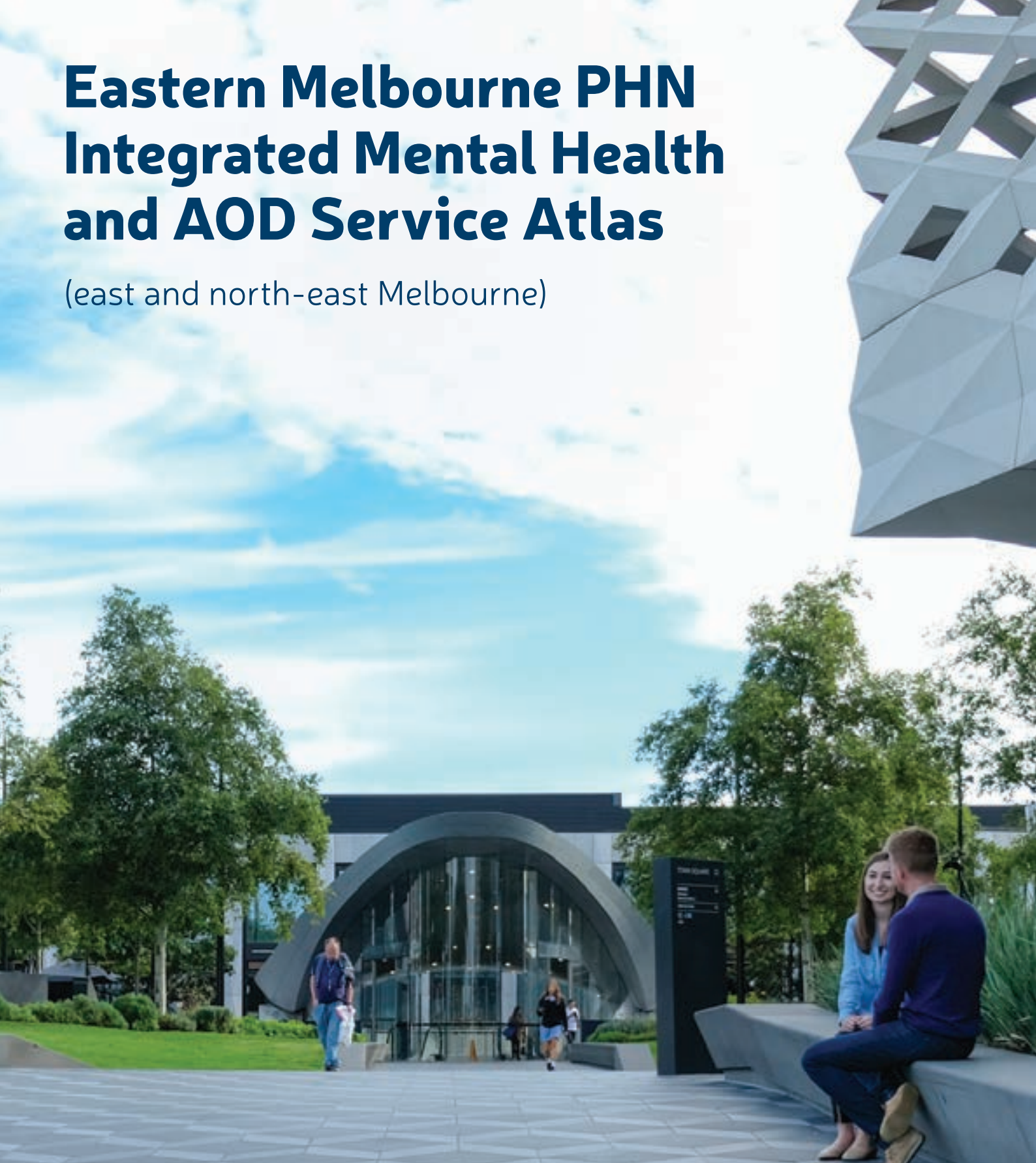
Eastern Melbourne PHN Integrated Mental Health and AOD Service Atlas

(east and north-east Melbourne)



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phn EASTERN MELBOURNE

An Australian Government Initiative

Disclaimer

Inherent limitations

ConNetica has prepared this report at the request of Eastern Melbourne PHN (EMPHN) in our capacity as consultants and in accordance with the terms and conditions of the contract with EMPHN.

The report is solely for the purpose and use of Eastern Melbourne Healthcare Network Ltd (ABN 13 603 658 895) trading as Eastern Melbourne PHN and has been prepared through a consultancy process using specific methods outlined in the Framework section of this report. The project team have relied upon the information obtained through the consultancy as being accurate with every reasonable effort made to obtain information from all mental and/or alcohol and other drug health service providers across the region.

The information, statements, statistics and commentary (together the "information") contained in this report have been prepared by the project team from publicly available information as well as information provided by the PHN and service providers across the Eastern Melbourne PHN catchment area.

The project team has not undertaken any auditing or other forms of testing to verify accuracy, completeness or reasonableness of the information provided or obtained. Accordingly, whilst the information presented in this report is provided in good faith, ConNetica can accept no responsibility for any errors or omissions in the information provided by other parties, nor the effect of any such error on our analysis, discussion or recommendations.

The language used in some of the service categories mapped in this report (e.g. outpatient, day care, non-acute) may seem to be very hospital-centric and even archaic for advanced community based mental health services which are already recovery oriented and highly developed. However, these terms reflect the category nomenclature employed within the Description and Evaluation of Services and Directories in Europe for Long Term Care (DESDE-LTC) classification system rather than a description of services. The consistent application of standardised category labels, which have been used for some years in European for health service mapping studies, provides a common language for meaningful comparisons of service across regions (nationally and internationally).

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The combined experiences and insights provided have helped to establish, what we hope will be, a useful reference document that can guide future service planning and initiatives to best support the communities of Eastern Melbourne.

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Eastern Melbourne PHN

Eastern Melbourne PHN acknowledges the valuable contributions of staff, partners, service users and the community in shaping our work. The principles of co-design and community engagement underpin everything we do.

Australian Government

We acknowledge funding from the Commonwealth Government as the principal funding body for PHNs.

We acknowledge and pay our respects to the traditional owners of the country where we work, the Wurundjeri People of the Kulin Nation. We pay our respects to their Elders, emerging leaders and community members, past and present.

We acknowledge and celebrate diversity in all its forms and recognise the contribution people from diverse backgrounds and life experiences make to a strong, healthy and resilient community. We welcome everyone in the community as part of our organisation.

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Abbreviations

Abbreviation	Definition
ABS	Australian Bureau of Statistics
APMH	Aged Persons Mental Health
ATAPS	Access to Allied Psychological Services
BETRS	Body image Eating Disorders Treatment and Recovery Service
BIT	Brief Intervention Team
BSIC	Basic Stable Input of Care
CAMHS	Child and Adolescent Mental Health Services
CATT	Crisis Assessment and Treatment Team
CCT	Continuing Care Team
CCU	Community Care Unit
CHOPS	Clarendon Homeless Outreach Psychiatric Service
COATS	Community Offender Advice and Treatment Service
COPD	Cardio Obstructive Pulmonary Disease
COPES	Carers Offering Peers Early Support
CYMHS	Child and Youth Mental Health Services
CTO	Compulsory Treatment Order
CVD	Cardio Vascular Disease
D2DL	Day to Day Living
DESDE	Description and Evaluation of Services and Directories in Europe
DESDE-LTC	Description and Evaluation of Services and Directories in Europe for Long-Term Care
ECADS	Eastern Consortium of Alcohol and Drug Services
EDAS	Eastern Alcohol and Drug Services
EFT	Effective Full Time
EMH	Emergency Mental Health
EMPHN	Eastern Melbourne PHN
ERP	Estimated Residential Population
FaPMI	Families where a Parent has a Mental Illness
FTE	Full Time Equivalent
GHMH	General Hospital Mental Health
GIS	Geographical Information System
GP	General Practitioner
HARP	(Mental Health) Hospital Admission Risk Program
HOPS	Homeless Outreach Psychiatric Service
ICD-10	International Classification of Diseases, Tenth Revision
ICF	International Classification of Functioning, Disability and Health
IMTT	Intensive Mobile Treatment Team
IPU	Inpatient Unit
IRSD	Index of Relative Socio-economic Disadvantage
LGA	Local Government Area
LYFT	Linking Youth and Families Together
MARP	Maroondah Addiction Recovery Project
MHAPD	Mental Health Accommodation Pathway at Discharge
MHCSS	Mental Health Community Support Service
MHNIP	Mental Health Nurse Incentive Program
MHR:CS	Mental Health Respite: Carer Support
MORS	Mobile Overdose Response Service
MSTS	Mobile Support and Treatment Service
MTC	Main Type of Care

Abbreviation	Definition
NDIS	National Disability Insurance Scheme
NGO	Non-Government Organisation (or community service provider)
NHSD	National Health Services Directory
NMHC	National Mental Health Commission
NPACER	Northern Police Ambulance Clinician Emergency Response
OOP	Out of Pocket
PAPU	Planning and Assessment Psychiatric Unit
PARC	Prevention and Recovery Care
PHaMs	Personal Helpers and Mentors
PHN	Primary Health Network
PICT	(Mental Health) Primary Intervention and Care Team
PIR	Partners in Recovery
PSRACS	Public Sector Residential Aged Care Service
PTRS	Psychological Trauma Recovery Service
PTSD	Post-Traumatic Stress Disorder
SA1	Statistical Area Level 1
SECU	Secure Extended Care Unit
SEIFA	Socio Economic Indexes for Areas
SHADES	Supported Housing at Discharge Eastern Service
SHERPA	Supporting Health, Education, Recreation and Personal Autonomy
SURe	Substance Use Recovery Consortium
URP	Usual Resident Population
VAHS	Victorian Aboriginal Health Service
VDDS	Victorian Dual Disability Service
VSMU	Veterans and Serving Members Unit
VTMH	Victorian Transcultural Mental Health
WHO	World Health Organisation
YEP	Youth Early Psychosis
YETTI	Youth Engagement Treatment Team Initiative
YoDAA	Youth Drug and Alcohol Advice

Executive summary

The 2014 *National Review of Mental Health Programmes and Services* by the National Mental Health Commission (NMHC) drew attention to the need for health service planning for people with a lived experience of mental illness and the relevance of a bottom-up approach to understanding local service availability in the development of national policy. The review also called for responsiveness to the diverse local needs of different communities across Australia (NMHC, 2014).

Eastern Melbourne PHN (EMPHN) Integrated Mental Health and AOD Service Atlas (East and North East Melbourne) aligns with these recommendations and is the region's first inventory of available services specifically targeted for people with a lived experience of mental illness and those with AOD related issues. Utilising a standard classification system, the Description and Evaluation of Services and Directories in Europe for Long-Term Care (DESDE-LTC) model, the service data in this Atlas represents a snapshot in time creating a benchmark for future service planning evaluations. The application of this international evidence-based classification tool, and supporting methodology, enables fair comparisons with other regions both within Australia and internationally, providing a sound basis for long-term service planning, advancing efforts towards integrated care and improved outcomes for services users.

Preliminary data collection for this Atlas took place between September and December of 2017, with additional data collected during the public comment period between March and April 2018. Data was collected from 22 eligible non-government organisations (NGOs) as well as services thirteen consortia or partnerships and five public health sector organisations. A total of 41 interviews were conducted using a structured questionnaire.

A total of 223 service delivery teams were identified across the EMPHN catchment, providing 253 main types of care (MTC), the majority of which are provided by the NGO sector (55.3%). Similar to other regions across Australia, the majority of services in the EMPHN region were providing Outpatient care (52%) with Residential care the second largest care type (16%) and Accessibility services third ((15%). Again, similar to other regions across Australia, the majority of services identified were for the adult population (84.25%) with child and adolescent services the next highest population group (12.25%) and just 3.5% for older adults.

The overall pattern of mental health care across EMPHN is inherently similar to other areas of Australia and include the:

- Absence of acute community Residential Care,
- Absence of acute Day Care or social-related acute Outpatient Care, and
- Relatively low levels of non-acute Day Care and supported accommodation initiatives.

In addition, there were also a number of patterns that may require further investigation including the:

- Level of Residential Rehabilitation and Acute Inpatient care, and
- High levels of non-acute Outpatient Care.

It is important to note that there is no generally accepted 'perfect' system of care for mental health of AOD with services patterns reflecting localised needs, environments, historical investment and circumstances rather than prescribing to a fixed quota of care types. However, what is generally accepted is that there should be a balance between the different types of care (Thornicroft & Tansella, 2013; WHO, 2003)

In terms of future system structure, consistent with national and state strategies, there may be consideration of having less reliance on acute inpatient care and the possible provision of more resources to sub-acute residential services, early intervention and prevention and community based outpatient care. Whilst still contentious in the Australian context, it is also considered that an ideal balance of care may include more day programs, particularly those specifically targeted at providing supported employment, vocational training and assistance, structured rehabilitation programs and social opportunities.

This Atlas provides a baseline measure of service availability at a critical time, at the beginning of the full roll-out of the National Disability Insurance Scheme and significant changes in commissioning of services at state and federal levels. It is the 'before' picture against which changes to the system can be measured and evaluated in the future. As such, it not only serves as a planning tool, but also as a measure of change. This Atlas provides greater awareness and understanding of the local infrastructure and the opportunity for EMPHN to best target its resources to meet population needs. This will allow it to work in partnership with service providers across the region to apply targeted, cost efficient interventions, to try new approaches and to innovate to best support the health and wellbeing of its community.

Introduction

There has been considerable reform in mental health science, treatment and care over the last four decades, both internationally and within Australia. Much of the philosophy of mental health care reform has been built on key principles of community psychiatry, with four linked areas of action (Vazquez-Bourgon et al., 2012):

1. deinstitutionalisation and the end of the old model of incarceration in mental hospitals
2. development of alternative community services and programs
3. integration with other health services
4. integration with social and community services.

More recently, this has also included a focus on recovery orientation and person-centred care (Ibrahim et al., 2014).

Australia started this journey of reform in 1983, with David Richmond's report on care for people experiencing mental illness and intellectual disabilities in New South Wales: Inquiry into Health Services for the Psychiatrically Ill and Developmentally Disabled. It took a further 10 years and the Human Rights Commission inquiry (The Burdekin Inquiry) to establish the first National Mental Health Strategy (Mendoza et al., 2013). Since then, there have been considerable systemic changes made, including the closure or downsizing of many large psychiatric hospitals, the development of the community mental health movement (NMHC, 2014), the implementation of the National Disability Insurance Scheme (NDIS) and the introduction of Primary Health Networks (PHNs) as commissioners of some mental health services.

The journey is therefore still very much in progress and the application of reform has been patchy. The delivery on the intention for a community health mental care system has fallen well short of what is needed (NMHC, 2014). For example, the Australian mental health system still has high rates of readmission to acute care, with around 15 per cent of patients hospitalised being readmitted to the same inpatient unit within 28 days and at least 46 per cent of patients readmitted during the year following the admission (Zhang et al., 2011). There are also high rates of compulsory community treatment orders, ranging from 30.2 per 100,000 population in Tasmania to 98.8 per 100,000 population in Victoria (Light et al., 2012) and high rates of seclusion with 10.6 seclusion events per 1,000 bed days in 2011-12 (AIHW, 2015). These features are associated with a system characterised by fragmented, hospital-based, inefficient provision of care. It has been argued that a clear service model is lacking, that reform has not been informed by evidence and that quality and access to care is akin to a lottery dependent on postcode and capacity to pay (Mendoza et al., 2013).

Health Planning

The World Health Organisation's Mental Health Gap Action Program (mhGAP) highlighted the need for a comprehensive and systematic description of all the mental health resources available and the utilisation of these resources (WHO, 2008). It is not only important to know the numbers of services in each health area, but also to describe what they are doing and where they are located. This information also enables an understanding of the context of health-related interventions that are essential for the development of evidence-informed policy (Health Foundation, 2014).

The NMHC further supports this notion with one of the key recommendations from the *National Review of Mental Health Programmes and Services* being the need for comprehensive mapping of services. The review draws attention to the need for mental health planning in Australia and the relevance of a bottom-up approach to understanding service availability to the development of national policy. It also calls for responsiveness to the diverse local needs of different communities across Australia:

> "Primary and Mental Health Networks, in partnership with Local Health Networks, should conduct comprehensive mapping of mental health services, programmes and supports available

in regional, rural and remote areas through Commonwealth, state and territory and local governments, private and not-for-profit sectors." (NMHC, 2014, p. 84)

Models of Care

The Integrated Care Model has challenged the way health-related care should be assessed and planned (Goodwin, 2016). It enables us to identify new routes for linked, consumer-centred approaches to care. Greater integration relies on a global picture of all the services available, regardless of which sector is funding them (e.g. health, social welfare and family, employment, criminal justice). Such 'systems thinking' enables policy planners to capture the complexity of service provision holistically and ensures that planning of health services accounts for contextual factors that might affect its implementation and sustainability (context analysis). It offers a comprehensive way of anticipating synergies and mitigating problems and barriers, with direct relevance for creating policies that integrate the different systems of care (De Savigny and Adam, 2009; Aslanyan et al., 2010). This is particularly important in the social and disability care sector, which is characterised by increasing personalisation of services and care coordination programs such as Partners in Recovery (PIR) and the transfer of social services to the NDIS. Across Australia, there are only a handful of locations who have develop innovative, system wide and sustainable service models for providing coordinated and integrated care services.

The balanced care model is also relevant to the development and application of integrated care and health atlases. This model refers to a balance between both hospital and community care as well as to a balance between all of the service components (e.g. clinical teams). To achieve this, the development of outpatient clinics, community mental health teams, acute inpatient services and community residential care is required (Thornicroft and Tansella, 2013).

Social Determinants

Over the past 15 years, the evidence has strengthened in support of the two-way relationship that exists between mental disorders and socioeconomic indicators. Factors such as low income, unemployment and social exclusion are all positively associated with common mental disorders with poor mental health linked to reduced income and employment, which in turn increases the risk of mental disorders (WHO and Calouste Gulbenkian Foundation 2014; Lund et al., 2011). Social determinants of health are similarly implicated in other health related behaviours such as excessive alcohol consumption and drug use, as well as in comorbidities between mental health and substance use disorders (Marmot and Allen, 2014; Salom et al., 2014).

In recent years, the relationship between social and structural determinants and mental disorders has gained increasing research focus, particularly in relation to the frequency, severity and duration of stressful environments and experiences in early childhood (Schalinski et al., 2016). There are emerging theories to suggest that adverse childhood experiences can be moderated by personal and social 'scaffolding' – self-agency, self-regulation, emotional, informational, social connections and instrumental resources (Bell et al., 2013; ConNetica, 2015).

Integrated Atlases

Within these broad service and social contexts, integrated atlases are powerful tools for service planning and decision-making, particularly in times of fiscal constraint. Atlases include detailed information on social and demographic characteristics and health-related needs, as well as data on service availability and care capacity, providing opportunities to detect gaps and develop benchmark areas for change. Whilst the integrated atlases developed around the world to date have most often focused on mental health, the methodology and taxonomy can be readily applied to a range of other chronic health issues. Across Australia, the methodology has been applied to produce atlases focused not only mental health but also alcohol and other drugs, homelessness, diabetes, chronic obstructive pulmonary disease and cardiovascular disease (see Table 1).

Integrated atlases allow comparisons between areas, highlighting variations (including areas of under- or over-supply) and provide opportunities to identify duplications and gaps in the system. The holistic service maps produced through an integrated atlas also allow policy planners and decision makers to more comprehensively understand the landscape in which they work and to make connections between the different sectors to improve the alignment of services to meet local needs (Salvador-Carulla et al., 2013). This is particularly important as mental health services become more 'person-centred' (placing the person and their needs at the centre of their care) and public investment focuses on person-centred care coordination programs. In addition, the data presented in the atlas supports evidence informed planning, decision-making and future service commissioning.

TABLE 1 INTEGRATED ATLASES DEVELOPED IN AUSTRALIA, AS AT MAY 2018

Name and region	Authors	Completed Date
Integrated Atlas of Mental Health, Western Sydney (PHN)	Salvador-Carulla, , Fernandez A,et al	2015
Integrated Atlas of Mental Health and Alcohol and Other Drugs, Brisbane North (PHN)	Mendoza J, Fernandez A, et al.	2016
Integrated Atlas of Mental Health South Western Sydney PHN	Salvador-Carulla, L., Fernandez, A. et al.	2016
Integrated Atlas of Mental Health Far West NSW LHD	Salvador-Carulla, L., Fernandez, A, et al	2016
Integrated Atlas of Mental Health and Alcohol and Other Drugs, Central and Eastern Sydney PHN	Hopman, K.; Furst, M., et al.	2016
Integrated Atlas of Mental Health, Alcohol and Other Drugs, and Homelessness of South Eastern Melbourne PHN	Hopkins J, Wood L, et al	2017
Integrated Atlas of Mental Health and Alcohol and Other Drugs, Perth Metro (North and South PHNs)	Hopkins, J., Woods, L. et al	2017
Integrated Atlas of Mental Health and Alcohol and Other Drugs, Country WA (PHN)	Hopkins, J., Woods, L. et al	2017
Integrated Atlas of Mental Health and Alcohol and Other Drugs, Western NSW PHN	Hopkins, J., Salvador-Carulla, L et al	2017
Integrated Atlas of Chronic Care, Western NSW PHN	Hopkins J, Stretton A, et al.	2017
Integrated Atlas of Mental Health and Alcohol and Other Drugs, North Sydney PHN	Salvador-Carulla, L., Bell, T. et al.	2017
Integrated Atlas of Mental Health and Alcohol and Other Drugs, ACT PHN	Furst, M., Salvador-Carulla, L, et al.	2017
Integrated Atlas of Mental Health and Alcohol and Other Drugs, Eastern Melbourne PHN	Bell T, Stretton A, et al	2018

Context

Evidence-informed policy combines international evidence, available from diverse populations across the world, with local evidence, from the specific setting in which decisions and actions will be taken. This includes a detailed analysis of the area, considering the prevalence of mental health problems and other demand driven indicators, together with the availability of resource (Oxman et al., 2009).

It is important, however, to highlight that evidence alone does not make decisions. An in-depth understanding of the local context is crucial to the implementation of any new strategy and local context and relevance shapes the lens through which policy makers appraise the salience of evidence (Oliver et al., 2014). Evidence has to also be valued and filtered by the policy makers and lack of perceived relevance is a frequently cited barrier to the uptake of evidence by policy makers (Oliver et al., 2014). Evidence must also be supported and supplemented by the knowledge and experience of the people working within and those using the services, provided by the system.

It is expected that the *Integrated Mental Health Atlas of Eastern Melbourne PHN (EMPHN)* will support a systems approach to planning and consequentially, improve the provision of care through facilitating the integration and coordination of services, both in terms of service commissioning and delivery. Ultimately this will be reflected in the quality of care provided and in the longer term, better health outcomes for people with a lived experience of mental illness.

In this context, it is crucial to provide policy and service decision makers with every tool and opportunity to make better, more intelligent choices about future investments in mental health care, including which services are needed and where and how they can be most effectively delivered. In other words, they need a map that will guide them through the reform journey.

This Atlas is an ideal tool to help in this process.

Framework

Generally, the intent of health service mapping activities is to develop a list of services (or service directory) for a defined geographical area. In some instances, service directories will be accompanied by a visual representation of each service on a map to denote their physical location. The inclusion of a service in a service list or directory is typically based on the official (company name) or everyday title of the service with often little or no contact with the service itself. There are a number of key reasons that render this approach particularly problematic including:

1. The wide variability in the terminology of services and programs even, in the same geographical area.
2. The lack of relationship between the names of services and their actual functions (e.g. day hospitals, day clinic), as the service name may not reflect the actual activity performed in the setting.
3. The lack of a common understanding of what a service is. The word 'service' is an umbrella term that is used to describe very different components of the organisation of care. It merges permanent, highly structured services, with clinical units or even short-term programs and interventions (Salvador-Carulla et al., 2011).

DESDE-LTC

To overcome these limitations the Description and Evaluation of Services and Directories in Europe for Long-Term Care (DESDE-LTC) has been utilised in the development of this Integrated Atlas. This open-access, validated, international instrument for the standardised description and classification of services for long term care underpins the methodology for this report (Salvador-Carulla et al., 2013). Whilst originally developed around health issues requiring long term care, the application of the DESDE-LTC across chronic conditions in Australia includes services across a spectrum of care intensity and duration.

The DESDE-LTC includes a taxonomy tree and coding system that allows the classification of services in a defined catchment area according to the main care structure or activity offered, as well as the level of availability and utilisation. The classification of services based on the actual activity of the service, rather than the name of the service provider, therefore reflects the real provision of care.

In research on health and social services there are typically different units of analysis, however the Integrated Atlas requires that comparisons be made across a single and common 'unit of analysis' group. Different units of analysis include: macro-organisations (e.g. Local Health Networks), meso-organisations (e.g. hospitals), and micro-organisations (e.g. services). It could also include smaller units within a service such as care: types, modalities, units, intervention programs, packages, activities, or philosophies.

Analysis based on DESDE-LTC is focused on the evaluation of individual service delivery teams or Basic Stable Inputs of Care (BSIC).

Basic Stable Inputs of Care

> *A Basic Stable Input of Care (BSIC) is a team of staff working together to provide care for a group of people, often referred to as a service delivery team.*

To be considered for inclusion, a team has to be stable both in terms of the longevity of the service as well as the structure of the service. The longevity of the service is related to the time period for which the service has been funded with a team considered to be stable if it has been funded three or more years or has funding secured for three years. The structural stability of a service is related to both physical and administrative parameters with a team considered stable if it has administrative support and two of the following: their own space (e.g. dedicated building or shared office), their own finances (e.g. a specific cost centre), or their own forms of documentation (e.g. data collection or service reports) (Table 2).

TABLE 2 BASIC STABLE INPUT OF CARE CRITERIA

Criterion			
A	Has its own professional staff		
B	All activities are used by the same clients		
C	Time continuity		
D	Organisational stability		
	D.1	The service is registered as an independent legal organisation (with its own company tax code or an official register). IF NOT:	
	D.2	The service has its own administrative unit and/or secretary's office and fulfils two additional descriptors (see below) -> If NOT:	
	D.3	The service fulfils three additional descriptors	
		D3.1	It has its own premises and not as part of other facility
		D3.2	It has separate financing and specific accountability
		D3.3	It has separated documentation when in a meso-organisation

Classification of BSIC

Once a BSIC is identified utilising the criteria for inclusion, the Main Types of Care (MTC) provided are determined based on the Long Term Care Mapping Tree (0). Each of six main types of care (i.e. branches) are further classified depending on a range of other characteristics related to the service including acuity, mobility, intensity and access to health-related staff and/or information. The six main types of care include:

- **R** Residential care - facilities which provide overnight beds related to clinical and social management of client health conditions (e.g. inpatient hospital wards, crisis shelters, residential rehabilitation services and inpatient withdrawal units) (Figure 2).
- **D** Day care - facilities which have regular opening hours, provide a combination of treatment options (e.g. support, social contact, structured activities) normally available to several clients at a time and expect clients to stay at the facility beyond allocated face to face contact with staff (Figure 3).
- **O** Outpatient care - services that involve contact between staff and clients for some purpose related to the management of their condition and associated clinical and social needs and are not provided as a part of residential or day services. Includes outreach services (Figure 4).
- **A** Accessibility to care - services whose main function is to facilitate access to care for clients with long-term care needs (e.g. care coordination services) (Figure 5).
- **I** Information for care - services whose main function is to provide clients with information or assessment of their needs and are not involved in subsequent follow-up or direct provision of care (e.g. telephone information and triage type services) (Figure 6).
- **S** Self-help and voluntary care - services which aim to provide clients with support, self-help or contact, with un-paid staff that offer any type of care (i.e. residential, day, outpatient, accessibility or information) (Figure 7).

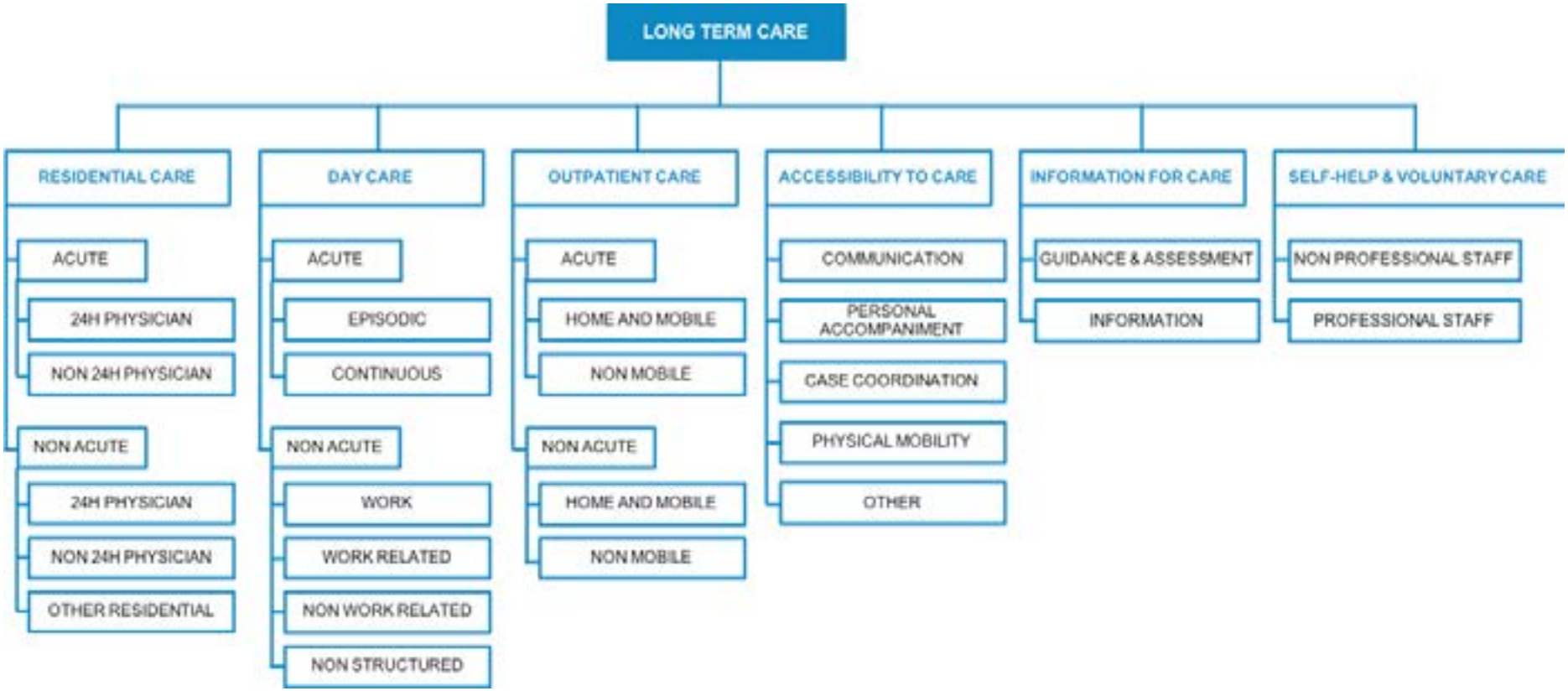


FIGURE 1 LONG TERM CARE MAPPING TREE

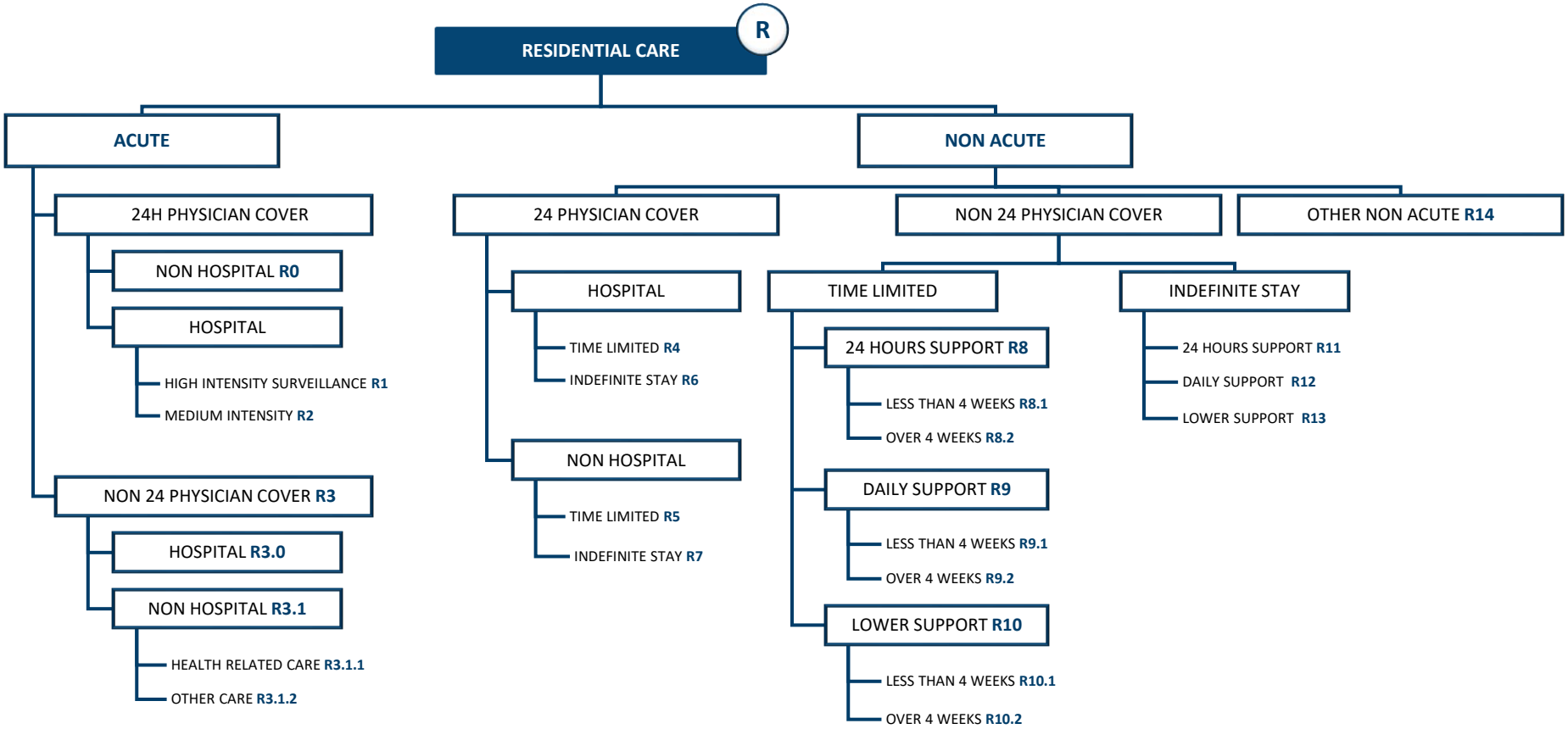


FIGURE 2 RESIDENTIAL CARE CODING BRANCH

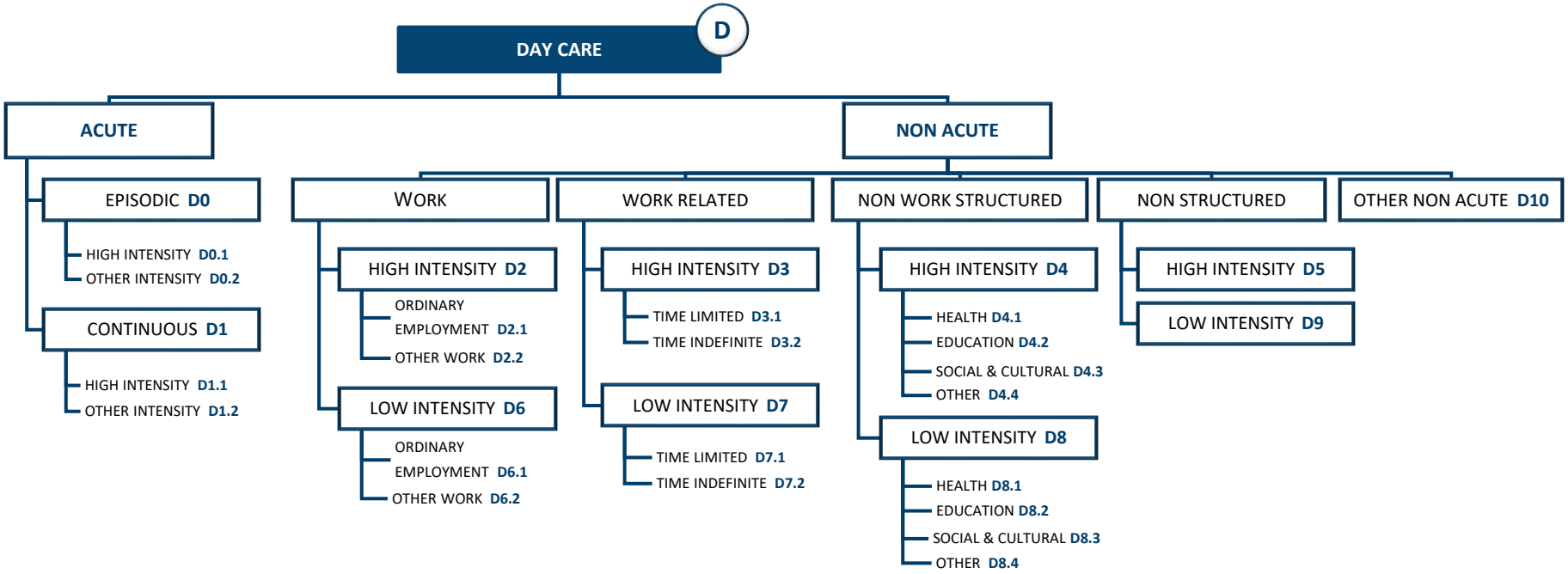


FIGURE 3 DAY CARE CODING BRANCH

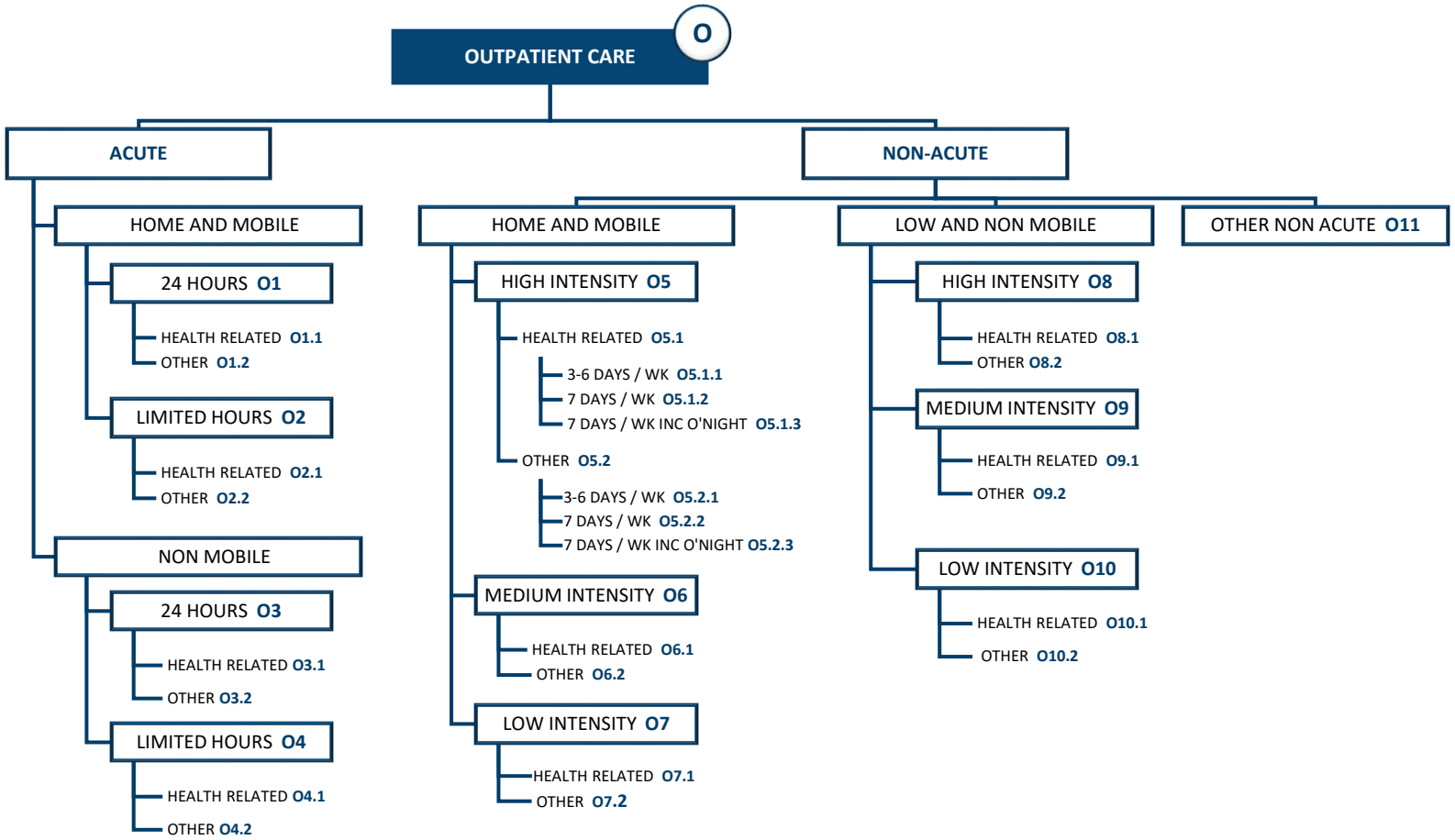


FIGURE 4 OUTPATIENT CARE CODING BRANCH

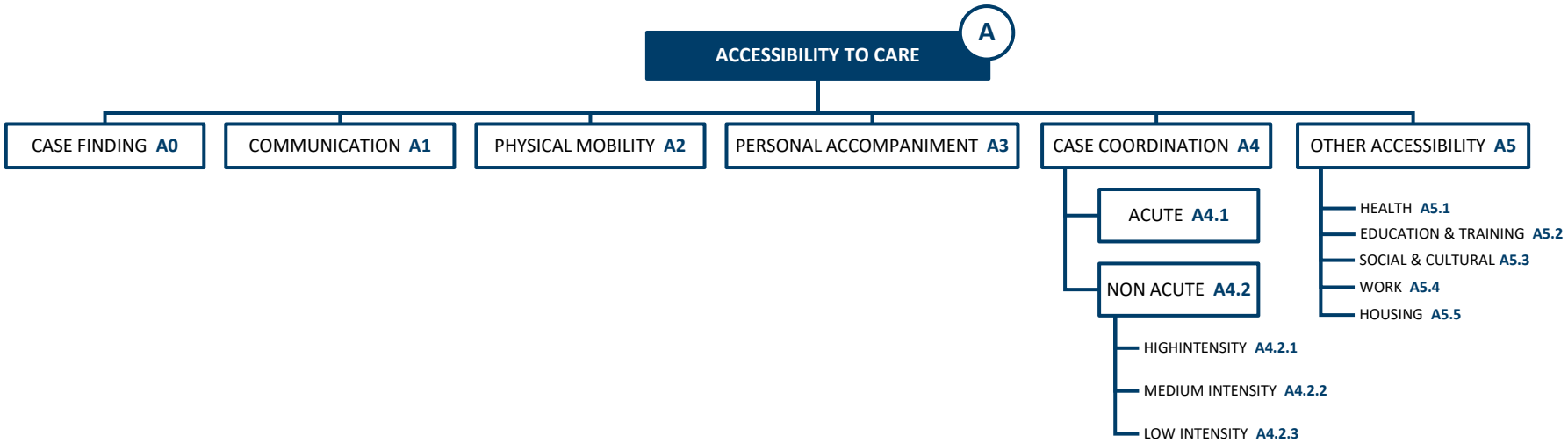


FIGURE 5 ACCESSIBILITY TO CARE CODING BRANCH

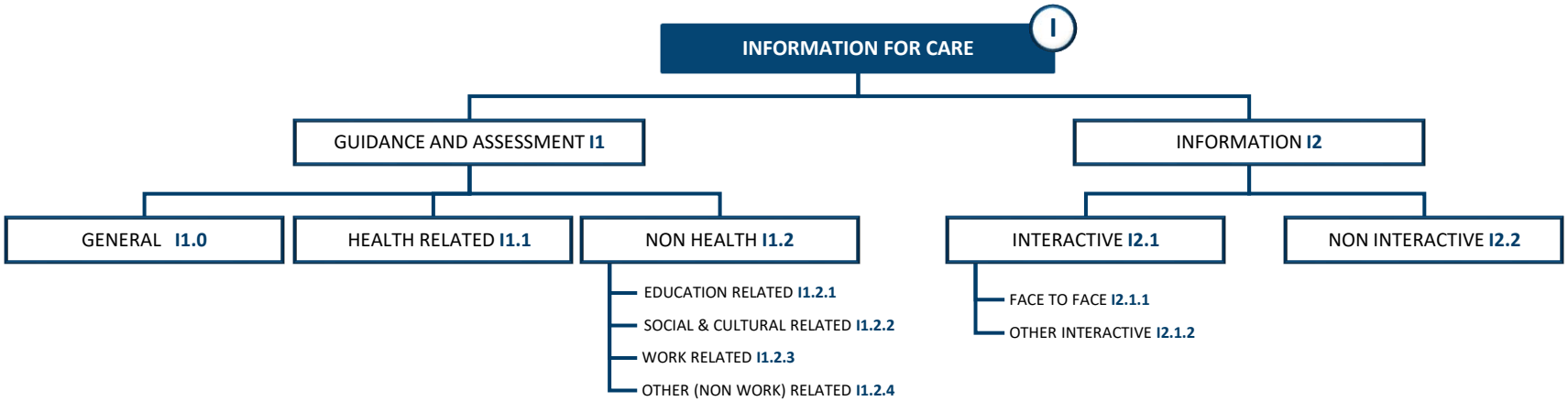


FIGURE 6 INFORMATION FOR CARE CODING BRANCH

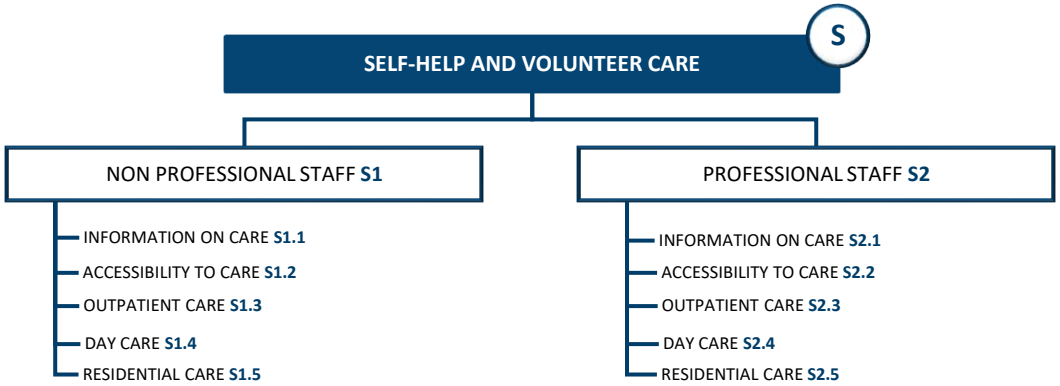


FIGURE 7 SELF-HELP AND VOLUNTEER CARE CODING BRANCH

Each BSIC is classified by using one or more codes based on the MTC they deliver. Some services might include a principal structure or activity (e.g. a residential care 'R' code) and an additional one (e.g. a day care 'D' code).

Inclusion Criteria

To ensure consistency and comparability, both nationally and internationally, set inclusion criteria determine whether services are considered for analysis.

As part of the DESDE methodology, for a service to be included it has to be geographically relevant, specialised, universally accessible, stable and providing direct care or support (Table 3).

TABLE 3 SERVICE INCLUSION CRITERIA

Criterion	Description
Geographically relevant	Only service provide care within a predetermined set geographical region are included.
Specialised	Must specifically target people with a lived experience of mental illness i.e. the primary reason for using the service is for treatment of mental illness related issue. This excludes generalist services that may lack staff with specialised mental health training and experience.
Universally accessible	Regardless of whether they are publicly or privately funded, only services that do not have a significant out-of-pocket cost are included.
Stable	The service has or will receive funding for more than three years.
Providing direct care or support	Must provide direct contact to people with a lived experience of mental illness. Services that are only concerned with the coordination of other services or system improvement are excluded.

Services included in this Atlas are those which are physically located within the boundaries of EMPHN or provide a significant proportion of their services to the population within the EMPHN region. This is essential to ensure that a clear picture of the local availability of resources for the local population is highlighted.

Despite the availability of Medicare-subsidised mental health-related services in Australia, access to most private mental health services requires an individual to have private health insurance coverage, higher income or savings. The inclusion of private providers would give a misleading picture of the resources available to most people living with mental health issues and obscures the data for evidence informed planning of the public health system. Most private services have some level of public funding, for example, Medicare provides some subsidies for private hospitals or community-based psychiatric specialist services, but also involves substantial out-of-pocket expenses for the consumer, thus making treatment unaffordable for many consumers.

The inclusion of stable services guarantees that the mapping reflects the robustness of the system as a basis for evidence informed planning. As such services that are pilot projects or are provided through short term grants are excluded. However, there is an appreciation that the current environment is one where there is significant uncertainty around the continuation of funding streams at both a state and national level. As such, some flexibility has been applied with this criterion. For example, services were included where they were considered to be ongoing, or had been delivered over a long period of time, even when their ongoing funding may not be secured beyond one year.

Methodology

As with other Atlases developed in Australia, there were five key steps involved in the creation of the integrated mental health atlas for EMPHN (Figure 8).

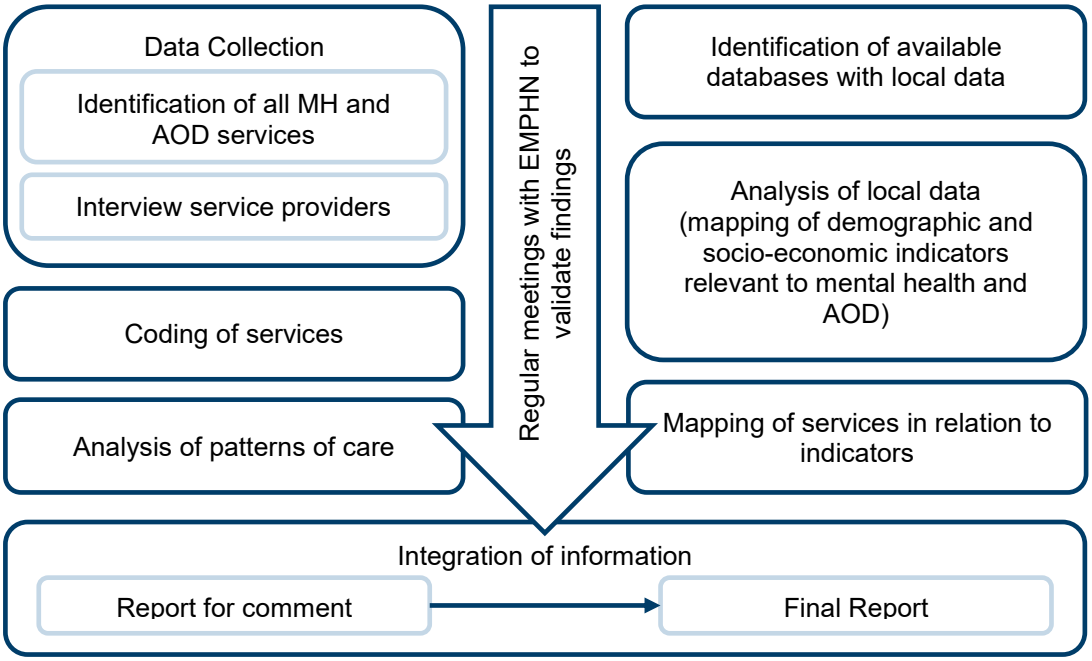


FIGURE 8 INTEGRATED MENTAL HEALTH AND AOD ATLAS DEVELOPMENT PROCESS

Step 1: Governance

A steering group was established for the Atlas project comprised of representatives of the Mental Health team at EMPHN and project staff from ConNetica. A meeting and reporting schedule was developed in relation to the agreed project scope and plan to streamline decision making in relation to key project deliverables.

Step 2: Data collection

A preliminary list of mental health and AOD service providers across the EMPHN catchment was provided by EMPHN. Additional services were added to this list based on an internal review with the final stakeholder list verified by EMPHN to determine their appropriateness for inclusion in the Atlas.

Email invitations were sent to each of the identified organisations inviting them to nominate a key contact person to participate in either a face-to-face or telephone interview. Organisations were provided with an information sheet as well as a frequently asked questions document outlining the project scope and intent.

Once contact was made with either the NGO or LHN representatives, a face-to-face interview was scheduled at the EMPHN office in Box Hill or arrangements were made for a telephone interview.

Key information for each service was collected including details related to:

- basic service information (e.g. name, type of service, funding, opening hours)
- service location and geographical catchment (e.g. physical address, service area)
- service specifics (e.g. acuity, target population and age group, intensity)
- staffing (e.g. Full Time Equivalent (FTE) information, types of professionals).

As required, follow-up contact was made with organisations to seek additional information and answer questions in order to support and verify classification decisions.

In some instances, organisations or specific service units were unable to be contacted during the data collection period to gather information in relation to the services provided. On those occasions, attempts were made to gather additional information via websites and annual reports to assign a DESDE code.

For a range of reasons, insufficient information was available for a number of mental health and AOD services within EMPHN resulting in some services being excluded from the analysis (Appendix A).

A total of 41 interviews were conducted with service providers in the eastern Melbourne region.

Step 3: Codification

Where a service delivery team met the inclusion criteria, the information gathered during interviews was utilised to classify each MTC and allocated a subsequent DESDE code.

Each DESDE code follows a standard format and is comprised of four main components which provide information relation to the **target population** for the service, the **diagnostic** code (i.e. ICD-10, ICF), the **MTC** code and any relevant **qualifiers** (Appendix B). For example, a non-acute outpatient service based in a hospital for adults with lived experience of mental illness which is currently in transition would receive the code: AX[F00-F99]-O10.1hv (Figure 9).

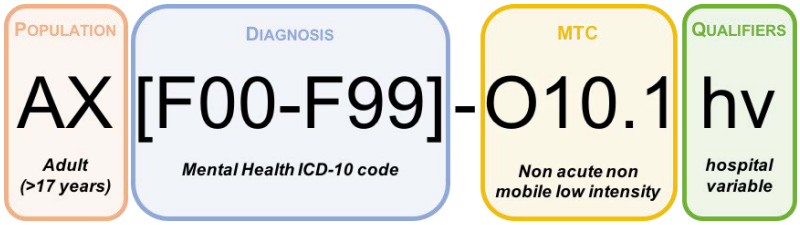


FIGURE 9 EXAMPLE DESDE CODE AND COMPONENTS

Step 4: Mapping

After classification (i.e. coding), the DESDE data was exported into a Geographic Information System (GIS) for visualisation based on the physical location of the service. In some instance, the exact location of a service was not disclosed for privacy reasons. Where a specific address was not available the service is mapped to the suburb centroid. To add context, services are populated over a base map which depicts the relative disadvantage of the EMPHN catchment at the Local Government Area (LGA) level.

Step 5: Analysis

The patterns of care for mental health and AOD services within the EMPHN catchment were examined utilising the MTC as well as the associated availability of the service.

The availability of a service is defined as the presence, location and readiness for use of service delivery teams in a catchment area at a given time. A service is available when it is operable or usable upon demand to perform its designated or required function. The availability rate for the MTC is calculated per 100,000 of the target population. To understand the balance between the different types of care available in the EMPHN area, a radar chart is used to visually depict the pattern of care. Each of the 21 points on the radius of the diagram represents the number of MTC for a particular type of care per 100,000 population.

This analysis allows for comparisons of service availability with other areas and to estimate whether the provision of services is adequate with regard to the population need. EMPHN has been compared with Western Sydney PHN (WSPHN) and Brisbane North PHN (BNPHN) within Australia and internationally with data from Finland, Italy and England. As other PHN area atlases are released, further analyses will be possible.

Information on European countries has been developed as part of the Refinement Project, funded by the European Commission (The Refinement Project Research Consortium, 2013).

EMPHN Catchment

EMPHN incorporates three former Medicare Local jurisdictions (i.e. Northern Melbourne, Inner East Melbourne and Eastern Melbourne) covering eight LGAs and varying proportions of a further four LGAs including:

- Banyule
- Boroondara
- Knox
- Manningham
- Maroondah
- Mitchell
- Monash
- Murrindindi
- Nillumbik
- Whitehorse
- Whittlesea
- Yarra Ranges

The Shire of Yarra Ranges, excluding the Upper Yarra Valley, forms the eastern most border of the EMPHN region whilst Kinglake, in the Shire of Murrindindi, defines the northern reaches of the catchment.

From the south, the City of Knox and the City of Monash, excluding Hughesdale, define the boundary between the South Eastern Melbourne PHN region with the Cities of Whittlesea, Boroondara and Banyule forming the western border of the catchment (Figure 10).

FIGURE 10 GEOGRAPHICAL BOUNDARIES OF THE EMPHN REGION

Population Health and Socio-demographic Indicators

The most recent publicly available data sources have been examined in relation to social, economic and demographic indicators for the EMPHN region. The primary data sources for this information were:

- 2016 Census of Population and Housing (ABS, 2017a)
- Social Health Atlases of Australia (PHIDU, 2017a; PHIDU, 2017b), and
- Small Area Labour Market Data (CDoE, 2017).

Where data permitted, indicators have been reported at the level of LGA with comparison to the state and national averages. Geo-spatial mapping of data has been provided as within-catchment comparisons of each LGA contained within EMPHN, with the exception of socio-economic disadvantage which is presented as deciles, ranked nationally.

Key demographic, socio-economic factors and health outcomes data relevant to mental health and AOD are included to better understand the population needs across the region.

Demographic Factors

Research indicates that there are specific populations that are vulnerable to or have difficultly accessing services for mental health and/or AOD issues including:

- children and young people
- elderly
- Aboriginal and/or Torres Strait Islander people
- people from Culturally and Linguistically Diverse (CALD) backgrounds
- Lesbian, Gay, Bisexual, Transgender and Intersex (LGBTI) people, and
- women in the perinatal period or who experience partner/family violence.

For the purposes of this Atlas, a selection of population indicators are outlined for key population groups to create a demographic profile for the EMPHN region (Table 4). In addition, throughout the Atlas the population is divided into discrete age groups to report rates of services per 100,000 target population. These age groups and their respective populations are:

Age Group (years)	Population
Children and Adolescents (0 - 19)	351,841
Adults (20 - 64)	853,902
Older Adults (65 and over)	251,083

TABLE 4 Demographic Factors Examined

Indicator	Description	Calculation
Area	Land area for geographical region (km^2)	Based on ABS LGA and SA2 shape file data
Total Population	Usual Residential Population (URP)	Based on 2016 census population counts
Density Ratio	Ratio between (total) population and surface (land) area	Total population / Area (km^2)
Dependency Ratio	Portion of dependants (people who are too young or too old to work) in a population	Population aged 0-14 and >64 years / Population 15-64 years per 100 persons
Ageing Index	Indicator of age structure of population - elder-child ratio	Population >64 years / Population 0-14 years per 100 persons
Indigenous Status	People who identify as being of Aboriginal or Torres Strait Islander origin (URP)	Aboriginal population as per cent of total population (2016 census)
Overseas Born	Proportion of the Australian population born overseas	Total people who stated an overseas country of birth as per cent of total population

Population Profile

Across the 3,916.3 km^2 of the EMPHN region, there are almost 1.5 million people, with data from the 2016 Census indicating that the LGA of Whittlesea recorded the highest Usual Resident Population (URP) whilst the Kinglake region in the Murrindindi LGA recorded the lowest (Table 5). With more than two thousand people per square kilometre, the LGAs of Boroondara, Whitehorse and Monash are the most densely populated regions within the EMPHN catchment. The only areas to have densities less than 100 people/ km^2 are the Wallan region in Mitchell, Kinglake in Murrindindi and the Yarra Ranges (Figure 11).

TABLE 5 DEMOGRAPHIC FACTORS IN EMPHN

LGA	Area* sq. km	Total Population†	Density Ratio	Dependency Ratio	Ageing Index	Indigenous Status %†	Overseas Born %†
Banyule	62.5	121,869	1,948.6	55.0	96.4	0.61	24.7
Boroondara	60.2	167,232	2,778.8	49.8	93.1	0.20	32.5
Knox	113.9	154,109	1,352.9	49.4	88.3	0.51	31.5
Manningham	113.3	116,260	1,025.7	59.6	131.9	0.19	41.7
Maroondah	61.4	110,372	1,797.3	53.2	85.9	0.54	24.3
Mitchell (a)‡	507.7	16,218	31.9	48.3	38.4	1.67	14.7
Monash (a)§	79.5	175,059	2,202.8	49.5	188.7	0.24	51.9
Murrindindi (a)¶	319.5	3,846	12.0	44.8	53.3	1.62	11.0
Nillumbik	432.3	61,274	141.7	48.8	66.6	0.39	16.3
Whitehorse	64.3	162,080	2,521.5	52.1	103.8	0.23	40.1
Whittlesea	489.7	197,490	403.3	49.5	55.0	0.88	37.8
Yarra Ranges#	1,611.9	149,358	92.7	49.3	81.9	0.96	17.3
EMPHN	**3,916.3**	**1.44 million**	**366.5**	**51.6**	**96.8**	**0.50**	**33.3**
Victoria	227,495.6	5.92 million	26.0	51.1	85.4	0.86	30.3
Australia	7.7 million	23.40 million	3.04	52.4	84.2	3.04	28.3

Sourced from: * ASGS (ABS, 2016a; ABS 2017b); † URP 2016 Census (ABS, 2017a); ‡ data only for the SA2 of Wallan; § data for all SA2 areas within Monash excluding Hughesdale; ¶ data only for the SA2 of Kinglake; # data for all SA2 areas within Yarra Ranges excluding Upper Yarra Valley.

The Dependency Ratio for EMPHN (51.6) is similar to both the state and national ratios, suggesting that there are more people within the catchment who are available to provide support compared to those who are considered dependants.

There is a strong association between ageing and declining health, including physical conditions, mental illness and dementia (AIHW, 2015). The mental health of the older adult population may also be affected by losing the ability to live independently, bereavement as well as income and lifestyle changes associated with retirement. The LGA of Monash has an ageing population, in contrast to the LGAs of Nillumbik and Whittlesea as well as the regions within both Murrindindi and Mitchell whose populations are considerably younger. Overall, EMPHN has a slightly higher ageing index compared to both the state and national index, while this indicates that the catchment may have a slighter older profile in comparison, the index is still below 100 (indicating more youth than elderly in the total population) (Table 5).

Cultural Diversity

Nationally, high or very high levels of psychological distress amongst indigenous adults are nearly three times the rate of non-Indigenous adults and the rates of intentional self-harm amongst young Indigenous people aged 15 to 24 years are more than five times the rate of non-Indigenous young people (Dudgeon et al., 2014). With fewer than 7,000 people identifying as Aboriginal and/or Torres Strait Islander in the EMPHN region, the proportion of this population (0.5 per cent) is lower than the state (0.9 per cent) and national rates (three per cent) (Table 5). Data from the 2016 Census indicates that the largest proportions of Aboriginal and/or Torres Strait Islander people in the catchment are in the Wallan region of the

Mitchell LGA (1.7%) and the Kinglake region of the Murrindindi LGA (1.7% and 1.6% respectively) (Figure 12).

The EMPHN region has a slightly higher proportion of the population born overseas (33.3%) compared to both the state (30.3%) and national (28.3%) figures. In particular, more than half of the population of Monash (51.9 %) and more than a third of those in the LGAs of Manningham (41.7%), Whitehorse (40.1%) and Whittlesea (37.8%) LGAs are born overseas (Figure 13).

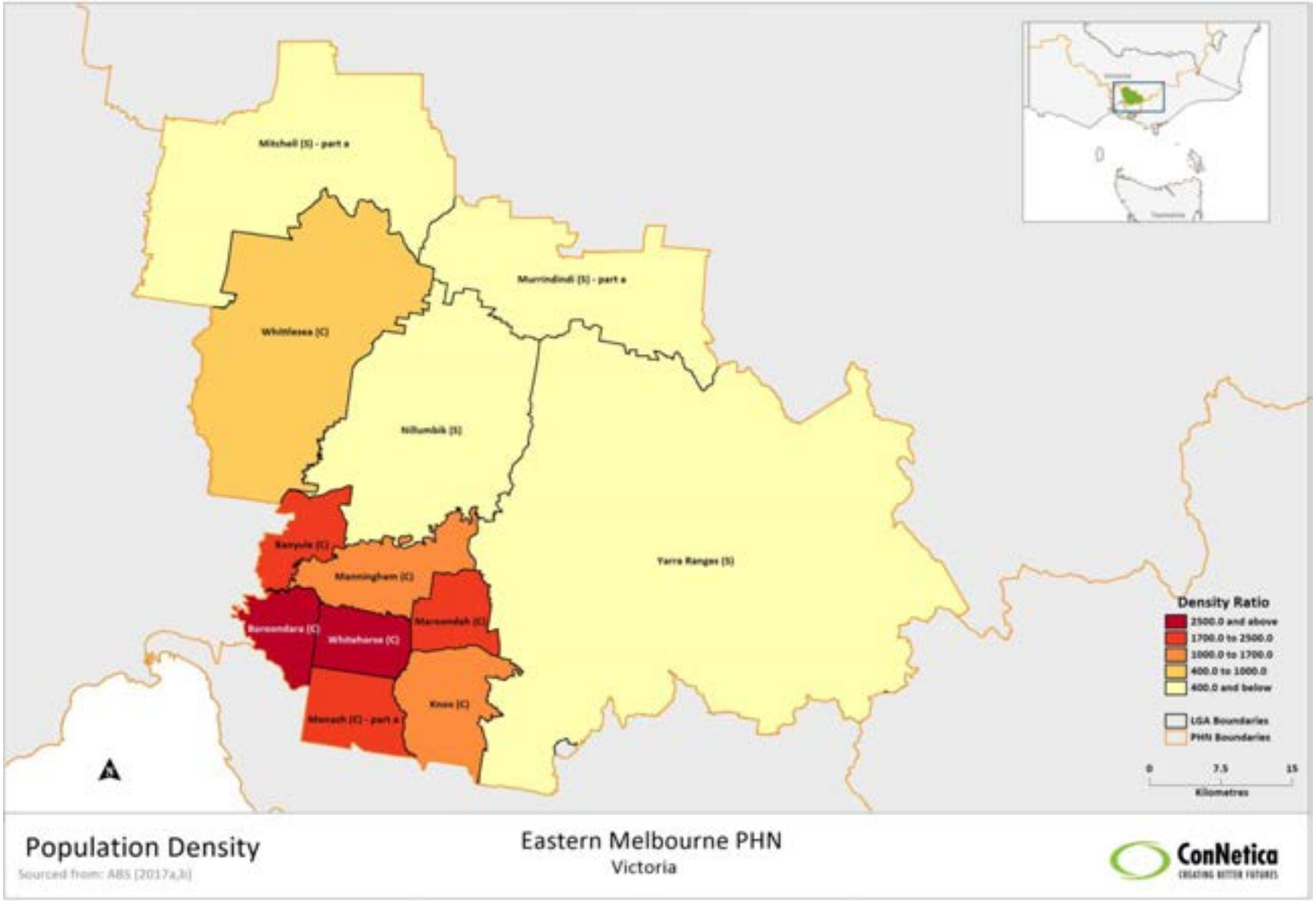


FIGURE 11 POPULATION DENSITY

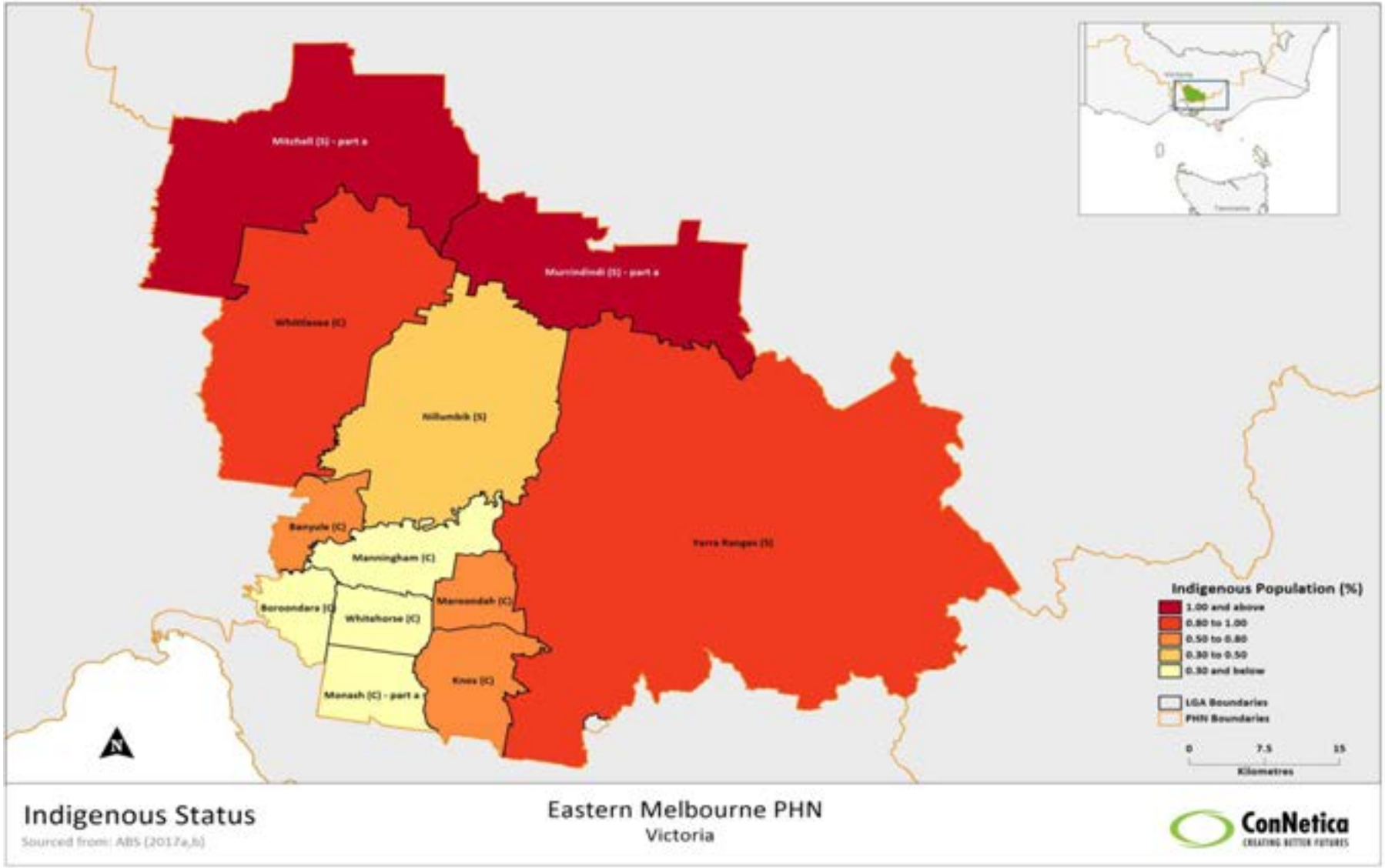


FIGURE 12 INDIGENOUS POPULATION

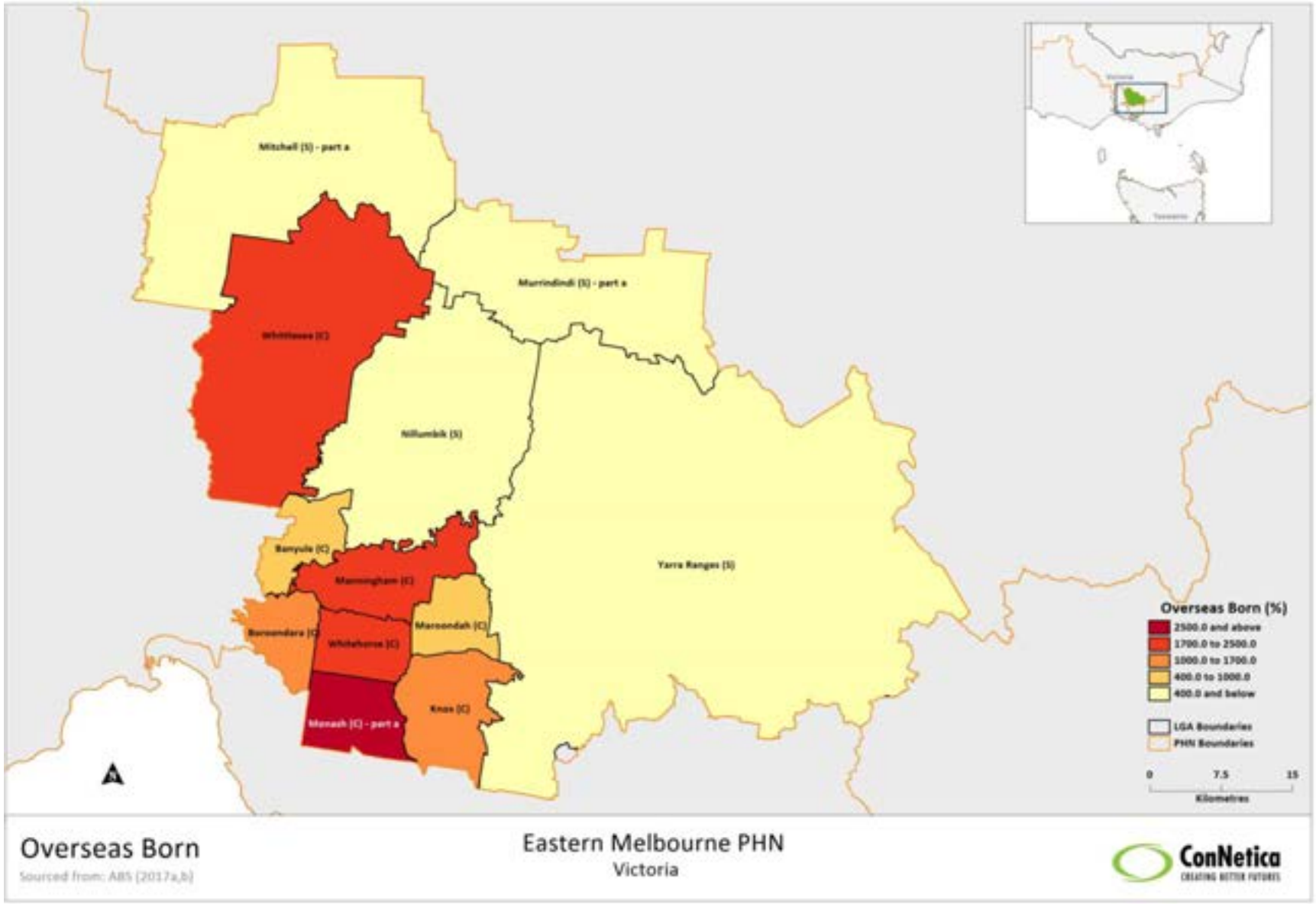


FIGURE 13 POPULATION BORN OVERSEAS

Social Determinants of Health

The concept of social determinants of health acknowledges the importance of employment, housing, education and other social resources (such as isolation and community connectedness) to wellbeing. Social determinants are increasingly recognised as playing a major role in a raft of health-related behaviours and health disparities, including mental illness, suicide, excessive alcohol use and substance use (WHO and Calouste Gulbenkian Foundation 2014; Lund et al., 2011). Risk factors that have been shown to influence mental health and/or contribute to an increased risk of suicide and self-harm have been presented in this Atlas (Table 6).

TABLE 6 SOCIOECONOMIC INDICATORS EXAMINED

Indicator	Description	Calculation
Single Parent Families	Proportion of single parent families with children aged less than 15 years	Single parent families with children under 15 years / Total families with children under 15 years per 100
Needing Assistance	Proportion of the population with a profound or severe disability – defined as people needing help or assistance in ≥1 of the 3 core activity areas, because of a disability, long term health condition (≥6 months) or old age	Number of people who need assistance with core activity / Total population per 100
Early School Leavers	People who left school at Year 10 or below, or did not go to school, per 100 people aged ≥15 years	People who left school at Year 10 or below, or did not go to school, ASR per 100 persons
Unemployment	The level of unemployment as a proportion of the labour force	Number of unemployed people / Population >15 years per 100
Low income	Proportion of individuals earning less than $400 per week, including those on negative incomes	Number of Individuals with income <$400 week / Total number of individuals per 100
IRSD	One of four SEIFA indexes, IRSD identifies the geographic distribution of potential disadvantage based on factors including employment, education, income and social resources	Please refer to the following technical paper: http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/22CEDA8038AF7A0DCA257B3B00116E34/$File/2033.0.55.001%20seifa%202011%20technical%20paper.pdf

Socioeconomic Indictors

Disadvantaged Australians have higher rates of almost all disease risk factors, use preventative health services less and have poorer access to primary care health services than Australians in average or higher socio-economic condition areas. One of the key measures of disadvantage is the Socio Economic Indexes for Areas (SEIFA) which compares the relative socio-economic advantage and disadvantage across geographic areas.

The Index of Relative Socio-economic Disadvantage (IRSD) score is based on standardised distribution across all areas and is a measure of the relative disadvantage in a given geographic area; the lower the score the greater the level of relative disadvantage. The average IRSD score across Australia is 1,000 and nationally two thirds of all areas lie between an index score of 900 and 1,100. For further comparative purposes, the IRSD deciles (based on national ranking) is provided for each LGA with one representing the most disadvantaged areas and 10 representing the least disadvantaged areas.

Single Parent Families

EMPHN has a lower rate of single parent families (15.3 per cent) compared with both the state (18.3 per cent) and national (20.4 per cent) averages (Table 7). The Wallan region within the Mitchell LGA has the highest rate at 22.5 per cent which is not only a rate higher than the EMPHN average, but also the state

and national figures. The LGAs of Boroondara and Nillumbik have the lowest rates across the catchment at 12.4 per cent and 12.2 per cent respectively (Figure 14).

TABLE 7 SOCIOECONOMIC FACTORS IN EMPHN

LGA	Single parent families %*	Needing Assistance %†	Early School Leavers ASR per 100 *	Un employment %‡	Income <$400/wk %†	IRSD Score (Decile) §
Banyule	15.5	5.3	21.3	4.0	30.0	1047 (9)
Boroondara	12.4	4.0	11.9	4.0	29.8	1098 (10)
Knox	16.3	5.0	25.5	4.3	32.6	1049 (9)
Manningham	13.2	5.3	19.6	5.9	35.5	1071 (10)
Maroondah	16.6	5.2	24.8	5.0	30.0	1044 (9)
Mitchell (a) ¶	22.5	4.2	34.5	6.6	34.4	1028 (7)
Monash (a) #	13.5	5.1	18.5	3.2	38.9	1046 (9)
Murrindindi (a) **	16.8	4.4	30.8	4.3	34.2	1028 (7)
Nillumbik	12.2	3.4	20.5	2.4	28.9	1098 (10)
Whitehorse	12.9	4.9	18.4	6.0	35.9	1051 (10)
Whittlesea	17.2	6.0	30.5	6.9	36.8	989 (6)
Yarra Ranges ††	18.3	4.9	29.2	4.8	30.8	1037 (9)
EMPHN	**15.3**	**5.0**	**22.2**	**4.8**	**33.5**	**1050**
Victoria	18.3	5.5	26.0	5.8	33.2	1010
Australia	20.4	5.5	30.4	5.7	32.1	1000

Sourced from: *2016 (PHIDU, 2017a); † 2016 Census (ABS, 2017a); ‡March Quarter 2017 (CDoE, 2017); § 2011 Census (ABS, 2013); ¶data only for the SA2 of Wallan; #data for all SA2 areas within Monash excluding Hughesdale (with the exception of IRSD which is entire LGA); **data only for the SA2 of Kinglake; ††data for all SA2 areas within Yarra Ranges excluding Upper Yarra Valley (with the exception of IRSD which is entire LGA).

Needing Assistance

When compared to the state (5.5 per cent) and national (5.5 per cent) figures, EMPHN has a slightly lower proportion of the population who report needing assistance with core activities (5 per cent), with the Nillumbik LGA having the lowest rate at 3.4 per cent and the Whittlesea LGA the highest at 6 per cent (Figure 15).

Education

A strong link between health and education has been evident for many decades and the evidence shows an association between low education levels, poor health and employment. In addition, low levels of health literacy are associated with overall poor health outcomes and reduced use of health services. The Wallan region within the Mitchell LGA has the highest rate of early school leavers (ASR 34.5 per 100) in the catchment, at rate higher than the state and national rates of 26.0 and 30.4 per 100 respectively (Figure 16). The LGA of Boroondara has a significantly lower rate of early school leavers with only 11.9 per 100 leaving school at Year 10 or below or not attending school at all.

Unemployment

Unemployment has direct effects on mental health and wellbeing, in particular where feelings of being unproductive or isolated may lead to anxiety or depression. In addition, an individual's mental health also

has direct consequences for access and retention of employment. Whilst the unemployment rate within the EMPHN catchment (4.8 per cent), as measured in the March quarter 2017, is lower than the state (5.8 per cent) and national (5.7 per cent) averages, a third of the LGA regions have rates above these levels. In particular, both the Whittlesea LGA and the Wallan region within the Mitchell LGA have over 6 per cent unemployment with rates of 6.9 per cent and 6.6 per cent respectively. There are, however, areas within the catchment with significantly lower rates of unemployment, in particular the LGA of Nillumbik having the lowest rate at only 2.4 per cent (Figure 17).

Income

While the majority of LGA regions within the EMPHN catchment have lower proportions of those earning less than $400 per week compared with the state (33.2 per cent) and national (32.1 per cent) averages, the overall average for the region is marginally higher at 33.5 per cent. In particular, the Monash LGA has a significantly higher rate at 38.9 per cent compared to the EMPHN average, however the Nillumbik LGA has the lowest rate at 28.9 per cent (Figure 18).

Disadvantage

Across the entire EMPHN catchment, the only LGA with a lower IRSD score, compared to the national average of 1000, is Whittlesea with a score of 989 (Figure 19). The least disadvantaged LGAs in the catchment are Boroondara and Nillumbik, with scores of 1098, ranking them both in the tenth decile.

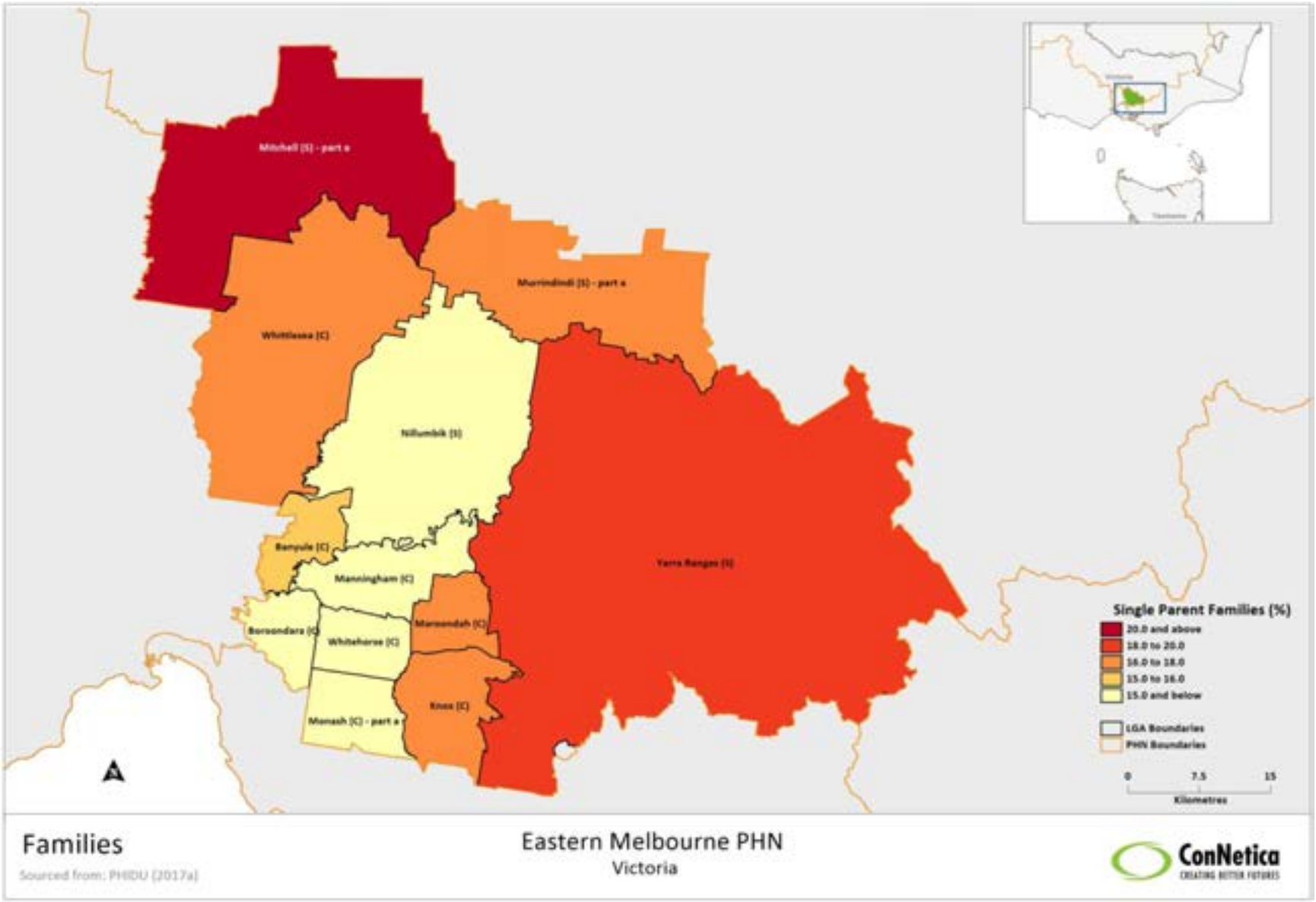


FIGURE 14 SINGLE PARENT FAMILIES

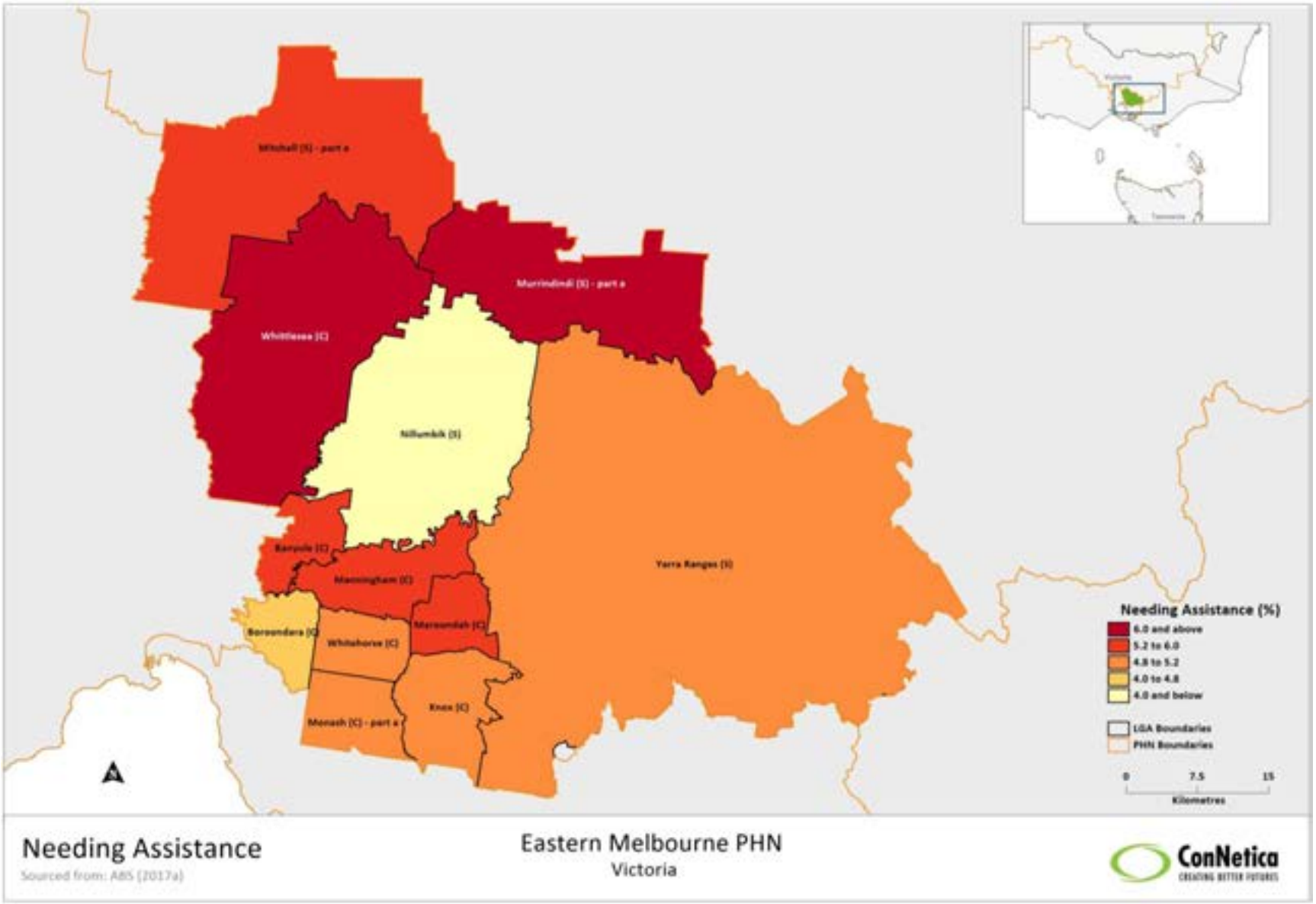


FIGURE 15 PROPORTION OF POPULATION NEEDING ASSISTANCE

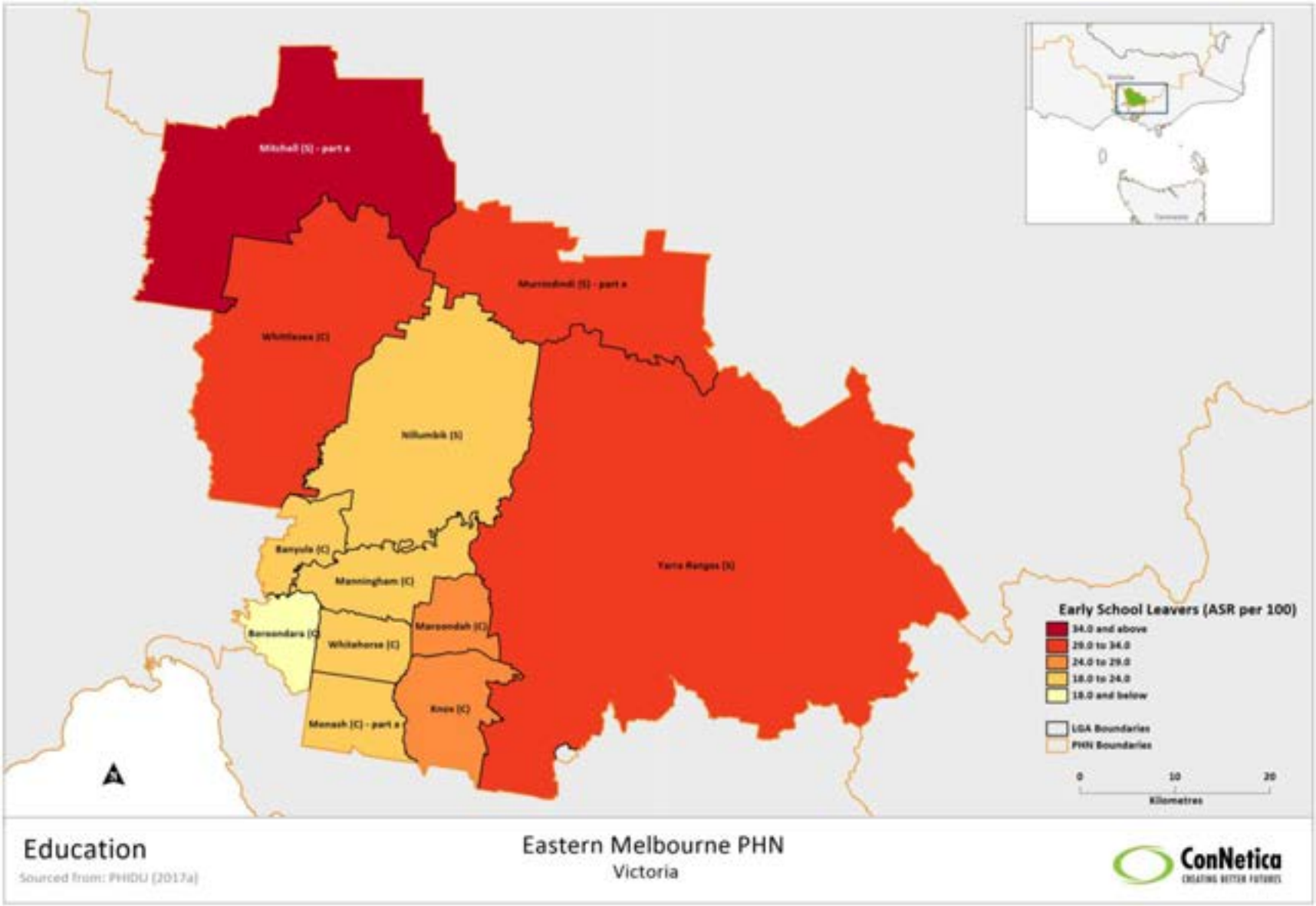


FIGURE 16 RATE OF EARLY SCHOOL LEAVERS

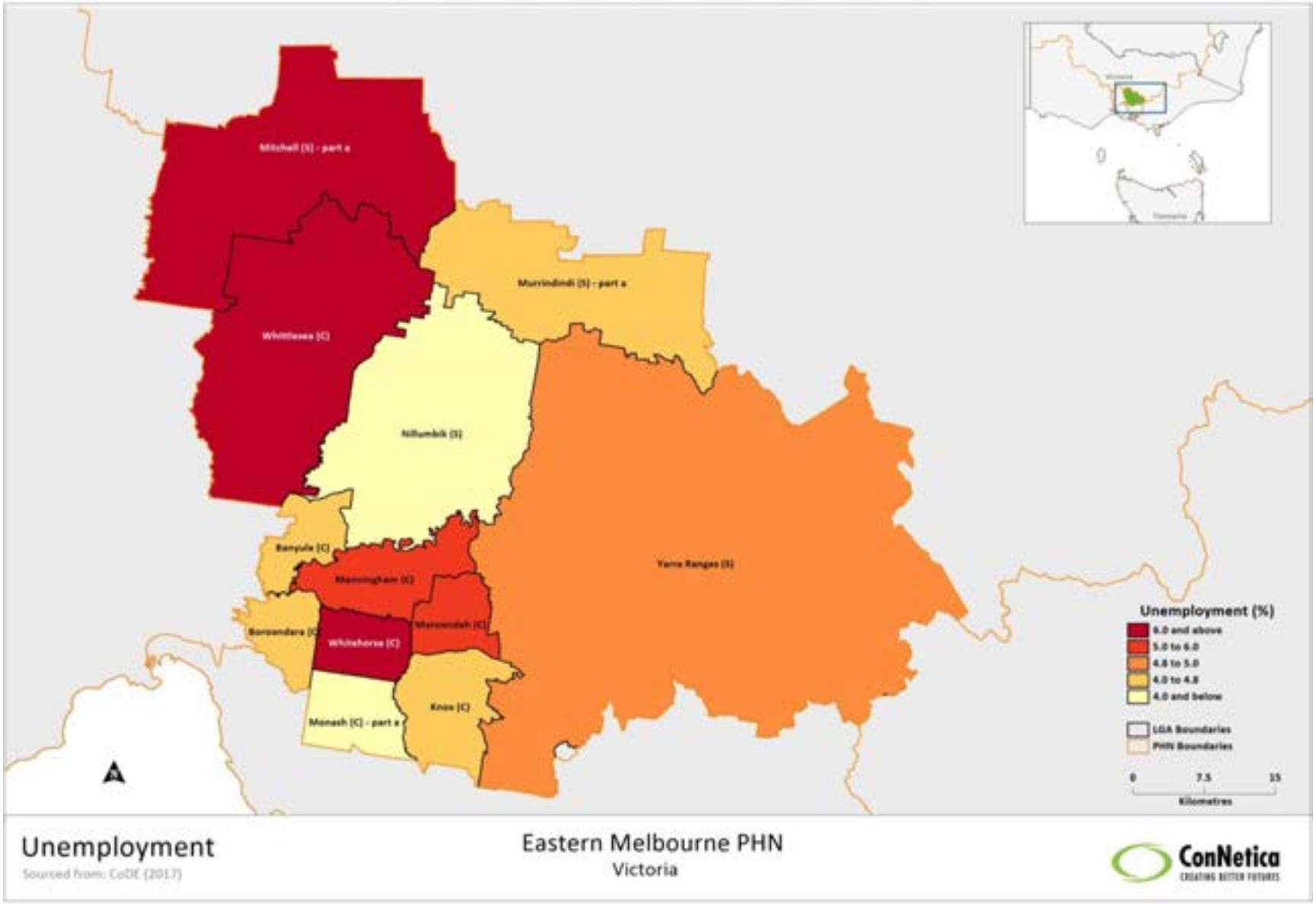


FIGURE 17 UNEMPLOYMENT LEVELS

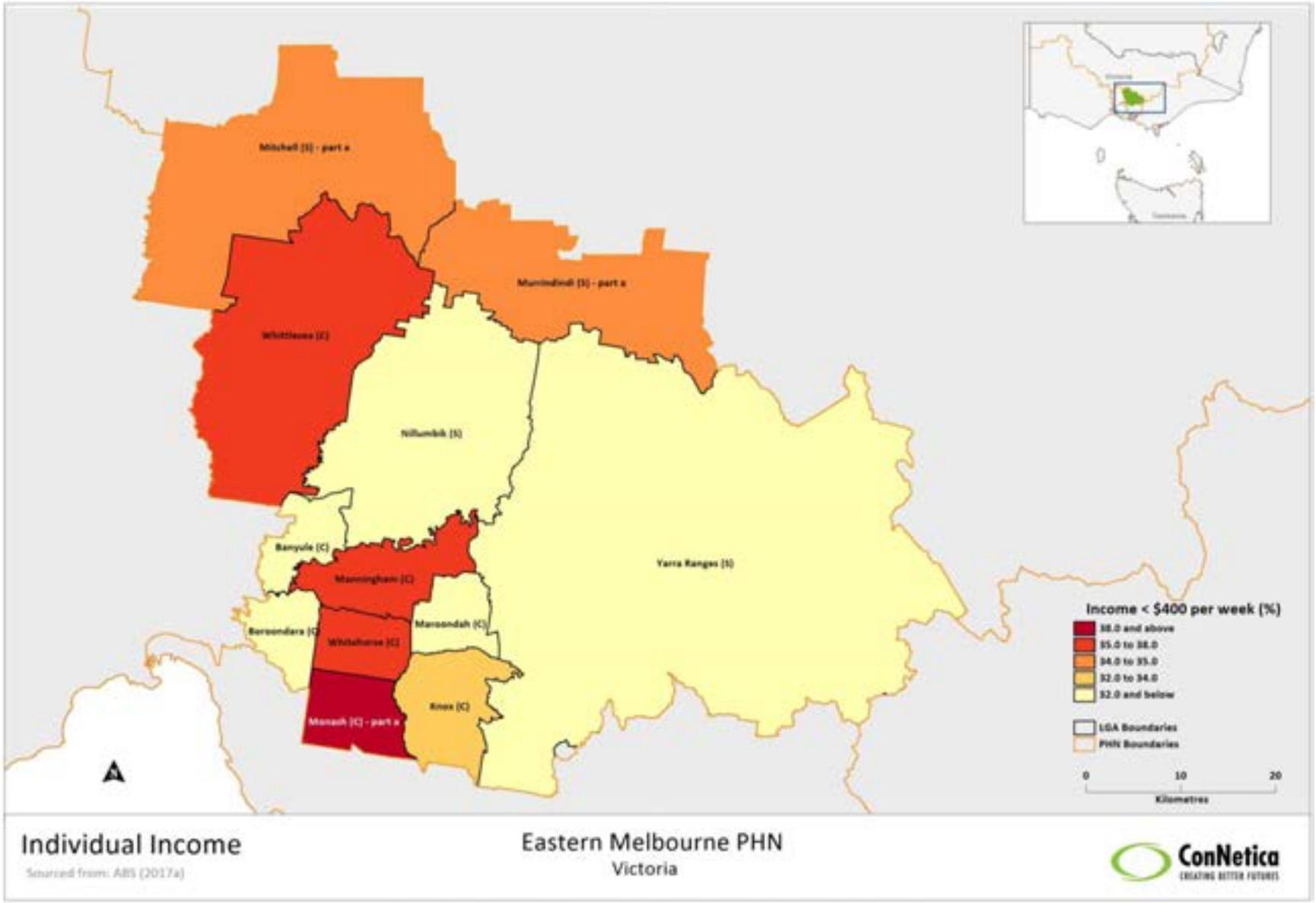


FIGURE 18 PROPORTION OF INDIVIDUALS WITH LOW INCOME

FIGURE 19 INDEX OF RELATIVE SOCIAL DISADVANTAGE BY DECILE

Health and Mortality

As health usually deteriorates with age and the majority of deaths occur at older ages, it is reasonable to expect areas with older populations to show lower self-assessed health and higher mortality rates. Therefore, to allow fair comparisons of rates amongst LGAs within EMPHN's catchment, with different age profiles, the age standardised rate (ASR) is used for the two selected health outcome indicators related to mental health and suicide and self-harm.

Self-assessed health status is a commonly used measure of overall health. It captures a person's perception of their own health and has been found to be a good predictor of morbidity and mortality (Joung et al., 2002). Psychological distress is an indicator of the mental health of a community and is the best population wide measure currently available. This indicator is a 'synthetic prediction' derived by the Public Health Information Development Unit (PHIDU) at the LGA level and as a result should be used with caution and be treated as indicative of the prevalence psychological distress within the EMPHN catchment (Table 8). Psychological distress is used as an indicative measure of the mental health needs of a population rather than measuring rates of mental illness (Statistics Solutions, 2016).

TABLE 8 HEALTH AND MORTALITY INDICATORS EXAMINED

Indicator	Description	Calculation
Fair/Poor Health	Modelled estimate based on self-reported and assessed health on a scale from 'poor' to 'excellent' – this measure is the sum of responses categorised as 'poor' or 'fair'.	Estimated population, aged 15 years and over, with fair or poor self-assessed health, ASR per 100
Psychological Distress	The proportion of adults with very high levels of psychological distress as measured by the Kessler Psychological Distress Scale—10 items (K10). (The K10 is a scale of non-specific psychological distress based on 10 questions about negative emotional states in the 4 weeks before being interviewed).	Estimated population, aged 18 years and over, with high or very high psychological distress based on the Kessler-10 Scale (K10), ASR per 100
Suicide	Data compiled from deaths data based on Cause of Death Unit Record Files - ICD-10 codes: X60-X84, Y87.0	Deaths from suicide and self-inflicted injuries, persons aged 0 to 74 years, ASR per 100,000

Premature mortality data between 2010 and 2014 for suicide and self-harm is the key mortality indicator in this Atlas. This suicide and self-harm measure is the only one currently available at a lower geographical region than state level data so is utilised for the purpose of the Atlas as the best available data.

Health and Wellbeing

Estimates of self-reported health in the EMPHN catchment indicate that residents in the Whittlesea LGA have a considerably higher rate of fair/poor health (19.0 per 100) when compared to not only the EMPHN average (13.2 per cent) but also the state and the national averages (14.8 per cent) (Table 9). In contrast, the LGA of Boroondara, in the southwest of the catchment, has self-reported rates of fair/poor health less than all other areas at 8.4 per 100 (Figure 20).

In addition to low rates of self-reported fair/poor health, the Boroondara LGA also has a significantly lower rate of psychological distress (7.3 per 100) when compared to the EMPHN average (10.7 per 100), as well as the state and national averages (Table 9). As the most disadvantaged region within the EMPHN catchment, Whittlesea LGA has the highest rate at of psychological distress at 15.0 per 100, a rate higher than both state and national rates and almost double that of Boroondara (Figure 21).

TABLE 9 HEALTH AND MORTALITY IN EMPHN

LGA	Fair/poor health* ASR per 100	Psychological Distress* ASR per 100	Suicide and self-harm† n	Suicide and self-harm† ASR per 100,000
Banyule	13.8	10.7	54	9.3
Boroondara	8.4	7.3	56	7.0
Knox	14.2	11.6	67	9.0
Manningham	11.3	8.3	35	6.4
Maroondah	13.9	12.2	47	9.3
Mitchell (a)	15.9	13.6	6	10.8
Monash (a)	13.3	10.1	44	5.4
Murrindindi (a)	17.0	12.3	np	np
Nillumbik	10.0	8.8	18	5.9
Whitehorse	13.2	9.8	53	7.1
Whittlesea	19.0	15.0	72	9.0
Yarra Ranges	13.4	12.2	65	9.2
EMPHN	**13.2**	**10.7**	**518**	**7.8**
Victoria	15.6	12.5	2,540	9.6
Australia	14.8	11.7	11,874	11.2

Sourced from: *2014-15 (PHIDU, 2017b); †2010-2014 (PHIDU, 2017b); np – not provided

Mortality

In 2015, there were 3,027 deaths from intentional self-harm in Australia representing an age-standardised rate of 12.6 per 100,000, a rate far in excess of transport-related mortality with less than half the amount of deaths recorded in the same period (1,383) at a rate of 5.6 per 100,000 (ABS, 2016b). Despite these registered mortality figures, the prevalence of suicide and self-harming behaviour remains challenging to accurately gauge due to the difficulties associated with obtaining reliable data.

Based on aggregated data available for 2010-2014, estimates indicate that the region of Wallan in the LGA of Mitchell is the only area within the EMPHN catchment with a suicide and self-harm rate higher than the state average (9.6 per 10,000) (Table 9). The rate of suicide and self-harm is lowest in the Monash and Nillumbik LGAs within rates of 5.4 and 5.9 per 100,000 population respectively (Figure 22).

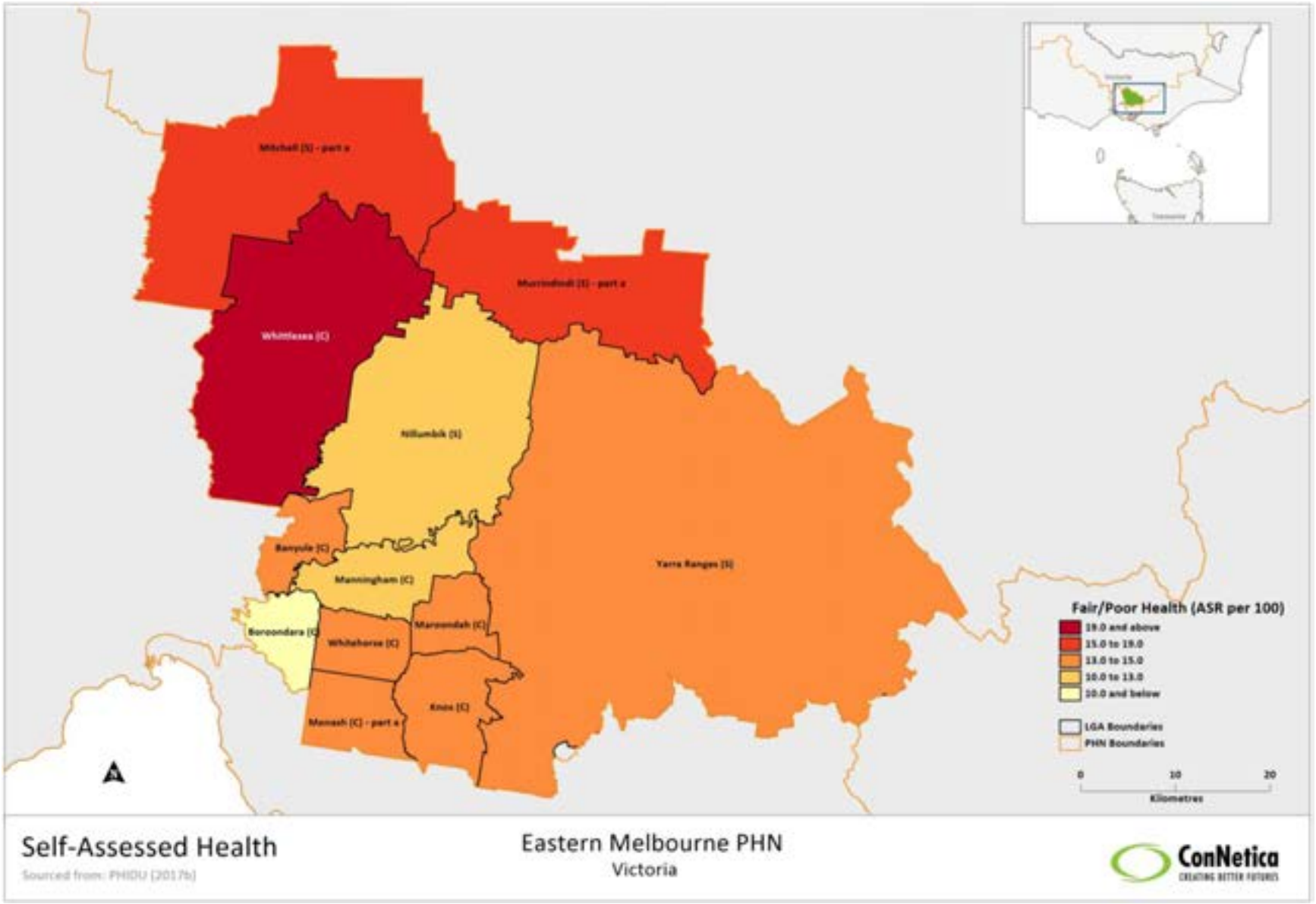


FIGURE 20 SELF-REPORTED HEALTH – FAIR/POOR

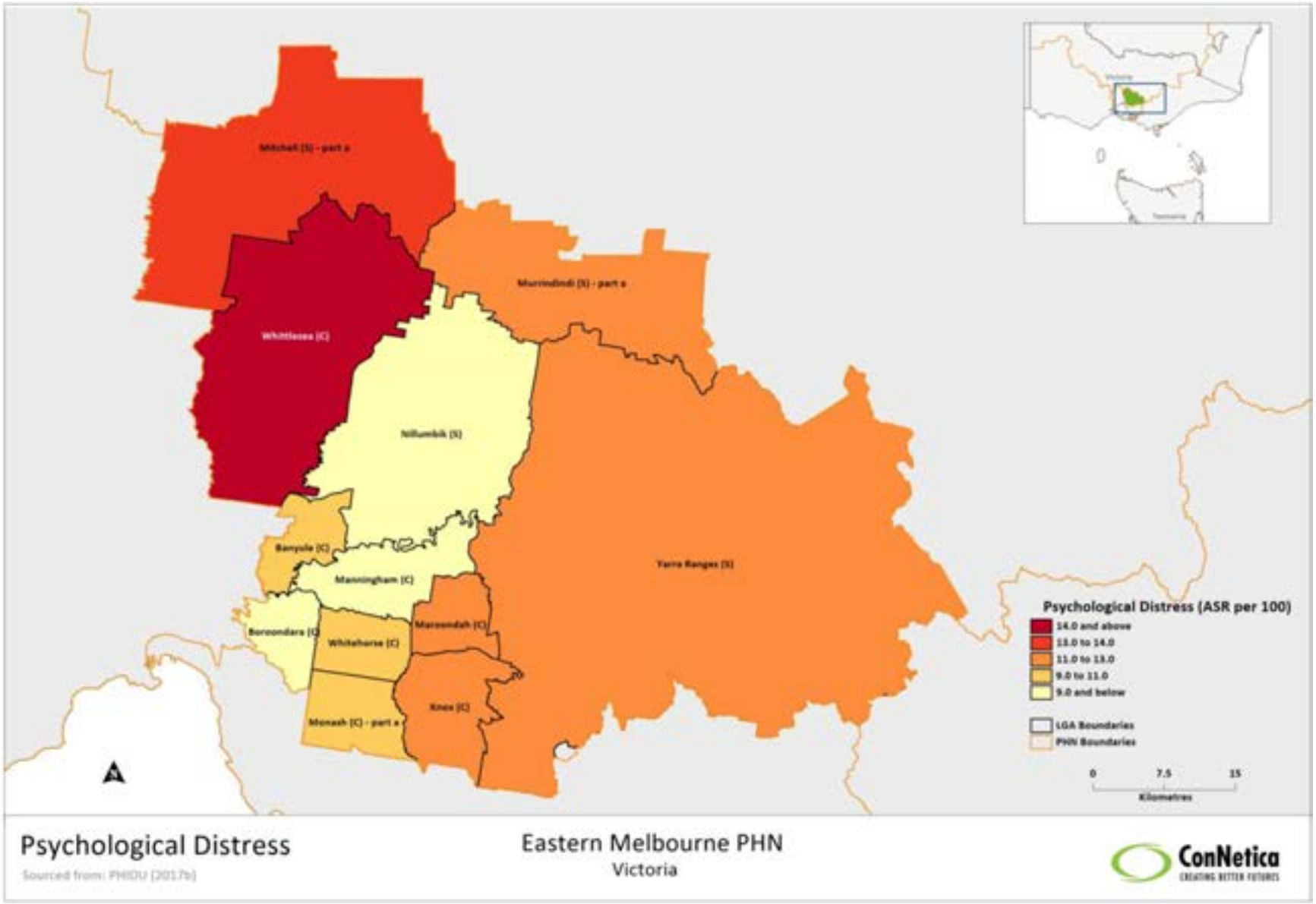


FIGURE 21 RATE OF PSYCHOLOGICAL DISTRESS

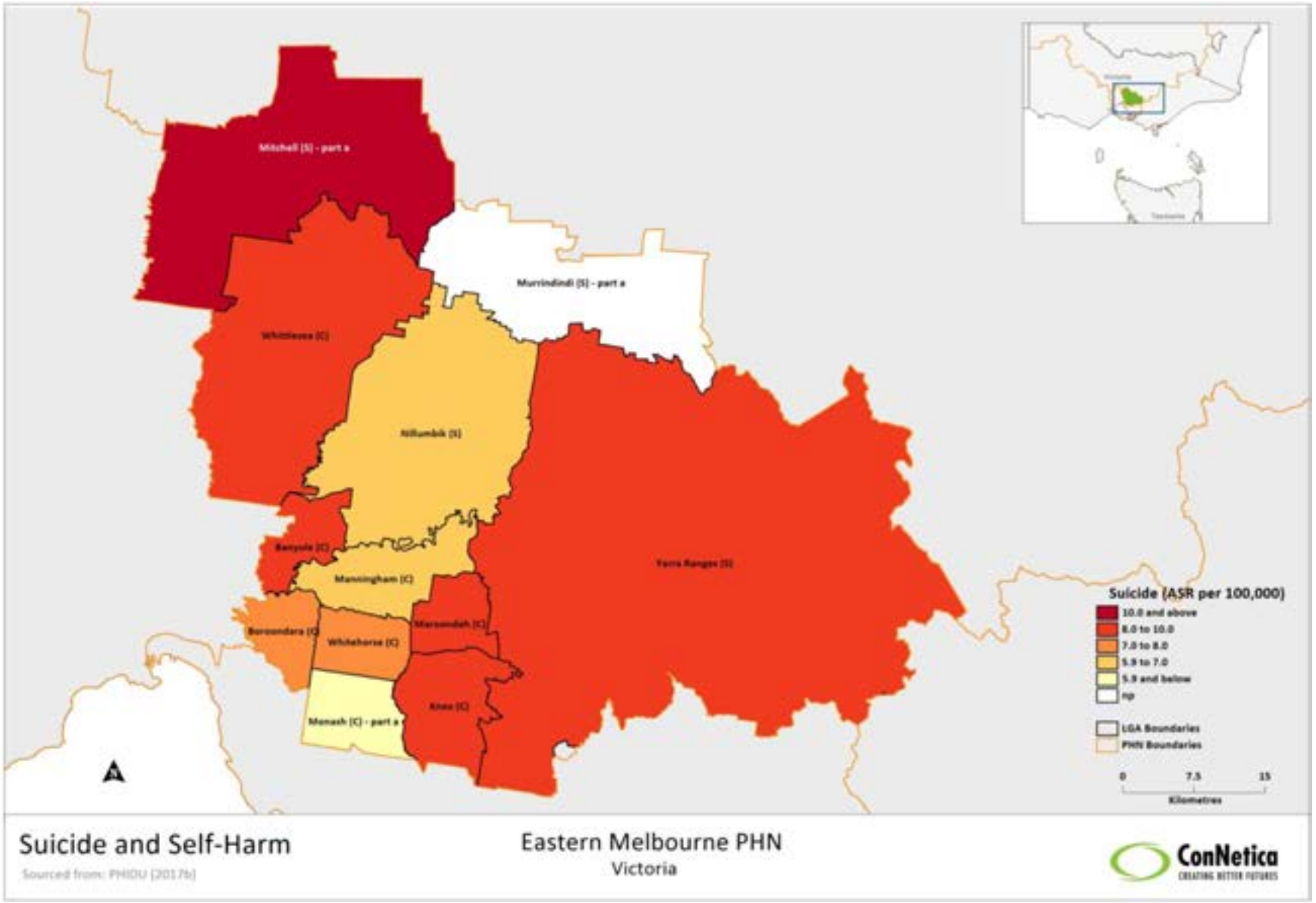


FIGURE 22 2010-2014 RATE OF SUICIDE AND SELF-HARM

Prevalence and Service Data

Publicly available population mental health and mental health service data is included in this section to help 'complete the picture' of the region. The connection between mental health and alcohol and other drug use is well documented, for this reason the underlying population and service data in relation to both mental health and alcohol and other drugs provides background and context in relation to the service mapping for the EMPHN region. For comparative purposes, a brief overview of Australian and Victorian prevalence as well as relevant service data is provided.

Australian Prevalence

Mental Health

In Australia, in any given year approximately 20per cent of the population experience some form of mental illness (Jorm et al., 2017). The NMHC report in 2014 estimated more than 3.6 million people aged 16-85 years experience mental illness each year. Around 625,000 Australian adults experience severe episodic or severe and persistent mental illness with a further 65,000 people identified as having severe and persistent illness with complex multi-agency needs. The most recent national survey of Australian children and young adults (aged four-17 years) found 560,000 individuals (13.9 per cent), had a mental health disorder in the previous 12 months (Lawrence et al., 2015). Approximately 82,000 children and young adults (2.1 per cent) were identified as having a severe disorder with number increasing for those aged 12-17 year (3.3 per cent).

Over a lifetime, nearly half of the Australian adult population will experience mental illness at some point which equates to nearly 7.3 million Australians aged 16-85 (AIHW, 2016a). It is estimated that the community prevalence of mental and substance use disorders in Australia in 2011-2012 was 19.9 per cent (Diminic et al., 2013). The prevalence was highest in the adult (25-64 years) age group (22.6 per cent), followed closely by the youth (15-24 years) population (19.8 per cent), which is partially due to much higher rates of substance use disorders in these age groups compared to children (0-14 years) (15.4 per cent) and older adults (65+ years) (15.5 per cent).

Alcohol and Other Drugs

Findings from the recent 2016 National Drug Strategy Household Survey (NDSHS) indicate that, compared to 2001, people aged under 30 are smoking less, drinking less and using fewer illicit drugs (AIHW, 2017a). However, for people age in their 40s to 60s, there was little to no change in drug usage behaviours over this period, in fact some of their drug use has increased between 2013 and 2016.

In the 2016 survey, the majority of Australians (aged over 14 years) reported consuming alcohol in the last 12 months (77.5 per cent) and one in four (25.5 per cent) consume alcohol at a level that puts them at risk of injury from a single drinking occasion at least once a month (AIHW, 2017a). In addition, whilst the Indigenous population is more likely than the non-Indigenous population to abstain from alcohol, the prevalence of harmful alcohol use in the Indigenous population is about twice as great as that in the non-Indigenous population (Wilson et al., 2010). For those Australians who have used illicit drugs the most commonly used drugs in the past 12 months were cannabis (10 per cent), cocaine (2.5 per cent), and ecstasy (2.2 per cent) with one in 20 Australians reporting misusing pharmaceuticals (4.8 per cent) (AIHW, 2017a).

Victorian Prevalence

Mental Health

It is estimated that at any one time, approximately 2.7 million or 45 per cent of people will experience mental illness in their lifetime (State of Victoria, Department of Health and Human Services, 2015). Utilising the 2016 Census URP figures and based on prevalence estimates for the state of Victoria, there are almost

180, 000 people in the state population who experience severe mental illness (3%) at any point in time (Figure 23).

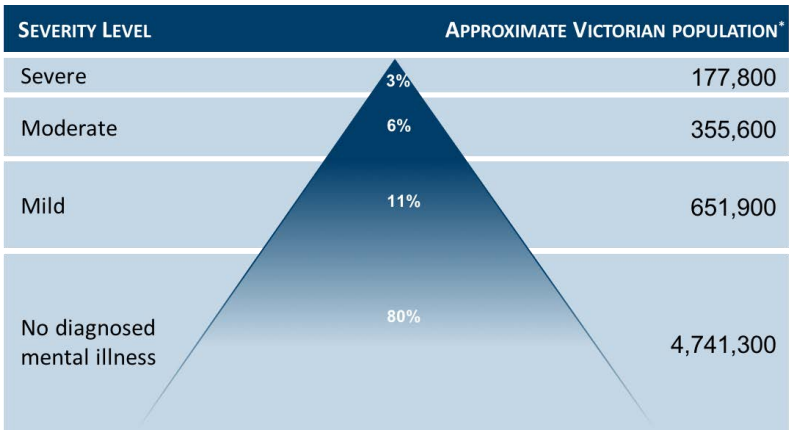


FIGURE 23 ESTIMATED PREVALENCE OF ADULT MENTAL ILLNESS IN VICTORIA

However, the prevalence of mental disorders and illness is likely to be an underestimation for a variety of reasons: reluctance to seek treatment, lack of access to treatment, inconsistencies in diagnosis among providers, confidentiality of diagnosis/treatments, and poor data capture. In addition, there are wide discrepancies in treatment and prescribing patterns which are conflicting. Improved data capture and consistency of data would provide a more in-depth insight into current and future trends.

Alcohol and Other Drugs

Data from the 2013 NDSHS survey indicate that, similar to the Australia average, a quarter of Victorians (aged over 14 years) (25.0%) consume alcohol at a level that puts them at risk of injury from a single drinking occasion at least once a month (AIHW, 2014). However, illicit use of any drug was the second lowest Australia at 14.3% with New South Wales the only other state to record a lower proportion at (14.2 %) (AIHW, 2014).

Health Services

Hospitalisations

For hospitalisation in 2014–15, EMPHN has lower age-standardised rates (per 100,000) compared to the national rates for all except the rates for bipolar and mood disorders (AIHW, 2017b). In fact, for all mental health, drug and alcohol and intentional self-harm, EMPHN has the second lowest rate of hospitalisations across all PHNs nationally (Figure 24).

Category	National Rate	EMPHN Rate	Rank in Australia
Bipolar and mood disorders	101 per 100,000	119 per 100,000	6th Highest
Dementia	50 per 100,000	49 per 100,000	16th Highest
Depressive episodes	118 per 100,000	103 per 100,000	21st Highest
Schizophrenia and delusional disorders	164 per 100,000	131 per 100,000	28th Highest
Anxiety and stress disorders	142 per 100,000	98 per 100,000	28th Highest
All mental health	944 per 100,000	786 per 100,000	30th Highest
Drug and alcohol use	180 per 100,000	96 per 100,000	30th Highest
Intentional self harm	161 per 100,000	90 per 100,000	30th Highest

FIGURE 24 2014-15 HOSPITALISATION RATES PER 100,000 BY TYPE

Locally, there were over 1,400 Emergency Department (ED) presentations for suicide attempts or ideations across the key hospitals in the EMPHN catchment, the highest count being for Maroondah Hospital in the Outer Eastern Melbourne region (EMPHN, 2016) (Figure 25).

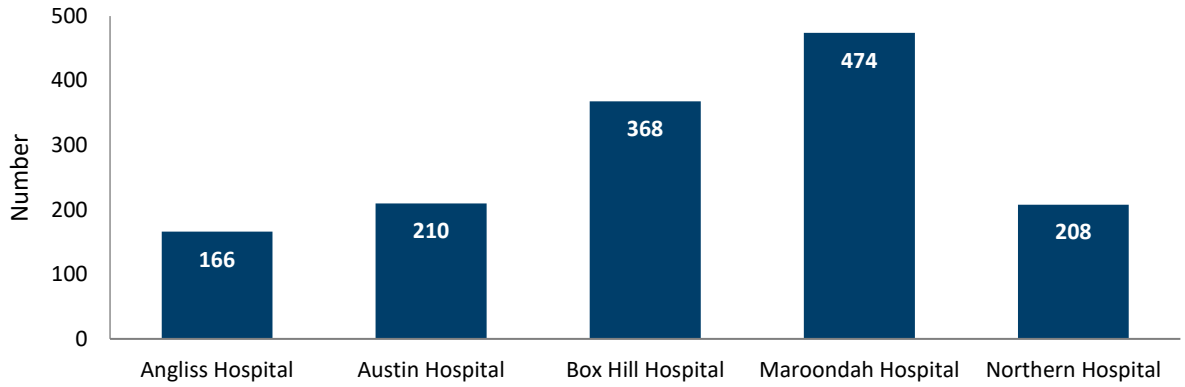


FIGURE 25 EMERGENCY DEPARTMENT PRESENTATIONS FOR SUICIDE ATTEMPTS OR IDEATIONS IN EMPHN HOSPITALS

In 2014-15, about one in 200 Australians received an alcohol and other drug (AOD) treatment episode with 170,367 episodes being provided by publicly funded agencies and almost all clients received treatment for their own drug use (95 per cent) and the majority were male (69 per cent) (AIHW, 2016b). Amongst the states and territories, Victoria had the second lowest rate of AOD patients (495 per 100,000 population) which was lower than the Australian average of 558 per 100,000 population. However, it delivered the fifth highest rate of episodes of care per 100, 000 population (891) and higher than the national average of 827 per 100,000 population (AIHW, 2016b).

Locally, across all LGAs in EMPHN, the highest rate of hospitalisations in 2014-15 was related to alcohol use with illicit drugs and pharmaceuticals around half of this rate and antipsychotics only a fraction of the alcohol related rate (Figure 26). The highest hospitalisation rate for illicit drugs of any type was in the Yarra Ranges LGA (34.5 per 100,000) and the lowest was in the LGA of Whittlesea (16.0 per 100,000) (Turning Point Eastern Health, 2017). Hospital admission rates for antipsychotics were similar across all LGAs in the catchment.

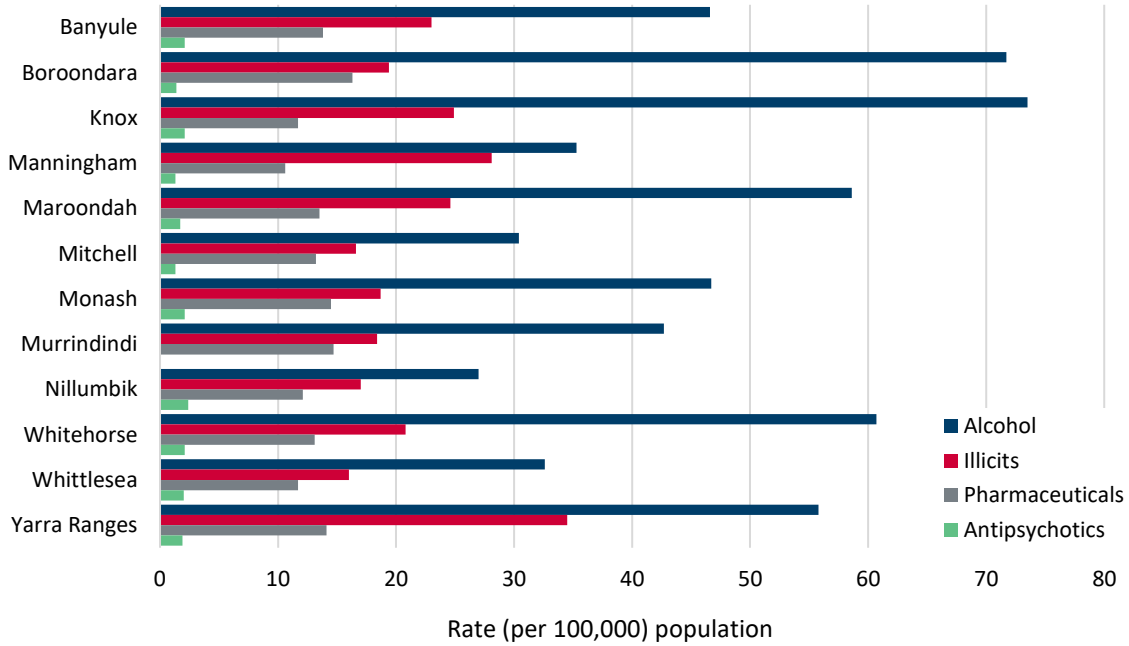


FIGURE 26 2014-15 HOSPITALISATION RATES BY LGA AND DRUG TYPE

Medical Benefits or Medicare Funded Services

Across Australia in 2015-16, more than 10.6 million Medicare-subsidised mental health-related services were provided by psychiatrists, General Practitioners (GPs), psychologists and other allied health professionals to almost 2.3 million patients (AIHW, 2017c). This represented an average of 4.7 services per patient over the year with GPs providing more services to more patients than the other provider types (AIHW, 2017c).

Overall, Victoria had the highest rate of services provided (525.4 per 100,000 population) and highest rate of patients (105.1 per 100,000 population) (Figure 27). Whilst the Victorian rate for patients was close to the national rates in 2015-16 (94.5 patients per 1,000 population) it was significantly higher than the national average of 443.6 per 100,000 in relation to services (AIHW, 2017c).

FIGURE 27 MEDICARE SUBSIDISED MENTAL HEALTH RELATED SERVICES AND PATIENT RATES BY JURISDICTION 2015-16

Across Australia, the highest number of services were provided by general practitioners (3.2 million or 30.6 per cent) followed by other psychologist services (2.6 million or 24.8 per cent) and psychiatrists (2.4 million or 22.2 per cent) (Figure 28).

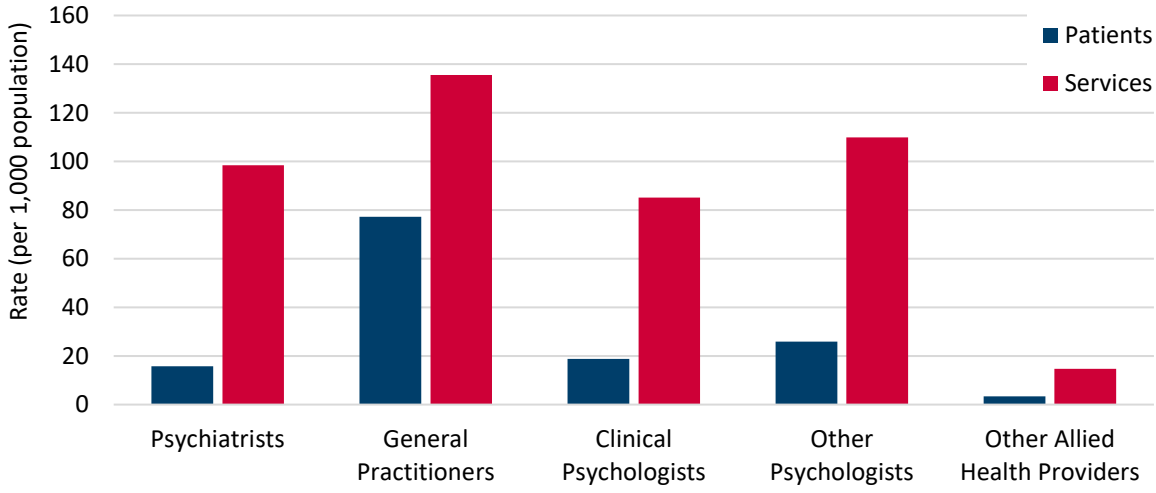


FIGURE 28 AUSTRALIAN MEDICARE SUBSIDISED MENTAL HEALTH RELATED RATES 2015-16

Throughout the EMPHN region, GPs have the highest number of patients for both men and women when compared to psychiatric, clinical psychology and allied health provider services (Table 10). However, psychiatrists provide the most services with a total of 201,494 services provided across the 2014/15

financial year (DoH, 2016a). The out-of-pocket (OOP) costs for services provided by psychiatrists, averaged just over $41 per service. OOP costs for other providers ranged between $5.85 (GPs) to $30 (allied health) per service.

Across all service providers, females consistently access services at a higher rate when compared to males, with around 60 per cent of mental health services delivered to females in 2014/15 in the EMPHN region.

TABLE 10 EMPHN REGION MBS UTILISATION BY PROVIDER TYPE 2014-15

Provider Type	Gender	Patients (n)	%	Services (n)	%	Benefits Paid	Fees Charged
Psychiatrists	Male	10,802	42%	70,595	35%	$10,128,679	$12,861,126
	Female	14,784	58%	130,899	65%	$19,261,232	$24,816,461
	Total	**25,586**		**201,494**		**$29,389,911**	**$37,677,587**
General Practitioners	Male	40,284	38%	70,301	36%	$5,877,609	$6,226,689
	Female	67,089	62%	122,632	64%	$10,181,709	$10,962,824
	Total	**107,373**		**192,933**		**$16,059,318**	**$17,189,513**
Clinical Psychologists	Male	10,715	37%	49,539	36%	$6,372,541	$7,726,986
	Female	18,179	63%	87,905	64%	$11,222,938	$13,518,290
	Total	**28,894**		**137,444**		**$17,595,479**	**$21,245,276**
Other Allied Health Providers	Male	16,789	38%	75,868	38%	$6,868,347	$9,153,966
	Female	26,981	62%	125,531	62%	$11,168,638	$14,916,933
	Total	**43,770**		**201,399**		**$18,036,985**	**$24,070,899**
	Total	**134,404***		**733,270**		**$81,081,693**	**$100,183,275**

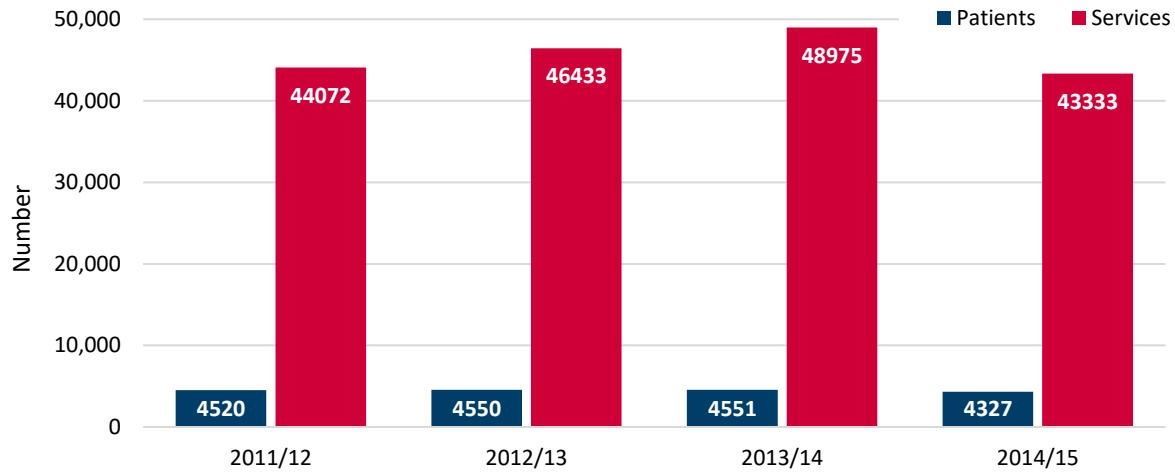
Sourced from: MBS Mental Health Data (DoH, 2016a); *The number of patients may not sum to the total as a patient may receive more than one type of service by will be counted only once in the total.

Mental Health Nurse Incentive Program (MHNIP)

MHNIP provides a non-MBS incentive payment to community based general practices, private psychiatrist services and Aboriginal and Torres Strait Islander Primary Health Care Services that engage mental health nurses to assist in the provision of coordinated clinical care for people with severe mental disorders. Mental health nurses provide an accessible service in a non-stigmatised setting. They can provide services to children and young people, women in the peri-natal period and seniors, who are more likely to be in contact with their GP than with other health or community services.

Data extracted for 2011/12 to 2014/15 for the MHNIP indicates that the number of patients serviced by the program across the EMPHN catchment declined during this period (DoH, 2015) (Figure 29).

FIGURE 29 MHNIP CLIENTS AND SERVICES, EMPHN REGION 2011/12 - 2014/15



Access to Allied Psychological Services (ATAPS)/Psychological Strategies

Access to Allied Psychological Services (ATAPS) was previously provided under the Better Access to Services strategy to enable people with a clinically diagnosed mental health disorder to access assistance for short-term mental health interventions and services through psychiatrists, psychologists, GPs and other eligible allied health providers. The ATAPS program was targeted at improving access to support and treatment for people who have mild to moderate mental illness.

A total of 13,755 clients accessed the ATAPS program in the EMPHN area over the period from 2011/12 to 2014/15 (Figure 30). The number of clients steadily increased from at 2,064 in 2011/12 to 4,387 in 2013/14 before a small decrease the following financial year (DoH, 2016b). Similarly, the number of sessions also increased over the same period albeit at a slightly higher rate from 10,482 services in 2011/12 to 24,890 in 2013/14 (DoH, 2016b).

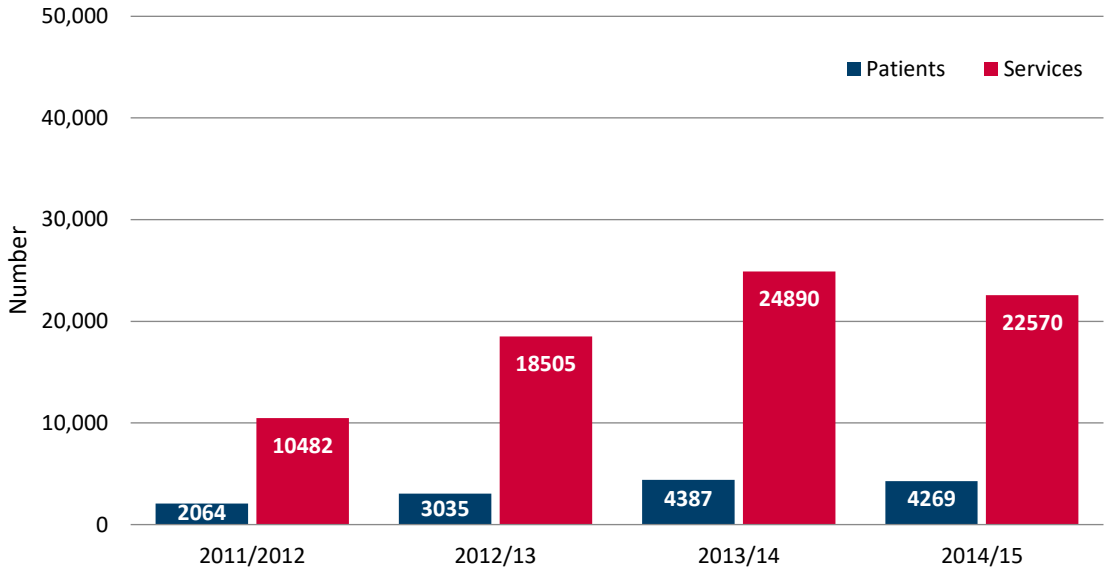


FIGURE 30 ATAPS MDS TOTAL PATIENTS AND SESSIONS 2011/12 - 2014/15

Eastern Melbourne – Local Hospital Networks

The Eastern Melbourne PHN consists of five Local Hospital Networks including:

- Austin Health
- Eastern Health
- Monash Health
- Northern Health
- St Vincent's Hospital.

In addition, The Alfred and Goulburn Valley Health Districts provide services to consumers and carers from the EMPHN region and have been included in this section to recognise this.

Austin Health

Austin Health comprises the Austin Hospital, Heidelberg Repatriation Hospital and the Royal Talbot Rehabilitation Centre. Austin Health operates 980 beds across acute, sub-acute and mental health with an annual operating budget of more than $700 million. Austin Health is an internationally recognised leader in clinical teaching and training, affiliated with eight universities. In addition, it is the largest Victorian provider of training for specialist physicians and surgeons.

A range of mental health services are also provided in the Austin Health District across the Austin and Heidelberg Repatriation Hospitals and the Royal Talbot Rehabilitation Centre (Table 11).

TABLE 11 AUSTIN HEALTH SERVICES

Service	Inpatient services	Community services
North East Area Mental Health Service	• Acute Adult Psychiatry • Eating Disorders Unit • Parent-Infant Program • Secure Extended Care	• Continuing Care • Mobile Support & Treatment • Crisis Assessment & Treatments, Primary Mental Health • Youth Early Psychosis • Community Recovery Program, Prevention & Recovery Care
Child and Adolescent Mental Health Service	• Statewide Child Inpatient Unit • Adolescent Inpatient Unit	• Adolescent Intensive Management • Youth Brief Intervention Service • Inner North East & Northern Community Outpatient Teams • Autism Spectrum Disorder Assessment • CAMHS and Schools Early Action • Further Community Services
Brain Disorders Program	• Wattle/Protea Unit (physical or cognitive disabilities) • Heath Unit (psychiatric or behavioural disabilities)	• Community Reintegration Program - Step 2 • Brain Disorders Assessment & Treatment Service • Acquired Brain Injury Behaviour Consultancy • Neurobehaviour Clinic
Psychological Trauma Recovery Service	• PTRS Inpatient Unit	• Post Trauma Victoria Outpatient Service, • Veterans & Serving Members Unit (VSMU) Outpatient Clinic • Human Relations Clinic • Sleep Disorders Clinic • PTSD Group Treatment Program • Addictive Behaviours Group Treatment Program • Older Veterans Psychiatry Program • Rehabilitation Workgroup
General Hospital Mental Health	• GHMH consultation/Liaison Service • Psychiatric Outpatient Clinic • Clinical Health Psychology Outpatient Clinic • Drug Dependence Clinic	

Eastern Health

Eastern Health is one of Melbourne's largest metropolitan public health services.

They provide a range of emergency, medical and general healthcare services, obstetrics, mental health, drug and alcohol, residential care, state-wide specialist services and community health services to Melbourne's diverse eastern community.

Main sites include:

- Angliss Hospital in Upper Ferntree Gully
- Box Hill Hospital in Box Hill
- Healesville Hospital and Yarra Valley Health in Healesville
- Maroondah Hospital in Ringwood East
- Peter James Centre in Burwood East
- Spectrum (provides treatment for people with personality disorders)
- Turning Point (provides treatment, research and education in the fields of alcohol, other drugs and gambling)
- Wantirna Health in Wantirna, and
- Yarra Ranges Health in Lilydale.

A range of mental health services is also provided in the Eastern Health District, catering for all age groups with a number of specialist services (Table 12).

TABLE 12 EASTERN HEALTH SERVICES

Type	Service
Adult services	• Dual Diagnosis Service • Central East Mental Health Service o Inpatient Services - Upton House o Crisis Assessment and Treatment Team o Central East Mobile Support and Treatment Service o Continuing Care Team (Koonung, Doncaster and Waverley Continuing Care Teams) o Canterbury Road Community Care Unit o Linwood Prevention and Recovery Care • Outer East Mental Health Services o Inpatient Services - IPU1 & IPU2 Ringwood East o Crisis Assessment Treatment Team o Outer East Mobile Support and Treatment Service o Outer East Continuing Care Services (Murnong, Lilydale and Chandler House Continuing Care Teams) o Outer East Community Care Unit o Maroondah Prevention and Recovery Care o Secure Extended Care Unit Diversion Program
Families where a Parent has a Mental Illness	• Helping children better understand Mental Illness (CHAMPS)
Child and Youth Services	• Child & Youth Mental Health Service (CYMHS)
Aged Persons Services	• Aged Persons Mental Health Services (APMHS)
Consultation–Liaison Psychiatry	• Service available through Angliss, Box Hill and Maroondah Hospitals and the Peter James Centre
Eastern Mental Health Services Coordination Alliances	• Development of an intergrade multi sector service coordination framework
Spectrum	• Statewide service that supports and works with local mental health services to provide treatment for people with personality disorder
Turning Point	• Central Intake and Assessment • Addiction Medicine Clinical Liaison • Outpatient counselling, care coordination • Specialist programs like the Mobile Overdose Response Service, Aboriginal ICE Program, Pharmaco-therapy • Residential (Wellington House) and non-residential withdrawal programs

Monash Health

Monash Health is Victoria's largest public health service.

More than 16,000 staff work at over 40 locations across south eastern Melbourne, including Monash Medical Centre, Monash Children's Hospital, Moorabbin Hospital, Dandenong Hospital, Casey Hospital, Kingston Centre, Cranbourne Centre, and an extensive network of rehabilitation, aged care, community health and mental health facilities.

A range of mental health services are provided by Monash Health including both acute hospital services and community based mental health (Table 13).

TABLE 13 MONASH HEALTH SERVICES

Type	Service
Acute Mental Health Services	• Emergency psychiatric services o Psychiatric Triage Service o Crisis Assessment and Treatment Teams o Psychiatric Assessment and Recovery Care Service • Inpatient services o Acute psychiatric inpatient units o Mother and Baby Unit o Eating Disorders Unit
Child and Adolescent Services	• Community teams - also known as outpatient services • Adolescent recovery centre • Stepping Stones (also called the Adolescent Psychiatric Inpatient Unit) • Transition program • Intensive Mobile Youth Outreach Service • The Recovery and Relapse Prevention of Psychosis Service – (available to 16-25 year olds) • The Southern Dual Diagnosis Service
Mental Health Community Services	• Southern Community Team in East Hampton • Clayton Community Team in Clayton • Dandenong Community Team in Dandenong • Casey/Cardinia Community Team in Berwick • Recovery and Prevention of Psychosis Service operating across the whole catchment
Rehabilitation Services	• Doveton Community Care Unit at Doveton • Middle South Community Care Unit at East Bentleigh • Wirringa Secure Extended Care Unit at Dandenong • Community rehabilitation - Middle South and the Dandenong Mobile Support and Treatment Teams

Northern Health

Northern Health is the major provider of acute, sub-acute and ambulatory specialist services in Melbourne's north. Across their campuses they provide a range of primary, secondary and some tertiary health care services. A range of mental health services are also provided in the Northern Health District across the Northern Public Hospital and the Bundoora Extended Care Centre (Table 14).

North Western Mental Health (NWMH) is a clinical division of Melbourne Health and operates in partnership with Northern Health (Northern Hospital, Broadmeadows Health Service and Bundoora Extended Care) and Western Health (Sunshine, Williamstown and Western Hospitals).

NWMH provides mental health services to adults 16-64 years with mental health disorders and disability in the City of Darebin and City of Whittlesea through five programs located across 3 sites in Preston and Epping.

TABLE 14 NORTHERN HEALTH SERVICES

Type	Service
Adult Community Service	• Community Team North • Community Team Central • Community Team South
Clinical Residential Rehabilitation Services	• Northern Community Care Unit • Northern Prevention and Recovery Care Service (P.A.R.C.S)
Acute Mental Health Services	• Northern Acute Inpatient Service • Emergency Mental Health – PACER and Psychiatry Consultation Liaison

St Vincent's Hospital

St Vincent's is a tertiary public healthcare service providing a range of services, including acute medical and surgical services, emergency and critical care, aged care, diagnostics, rehabilitation, allied health, mental health, palliative care and residential care. A range of mental health services are also provided in the St Vincent's Hospital District across the St George's Health Service, Briar Terrace and the Auburn, Cambridge, Prague and Riverside Houses (Table 15).

TABLE 15 ST VINCENT'S SERVICES

Type	Service
Adult Mental Health Services	• Psychiatric Triage Service • Crisis Assessment and Treatment Teams • Acute Inpatient Service • Clarendon Homeless Outreach Psychiatric Service (CHOPS) • Mobile Support and Treatment Service (MSTS) • Footbridge Community Care Unit (CCU) • North Fitzroy Prevention & Recovery Care (PARC) • Continuing Care Team (CCT) o Clarendon Community Mental Health Centre (City of Yarra) o Hawthorn Community Mental Health Centre (City of Boroondara) • Primary Intervention and Care Team (MH PICT) & MH HARP • Prevention & Recovery Care (PARC)
Specialist Services	• BETRS - Body Image Eating Disorders Treatment and Recovery Service • NEXUS Dual Diagnosis Program • VDDS - Victorian Dual Disability Service • VTMH - Victorian Transcultural Mental Health

Alfred Health

Alfred Health is a leader in health care delivery, improvement, research and education and is the main provider of health services to people living in the inner southeast suburbs of Melbourne and a major provider of specialist services to the people of Victoria.

These services are provided across the continuum of care from ambulatory, to inpatient and home and community based services

A range of mental health services are also provided in the Alfred Health District across The Alfred, Caulfield and Sandringham Hospitals (Table 16).

TABLE 16 ALFRED HEALTH SERVICES

Type	Service
Adult Mental Health Services	• Waiora Clinic o Waiora Community Mental Health Services • Adult Community Residential Mental Health o Alma Rd Community Care Unit ARCC o Prevention and Recovery Care Unit PARC • The Alfred o Adult Inpatient Mental Health - The Alfred Psychiatric Units o Emergency Psychiatry o Psychiatric Intensive Care Service • St Kilda Road Clinic o Adult Community Mental Health o Homeless Outreach Psychiatric Service (HOPS) o Mobile Support and Treatment Team
Specialist Services	• BETRS - Body Image Eating Disorders Treatment and Recovery Service • NEXUS Dual Diagnosis Program • VDDS - Victorian Dual Disability Service • VTMH - Victorian Transcultural Mental Health

EMPHN Services

Data on services providing care for people with a lived experience of mental illness and/or alcohol and other drug issues across the EMPHN catchment was collected from 4 September 2017 to 15 December 2017 using interviews (face-to-face and telephone). Further data was collected in March and April 2018 following the release of the draft for comment version of the Integrated Atlas

It is important to note that even in the relatively short period since the time of data collection there may have been changes to the services outlined in this section. However, the data presented below represents a snapshot at a particular point in time serving as a reference point for further mental health and AOD service planning.

The Atlas follows a life course approach presenting service data grouped according to three age groups including children and adolescents, adults and older adults. Mental health and AOD services (including dual diagnosis) identified across the EMPHN catchment are subsequently presented according to the six main types of care (i.e. residential, day, outpatient, information, accessibility and self-help).

In addition, data is presented for the whole of the EMPHN catchment with services grouped according to the three tranches identified as part of the new stepped care arrangements for the region (Figure 31). These tranches roughly align to the previous Medicare Local boundaries and represent specific sub regions across the EMPHN catchment for future evaluation of the stepped care rollout.

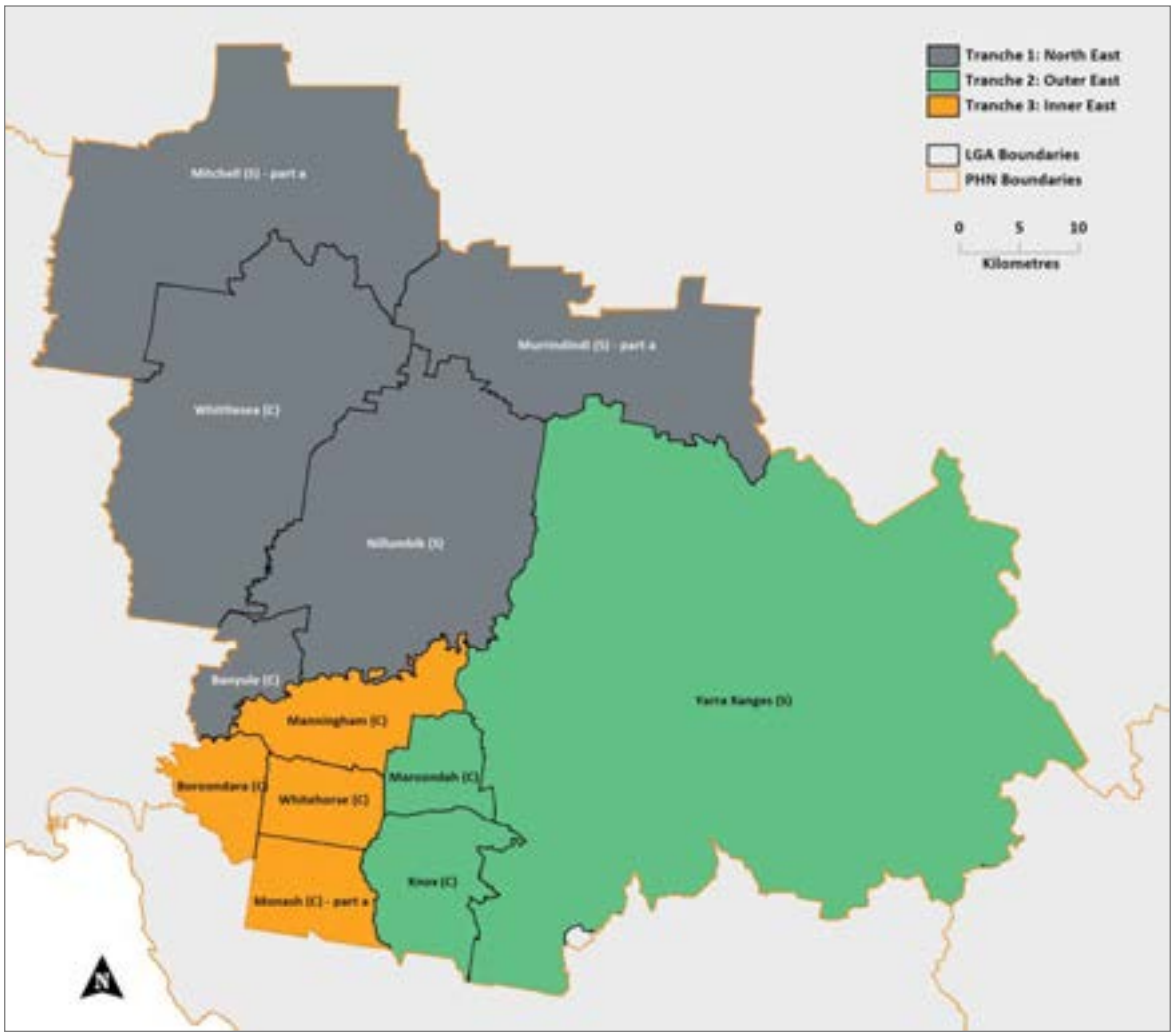


FIGURE 31 EMPHN REGION BY STEPPED CARE TRANCHES

From January 2018, the first tranche, which includes LGAs of Mitchell, Murrindindi, Whittlesea, Nillumbik and Banyule in the north east, will adopt the new stepped care model. The outer east LGAs and inner east LGAs will follow in July 2018 in the second and third tranches.

Stakeholders

Non-Government Organisations

Utilising information provided by EMPHN as well as leads provided through the course of data collection, a total of 28 NGOs were considered for inclusion in the Atlas with 86.2 per cent participating in the data collection process (30 interviews). In addition to the interviews, data was collected for one NGO based on information available from the organisation's website. Data for a total of 25 NGOs which deliver services eligible for inclusion under the DESDE methodology was available for analysis (Appendix C).

Local Hospital Networks

Across the EMPHN catchment, there were five main Local Hospital Networks (LHNs) identified delivering mental health and AOD services across a range of facilities and service streams (Table 17).

TABLE 17 LOCAL HEALTH NETWORKS IN EMPHN

LHN	Facilities	
Austin Health	Austin Hospital	Royal Talbot Rehabilitation Centre
	Heidelberg Repatriation Hospital	
Eastern Health	Angliss Hospital	Yarra Valley Health
	Box Hill Hospital	Peter James Centre
	Maroondah Hospital	Spectrum
	Healesville Hospital	Turning Point
	Wantirna Health	Yarra Ranges Health
Monash Health	Casey Hospital	Kingston Centre
	Cranbourne Integrated Care Centre	Monash Children's Hospital
	Dandenong Hospital	Moorabbin Hospital
Northern Health	Broadmeadows Health Service	Northern Public Hospital
	Craigeburn Health Service	Bundoora Extended Care
St Vincent's Hospital	St George's Health Service	Prague House
	Auburn House	Riverside House
	Cambridge House	Briar Terrace
	Auburn House	Riverside House
	Cambridge House	Briar Terrace

A total of eleven interviews were conducted with key staff in relation to mental health and AOD services across all LHNs apart from Monash Health (Appendix C). After the completion of the interviews, a number of data gaps remained in relation to some services, particularly those related to older adults and for a number of key specialist services including veterans and serving members. As with the missing NGO data, attempts were made to code these services based on information from publicly available sources including the respective LHNs' websites. However, due to the complex nature of these services a number of services from the LHNs in EMPHN were unable to be coded and included in the analysis.

Consortia and Partnerships

Across the EMPHN region, there exists several formal and informal partnership arrangements, primarily in the AOD NGO sector, delivering care to the community primarily in the form of consortia. These consortia are often complex and involve organisations contributing specific EFT quotas to individual programs or a group of programs, or taking a lead agency role within the consortia. The consortia are not always clear in composition and online documentation was often outdated or inaccurate. Below is a brief explanation of each consortium within the region utilising information obtained via both interviews as well as publicly available documentation.

Informal and formal partnerships have also been formed within the region and it is recognised that these may not be comprehensively captured below. Throughout the Atlas, the consortium arrangements will be referred to as per those detailed below whilst listing each organisation by name in the provider details will identify partnerships.

Mental Health

Inner East Melbourne PIR

Eastern Melbourne PHN is the lead agency for the Inner East Melbourne PIR and works in partnership with Wellways and NEAMI National to provide services to the LGAs of Boroondara, Manningham, Monash and Whitehorse.

Outer East Melbourne PIR

Eastern Melbourne PHN is the lead agency for the Outer East Melbourne PIR and works in partnership with NEAMI National and Mind Australia to provide services to LGAs of Knox, Maroondah and Yarra Ranges.

Northern Melbourne PIR

Eastern Melbourne PHN is the lead agency for the Northern Melbourne PIR and works in partnership with Mind Australia, NEAMI National and the Victorian Aboriginal Health Service (VAHS). Whilst VAHS primarily services Aboriginal and Torres Strait Islander consumers in the northern corridor LGAs of Whittlesea, Nillumbik and Banyule, they also provide PIR to consumers within the Inner Melbourne and Outer East Melbourne PIR catchments.

AOD

SURe

The Substance Use Recovery (SURe) consortium was established in May 2015 and is funded by the Department of Health and Human Services. The consortium partners include EACH, Anglicare Victoria and the Youth Support and Advocacy Service (YSAS). There are four key services provided by SURe including:

- centralised intake and assessment
- counselling
- care recovery, and
- non-residential withdrawal.

These services are provided in both the inner east (Boroondara, Manningham, Monash and Whitehorse LGAs) and the outer east (Maroondah, Knox, Yarra Ranges LGAs) with the exception of the Centralised Intake and Assessment, which is provided only in the Outer East.

ECADS

The Eastern Consortium of Alcohol and Drug Services (ECADS) is a partnership between lead agency Turning Point Alcohol and Drug Centre, Access Health and Community, Link Health and Community, Inspiro, the Self-Help Addiction Resource Centre (SHARC) and SalvoCare East. ECADS primarily operates within the inner east LGAs of Boroondara, Manningham, Whitehorse and Monash.

EDAS

The Eastern Drug and Alcohol Service (EDAS) is a consortium of three providers including EACH Social and Community Health, Link Health and Community and Access Health and Community. The consortium operates across both the inner and outer east LGAs of EMPHN, in addition Access Health and Community services the Yarra LGA.

Odyssey/ReGen

Odyssey House and Uniting Care ReGen have formed a partnership arrangement to deliver services across Melbourne's north and west regions and offer services within the EMPHN catchment LGAs of Whittlesea, Nillumbik and Banyule (north Melbourne metropolitan region). For each service, there is one lead agency (either ReGen or Odyssey) that is responsible for the management of our services in that area and co-ordination of all other services.

Each lead agency is listed as the provider for their respective services in the data analysis.

Connect4Health

Connect4Health is a consortium that was established in 2014 between Link Health and Community, Carrington Health and Access Health and Community to deliver a more coordinated approach to service delivery in the LGAs of Boroondara, Whitehorse, Manningham and Monash. A key project underlying this consortium is the information website "The First Stop" directed towards friends, family members and carers of someone affected by drugs and/or alcohol use. The website is funded in part by the Victorian Government Ice Action Project.

BSIC and MTC

A total of 223 Basic Stable Inputs of Care (BSIC) or service delivery teams were identified that deliver mental health and/or AOD care in the EMPHN region (Figure 32); the majority (87.5 per cent) of which deliver only one Main Type of Care (MTC), with 253 MTC identified across 51 different DESDE code types.

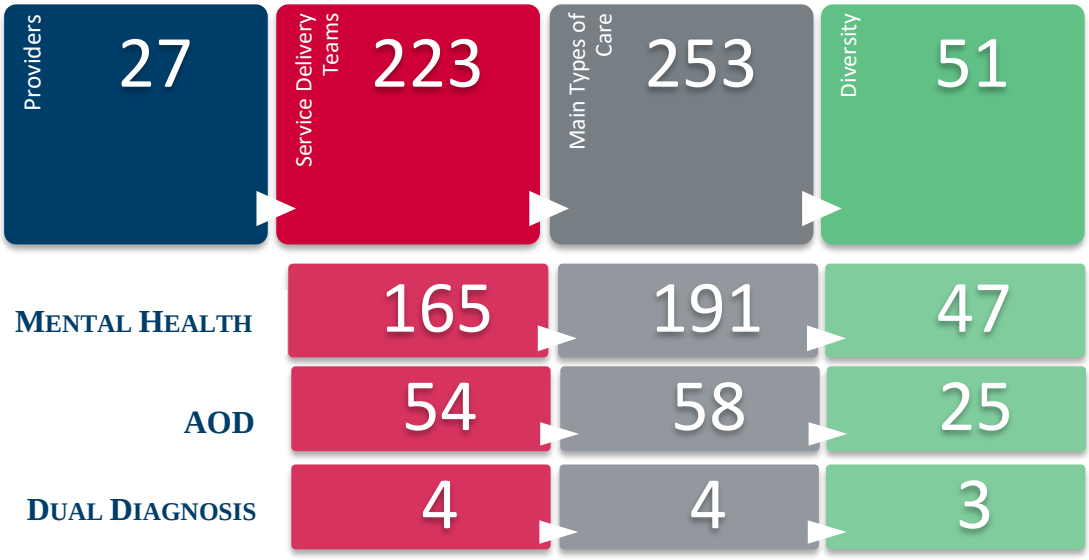
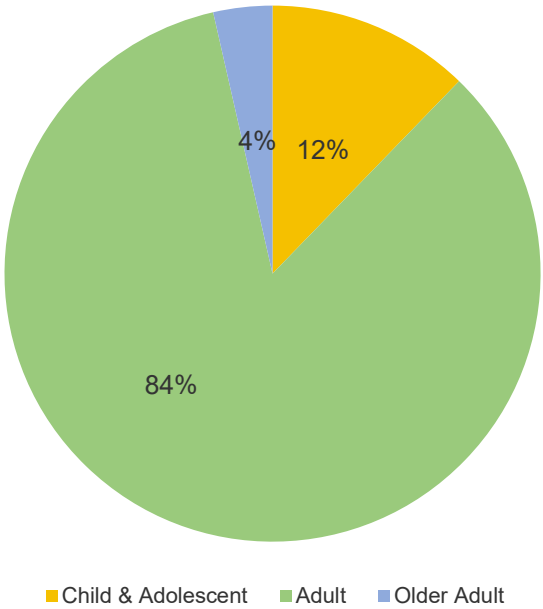


FIGURE 32 SUMMARY OF SERVICES PROVIDING MENTAL HEALTH AND/OR AOD IN EMPHN

The majority of service delivery teams in the EMPHN catchment were associated with mental health services (n=165) which delivered 191 MTC across 17 different providers and seven consortia in the region. Just under a third as many teams were identified for delivering AOD services (n=54) resulting in 58 MTC identified in the catchment amongst 17 different providers and eight consortia. There were a small number of teams (n=4) who identified as dual diagnosis teams each delivering one MTC across three different providers within the catchment.

Of the 253 activities identified across the region, the majority (84 per cent) were for the adult[1] (or general population) with the remainder of services specifically targeted for children and adolescents[2] (12 per cent) or for older adults[3] (4 per cent) (Figure 33).



For the identified mental health services, 80 per cent were for adults with 15 per cent targeted towards children and adolescents and 5 per cent for older adults. Of the AOD services identified, almost all services

[1] Includes: **CY** Adolescents and young adults (12-25 years); **TA** Period from adolescent to adult (16-25 years); **AY** Young adults (18-25 years); **AX** Adults (18-65 years); **AO** Older adults (50-65 years) and **GX** All age groups.
[2] Includes: TO Period from adult to old (55-70 years) and OX Older than 65 years.
[3] Includes: CC Only children (0-11 years); TC Period from child to adolescent (8-13 years); CA Only adolescent (12-17 years) and CX Children and adolescents (0-17 years).

FIGURE 33 EMPHN MTC BY TARGET AGE GROUPS

were for adults (97 per cent) with the remainder of services for children and adolescents (3 per cent). For the four dual diagnosis services identified, all were identified for the adult (or general) population.

A number of adult services within the EMPHN region (11 per cent, n=26) have a specific focus on providing care for the period between adolescence and adulthood (12 to 25 years). In addition, further analysis reveals that an additional 32 of the adult services identified are targeted toward specific population groups including:

- gender specific services (n=9)
- services for indigenous people (n=7)
- service supporting families and carers (n=15)
- bilingual services for people from CALD backgrounds (n=1).

In the EMPHN region, one of the child and adolescent services identified is specifically targeted towards Koori children.

The majority of service teams in EMPHN are delivering either outpatient care (52 per cent) or residential care (18 per cent) with the remainder of teams responsible for the delivery of accessibility (15 per cent), information (11 per cent), day care (3 per cent) or self-help services (1 per cent) (Figure 34).

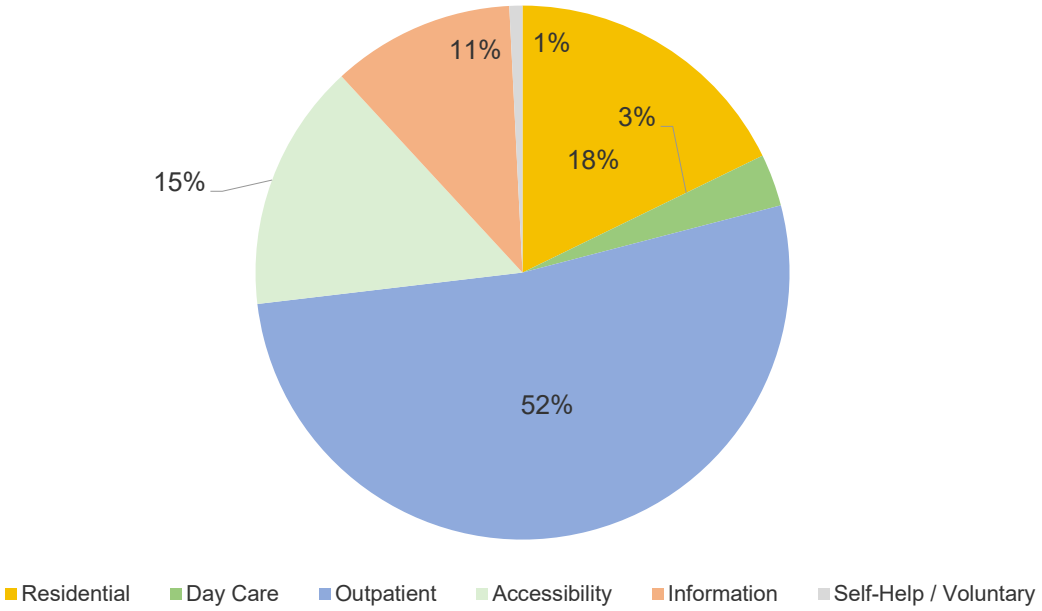


FIGURE 34 COMPARISON OF MENTAL HEALTH AND/OR AOD MTC BY SERVICE TYPE

The service types are similar for mental health and AOD with both areas delivering the majority of services as Outpatient types of care (Figure 35). However, unlike AOD, no mental health services were identified in the EMPHN catchment delivering self-help or voluntary care. Dual diagnosis services identified were either day (25 per cent), outpatient (50 per cent) or information services (25 per cent) only.

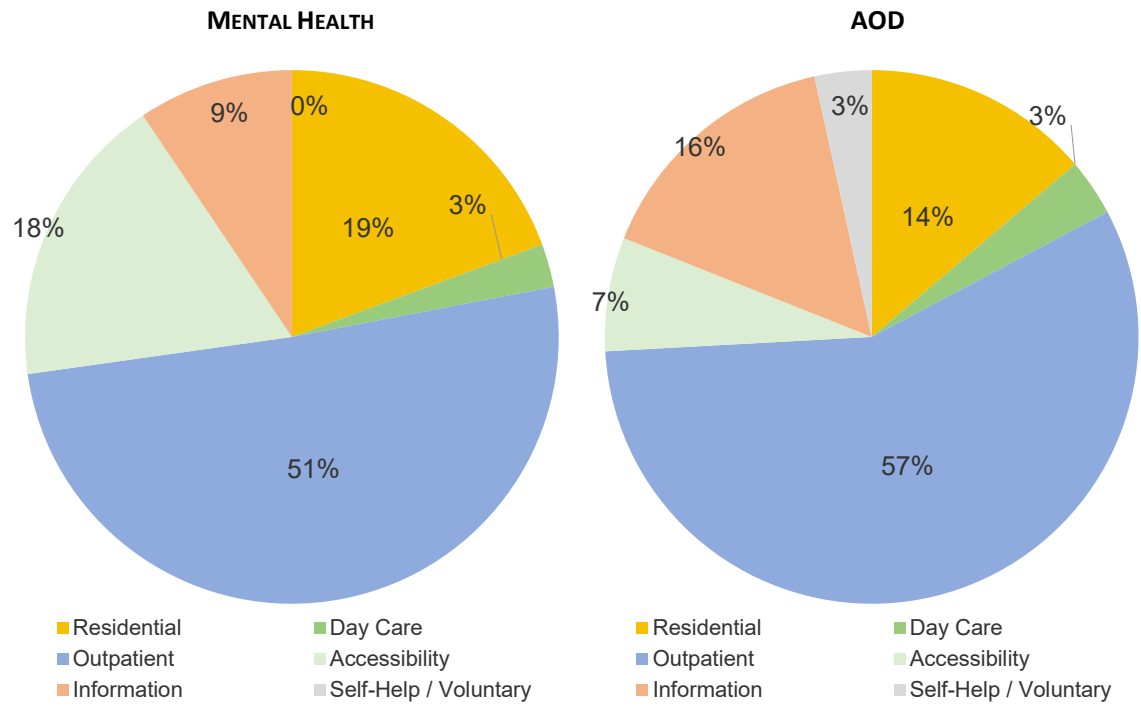


FIGURE 35 COMPARISON OF MTC BY SERVICE TYPE BY DIAGNOSIS GROUP

Within the EMPHN region, the health sector provides the smaller proportion of mental health and AOD services (44.6 per cent, n=113) with the majority of services provided by others such as NGOs (55.4 per cent, n=140). However, the public health sector provides almost all the services for older adults (78 per cent) and over 90 per cent of those provided for the child and adolescent population (Table 18). Of the eight day care MTC identified, six were provided exclusively by NGOs. Overall, the largest number of MTC (n=132) were identified as outpatient services provided by NGOs (n=71) and the public sector (n=61), with the vast majority of these for the adult (or general) population (81.8 per cent).

TABLE 18 TOTAL MTC IN EMPHN REGION BY AGE GROUP AND SECTOR

Population	Sector	R	D	O	A	I	S	TOTAL
Child & Adolescent	*Health*	*4*	*1*	*18*	*3*	*2*	*0*	*28*
	NGO/Other	*0*	*0*	*3*	*0*	*0*	*0*	*3*
	Sub-total	***4***	***1***	***21***	***3***	***2***	***0***	***31***
Adult	*Health*	*22*	*1*	*41*	*3*	*11*	*0*	*78*
	NGO/Other	*16*	*6*	*67*	*30*	*14*	*2*	*135*
	Sub-total	***38***	***7***	***108***	***33***	***25***	***2***	***213***
Older Adult	*Health*	*3*	*0*	*2*	*1*	*1*	*0*	*7*
	NGO/Other	*0*	*0*	*1*	*1*	*0*	*0*	*2*
	Sub-total	***3***	***0***	***3***	***2***	***1***	***0***	***9***
TOTAL		**45**	**8**	**132**	**38**	**28**	**2**	**253**

Of the 191 mental health services identified within the EMPHN region, a little over half of the services were provided by the health sector (56 per cent, n=107) with the remainder provided by others such as NGOs (44 per cent, n=84). The public health sector was responsible for the vast majority of services for the older adult population and the majority of services for the child and adolescent population (Table 19). Over half

of all mental health MTC identified were Outpatient services (50.8 per cent, n=97) which were mostly for the adult (or general population) provided almost equally by NGOs (n=36) and the public sector (n=39).

TABLE 19 MENTAL HEALTH MTC IN EMPHN REGION BY AGE GROUP AND SECTOR

Population	Sector	R	D	O	A	I	S	TOTAL
Child & Adolescent	*Health*	*4*	*1*	*18*	*3*	*2*	*0*	*28*
	NGO/Other	*0*	*0*	*1*	*0*	*0*	*0*	*1*
	Sub-total	***4***	***1***	***19***	***3***	***2***	***0***	***29***
Adult	*Health*	*21*	*1*	*39*	*3*	*8*	*0*	*72*
	NGO/Other	*9*	*3*	*36*	*26*	*7*	*0*	*81*
	Sub-total	***30***	***4***	***75***	***29***	***15***	***0***	***153***
Older Adult	*Health*	*3*	*0*	*2*	*1*	*1*	*0*	*7*
	NGO/Other	*0*	*0*	*1*	*1*	*0*	*0*	*2*
	Sub-total	***3***	***0***	***3***	***2***	***1***	***0***	***9***
TOTAL		**37**	**5**	**97**	**34**	**18**	**0**	**191**

The 58 AOD services identified within the EMPHN region are provided almost exclusively by the NGO sector (91.3 per cent, n=53) with only five services identified in the public health sector (Table 20). No AOD services were identified for the older adult population and the public health sector only had services identified for the adult (or general) population. A little over half of all AOD MTC identified were outpatient services (56.9 per cent, n=33) which were primarily for the adult population with almost all of these services identified as being provided by the NGO sector (n=29).

NGOs were the only sector identified as providing day care, accessibility or self-help services for AOD within the EMPHN region.

TABLE 20 AOD MTC IN EMPHN REGION BY AGE GROUP AND SECTOR

Population	Sector	R	D	O	A	I	S	TOTAL
Child & Adolescent	*Health*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	NGO/Other	*0*	*0*	*2*	*0*	*0*	*0*	*2*
	Sub-total	***0***	***0***	***2***	***0***	***0***	***0***	***2***
Adult	*Health*	*1*	*0*	*2*	*0*	*2*	*0*	*5*
	NGO/Other	*7*	*2*	*29*	*4*	*7*	*2*	*51*
	Sub-total	***8***	***2***	***31***	***4***	***9***	***2***	***56***
Older Adult	*Health*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	NGO/Other	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Sub-total	***0***	***0***	***0***	***0***	***0***	***0***	***0***
TOTAL		**8**	**2**	**33**	**4**	**9**	**2**	**58**

Three of the four dual diagnosis services identified in the EMPHN region were provided by the NGO sector (75.0 per cent) with the only service identified in the public health sector and information MTC for the adult (or general) population (Table 21). Half of the dual diagnosis service were outpatient services (50.0 per cent, n=2) for the adult (or general) population, both provided by the NGO sector. The remaining dual diagnosis service identified was a day care service, again provided by the NGO sector for the adult (or general) population.

TABLE 21 DUAL DIAGNOSIS MTC IN EMPHN REGION BY AGE GROUP AND SECTOR

Population	Sector	R	D	O	A	I	S	TOTAL
Child & Adolescent	*Health*	0	0	0	0	0	0	0
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Adult	*Health*	0	0	0	0	1	0	1
	NGO/Other	0	1	2	0	0	0	3
	Sub-total	**0**	**1**	**2**	**0**	**1**	**0**	**4**
Older Adult	*Health*	0	0	0	0	0	0	0
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL		**0**	**1**	**2**	**0**	**1**	**0**	**4**

Important Note – Primary and Secondary MTC

Tables 18 to 21 above outline the total counts for the MTC identified in the EMPHN region. However, in reading the following sections, which analyse the provision of each care type in detail, it is important to understand how these numbers have been tabulated.

As mentioned previously, the majority of teams in the EMPHN catchment deliver one type of care, whether it be residential, outpatient or any of the other four categories of care outlined in the DESDE classification. There are, however, a small number of teams that deliver services across more than one type of care, e.g. one team may be delivering both a residential type of care as well as an outpatient type of care.

In these instances, the team is listed only **once** in the section that represents the primary (or first) MTC that has been identified for the team, e.g. residential care. Any additional types of care delivered by this team are also listed in the same table. In this example, two codes would be listed with the second being an outpatient care code.

The residential care code is counted against residential MTC total, the outpatient care code counted in the outpatient MTC total meaning that the total number of MTC reported against a type of care may not add up to the total MTC presented in the corresponding table. However, the narrative associated with the table will direct readers to the other MTC recorded in other relevant tables.

Main Types of Care by Age Group

The following section outlines each of the services identified within the EMPHN catchment according to four main age groups including:

- children and adolescents
- transition to adulthood
- adults
- older adults.

Services included in this Atlas were asked to nominate the most appropriate target age group for each MTC recorded based on a range of defined categories contained within the DESDE tool (Table 22).

TABLE 22 RELATIONSHIP BETWEEN AGE GROUPS AND ASSOCIATED DESDE CATEGORIES

Age Group	DESDE Target Age Group Categories
Children and Adolescents	CC [Only children 0-11 years] TC [Period from child to adolescent 8-13 years] CA [Only adolescent 12-17 years] CX [Children and adolescents 0-17 years]
Transition to Adulthood	CY [Adolescents and young adults 12-25 years] TA [Period from adolescent to adult 16-25 years]

Adults	AY [Young adults 18-25 years] AX [Adults 18-65 years] AO [Older adults 50-65 years] GX [All age groups]
Older Adults	TO [Period from adult to old 55-70 years] OX [Older than 65 years]

For each of the age groups, services are groups according to the six main care types utilised in the DESDE-LTC methodology which are defined as follows:

Residential care

Care provision with overnight beds for patients for a purpose related to the clinical and social management of their care needs.

Day care

Care provision which is not simply based on individuals coming for appointments with staff then leaving immediately after their appointment but rather expects consumers to stay beyond the periods of face-to-face contact. This type of care is usually group based, provides some combination of treatment e.g. structured activities, social support and has regular opening hours.

Outpatient care

Care provision which typically involves contact between staff and consumers for some purpose related to the management of their condition and its associated clinical and social difficulties and are not provided as part of residential and day services.

Accessibility service

A service with the main aim of providing accessibility aid to users.

Information and guidance

A service with the main aim of providing information and assessment to users. The care does not entail a subsequent monitoring/follow-up of the user.

Self-help and voluntary support

A service with the main aim of providing users with self-help or contact, with unpaid staff that offers accessibility, information, day, outpatient and residential care.

NB: In some instances, the common name or acronym for a service has been listed in the service description tables, the full name for these services can be found in the 'Abbreviations' table at the front of this report.

Children and adolescent

A total of 31 MTC were identified as providing services for the child and adolescent population in the EMPHN catchment (Figure 36). The majority of these services were mental health related outpatient care types primarily delivered by the public health sector, particularly Eastern Health and Austin Health. Services identified are distributed across the three tranches for stepped care contracting, primarily clustered within the LGAs of Banyule, Manningham, Whitehorse and Maroondah.

Residential care

Two teams within Eastern Health were identified as providing residential care to children and adolescents in the EMPHN region (Table 23). The Inpatient Unit at Box Hill Hospital, provides state-wide acute inpatient care for young people aged 12 to 17 years who may need more intensive assessment and treatment. The unit can arrange a stay for as little as one day up to several weeks or more. The Eating Disorder Service is a dual function service providing a small number of residential beds for young people aged 0 to 25 years as well as providing a weekly assessment clinic. The service works closely with the Paediatric Unit at Box Hill and provides treatment plans for community teams to deliver.

Mental health

TABLE 23 RESIDENTIAL CARE FOR CHILDREN AND ADOLESCENTS, EMPHN REGION, MH

Tranche	Provider	Team	DESDE (beds)	Area	Acute
3	***Eastern Health***	Inpatient Unit - Box Hill	CA[F00-F99] - R2 (12)	Statewide	✓
		Eating Disorder Service	CA[F50.9] - R3 (4) CA[F50.9] - I1.1	ns	✓

AOD

There were no residential AOD services for children or adolescents identified within the EMPHN region.

Day care

Based in Ringwood, the Groupworx Program was the only day care service identified for children and adolescents within the EMPHN catchment (Table 24). The program provides an opportunity for young people to attend a program several days a week with a group of peers in order to develop coping skills and a sense of social responsibility. The program is staffed by both mental health professionals and teachers to offer young people both a therapeutic and an educational focus during the program. Young people accepted into the Groupworx Program must also be actively engaged with one of the Eastern Health community teams.

Mental health

TABLE 24 DAY CARE FOR CHILDREN AND ADOLESCENTS, EMPHN REGION, MH

Tranche	Provider	Team	DESDE	Area	Acute
2	***Eastern Health***	Groupworx	CA[F00-F99] – D4	ns	×

AOD

There were no day care AOD services for children or adolescents identified within the EMPHN region.

Outpatient care

A total of 21 outpatient care MTC were identified in the EMPHN catchment providing mental health and AOD services for children and adolescents. The majority of these services were for mental health related issues.

The majority of outpatient services for children and adolescents were provided by the public health sector (85.7%, n=18).

Mental health

Almost all mental health services identified for children and adolescents in the EMPHN catchment are provided by Austin Health and Eastern Health (**Error! Reference source not found.**). The only other mental health service not provided by the public health sector is the Koori Kids Unit provided by VAHS and LYFT provided by Anglicare Victoria.

TABLE 25 OUTPATIENT CARE FOR CHILDREN AND ADOLESCENTS, EMPHN REGION, MH

Tranche	Provider	Team	DESDE	Area	Acute	Mobile
1	***Austin Health***	Youth Early Psychosis Service (YEPS)	CY[F00-F99] - O4.1	Austin Service Area	✓	×
2	***Austin Health***	Adolescent Intensive Management (AIM)	CA[F00-F99] - O5.1.1	Austin Service Area	×	✓
		CAMHS and Schools early action CASEA	CC[F00-F99] - O7.1	Austin Service Area	×	✓
		YETI Team	CY[F00-F99] - O6.1 ()	Austin Service Area	×	✓

		Community Outpatient Team - Inner North East (INECOT)	CX[F00-F99] - O9.1	Inner North East	×	×
		Community Outpatient Team - Northern (NCOT)	CX[F00-F99] - O9.1	Whittlesea, Darebin, Banyule, Nillumbik, Yarra & Boroondara	×	×
	VAHS	Koori Kids Unit	CXIN[F00-F99] - O9.1	Northern corridor	×	×
	Anglicare Victoria	LYFT	CX[F10-F19] - O5.2.1	Inner and Outer East	×	✓
		Community Clinic - Ringwood	CX[F00-F99] - O9.1	ns	×	×
	Eastern Health	Community Clinic - Ferntree Gully	CX[F00-F99] - O9.1	ns	×	×
		Community Clinic - Lilydale	CX[F00-F99] - O9.1	ns	×	×
		IMTT	CA[F00-F99] - O5.1a	Inner & Outer East ex. Boorondara	×	✓
3	***YSAS***	ReConnect	CA[F10-F19][Z59] - O6.2	All LGAs except Yarra Ranges	×	✓
		Community Clinic - Box Hill	CX[F00-F99] - O9.1	ns	×	×
		Early Psychosis Team - Box Hill	CX[F00-F99] - O8.1a	Eastern Health	×	×
		Specialist Child Team	CC[F00-F99] - O5.1a	Eastern Health	×	✓
	Eastern Health	Deakin University Psychology Clinic	CA[F00-F99] - O9.1 CA[F00-F99] - O10.1g	Eastern Health	✓	✓
		YETTI	CA[F00-F99] - O6.1v	All LGAs	×	✓

AOD

Two AOD related services were identified for children and adolescents within the EMPHN catchment, both provided by the NGO sector (Table 26). The LYFT program provided by Anglicare Victoria caters for young people up to the age of 21 and is a youth counselling service for young people with substance use issues. ReConnect, provided by YSAS, is a family focused program for 12-18 year olds which is targeted at preventing homelessness as well as disconnection from school and family due to AOD issues.

TABLE 26 OUTPATIENT CARE FOR CHILDREN AND ADOLESCENTS, EMPHN REGION, AOD

Tranche	Provider	Team	DESDE	Area	Acute	Mobile
2	***Anglicare Victoria***	LYFT	CX[F10-F19] - O5.2.1	Inner and Outer East	×	✓
3	***YSAS***	ReConnect	CA[F10-F19][Z59] - O6.2	EMPHN*	×	✓

* except Yarra Ranges LGA

Accessibility services

Four services were identified in the EMPHN catchment as providing accessibility related services for children and adolescents. All were provided by the public sector in relation to mental health.

Mental health

The Access Team provided by Eastern Health operates during business hours to provide additional support in relation to secondary consultation for agencies including intake and assessment (Table 27).

TABLE 27 ACCESSIBILITY SERVICES FOR CHILDREN AND ADOLESCENTS, EMPHN REGION, MH

Tranche	Provider	Team	DESDE	Area
1	***Austin Health***	Youth Brief Intervention Service (YBIS)	CY[F00-F99] - A4.2	Austin Service Area
	Austin Health	ASD Assessment Program (ASDAP)	CC[F84.0] - A0 ()	Austin Service Area
	Austin Health	Consultation Liaison Service - CAMHS	CX[F00-F99] - O4.1l	Austin Service Area
2	***Eastern Health***	Access Team	CA[F00-F99] - A4.2	ns

AOD

There were no accessibility related AOD services for children or adolescents identified within the EMPHN region.

Information and guidance

Two services were identified in the EMPHN catchment as providing information and guidance related services for children and adolescents, both for mental health related issues.

Mental Health

Based in Box Hill, the Autism and Neurodevelopment Team is a paediatrician led service specifically designed as an assessment service for complex diagnoses related to autism in children aged up to 12 years (Table 28). The second information and guidance related service is the secondary MTC identified for the Eating Disorder Service, also provided by Eastern Health (Table 23).

TABLE 28 INFORMATION AND GUIDANCE SERVICES FOR CHILDREN & ADOLESCENTS, EMPHN REGION, MH

Tranche	Provider	Team	DESDE	Area
3	***Eastern Health***	Autism and Neurodevelopment Team	CC[F84.0] - I1.1	ns

AOD

There were no AOD Information and Guidance services for children or adolescents identified within the EMPHN region.

Self-help and voluntary support

There were no self-help or voluntary support services for either mental health or AOD identified for children or adolescents within the EMPHN region.

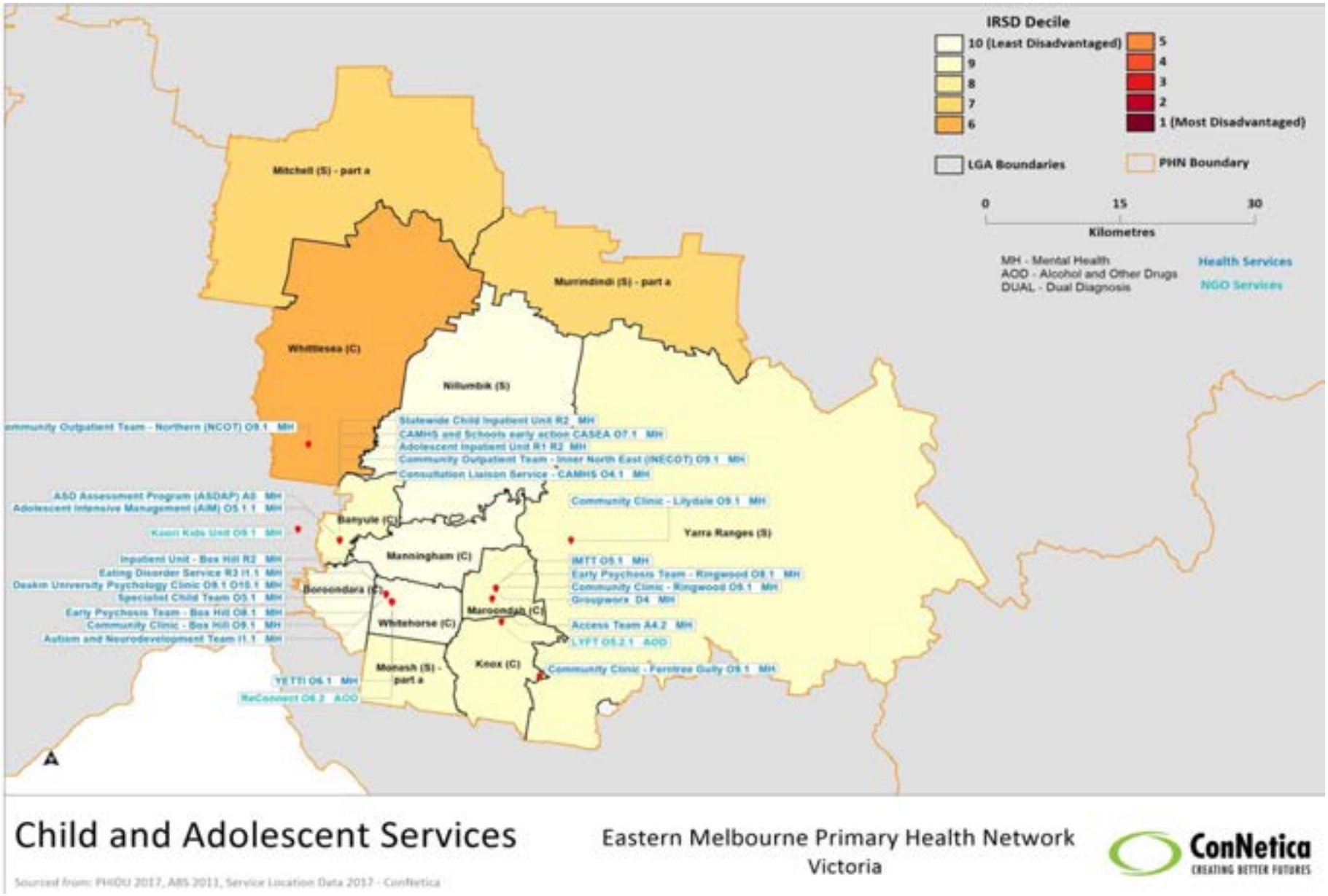


FIGURE 36 CHILD AND ADOLESCENT SERVICES IN EMPHN

Transition to adulthood

A total of 33 MTC were identified as providing services for the period of transition to adulthood in the EMPHN catchment (Figure 37). More than a third of these services were outpatient types of care, primarily delivered by the NGO sector. There were also more services located in the tranche three region.

Residential care

Seven teams within the EMPHN catchment were identified as providing residential care specifically for the transition to adulthood period, three for mental health and the remainder for AOD related issues. All identified residential care services for this age group were provided by the NGO sector with no services identified within tranche two region.

Mental health

The Youth Residential Rehabilitation Service, provided by Neami National, is a therapeutic recovery program run within a residential setting for young people aged 16 to 25 years. Individuals are able to reside on-site while undertaking this program for up to 12 months (Table 29).

TABLE 29 RESIDENTIAL CARE FOR THE TRANSITION TO ADULTHOOD , EMPHN REGION, MH

Tranche	Provider	Team	DESDE (beds)	Area	Acute
1	***Each***	Integrated Therapeutic Community - Box Hill	TA[F00-F99] - R8.2 (8)	Knox, Yarra Ranges, Maroondah	×
1	***Each***	Integrated Therapeutic Community - Wantirna	TA[F00-F99] - R8.2 (8)	Knox, Yarra Ranges, Maroondah	×
3	***Neami National***	Youth Residential Rehabilitation	TA[F00-F99] - R9.2	Inner East	×

AOD

Within the EMPHN catchment, three state-wide AOD related residential care services for the period of transition to adulthood were identified (Table 30). An additional service was identified for the Yarra region.

TABLE 30 RESIDENTIAL CARE FOR THE TRANSITION TO ADULTHOOD, EMPHN REGION, AOD

Tranche	Provider	Team	DESDE (beds)	Area	Acute
1	***Uniting Care ReGen***	Williams House Residential Rehabilitation	CY[F10-F19] - R8.1 (4)	Statewide	×
		Birribi Residential Rehabilitation	TA[F10-F19] - R9.2 (15)	Statewide	×
3	***YSAS***	Glen Iris Residential Withdrawal	CY[F10-F19] - R8.1 (5)	Statewide	×
		Fitzroy Residential Withdrawal	CY[F10-F19] - R8.1 (8)	Yarra	×

Day care

Two day care services for the period of transition to adulthood were identified in the EMPHN catchment, both provided by the NGO, YSAS.

Mental health

There were no mental health day care services identified for the period of transition to adulthood within the EMPHN region.

AOD

Within the sub-region for tranche three, YSAS was identified as providing two day care programs specifically targeting AOD issues for those transitioning to adulthood (Table 31). SHERPA is a group-based day program offering a range of activities for up to 30 or 40 young people at a time. Activities vary and range from health and nutrition activities through to education and employment training with the intensity of attendance ranging from once per fortnight through to daily attendance.

TABLE 31 DAY CARE FOR THE TRANSITION TO ADULTHOOD, EMPHN REGION, AOD

Tranche	Provider	Team	DESDE	Area	Acute
3	***YSAS***	SHERPA	CY[F10-F19] - D4.3g	EMPHN	×
		Abbotsford Day Program	CY[F10-F19] - D4.1 CY[F10-F19] - A5	Yarra	×

Outpatient care

A total of twelve teams (12 MTC) providing outpatient care for the period of transition to adulthood were identified in the EMPHN region. All are NGO teams providing non-acute care, with half of the services for mental health and the remaining for AOD related issues.

Mental health

The majority of mental health related services identified in this age group are headspace services provided by the NGO sector (Table 32). Other services identified include the Yflex service provided by Neami National which provides young people across the Whittlesea catchment with secure and responsive access to specialised, youth-friendly services, delivered by experienced workers who are aware of the developmental needs of adolescents and young adults. In addition, EACH provides a Youth Yarra Ranges project, funded by EMPHN, which works collaboratively with schools to provide counselling for 12-21 year olds identified by school-based Health and Wellbeing Coordinators.

TABLE 32 OUTPATIENT CARE FOR THE TRANSITION TO ADULTHOOD, EMPHN REGION, MH

Tranche	Provider	Team	DESDE	Area	Acute	Mobile
1	***Mind Australia***	headspace – Greensborough*	CY[F00-F99] - O9.1	ns	×	×
	Neami National	Yflex	CY[F00-F99] - O6.1	Whittlesea†	×	✓
	NAMHS	YEP	AY[F00-F99] - O9.1	Whittlesea	×	×
2	***EACH***	headspace - Knox*	CY[F00-F99] - O9.1	ns	×	×
		Youth Yarra Ranges Project	CY[F00-F99] - O7.2	ns	×	✓
3	***AccessHC***	headspace - Hawthorn	CY[F00-F99] - O9.1	Inner East	×	×

* not interviewed; † Southern part of Murrundindi, Mitchell

AOD

The majority of AOD related services for the period of transition to adulthood identified in the EMPHN region are provided by YSAS (Table 33). The majority of AOD services are highly mobile teams with one forensic team identified.

TABLE 33 OUTPATIENT CARE FOR THE TRANSITION TO ADULTHOOD, EMPHN REGION, AOD

Tranche	Provider	Team	DESDE	Area	Acute	Mobile
1	***Nexus***	Youth Outreach	CY[F10-F19] - O6.2	North Melbourne*	×	✓

2	***SURe***	YSAS - Non-Residential Withdrawal	CY[F10-F19] - O6.2v	Inner and Outer East	×	✓
3	***YSAS***	Outreach Team	CY[F10-F19] - O5.2.1w	EMPHN	×	✓
		Forensic Team	CY[F10-F19] - O6.2j	ns	×	✓
		Alcohol and Drug Youth Consultant	CY[F10-F19] - O6.2j	EMPHN	×	✓
3	***ECADS***	Access HC AOD Team	CY[F10-F19] - O8.2 ()	Inner East	×	×

* from north of Melbourne city to the border

Accessibility services

Six accessibility services were identified as providing care for the period of transition to adulthood in the EMPHN catchment. All but one provided support for all age groups and only the Young Carer Program provided by Uniting Life Assist was specifically for young people.

Mental health

The Young Carer Program provided by Uniting Life Assist aims to sustain young carers in school by providing assistance with either material aid, including the supply of textbooks, tutoring or in-home respite or social support, including respite for peer activities such as camps (Table 34).

TABLE 34 ACCESSIBILITY SERVICES FOR THE TRANSITION TO ADULTHOOD, EMPHN REGION, MH

Tranche	Provider	Team	DESDE	Area
1	***Merri Health***	CarersLink North	GXC[F00-F99] - A4.2.3	Banyule, Nilumbik, Whittlesea
2	***Eastern Health/EACH***	COPES	GXC[F00-F99] - A5h	Maroondah Hospital IPU 1 & 2,
3	***Eastern Health/Mind Australia***	COPES	GXC[F00-F99] - A5	Eastern Health
3	***Uniting Life Assist***	Young Carer Program	CYC[F00-F99] - A5v	Eastern Region

AOD

The two AOD related accessibility services identified within the EMPHN region are the Ice Team provided by VAHS in Preston and as part of the Abbotsford Day Program offered by YSAS (Table 31).

Information and guidance

Six teams providing information and guidance were identified for the period of transition to adulthood in the EMPHN region with all services, with one exception, provided by the NGO sector.

Mental health

There were two mental health information and guidance related services identified for the transition to adulthood within the EMPHN region. Both were provided by Merri Health through the CarersLink North service in Banyule, Nilumbik and Whittlesea LGAs (tranche one).

AOD and dual diagnosis

Across the EMPHN region, YSAS was identified as providing an information based service providing a Home Based Withdrawal Nurse for young people who wish to undergo alcohol and/or other drug withdrawal while remaining in the community (either at home with family/friends or at other safe accommodation). In addition, YSAS provided a nationwide information service based in Fitzroy (Table 35).

TABLE 35 INFORMATION & GUIDANCE SERVICES FOR THE TRANSITION TO ADULTHOOD, EMPHN REGION, AOD - DUAL DX

Tranche	Provider	Team	DESDE	Area
3	***Eastern Health***	Eastern Dual Dx Service	GX[F10-F19][F00-F99] - I2.1 ()	Eastern metro region
3	***YSAS***	YoDAA	GX[F10-F19] - I1.1e	Australia Wide
3	***AccessHC***	The First Stop	CY[F10-F19] - I2.2	Statewide
3	***YSAS***	Home Based Withdrawal Nurse	CY[F10-F19] - I1.1	EMPHN

Self-help and voluntary support

There were no specific self-help or voluntary support services for either mental health or AOD identified for the period of transition to adulthood within the EMPHN region. However, both the Stepping Stones and Family Support Meetings provided by Family Drug Support were open to all age groups, but generally not attended by persons under 25 years.

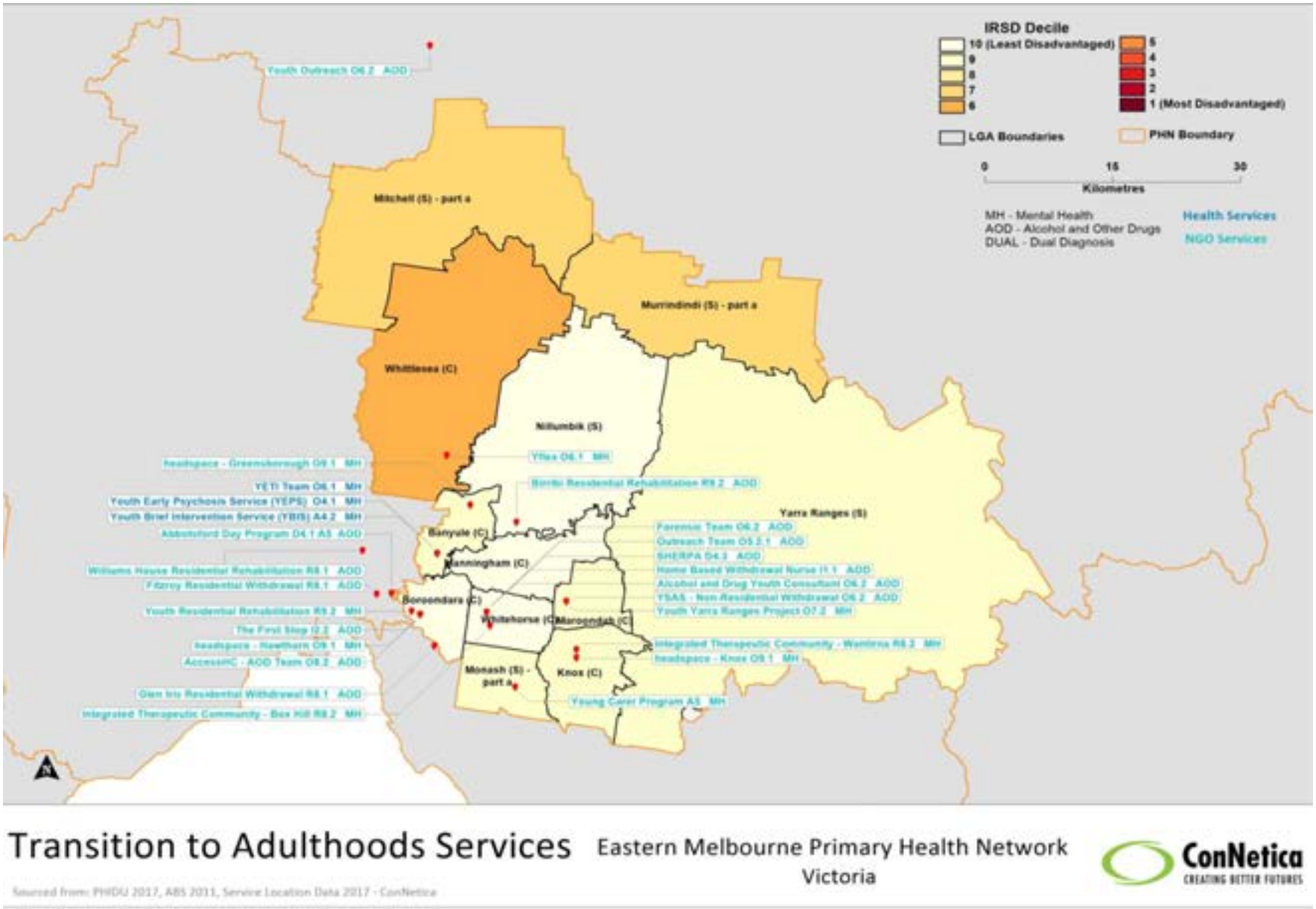


FIGURE 37 SERVICES FOR THE TRANSITION TO ADULTHOOD IN EMPHN

Adults

A total of 188 teams (213 MTC) were identified as providing services for adult (or general) population in the EMPHN catchment. Just over half of these services were outpatient types of care (108 MTC), with 62 per cent of these services delivered by the NGO sector.

Residential care

In the EMPHN region, 34 teams (38 MTC) were identified as providing residential care or support to adults with a lived experience of mental illness (Figure 38). The largest number of teams (n=18) are provided by the public health sector in a hospital setting; nine of which (13 MTC) provide acute care, including secure inpatient units

A total of 25 teams, provided by eight NGOs and four public sector organisations, deliver non-acute Residential Care in several locations across the region. A number of residential care services are provided under consortium arrangements between the public health sector and NGOs.

Mental health

The majority of residential care teams (n=27) are for mental health clients and range in size from smaller, four-bed acute units, through to larger facilities with bed capacities greater than 25 (Table 36). Three teams provide two types of care. The Acute Inpatient Service operated by St Vincent's has five beds dedicated to providing care to Koori clients across the Yarra and Boroondara catchment. Total number of mental health residential beds in the EMPHN catchment is 419.

TABLE 36 RESIDENTIAL CARE FOR ADULTS IN THE EMPHN REGION, MH

Tranche	Provider	Team	DESDE (beds)	Area	Acute
1	***Austin Health***	Acute Adult Psychiatry Unit	AX[F00-F99] - R1 (4) AX[F00-F99] - R2 (15)	Banyule and Nillumbik	✓
		BETRS	AX[F50.9] - R4 (5)	North East Rural*	×
		Parent Infant Program	AXF[F00-F99] - R4 (6) AXF[F00-F99] - O7.1d	North East Rural*	×
		SECU	AX[F00-F99] - R4c (25)	North East Rural*	×
		Transitional Support Unit	AX[F00-F99] - R4c (6)	Banyule and Nillumbik	×
		PAPU	GX[F00-F99] - R1 (4)	Banyule and Nillumbik	✓
		Marie Guthrie House - Heath Unit	AX[F00-F99] - R3.1.1co (10)	Austin Service Area	✓
		Community Reintegration Team - Step 2	AX[F00-F99] - R8.2os (3)	Austin Service Area	×
	Austin Health/ Mind Australia	Community Based Recovery Program	AX[F00-F99] - R5 (22)	Banyule and Nillumbik	×
		Heidelberg Heights PARC	AX[F00-F99] - R8.1 (10)	Banyule and Nillumbik	×
	NAMHS	Acute Inpatient Service	AX[F00-F99] - R2 (50)	Darebin and Whittlesea	✓
		CCU	AX[F00-F99] - R8.2 (20)	Darebin and Whittlesea	×
	NAMHS/ Neami National	Neami Northern PARC	AX[F00-F99] - R8.1 (10)	Darebin and Whittlesea	×
2	***Eastern Health***	Inpatient Unit 1 - Maroondah	AX[F00-F99] - R1 (25)	ns	✓
		Inpatient Unit 2 - Maroondah	AX[F00-F99] - R1 (25)	ns	✓

		Outer East CCU	AX[F00-F99] - R7 (20)	ns	×
	Eastern Health/ Mind Australia	Maroondah PARC	AX[F00-F99] - R8.1 (10)	Whitehorse† Maroondah Yarra Ranges and Knox	×
3	***Eastern Health***	Inpatient Unit - Upton House	AX[F00-F99] - R1 (25)	Eastern Health	✓
		Canterbury Road CCU	AX[F00-F99] - R7 (20)	Inner East	×
	Eastern Health/ Mind Australia	Linwood PARC	AX[F00-F99] - R8.1 (8)	Whitehorse† Manningham and Monash	×
	St Vincent's	Acute Inpatient Service	AX[F00-F99] - R1 (6) AX[F00-F99] - R2 (38)‡	Yarra and Boroondara	✓
		Footbridge CCU	AX[F00-F99] - R8.2 (20)	Yarra and Boroondara	×
	St Vincent's/ Wellways	North Fitzroy PARC	AX[F00-F99] - R8.1 (10)	Yarra and Boroondara	×

* includes Goulbourn Valley Health, St Vincent's and Austin; † east of Springvale Road; ‡ 5 beds dedicated for Koori consumers

AOD

Four teams (five MTC) were identified in the EMPHN region providing residential care for AOD issues in the adult (or general) population (Table 37). All were non-acute services provided by the NGO sector with the largest service, a 100 bed facility provided by Odyssey House. A total of 144 AOD residential beds were identified in the EMPHN region.

TABLE 37 RESIDENTIAL CARE FOR ADULTS, EMPHN REGION, AOD

Tranche	Provider	Team	DESDE (beds)	Area	Acute
1	***Odyssey House***	Residential Rehabilitation	AX[F10-F19] - R8.2 (100)	Statewide	×
2	***EACH***	MARP	AX[F10-F19] - R5 (12) AX[F10-F19] - R10.2 (10)	Statewide	×
3	***Turning Point***	Wellington House	AX[F10-F19] - R4 (12)	ns	×
3	***St Vincent's***	Residential Withdrawal Service - Depaul House	AX[F10-F19] - R4o (10)	Yarra and Boorondara	×

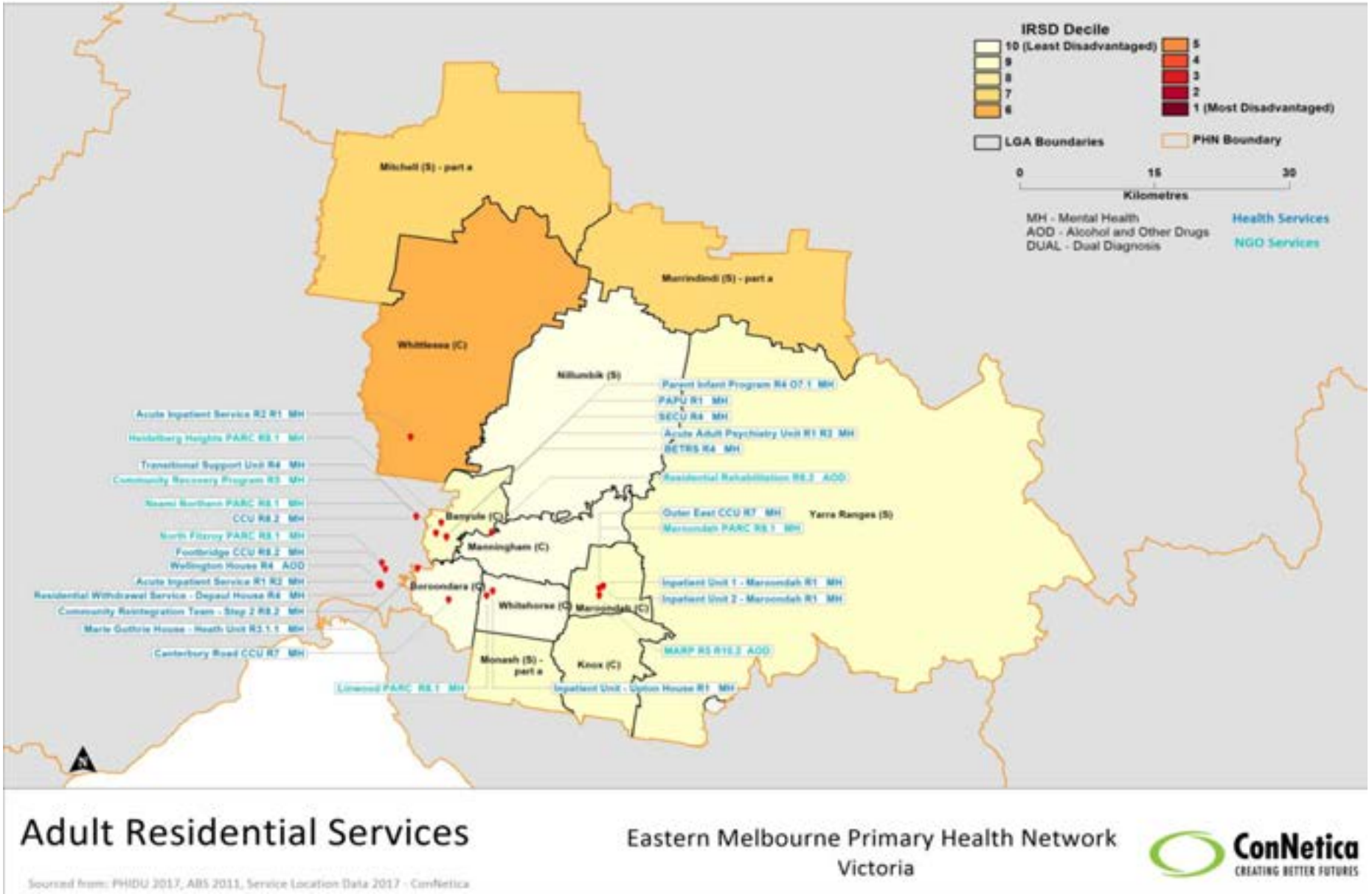


FIGURE 38 ADULT RESIDENTIAL SERVICES IN EMPHN

Day care

A total of five teams providing five day care related MTC were identified for the adult (or general) population in the EMPHN region (Figure 39).

Mental health

The majority of day care teams (n=four) identified provided support for those with a lived experience of mental illness. One service was provided by the public health sector, with St Vincent's providing the BETRS program throughout the northern reaches of the EMPHN catchment (Table 38). The remaining three services were provided by the NGO sector and were identified as secondary MTC provided as part of outpatient service offerings (Table 40).

TABLE 38 DAY CARE FOR ADULTS, EMPHN REGION, MH

Tranche	Provider	Team	DESDE	Area	Acute
3	***St Vincent's***	BETRS	AX[F50.9] - D8.1	NEAHMS, Goulburn, NEHAMHS	×

AOD

There were no AOD day care services for the adult (or general) population identified within the EMPHN region. Two services were identified for the transition to adult age group (Table 31).

Dual diagnosis

One dual diagnosis day care service for the adult (or general) population was identified within the EMPHN catchment. Banyule Community Health provides an Acceptance and Commitment Therapy group program for those with mental health and AOD issues (Table 39). The program is a new undertaking only commencing in August of 2017 with 12 months of funding allocated.

TABLE 39 DAY CARE FOR ADULTS, EMPHN REGION, DUAL DX

Tranche	Provider	Team	DESDE	Area	Acute
1	***Banyule Community Health***	Dual Dx Day Rehabilitation	AX[F00-F99] - D4.1gv	ns	×

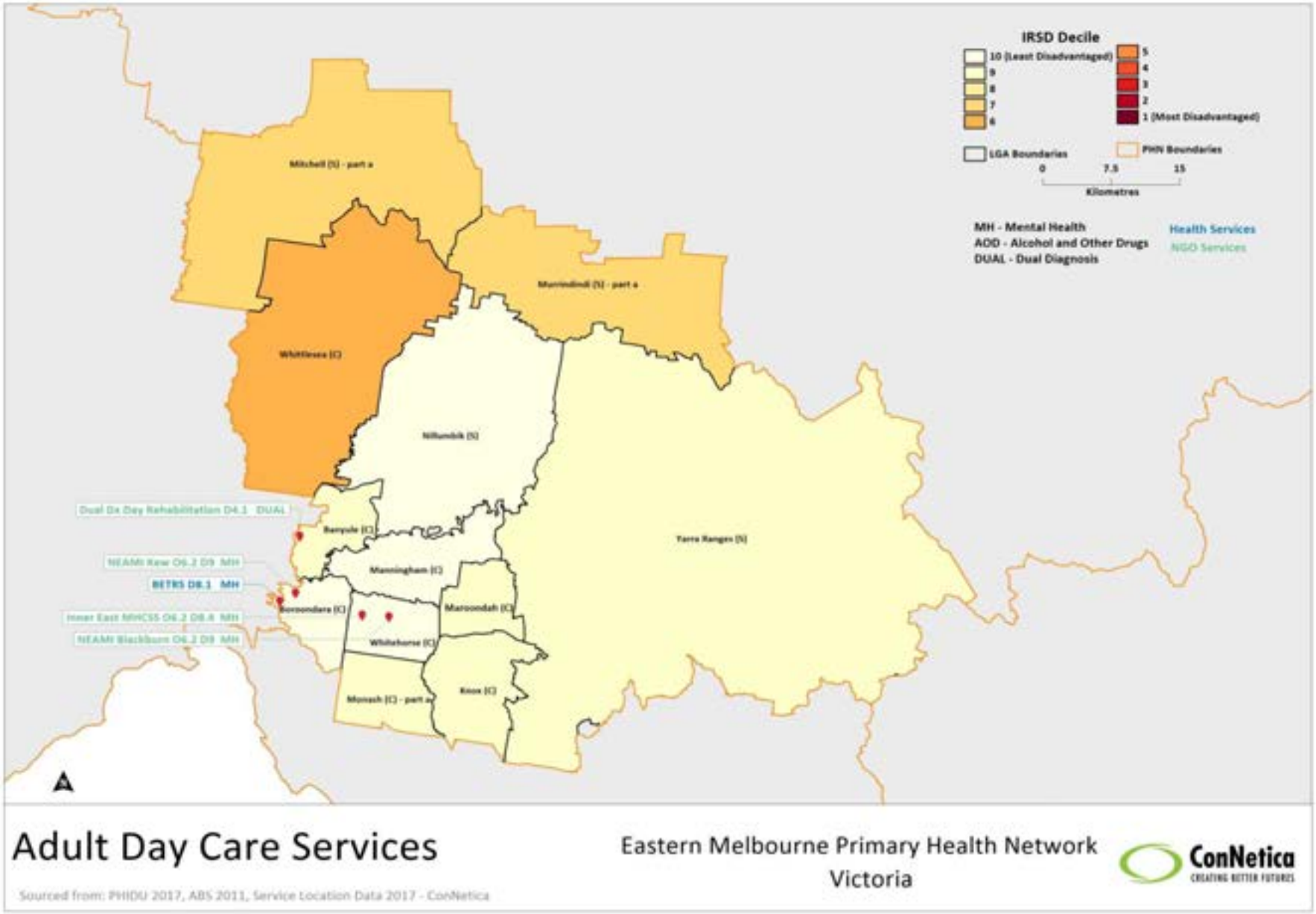


FIGURE 39 ADULT DAY CARE SERVICES IN EMPHN

Outpatient care

In the EMPHN region, 105 teams (108 MTC) providing outpatient care to adults were identified, the majority of the teams (n=67) are provided by the NGO sector with 41 teams provided by the public health sector. Public health sector outpatient teams have only been identified for providing services to those with a lived experience of mental illness and these have been identified for all three tranches.

Mental health

Outpatient care services identified for the EMPHN region are predominantly located in south-western area of the catchment (Figure 40). Whilst a number of services are physically located outside the PHN boundaries, these services are eligible for inclusion within this Atlas as these teams are providing services to the population residing within the EMPHN catchment.

The majority of teams (70.8 per cent, n=73) identified are mental health related services which are provided equally by the public health (n=37) and NGO sectors (n=36). Across the catchment, all of the 13 MTC providing acute outpatient care in the region, are provided by the public health sector and include CATT and liaison psychiatry services (Table 40).

In the public health sector, non–acute mental health services are provided across the region through mobile teams such as SECU Diversion and MSTS and non-mobile teams such as the CCT (Austin Health, Eastern Health and St Vincent's) and newer services such as BIT. Nearly four out of five of the NGO teams (n=28) are mobile and include teams that provide individual support in the home and community (e.g. D2DL, PHaMs and MHCSS).

In addition, the Residential Parent Infant Program provided by Austin Health also provides a secondary home-based outreach service (Table 36).

A little over half of the mental health related outpatient care teams provided by the NGO sector (n=15) have a 'v' qualifier indicating that these services do not have guaranteed funding for three years.

TABLE 40 OUTPATIENT CARE FOR ADULTS, EMPHN REGION, MH

Tranche	Provider	Team	DESDE	Area	Acute	Mobile
1	***Austin Health***	CCT	AX[F00-F99] - O9.1	Banyule and Nillumbik	×	×
		MSTS	AX[F00-F99] - O6.1	Banyule and Nillumbik	×	✓
		Peer Support Post Discharge Program*	AX[F00-F99] - O7.2	Banyule and Nillumbik	×	✓
		General Hospital Mental Health - Consultation Liaison Service	AX[F00-F99] - O4.1h	Austin Service Area	✓	×
		General Hospital Mental Health - Psychiatric Outpatient Clinic	AX[F00-F99] - O9.1	Austin Service Area	×	×
		General Hospital Mental Health - Clinical and Health Psychology	GX[F00-F99] - O10.1	Austin Service Area	×	×
		Brain Disorder Program - Assessment and Treatment Service	AX[Z87.820] - O6.1 AX - A0	Austin Service Area	×	✓
	Banyule Community Health	Gamblers Help Therapeutic Counselling	AX[F63.0] - O8.2	Banyule and Whittlesea	×	×
		Community Midwives	GXF[F53] - O6.1dw	Banyule	×	✓
	Merri Health	CarersLink North	GXC[F00-F99] - O9.2	Banyule, Nilumbik, Whittlesea	×	×
	NAMHS	Consultant Liaison Services	AX[F00-F99] - O4.1l	Darebin and Whittlesea	✓	×
		NPACER	AX[F00-F99] - O2.1w	Darebin and Whittlesea	✓	✓
		Community Team - North	AX[F00-F99] - O1.1 AX[F00-F99] - O5.1.2	Whittlesea	✓	✓
		Community Team – Central	AX[F00-F99] - O1.1	Darebin and Whittlesea	✓	✓
		SECU Diversion	AX[F00-F99] - O5.1.1	Darebin and Whittlesea	×	✓
		Post Discharge Peer Support	AX[F00-F99] - O7.2	Darebin and Whittlesea	×	✓
		Aboriginal MH Liaison	AXIN[F00-F99] - O10.2h	ns	×	×
	Neami National	Neami Heidelberg	AX[F00-F99] - O10.2	Banyule and Nillumbik	×	×
	Neami National*	Wadamba Wilam (Renew Shelter)	AXIN[F00-F99][Z59.0] - O6.2 AXIN[F00-F99][Z59.0] - A5.5	Darebin and Whittlesea	×	✓

	Provider	Team	DESDE	Area	Acute	Mobile
	Nexus	PHaMs	AX[F00-F99] - O6.2v	North Melbourne†	×	✓
		Counselling Team	GX[F00-F99] - O6.2	North Melbourne †	×	✓
		Children's Counselling Team	GXF[F00-F99][Z69] - O6.2	North Melbourne†	×	✓
		Men's Counselling Team	AXM[F00-F99][Z69] - O6.2	North Melbourne†	×	✓
	Primary Mental Health Consulting	Outreach Team	GX[F00-F99] - O6.2	EMPHN and Inner West	×	✓
	VAHS	Social and Emotional Wellbeing Unit	AXIN[F00-F99] - O9.1	Northern corridor	×	×
	Wellways	Family Services Team	GXC[F00-F99] - O9.2g	EMPHN	×	×
2	***EACH***	Knox Team - MHCSS, D2DL, PHaMs	AX[F00-F99] - O6.2v AX[F00-F99] - A5	Knox	×	✓
		Yarra Ranges Team - D2DL, PHaMs	AX[F00-F99] - O6.2v AX[F00-F99] - A5	Yarra Ranges	×	✓
		Yarra Ranges Team - MHCSS	AX[F00-F99] - O6.2v	Yarra Ranges	×	✓
		Maroondah Team - MHCSS, D2DL, PHaMs	AX[F00-F99] - O6.2v AX[F00-F99] - A5	Maroondah	×	✓
		Housing Support Program	AX[F00-F99] - O10.2e AX[F00-F99] - I1.1e	Knox, Yarra Ranges, Maroondah	×	×
	Eastern Health	Spectrum	AX[F60.3] - O8.1	Statewide	×	×
		Outer East CATT	AX[F00-F99] - O2.1	ns	✓	✓
		Outer East MSTS	AX[F00-F99] - O5.1.2d	Whitehorse, Maroondah, Yarra Ranges and Knox	×	✓
		Outer East CCT	AX[F00-F99] - O9.1w	Murnong Chandler House Lilydale	×	×
		Brief Intervention Team (BIT)	AX[F00-F99] - O9.1	Eastern Health	×	×
		Hospital Outreach Post Suicide Attempt Engagement (HOPE)	AX[T14.91] - O6.1	Eastern Health	×	✓
	Eastern Health/EACH	SECU Diversion Program	AX[F00-F99] - O5.1.2d	Whitehorse, Maroondah, Yarra Ranges and Knox	×	✓

	Provider	Team	DESDE	Area	Acute	Mobile
	Neami National	Neami Croydon	AX[F00-F99] - O6.2v	Maroondah, Knox and Yarra Ranges	×	✓
		Neami Ringwood	AX[F00-F99] - O6.2v	Maroondah, Knox and Yarra Ranges	×	✓
3	***AccessHC***	Animal Assisted Therapy	GX[F00-F99] - O6.2	ns	×	✓
	Camcare	Wellbeing Services	AX[F00-F99] - O10.2	Boroondara	×	×
		Specialist Outreach Parent Support	AXF[F00-F99] - O6.2d AXF[F00-F99] - I2.1.1g	Boroondara	×	✓
	Carrington Health	Post-Natal Depression Program	GXF[O90.6] - O9.1v GXF[O90.6] - I2.2ev	EMPHN	×	×
	EACH	Inner East MHCSS	AX[F00-F99] - O6.2v AX[F00-F99] - D8.4gv	Inner East	×	✓
	Eastern Health	Consultation Liaison Psychiatry	AX[F00-F99] - O4.1l	EMPHN	✓	×
		Central East CATT	AX[F00-F99] - O2.1	Inner East	✓	✓
		Central East MSTS	AX[F00-F99] - O5.1.2d	Whitehorse, Manningham and Monash	×	✓
		Central East CCT	AX[F00-F99] - O9.1w	Whitehorse‡, Monash and Manningham	×	×
	Mind Australia	Inner East PHaMs	AX[F00-F99] - O6.2v	ns	×	✓
		MHR: CS	GXC[F00-F99] - O7.2v	ns	×	✓
	Neami National	Neami Blackburn	AX[F00-F99] - O6.2v AX[F00-F99] - D9gv	ns	×	✓
		Neami Kew	AX[F00-F99] - O6.2v AX[F00-F99] - D9gv	ns	×	✓
	St Vincent's	CATT	AX[F00-F99] - O2.1	Yarra and Boroondara	✓	✓
		CHOPS	AX[F00-F99][Z59] - O5.1.3	Yarra and Boroondara	×	✓
		Hawthorn MSTS	AX[F00-F99] - O5.1.2	Boroondara	×	✓
		Clarendon MSTS	AX[F00-F99] - O5.1.2	Yarra	×	✓

3	***St Vincent's***	Hawthorn CCT	AX[F00-F99] - O9.1	Boroondara	×	×
		Clarendon CCT	AX[F00-F99] - O9.1	Yarra	×	×
		MH PICT	AX[X60-X84][T14.91] - O5.2.1 AX[F00-F99] - A4.2.3e	Yarra and Boroondara	×	✓
		Consultation Liaison	AX[F00-F99] - O4.1l	Yarra and Boroondara	✓	×
		Complex Care Teams	AX[F00-F99] - O5.1.2	Yarra and Boroondara	×	✓
		Post Discharge Peer Support	AX[F00-F99] - O7.2	Yarra and Boroondara	×	✓
	Uniting Life Assist	Carer Support	AXC[F00-F99] - O7.2v AXC[F00-F99] - I1.1v	Eastern Region	×	✓
	Wellways	NDIS Services	AX[F00-F99] - O6.2v AX[F00-F99] - A4.2v	Yarra, Darebin, Banyule, Whittlesea, Nillumbik	×	✓

* In partnership with Mind Australia

** in partnership with VAHS, UnitingCare ReGen and NAMHS; † from north of Melbourne city to the border; ‡ Koonung, Waverly and Doncaster CCT

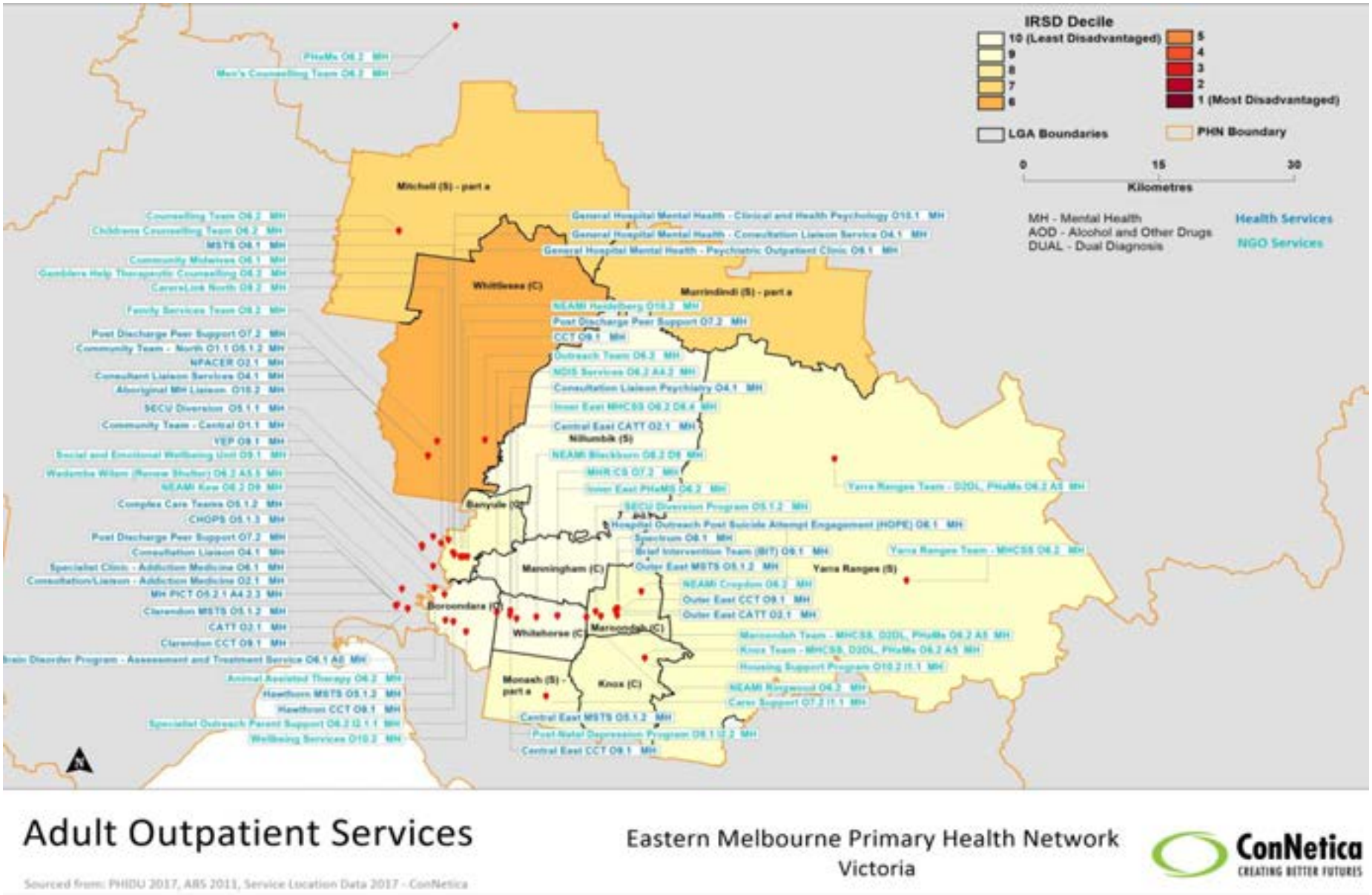


FIGURE 40 ADULT MENTAL HEALTH OUTPATIENT SERVICES IN EMPHN

AOD

Across the EMPHN region, there were 25 teams (27 MTC) identified as providing AOD related service for the adult (or general) population (Table 41). All identified services are provided by NGOs and, with the exception of Drug Dependency Unit, the Aboriginal ICE program, Clinical Liaison and MORS, are non-acute services which are predominantly provided via a range of consortia arrangements.

Services include counselling, care coordination and recovery as well as accommodation related services such as Aurora provided by Salvocare. Just under half of the team are mobile services (n=12) and a number (n=three) are forensic services.

TABLE 41 OUTPATIENT CARE FOR ADULTS, EMPHN REGION, AOD

Tranche	Provider	Team	DESDE	Area	Acute	Mobile
1	***Austin Health***	Drug Dependency Clinic	AX[F11] - O10.1	Banyule and Nillumbik	✓	✓
	Banyule CH	Drug and Alcohol Team	AX[F10-F19] - O8.1	ns	×	×
	Caraniche	Epping AOD Team	AX[F10-F19] - O9.2 AX[F10-F19] - O9.2j	ns	×	×
		HiROADS	AX[F10-F19][T74.2] - O9.2jw	ns	×	×
	Nexus	Post Withdrawal Support	GX[F10-F19] - O6.1	North Melbourne*	×	✓
		COATS	AX[F10-F19] - O6.1j	North Melbourne*	×	✓
	Uniting Care ReGen	Drug and Alcohol Counselling	AX[F10-F19] - O9.2	Northern†	×	×
		Non-Residential Withdrawal Service	AX[F10-F19] - O5.1.1	Northern†	×	✓
2	***Anglicare Victoria***	Family AOD Service & Parent Support	GXR[F10-F19] - O8.2v GXR[F10-F19] - I1.2gv	Inner and Outer East	×	×
	Eastern Health/ Turning Point	Addiction Medicine Clinical Liaison Team	AX[F10-F19] - O2.1h	Eastern Health	✓	✓
	ECADS	Inspiro Drug and Alcohol Team	AX[F10-F19] - O8.2	Yarra Ranges‡	×	×
	SURe	EACH Non-Residential Withdrawal	AX[F10-F19] - O5.1.1v	Inner and Outer East	×	✓
3	***Connect4Health***	Medication Support and Recovery Service	GX[F10-F19] - O8.2v	ns	×	×
	ECADS	AccessHC - AOD Team	AX[F10-F19] - O8.2	Inner East	×	×
		LinkHC - AOD Team	AX[F10-F19] - O8.2g	Monash and Knox	×	×
		Turning Point Non-Residential Withdrawal	AX[F10-F19] - O6.1d	Inner East	×	✓
		Turning Point Forensic Counselling	AX[F10-F19] - O8.2	Inner East	×	×
	LinkHC	Chinese Language AOD Counselling	AXD[F10-F19] - O9.2s	Monash and Knox	×	×
	SalvoCare	Care and Recovery Coordination Service	AX[F10-F19] - O6.2	Boroondara	×	✓
		Aurora - Supported Accommodation	AXF[F10-F19] - O6.2	Hawthorn	×	✓
	SURe	Anglicare Victoria - Care & Recovery	AX[F10-F19] - O6.2	Inner and Outer East	×	✓
		EACH Counselling Services	AX[F10-F19] - O8.2	Inner and Outer East	×	×

	Turning Point	MORS	AX[F10-F19] - O2.1h	ns	✓	✓
		Aboriginal ICE Program	AXIN[F10-F19] - O2.1s	Outer East	✓	✓
		Counselling Service	AX[F10-F19] - O9.1	Inner East	×	×

* from north of Melbourne city to the border; † includes Thomastown, Epping, Bundoora, Reservoir, Preston, Thornbury, Northcote, Heidelberg, Yan Yan, Whittlesea; ‡ except Yarra Junction

Dual diagnosis

In the EMPHN region, two teams were identified as provided dual diagnosis outpatient services for the adult (or general) population (Table 42). Both teams are provided by the NGO sector and are non-acute, non-mobile services.

TABLE 42 OUTPATIENT CARE FOR ADULTS, EMPHN REGION, DUAL DX

Tranche	Provider	Team	DESDE	Area	Acute	Mobile
1	***Banyule Community Health***	Community Health Counsellors	GX[F00-F99] - O8.2	ns	×	×
2	***Anglicare Victoria***	Drug Action Plan	AX[F00-F99] - O8.2h	Inner and Outer East	×	×

Similar to mental health services, AOD and dual diagnosis services for EMPHN are primarily located in the south-western area of the catchment (Figure 41).

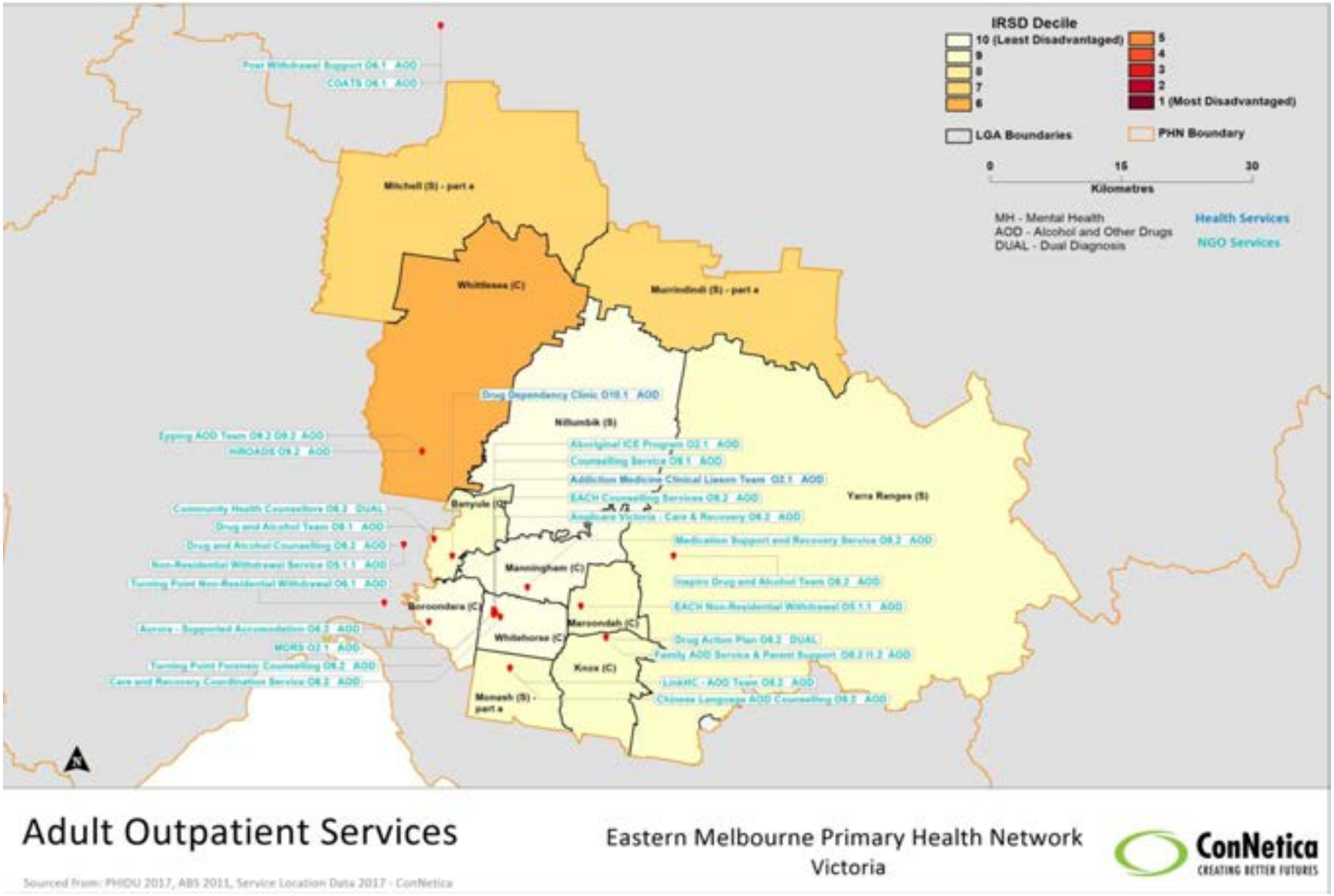


FIGURE 41 ADULT AOD & DUAL DIAGNOSIS OUTPATIENT SERVICES IN EMPHN

Accessibility services

A large number of Accessibility services for adults (or general) population were identified in the EMPHN catchment (n=15), the majority of which are provided by the NGO sector. As with outpatient services identified, some accessibility services are physically located outside the EMPHN catchment, however are eligible for inclusion as they provide services to the EMPHN population (Figure 42).

Mental health

The three PIR services (Northern Melbourne, Outer East and Inner East) have been identified as mental health related accessibility service and have a 'v' qualifier as these services have less than three years funding (Table 43). Additional accessibility services have been identified as secondary MTC (n=six) for a number of adult mental health outpatient services provided by both the NGO (Neami National, EACH and Wellways) and public health (St Vincent's) sectors (Table 40).

TABLE 43 ACCESSIBILITY SERVICES FOR ADULTS, EMPHN REGION, MH

Tranche	Provider	Team	DESDE	Area
1	***Banyule CH***	Emergency Relief Drop-in Service	AX[F00-F99] - A4.1.2	ns
	Mind Australia	Northern Melbourne PIR	AX[F00-F99] - A4.2v	ns
	Neami National	Northern Melbourne PIR	AX[F00-F99] - A4.2.2v	Banyule, Nillumbik, Whittlesea
	Nexus	Women's Social Support	AXF[F00-F99] - A5.3	North Melbourne*
	VAHS	Psychiatric Liaison Nurse	AXIN[F00-F99] - A4.2.3l	Northern corridor
		Northern Melbourne PIR	AX[F00-F99] - A4.2.2v	Banyule, Nillumbik, Whittlesea
	Merri Health	CarersLink North	GXC[F00-F99] - A4.2.3	Banyule, Nilumbik, Whittlesea
2	***EACH***	SHADES	AX[F00-F99] - A5.5	Maroondah Hospital
		Brief Intervention Service	AX[F00-F99] - A4.2.1dv	Maroondah, Knox, Yarra Ranges
	Eastern Health/EACH	COPES	GXC[F00-F99] - A5h	Maroondah Hosp. IPU 1 & 2
	Neami National	Outer East PIR	AX[F00-F99] - A4.2.2v	Knox, Maroondah, Yarra
3	***Camcare***	Emergency Relief	AX[F00-F99] - A4.2.1v	Boroondara
	Eastern Health /Mind Australia	COPES	GXC[F00-F99] - A5 ()	Eastern Health
	Mind Australia	Yandina - Homelessness Transition Support	AX[F00-F99][Z59] - A5.5	ns
		MHAPD	AX[F00-F99][Z59] - A5.5	Upton House
		Outer East PIR	AX[F00-F99] - A4.2v	Outer East
	Neami National	Inner East PIR	AX[F00-F99] - A4.2.2v	Boroondara, Manningham, Monash
	Wellways	Inner East PIR	AX[F00-F99] - A4.2.2v	Manningham, Whitehorse, Monash
		Training & Education	AX[F00-F99] - A5.2	EMPHN
		Doorways	AX[F00-F99] - A5.5	St Vincent's

* from north of Melbourne city to the border;

AOD

Three AOD related accessibility services were identified for the adult (or general) population in the EMPHN catchment (Table 44). All AOD services identified are provided by the NGO sector (3 MTC) and are only located in either tranche one or three.

TABLE 44 ACCESSIBILITY SERVICES FOR ADULTS, EMPHN REGION, AOD

Tranche	Provider	Team	DESDE	Area
1	***Uniting Care ReGen***	Care and Recovery - Preston	AX[F10-F19] - A4.2.2	Northern*
	VAHS	Ice Team	GXIN[F15] - A4.2.2	Northern corridor
3	***ECADS***	Turning Point Care and Recovery	AX[F10-F19] - A4.2	Inner East

* includes Thomastown, Epping, Bundoora, Reservoir, Preston, Thornbury, Northcote, Heidelberg, Yan Yan, Whittlesea; ǂ except Yarra Junction

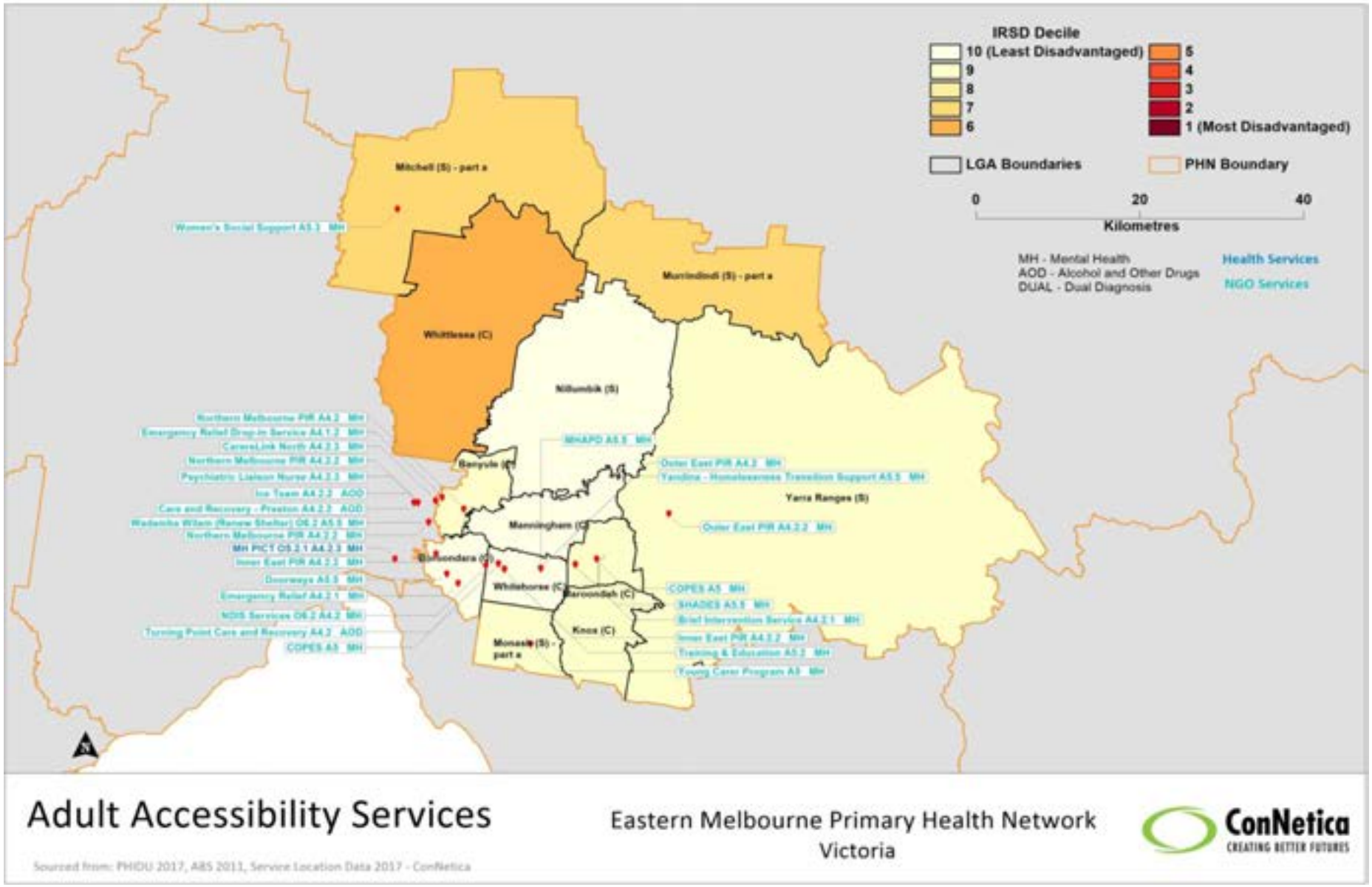


FIGURE 42 ADULT ACCESSIBILITY SERVICES IN EMPHN

Information and guidance

A total of 19 teams (23 MTC) were identified in the EMPHN region as providing information and guidance related services for the adult (or general) population (Figure 43).

Mental health

Eight of the 14 teams identified as providing mental health related information and guidance in the EMPHN region were provided by the public health sector (Table 45). In both northern and eastern areas, mental health triage services act as the first point of contact for all consumers. Both operate as telephone based assessment and support services 24/7. The additional four teams, provided by the NGO sector (EACH, Camcare, Carrington Health and Uniting Life Assist), are secondary MTC identified for mental health outpatient teams (Table 40).

TABLE 45 INFORMATION SERVICES FOR ADULTS, EMPHN REGION, MH

Tranche	Provider	Team	DESDE	Area
1	***Austin Health***	Neurobehaviour Clinic	AX[F00-F99] - A0 AX - I1.1	Austin Service Area
	Merri Health	CarersLink North	GXC[F00-F99] - I2.1	Banyule, Nilumbik, Whittlesea
		CarersLink North	GXC[F00-F99] - I1.1 GXC - I1.2	Banyule, Nilumbik, Whittlesea
	NAMHS	MH Triage & EMH	AX[F00-F99] - I1.1	Darebin and Whittlesea
		FaPMI	AX[F00-F99] - I2.1	Ns
2	***Eastern Health***	MH Triage & ED Response Team	AX[F00-F99] - I1.1	Eastern Health
		FaPMI	AXC[F00-F99] - I2.1	Ns
		Information & Education	AXC[F00-F99] - I2.1.1	Eastern Health
3	***St Vincent's***	Psychiatric Triage	AX[F00-F99] - I1.1e	Yarra and Boroondara
		Victorian Dual Disability Service	AX[F00-F99][F70-F79] - I1.1	State-wide

* includes Manningham, Monash-Waverley East and West, Maroondah, Knox, Yarra Ranges, Whitehorse and Nunawading East

AOD

In contrast to mental health, almost all of the eight AOD information and guidance services for the adult (or general) population identified in the EMPHN are provided by the NGO sector (seven MTC). A number of these are state-wide services and the on-line platform YoDAA, whilst based in the EMPHN catchment is an Australia wide service (Table 46).

An additional information and guidance service for AOD is provided as a secondary MTC for Anglicare Victoria as part of the Family AOD Service and Parent Support Outpatient Care (Table 41). The Home Based Withdrawal Nurse provider by YSAS is listed under the transition to adult age group of services (Table 36).

TABLE 46 INFORMATION SERVICES FOR ADULTS, EMPHN REGION, AOD

Tranche	Provider	Team	DESDE	Area
1	***NAMHS***	AOD Service	AX[F10-F19] - I1.1	Darebin and Whittlesea
	Uniting Care ReGen	Intake and Assessment	AX[F10-F19] - I1.1	Northern*
2	***SURe***	EACH Intake and Assessment	AX[F10-F19] - I1.1e	Outer East
3	***AccessHC***	The First Stop	GX[F10-F19] - I2.2	Statewide
	ECADS	Intake and Assessment	AX[F10-F19] - I1.1e	Inner East
	Turning Point	Statewide Neuropsychology Clinic	AX[F10-F19] - I1.1	Statewide
	YSAS	YoDAA	GX[F10-F19] - I1.1e	Australia Wide

* includes Thomastown, Epping, Bundoora, Reservoir, Preston, Thornbury, Northcote, Heidelberg, Yan Yan, Whittlesea; ǂ except Yarra Junction

Dual diagnosis

In the EMPHN region, Eastern Health provides a dual diagnosis information and guidance service (1 MTC) which is one of four specialist dual diagnosis teams funded by the Department of Health (Table 47). This service aims to support the improvement of responses of mental health and drug treatment services to individuals with both mental illness and substance use problems (dual diagnosis).

TABLE 47 INFORMATION SERVICES FOR ADULTS, EMPHN REGION, DUAL DX

Tranche	Provider	Team	DESDE	Area
3	***Eastern Health***	Eastern Dual Dx Service	GX[F00-F99] - I2.1	Eastern metropolitan region

Self-help and voluntary support

Two teams (two MTC) were identified as providing self-help and voluntary support for the adult (or general) population in the EMPHN region and both were for AOD related issues (Figure 43).

Mental health

There were no mental health self-help and voluntary support services for the adult (or general) population identified within the EMPHN region.

AOD

Both teams identified as providing self-help and voluntary support for the adult (or general) population in the EMPHN region were provided by Family and Drug Support Australia (Table 48). Data for these services was derived from web-based information only which indicated both programs offered by this NGO provider were group-based support services.

TABLE 48 SELF-HELP & VOLUNTARY SERVICES FOR ADULTS, EMPHN REGION, AOD

Tranche	Provider	Team	DESDE	Area
3	***Family Drug Support Australia****	Family Support Meetings	GXC[F10-F19] - S1.1g	ns
		Stepping Stones	GXC[F10-F19] - S1.1g	ns

* Based on data gathered from website

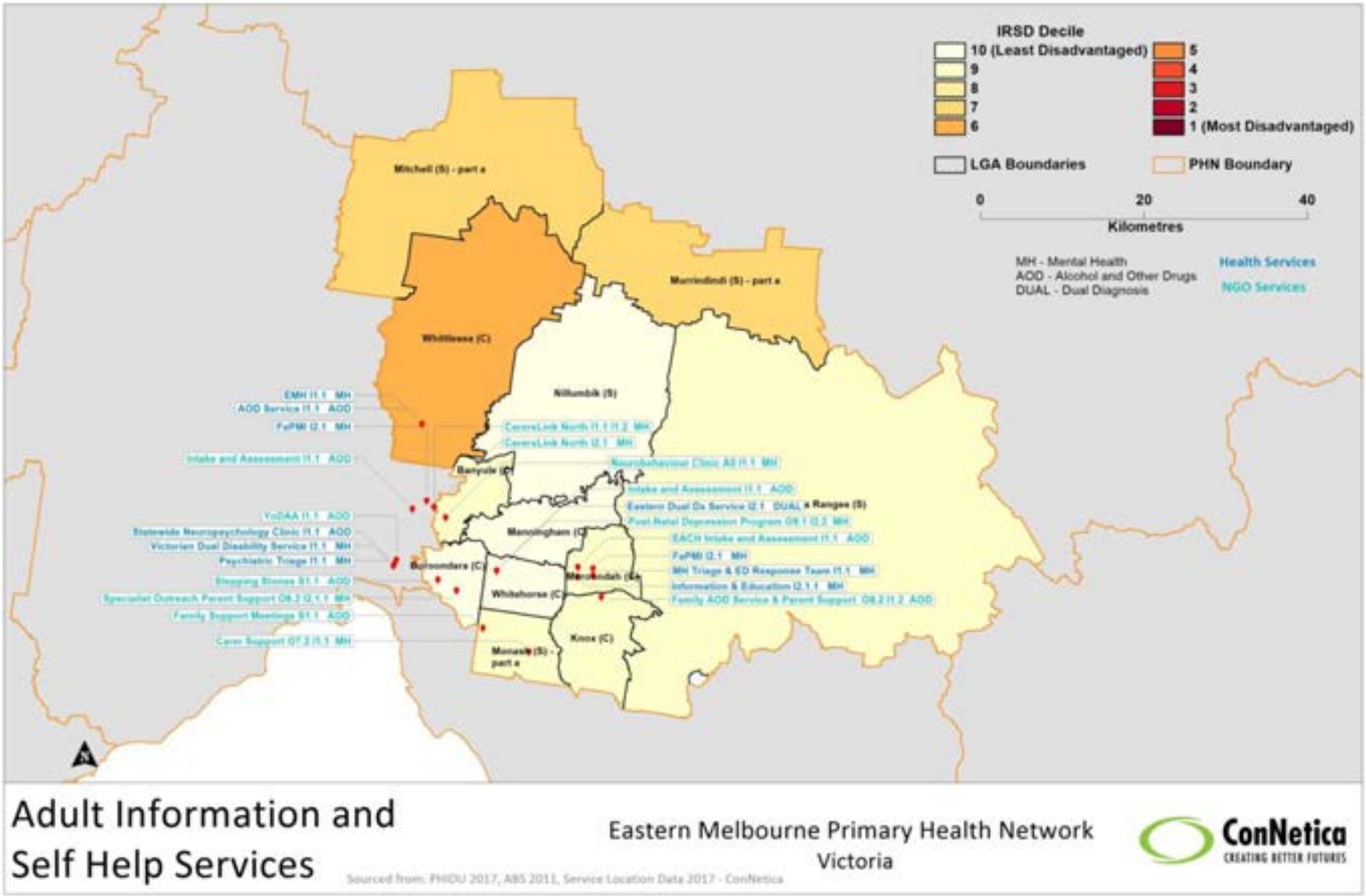


FIGURE 43 ADULT INFORMATION & SELF HELP SERVICES IN EMPHN

Older adults

A total of six teams (eight MTC) were identified in the EMPHN region as delivering services specifically for the older adult population (Figure 44). All but one of these services were mental health related service delivered by the public health sector. All services identified, are located within the tranche three region, primarily clustered within the LGA of Whitehorse.

Residential care

A total of four teams were identified as delivering residential care for older adults in EMPHN, all for mental health related issues.

Mental health

All mental health Residential Care services identified in the EMPHN region are provided by Eastern Health with one acute (30 beds) inpatient unit and two non-acute (60 beds) PSRACS (Table 49).

TABLE 49 RESIDENTIAL CARE FOR OLDER ADULTS, EMPHN REGION, MH

Tranche	Provider	Team	DESDE (beds)	Area	Acute
3	***Eastern Health***	APMH Inpatient Unit	OX[F00-F99] - R3 (30)	Eastern Health	✓
		Mooroolbark PSRACS	OX[F00-F99] - R9.2 (30)	Eastern Health	×
		Northside PSRACS	OX[F00-F99] - R9.2 (30)	Eastern Health	×

AOD

There were no Residential AOD services for older adults identified within the EMPHN region.

Day Care

There were no Day Care services for either mental health or AOD identified for older adults within the EMPHN region.

Outpatient Care

For older adults with in the EMPHN there was only one team identified (2 MTC) as providing Outpatient services.

Mental Health

The APMH team provided by Eastern Health is a non-acute, mobile team that provides two Outpatient MTC, one of which is a group support program specifically for carers (Table 50).

TABLE 50 OUTPATIENT CARE FOR OLDER ADULTS , EMPHN REGION, MH

Tranche	Provider	Team	DESDE	Area	Acute	Mobile
3	***AccessHC***	Mental Health Team	GXF[F00-F99] - O6.1 () GXF - A4.2.3	Inner East	×	✓
	Eastern Health	APMH Team	OX[F00-F99] - O5.1.1a OX[F00-F99][e310] - O9.2g OX[F00-F99] - I1.1	Eastern Health	×	✓

AOD

There were no outpatient AOD services for older adults identified within the EMPHN region.

Accessibility services

There was one accessibility service for either mental health or AOD identified for older adults within the EMPHN region. This was the Aged Psychiatry Assessment and Treatment Team at St Vincent's. It is a non-mobile, non-acute service.

Information and guidance

There was one information and guidance related service identified for older adults within the EMPHN region. This MTC is a third function identified as part of the APHN Team provided by Eastern Health (Table 50).

Self-help and voluntary support

There were no self-help or voluntary support services for either mental health or AOD identified for older adults within the EMPHN region.

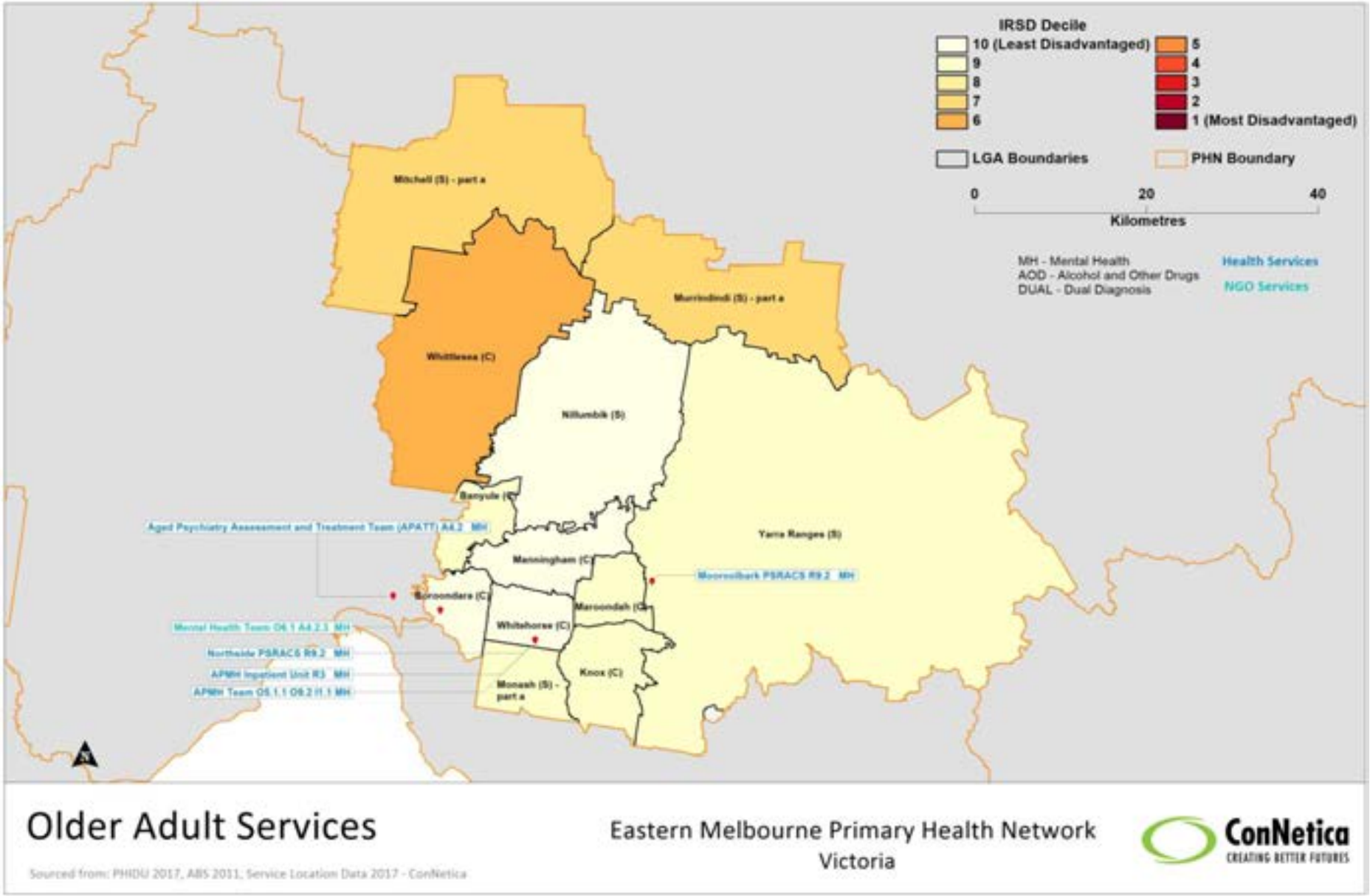


FIGURE 44 OLDER ADULT SERVICES IN EMPHN

Health workforce

One of the data components for this Atlas was the collection of details related to both type (i.e. profession) and level (i.e. FTE) of staffing associated with each BSIC. Unfortunately, not all organisations were able to provide detailed information in relation to these variables and at times, what was provided was more of an estimation or lacked specificity. As such, the data presented here should be interpreted with considerable caution and used only as an approximation of the workforce characteristics.

More detailed analysis of the workforce and its characteristics and aspirations would be useful for planning purposes.

Capacity

Workforce data was collected for 121 of the 199 health teams identified in this project (60.8 per cent) with a collective total of 973 FTE, of which the majority was provided by the health sector (564.5 FTE or 58 per cent).

In terms of capacity, teams were categories as either extra small (<one FTE), small (two-five FTE), medium (from six-20 FTE) or large (over 20 FTE). For those teams across the EMPHN catchment were data was available, the majority of were classified as either small (44.6 per cent) or medium (29.7 per cent) in size (Table 51). One in six of the teams were classed as extra small.

Teams working in NGOs are generally smaller than those working in the health sector with an average team size for NGOs of 4.49 FTE compared to 18.82 FTE for the public sector.

TABLE 51 TEAM SIZE

Team Size	Health n (%)	NGO/Other n (%)	TOTAL n
Extra Small (<1 FTE)	2 (10)	18 (90)	**20**
Small (1-5 FTE)	9 (17)	45 (83)	**54**
Medium (6-20 FTE)	9 (25)	27 (75)	**36**
Large (>20 FTE)	10 (91)	1 (9)	**11**
TOTAL	30 (25)	91 (75)	**121**
Total FTE	564.54	408.45	**973**
Average FTE	18.82	4.49	**8.04**

Patterns of Care

To understand the balance between the different types of care offered in an area, a radar tool is utilised to visually depict the mix of service types (pattern of care) in a particular area. Each of the 23 points on the radius of the diagram represents the number of MTC for a particular group of care types per 100,000 adults. To examine the patterns of care, services are first grouped by the MTC and then subsequently grouped by acuity, mobility and other distinguishing factors (Table 52).

TABLE 52 SERVICE GROUP FOR PATTERN OF CARE ANALYSIS

Group	DESDE codes
R: ACUTE HOSPITAL	R1, R2, R2.1, R2.2, R3.0
R: NON ACUTE HOSPITAL	R4, R6
R: ACUTE NON HOSPITAL	R0, R3.1, R3.1.1, R3.1.2
R: NON ACUTE NON HOSPITAL	R5, R7
R: OTHER NON HOSPITAL	R9, R9.1, R9.2, R10, R10.1, R10.2, R12, R13, R14
R: HIGH INTENSITY NON HOSPITAL	R8, R8.1, R8.2, R11
D: ACUTE HEALTH	D0, D0.1, D0.2, D1, D1.1, D1.2
D: NON ACUTE HEALTH	D4, D4.1, D8, D8.1
D: WORK RELATED	D2, D2.1, D2.2, D3, D3.1, D3.2, D6, D6.1, D6.2, D7, D7.1, D7.2
D: OTHER	D4.2, D4.3, D4.4, D5, D5.1, D5.2, D8.2, D8.3, D8.4, D9, D9.1, D9.2, D10
O: ACUTE MOBILE HEALTH	O1, O1.1, O2, O2.1
O: ACUTE NON MOBILE HEALTH	O3, O3.1, O4, O4.1
O: NON ACUTE MOBILE HEALTH	O5, O5.1, O5.1.1, O5.1.2, O5.1.3, O6, O6.1, O7, O7.1
O: NON ACUTE NON MOBILE HEALTH	O8, O8.1, O9, O9.1, O10, O10.1
O: NON ACUTE NON MOBILE NON HEALTH	O8.2, O9.2, O10.2
O: NON ACUTE MOBILE NON HEALTH	O5.2, O5.2.1, O5.2.2, O5.2.3, O6.2, O7.2
O: ACUTE NON MOBILE NON HEALTH	O3.2, O4.2
O: ACUTE MOBILE NON HEALTH	O1.2, O1.2.1, O1.2.2, O2.2
O: OTHER NON ACUTE	O11
A: OTHER	A0, A1, A2, A3, A5, A5.1, A5.2, A5.3,
A: CARE COORDINATION	A4, A4.1, A4.1.1, A4.1.2, A4.2, A4.2.1, A4.2.2, A4.2.3
A: EMPLOYMENT	A5.4
A: HOUSING	A5.5

Consistent with other PHN and/or LHD areas mapped across Australia, the pattern of care for adult mental health services in the EMNPHN region shows relatively more outpatient care than any other type of care (0). This outpatient care is predominantly non-acute mobile teams who deliver non-heath related care and are provided by the NGO sector such as Neami National and EACH with the health sector providing the balance of the teams.

The pattern is also similar for adult AOD services, however services are primarily non-acute non-mobile teams who deliver non-health related care which are all provided by the NGO sector (Figure 46).

Overall, adult mental health and AOD services are largely non-acute outpatient services (n=108) with a large number of adult care coordination services (n=33) also identified across the EMPHN region (Figure 47).

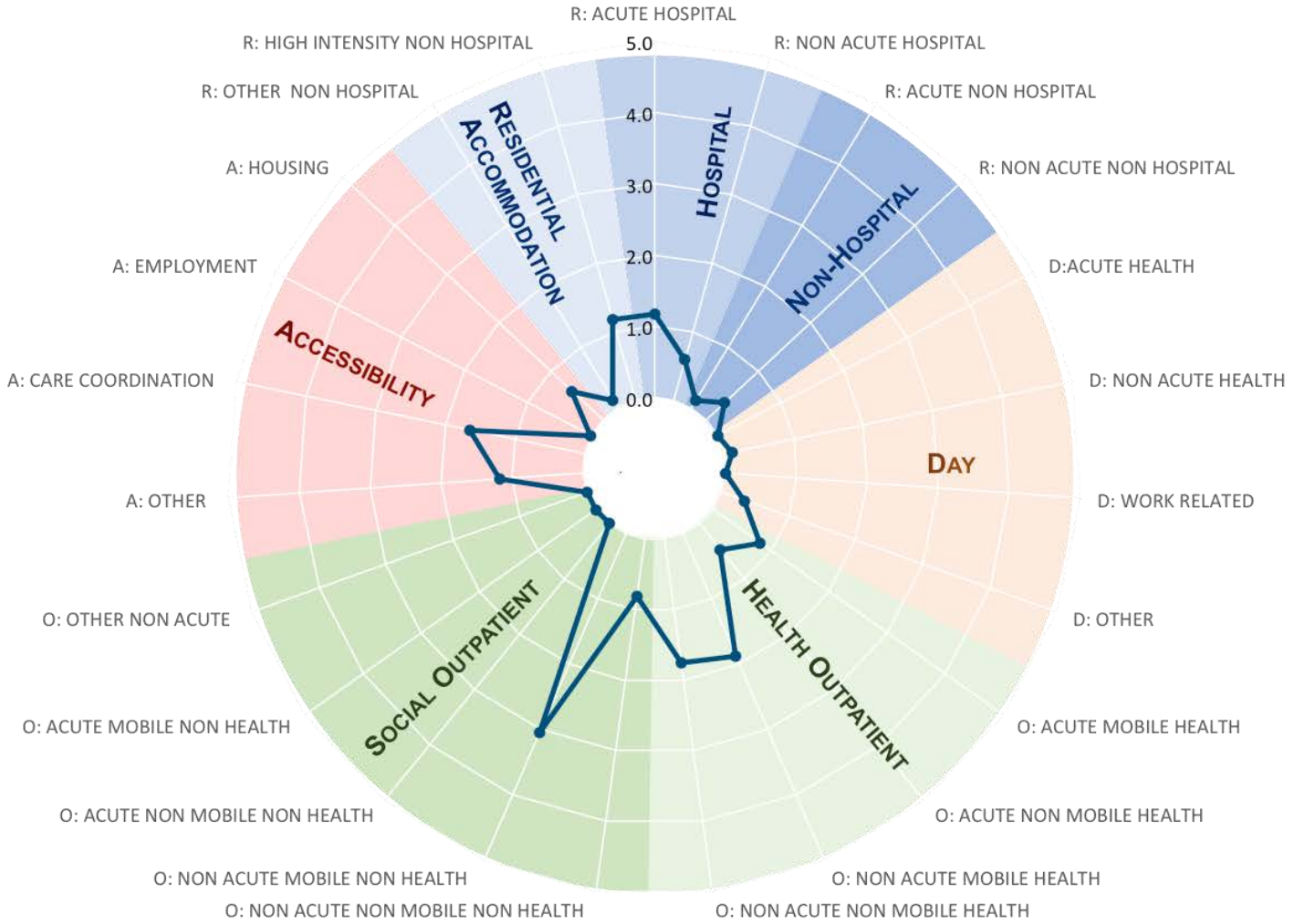


FIGURE 45 MENTAL HEALTH PATTERN OF CARE FOR ADULTS IN EMPHN (MTC PER 100,000)

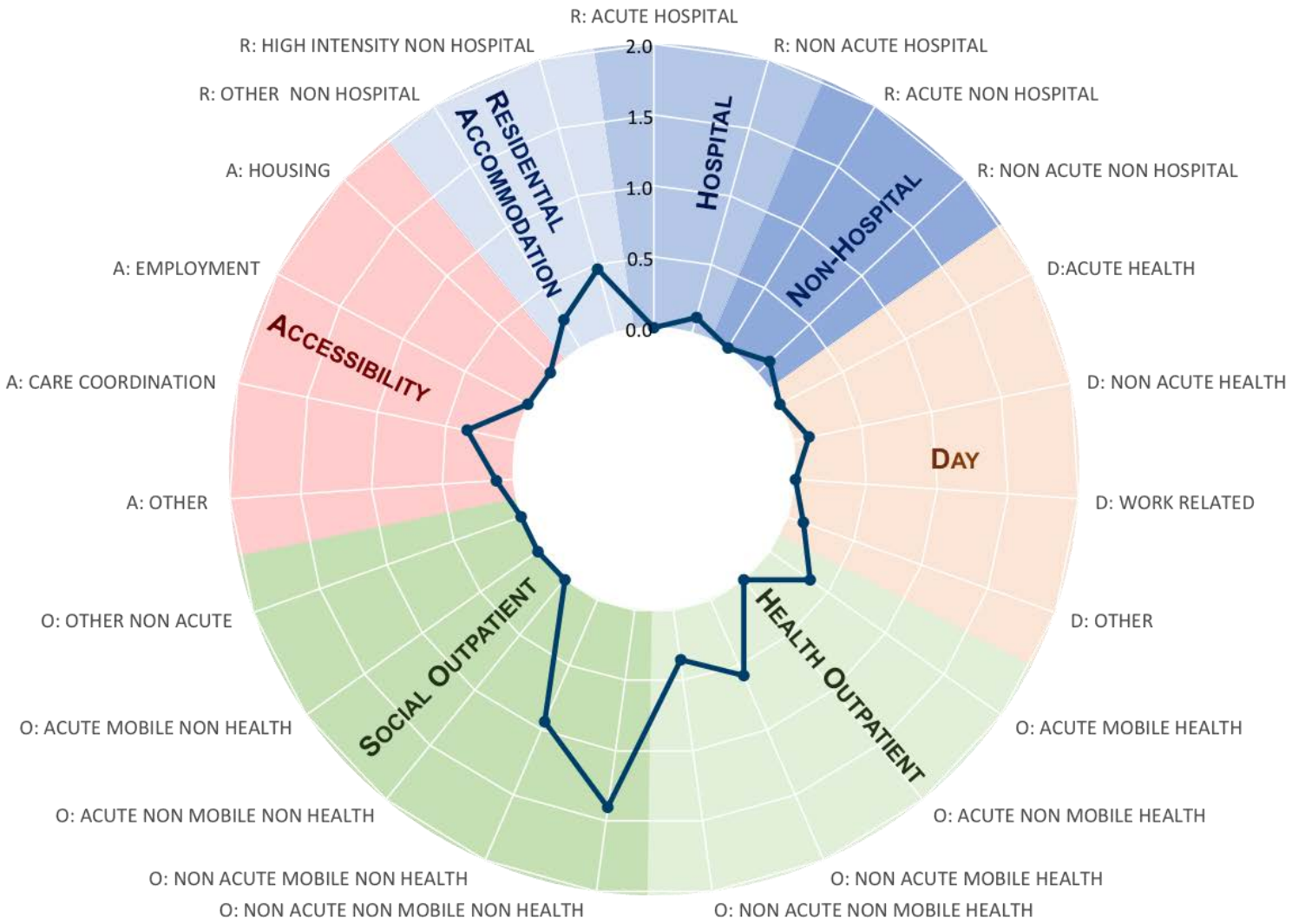


FIGURE 46 AOD PATTERN OF CARE FOR ADULTS IN EMPHN (MTC PER 100,000)

FIGURE 47

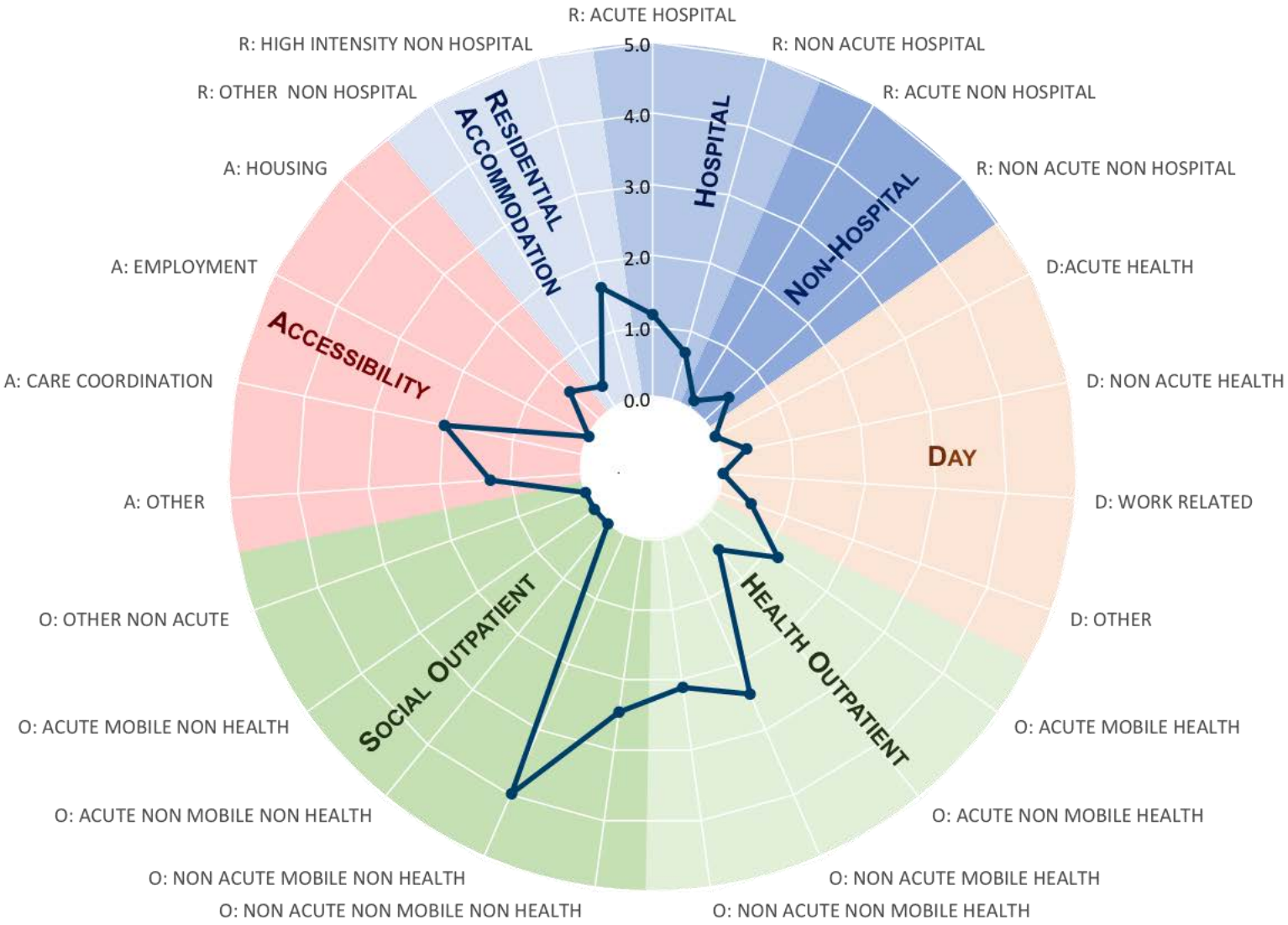


FIGURE 48 MENTAL HEALTH, AOD & DUAL DIAGNOSIS PATTERN OF CARE FOR ADULTS IN EMPHN (MTC PER 100,000)

National and International Comparisons

One of the strengths of using the DESDE methodology is that it allows for comparisons with other areas that have been mapped both nationally and internationally using this methodology.

The standardised classification methodology allows for comparisons of the patterns of care between different regions considering the differences and consistencies between them. There is no 'right' pattern of care and there is an expectation that differences in patterns with occur. The development of services over decades in some instances, means every regional is a 'brown field' site – meaning that there is existing service infrastructure. Planners and decision makers have to work from 'what is', to 'what should be' using the Atlas service and population needs data, service utilisation data and performance metrics.

Globally, there is an increasing move toward regionalised service planning that is designed to best meet specific regional needs and contexts, however comparisons, both international and national, provide a catalyst and sound evidence base for conversations in relation to service planning and commissioning discussions.

National Comparisons

DESDE has now been utilised in some parts of the world for more than 20 years and more recently within Australia it has been applied to create the following Atlases in the following regions:

- Central and Eastern Sydney
- Western Sydney
- Far West NSW
- South Western Sydney
- Western NSW
- North Sydney
- Brisbane North
- Country Western Australia
- Perth North
- Perth South
- South Eastern Melbourne
- Australian Capital Territory

Publicly available and comparable data for urban areas was available for Brisbane North and Western Sydney and used for comparison purposes here. Further analysis with other Australian urban areas including SE Melbourne, Perth North and South, the ACT and Central and Eastern Sydney could be undertaken in cooperation with the relevant authorities.

Western Sydney

Western Sydney includes the area of the former WentWest Medicare Local, now the Western Sydney PHN (WSPHN). The WSPHN is a large region with a population of over 900,000 residents and with a younger age structure compared to the Australian average. It is one of Australia's fastest growing and most multicultural urban populations with a diverse ethnic mix, ranging from long-established immigrant communities to recent arrivals. There are also areas of social and economic disadvantage, characterised by high unemployment, low levels of education and poor physical health.

Data collected in 2015 in relation to services providing care for people with a lived experience of mental illness highlighted three key areas with lower services including:

- non-hospital acute and sub-acute care
- acute and non-acute health-related day care
- employment related day care (Salvador-Carulla et al., 2015).

In addition to higher rates of non-acute mobile outpatient services identified in the EMPHN catchment, the rate of care coordination services identified for the region was higher in comparison to WS as is the residential non-acute non-hospital Care (Figure 49).

Brisbane North

The Brisbane North PHN (BNPHN) region covers an area of over 4,000 square kilometres and at the 2011 census recorded a population of just over 855,000 persons. The region has a younger age profile than the Australian average but is consistent with the Queensland age profile with approximately seven per cent

under the age of five and nearly 34 per cent under the age of 25 years. Just under 13 per cent of the population were aged 65 years or more.

The BNPHN region includes large areas of very low population density (less than 37 persons per square km), with a number of smaller pockets of high density (over 2,264 persons per square km) concentrated around the Brisbane River suburbs and inner north. This mix of high density urban, medium density urban, low density semi-urban (acreage) and very low density rural presents challenges for health service planning.

The Brisbane North Integrated Atlas identified a number of strengths in the mental health service system, namely:

- an adequate number of acute care beds
- a high degree of mobile outpatient care
- relatively good alignment between geographic areas of higher population need and services, although there is a significant mal-distribution of the public sector psychiatry workforce.

However, there were several major deficiencies or gaps in both the spectrum of care available and the capacity relative to the population needs, namely:

- hospital sub-acute care
- non-hospital acute and sub-acute care
- acute and non-acute day health care
- day care related to employment (Mendoza et al., 2015).

Compared to BNPHN, fewer residential and day care services were identified and the rate of care coordination services identified for the EMPHN region was higher in comparison to BNPHN (Figure 50). However, the higher rates for care coordination should be treated with caution due to some possible inconsistencies in the classification of PIR teams across Atlases in different areas.

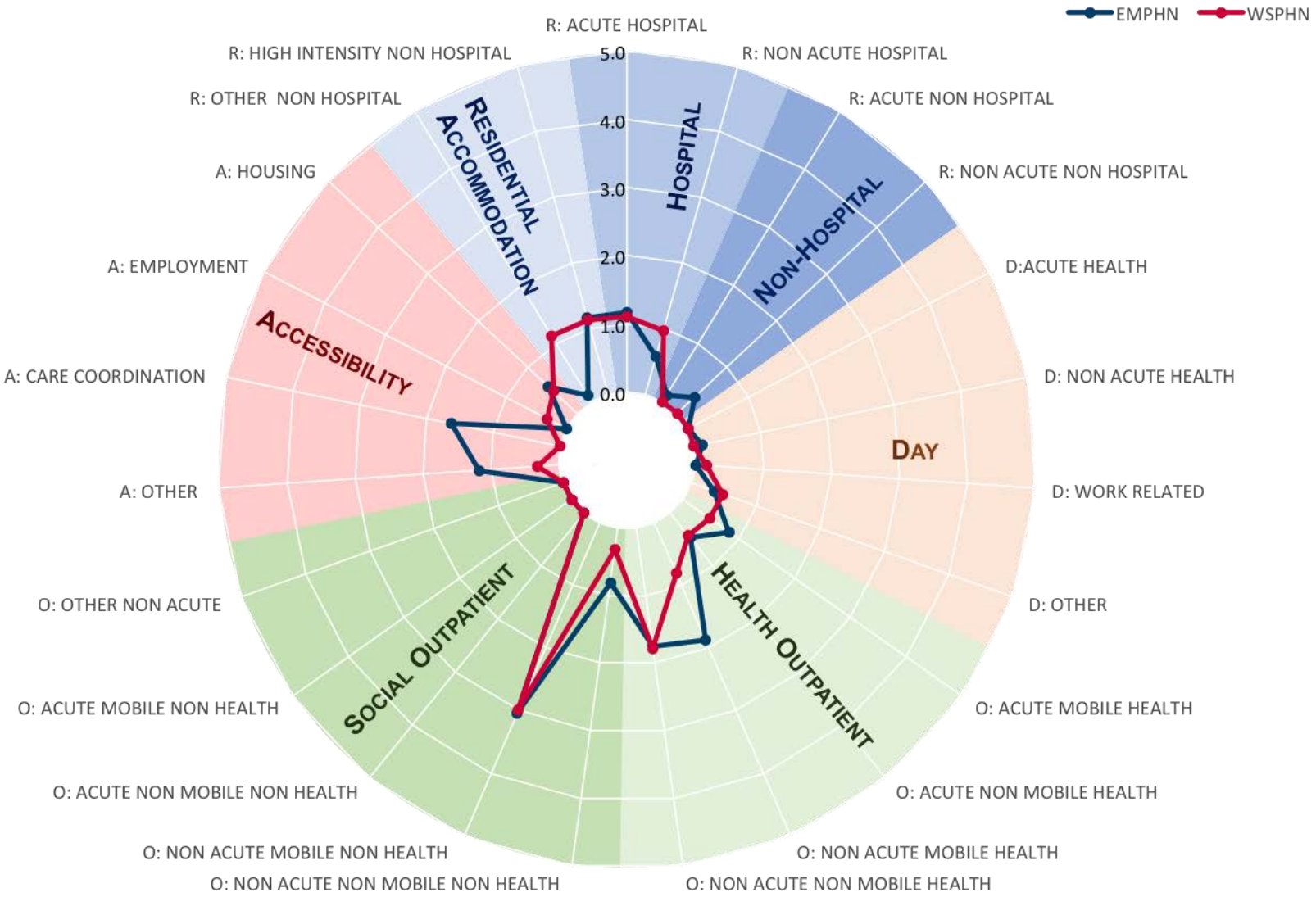


FIGURE 49 MENTAL HEALTH PATTERN OF CARE FOR ADULTS IN EMPHN & WSPHN (MTC PER 100,000)

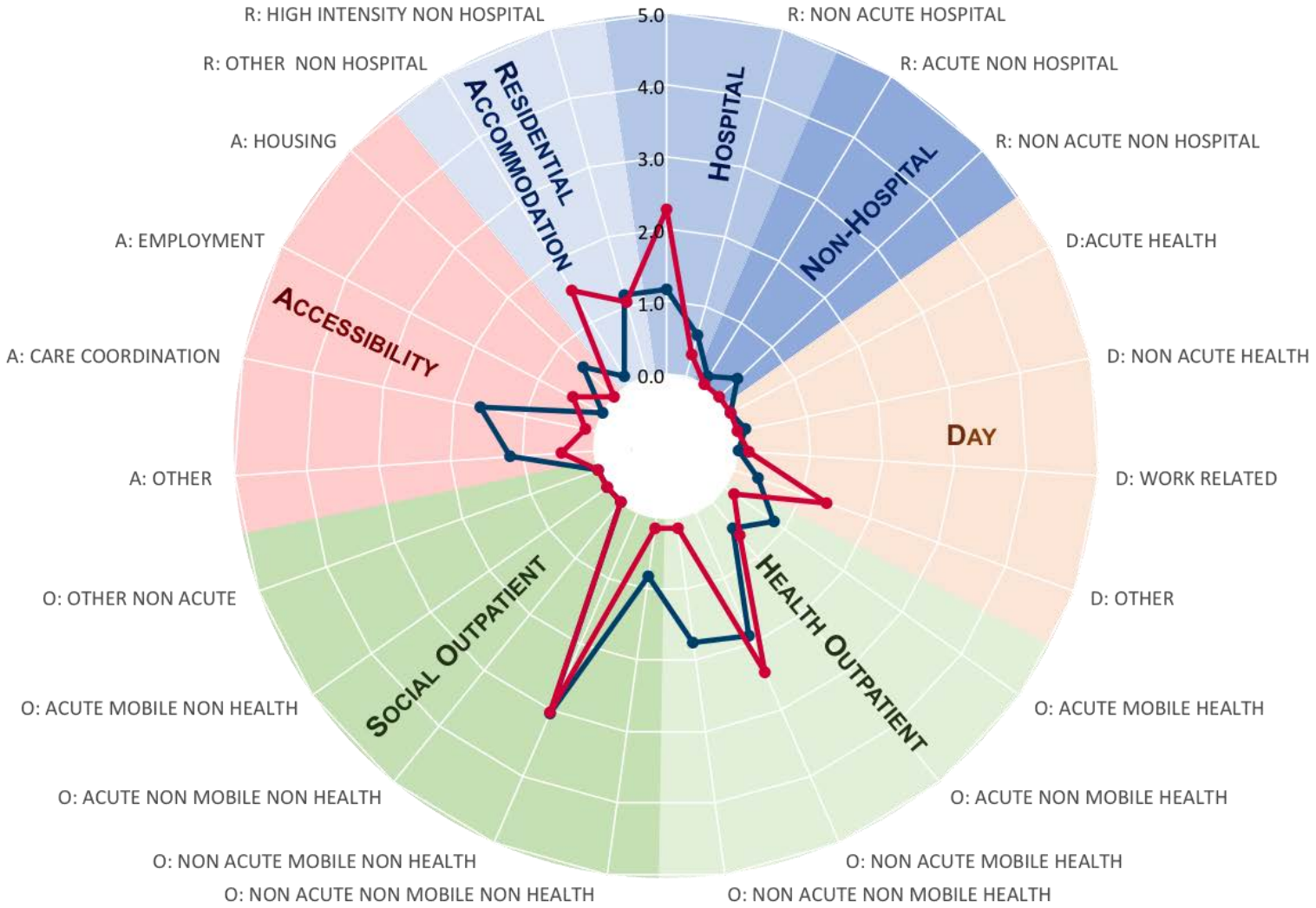


FIGURE 50 MENTAL HEALTH PATTERN OF CARE FOR ADULTS IN EMPHN & BNPHN (MTC PER 100,000)

International Comparisons

In the absence of a 'gold standard' for planning the provision of mental health services, international comparisons are useful for problematising things that are often taken for granted and identifying policy learnings and borrowings (Cacace et al., 2013). In order to conduct meaningful comparisons, it is important to use a standardised tool that goes beyond terminological variability.

There are several European areas that have been mapped using the DESDE-LTC. The use of a common language facilitates comparisons between the EMPHN region and the different community care models in Europe. Comparisons need to be taken with caution as all regions have their own unique characteristics and there is often significant variability both across and within areas of Australia.

Northern Europe

The Finnish area (Helsinki and Uusimaa Hospital District) is owned and governed by 26 municipalities each free to provide public services or to purchase them from an external provider. Primary care is organised by the municipalities and represents the main access point for people with mental health problems whilst specialised care is organised by the hospital districts. More than 40 per cent of the households of the area of Helsinki and Uusimaa are occupied by just one person.

When comparing EMPHN and the Finnish areas, the main contrasts are both the breadth and the high number of residential and day care services in Finland, together with slightly higher rates of non-acute, non-mobile (health-related) outpatient care teams (Figure 51). The greater spectrum and capacity of day care services in the Finnish area also means access to structured rehabilitation programs is significantly greater than in the EMPHN region.

EMPHN's catchment also had higher rates of health related non-acute mobile outpatient care. This means most outpatient care is place or centre based in the Finnish example which is generally a more efficient service model when compared to mobile non-acute care.

It should be noted that accessibility care was not mapped in Helsinki and Uusimaa.

Southern Europe

Mental health in Southern Europe is characterised by a strong emphasis on community care, and low availability of psychiatric hospitals. As in the case of Northern Europe, the public health sector is funded from general taxes.

In Italy, the Local Health Authorities, which are the local branches of the Regional National Health System, are the purchases of health care services. They also finance social care services together with the municipalities. There are 21 Local Health Authorities in the Verona region and each is assigned a Mental Health Department which is in charge of the planning and management of all medical and social resources relation to prevention treatment and rehabilitation.

The most notable differences between EMPHN and Verona are:

- the much higher rate of other non-hospital residential care – meaning people with mental illness will be more likely to have a place to sleep and be safe
- greater non-acute non-mobile health care in Verona – again a more efficient model for outpatient mental health care
- the availability of day hospital or high intensity health care – these are structured rehabilitation and recovery programs run by clinical and non-clinical mental health teams (Figure 52).

This greater investment in health care for people with severe mental illnesses means that chronic conditions often experienced by this group are treated.

England

England raises funds mainly from general taxes and there is one purchaser organisation for most health care services. Local health authorities are involved in funding social care services in addition to local authorities and the state. A local Mental Health Trust is often the single organisation contracted to provide the majority of the mental health services in a given locality, however the trusts also may subcontract to other providers.

The pattern of care in Hampshire is similar to that of EMPHN with a few exceptions, namely:

- the almost non-existent health related non-acute non-mobile outpatient services in Hampshire
- the far greater availability of non-acute non mobile non health services and high intensity non-hospital services in the EMPHN region (Figure 53).

Day care services were not mapped in the Hampshire atlas project.

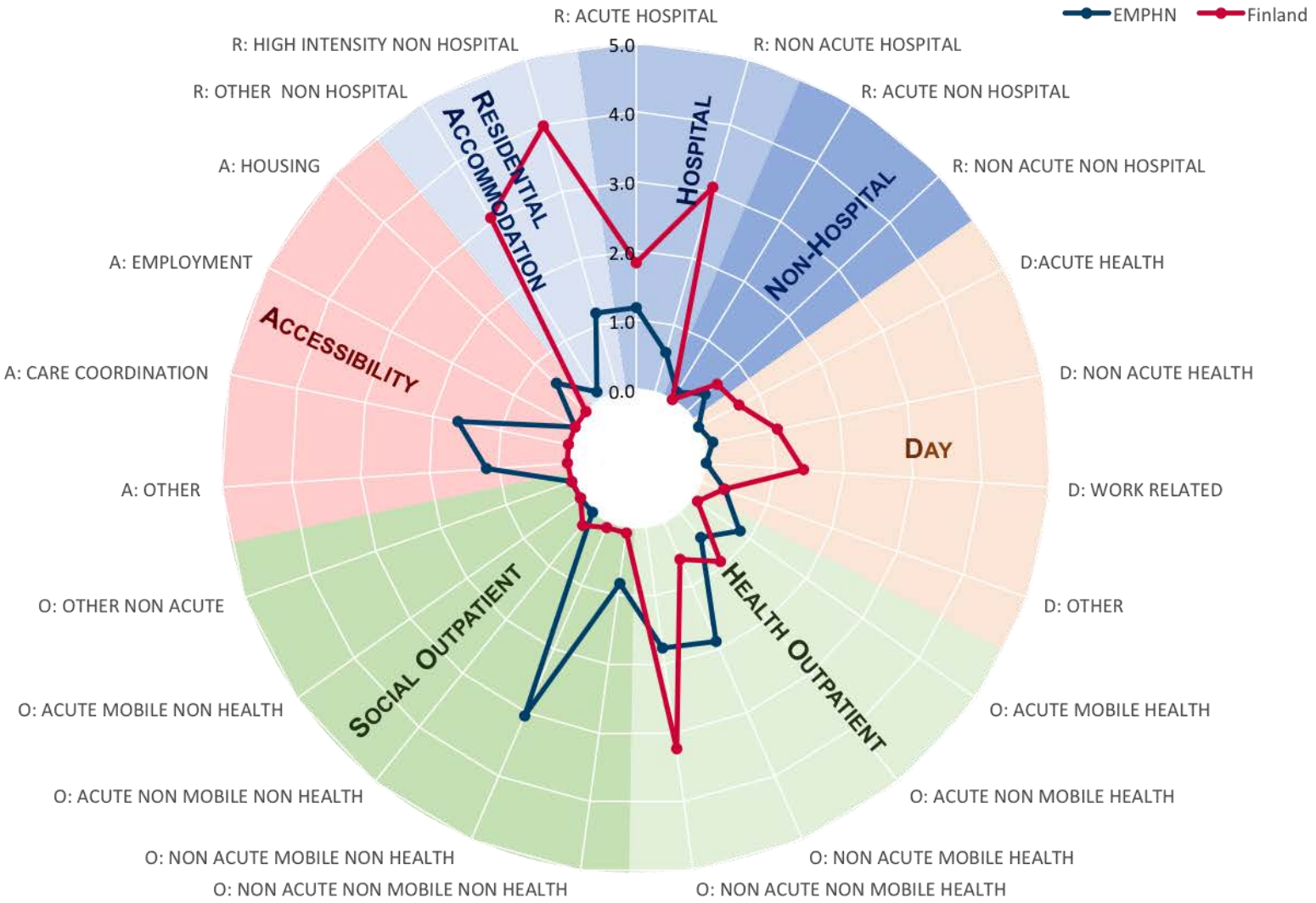


FIGURE 51 MENTAL HEALTH PATTERN OF CARE FOR ADULTS IN EMPHN & FINLAND (MTC PER 100,000)

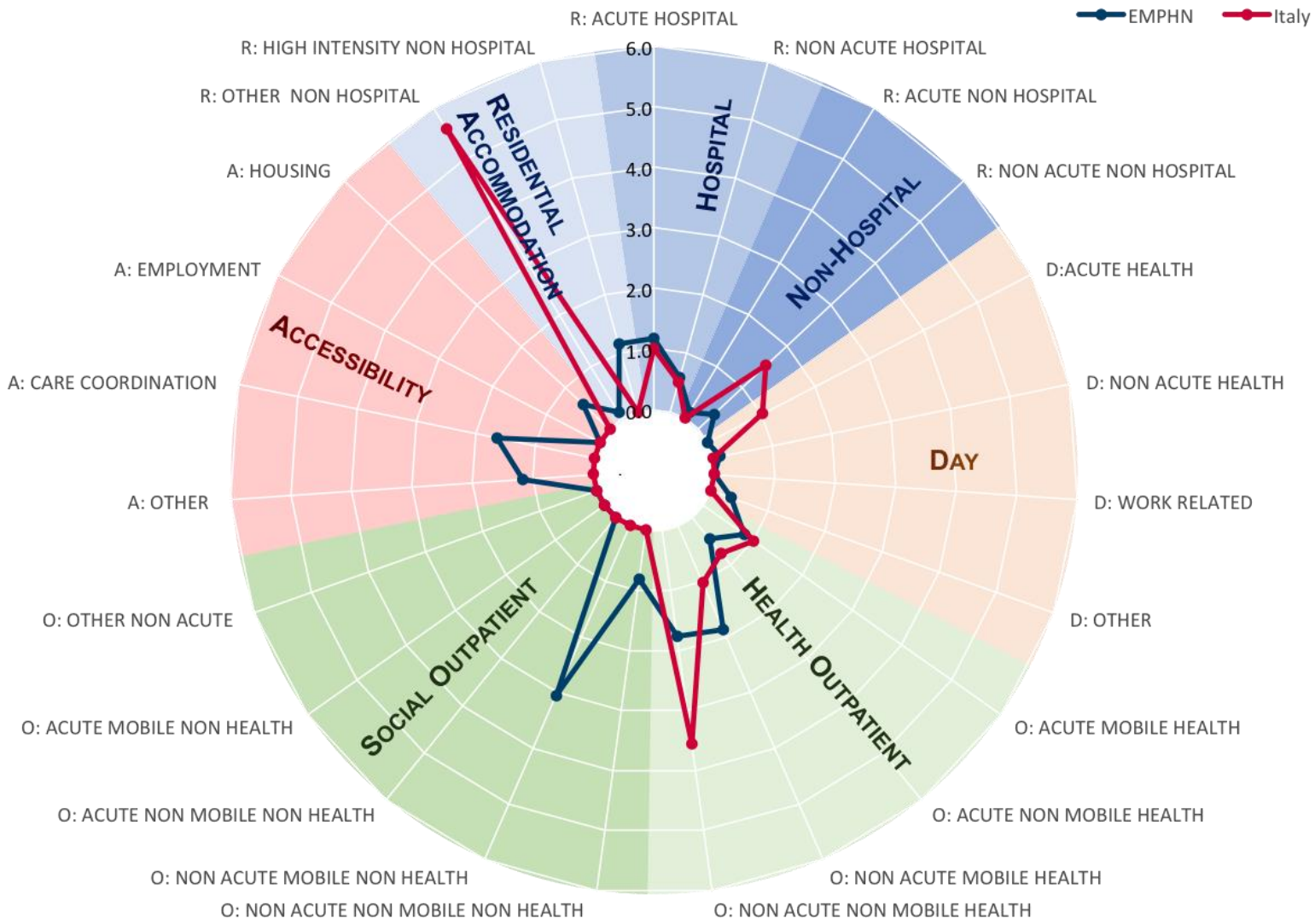


FIGURE 52 MENTAL HEALTH PATTERN OF CARE FOR ADULTS IN EMPHN & VERONA, ITALY (MTC PER 100,000)

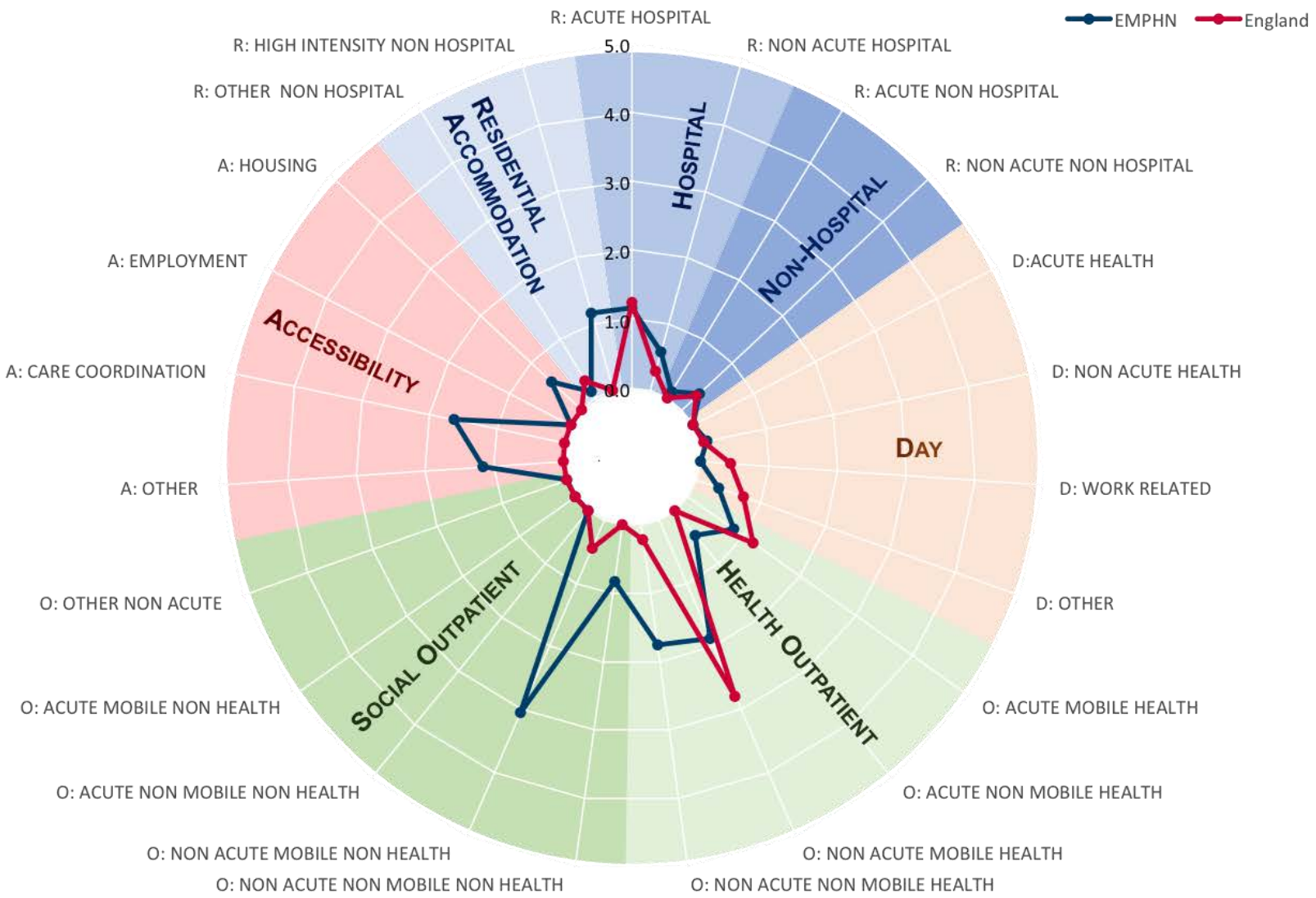


FIGURE 53 MENTAL HEALTH PATTERN OF CARE FOR ADULTS IN EMPHN & HAMPSHIRE, ENGLAND (MTC PER 100,000)

Summary

The mental health care system in Australia, is experiencing a period of extended change and shift in the structure and functioning of the system at both a state and national level. Some of these key changes include the transition of previously federally funded services over to the PHNs for future commissioning/decommissioning as well as the implementation and 'roll-out' of the NDIS. The magnitude of changes such as these, along with disparities between and within regions, puts systems and the services within them under intense pressure. It is therefore imperative that PHNs, and other commissioning and planning authorities, gain a full understanding of the availability of services, service capacity (both placement and workforce) and the geolocation of these services that are available to meet the specific needs of their regions.

The EMPHN region has a degree of social and demographic disparity as well as significant variation in service availability. In this context, this Atlas provides information on services specifically designed for people with a lived experience of mental illness and those with AOD related issues in the EMPHN region across both the public health and NGO sectors. The data presented within it, including the visual representations of the placement and mix of services, is intended to be used as a service planning tool. Atlases are not service directories or gazettes and should be considered an important component of a suite of decision support tools, such as the local needs analysis, service utilisation data, network analysis and a regional outcomes framework. In addition, the information provided in the Atlas should be complimented with other layers of information on generic services used by the target population, such as primary care and generic social services, private care services (fee for service and private insurance provision) as well as services designed for other target groups where mental health plays a significant role (e.g. chronic conditions such as obesity, CVD, musculoskeletal problems and COPD, homelessness, domestic violence, long term unemployment, intellectual disabilities, aged care etc.). Utilised in this way, the Atlas can help to identify gaps, duplications and potential barriers to care and facilitate direct comparisons with other mapped regions within Australia and overseas.

This Atlas contributes to the development of evidence-based regional mental health plans through the provision of local service mapping which assists in identifying gaps and opportunities for reducing duplication and removing inefficiencies.

This Eastern Melbourne PHN Integrated Mental Health and AOD Service Atlas is a snapshot of a pivotal point in time, at the beginning of the roll-out of NDIS, which will provide a benchmark for future comparisons and a robust, replicable visualisation of system change over time. It provides a great opportunity to harness local evidence to innovate and improve existing service systems for the benefit of the local community. Used in conjunction with the Regional Needs Analysis, it is an invaluable tool to identify and visualise service gaps to contribute to evidence informed service planning and policy development.

Based on the services identified during data collection for this Atlas, the mental health system of the EMPHN catchment is characterised by a disproportionate availability of services, a limited range of types of care focused on acute and sub-acute residential care and outpatient services, and significant funding instability of services provided by the NGO sector. Yet features of the existing system structure, lend themselves to the EMPHN region becoming an appropriate place for the development of new models of care. This is a unique moment for EMPHN to creatively develop new partnerships and services that are community based, promote recovery and empower consumers. The use of this Atlas may assist EMPHN to play a key role in the implementation of significant reform to the Mental Health and AOD sectors and deliver substantial improvements in the way residents access and utilise health care services across the region. It can support the development of the 'right care at the right time in the right place with the right person' for those experiencing mental illness and AOD related issues.

Limitations

There are several limitations that should be acknowledged.

• Services may be missing because they were not able to be reached. Some organisations did not respond to requests to participate in data collection. Additionally, it is possible that others were overlooked in the creation of the initial stakeholder lists. However, feedback has been sought on the data presented here and this indicated that the majority of relevant services that meet the criteria for inclusion in the Atlas have been captured.

• Some services are not included because they are not specialist mental health and/or AOD. It is acknowledged that whilst generalist services may still treat people for mental illness and/or AOD they are not included as they do not specifically target these issues.

• DESDE-LTC must be applied with rigour and consistency to ensure the accuracy of comparative data. The ability to make cross-comparisons with other areas both nationally and internationally is one of the key strengths of the tool. However, with such rigour comes an inevitable degree of inflexibility. To fully appreciate the depth and complexity of these services, it would be necessary to do further analysis on the activities of the service delivery teams, something which could be achieved by mapping modalities of care using the International Classification of Mental Health Care.

• Private providers are not included as this Atlas is focused on services with a minimum level of universal accessibility (that is the services are free or have low co-payment costs making them universally accessible). The inclusion of private providers in the mapping of publicly available services is considered to increase noise and possibly distort the interpretation of results. It might also misrepresent the universality of access to services. Nonetheless in the mixed model of healthcare in Australia, examining the distribution of private provided services, including Medicare-subsided services, can further highlight duplication, mal-distribution and service gaps. For that reason, a high level analysis of the MBS subsided services is included in this report.

• The assessment of services was made through a process of internet searches, face-to-face interviews, emails and telephone interviews. Some information may not have been provided, some information may have been misinterpreted, or contain inaccuracies and some assumptions may have been required to finalise a code or classification. During the development of this Atlas feedback was actively encouraged over several months to ensure the data contained here is as accurate as it can be.

Future Initiatives

This Atlas comprehensively maps the stable services providing care for people with lived experience of mental illness and AOD issues and uses publicly available socio-demographic information on the EMPHN population.

Whilst the Atlas provides a comprehensive assessment and analysis of the services provided within the region, it would be further enhanced and complimented by additional analysis such as:

- **Mapping modalities of care** – In creating the Atlas it was evident that many service delivery teams operate in a highly flexible, integrated way, often undertaking a variety of program activities that it would be beneficial to understand in a deeper way. This could be achieved by mapping the modalities of care using the International Classification of Mental Health Care.
- **Chronic care mapping** - Rates of other chronic diseases relevant to people with mental ill-health, AOD issues: CVD, COPD, Type 2 Diabetes, some cancers, obesity and muscular-skeletal conditions could be added to future maps. The shorter life expectancy for people with severe mental illnesses and higher prevalence mood disorders are largely due to one or more of these conditions.
- **In-depth workforce analysis** – This would support this and future Atlas work. This would facilitate a more comprehensive understanding and categorisation to most effectively articulate the profile, qualifications and experience of the workforce.
- **Sentinel sites – PENCAT (or similar) data** – More information on service utilisation would add depth would add to the current data sets and analysis. What else could be added to future mapping exercises? Waiting lists, volumes?
- Further exploration of **financing mechanisms** and **financing flows** and **Relative Efficiency Analysis** could be conducted. This would allow important areas such as the Better Access Program, Community mental health services provided by NGOs and housing to be examined. The nature, consistency and stability of funding flows can substantially impact the stability and quality of the services provided.
- The **level of integration** of the services providing mental health care, AOD services or services for those with chronic conditions or those who are homeless or those at risk of homelessness and the **philosophy of care** of the services.
- **A network analysis** would allow for visualisation of the **strength of relationships** between organisations to better understand the level of connectivity and integration between services and the strength of these connections.
- **Hospital Transitions Pathways and beyond** - understanding how people navigate a system is a key area of knowledge that would add depth to service planning, design, utility and efficiency. This can be undertaken at a high level or through the application of network analysis to fully understand the pathways to, through and from services for different population groups.

With the Atlas a foundation document, investment in these additional analyses would provide the information necessary for informed policy planning and constitute a sophisticated and robust decision support system.

As resources become further constrained and the complexity of needs increases, greater efforts will be required to fully understand population health and social needs and plan, implement and evaluate service responses.

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Appendix A - Services with insufficient information

PROVIDER	SERVICE
Austin Health	Veterans and Serving Members Unit - Outpatient Clinic
	Veterans and Serving Members Unit - Human Relations Clinic
	Veterans and Serving Members Unit - Sleep Disorders Clinic
	Veterans and Serving Members Unit - PTSD Group Treatment Program
	Veterans and Serving Members Unit - Addictive Behaviours Group
	Veterans and Serving Members Unit - Older Veterans Psychiatry Program
	Veterans and Serving Members Unit - Rehabilitation Workgroup
	Post-Trauma Victoria
	PTRS Inpatient Unit
	Drug Dependency Clinic
SalvoCare	Innovative Low Intensity Psychological Strategies
	The Bridge Program

Appendix B - DESDE-LTC Quick Reference Guide

DESDE-LTC Quick Reference Guide

Target Population

Children and Adolescents (including young adults)
- **CX** Child & Adolescents (0-17 years)
- **CC** Only children (0-11 years)
- **CA** Only adolescent (12-17 years)
- **CY** Adolescents and young adults (12-25 years)

Adults (Including services with no age specification)
- **AX** Adults (18-65 years)
- **AY** Young adults (18-25 years)
- **AO** Older adults (50-65 years)

Older Adults
- **OX** Older than 65
- **TC** Transition from child to adolescent (8-13 years)
- **TA** Transition from adolescent to adult (16-25 years)
- **TO** Transition from adult to older adult (55-70 years)

- **GX** All age groups
- **NX** None/undetermined

M Males **F** Females **IN** Indigenous

Diagnostic Group

F00-F99 All types of mental disorders
F20-F29 Schizophrenia, schizotypal, delusional, and other non-mood psychotic disorders
F30-49 Mood [affective] disorders
F53 Mental and behavioural disorders associated with the puerperium, not elsewhere classified
O90.6 Postpartum Mood Disturbance
T14.91 Suicide attempt
V00-Y99 External causes of morbidity
Z55-65 Persons with potential health hazards related to socioeconomic and psychosocial circumstances
Z57 Occupational exposure to risk factors
Z63 Other problems related to primary support group, including family circumstances
Z69 Encounter for mental health services for victim and perpetrator of abuse
ICD-T Used where there is not a specific diagnostic group for this service

Qualifier

a - Acute care (complimentary) – Used where acute care is provided within a non-acute, non-residential setting
b - Bundled care – Episode-related care, usually for non-acute patients within a time limited plan (eg., three months)
c - Closed care – Secluded MTC with a high level of security (e.g. locked doors)
d - Domiciliary care – Provided wholly at the home of the service user
e - eCare – Telephone, modern information and communication technologies (ICTs)
f - Far-away – Teams available for a population too distant to be accessed on a routine basis
g - Group – Outpatient services that provide predominantly group activities
h - Hospital – Non-residential care provided within a hospital setting
i - Institutional care – Residential facilities characterised by indefinite stay for a defined population group, usually with over 100 beds
j - Justice care – Provide care to individuals in contact with crime and justice services
l - Liaison care – Providing specific consultation for a subgroup of clients from another area within a facility
m - Management – Core function is management, planning, coordination or navigation of care
n - Novel – Residential care does not fulfil criteria for typical hospitals (e.g. hospital clusters or campuses or community centres)
o - 'On call' Physician – Physician is not formally on duty at the centre part of the day, usually at night
p - Primary Care – Specialised ambulatory care provided at the "primary care centre" by a qualified specialist
q - Quite – The main attribute of the MTC is significantly higher/greater than for other care teams coded in the same MTC
r - Reference – Operates as the main intake or referral point for the local area
s - Specialised care – For a specific subgroup within the target population of the catchment area (e.g. eating disorders service)
t - Tributory – A satellite team dependant on another main care team
u - Unitary – Consists of only one team member
v - Variable – Subject to strong limitations of capacity or fluctuations in demand
w - Whole – Only provides the extreme level of the activity described by MTC

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Appendix C – Participation Stakeholders

Non-Government Stakeholders

ELIGIBLE / INCLUDED			
Access Health and Community		Neami National	
Anglicare Victoria		Nexus Primary Health	
Banyule Community Health		Odyssey House Victoria	
Camcare		Primary Mental Health Consultancy	
Caraniche		SalvoCare Eastern	
Carrington Health		Uniting LifeAssist	
EACH		UnitingCare ReGen	
Eastern Drug and Alcohol Service		Victorian Aboriginal Health Service	
Inspiro		Wellways	
Link Health and Community		YSAS	
Mind Australia		Merri Health	
INELIGIBLE / NOT INCLUDED			
Healthability		Plenty Valley CH	
Outcome Health			

Health Stakeholders

ELIGIBLE / INCLUDED			
Austin Health		St Vincent's Health	
Eastern Health		Turning Point	
Northern Area Mental Health Service			

For more information

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