hierarchical levels: individual, interpersonal/relationship, service/organisation, and policy/enabling environment. (*Centers for Disease Control and Preventions (CDC),*2018)

Appendix B. Data limitations

Victorian Department of Health data

VAED

- Population health quantitative data was collected and categorised within a male-female gender binary framework and did not account for non-binary, genderqueer or intersex individuals. This may result in an incomplete representation of gender diversity within the region.
- The diagnosis condition is in the context of a single episode of care, and we are unable to measure readmissions in the same individual.
- LGAs were categorised from postcodes, however, some postcodes belong to more than one LGA. Therefore, the LGA that had a higher postcode population was included. This may have resulted in an overestimation of hospitalisation numbers for the LGA included and an underestimation of hospitalisation numbers for the LGA excluded for the postcode.
- Not all episodes have a recorded referral status in the VAED (approximately 22 per cent do not). Only episodes that are separated to private residence/accommodation have referral status recorded; referral status is not recorded for all other types of separations (including transfer to a health care facility or health program, death, posthumous organ procurement, statistical separation, left against medical advice).

VEMD

- The AIHW definition of avoidable ED presentations has been adopted for the purposes of this analysis; however, definitions used by hospitals may differ. Avoidable does not imply inappropriate.
- Quantitative data on population health was collected and categorised within a traditional male-female gender binary framework and did not account for non-binary, genderqueer or intersex individuals, which may result in an incomplete representation of gender diversity within our region.
- LGAs were categorised from postcodes, however, some postcodes belong to more than one LGA. Therefore, the LGA that had a higher postcode population was included as the LGA. This may have resulted in an overestimation of ED presentation numbers for the LGA included and an underestimation of ED presentation numbers for the LGA excluded for the postcode.
- Not all episodes have a known or specific referral status recorded in the VEMD (less than 5 per cent of VEMD episodes have a referral status of Unknown or Other). It is also noteworthy that, when focusing on referral status for patients exclusively discharged home, in this subgroup, less than 3 per cent have an unknown or other referral status.

GP and commissioned services data

- NWMPHN does not receive data from all general practices across the region, so quantitative analysis of GP data (PAT CAT) is likely to be underrepresented. Therefore, there is potential selection bias in the GP diagnosis data by LGAs, given there are different ratios of GP clinics that provide data across them.
- Further, the data will not account for patients who have seen multiple GPs in the period. Therefore, single patients

could have a single diagnosis reported more than once.

- The diagnosis counts were calculated as the number of patients by selected health condition. Patient data is for residents of the NWMPHN region, based on patient postcode. Diagnoses include only those where a patient had a valid diagnosis during a GP clinic visit between 1 January 2022 and 31 December 2022, where that data was received through the PATCAT system by NWMPHN.
- The GP data used doesn't account for comorbidities across conditions, the aggregated disease incidence may be overestimated.
- PAT CAT GP data was collected and categorised within a male-female gender binary framework and did not account for non-binary, genderqueer or intersex individuals which may result in an incomplete representation of gender diversity within catchment.
- The data sources are primarily existing information from NWMPHN region and publicly available online data. Whilst further research was conducted to identify additional services, there may be some mental health and wellbeing services not captured in the service map including private practices, peer support groups and specialised public mental health programs.
- The availability and reliability of publicly accessible data can vary. Information may have potential lag times on creating up-to-date service data and may lack the detail required to obtain a comprehensive and reliable view of all variables for all services.
- Service mapping is point-in-time due to ongoing change in service provision.
- Lack of wait time information is also a factor.
- The PAT CAT GP data records the cultural and linguistic diversity of the patients in free text fields that lack standardisation. The absence of reliable information on the patients' cultural and linguistic backgrounds is a significant barrier to analysing this data.

Qualitative data

- Whilst we have used the SEM to theme and organise data from the consultations, a formal thematic analysis was not undertaken due to time constraints.
- Findings from the study may be influenced by individual biases due to personal experiences which impact interpretation of the data and analysis. To mitigate biases, reflexive practice to improve self-awareness was practiced as well as peer review of this report to validate findings.
- Purposeful sampling to target our cohorts of interest resulted in slightly less diversity.
- The data contains only a limited voice of Aboriginal and Torres Strait Islander consumer or health providers.

Appendix C. List of model indicators

A full list of indicators is available in the supplementary file

Table 37. Full list of indicators

	Indicator	Period (year)	Melbourne	Maribyrnong	Yarra	Brimbank	Darebin	Hobsons Bay	Merri-bek	Moonee Valley	Hume	Melton	Wyndham	Macedon Ranges – part a	Moorabool – part a	Benchmark
Metric 1: Population size	% of projected population growth in 2025[1,^^]	2020 to 2030	9.8	5.3	4.9	10.5	8.3	5.1	6.5	9.6	12.7	9.2	15.3	1.6	1.1	^^
Metric 2: Sociodemographic factors	% of SA1 population with IRSD in deciles 1-4[1,~]	2021	30.3	36.3	12.8	83.1	33.2	33.3	26.3	12.3	70.5	47.4	38.1	2.8	36.4	**42.1**
Metric 3: Risk factors	% of children vulnerable on 1 or more AEDC domains[1,¥]	2021	20.6	15.4	18.5	29.3	15.8	16.4	19.9	13.4	28.7	23.8	21.8	15.3	22.0	19.9
	Rate of family violence per 100,000 population[1,*]	2022	1413	1320	1174	1454	1132	1110	1214	1039	1509	1532	1398	880	1301	1394
	2+ standard drinks per day (%)[1,*]	2017 to 2018	12.0	10.7	17.9	7.3	12.6	13.9	14.2	11.5	8.7	9.6	7.9	19.8	16.3	**14.4**
	% of people widowed[1,¥]	2021	1.5	3.0	2.5	4.4	4.3	4.3	4.1	4.4	3.0	3.2	2.2	3.2	4.0	**4.9**
	% of people aged 18 and above years who were obese[1,¥]	2020	9.9	11.2	10.6	23.9	14.0	19.4	16.5	16.1	31.3	22.6	23.4	23.1	31.4	20.9
	Liveability index[1,¥]	2021	106.3	102.5	105.9	98.1	101.9	100.2	101.5	101.6	96.5	95.1	96.5	94.6	96.4	98.9

	Indicator	Period (year)	Melbourne	Maribyrnong	Yarra	Brimbank	Darebin	Hobsons Bay	Merri-bek	Moonee Valley	Hume	Melton	Wyndham	Macedon Ranges – part a	Moorabool – part a	Benchmark
Metric 4: Access and geographical environment	Health infrastructure[1,¥]	2021	4.0	3.6	4.5	1.7	3.1	2.6	3.2	3.0	1.3	0.9	1.1	1.0	1.1	**2.2**
	Alleged offender incidents rates per 100,000[1,*]	2022	6,575	2,941	3,328	2,806	2,616	2,227	1884	2064	2407	1987	1958	1317	1878	**2,458**
	GP workforce (FTE) per 100,000[1,*]	2023	90	143	153	144	106	96	135	121	115	82	119	134	139	119
	Nurses and Midwives workforce (FTE) per 100,000[1,*]	2023	973	213	495	194	120	125	138	116	133	137	121	120	99	221
	Allied health professionals (Psychologists) (FTE) per 100,000[1,*]	2023	274	74	256	35	85	55	73	107	25	22	22	45	46	61
	Average distance (km) to Bulk-billed GP clinic[1,¥]	2021	0.6	0.7	0.5	1.1	0.8	1.0	0.7	0.9	1.5	2.2	1.4	2.9	1.4	**1.3**
	Avoidable ED presentation rates due to MH per 100,000[1,*]	FY22 to FY23	110	83	111	71	65	72	82	93	45	52	45	21	23	70
Metric 5: Health conditions and consequences	ED presentation rates per due to MH per 100,000[1,*]	FY22 to FY23	1125	889	1229	717	911	746	755	881	650	597	535	330	550	778
	Hospitalisation rates per due to MH per 100,000[1,*]	FY22 to FY23	883	969	1030	1002	864	570	821	803	716	668	428	404	703	752
	Hospitalisation rate due to suicidal ideation per 100,000[1,*]	FY22 to FY23	118	30	94	52	58	33	60	84	51	59	18	21	55	39
	ED presentation rate due to	FY22 to FY23	252	348	248	275	286	309	198	239	271	292	207	89	215	244

	Indicator	Period (year)	Melbourne	Maribyrnong	Yarra	Brimbank	Darebin	Hobsons Bay	Merri-bek	Moonee Valley	Hume	Melton	Wyndham	Macedon Ranges – part a	Moorabool – part a	Benchmark
	suicidal ideation per 100,000[1,*]															
	% of residents with chronic health condition (1 or more) [1,*]	2021	14.3	18.5	20.6	16.6	20.1	18.9	27.8	13.4	16.1	16.2	13.8	20.1	20.8	18.8
	% of residents with chronic health condition (2 or more) [1,*]	2021	4.1	6.7	6.6	7.8	8.1	8.1	5.7	11.3	7.4	6.8	5.3	8.4	10.7	8.6
	% of residents with high or very high psychological distress based on K10[1,*]	2022	22.1	23.3	19.7	25.3	30.9	25.5	28.8	21.2	23.4	21.4	24.6	15.8	23.1	24.5
	Average annual ASR per 100,000 population (0-74 years) of death by suicide and self-inflicted injury[1,*]	2016-2020	10.4	10.9	11.6	10.3	11.7	12.7	8.7	11.5	10.5	12.2	11.2	12.2	15.9	**11**

[1] Criteria 1 met
[€] Benchmark is the IRSD index base of 1000 for Australia (5th decile)
[#] Benchmark is Australia
* Benchmark is Victoria
¥ Benchmark is Greater Melbourne
^ Benchmark is NWMPHN
^^numbers are the % of NWMPHN Catchment (2025), therefore, no benchmark. Red indicates the top 5 LGAs with largest % population of the catchment, amber indicates the LGAs that sit within the middle and green indicates the bottom 2 LGAs with the smallest % of population.

Colour scheme: Green = better than benchmark, Amber = "similar" to benchmark, Red = below 95% of benchmark

Appendix D. Summary of mental health need across LGAs

Inner City	Melbourne	• Melbourne is a highly populated LGA with some localised disadvantages relating to high levels of housing stress. These are key determinants that can exacerbate mental health needs. In addition, there is a large proportion of the population born in non-English speaking countries, indicating the need for culturally safe and appropriate services for this community. • GP workforce shortages and high avoidable ED presentation rates driven by mental health are indicative of potential barriers to seeking care and may be contributing factors to the low utilisation of Medicare-subsidised GP services. • High family violence rates and high ED presentations driven by alcohol use and complex conditions (including bipolar and psychotic disorders) indicate a need for targeted support to address intricate challenges associated with complex mental health needs.
	Maribyrnong	• Maribyrnong experiences localised social disadvantages, in particular, housing stress and food insecurity, which significantly impact mental health. In addition, approximately a third of the of the population born in a non-English speaking country and a proportion of the population with low English proficiency higher than the Victorian average, indicates a demand for services accommodated for specific cultural needs. • Low utilisation rates of Medicare-subsidised mental health services and avoidable ED presentation rates due to mental health above the state average highlight there may be some barriers for people living in Maribyrnong to accessing services for their mental health. • A high rate of hospitalisations driven by schizophrenia and depressive episodes coupled with elevated ED presentation rates due to suicidal ideation indicates significant and complex mental health needs within this population, that require tailored care.
	Yarra	• The greatest identified area of need related to mental health within Yarra is driven by alcohol use. The proportion of Yarra's population who consume alcohol daily above recommended standards was second highest in the NWMPHN region, and higher than the Victorian average, potentially contributing to the increased rates of ED presentations and hospitalisations due to alcohol. • In addition, high ED presentation rates are driven by a multitude of mental health conditions, namely alcohol, anxiety, psychotic disorders, schizophrenia. Despite being a LGA of relatively less

		social disadvantage compared to others in the region, there are pockets of disadvantage in postcodes 3065 and 3066 that had the highest hospitalisation and ED presentation rates. • These drivers of need highlight the impact of financial and risk factor determinants on mental health outcomes and indicate a need for targeted services to address specific and complex mental health needs.
Suburban	**Brimbank**	• A highly populated area, Brimbank stands out as the LGA in our region with the greatest level of social disadvantage. It also has a high level of need related to risk factors that research shows have negative effects on mental health and wellbeing. These include low income, food insecurity, low English proficiency, developmental vulnerability, family violence and high rates of adult obesity. • A relatively low liveability index in Brimbank indicates there is insufficient public transport access, health infrastructure or access to healthy food. • These factors could be impacting the mental health and wellbeing of residents. A high proportion of residents in Brimbank report high or very high psychological distress. • Barriers to accessing care are further exacerbated by psychologist workforce shortages in this LGA. • High hospitalisation rates due to mental health in Brimbank are driven by schizophrenia, depressive episodes, and delirium. These, coupled with high hospitalisation and ED presentation rates due to suicidal ideation, indicate complex mental health needs in the population and underscore the critical importance of targeted mental health support. • Brimbank is the third highest ranked LGA for percentage of population with 2 or more chronic health conditions. However, this is lower than Victorian average. Brimbank also exhibited higher hospitalization rates but lower ED presentations than Vic average. Except for Brimbank's Aboriginal and Torres Strait Islander peoples who exhibited higher hospitalisation and ED presentation rates, when compared to the Victorian average.
	Darebin	• There is some localised disadvantage in Darebin, in particular relating to low household income, a social determinant that can exacerbate mental health needs. In addition, Darebin has the

	largest LGBTIQ+ population in our region, emphasising the importance of having inclusive services that cater to varying needs. • Darebin ranks first with the highest proportion of the population experiencing high psychological distress, suggesting that there could be a higher risk or prevalence of mental health in the community. • Although a larger proportion of mental health related services were identified to be available in Darebin, schizophrenia and alcohol use are large drivers of ED presentations and hospitalisations indicating there still may be an unmet need of services that cater for these conditions.
Hobsons Bay	• Hobsons Bay experiences healthcare workforce shortages for GPs, psychologists, nurses and midwives. In addition, out of pocket costs for Medicare-subsidised mental health services are above the national average, indicating there may be some barriers to seeking care in the community. Compared with other LGAs, residents of Hobsons Bay have low utilisation rates of Head to Health and CareInMind services as well as low utilisation of Medicare-subsidised nursing, and Aboriginal health services. • High ED presentations due to suicidal ideation and high mortality rates by suicide highlight the need for tailored interventions to address severe mental health outcomes.
Moonee Valley	• Moonee Valley has a greater proportion of older adults relative to other LGAs in the region. Being an LGA with a relatively higher socio-economic status, there is some localised disadvantage related to food insecurity. • Moonee Valley has the higher proportions of consumers assessed in Head to Health referrals as requiring high or specialist-level care and has high rates of avoidable ED presentations. Suicidal ideation leading to hospitalisations is also prevalent in Moonee Valley, indicating a need for a more targeted and higher intensity level of care.
Merri-bek	• Merri-bek has a large LGBTIQ+ population, highlighting a need for appropriate and varying services to accommodate for this cohort. • Although there are no workforce shortages relative to other LGAs and Victoria, there are above-average out-of-pocket costs for GP and mental health services and increased avoidable ED presentation rates attributed to mental health, indicating there may be some barriers to seeking care in the community.

		• A high prevalence of individuals with 2 or more chronic conditions and high psychological distress suggests that there could be higher risk or prevalence of mental health in Merri-bek. This can be seen with above average hospitalisation and ED presentation rates due to mental health. The hospitalisation rate due to suicidal ideation was also noted, surpassing the Victorian average.
Growth area	**Hume**	• Hume is one of the most populated areas in NWMPHN and experiences social disadvantage across multiple indicators -- specifically housing stress and low individual and household income -- that can have negative consequences for mental health and wellbeing. • Being a highly disadvantaged area coupled with a younger age profile and more cultural diversity, including a higher proportion with low English proficiency, than most other LGAs, emphasises the importance of having targeted services that cater to varying and unique needs. • Hume also benchmarks below Victorian state averages in multiple risk factors that can affect mental health and increase need. Specifically, there are a high proportion of children who are developmentally vulnerable, high levels of family violence and a large proportion of adults who are living with obesity. • A low liveability index in Hume is driven by insufficient public transport access, low health infrastructure and access to healthy food. Barriers to accessing care for mental health and wellbeing needs are further exacerbated by GP and psychologist workforce shortages. • Above average rates of ED presentations and hospitalisations due to suicidal ideation highlight there are complex mental health needs in the population requiring tailored intervention.
	Melton	• Relative to Victoria, Melton has higher rates of social disadvantage across multiple indicators that can affect mental health and wellbeing, specifically, housing stress and food insecurity. • Melton also has one of the highest populations of young people and Aboriginal and/or Torres Strait Islander across the region indicating there are unique and varied needs within the population necessitating tailored services to address the specific challenges faced by these communities. • Melton has a high level of need related to risk factors associated with poor mental health, in particular, developmental vulnerability, family violence and high rates of children living with obesity

		highlighting a need for support specified towards childhood development and family. • Melton experiences significant shortages in the healthcare workforce, particularly in the availability of GPs and psychologists. The low liveability index, reflecting deficiencies in public transport and overall health infrastructure, in combination with workforce shortages poses environmental barriers that may contribute to low utilisation of essential services, including mental health services.
	Wyndham	• Wyndham is NWMPHN region's fastest growing and most populous LGA, but also experiences high levels of social disadvantage; in particular, high levels of housing stress and low individual income are key health determinants that exacerbate mental health need. A younger demographic and notable cultural diversity, including a higher percentage with low English proficiency highlight the importance of tailoring services/programs to address unique needs. • Wyndham contends with various mental health risk factors, including high rates of babies born with a low birth weight, higher proportion of children developmentally vulnerability, and high rates of adult obesity compared with the Victorian average which indicate a need for interventions targeted to families and early childhood. • Wyndham's low liveability index highlights deficiencies in public transport, easy access to fresh food, and overall availability of health infrastructure. Wyndham also has a shortage of health professionals, particularly psychologists. • Compared with other LGAs and with the Victorian average residents of Wyndham have low utilisation rates of Directline and Online counselling, as well as low utilisation of essential services such as Medicare-subsidised mental health, nursing, and Aboriginal health services. Although Wyndham has a lower prevalence of individuals with two or more chronic conditions relative to Victoria, the ED presentation rate due to chronic conditions was higher than the Victorian average.
Peri-urban	**Macedon Ranges - part a**	• Macedon Ranges has a diverse population with both a younger and older demographic and a higher proportion of LGBTIQ+ relative to other LGAs in the region. • Macedon Ranges experiences some risk factors related to poorer mental health, in particular, greater daily alcohol consumption and

		obese adults. Coupled with the high prevalence of individuals with comorbid chronic conditions, the population could be at greater risk of mental health conditions. • There are disadvantages across a range of liveability indicators including deficiencies in health infrastructure, public transport access and access to healthy food. Macedon Ranges also contends with barriers to seeking mental health-related care due to psychologist shortages and higher than average out-of-pocket costs, which may explain the low utilisation rates of Medicare subsidised services. • Bipolar disorder is a notable condition of concern in Macedon Ranges with high rates of GP diagnoses and hospitalisations. The mortality rate of suicide and self-inflicted injury was also noted, surpassing the Victorian average indicating a need for tailored support for complex and severe mental health outcomes.
	Moorabool – part a	• Moorabool stands out as an LGA in our region with greater socio-economic disadvantages (in particular, low income and housing stress) that exacerbate mental health need. • There is also a high level of need related to various risk factors associated with poor mental health (including greater alcohol consumption, obese adults and childhood developmental vulnerability). The prevalence of these risk factors may contribute to the higher proportion of the population with comorbid chronic health conditions. • Moorabool contends with liveability disadvantages due to lower health infrastructure, public transport access and greater distance to bulk-billing GP clinics. These environmental barriers combined with workforce psychologist shortages result in low utilisation of essential Medicare-subsidised services (including mental health and nursing). • Moorabool has the highest proportion of Aboriginal and/or Torres Strait Islander people and the highest GP diagnoses of mental health conditions for this population, reflecting the importance of culturally appropriate and tailored services to address unique needs.

Appendix E. Sample Consultation Questions

Consultation questions were tailored to different focus group participants and interviewees. For the full list of consultation questions please contact HNA.admin@nwmphn.org.au

Theme	Question | Prompts
Access Beliefs/ attitudes and awareness of mental health	**Q1. How does [priority cohort] background influence people's journey to accessing mental health and wellbeing services?** • When do your communities recognise/feel like they need to access a mental health and wellbeing service? Where else to they seek help? • What factors influence (stigma, recognition of mental illness)? How do your communities conceptualise mental illness?
Health Service Experience Appropriateness	**Q2. What does a good mental health and wellbeing service look like for [priority cohort]? How effective are current services in doing this? / To what extent are current mental health and wellbeing services delivered by community agencies and NGO's meeting community mental health and wellbeing needs?** What could improve? • How accessible are current services? • How positive is the experience of care? • How consistently do they deliver high quality outcomes for the population? • How has digital service provision impacted? If yes, how has it helped?
Cultural Safety Service provider/ workforce cultural competency	**Q3. What are the ways in which organisations can support culturally accessible services and care delivery? / How would you describe the current supply, capability, wellbeing and distribution of your mental health and wellbeing workforce?** What could organisations do to make them more culturally aware while building up culturally diverse workforce?
System integration	**Q4. What could improve integration of Victorian area mental health and wellbeing services with the rest of the system (including GPs, NDIS, community agencies etc.)?**
Health workforce capacity and capability	**Q6. What is the ideal workforce that can deliver effective mental health and wellbeing services to [priority cohort] individuals?** • What skills, qualifications, experience do they need to have? • Are any of these qualities challenging to find in the workforce? Why?
Enablers	**Q7. If you could wave a magic wand and do one thing so your organisation could better meet the mental health wellbeing needs of our region, what would it be?**

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