THE INTEGRATED ATLAS OF MENTAL HEALTH OF THE PERTH NORTH PRIMARY HEALTH NETWORK REGION

WAPHA WA Primary Health Alliance
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Australian National University
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ConNetica CREATING BETTER FUTURES
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Abbreviations and Definitions

Abbreviation	Definition
ABS	Australian Bureau of Statistics
AOD	Alcohol and Other Drugs
ATAPS	Access to Applied Psychology Services
ATSI	Aboriginal and Torres Strait Islander
ATT	Assessment and Treatment Team
BSIC	Basic Stable Input of Care
CALD	Culturally and Linguistically Diverse
CCT	Community Care Team
CLS	Consultant Liaison Service
CTT	Clinical Treatment Team / Community Treatment Team
CSRU	Community Supported Residential Units
DBT	Dialectical Behavior Therapy
DESDE-LTC	Description and Evaluation of Services and Directories for Long-Term Care
DoH	Department of Health
EDCLS	Emergency Department Consultation Liaison Service
GIS	Geographical Information System
GP	General Practitioner
ICOT	Intensive Community OutreachTeam
ICLS	Individualised Community Living Strategy
IRSD	Index of Relative Socio-economic Disadvantage
LGA	Local Government Area
MATT	Mobile Assessment and Treatment Team
MCOT	Mobile Clinical Outreach Team
MHNIP	Mental Health Nurse Incentive Program
MTC	Main Type of Care
NDIS	National Disability Insurance Scheme

NHMSPF	National Mental Health Service Planning Framework
NGO	Non-Government Organisation (or community service provider)
PHaMs	Personal Helpers and Mentors Program
PHN	Primary Health Network
PIR	Partners in Recovery
PNPHN	Perth North PHN
PSPHN	Perth South PHN
SEIFA	Socio Economic Indexes for Areas
SSAMHS	Statewide Specialist Aboriginal Mental Health Services
WA	Western Australia
WAPHA	Western Australian Primary Health Alliance
WHO	World Health Organisation
YEPP	Youth Early Psychosis Program

Executive Summary

In Australia in any given year, approximately 20% of the population experience mental illness (Jorm et al., 2017). Each year it is estimated one in five Western Australians between 16 and 85 years has a mental illness (Western Australian Mental Health Commission (WAMHC), 2015). This equates to 395,000 persons, with a severity profile similar in proportion to national estimates. However, Australians living with serious mental illness, and those with drug and alcohol issues, continue to struggle with disconnected, complex and fragmented health and social service systems (National Mental Health Commission (NMHC), 2014).

The 2014 National Review of Mental Health Programmes and Services by the NMHC drew attention to the need of local planning of care for people with a lived experience of mental illness in Australia, and the relevance of a bottom-up approach to understanding “services available locally [in] the development of national policy” (NMHC, 2014). In its response to this review, the Australian Government prioritised integrated regional planning and service delivery, and the development of a stepped model of care: a model predicated on the availability to consumers of a mental health care system characterised by a broad range of different types of services at several levels of need (Australian Government Department of Health, 2015). Integrated regional planning and service delivery is a focus of the Fifth National Mental Health and Suicide Plan, which “commits all governments to work together to achieve integration in planning and service delivery at a regional level” and “recognises that [Primary Health Networks] PHNs … provide the core architecture to support integration at the regional level” (Australian Government Department of Health, 2017).

The principles guiding the Western Australian Mental Health, Alcohol And Other Drug Services Plan 2015–2025, “Better Choices, Better Lives” (WAMHC, 2015) include a focus on providing an appropriate mix of supports, with “a holistic approach that acknowledges the impact of the social determinants of health and wellbeing such as housing, education, and employment”, and “improved system navigation, collaboration and integration”. Western Australian Primary Health Aliance (WAPHA)’s position statement on mental health includes a recognition of the need to “commission and plan mental health services adopting a stepped care approach, on the basis of local mental health needs and integration and co-ordination with other services” and to “Improve the integration between primary, secondary and tertiary services and across mental, physical and social services” (WAPHA, 2015).

The Integrated Atlas of Mental Health of the Perth North Primary Health Network aligns with these objectives. It provides an inventory of available services specifically targeted for people with a lived experience of mental illness. This will inform service planning and the allocation of resources. It is a tool for evidence- informed planning that critically analyses the pattern of mental health care within the care delivery system of the Perth North region.

In 2015, the Western Australia Primary Health Alliance (WAPHA) commissioned the external firm ConNetica to map the existing mental health services in each of the state’s three Primary Health Networks (PHNs), using the Description and Evaluation of Services and Directories for Long-Term Care (DESDE-LTC) developed by the team of Professor Luis Salvador-Carulla, at the Centre for Mental Health Research, Australian National University (ANU). DESDE-LTC- based services Atlases are generated by collecting service data to construct a preliminary version of the Atlas, and then obtaining and incorporating feedback from stakeholders. Three versions of the Atlas are produced: 1) Alpha version made by the working group based on surveys and interviews; 2) Beta version (version for comments) completed after revision with the public agencies and the key stakeholders; and 3) final version completed with feedback provided by the local stakeholders and consumer organisations after the launch of the Beta version.

ConNetica produced the Alpha version of the Atlas of Mental Health Care of Western Australia (WA) in two separate reports: The Integrated Mental Health and Alcohol and Other Drugs Atlas of Western Australia – Volume I Metropolitan Perth, which describes the mental health services operating in Perth North PHN and Perth South PHN as of 2016 (Hopkins at al., 2017a); and The Integrated Mental Health

and Alcohol and Other Drugs Atlas of Western Australia – Volume II Country WA (Hopkins et al., 2017 b) which describes the mental health services in the Country WA PHN (CWAPHN) region and its seven sub-regions. Final versions of these reports were completed in May 2017 by ConNetica following incorporation of feedback.

In June 2017, the University of Queensland (UQ) began training PHN representatives to use the National Mental Health Service Planning Framework (NMHSPF). Following this training, WAPHA identified the need to compare and explore the complementarity of both approaches and the potential combined use of NMHSPF and the Atlas for health planning in WA. WAPHA commissioned the development of semantic mapping between the two systems of UQ and ANU.

The Integrated Atlas of Mental Health of the Perth North Primary Health Network (PNPHN), is the Beta version of the Atlas in this region. While the Alpha version developed by ConNetica included services for people with Alcohol and Other Drugs (AOD) issues, for this Beta version, only mental health services are included. It has been incorporated as Annex 5 to the technical report "Semantic mapping between the Australian NMHSPF and the DESDE-LTC: Applications in Western Australia" (Annex 5) (UQ and ANU).

This Beta version of the Atlas critically analyses the pattern of mental health care provided across this region, and identifies care gaps in Perth North. To be used for local health planning, this tool should be combined with other relevant sources of data on the local system such as: 1) health resource utilisation and pathways of care; 2) financing flows; and 3) projected service needs potentially applying the NMHSPF.

Revisions to the Alpha version include amendments to some codes and to bed capacity of some services, taking into account additional information. Full Time Equivalents (FTEs) have also been added where this information was made available. However, a comprehensive and fully updated Atlas will require inclusion of all FTEs, and a final updating of codes in accordance with the most recent version of DESDE-LTC, integrated with the NMHSPF.

This Atlas comes at a pivotal moment in time, with reforms underway both at state and federal level, including the recommissioning of services and the rollout of the National Disability Insurance Scheme (NDIS).

Summary of Findings

The PNPHN catchment covers an area of just under 3000 square kilometres with a population of 1.07 million. The region includes the North Metropolitan Health Service, as well as 17 Local Government Areas (LGA). A total of 224 mental health service delivery teams were identified across PNPHN. Of these, 61% were provided by the Non-Government (NGO) Sector, with the remainder provided by the public health services. Six services were provided by forensic mental health. Services were generally concentrated towards the south end of the region, especially around the large teaching hospitals, with relatively fewer services in the newer and highly populated areas of Wanaroo and Joondalup.

The Atlas reveals key characteristics of the provision of mental health services across Perth North when compared with other regions in Australia, and with other countries around the world. These are:

Key findings - Perth North

- Relatively high percentage of NGOs compared to other mapped areas in Australia
- Relatively high number of very small services (services with "u" qualifiers) when compared to other mapped areas in Australia

- Relatively high rate of Residential rehabilitation beds and Non-Acute hospital care when compared to other areas in Australia including Perth South, CWAPHN and Kimberleys, and internationally (Spain, Italy and the United Kingdom)
- Relatively high rate of Non-Acute social Outpatient services, particularly Non-Mobile
- Lack of Day care services
- Low rate of Accessibility services
- A concentration of metropolitan services towards the inner-city areas rather than the outer suburban growth corridors.

There is no generally accepted 'perfect' system of care for mental health. Needs, environments and circumstances vary significantly between regions, and indeed even within regions. This should be reflected in regional and sub- regional variations in care. What is generally accepted is that there should be a balance between the different types of care. Consistent with national and state strategies, future system structure should rely less heavily on Acute inpatient care, and provide more resources in Non-Acute residential care, 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 would include more day programs, particularly those specifically targeted at providing supported employment, vocational training and assistance, structured programs and social opportunities.

1. Framework

There has been considerable reform in mental health science, treatment and care over the last three or 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):

i. deinstitutionalisation and the end of the old model of incarceration in mental hospitals;

ii. development of alternative community services and programs;

iii. integration with other health services; and

iv. 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 ill-health 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 NDIS and the introduction of PHNs as commissioners of mental health services.

The journey is therefore still very much in progress, and the application of reform has been patchy. For example, the Australian mental health system still has high rates of readmission to Acute care, with at least 46% of patients hospitalised being 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 (Australian Institute of Health and Welfare (AIHW), 2015). These features are associated with a system characterised by fragmented, hospital- centric, incohesive 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 a lottery dependent on postcode (Mendoza et al., 2013).

There is also increasing recognition of parallels between mental health and drug and alcohol use, both at an individual and health system level. Mental health and drug and alcohol issues are often co-morbid, and the historical demarcation between the mental health and AOD sectors has begun to lessen. Many of the principles around mental health reform also have relevance to the delivery of AOD services.

1.1 What are Integrated Atlases?

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

This is further supported by one of the key recommendations made by the National Review of Mental Health Programmes and Services (NMHC, 2014), which is the need for comprehensive mapping of mental health services.

This National Review draws attention to the local level of mental health planning in Australia, and the relevance of a bottom- up approach to understanding "services available locally [in] the development of national policy". It also calls for responsiveness to the diverse local needs of different communities across Australia:

> *"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)

The 'integrated care model' has challenged the way health- related care should be assessed and planned (Goodwin, 2013). 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 (i.e. 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 & 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, care co- ordination programs such as Partners in Recovery (PIR), and the transfer of social services to the NDIS. Indeed, there are only a handful of locations across Australia to systematically develop an innovative, system wide and sustainable service model for providing coordinated and integrated care services (New South Wales (NSW) Health, 2014).

The 'balanced care model' is also relevant to the development and application of integrated care and health atlases. Thornicroft and Tansella (2013) suggest that a balance between hospital and community care is needed for adequate mental health care, and that: (i) out- patient clinics; (ii) community mental health teams (CMHTs); (iii) Acute in- patient services; (iv) community residential care; and (v) work/occupation, need to be developed in all countries.

The evidence between social determinants and mental disorders has also grown in the past 15 years. Poverty, and its bedfellows unemployment and social exclusion, are all positively associated with common mental disorders (WHO & Calouste Gulbenkian Foundation 2014; Lund et al., 2011). The social determinants of health are similarly implicated in other health related behaviours such as excessive alcohol consumption and drug use (Marmot & Allen, 2014), as well as in co- morbidities between mental health and substance use disorders (Salom et al., 2014).

An emerging hypothesis linking social status and mental disorders focuses on the frequency, severity and duration of stressful environments and experiences. It goes on to propose that these adverse experiences can be cushioned by what might be termed personal and social scaffolding – self- agency, self- regulation, emotional, informational, social connections, and instrumental resources (Bell et al., 2013; ConNetica, 2015).

Within these broad social and service contexts, Integrated Atlases are powerful tools for service planning and decision- making, particularly in times of fiscal constraint. These Integrated Atlases include detailed information on social and demographic characteristics and health-related needs, as well as data on service availability and care capacity. Atlases detect gaps, and 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 applied to a range of health issues, and the coupling of mental health and AOD within an Integrated Atlas has now been undertaken in several Australian states. Integrated Atlases allow comparison between areas, highlighting variations, and detecting gaps in the system. The holistic service maps produced through an Integrated Atlas also allow policy planners and decision makers to build bridges between the different sectors, and to better allocate services (Salvador-Carulla et al., 2015a).

The capacity of policy planners and decision makers to understand the landscape in which they work (including areas of under- or over- supply), make bridges between the different sectors, and better allocate services, 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 co- ordination programs, such as PIR, or the NDIS. In addition, the new knowledge presented in the Atlas supports evidence and knowledge informed planning, decision- making and future service commissioning.

The importance of context

Evidence- informed policy combines 'global evidence' available from around 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 resources (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 shape the lens through which policy makers appraise the salience of evidence (Oliver et al., 2014). Evidence has to also be valued and filtered by policy makers: 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 both the people working within, and those using, the services provided by the system.

It is expected that the Integrated Atlas of Mental Health of the Perth North Primary Health Network Region will support a systems approach to planning, and thus improve the provision of care through facilitating the integration and co- ordination 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.

1.2 Methodology

Typically, atlases of health are formed through lists or directories of services, and the inclusion of services is based on their official or everyday titles. This is particularly problematic for several reasons (Salvador-Carulla et al., 2011):

1. the wide variability in the terminology of services and programs even in the same geographical area, and 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; and,
2. 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-t erm programs and interventions.

DESDE-LTC

To overcome these limitations, in this project, the "Description and Evaluation of Services and Directories for Long-Term Care" (DESDE- LTC) has been used (Salvador-Carulla et al., 2013). This is an open-access, validated, international instrument for the standardised description and classification of services for Long Term Care . Whilst originally developed around health issues requiring long term care, the application of the DESDE-LTC across mental health (and AOD) in Australia necessarily 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/activity offered, as well as to the level of availability and utilisation. It is based on the activities, not the name, of the service provider. The classification of services based on the actual activity of the service therefore reflects the real provision of care in a defined catchment area.

It is important to note that in research on health and social services there are typically different units of analysis, but comparisons should 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). They could also include smaller units within a service: Main Types of Care, Care Modalities, Care Units, Care Intervention Programs, Care Packages, Interventions, Activities, Micro- Activities or Philosophy of Care.

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

1.3 Basic Stable Inputs of Care

A Basic Stable Input of Care (BSIC) is best described as a team of staff working together to provide care for a group of people. It could also be described as a service delivery or care team.

These teams must have time stability (typically they have been funded for more than three years or have funding secured for three years) and structural stability. Structural stability means that they have administrative support, and two of the following: their own space (which can be in a shared office); their own finances (for instance a specific cost centre); and their own forms of documentation (i.e. they collect data and produce reports on their service activities). There are several criteria that help to define a BSIC.

TABLE 1 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 (e.g. a hospital)
		D3.2 It has separate financing and specific accountability (e.g. the unit has its own cost centre)
		D3.3 It has separated documentation when in a meso-organisation (e.g. end of year reports)

Classification of BSIC

Once BSIC are identified using the above criteria, the Main Types of Care (MTC) they provide are examined and classified.

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 (for example a 'Residential' code) and an additional one (for example, a 'Day Care' code).

There are six main classifications of care within the DESDE-LTC, as described below (0).

Residential Care - Used to classify facilities which provide beds overnight for clients for a purpose related to the clinical and social management of their health condition. These include inpatient hospital wards, crisis shelters, residential rehabilitation services and inpatient withdrawal units. Residential Care is divided into Acute and Non- Acute branches.

Day Care - Used to classify facilities which: (i) are normally available to several clients at a time (rather than delivering services to individuals one at a time); (ii) provide some combination of treatment for problems related to long-term care needs (e.g. providing structured activities or social contact/and or support); (iii) have regular opening hours during which they are normally available; and (iv) expect clients to stay at the facility beyond the pe riods during which they have face to face contact with staff: these include the more traditional long-stay day programs).

Outpatient Care - Used to code care provided by service delivery teams which: (i) involves contact between staff and clients for some purpose related to the management of their condition and associated clinical and social needs; and (ii) is not provided as a part of delivery of Residential or Day services. These include outreach services. Quite often, Outpatient Care also involves the provision of information and support to access other types of care.

Accessibility to Care - Classifies service delivery teams whose **main function** is to facilitate access to care for clients with long- term care needs. These services do not provide any therapeutic care, and include Care Co-ordination services.

Information for Care - Used for service delivery teams whose **main function** is to provide clients with information and/or assessment of their needs. Services providing information are not involved in subsequent monitoring/follow- up or direct provision of care. These include many telephone information and triage type services.

Self- Help and Voluntary Care - Used for BSIC which aim to provide clients with support, self- help or contact, with un- paid staff that offer any type of care as described above (i.e. Residential, Day, Outpatient, Accessibility or Information) .

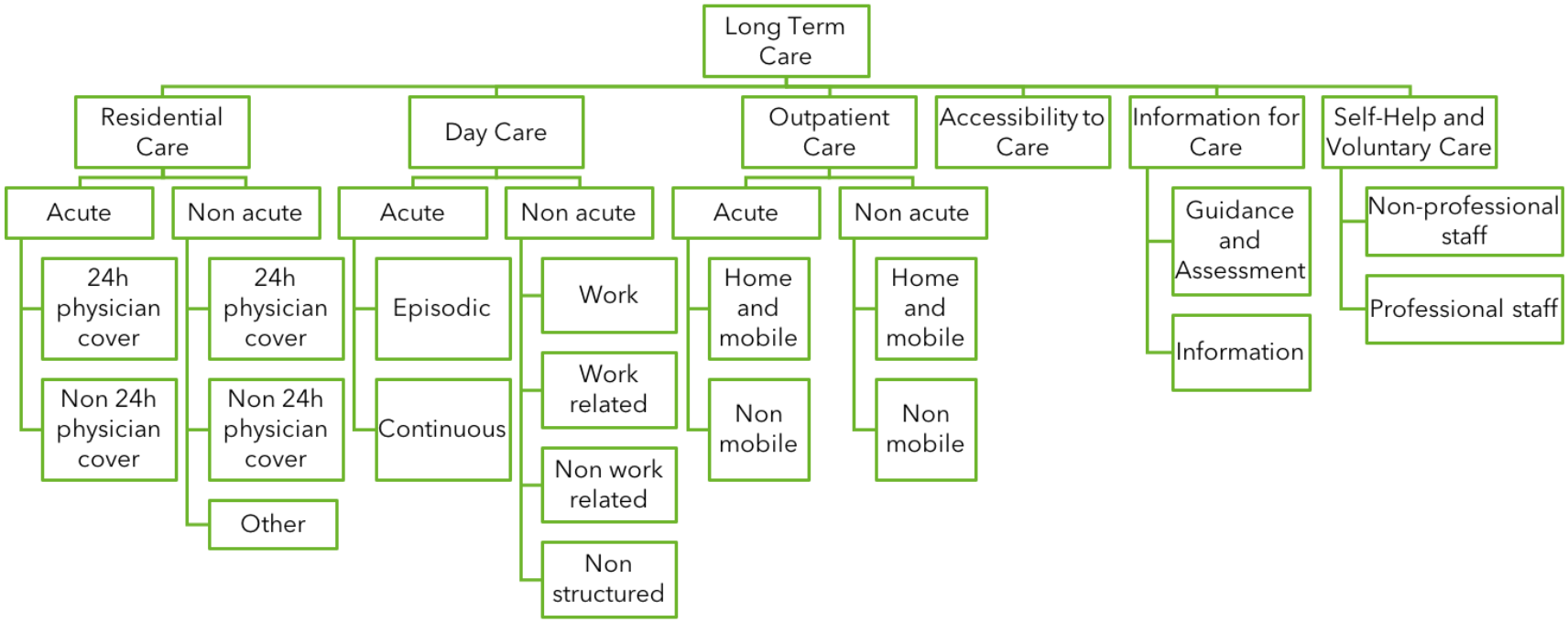


FIGURE 1 MAIN TYPE OF CARE-CORE VALUES

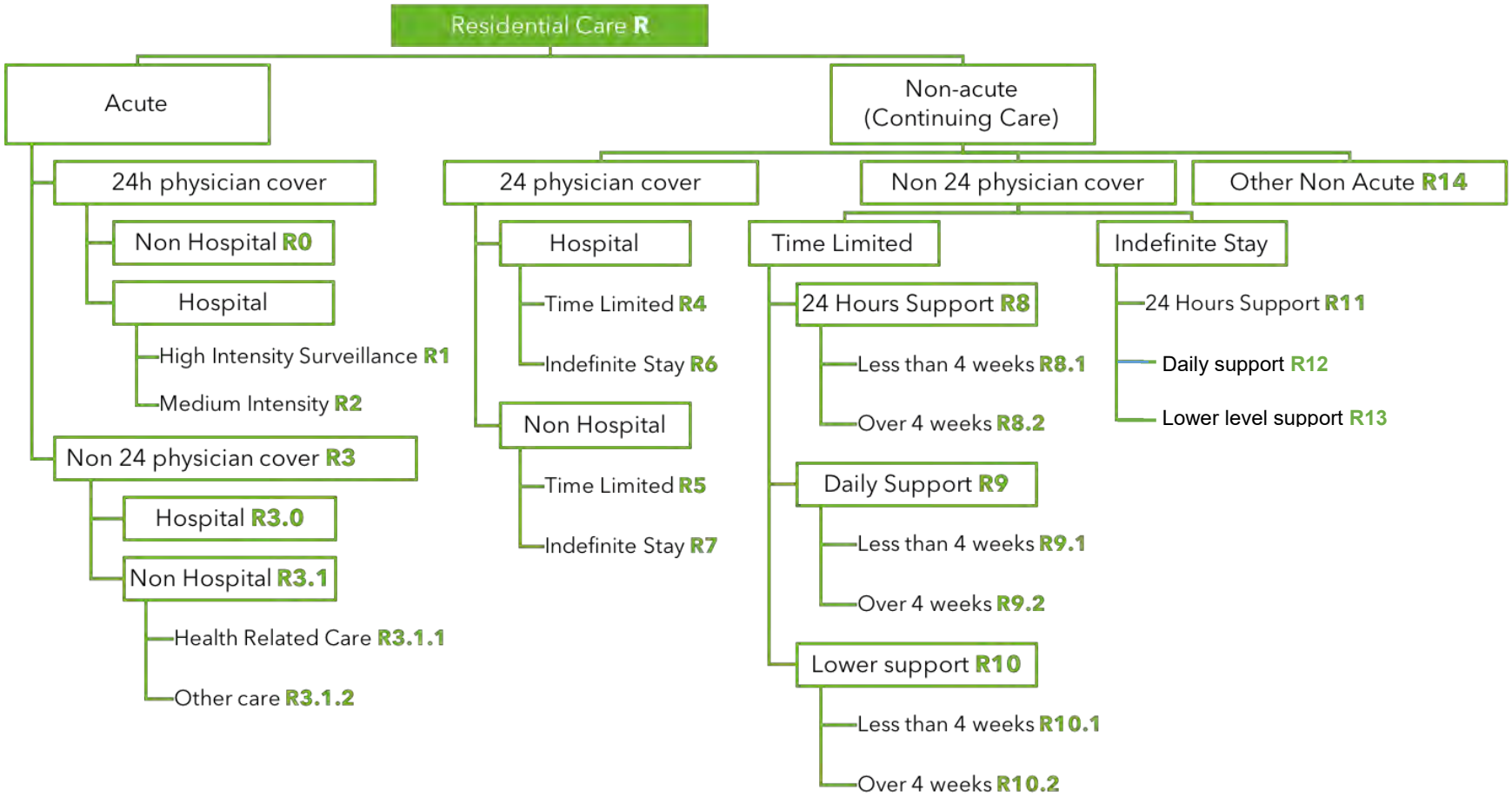


FIGURE 2 RESIDENTIAL CARE CODING BRANCH

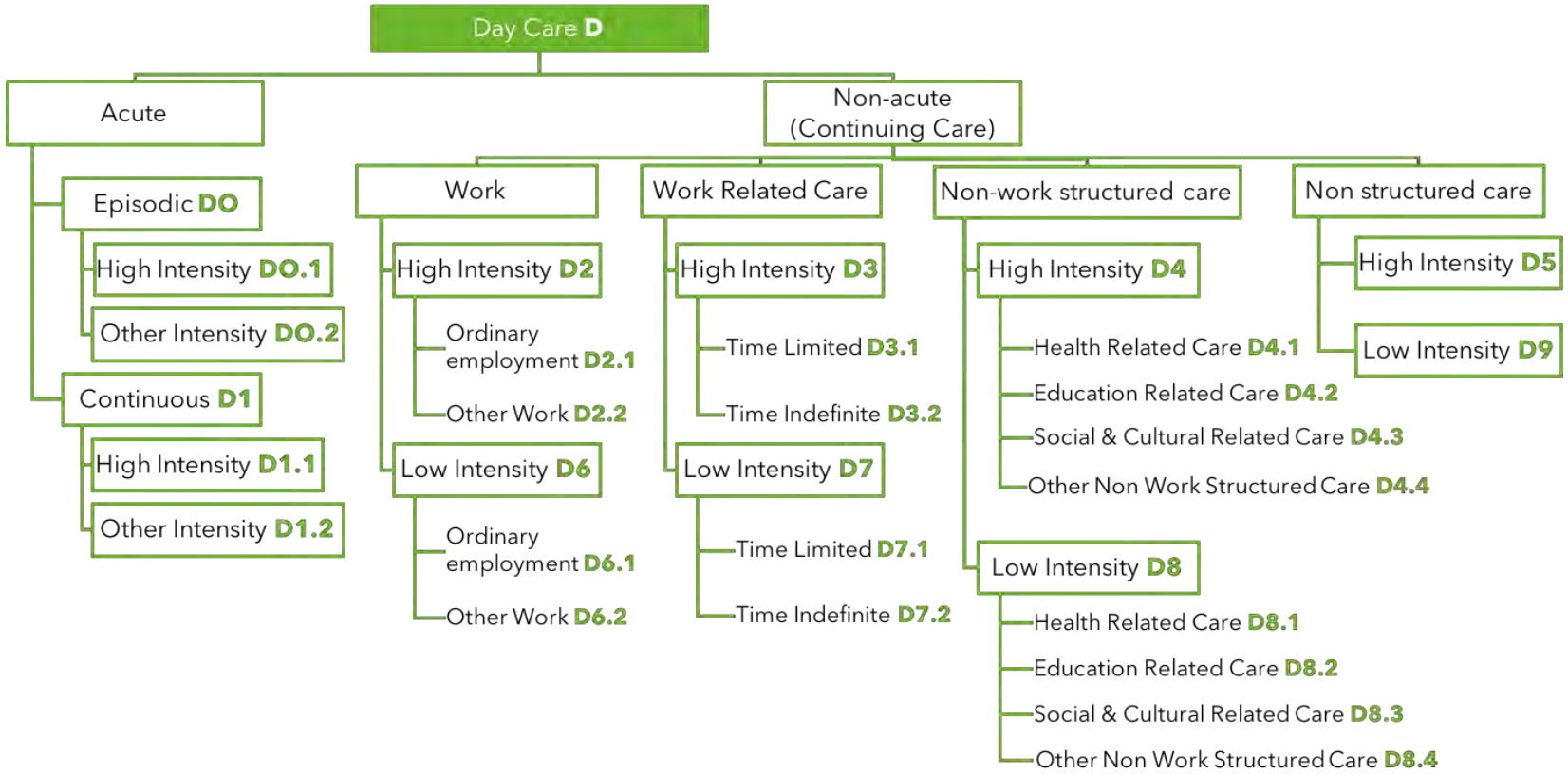


FIGURE 3 DAY CARE CODING BRANCH

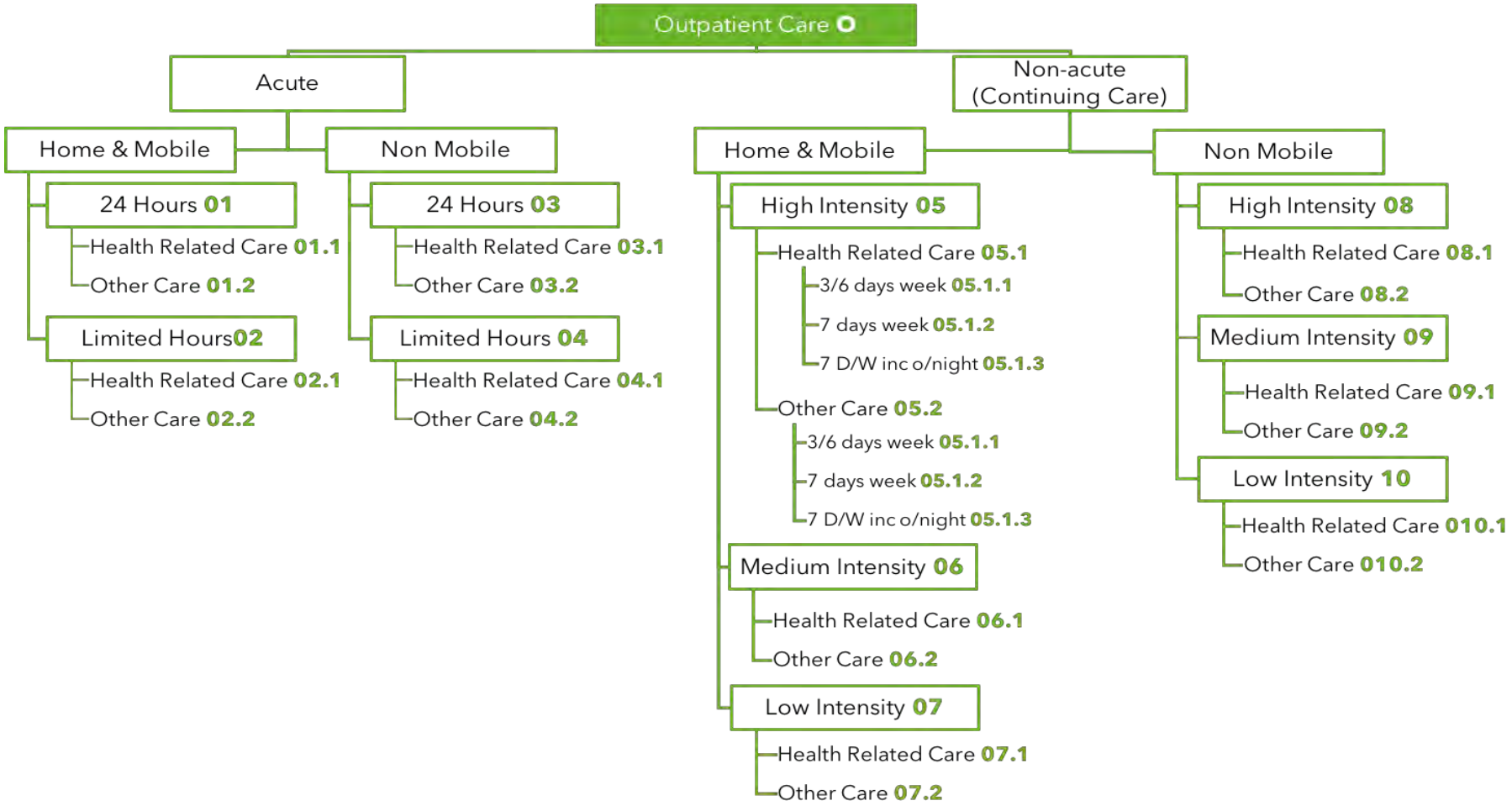


FIGURE 4 OUTPATIENT CARE CODING BRANCH

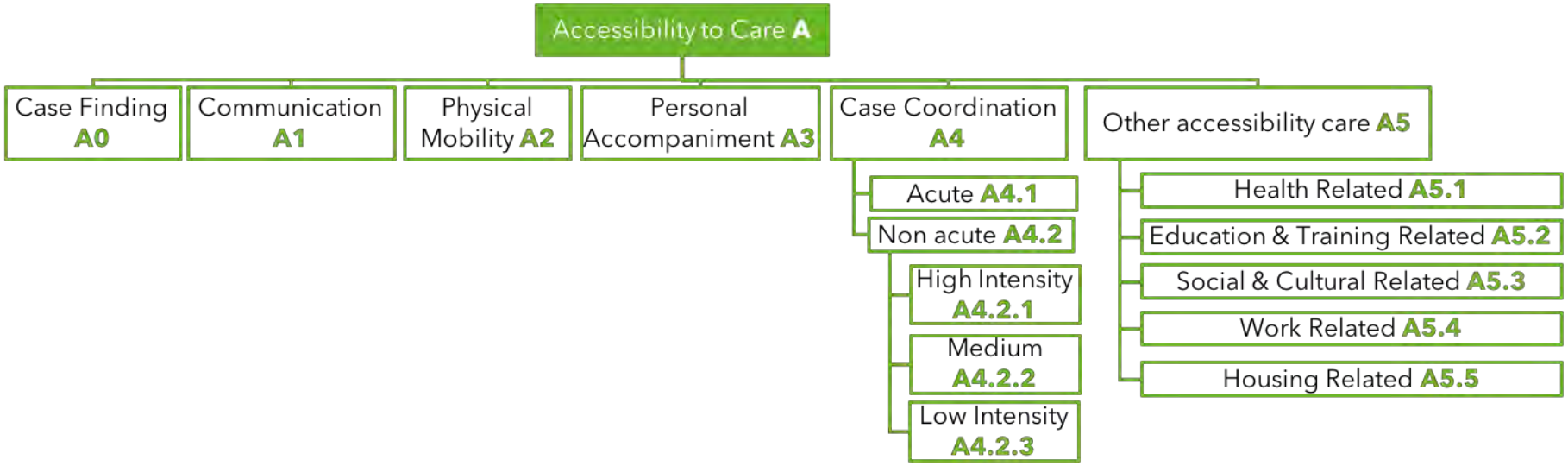


FIGURE 5 ACCESSIBILITY TO CARE CODING BRANCH

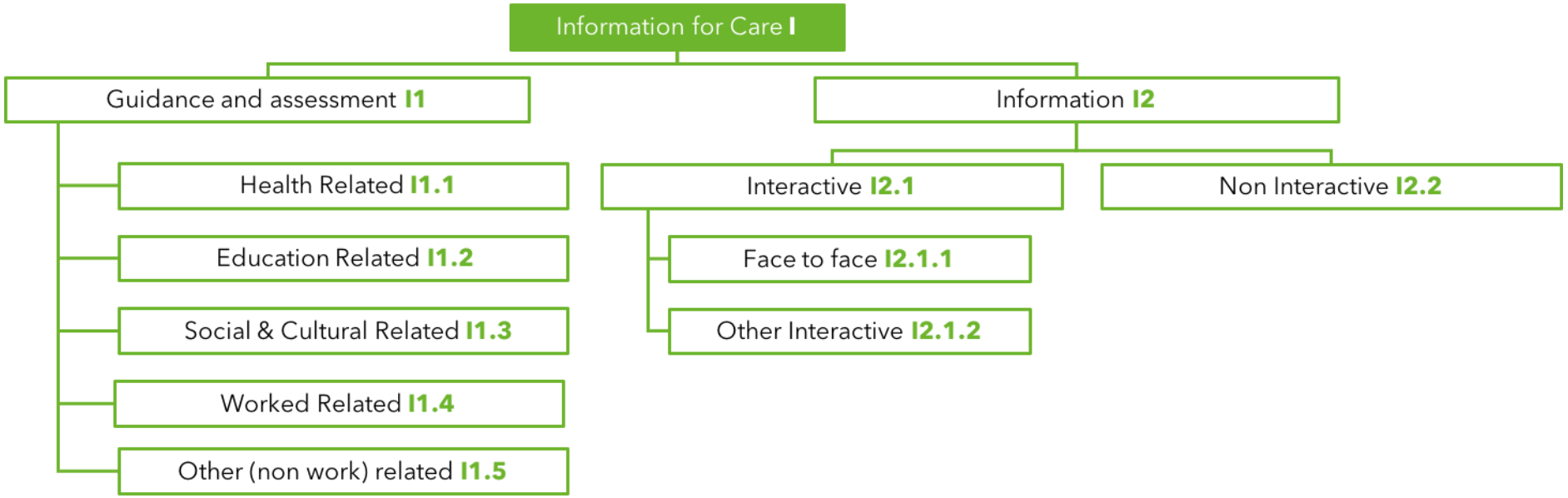


FIGURE 6 INFORMATION FOR CARE CODING BRANCH

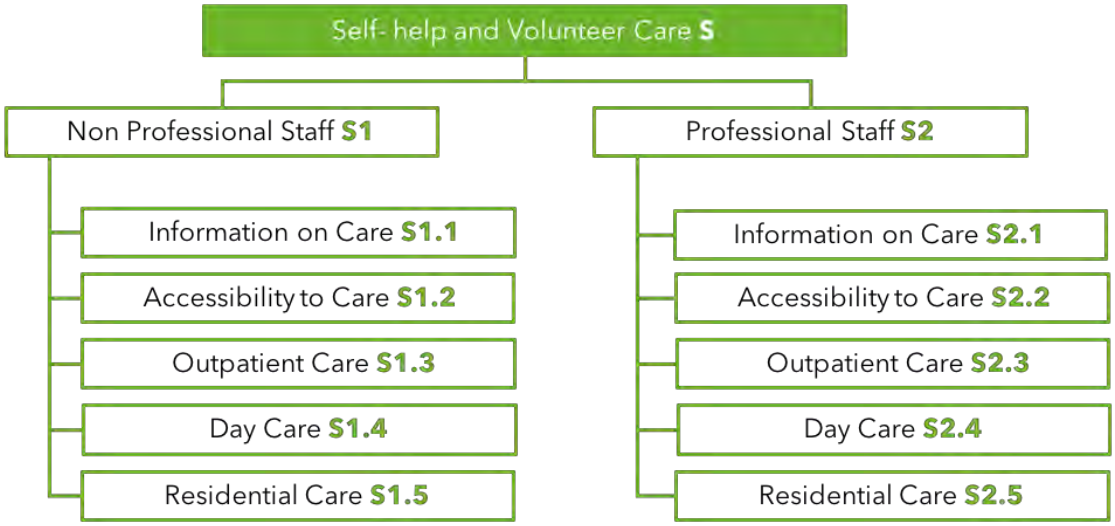


FIGURE 7 SELF- HELP AND VOLUNTEER CODING BRANCH

Inclusion Criteria

The Integrated Atlas has clear inclusion criteria to ensure consistency and comparability across Atlases created using the DESDE methodology, both internationally, and across Australia.

To be included in the Atlas a service has to meet certain inclusion criteria:

The service is specialised - the service must specifically target people with a lived experience of mental ill- health. That is, the primary reason for using the service is for treatment of mental ill-health. This excludes generalist services that may lack staff with specialised mental health training and experience.

The service is universally accessible - the Atlas focuses on services that are 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. Despite the availability of Medicare- subsidised mental health-r elated services, access to most private mental health services in Australia 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. Details in relation to this subsidisation is outlined further in the section on Access to Applied Psychology Services (ATAPS) and Medicare Benfits Schedule (MBS). Within the WAPHA catchment there are several private hospital services that work closely with public mental health service providers. However, these were not within the scope of this Atlas, and have not been mapped. It is possible, and would be useful in future mapping exercises, to include an additional layer of private service mapping to inform those who can afford private health care; for planning; and to support integration between the public and private sector. However, as a baseline, the importance of establishing the nature of universal and equitably accessible health care necessitates that these maps remain distinct.

The service is 'stable': that is, it has, or will, receive funding for more than 3 years - 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

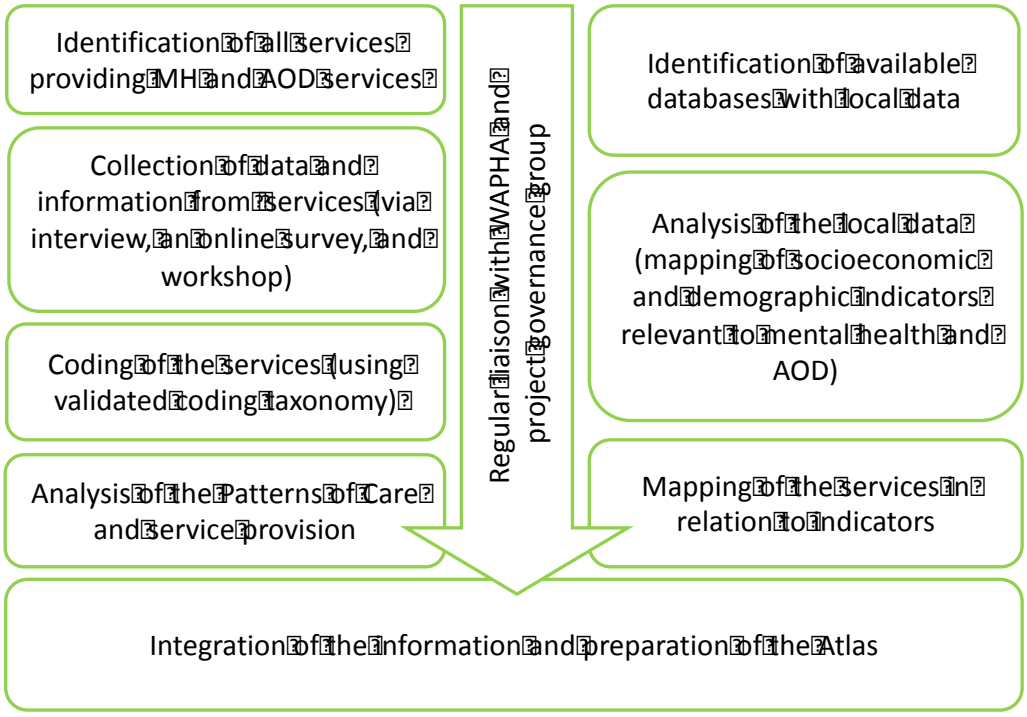
environment is one where there is significant uncertainty around the continuation of funding streams at both state and federal level. Thus, some flexibility has been applied to this criterion. For example, services were included where they were considered to be on- going, or had been delivered over a long period of time, even when their on- going funding may not be secured beyond one year.

The service is within the boundaries of PNPHN - the inclusion of services that are within the boundaries of PNPHN is essential to have a clear picture of the local availability of resources.

The service provides direct care or support to clients - services that were only concerned with the co- ordination of other services or system improvement, without any type of direct contact with people with a lived experience of mental ill- health, were excluded.

1.4 Atlas Development Process

Phase 1: There were five key steps involved in the creation of the Integrated Atlas of Mental Health (Figure 8). ***Please note that for this Beta version, only mental health services are included.***



I

Step

The project obtained all the requisite ethics, ethics exemption and governance approvals (Site Specific Assessments). For further detail, please refer to The Integrated Mental Health and Alcohol and Other Drugs Atlas of Western Australia – Volume I Metropolitan Perth (Hopkins et al., 2017a).

Step 2 - Data Collection

The first step in the development of the Atlas was to undertake a range of meetings with the teams at WAPHA, the Mental Health Commission, Department of Health, peak bodies and sector representatives to build a list of all services providing mental health care in the region.

A preliminary examination of organisations on the list was undertaken to verify and pre- qualify where possible their appropriateness for inclusion in the Atlas.

Following pre- qualification, a determination was made on how best to contact each organisation for the purposes of gathering the information necessary to create the Atlas.

The Integrated Atlas methodology provides the framework and template for the information that needed to be gathered. This included:

- basic service information (e.g. name, type of service, description of governance);
- location and geographical information about the service (e.g. service of reference, service area);
- service data (e.g. opening days and hours, staffing, management, economic information, legal system, user profile, number of clients, number of contacts or admissions, number of days in hospital or residential accommodation, number of available beds or places, links with other services); and
- additional information (e.g. name of coder, date, number of observations and problems with data collection).

This information was gathered through a range of means, including face to face interviews, telephone interviews and through an online survey tool. Direct contact was usually required at some point during the process to seek additional information and answer questions in order to support and verify classification decisions

Step 3 – Codification

Information gathered in step one was entered into a master spreadsheet, analysed, and allocated a DESDE code (where the service delivery team meets the inclusion criteria). The work of each service delivery team was coded following the criteria defined in the DESDE-LTC, according to the MTC provided. Codes can be split into four different components and follow a standard format.

(i) Client age group: This represents the main target group for which the service is intended or currently accessed by, using capital letters.

GX All age groups

NX None/undetermined

CX Child & Adolescents (e.g. 0-17)

CC Only children (e.g. 0-11)

CA Only adolescent (e.g. 12 – 17)

CY Adolescents and young adults (e.g. 12-25)

AX Adult (e.g. 18-65)

AY Young adults (e.g. 18-25)

AO Older Adults (e.g. 50- 65)

OX Older than 65

TC Transition from child to adolescent (e.g. 8-13)

TA Transition from adolescent to adult (e.g. 16-25)

TO Transition from adult to old (e.g. 55-70)

*CX and CY are DRAFT codes utilised in this Atlas based on the unique service characteristics in Western Australia.

** In Western Australia services frequently support multiple age ranges. For example, there is a large number of services that describe their target age groups as '8 years plus', or '12 years plus'. In these cases, the services have been coded as General, unless it was apparent they did not include adults. Services described as '14 years plus' were classified based on the information provided. Where it is evident these services mainly deal with adults, they were classified as AX.

An additional letter is added to the age code where a service is gender specific; for example, AXF is used to indicate a service is specifically targeted at females 18-64 years of age.

In the analysis section of this report, for simplification, the age codes are grouped as follows:

- Children and Adolescents (including young adults) – CC, CA, CX, CY and TA
- Adults (Including services with no age specification) – AX and GX
- Older Adults – TO and OX

(ii) ICD-10 Code: ICD-10 codes appear in brackets after the age group code but before DESDE-LTC code in order to describe the main diagnostic group covered by the service. For generalist mental health services, the code [F0-F99] is used, which means that the service includes all types of mental disorders rather than a specific disorder. If the service is not targeting mental ill-health, but psychosocial problems (for instance with some child and adolescent services) codes between Z56- Z65 are used. Homelessness services use the code [Z59] and AOD services use [F10-F19]. If the client of the service is a child, but the professional is working with the family, or if the service is for carers,the code [e310] (immediate family or carers) from the International Classification of Functioning (ICF) is used.

The key diagnostic codes used in this Atlas are:

F0-F99	All types of mental disorders
F10-F19	Alcohol and Other Drug disorders
F29	Unspecified psychosis not due to a substance or known physiological condition. Includes early psychosis
F3X	Mood (affective) Disorders (F30-F39)
F31	Bipolar Disorder
F50	Eating Disorders
F53	Puerperal psychosis; also used as proxy for peri- natal mental health disorders
F59	Unspec' behav' syndromes assoc' with physiological disturb' & physical factors
F6X	Disorders of Adult personality and behaviour
F60.3	Borderline Personality Disorder
F64.2	Gender identity disorder of childhood
F98.9	Unspecified behavioral and emotional disorders with onset usually occurring in childhood and adolescence
e310	Services for immediate family or carers
Z63.4	Disappearance and death of family member (with T14.91 it denotes bereavement by suicide)
T14.91	Suicide attempt
Z59	Problems related to housing and economic circumstances
ICD – T	Used where there is not a specific diagnostic group for this service

(ii) DESDE-LTC code: The third component of the code is the core DESDE-LTC code which signifies the MTC. The services are classified according to their main type of care. The six main types of care are:

- **R** Residential Care
- **D** Day Care
- **O** Outpatient Care
- **A** Accessibility to Care
- **I** Information for Care
- **S** Self-Help and Voluntary Care

(iv) Qualifiers: In some cases, a 4th component may be incorporated to facilitate a quick appraisal of those characteristics of the services which may be relevant to local policy. Not all available qualifiers have been relevant for use in this Atlas. The qualifiers used in this Atlas are:

- **c** **Closed care** - denotes secluded MTC with a high level of security (e.g. locked doors)
- **d** **Domiciliary care** - denotes this service is provided wholly at the home of the service user- used for Hospital in the Home services for example;
- **e** **eCare** - includes all care services relying on telephone, modern information and communication technologies (ICTs) (e.g. tele-care/tele- medicine, tele- consultation, tele- radiology, tele- monitoring);
- **g*** **Group -** this qualifier is applied to Outpatient services that provide predominantly group activities and do not meet the criteria for a Day Care service (Typically 80% of their activity is through the provision of groups);
- **h** **Hospital (Care provided in a hospital setting)** - describes Non-Residential MTC ("O" or "D") provided within the hospital setting;
- **j** **Justice care-** this qualifier describes facilities whose main aim is to provide care for crime & justice users (security or prison hospitals, surveillance wards for patients under justice custody, physical disability and psychiatric units in prisons and regional security units). These units may also be coded in an independent tree due to the special characteristics of the target population;
- **k** **Carer-** this qualifier describes facilities whose main aim is to provide care by peers, family members or other 'Non-professional' carers who are paid for their work and where typically most (over 90%) of the staff is Non-professional. Codings are specified in the target group section. This qualifier can also be used to differentiate in the "S1" branch peer led services from those services covered by other Non-professional staff;
- **l** **Liaison care** - describes liaison BSIC regarding specific consultation for a subgroup of clients from another area within the facility, e.g. mental health care to a cancer ward of a hospital;
- **m** **Management** - describes an MTC where management, planning, co- ordination or navigation of care a core part the provision of their Outpatient care;
- **q** **Quite-** this qualifier indicates that the main attribute of the MTC (e.g., mobility, intensity) is significantly higher/greater than for other care teams coded in the same MTC. For example, a "q" qualifier in a "closed " MTC indicates that the security provided by the closed status of the care team is of a higher level than that which may be provided by other teams within the "closed"" group;

- **s** **Specialised care** - describes a BSIC for a specific subgroup within the target population of the catchment area (e.g. eating disorders service);
- **t** **Tributary** - describes an MTC that is a satellite team dependant on another main care team;
- **u** **Unitary** - describes an MTC that consists of only one team member; and
- **x** **Target population not clearly defined -** additional qualifier "x", could be added to describe services or clinical teams without a clearly defined target population, or services that have two or more separate targets where the main attribute of BSICs and MTCs (care provided by the same professionals to the same target group) cannot be applied.

*Draft qualifiers have been added to tailor the Atlas more precisely to the local environment. These will be formally processed for inclusion into the international DESDE-LTC tool at its next revision.

Example:

A Non-Acute forensic unit in a hospital for adults with lived experience of mental illness will receive the following code: AX[F00-F99] - R4j.

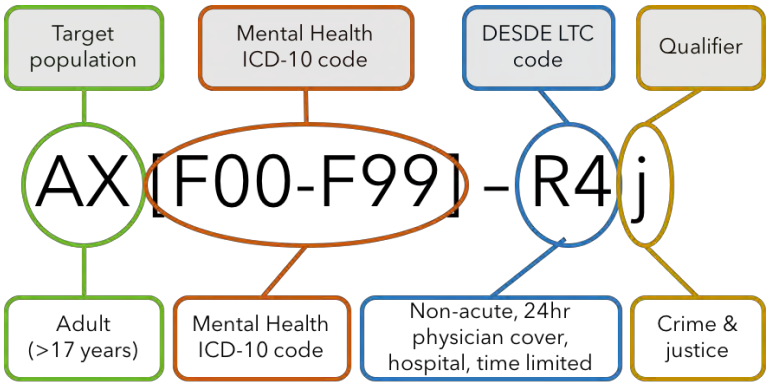


FIGURE 9 CODE COMPONENTS EXAMPLE

Step 4 - Mapping the BSIC

The next step in the construction of the Atlas was to map the supply of mental health services in relation to indicators of potential demand within the PNPHN area. To achieve this step, the BSIC data was exported into a Geographic Information System (GIS) for visualisation.

Step 5 - Description of the Pattern of Care - Service Availability and Capacity

The availability of services was analysed according to their MTC, as well as their capacity.

Availability - 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 useable upon demand to perform its designated or required function. The availability rate for the MTC is calculated per 100,000 of the target population. For example, for services for children and adolescents the estimated residential population of children and adolescents is used.

Placement Capacity – this is the maximum number of beds in Residential care, and places in Day Care in a care delivery organisation or catchment area at a given time. Rates are also calculated per 100,000 of the target population (2011 population figures).

Spider Diagrams – to understand the balance between the different types of care offered in an area, a radar chart tool, also referred to as a spider diagram, is used. The spider diagram is essentially a tool to visually depict the pattern of care in an area. 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 (2011 population figures).

This analysis allows for comparisons of the availability and capacity rates with other areas, and to estimate whether the provision of services is adequate with regard to the population's needs. PNPHN has been compared with Australian Capital Territory PHN, Western Sydney PHN, South West Sydney PHN, and Central and Eastern Sydney PHN within Australia, and with Spain, Italy, Norway and Finland internationally. Information on European countries has been developed as part of the Refinement Project, funded by the European Commission (The Refinement Project Research Consortium, 2013).

Following the coding of the services and development of a draft Atlas (Phase 1, or Alpha version), the Atlas is presented to planners in order for them to review and adjust the data and codes presented where necessary (Phase 2, or Beta Version). A Version For Comments is then prepared by the research team for release to stakeholders. Time is allowed for stakeholders to review the service data and coding, and provide any further comment. After further revision based on the received feedback, a Final Version is released to the planners. In the case of Perth North, this Atlas represents the results of Phase 2 of the process (Beta Version): that is, the revision of the Alpha version by the planners, and subsequent adjustment to data and codes carried out by the team from Australian National University (ANU) (Figure 10, below).

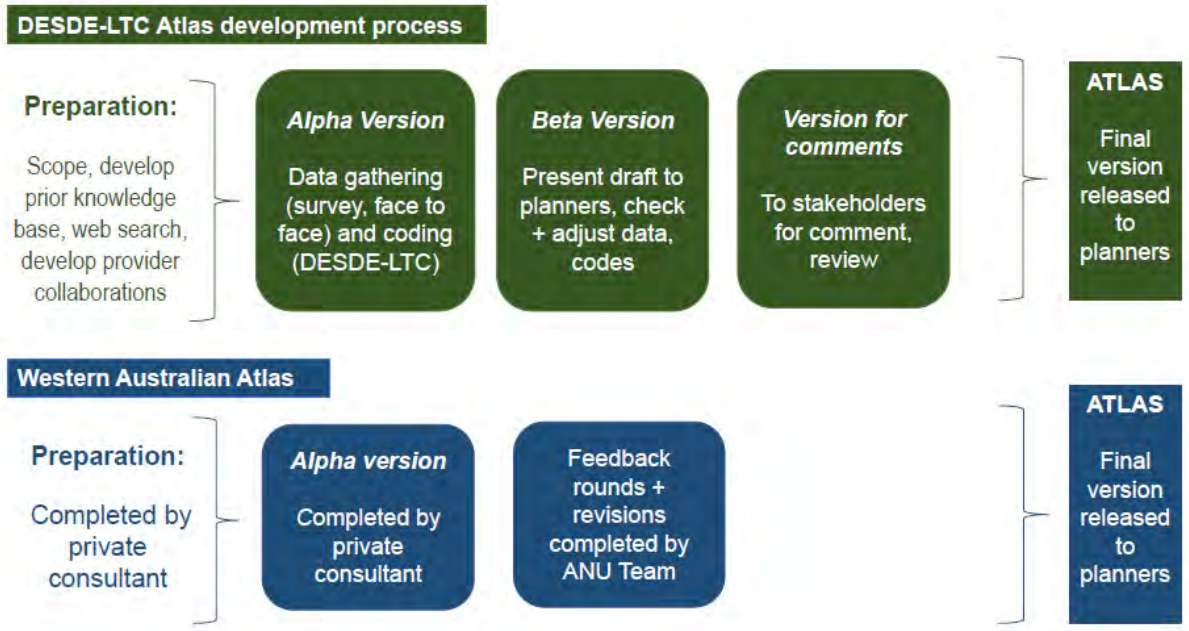


FIGURE 10 DEVELOPMENT OF THE PERTH NORTH DESDE-LTC ATLAS: (ALPHA VERSION COMPLETED BY CONNETICA)

2. 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 PNPHN region. The primary data sources for this information were:

- 2011 Census of Population and Housing (Australian Bureau of Statistics (ABS), 2011);
- Social Health Atlases of Australia (Public Health Information Development Unit (PHIDU), 2016); and
- Small Area Labour Market Data (Commonwealth Department of Employment (CDE, 2016).

Where data permitted, indicators have been reported at the level of LGA with comparison to the state and national averages.

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

2.1 Demographic Factors

For the purposes of this Atlas, a selection of indicators are provided to examine key at risk groups, and create a demographic profile for the region (Table 2). In addition, throughout the Atlas the population is divided into discrete age groups to report rates of services per 100,000 target population.

TABLE 2 DEMOGRAPHIC FACTORS EXAMINED

Indicator	Description	Calculation
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	Aboriginal population as per cent of total population (ERP - Non-ABS)
Overseas Born	Proportion of the Australian population born overseas	Total people who stated an overseas country of birth as per cent of total population (ERP)

2.2 Social Determinants

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 & Calouste Gulbenkian Foundation 2014; Lund et al., 2011). Risk factors shown to influence mental health and/or contribute to an increased risk of suicide and self-harm have been presented in this Atlas (Table 3).

Australians living in situations of socio- economic and/or socio-demographic disadvantage have higher rates of almost all disease risk factors, use preventative health services less, and have poorer access to primary care health services, than those living in more advantaged conditions. 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. Based on the Census data it incorporates four measures – income, education, occupation and economic resources. The Index of Relative Socio-economic Disadvantage (IRSD) score is a measure of the relative disadvantage in a given geographic area. The IRSD scores are based on standardised distribution across all areas and are an important measure for health service planning. The average IRSD score across Australia is 1,000 : nationally, two thirds of all areas lie between an index score of 900 and 1,100. For this Atlas,

areas are shown in deciles, with the lower the score, the greater the level of relative disadvantage (e.g. 1 represents the most disadvantaged areas).

TABLE 3 SOCIOECONOMIC FACTORS 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
Homelessness	Estimated number of homeless people per 1,000 population on Census night by LGA, derived from the Census of Population and Housing using the ABS definition of homelessness	Estimated number of homeless persons per 1,000 population
Needing Assistance	Proportion of the population with a profound or severe disability – defined as people needing help or assistance in one or more of the three core activity areas of self-care, mobility and communication, because of a disability, long term health condition (lasting six months or more) or old age	Number of people who need assistance with core activity / Total population per 100
Early School Leavers	The data comprise people who left school at Year 10 or below, or did not go to school, expressed as an indirectly standardised rate per 100 people aged 15 years and over (Usual Resident Population), based on the Australian standard	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 in a population earning less than $400 per week, including those on negative incomes	Number of Individuals with income <$400 week / Total number of individuals per 100
IRSD (Index of Relative Social Disadvantage)	One of four SEIFA indexes, IRSD identifies the geographic distribution of potential disadvantage based on factors including employment, education, income and social resources	Please refer to the following technical paper: http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/22CEDA8038AF7A0DCA257B3B00116E34/$File/2033.0.55.001%20seifa%202011%20technical%20paper.pdf

2.3 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 with different age profiles, the age standardised rate (ASR) is use for the three selected health outcome indicators related to mental health and suicide and self-harm, as well as for the comparison indicator of Road Toll (Table 4).

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 Psychological distress is an indicator of the mental health of a community and is the best population wide measure currently available. This indicator is used as an indicative measure of the mental health needs of a population, rather than measuring rates of mental illness

Premature mortality data between 2010 and 2014 for both suicide and self-harm, as well as road traffic injuries, are the key mortality indicators 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. Deaths from road traffic injuries are included for

comparative purposes as, along with deaths from suicide and self- harm, falls and poisoning, they dominate the national injury burden or burden of disease in Australia (AIHW, 2016).

TABLE 4 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
Road Toll	Data compiled from deaths data based on Cause of Death Unit Record Files - ICD-10 codes: V00-V06.[1], V09.2, V09.3, V10-V18.[4,5,9], V19.[4,5,6,9], V20-V28.[4,5,9], V29.[4,5,6,9], V30-V38. [5,6,7,9], V39.[4,5,6,9], V40-V48[5,6,7,9], V49[4,5,6,9], V50-V48.[5,6,7,9], V59.[4,5,6,9], V60-V68.[5,6,7,9],V69.[4,5,6,9], V70-V78.[5,6,7,9], V79.[4,5,6,9], V81.1, V82.1, V82.9, V83-V86.[0,1,2,3], V87, V89.2, V89.3	Deaths from road traffic injuries, 0 to 74 years, ASR per 100,000

3. Perth North PHN

The Perth Metropolitan area is divided into two PHN regions; Perth North (PNPHN) and Perth South (PSPHN). The PNPHN catchment covers an area of just under 3000 square kilometres. The region encompasses the North Metropolitan Health Service, as well as 17 LGAs (Figure 11).

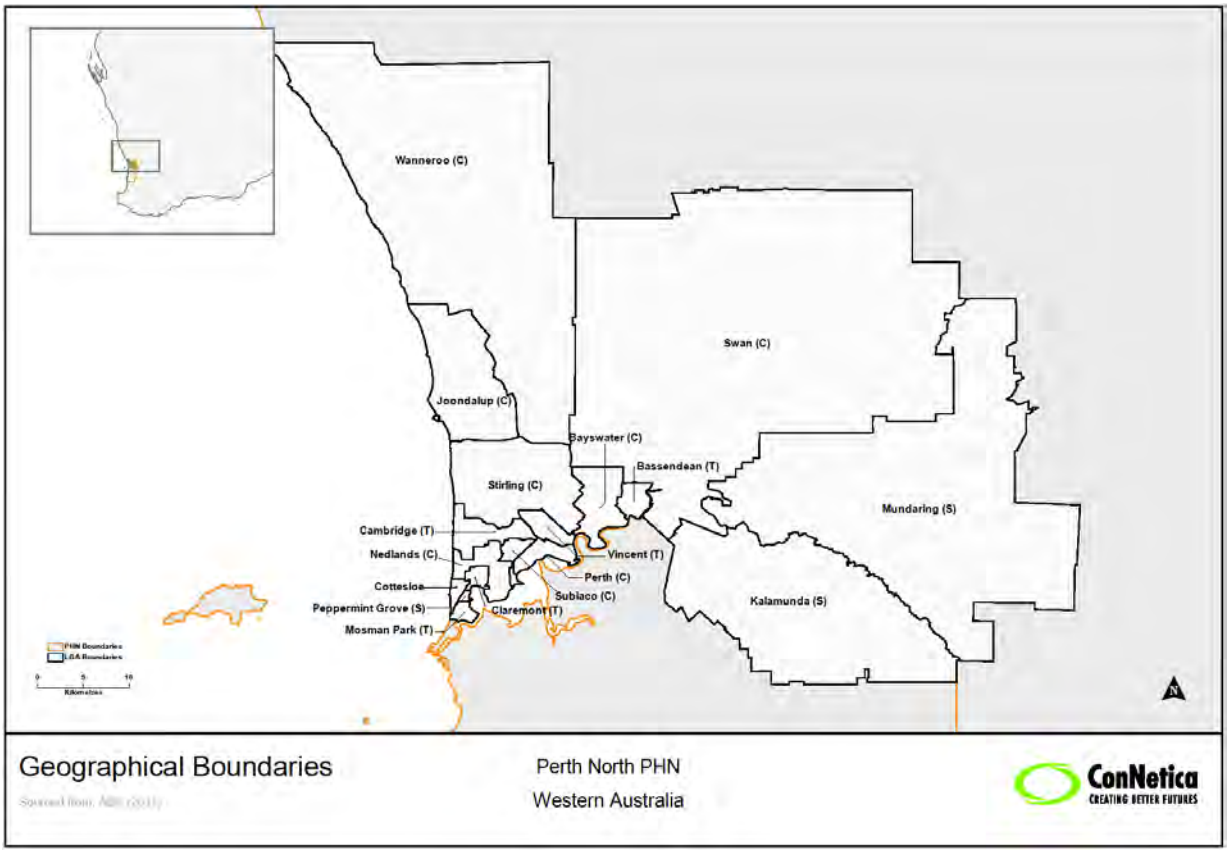


FIGURE 11 GEOGRAPHICAL BOUNDARIES OF PNPHN

Population Demographics (Table 5)

Key population demographics relevant to this Atlas include the Estimated Residential Population (ERP), as well as indicators of the age structure of the population, using measures such as the Dependency Ratios and Ageing Indexes. The diversity of the population is examined utilising the indicators of Indigenous status, and proportion of those born overseas. Table 5 below presents key population demographics for the region, disaggregated by LGA.

Population Profile (Figure 12)

The LGAs of Joondalup and Stirling are the most populated of PNPHN, whilst Vincent is most densely populated with approximately 3292 persons per square kilometre.

TABLE 5 KEY POPULATION DEMOGRAPHICS FOR PNPHN

LGA	Area* (sq. km)	Total Population†	Density Ratio	Dependency Ratio	Ageing index	Indigenous Status n (%)§	Overseas Born (%)¶
Bassendean	10	16,101	1556.5	0.47	85.5	524 (3.1)	28.2
Bayswater	33	70,472	2150.5	0.45	90.7	1,132 (1.6)	38.3
Cambridge	22	28,250	1284.5	0.56	74.8	66 (0.2)	28.9
Claremont	5	10,706	2160.4	0.56	132.5	58 (0.5)	29.5
Cottesloe	4	8,602	2230.7	0.49	100.0	10 (0.1)	23.3
Joondalup	99	167,891	1697.1	0.46	70.3	1,100 (0.6)	37.7
Kalamunda	324	60,830	187.6	0.54	78.6	1,252 (2.0)	27.9
Mosman Park	4	9,547	2196.0	0.50	97.6	164 (1.7)	32.7
Mundaring	643	40,015	62.2	0.50	88.7	1,220 (3.0)	24.4
Nedlands	20	23,084	1157.3	0.56	89.5	47 (0.2)	32.8
Peppermint Grove	1	1,646	1541.8	0.60	102.7	10 (0.6)	23.8
Perth	8	21,092	1754.6	0.17	163.6	177 (0.8)	51.6
Stirling	105	227,566	2173.0	0.46	88.0	3,314 (1.4)	35.8
Subiaco	7	20,423	2927.6	0.38	90.4	105 (0.5)	38.5
Swan	1043	133,303	127.8	0.46	46.8	4,655 (3.4)	30.0
Vincent	11	37,461	3292.8	0.31	75.7	258 (0.7)	35.8
Wanneroo	685	188,785	275.6	0.49	40.4	3,397 (1.7)	39.7
PNPHN	**2,975**	**1.07 million**	**358.2**	**0.46**	**69.0**	**17,509 (1.6)**	**35.1**
WA	2.64 million	2.59 million	0.98	0.48	68.4	95, 707 (3.6)	33.0
Australia	7.7 million	23.49 million	3.1	0.54	78.1	729,048 (3.1)	24.6

Sourced from: * ASGS (ABS, 2011a); †ERP 2015 (PHIDU, 2016); §ERP (Non ABS) 2015 (PHIDU, 2016); ¶ABS, 2011b

Cultural Diversity (Figures 13 and 14)

The Indigenous Status indicator is below the Australian average (3.1%) for all but one LGA within PNPHN: Swan (3.4%). However, there is considerable suburban variability within LGAs in relation to this indicator, with implications for the location of some of the related specific Aboriginal mental health services (Figure 13).

All LGAs have higher rates of overseas born residents compared to the Australian average of 24.6%, with the exception of Peppermint Grove, Mundaring and Cottesloe. The LGA with the highest proportion of overseas born residents was Perth (51.6%), with the lowest being Cottesloe (23.3%) (Figure 14).

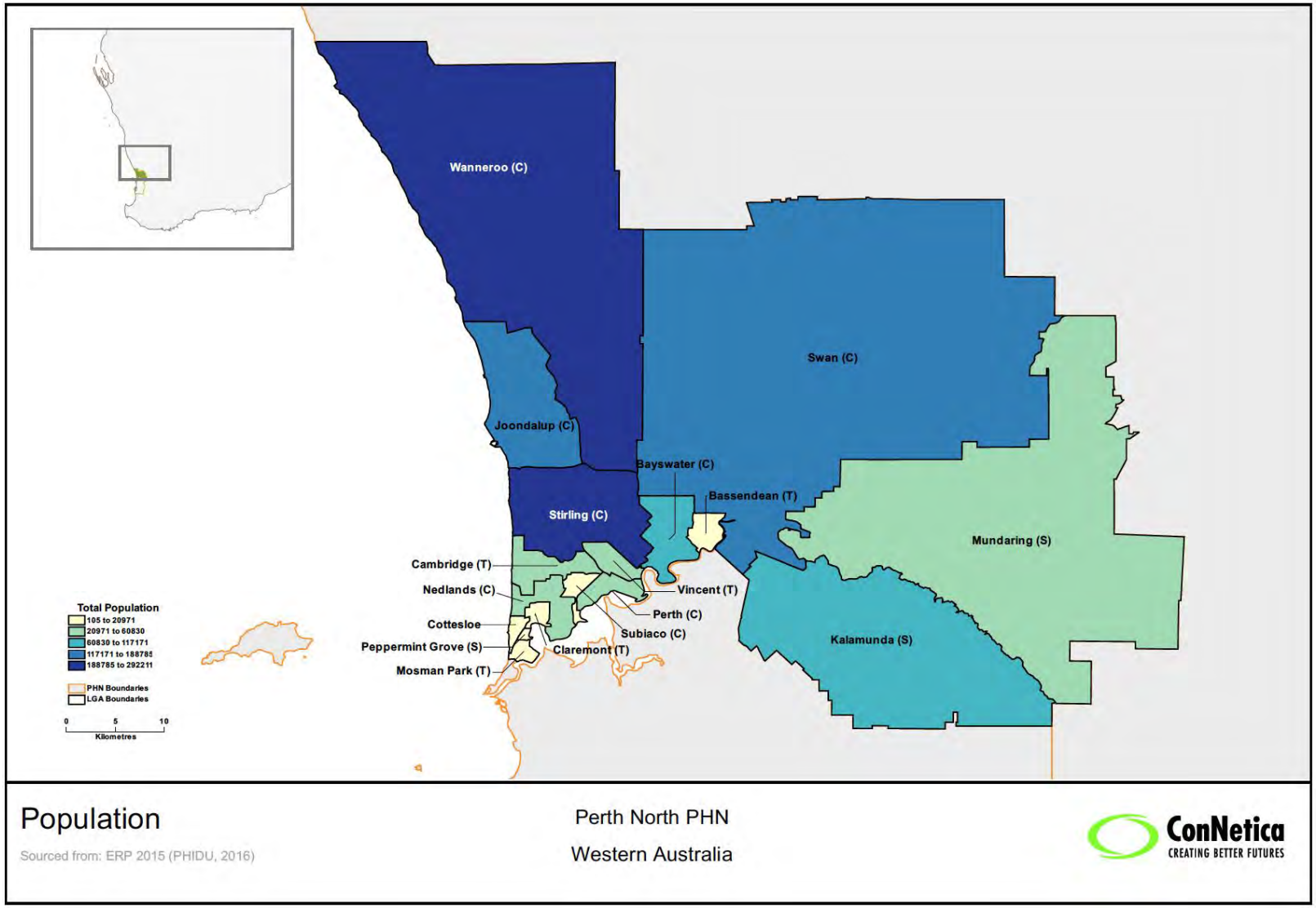


FIGURE 12 POPULATION (ERP 2011) BY LGA IN PNPHN

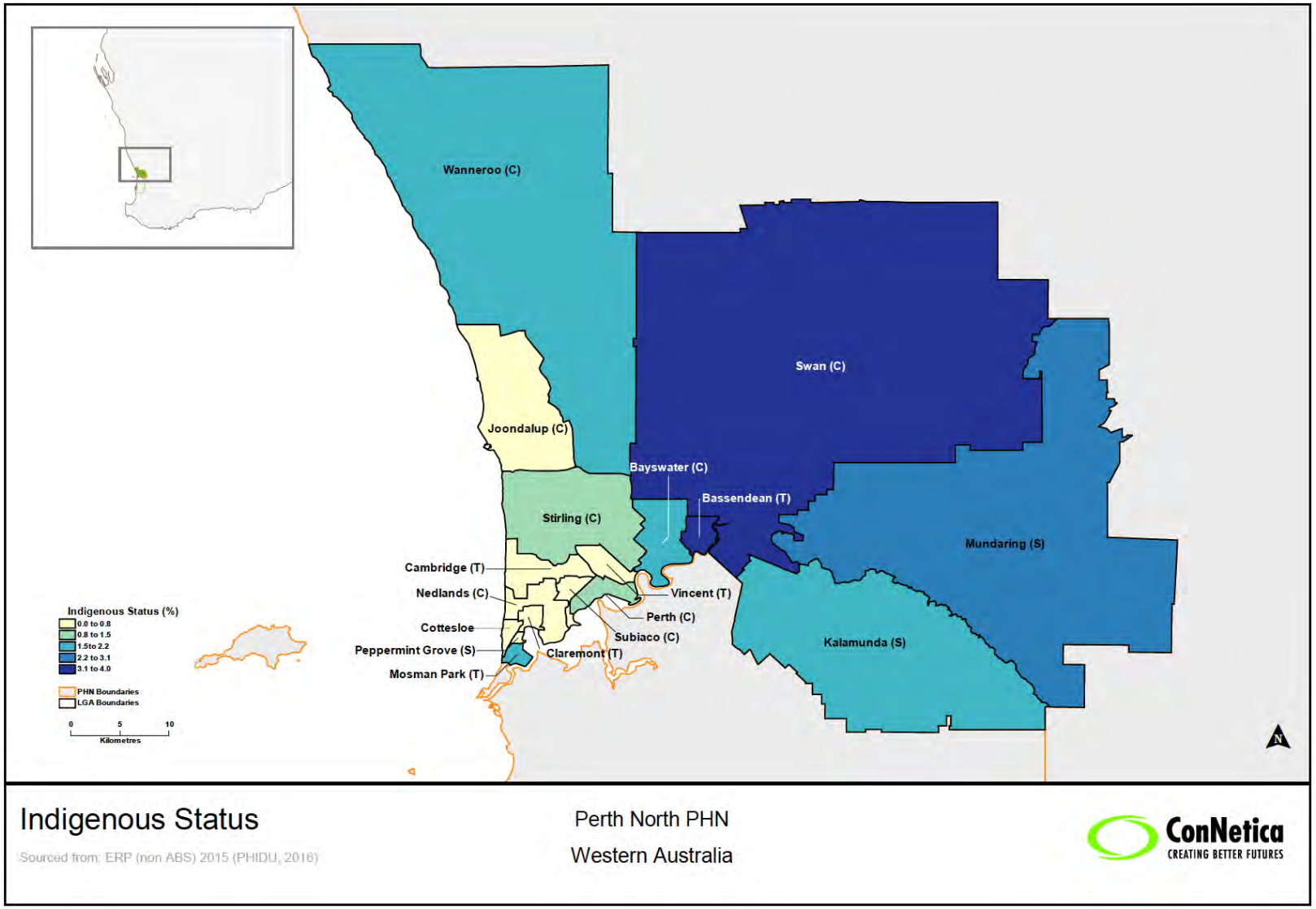


FIGURE 13 INDIGENOUS STATUS BY LGA IN PNPHN

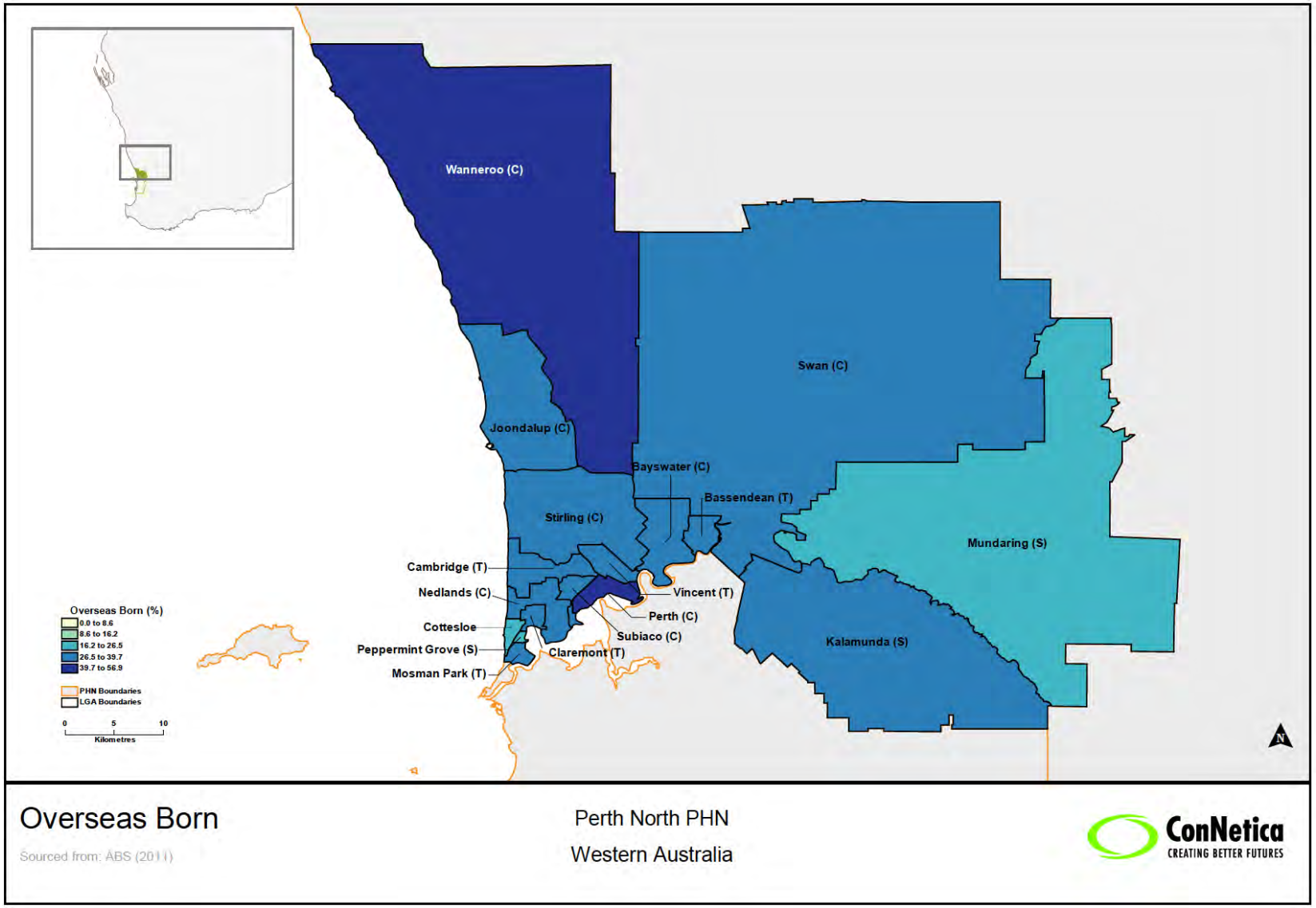


FIGURE 14 PROPORTION OF POPULATION BORN OVERSEAS BY LGA IN PNPHN

3.1 Social Determinants of Health

Table 6 displays key socio- economic information for PNPHN.

Apricot shading indicates LGAs with the worst score for that indicator, green shading represents the best score; arrows indicate where figures are higher or lower than the state average.

TABLE 6 KEY SOCIO-ECONOMIC FACTORS FOR PNPHN

LGA	Single parent families (%)*	Needing Assistance (%)*	Early school leavers* (ASR per 100)	Un employment (%)‡	Income <$400 / wk (%)†	IRSD Decile (score)§
Bassendean	25.3⇧	4.8⇧	34.7⇧	6.9⇧	35.9⇧	8 (1004)⇩
Bayswater	20.3⇧	4.8⇧	30.6⇩	5.4⇩	35.4⇩	8 (1020)⇩
Cambridge	9.3⇩	3.3⇩	16.7⇩	2.6⇩	29.9⇩	10 (1117)⇧
Claremont	15.1⇩	3.6⇩	13.3⇩	2.6⇩	31.5⇩	10 (1095) ⇧
Cottesloe	12.5⇩	2.9⇩	10.6⇩	1.3⇩	26.9⇩	10 (1116)⇧
Joondalup	15.2⇩	2.8⇩	27.8⇩	4.0⇩	33.4⇩	10 (1082)⇧
Kalamunda	19.3⇩	3.4⇩	33.7⇧	3.8⇩	34.2⇩	9 (1050)⇧
Mosman Park	15.1⇩	4.6⇧	15.0⇩	3.3⇩	34.4⇩	10 (1066)⇧
Mundaring	17.9⇩	3.5⇩	32.6⇩	5.1⇩	36.0⇧	10 (1052)⇧
Nedlands	9.7⇩	3.4⇩	11.6⇩	1.9⇩	34.3⇩	10 (1115)⇧
Peppermint Grove	11.5⇩	2.5⇩	15.0⇩	3.3⇩	32.3⇩	10 (1126)⇧
Perth	15.8⇩	2.0⇩	16.2⇩	5.8⇧	26.6⇩	10 (1063)⇧
Stirling	19.5⇩	4.2⇧	27.5⇩	6.7⇧	34.4⇩	9 (1028)⇧
Subiaco	13.7⇩	3.1⇩	13.7⇩	2.8⇩	32.8⇩	10 (1077)⇧
Swan	21.6⇧	3.7⇩	37.2⇧	7.0⇧	35.9⇧	8 (1011)⇩
Vincent	14.0⇩	4.1⇩	20.1⇩	4.9⇩	29.0⇩	10 (1058)⇧
Wanneroo	19.1⇩	3.2⇩	34.5⇧	8.5⇧	35.8⇧	9 (1026)⇧
PNPHN	**18.2**	**5.8**	**28.7**	**5.5**	**34.2**	**1045**
WA	19.9	4.5	32.8	5.6	35.5	1022
Australia	21.3	4.9	34.3	5.9	38.9	1000

Sourced from: * 2011(PHIDU, 2016); † ABS, 2011b; ‡ June quarter 2016 (CDE, 2016); § IRSD 2011 (ABS, 2011c)

Social Fragmentation (Figure 15)

Social fragmentation, described as “a lack of social cohesion and social capital in a social setting” (Ivory et al., 2012) is considered to be a risk factor for mental health (Fagg et al., 2006). Figure 15 shows areas of higher and lower social fragmentation in the Perth North region. As shown, those pockets where social fragmentation is highest are located in the inner metropolitan areas just east and north east of King’s Park, and in the coastal area around Scarborough; while the lowest degree of social fragmentation tend to be in the south west of the region.

Single Parent Families (Figure 16)

The LGAs of Bassendean (25.3%), and Swan (21.6%) both have higher proportions of single parent families within their catchments compared to the average rate for both PNPHN (18.2%) and Australia (21.3%).

Human function (Figure 17)

All LGAs within PNPHN have lower rates than the Australian average (4.9%) for people needing assistance. However, a number of LGAs had proportions higher than the state average of 4.5%. The LGA with the highest rate was Bassendean at 4.8%, with the lowest being Perth at 2%.

Education (Figure 18)

Overall, the PNPHN population had a significantly lower rate of the population who have left school prior to Year 10, or who did not go at to school at all (28.7 per 100) compared to both the Western Australian (32.8%) and Australian rates (34.3%). However, six LGAs within the catchment did have relatively higher rates of early school leavers, and they included the populations within the following LGAs: Bassendean (34.7%), Bayswater (30.6%), Kalamunda (33.7%), Mundaring (32.6%), Swan (37.2%), and Wanneroo (34.5%).

Unemployment (Figure 19)

Wanneroo had the highest unemployment rate, as measured at the June quarter 2016, at 8.5%, considerably higher than the PNPHN (5.5%), state (5.6%) and national (5.9%) averages. Cottesloe LGA had the lowest rate of unemployment recorded in this period at only 1.3%.

Income (Figure 20)

All LGAs within the PNPHN catchment reported lower rates of low individual income per week compared to the Australian average (38.9%). However, a number of LGAs had higher rates than the state average (35.5%) including Bassendean (35.9%), Mundaring (36.0%), Swan (35.95%), and Wanneroo (35.8%).

Index of Relative Socio-economic Disadvantage (Figure 21)

The Index of Relative Socio-economic Disadvantage (IRSD) is a socio- economic index computed by the ABS that draws on information about the economic and social conditions of people and households within an area to provide a comparative measure of disadvantage.

A higher score indicates a more highly advantaged area. Factors taken into account include the proportion of people with low incomes, qualifications or skilled occupations.

All LGAs in PNPHN had IRSD scores higher than 1000, with Peppermint Grove being the highest and most advantaged with a score of 1126. However at the suburban level there is considerable variability in IRSD scores within and between LGAs, and that there are suburbs within a number of the PNPHN LGAs with relative disadvantage scores of less than 1000 (ABS, 2011c). Figure 15 through Figure 20 display the data geographically across the PNPHN.

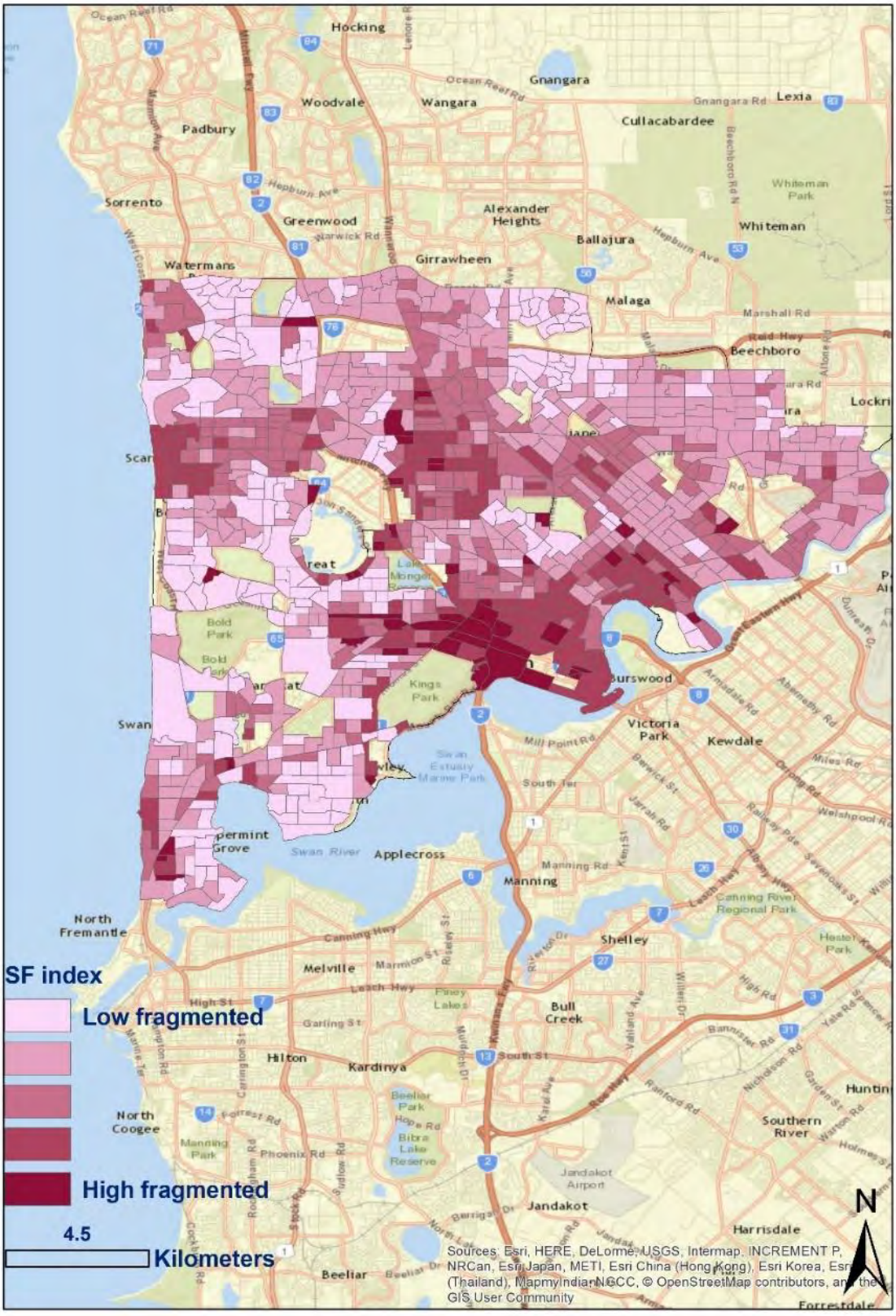


Figure 15 SOCIAL FRAGMENTATION

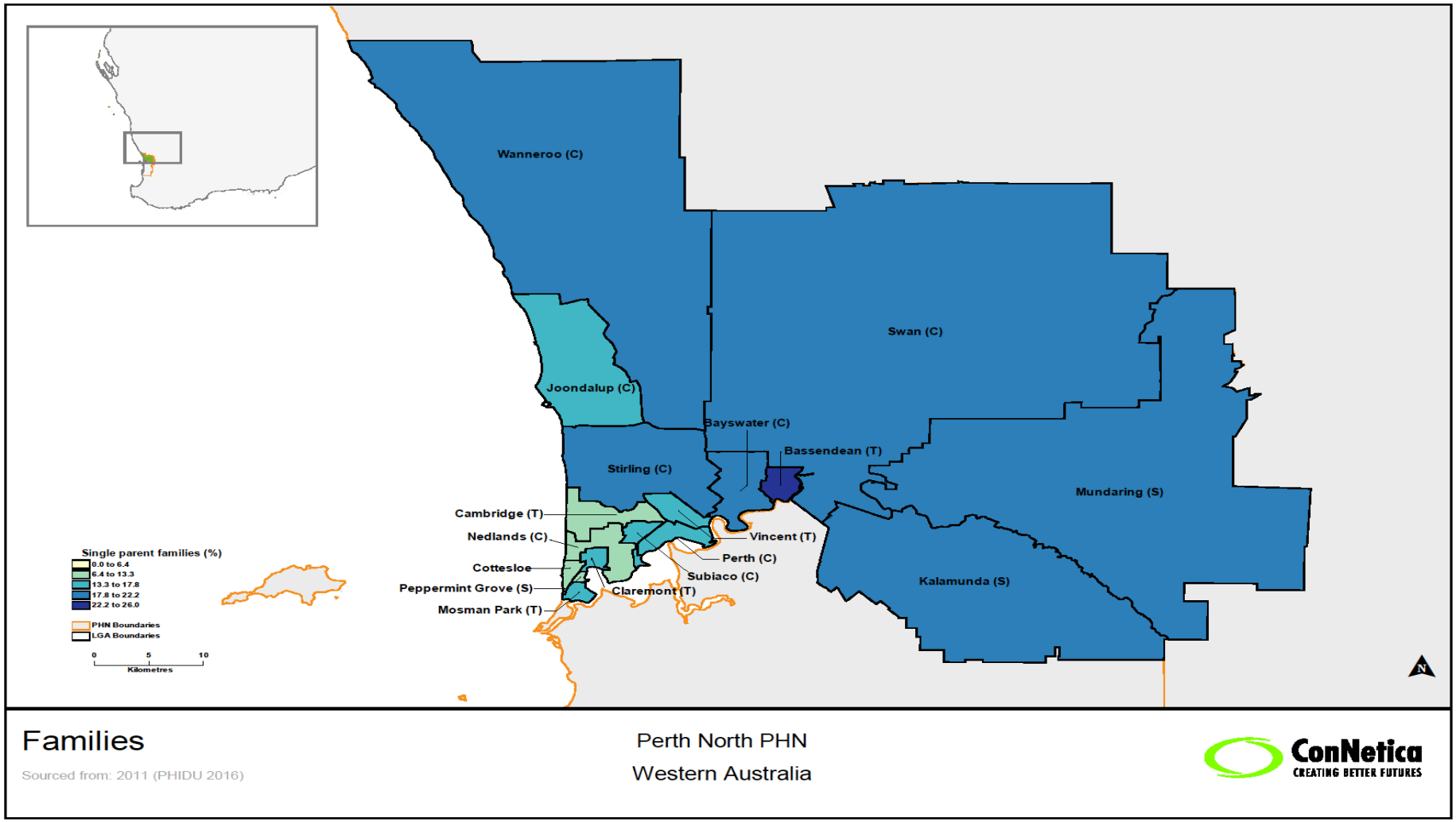


FIGURE 16 PROPORTION OF SINGLE PARENT FAMILIES BY LGA PNPHN

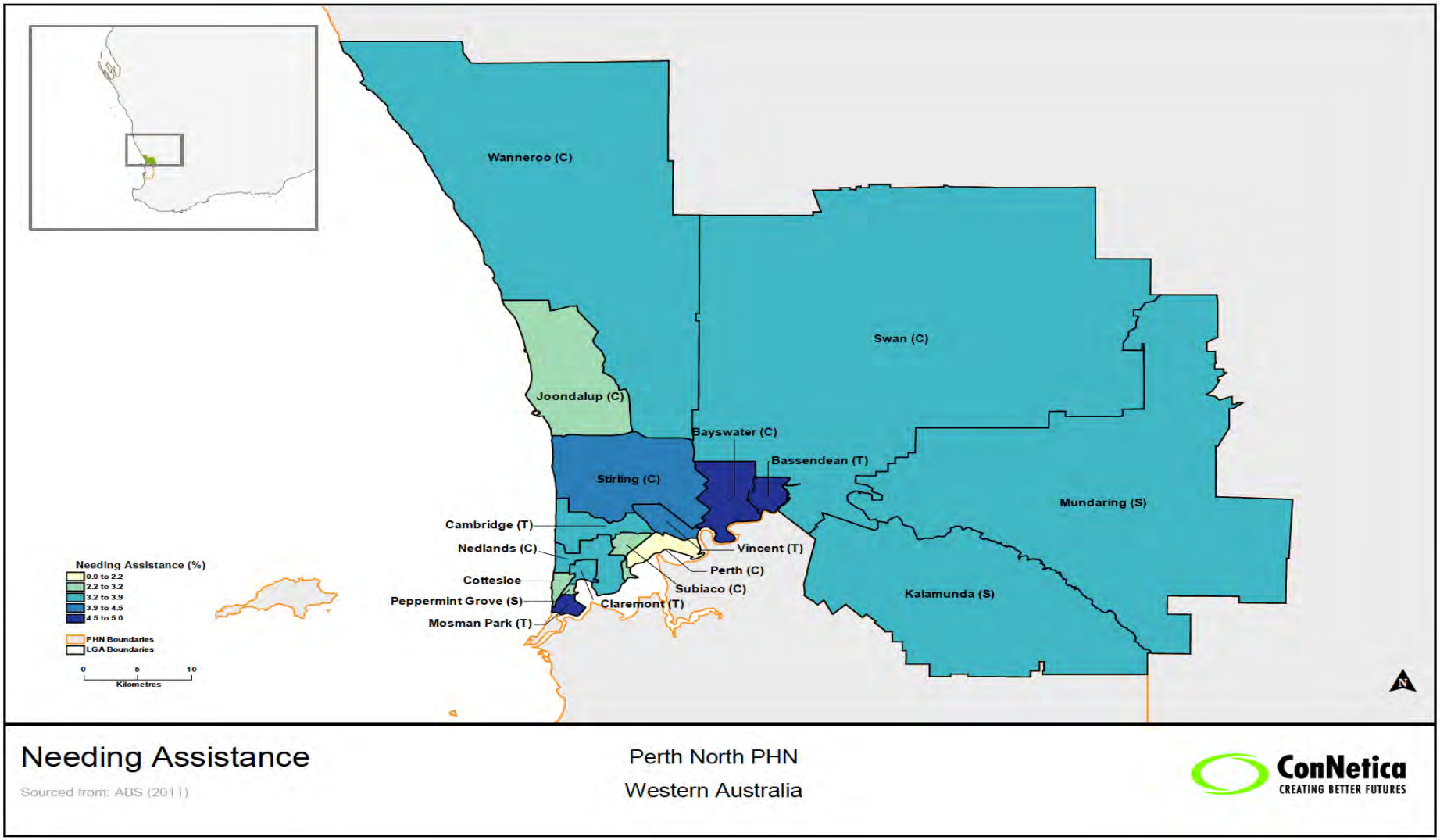


FIGURE 17 PROPORTION OF THOSE NEEDING ASSISTANCE BY LGA IN PNPHN

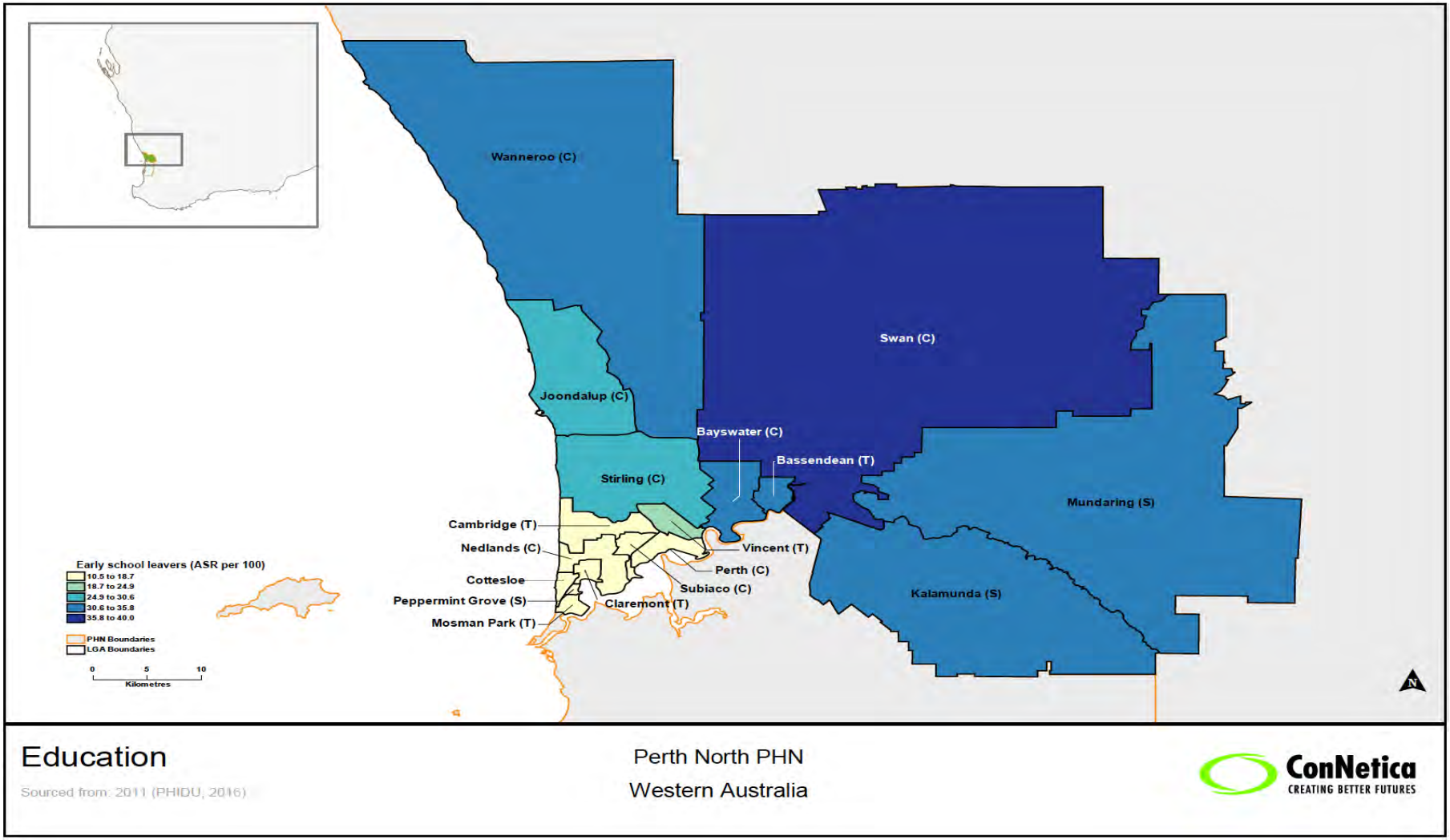


Figure 18 PROPORTION OF EARLY SCHOOL LEAVERS BY LGA IN PNPHN

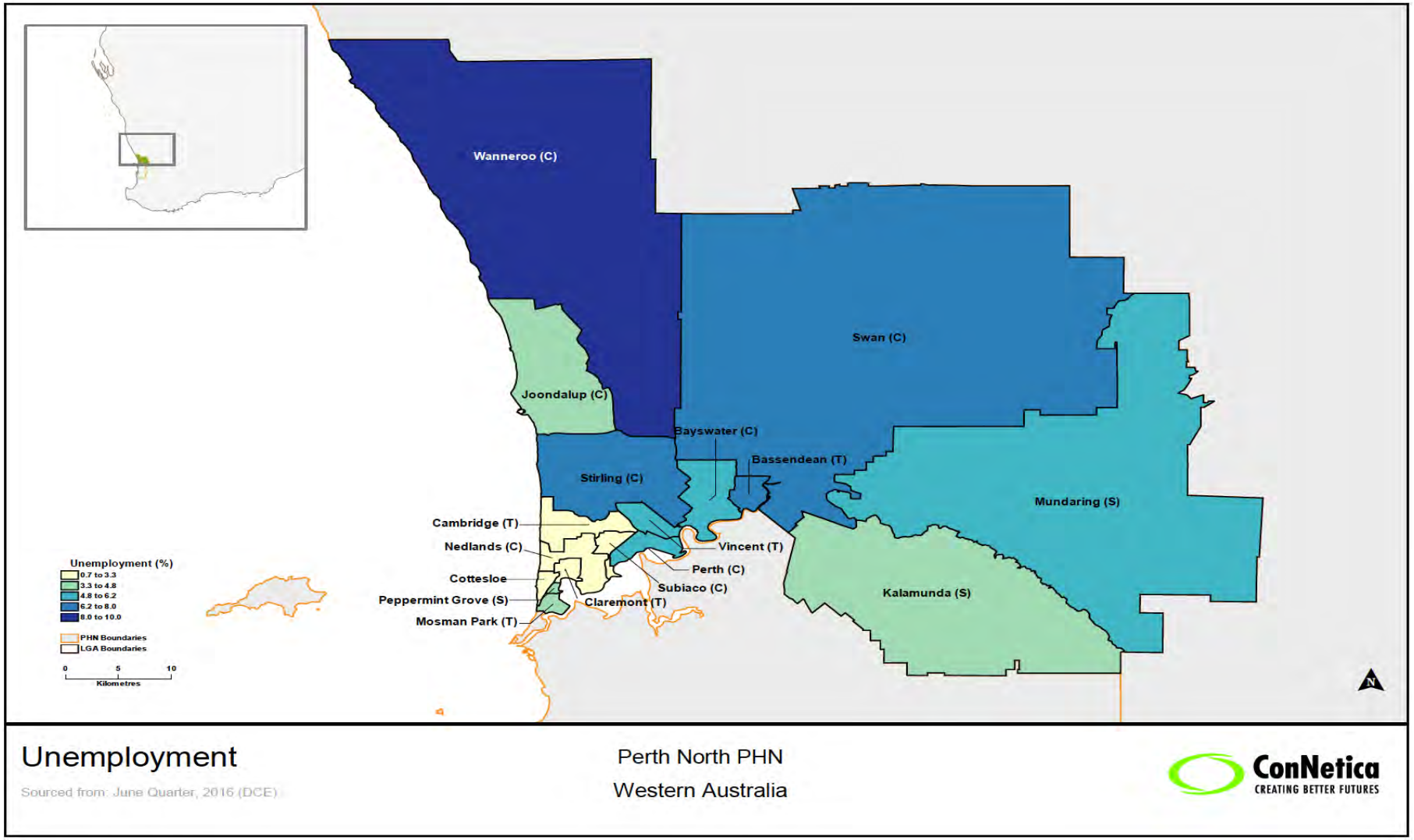


FIGURE 19 PROPORTION OF UNEMPLOYMENT BY LGA IN PNPHN

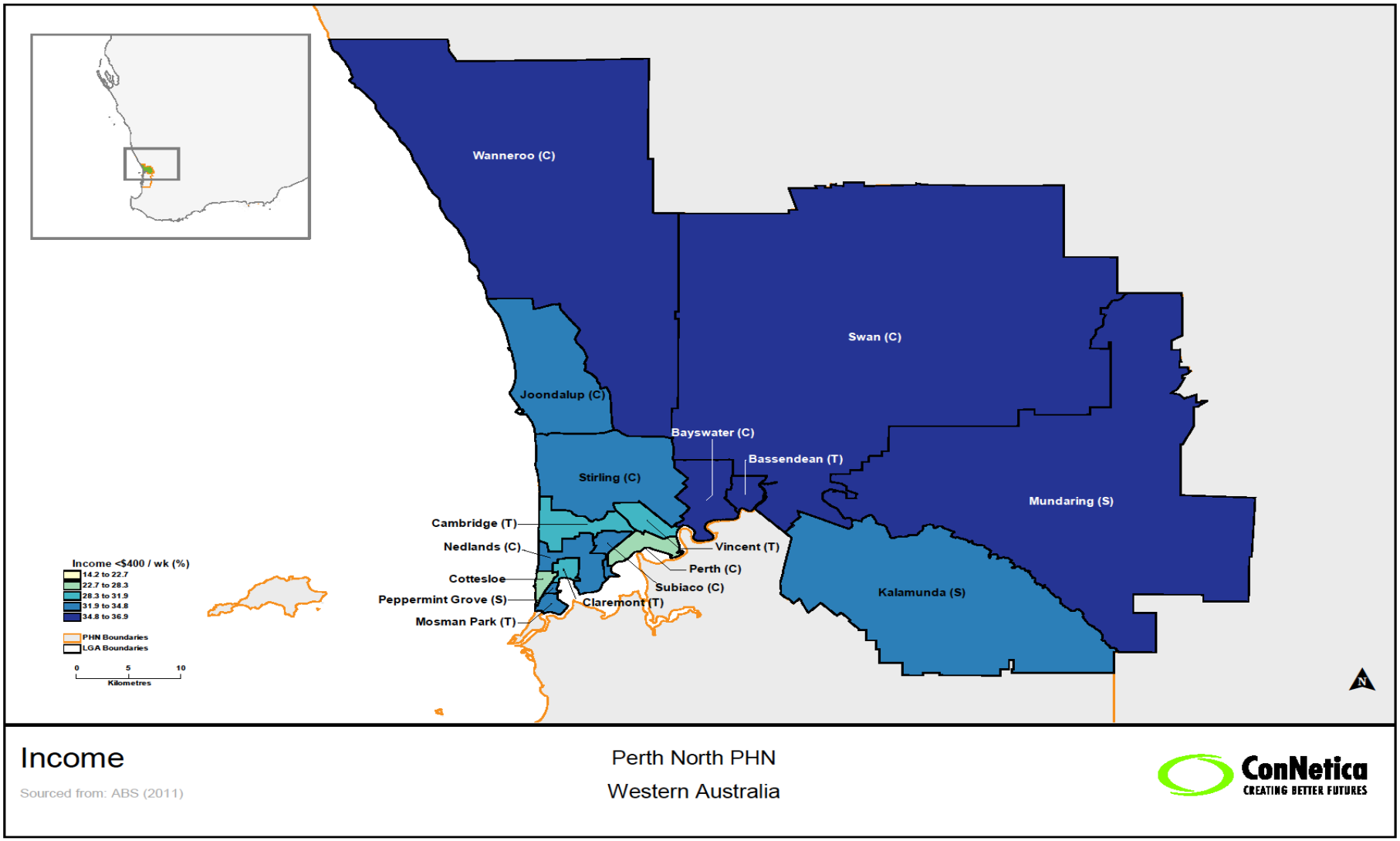


FIGURE 20 INDIVIDUAL WEEKLY INCOME (<$400/WK) BY LGA IN PNPHN

Figure 21 INDEX OF RELATIVE SOCIO-ECONOMIC DISADVANTAGE (IRSD) 2011 BY LGA IN PNPHN

3.2 Health and Mortality

A number of indicators of health status have been examined including self- reported heath status, population based indicators of psychological distress and some mortality measures.

TABLE 7 HEALTH AND MORTALITY FOR PNPHN

LGA	Fair/poor Health (ASR per 100)*	Psychological Distress (ASR per 100)*	Suicide (n)†	Suicide (ASR per 100,000)†	Road Toll (n)†	Road Toll (ASR per 100,000)†
Bassendean	15.4⇧	11.8⇧	17	22.9⇧	n/a	n/a
Bayswater	15.1⇧	10.8⇧	40	12.3⇩	16	4.9⇩
Cambridge	9.0⇩	8.5⇩	11	8.4⇩	n/a	n/a
Claremont	9.1⇩	9.1⇩	6	12.1⇩	n/a	n/a
Cottesloe	9.1⇩	9.5⇩	5	12.8⇧	n/a	n/a
Joondalup	10.6⇩	9.6⇩	72	9.1⇩	22	2.8⇩
Kalamunda	12.5⇩	8.9⇩	37	13.6⇩	17	6.3⇧
Mosman Park	9.1⇩	9.5⇩	6	13.6⇩	n/a	n/a
Mundaring	13.0⇩	10.1⇩	25	13.6⇩	15	8.2⇧
Nedlands	8.9⇩	7.6⇩	5	4.9⇩	n/a	n/a
Peppermint Grove	9.1⇩	9.5⇩	n/a	n/a	0	0.0⇩
Perth	12.8⇩	10.3⇩	12	11.5⇩	n/a	n/a
Stirling	13.7	10.6⇧	146	14.1⇧	31	3.0⇩
Subiaco	9.9⇩	9.7⇩	6	6.7⇩	n/a	n/a
Swan	14.9⇧	10.1⇩	73	12.9⇩	31	5.5⇩
Vincent	12.2⇩	10.2⇩	20	11.2⇩	7	3.7⇩
Wanneroo	14.0⇧	10.4⇩	70	9.0⇩	26	3.3⇩
PNPHN	**12.8**	**10.1**	**552**	**11.6**	**185**	**3.9**
WA	13.7	10.5	1,581	13.7	769	6.7
Australia	14.6	10.8	11,874	11.2	5,441	5.1

Sourced from: * 2011-12 (PHIDU, 2016); †2010-14 (PHIDU, 2016)

Health and Wellbeing

Estimates of self-reported health in the PNPHN catchment indicate that people in the Bassendean (15.4%), Bayswater (15.1%) Swan (14.9%) and Wanneroo (14.0%) LGAs reported higher rates of fair or poor health compared to both the state (13.7%) and national (14.6%) averages (Table 7). In addition to high levels of fair or poor self- reported health, the Bassendean LGA also had a higher rate of psychological distress (11.8%) compared to both the state (10.5%) and Australian(10.8%) rates.

Mortality

In Australia, deaths from suicide are well in excess of transport- related mortality, with the latest data released indicating that there were 2,864 registered suicide deaths in Australia in 2014, representing an age standardized rate of 12.2 per 100,000 (ABS, 2016). Despite the estimated mortality, the prevalence

of suicide and self- harming behaviour in particular, remains difficult to gauge due to the challenges associated with obtaining reliable data.

Bassendean has a significantly higher rate of suicide compared to the state average of 13.7 per 100,000, with a rate of 22.9. However, ten LGAs had rates that were also higher than the national rate of 11.2 per 100,000: these include Bayswater (12.3); Claremont (12.1); Cottesloe (12.8); Kalamunda (13.6); Mosman Park (13.6); Mundaring (13.6); Perth (11.5); Stirling (4.1); Swan (12.9); and Vincent (11.2).

Almost all LGAs in the PNPHN catchment reported road toll rates which are at least half of the registered suicide rates. In fact, for some LGAs the rate of deaths due to road traffic incidents is so small that it was not recorded (for example, the Cottesloe LGA had a suicide rate of 12.8 per 100,000 but no road toll rate recorded). The following figures (Figure 22-24) display selected health and mortality indicators geographically across the PNPHN.

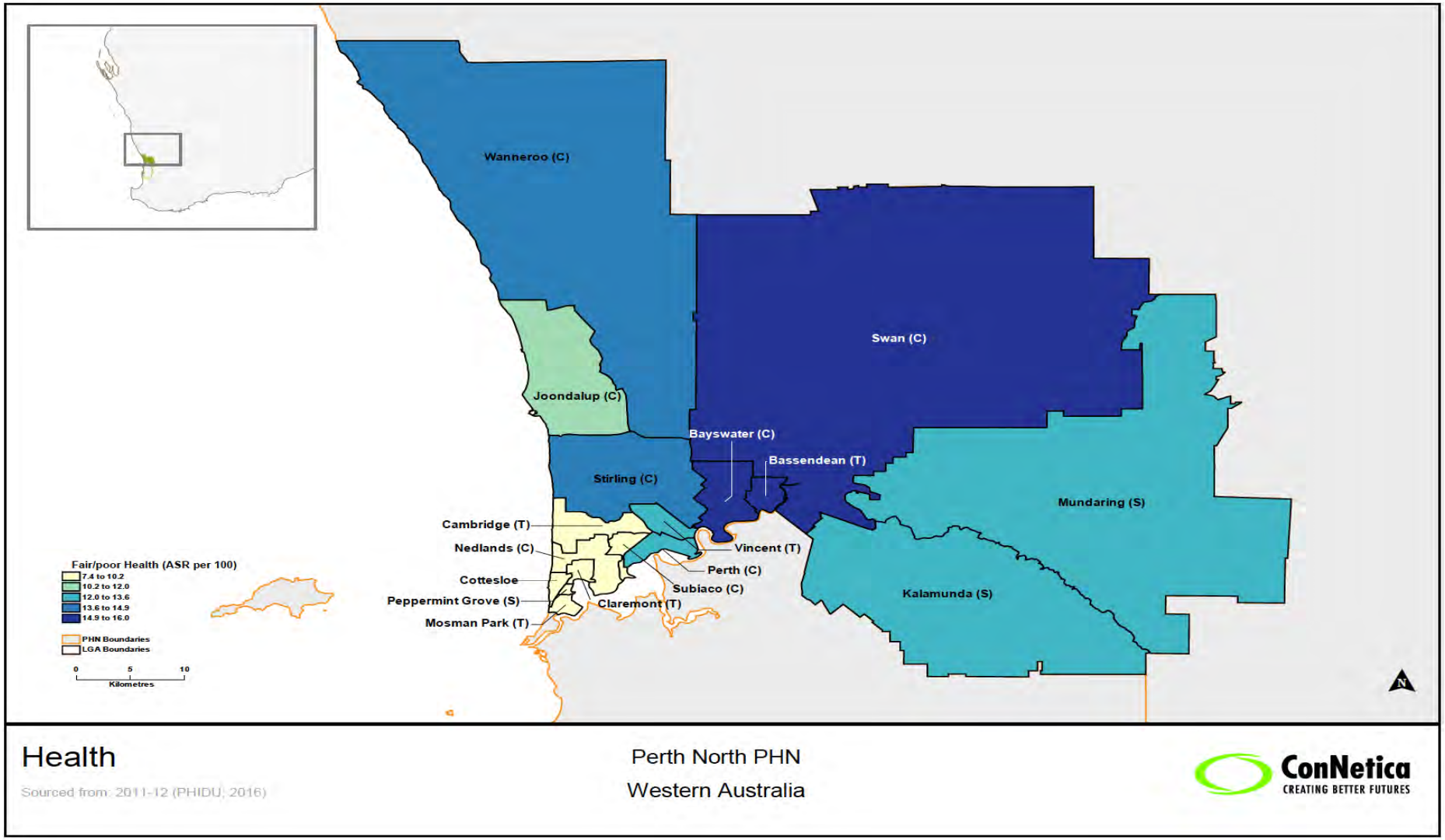


Figure 22 SELF-RATED FAIR/POOR HEALTH BY LGA IN PNPHN

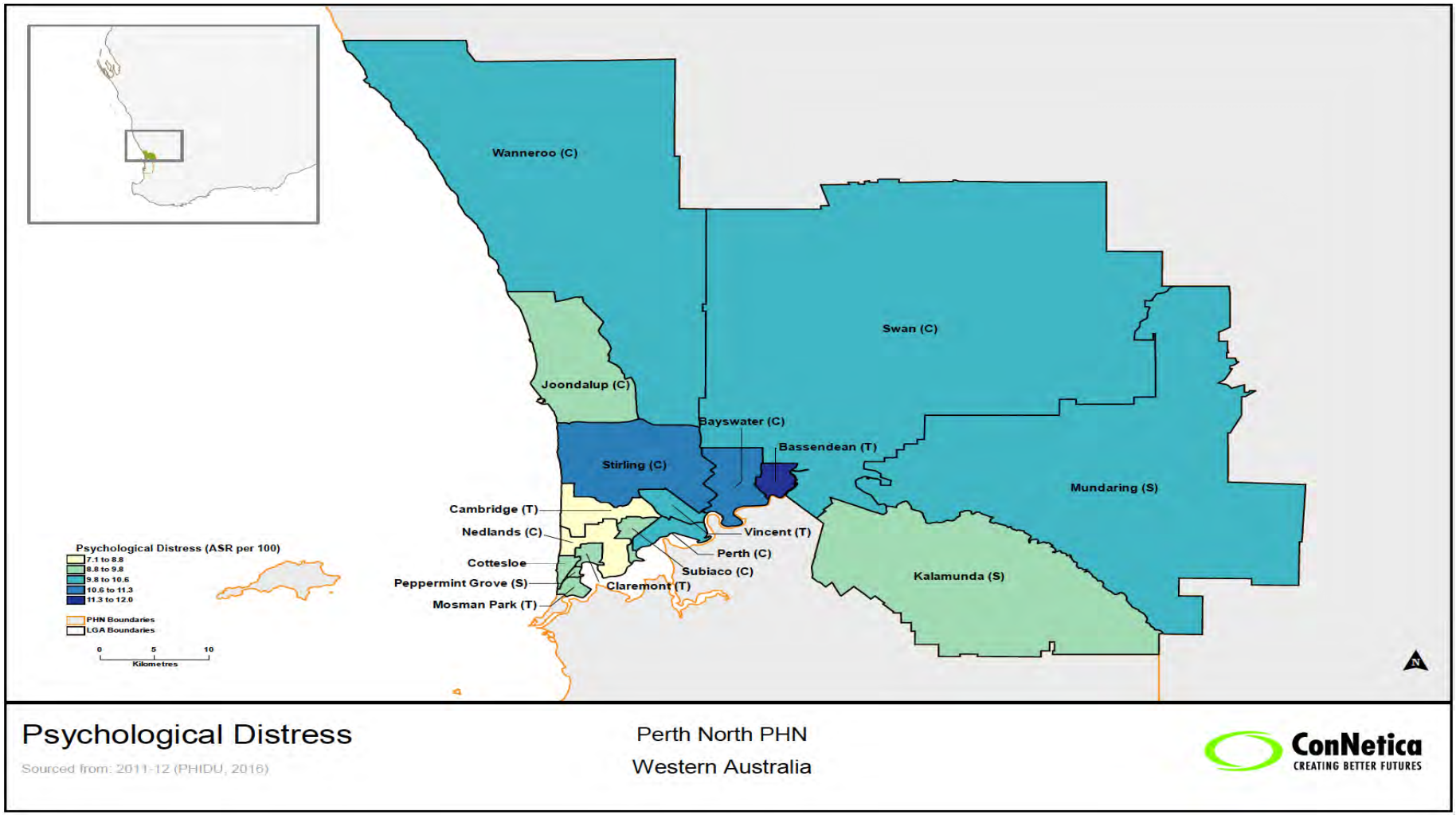


Figure 23 RISK OF PSYCHOLOGICAL DISTRESS

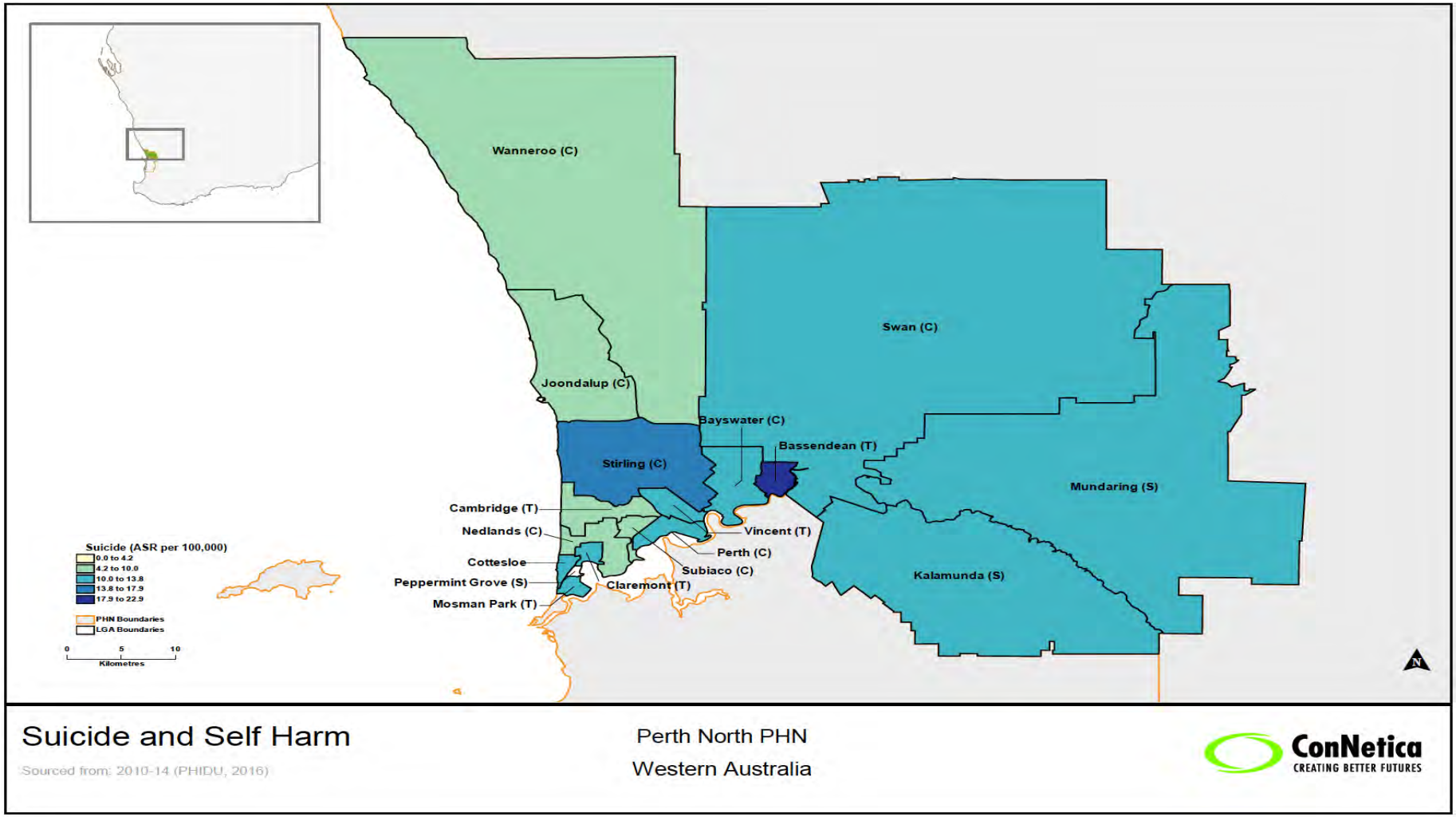


FIGURE 24 SUICIDE BY LGA IN PNPHN

4. Mental Health Data - PNPHN

Publicly available population mental health and mental health service data is included in section 3.1 above, where for comparative purposes, a brief overview of Australian and Western Australian prevalence and service data is given. The Prevalence and Treatment Data presented below is specific to PNPHN.

4.1 Mental Health Nurse Incentive Program (MHNIP)

The Mental Health Nurse Incentive Program (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 who 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: in particular, they can provide services to children and young people, women in the peri- natal period and older people, who are more likely to be in contact with their General Practitioner than with other health or community services.

Data extracted from the MHNIP data tables (Commonwealth of Australia, 2016) indicates that the number of patients serviced by MHNIP in the PNPHN catchment declined during the period from 2011/12 to 2014/15 (Figure 25).

Please note MHNIP availability has not been included in this atlas.

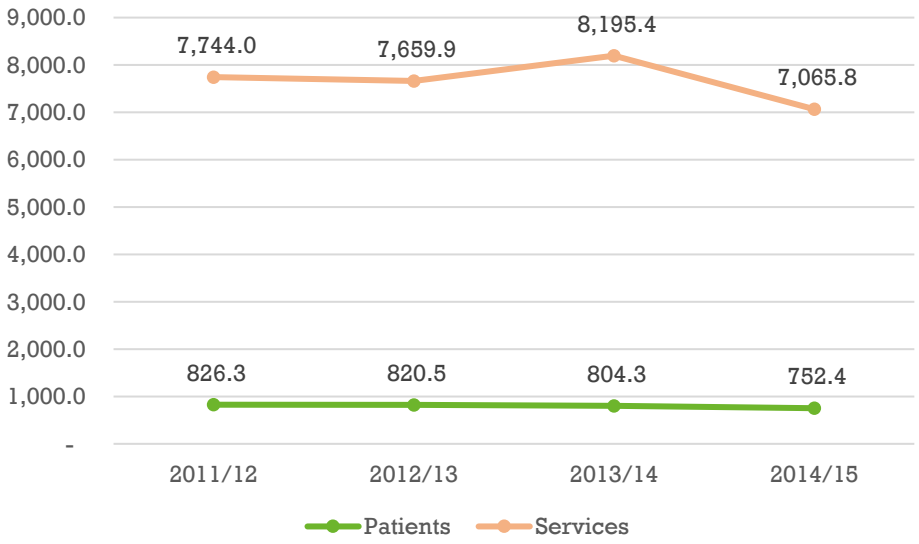


FIGURE 25 MHNIP CLIENTS AND SERVICES, PNPHN CATCHMENT 2011/12 - 2014/15

4.2 Medical Benefits or Medicare Funded Services

Within the PNPHN catchment, the highest number of services were provided by Clinical Psychologists (106,719 or 29.3%), however, General Practitioners (GPs) provided close to the same number of services during 2014-15 (105,428 or 29.0%) (Table 8).

TABLE 8 PNPHN MBS UTILISATION BY PROVIDER TYPE 2014-15

Service Type	Gender	Patients (n)	Services (n)	Benefits Paid	Fees Charged
Psychiatrists	Male	7,145	31,206	$4,108,502	$6,396,199
	Female	7,505	49,838	$6,587,240	$9,694,483
	Total	**14,650**	**81,044**	**$10,695,742**	**$16,090,682**
General Practitioners	Male	23,820	39,762	$3,256,797	$3,530,345
	Female	39,134	65,666	$5,395,567	$5,946,392
	Total	**62,953**	**105,428**	**$8,652,364**	**$9,476,737**
Clinical Psychologists	Male	8,318	37,591	$4,888,897	$6,422,751
	Female	14,345	69,128	$9,017,457	$11,854,714
	Total	**22,662**	**106,719**	**$13,906,354**	**$18,277,465**
Other Allied Health Providers	Male	6,043	25,080	$2,261,682	$3,184,999
	Female	10,501	45,850	$4,037,190	$5,516,991
	Total	**16,544**	**70,930**	**$6,298,872**	**$8,701,990**
Total		**79,642**	**364,132**	**$39,555,059**	**$52,548,996**

At the Statistical Area Level 3 (SA3), Wanneroo recorded the highest number of patients utilising MBS mental-health related services in 2014-15 (15,208 patients), however the highest number of services claimed during the same time period was in Swan (66,659 services) (Table 9). Overall, the lowest number of services were delivered in Joondalup (21,294 services), and the lowest number of patients in Kalamunda (3,741). General Practitioners provided the highest number of services in the Wanneroo (23,051) and Swan (17,368), Psychiatrists in Swan (17,562), and Clinical Psychologists in Swan (21,008).

TABLE 9 PNPHN MBS UTILISATION BY SA3 AND PROVIDER TYPE 2014-15

SA3	Provider Type									
	Psychiatrists		General Practitioners		Clinical Psychologists		Other Allied Health Providers		Total	
	Patients (n)	Services (n)	Patients (n)	Services (n)	Patients (n)	Services (n)	Patients (n)	Services (n)	Patients (n)	Services (n)
Bayswater - Bassendean	1,221	6,713	4,691	7,551	1,713	8,221	1,247	5,341	8,871	27,826
Perth City	1,686	9,542	3,492	5,769	1,843	8,932	710	3,168	7,731	27,411
Cottesloe - Claremont	2,258	11,288	10,158	16,726	4,070	5,398	2,403	9,824	12,754	57,060
Joondalup	681	3,953	3,898	6,408	1,177	5,398	1,228	5,537	4,757	21,294
Kalamunda	569	3,135	3,002	4,814	980	4,614	1,012	4,434	3,741	16,997
Mundaring	2,189	13,762	5,897	10,338	3,044	15,422	1,301	15,422	8,255	45,255
Swan	2,972	17,562	10,326	17,368	4,474	21,008	2,511	10,721	13,642	66,659
Stirling	1,320	6,733	8,370	13,405	2,134	9,683	2,933	12,467	10,104	42,288
Wanneroo	1,757	8,365	13,120	23,051	3,228	14,221	3,200	13,705	15,208	59,342
PNPHN	**14,650**	**81,044**	**62,953**	**105,428**	**22,662**	**106,719**	**16,544**	**70,930**	**79,642**	**364,132**
Australia	362,079	2,302,742	1,672,646	2,917,909	409,538	1,870,276	71,665	311,946	2,069,004	9,785,527

4.3 Access to Allied Psychological Services (ATAPS)

ATAPS is provided under the Better Access to Services strategy to enable patients to access assistance for short- term psychological intervention. As such, it is targeted at support and treatment for people who have mild to moderate mental illness.

A total of 8980 clients accessed the ATAPS program in the PNPHN catchment over the period 2011/12 – 2014/15 (Figure 26). Whilst the number of clients has remained relatively stable over time, the number peaked in 2014/15 at 2443. Over the same time period, there has been an overall increase in the number of session provided under the program, peaking in 2014/15 at 14,840 sessions.

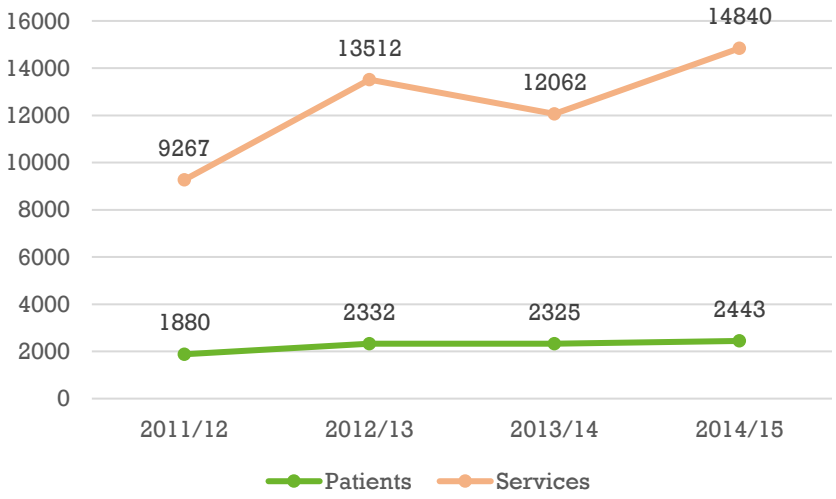


FIGURE 26 ATAPS MDS TOTAL PATIENTS AND SESSIONS 2011/12 - 2014/15

The profile of ATAPS clients in 2014/15 demonstrates that the largest cohort accessing ATAPS services were those aged 25-34 years (18.7%), followed by people aged 35-44 years (15.3%) and 18-24 years (13.8%) (Table 10).

TABLE 10 DISTRIBUTION OF ATAPS PATIENTS BY AGE GROUP

Age Group (years)	Patients	
	Number	Percent
0-4	14	0.6
5-11	323	13.2
12-17	221	9.0
18-24	337	13.8
25-34	457	18.7
35-44	373	15.3
45-54	351	14.4
55-64	230	9.4
65-74	109	4.5
75-84	25	1.0
85+	3	0.1
Total	**2,443**	**100.0**

Sourced from: Department of Health (2016b)

5. Mental Health Services - PNPHN

5.1 Introduction

In this section of the Atlas the main type of care, availability and location of BSIC delivering mental health care in PNPHN are described.

Note this section does not include services where the primary presentation is not for mental health for example: domestic violence, sexual abuse and trauma services, AOD, intellectual disability or homelessness.

There was a total of 224 BSIC (or service delivery teams) identified delivering mental health care in PNPHN. These teams deliver 231 Main Types of Care (MTC) across 45 different DESDE classifications (Figure 27).

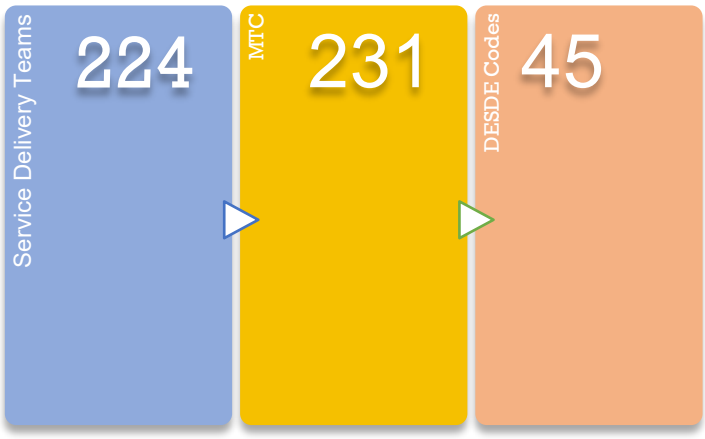


FIGURE 27 SUMMARY OF SERVICES PROVIDING CARE FOR MENTAL HEALTH

Interestingly, within PNPHN, the majority of MTC (61.5%) were provided by the NGO sector (n=142),an indication of the importance of the community sector as key service providers for treatment and management of mental illness, with NGOs often funded by government (e.g. Mental Health Commission, Department of Health) to deliver services and programs. Eight services assisted with forensic or justice issues, six of which were provided by State Forensic Mental Health, with two provided by NGOs supporting the Corrective Services teams (Figure 28).

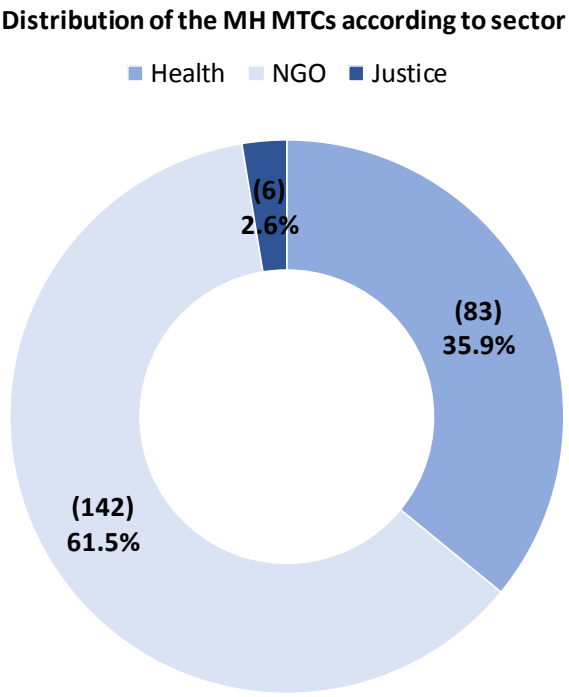


FIGURE 28 DISTRIBUTION OF MENTAL HEALTH MTCS ACCORDING TO SECTOR

Seventy-one percent (n=164) of MTCs are for the adult population aged 18 years and over, 8.23 % (n=19) are for children and adolescents up to the age of 18 years, 5.63% (n=13) for the transition to adulthood age group from childhood/adolescence to the age of 25 years, 7.36%% (n=17) for older adults 65 years, and 7.79% (n=18) are services for Non age-related specific populations (such as gender-specific services, or eating disorder services)(Figure 29)

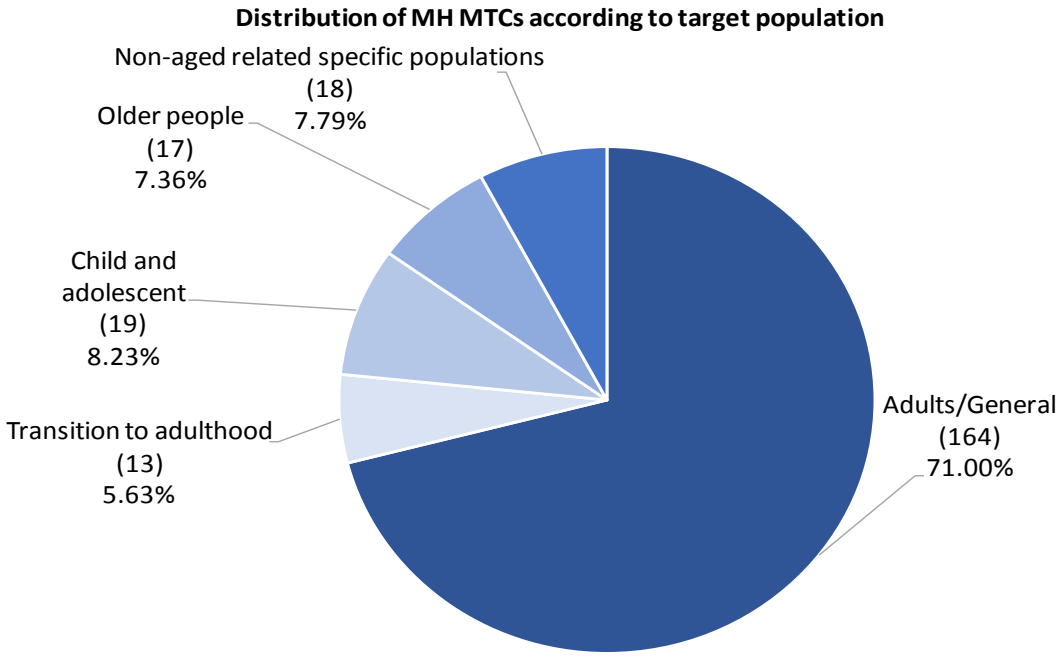


FIGURE 29 DISTRIBUTION OF MENTAL HEALTH MTCS ACCORDING TO TARGET POPULATION

As per Figure 30 below, Outpatient type care makes up the largest percentage of care provided in both "core health", or health services provided by the public sector and other "Non-public health" care, comprised in Perth North of services provided by NGOs and those related to justice or forensic mental health. Outpatient care comprises 67.5.% of services provided by the core health subsystem ("Public Health" column in figure 30 below), and 63.5% of services provided by other (Non-public health) care. In total, 65% (n=150) of MTCs provide Outpatient care. Residential MTCs comprise the next largest type of care, comprising 28.9% of core health services and 18.9 % of other care, or a total of 23% of all MTCs. Accessibility type care accounts for 1.2% of core health services (n=1) but 7.4% of MTCs provided by other care (n=11); or a total of 5% overall (n=12). There are only 2 Daycare MTCs, both provided by the NGO sector.

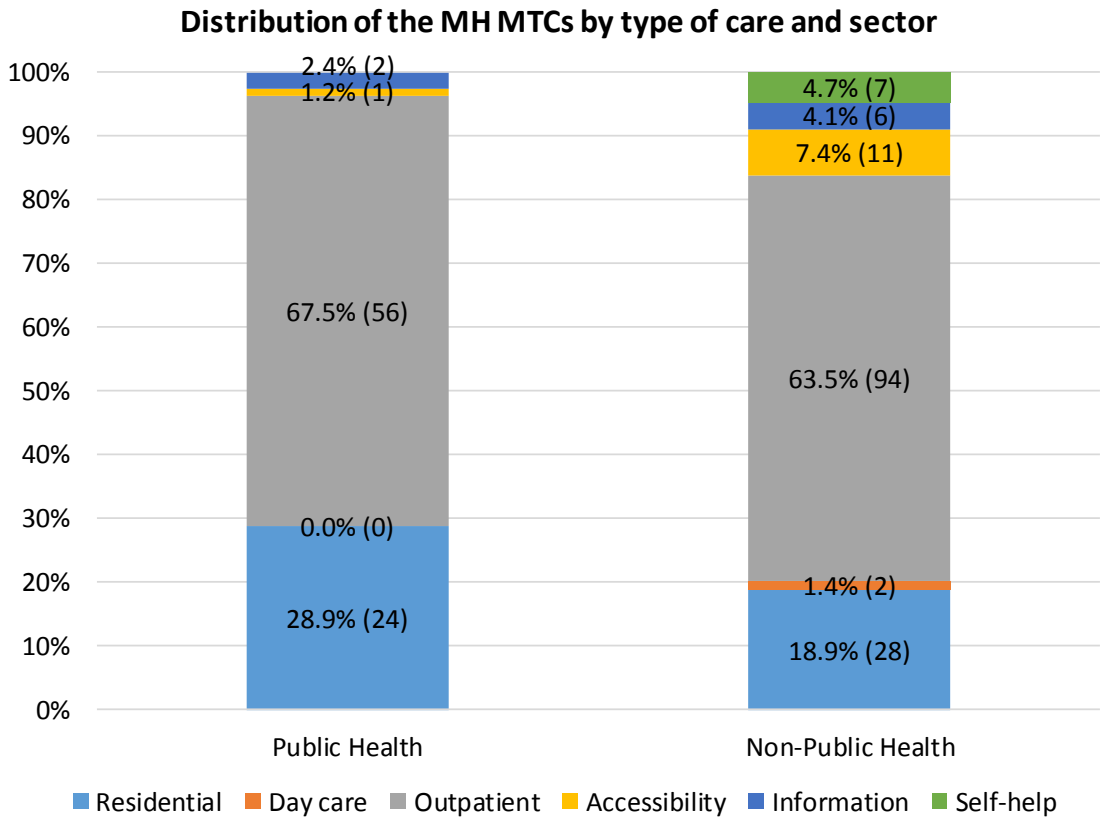


FIGURE 30 MENTAL HEALTH MTC BY TYPE OF CARE AND SECTOR

Table 11 provides a more detailed summary of MTCs with a description of the distribution of MTCs across age groups, as well as by sector and service type.

TABLE 11 NUMBER OF MAIN TYPES OF MENTAL HEALTH CARE IN PNPHN

Population Group	Service Type	R	D	O	A	I	S	TOTAL
Child & Adolescent	Health	0	0	10	0	1	0	11
	NGO/Other	0	0	21	1	1	0	23
	Sub-total	**0**	**0**	**31**	**1**	**2**	**0**	**34**
Adult	Health	18	0	38	1	1	0	58
	NGO/Other	26	1	73	10	5	7	122
	Sub-total	**44**	**1**	**111**	**11**	**6**	**7**	**180**
Older Adult	Health	6	0	8	0	0	0	14
	NGO/Other	2	1	0	0	0	0	3
	Sub-total	**8**	**1**	**8**	**0**	**0**	**0**	**17**
Total	Health	24	0	56	1	2	0	83
	NGO/Other	28	2	94	11	6	7	148
	Total	**52**	**2**	**150**	**12**	**8**	**7**	**231**

R - Residential; D – Day care; O – Outpatient; A – Accessibility; I – Information and Guidance; S – Self-Help and voluntary

5.2 Residential Care - Mental Health

Acute Residential Services (R0, R1, R2 and R3 DESDE Codes)

Children and Adolescents

There were no Acute Residential services identified for children and adolescents located in the PNPHN, with the exception of the notional availability of Child and Mental Health Services (CAMHS) beds at Fiona Stanley Hospital in Murdoch (PSPHN) for patients living in the PNPHN. Additionally, the (CAMHS) Inpatient Unit located in Perth South is a 12-bed ward for young people under the age of 17 years providing a state- wide specialised service. Admissions include voluntary and involuntary patients.

Adults

There were 12 teams identified as providing Acute Residential care for adults aged 18-65 in the PNPHN catchment, providing 13 MTCs. The number of Acute Residential beds is 182. Graylands Hospital, which services patients from around the state, is the only dedicated public mental health hospital in WA, and provides a total of 56 beds (including the two Acute Residential beds provided through a second MTC in the Susan Casson unit (see Table 12)). However, five Acute beds at Graylands are set aside for use by the Midwest region of the CWAPHN catchment, and these have been excluded from the bed count below. These five beds are notionally on Smith Unit, but in practice patients from the Midwest could be placed in other units. Note there are mental health 'beds' provided via the Hospital in the Home program (HiTH). Whilst these are provided for within the budgets for 'beds', under the DESDE methodology they are classified as an Outpatient service, and are included in that section. The notional catchment of the Mother and Baby Unit at King Edward Memorial Hospital is statewide, but in practice the catchment area is the Perth metro area.

There are 12 BSICs (care teams) providing Acute Residential care to adults aged 18-65 years in the PNPHN region, or 1.81 BSICs per 100,000 adults. The number of Acute Residential beds for adults is 182 (including 2 Acute beds in Susan Casson unit (Table 12), or 27.49 Acute Residential beds per 100,000 adults.

TABLE 12 ACUTE RESIDENTIAL MENTAL HEALTH CARE FOR ADULTS IN PNPHN

Provider	Name	Suburb	DESDE - 1	Beds	FTE	Catchment
Graylands Hospital	Acute Beds- Dorrington	Mt Claremont	AX[F0-F99] - R2	18	35.6	Statewide
	Acute Beds - Yvonne Pinch	Mt Claremont	AX[F0-F99] - R2	6	18.6	Statewide
	Acute Beds - Montgomery	Mt Claremont	AX[F0-F99] - R2	15	28.9	Statewide
	Acute Beds - Smith	Mt Claremont	AX[F0-F99] - R2	10*	31.7	Statewide
Joondalup Health Campus	Inpatient Adult, Authorised, Secure, Acute	Joondalup	AX[F0-F99] - R2cq	10	NA	Joondalup/ Wanneroo
	Inpatient Adult, Authorised, Open, Acute	Joondalup	AX[F0-F99] - R2	37	NA	Joondalup/ Wanneroo

Provider	Name	Suburb	DESDE - 1	Beds	FTE	Catchment
King Edward Memorial Hospital	Mother Baby Unit (MBU)	Subiaco	AX[F][F53][F0-F99]-R2	8	NA	Statewide
Midland hospital	Mental Health Unit 4A and 4B	Midland	AX[F0-F99] - R2 (25) AX[F0-F99] - R2c (15)	40	NA	Midland
Sir Charles Gairdner Hospital	Mental Health Unit Jurabi	Nedlands	AX[F0-F99] - R1	6	23.5	Stirling, Lower West and Inner City
Sir Charles Gairdner Hospital	Mental Health Observation Area	Nedlands	AX[F0-F99] - R2	6	15.9	Stirling, Lower West and Inner City
Sir Charles Gairdner Hospital	Mental Health Unit Karajini	Nedlands	AX[F0-F99] - R2cq	6	NA	Stirling, Lower West and Inner City
Sir Charles Gairdner Hospital	Mental Health Unit Tanmani	Nedlands	AX[F0-F99] - R2	18	NA	Stirling, Lower West and Inner City

Actual bed count is 15, the number provided excludes the 5 beds allocated for the Midwest.

Older adults

Six teams were identified providing Acute Residential care for older adults in the PNPHN catchment (Table 13). All are provided as hospital inpatient care. The number of Acute Residential beds (R1 and R2) totals 56. (These figures exclude the 32 Non-Acute beds also provided by Lower West (Selby) and Osborne Park Older Adult Mental Health Services in this category which are noted in the Non-Acute Residential section below, p.64). This equates to a rate of 42.28 Acute beds per 100,000 older adults. This is substantially higher than in other states around Australia. The number of beds per 100,000 older adults in Western Sydney for example is 6.95 ,and 33.88 in South Eastern Melbourne PHN.

There are six BSICs (care teams) providing Acute Residential care to adults aged 65 years and over in the PNPHN region, or 4.53 per 100,000 older adults. There are 56 Acute Residential beds, or 42.28 per 100,000 older adults.

TABLE 13 ACUTE RESIDENTIAL MENTAL HEALTH CARE FOR OLDER ADULTS IN PNPHN

Provider	Name	Suburbs	DESDE - 1 (beds)	Acute Beds	FTE	Catchment
Lower West (Selby) Older Adult Mental Health Service	Inpatient Unit - Psychiatric Intensive Care Unit	Shenton Park	OX[F0-F99] - R1c	8	17.5	Lower West Catchment
	Inpatient Units Authorised, Secure Acute/Non-Acute.	Shenton Park	OX[F0-F99] - R2cq (8) OX[[F0-F99] - R4cq (16)(Non-Acute)	8	46.4	Lower West Catchment
Midland Hospital	Mental Health Unit 4C	Midland	OX[F0-F99] - R2cq	16	NA	Midland
Osborne Park Older Adult Mental Health Service (Osborne Park Hospital Campus)	Acute Inpatient Unit	Stirling	OX[F0-F99] - R2cq (8) OX[F0-F99] - R4cq (16)(Non-Acute)	8	41.4	Osborne Stirling Catchment
St John of God	Ursula Frayne Unit - Authorised Assessment Unit	Mt Lawley	OX[F0-F99] - R2cq	10	NA	N/S
	Restorative Unit	Mt Lawley	OX[F0-F99] - R2cq	6	NA	N/S

Non-Acute Residential Services (R4, R5, R6, R7 DESDE Codes)

Four teams providing Non-Acute Hospital care (65 beds) and one BSIC providing Non-Acute Non-hospital Residential care (Joondalup Step Up/Step Down: 22 beds) were identified across the PNPHN. Graylands Hospital accounts for the majority of Non-Acute beds statewide, within the PNPHN.

There are five BSICs (care teams) providing Non-Acute Residential care to adults aged 18-65 years in the PNPHN region, or 0.76 teams per 100,000 adults. The number of Non-Acute Residential beds is 87, or 13.14 beds per 100,000 adults.

Additionally, for older adults, there are 32 Non-Acute beds, provided by Lower West (Selby) and Osborne Park Older Adult Mental Health Services, whose primary Main Type of Care is Acute Residential care (see Table 13).

TABLE 14 NON-ACUTE RESIDENTIAL MENTAL HEALTH CARE FOR ADULTS IN PNPHN

Provider	Name	Suburbs	DESDE-1 (beds)	Beds	FTE	Catchment
Graylands Hospital	HECS Units-Ellis	Mt Claremont	AX[F0-F99] - R4c	14	25.4	Statewide
	HECS Units-Susan Casson	Mt Claremont	AX[F0-F99] - R4c (8) AX[F0-F99] - R2cq (2) Acute	8	20.9	Statewide
	Murchison West	Mt Claremont	AX[F0-F99] - R4c	21	35.7	Statewide
	HECS Units - Murchison East	Mt Claremont	AX[F0-F99] - R4	22	27.7	Statewide
NEAMI National	Joondalup Mental Health Step up Step Down	Joondalup	AX[F0-F99] – R5	22	18	North Perth

Other Residential Services (R8, R9, R10, R11, R12 and R13 DESDE Codes)

Adults

There were 21 teams identified as providing other Residential services, including supported accommodation and hostel type accommodation for adults in the PNPHN catchment. Additionally, a second MTC provided by Healing Minds Mental Health Respite - North Metro Carer Support is for Residential respite accommodation for carers (see Table 28).

Richmond Wellbeing provides Residential options ranging from short term to long term accommodation. The Recovery Accommodation Service, Ngulla Mia and Community Options Services provide 24/7 support. These Residential services provide individualised support, liaising with case managers and other agencies to provide ongoing clinical support, as well as supporting the development of everyday life skills.

Casson Homes provide 24 hour nursing care, as well as Occupational Therapy and Physiotherapy, Aromatherapy and Podiatry.

St Vincent de Paul provides supported housing at Vincentcare. They also provide low level vocational support and basic life skill assistance.

Psychiatric Hostels are also included in this classification. In total 512 beds were identified here, not including hostels that did not provide bed numbers. WA has a large number of hostels and provides “rehab in the hostel” where a mental health team stays in contact and visits residents, largely on a monitoring basis.

St.Bartholomew’s Mental Health Support Services provide three teams, including one which provides transitional care for people experiencing a social crisis or at risk of homelessness, with staff available 24 hours a day. The other two teams provide care to people requiring around two to four hours’ support per day.

There are 21 BSICs (care teams) providing Other Residential care to adults aged 18-65 years in the PNPHN region, or 3.17 BSICs per 100,000 adults. The number of Other Residential beds is 518 in total or 78.24 per 100,000 adults. ***It is important to note that several teams have a statewide or North/South catchment, thus their availability to North Perth residents should be considered to be approximately 50% of available beds***.

TABLE 15 OTHER RESIDENTIAL CARE FOR ADULTS IN PNPHN

Provider	Name	Suburbs	DESDE-1	Beds	FTE	Catchment
Casson Homes	Casson House	North Perth	AX[F0-F99] - R11	84	NA	East Metro*
	St Rita's Nursing Home	North Perth	AX[F0-F99] - R11	47	NA	East Metro*
	Woodville House	North Perth	AX[F0-F99] - R11	25	NA	East Metro*
St Jude's Mental Health Services	St Judes Hostel	Guildford	AX[F0-F99] - R11	59	NA	East Metro*
St Bartholomew's House	Midland Accommodation Unit - Transitional Housing	Midland	AX[F0-F99] – R8	6	NA	Statewide
St Bartholomew's House	Sunflower Villas Community Supported Residential Units (CSRU)	Stirling	AX[F0-F99] – R9	22	NA	Statewide
St Bartholomew's House	Swan Villas Community Supported Residential Units (CSRU)	Middle Swan	AX[F0-F99] – R9	22	NA	Statewide
Romily House	Romily House	Claremont	AX[F0-F99] - R11	70	NA	South West Metro*
Roshana	Honey Brook Lodge	Midland	AX[F0-F99] - R11	35	NA	N/S
Salisbury Home	Salisbury Home	Guildford	AX[M][F0-F99] - R11 AX[F][F0-F99] - R11	28 6	NA	East
Southern Cross Care WA	Community Options - Stirling	Stirling	AX[F0-F99] - R11	7	NA	N/S
	Community Options - Mount Claremont	Mount Claremont	AX[F0-F99] - R11	7	NA	N/S

Provider	Name	Suburbs	DESDE-1	Beds	FTE	Catchment
Richmond Wellbeing	Bassendean Recovery Accommodation Service	Bassendean	AX[F0-F99] - R11	12	5.7	Bassendean
Richmond Wellbeing	Ngulla Mia	Belmont	AX[F0-F99][Z59] – R8.2	32	21	Statewide
Richmond Wellbeing	Short Term Accommodation Westminster	Westminster	AX[F0-F99] - R9.2	6	3.2	Westminster
Vincentcare	Bayswater House	Woodbridge	AX[F0-F99] - R11	6	NA	Metropolitan
Vincentcare	Duncraig House	Duncraig	AX[F0-F99] - R11	4	NA	Metropolitan
Vincentcare	Viveash House	Viveash	AX[F0-F99] - R11	4	NA	Metropolitan
Vincentcare	Swan View House	Swan View	AX[F0-F99] - R11	4	NA	Metropolitan
Vincentcare	Village - Woodbridge	Woodbridge	AX[F0-F99] - R11	28	NA	Metropolitan
Vincentcare	Warwick House	Warwick	AX[F0-F99] - R11	4	NA	Metropolitan

⁎***Denotes coverage is as described on organisation website***

5.3 Day Care - Mental Health

As expected, Day Care services are very limited, with only two teams identified, one of which is for adults ,and one for older adults. This is consistent with other states, and reflects a general shift away from the more traditional Day programs to working through Outpatient services to deliver a more integrated community based approach to social and cultural activities for people with mental illness.

For adults, the Lorikeet Centre, run by the Mental Illness Fellowship of WA, provides regular workshops and activities to support adults living with mental illness in developing work skills and engaging in social and recreational activities.

Adults

There is one BSIC (care team) providing Day Care for adults aged 18-65 years in the PNPHN region, or 0.15 BSIC per 100,000 adults.

TABLE 16 DAY CARE FOR ADULTS IN PNPHN

Provider	Name	Suburbs	DESDE - 1	FTE	Catchment
Mental Illness Fellowship of WA	Lorikeet Centre	West Leederville	AX[F0-F99] - D9	NA	West Leederville

Older Adults

For older adults, the only Day team identified in PNPHN is the Outpatient Day Therapy Unit run by St John of God, which supports older adults with mental illness, assisting them in developing skills to engage socially, and in the community.

There is one BSIC (care team) providing Day Care for adults aged 65 years and over in the PNPHN region, or 0.76 BSICs per 100,000 older adults.

TABLE 17 DAY CARE FOR OLDER ADULTS IN PNPHN

Provider	Name	Suburbs	DESDE - 1 (places)	FTE	Catchment
St John of God	Outpatient Day Therapy Unit	Mt Lawley	OX[F0-F99] - D4 (6)	NA	N/S

5.4 Outpatient Care - Mental Health

Outpatient care is by far the largest category in the provision of mental health care in PNPHN (as it is across WA). Outpatient care is differentiated in four key ways:

- Between Acute and Non-Acute care;
- Between Mobile and Non-Mobile care;
- Between clinical (health) care and Non-clinical (social) care; and
- Between different levels of intensity; low, medium or high intensity.

Acute Mobile Outpatient Care (O1 and O2 DESDE Codes)

Children and Adolescents

One care team (BSIC) providing Acute Mobile care was identified in the PNPHN, equating to 0.38 BSIC per 100,000 children and adolescents aged 18 years and under in the PNPHN region.

TABLE 18 ACUTE MOBILE OUTPATIENT CARE FOR CHILDREN AND ADOLESCENTS IN PNPHN

Provider	Name	Suburb	DESDE - 1	FTE	Catchment
Child and Adolescent Mental Health Services WA (CAMHS)	Acute Community Intervention Team (ACIT)	Subiaco	CX[F0-F99] – O2.1	20	Statewide

Adults

There were 10 teams identified as providing Acute Mobile Outpatient services for adults in the PNPHN catchment. It should be noted that two of these teams are providing the Hospital in the Home (HiTH) Service.

The mental health HITH program offers individuals the opportunity to receive hospital level treatment delivered in their home, where clinically appropriate. HITH is consistent with the approach of providing care in the community, closer to where individuals live. HITH is delivered by multidisciplinary teams including medical and nursing staff. People admitted into this program remain under the care of a treating hospital doctor. HITH is delivered in the community, but measured and funded via 'beds', and therefore falls under the hospital beds stream for funding purposes. For the purposes of this Atlas however, it is classified here under Outpatient Services, but note its level of acuity with the O2.1 classification. The Western Australian Mental Health, Alcohol and Other Drug Services Plan (2015-2025) indicates a move towards delivering approximately 20% of Inpatient mental health beds as HITH beds by the end of 2025.

There are 10 BSICs (care teams) providing Acute Mobile Outpatient care for adults aged between 18 and 65 years in the PNPHN region, or 1.51 BSICs per 100,000 adults.

TABLE 19 ACUTE MOBILE OUTPATIENT CARE FOR ADULTS IN PNPHN

Provider	Name	Suburb	DESDE – 1 (FTE)	Catchment
Inner City Community Mental Health Service	Assessment and Treatment Team (ATT)	Perth	AX[F0-F99] - O2.1 (8)	City
	Intensive Community	Perth	AX[F0-F99] - O2.1	City

	Outreach Team (ICOT)		(5.7)	
Graylands Hospital	Mental Health Hospital in The Home (HiTH) Stirling	Mt Claremont	AX[F0-F99] - O2.1d 13.1	Stirling
Joondalup Community Mental Health	Assessment and Treatment Team (ATT)	Joondalup	AX[F0-F99] - O2.1 (18.8)	Joondalup and Clarkson Community Mental Health team catchments
Joondalup Community Mental Health	Postnatal Depression Team	Joondalup	AX[F][F53] - O2.1 (1.4)	Joondalup and Clarkson Community Mental Health team catchments
Midland Community Mental Health	Assessment and Treatment Team (ATT)	Midland	AX[F0-F99]-O1.1	Swan
Midland Community Mental Health	Intensive Community Outreach Team/Independent Community Living Strategy (ICOT/CLS) - Swan	Midland	AX[F0-F99] - O2.1 (8.4)	Swan
Mirrabooka Community Mental Health	Assessment and Treatment Team (ATT)	Mirrabooka	AX[F0-F99] - O2.1 (14.1)	Stirling
Sir Charles Gairdner Hospital	Mental Health Hospital in The Home (HiTH)	Nedlands	AX[F0-F99] - O2.1d (13)	Stirling Lower West and Inner City
Subiaco Adult Community Mental Health Service	Assessment and Treatment Team (ATT)	Subiaco	AX[F0-F99] - O2.1 (13.5)	LowerWest

Older Adults

The Older Adults HiTH, run by Lower West (Selby) Older Adult Mental Health Service, was the only team identified as providing Acute Mobile Outpatient services for older adults in the PNPHN catchment. As with the other regions of Western Australia, there is a scarcity of Mobile services providing Acute Outpatient care for older adults.

There is one BSIC (care team) providing Acute Mobile Outpatient care to adults aged 65 years and over in the PNPHN region, or 0.76 BSICs per 100,000 older adults.

TABLE 20 ACUTE MOBILE OUTPATIENT CARE OLDER ADULTS IN PNPHN

Provider	Name	Suburb	DESDE - 1	FTE Catchment
Lower West (Selby) Older Adult Mental Health Service	Older Adults Hospital in The Home (HiTH)	Shenton Park	OX[F0-F99] – O2.1d	5 Lower West Catchment

Acute Non-Mobile Outpatient Care (O3 and O4 DESDE Codes)

Children and Adolescents

There was one team identified as providing Acute Non-Mobile Outpatient services for children and adolescents in the PNPHN catchment.

There is one BSIC (care teams) providing Acute Non-Mobile Outpatient care for children and adolescents in the PNPHN region, or 0.38 BSICs per 100,000 children and adolescents.

TABLE 21 ACUTE NON-MOBILE OUTPATIENT CARE CHILDREN AND ADOLESCENTS IN PNPHN

Provider	Name	Suburb	DESDE - 1	FTE	Catchment
Child and Adolescent Health Service (CAHS) Child and Adolescent Mental Health Services WA (CAMHS)	Paediatric Consultation Liaison Program	Subiaco	CX[ICD][F0-F99] – O4.1l	19.2	Statewide

Adults

There were five teams identified as providing Acute Non-Mobile Outpatient services for adults in the PNPHN catchment. The catchment area for the King Edward Memorial Hospital is notionally statewide, but in practice its catchment is the metro area. The Department of Psychological Medicine provides assessment and treatment of women's mental health concerns related to, or impacting on, their gynaecological and/or obstetric medical conditions.

There are five BSICs (care teams) providing Acute Non-Mobile Outpatient care to adults aged 18-65 years in the PNPHN region, or 0.76 BSICs per 100,000 adults.

TABLE 22 ACUTE NON-MOBILE OUTPATIENT CARE FOR ADULTS

Provider	Name	Suburb	DESDE - 1	FTE	Catchment
Anglicare WA	Arbor	East Perth	GX[z63.4][T14.91] - O4.2	3	Metropolitan Perth
King Edward Memorial Hospital	Department of Psychological Medicine	Subiaco	AX[F][ICD][F0-F99] - O4.1lh	NA	Statewide
Osborne Park Community Mental Health	Peri-natal/Post-natal Mental Health	Stirling	AX[F][F53] - O4.1	O.2	Stirling
Sir Charles Gairdner Hospital	Inpatient - consultation liaison	Nedlands	GX[ICD][F0-F99] – O4.1lh	8	Stirling, Lower West Inner City
Yorgum	Triage Team	East Perth	AX[IN][F0-F99] - O4.1	2	U/S

Older Adults

There was one BSIC identified as providing Acute Non-Mobile Outpatient services for older adults in the PNPHN catchment. Additionally, Osborne Park Older Adult Mental Health Service Community Team provide an Acute Non-Mobile MTC as a second MTC (see Table 25).

There is one BSIC (care team) providing Acute Non-Mobile Outpatient care to adults aged 65 years and over in the PNPHN region, or 0.76 BSICs per 100,000 older adults.

TABLE 23 ACUTE NON-MOBILE OUTPATIENT CARE FOR OLDER ADULTS IN PNPHN

Provider	Name	Suburb	DESDE - 1	FTE	Area
Older Adult Psychiatric Consultation Liaison Team	Older Adult Psychiatric Consultation Liaison Team	Nedlands	OX[ICD][F0-F99] – O4.1lh	3	Sir Charles Gairdner Hospital

Non-Acute Mobile Outpatient Care (O5, O6 and O7 DESDE Codes)

Children and Adolescents

Most of the eight Non-Acute Mobile Outpatient BSICs are provided by NGOs. For example, MercyCare's Family Mental Health Support Service assists children, young people and their families with individualised care. The service is provided over a short, medium and long term as needs require. Helping Minds also provides a Carers program for young Carers from its base in Perth. PILLAR is a psycho-social support program for youths with a diagnosed mental health condition and added risk factors. It accepts referrals from Youth Reach, Youth Link, Headspace South, CAMHS, Bentley Adolescent Unit and hospital adolescent wards.

It is pertinent to note that only one of these services extends as north as Joondalup, and None beyond this into the northern corridor of Perth.

There are eight BSICs (care teams) providing Non-Acute Mobile Outpatient care to children and adolescents aged 18 years and under in the PNPHN region, or 1.21 BSICs per 100,000 children and adolescents.

TABLE 24 NON-ACUTE MOBILE OUTPATIENT CARE FOR CHILDREN AND ADOLESCENTS IN PNPHN

Provider	Name	Suburbs	DESDE - 1	FTE	Catchment
Black Swan Health	hYEPP Joondalup	Joondalup	CY[F29] - O5.1.1	NA	North Metro
	hYEPP Osborne Park	Osborne Park	CY[F29] - O5.1.1	NA	North Metro
Helping Minds	Swan Family Mental Health Support Service (FMHSS)	Midland	CX[e310][F0-F99] - O6.2	3	Swan
Helping Minds	Young Carers Support Perth Metro	Perth	CA[e310][F00-F99] - O6.2	3.5	Perth Metro

Provider	Name	Suburbs	DESDE - 1	FTE	Catchment
MercyCare	Family Mental Health Support Service	Mirrabooka	CX[e310][F0-F99] - O6.2	6	N/S
Perth Inner City Youth Service	Pillar	Leederville	CA[F0-F99] - O6.2	1.7	Statewide
Youth Axis	Youth Axis	Wembley	TA [F0-F99] - O5.1e	8	Perth Metro
YouthLink	YouthLink	Northbridge	CY[F0-F99] - O5.1m	11.9	Perth North Metro

Adults

There were 44 BSICs providing Non-Acute Mobile Outpatient services for adults in PNPHN. Of these, 18 are provided by clinical teams, and the balance by a mix of public and NGO Non-clinical teams, as shown below.

Among the services provided by the NGO sector, Mental Illness Fellowship Western Australia's (MIFWA) Individualised Support and PIR services provide individualised support and support packages to those involved in the NDIS, PIR or Mi Way. PIR is also provided in PNPHN by Anglicare, Women's Health and Family Services, Black Swan Health, Cyrenian House and Uniting Care West. All of the PIR programs provide recovery oriented, person focused support to vulnerable individuals with complex needs and severe and persistent mental illness, assisting them to maximise their capabilities through social and environmental opportunities.

Uniting Care West offers the Recovery Options Services in several locations in PNPHN. This Personal Helpers and Mentors Service (PHaMs) provides support to people with severe and persistent mental illness, assisting people to manage daily activities and improving access to relevant support services.

Ruah is an active service in PNPHN and has six BSICs falling within this category, ranging from in reach programs to an individualised independent living strategy team, through to its Wellness Recovery Action Plan initiative, which is a peer led program developing skills to improve mental health. Its Street to Home Program is located at the Ruah Centre in West Perth. Eight specialist homelessness services and a mental health Mobile Clinical Outreach Team (MCOT) work in partnership to assist people sleeping rough to access stable housing, and address issues surrounding their homelessness to achieve positive, long term outcomes, and an improved quality of life (Ruah, 2016).

Derbal Yerrigan Health Service delivers Non-Acute, Mobile Outpatient options for Aboriginal and Torres Strait Island (ATSI) people of all ages in PNPHN from their Mirrabooka and Midland locations; these provide Outpatient counselling for individuals, families and groups for grief trauma, and a range of other issues. In addition to this, the Specialist Aboriginal Mental Health Service (SAMHS) team is providing its services (statewide) from its base at Mt Claremont.

The 360 Health and Community Mental Health Outreach Worker works across both mental health and AOD.The other specialist service in this category is the Black Swan Health Lighthouse Suicide Prevention Program. This program is for people who are at low to mild risk of suicide and self-harm, or for those who have been affected by suicide. It is not a crisis service, but rather works with GPs to assist them in managing and supporting any patients that fit this criteria.The Clarkson Continuing Care Team is a satellite team of the Joondalup Community Mental Health Team.

There are 44 BSICs (care teams) providing Non-Acute Mobile Outpatient care to adults aged 18-65 years of age in the PNPHN region, or 6.65 BSICs per 100,000 adults.

TABLE 25 NON-ACUTE MOBILE OUTPATIENT CARE FOR ADULTS IN PNPHN

Provider	Name	Suburbs	DESDE-1	FTE	Catchment
Anglicare WA	Personal Helpers and Mentors/ Partners In Recovery (PHaMs/PIR)	Wanneroo	AX[F0-F99] - O5.2m	3	Wanneroo
Black Swan Health	Lighthouse Suicide Prevention Program	Osborne Park	AX[T14.91][F0-F99] - O6.2	NA	North metro
Black Swan Health	Partners in Recovery (PIR) - North Metro	Osborne Park	AX[F0-F99] - O6.2m	NA	Perth North -old Medicare Local region
Cyrenian House	Partners in Recovery (PIR)	Perth	AX[F0-F99][F10-19] - O5.2m	NA	City and North of the river
Derbarl Yerrigan	Derbarl Yerrigan Health Service Mirrabooka -Counselling	Mirrabooka	GX[IN][F0-F99] - O6.2	3.5	NA
Derbarl Yerrigan	Derbarl Yerrigan Health Service Midland - Counselling	Midland	GX[IN][F0-F99] - O6.2	3.5	NA
JOC Wellness and Recovery	Individual Support Services	Joondalup	AX[F0-F99] - O6.2	28	Joondalup/ Clarkson

Provider	Name	Suburbs	DESDE-1	FTE	Catchment
JOC Wellness and Recovery	Individual Support Services	Shenton Park	AX[F0-F99] - O6.2	28	Shenton Park, provides outreach from Fremantle to Mirrabooka
Mental Illness Fellowship of WA	Individualised Support National Disability Insurance Scheme (NDIS)	Midland	AX[F0-F99] - O6.2	5	N/S
Mental Illness Fellowship of WA	Partners In Recovery (PIR)	Mt Lawley	AX[F0-F99] - O6.2m	NA	Mount Lawley
Perth Home Care Services (AVIVO)	Avivo North Metropolitan	Osborne Park	AX[e310][F0-F99] - O5.2	NA	North Metro
Rise Network	Housing Support Team	Midland	AX[F0-F99]-O6.2k	2	N/S
Rise Network	Mental Health Team	Midland	AX[F0-F99]-O6.2k	7	N/S
Rise Network	National Disability Insurance Scheme/Independent Community Living Strategy (NDIS/ICLS) Team	Midland	AX[F0-F99]-O6.2k	5	N/S
Ruah	Intensive Mental Health Support Program - Street to Home Program	West Perth	AX[F0-F99][F10-F19] - O5.1	5.75	Metropolitan
Ruah	RUAH Inreach program – Lower North Metro	West Perth	AX[F0-F99] - O6.2	NA	Lower North Metro

Provider	Name	Suburbs	DESDE-1	FTE	Catchment
Ruah	RUAH Inreach program – Inner City	West Perth	AX[F0-F99] - O6.2	NA	Inner City
Ruah	Intensive personalised housing support program	West Perth	AX[F0-F99] - O6.2	4	Belier, Falcon, Hamilton Hill, Wellard, Yangup
Ruah	Wellness Recovery Action Plan (WRAP)	West Perth	AX[F0-F99] - O7.2g	NA	Perth metro-can deliver to Geraldton
Ruah	Individualised Community Living Strategy (ICLS)	West Perth	AX[F0-F99] - O6.2	5	Metro area, Geraldton, Esperance and Kalgoorlie
The Specialist Aboriginal Mental Health Service (SAMHS)	The Specialist Aboriginal Mental Health Service (SAMHS) Metro	Mt Claremont	AX[IN][F0-F99] - O5.1.1	24	Statewide

Provider	Name	Suburbs	DESDE-1	FTE	Catchment
Tender Care (Home Health)	Tender Care (Home Health)	Joondalup	AX[F0-F99] – O6.2	9.2	North Metro and 2 regional areas - Wheatbelt and South West.
Uniting Care West	Partners in Recovery (PIR)	Merriwa	AX[F0-F99] - O5.2m	3	Northern Perth Metropolitan
Uniting Care West	Recovery Options – Personal Helpers and Mentors (PHaMs) (Joondalup)	Merriwa	AX[F0-F99] - O6.2	4.4	Joondalup
Uniting Care West	Recovery Options - Personal Helpers and Mentors PhaMs (Clarkson)	Merriwa	AX[F0-F99] - O6.2	4	Clarkson
Uniting Care West	Recovery Options - Personal Helpers and Mentors PhaMs Scarborough)	Perth	AX[F0-F99] - O6.2	4.2	Scarborough
Women's Health and Family Services	Partners in Recovery (PIR)	Northbridge	AX[F0-F99] - O5.2m	2	Northern Perth Metropolitan
360 Health and Community	Mental Health Outreach Worker	Guildford	GX[F0-F99][[F10-F19] - O7.1	NA	N/S
Inner City Community Mental Health Service	Continuing Treatment Team (CTT) Murray Street	Perth	AX[F0-F99] - O6.1	7.8	City

Provider	Name	Suburbs	DESDE-1	FTE	Catchment
	Continuing Treatment Team (CTT) Pier	Perth	AX[F0-F99] - O6.1	12.3	City
	Mobile Clinical Outreach Team (MCOT)	Perth	AX[F0-F99][Z59] - O6.1	3.6	City
Joondalup Community Mental Health	Continuing Treatment Team (CTT) CTT East	Joondalup	AX[F0-F99] - O6.1	13	Joondalup
Joondalup Community Mental Health	Continuing Treatment Team (CTT) CTT West	Joondalup	AX[F0-F99] - O6.1	10.7	Joondalup
Joondalup Community Mental Health	Intensive Community Outreach Team and Individualised community living strategy (ICOT/ICLS)	Joondalup	AX[F0-F99] - O5.1.1	3.5	Joondalup
Clarkson Community Mental Health	Continuing Treatment Team (CTT) CTT North	Clarkson	AX[F0-F99] - O6.1t	15	Joondalup
Midland Community Mental Health	Continuing Treatment Team (CTT) CTT Forest	Midland	AX[F0-F99] - O6.1	11.9	Swan
Midland Community Mental Health	Continuing Treatment Team (CTT) CTT River	Midland	AX[F0-F99] - O6.1	10.9	Swan
Mirrabooka Community Mental Health	Continuing Treatment Team (CTT) CCT - East Team	Mirrabooka	AX[F0-F99] - O6.1	9.5	Stirling

Provider	Name	Suburbs	DESDE-1	FTE	Catchment
Mirrabooka Community Mental Health	Continuing Treatment Team (CTT) CCT - West Team	Mirrabooka	AX[F0-F99] - O6.1	9.5	Stirling
Osborne Park Community Mental Health	Community Support Residential Units (CSRU) Liaison Occupational Therapist Community Mental Health Team	Stirling	AX[F0-F99] - O7.2u	1	Stirling
Osborne Park Community Mental Health	Intensive Community Outreach Team and Individualised Community Living Strategy (ICOT/ICLS)	Stirling	AX[F0-F99] - O5.1.1	6	Stirling
Osborne Park Community Mental Health	Continuing Treatment Team (CTT) CCT - Duke Team	Stirling	AX[F0-F99] - O6.1	9.8	Stirling
Osborne Park Community Mental Health	Continuing Treatment Team (CTT) CCT - Royal Team	Stirling	AX[F0-F99] - O6.1	9.7	Stirling
Subiaco Community Mental Health Service	Continuing Treatment Team (CTT) Subiaco	Subiaco	AX[F0-F99] - O6.1	28.1	Lower West

Older Adults

The Non-Acute Mobile Outpatient BSICS for older adults are provided by public health services in PNPHN, as shown in Table 26.

There are five BSICs (care teams), comprising six MTCs, providing Non-Acute Mobile care to adults aged 65 years and over in the PNPHN region, or 3.78 BSICs per 100,000 older adults.

TABLE 26 NON-ACUTE MOBILE SERVICES FOR OLDER ADULTS

Provider	Name	Suburbs	DESDE - 1	FTE	Catchment
City Older Adult Mental Health Service	Community Team	Mt Lawley	OX[F0-F99] - O6.1	NA	N/S
Joondalup Older Adult Mental Health Service	Older Adult Community Team	Joondalup	OX[F0-F99] - O6.1	12.5	Joondalup Wanneroo Catchment
Lower West (Selby) Older Adult Mental Health Service	Older Adult Community Team	Shenton Park	OX[F0-F99] - O6.1	6.5	Lower West Catchment
Midland Community Mental Health Service	Community Team	Midland	OX[F0-F99] - O6.1	NA	N/S
Osborne Park Older Adult Mental Health Service (Osborne Park Hospital Campus)	Community Team	Stirling	OX[F0-F99] - O6.1 OX[F0-F99] – O4.1	11	Osborne Stirling Catchments

Non-Acute Non-Mobile Outpatient Care (O8, O9 and O10 DESDE Codes)

Children and Adolescents

There were 19 Non-Acute Non-Mobile child and adolescent BSICs identified, including 10 clinical teams.

These include a gender diversity program run by CAMHS based in Subiaco, and the Reaching Out Hope eating disorders programs run by Women's Health and Family Services in Subiaco.

NGO services in this category include Anglicare's Cypress, which is a support and counselling service provided by Anglicare for children bereaved by suicide. Wanslea Family Services also runs Children of Parents with A Mental Illness (COPMI) program from Clarkson.

MIFWA's Early Intervention Recovery Program works with the individual and their situation following the trauma of a psychotic episode. The program has a strong focus on recovery, as defined by the individual.

CentreCare has four teams in the PNPHN catchment, providing counselling and support to adolescents and parents for a broad range of mental health issues such as self-harm, AOD and depression.

The Early Psychosis team at Midland is a satellite team of Youth Focus.

Several teams have catchment areas which are broader than the PNPHN region.

There are 19 BSICs (care teams) providing Non-Acute Non-Mobile Outpatient care to children and adolescents aged 18 years and under in the PNPHN region, or 7.16 BSICs per 100,000 children and adolescents.

TABLE 27 NON-ACUTE NON-MOBILE OUTPATIENT CARE FOR CHILDREN AND ADOLESCENTS IN PNPHN

Provider	Name	Suburbs	DESDE-1	FTE	Catchment
Anglicare WA	Cypress	Joondalup	CX [Z63.4][T14.91] O9.2	0.8	Perth North Metro
Black Swan Health	headspace Joondalup	Joondalup	CY[F0-F99] - O9.1	NA	No geographical boundaries
Black Swan Health	headspace Osborne Park	Osborne Park	CY[F0-F99] - O9.1	NA	No geographical boundaries
CentreCare	CAPS (Counselling for adolescents and parents)	Perth	TA[e310][F0-F99] - O9.2	NA	Perth
CentreCare	CAPS (Counselling for adolescents and parents)	Gosnells	TA[e310][F0-F99] - O9.2	NA	N/S
CentreCare	CAPS (Counselling for adolescents and parents)	Midland	TA[e310]]F0-F99] - O9.2	NA	N/S
CentreCare	CAPS (Counselling for adolescents and parents)	Mirrabooka	TA[e310]][F0-F99] - O9.2	NA	N/S
Child and Adolescent Health Service (CAHS) Child and Adolescent MH Services WA (CAMHS)	Clarkson CAMHS	Clarkson	CX[F0-F99] - O9.1	11.1	Locality

Child and Adolescent Health Service (CAHS) Child and Adolescent MH Services WA (CAMHS)	Hillarys CAMHS	Hillarys	CX[F0-F99] - O9.1	9.5	Locality
Child and Adolescent Health Service (CAHS) Child and Adolescent MH Services WA (CAMHS)	Shenton CAMHS	Shenton Park	CX[F0-F99] - O9.1	8.6	Locality
Child and Adolescent Health Service (CAHS) Child and Adolescent MH Services WA (CAMHS)	Swan CAMHS	Midland	CX[F0-F99] - O9.1	11.4	Locality
Child and Adolescent Health Service (CAHS) Child and Adolescent MH Services WA (CAMHS)	Warwick CAMHS	Warwick	CX[F0-F99] - O9.1	11.3	Locality
Child and Adolescent Health Service (CAHS) Child and Adolescent MH Services WA (CAMHS)	Gender Diversity Service	Subiaco	CX[F64.2] - O9.1h	4.1	Statewide
Mental Illness Fellowship WA	Early Intervention Recovery Program	Midland	TA[F0-F99] - O9.2	NA	Midland
Wanslea Family Services Inc	Children of Parents with Mental Illness (COPMI)	Clarkson	CX[e310][F0-F99] - O10.2g	3.2	Perth North and South
Women's Health and Family Services	Reaching Out Hope Program	Subiaco	CX[F50] - O10.2g	NA	Princess Margaret Hospital Eating Disorder Program
Youth Focus	Headspace Midland (lead agency)	Midland	CY[F0-F99] - O9.2	NA	N/S
Youth Focus	Joondalup Youth Focus	Joondalup	CX[F0-F99] - O9.1	NA	N/S
Youth Focus	Youth Early Psychosis - Midland	Midland	TA[F29] - O9.1t	NA	No boundary

Adults

Table 28 displays the Non-Acute Non-Mobile Outpatient BSICs for adults in PNPHN.

MIFWA runs several peer led services for individuals, parents, carers and families who are experiencing mental ill-health, offering mentoring and support from those with lived experience. The Meerkat Mob and Parent Peer Support Program focus on those experiencing mental illness themselves, whilst the Family Support Program and Well Ways MI Recovery services are there to support those supporting or caring for people with mental health issues.

Derbarl Yerrigan provides a counselling and support service for the ATSI population: families or groups who are experiencing grief, trauma or other issues. The mental health nurse supports general practitioners by preparing mental health care plans for clients as well as care plans for crisis care. Support for people in relation to social and emotional wellbeing, including the area of suicide, is also provided. The social and emotional wellbeing workforce support unit aims to create and sustain a culturally appropriate and effective social and emotional wellbeing workforce, based on the fundamental principles of community control, and self-determination.

Ruah's Recreation program promotes mental wellbeing through sport and fitness, art and leisure, and social connection. Its Rec Urban Network is a social community linking program - activities include walking groups, meditation, social activities, lunch and PHAM worker visits.

The Beacon – Recovery Living Program is a counselling, case work and support service provided by the Salvation Army to transition clients onto long term sustainable accommodation, once they have been stabilised in transitional units at The Beacon.

Uniting Care West supports people who are socially isolated to make community connections through their Community Connections program in Ballajurra and Darch. They also assist ATSI carers and families where members are experiencing, and affected by, emotional and mental distress, through the Recovery Options – Aboriginal Family Respite program.

Women's Health and Family Services offers a range of dedicated services for women in a variety of areas, such as those who are at risk of mental health problems, have eating disorders, or experiencing peri- natal or post- natal mental health issues.

There are 45 BSICs (care teams), comprising 46 MTCs, providing Non-Acute Non-Mobile Outpatient care to adults aged 18-65 years in the PNPHN region, or 6.80 BSICs per 100,000 adults.

TABLE 28 NON-ACUTE NON-MOBILE OUTPATIENT CARE FOR ADULTS IN PNPHN

Provider	Name	Suburbs	DESDE-1	FTE	Catchment
Association for Service to Torture and Trauma Survivors	Counselling and Support	Perth	AX[F0-F99] - O9.2s	35	Direct service: Metro Indirect Service: Statewide
Derbarl Yerrigan	Derbarl Yerrigan Health Service (DYHS) East Perth - Counselling and social and emotional wellbeing	East Perth	GXIN[F0-F99] - O9.2	3.5	NA
Derbarl Yerrigan	Mental Health Nurse	East Perth	GX[IN][F0-F99] - O10.1u	0.5	N/S
Disability in the Arts Disadvantage in the Arts (DADAA)	Disability in the Arts Disadvantage in the Arts (DADAA)	Midland	GX[F0-F99] - O10.2g	NA	Perth: Eastern region through Midland, Wheatbelt through Lancelin South Metro through Fremantle, North Metro through Wanneroo.
Even Keel Support Association	Even Keel Support Group	Joondalup	AX[F31] - O10.2g	NA	N/S
Even Keel Support Association	Even Keel Support Group	Midland	AX[F31] - O10.2g	NA	N/S
Even Keel Support Association	Even Keel Support Group	Yokine	AX[F31] - O10.2g	NA	N/S
Helping Minds	Carer Advocate	Perth	AX[e310][F0-F99] - O8.2	1.2	Statewide
Helping Minds	Mental Health Respite - North Metro Carer Support	Perth	GX[e310][F0-F99] - O10.2 GX[e310][F0-F99] - R10.1x	1.6	North Metro. East Metro, Statewide
Helping Minds	Mental Health Respite - North Metro Respite	Perth	GX[e310][F0-F99] - O9.2ux	1	North Metro

Provider	Name	Suburbs	DESDE-1	FTE	Catchment
Helping Minds	Mental Health Respite - North Metro Respite, Swan, Wanneroo, Joondalup	Midland	GX[e310][F0-F99] - O9.2ux	0.4	Joondalup, Wanaroo, Swan
Helping Minds	National Disability Insurance Agency (NDIA) Perth Hills, Bayswater, Bassendean, Chittering, Toodyay, York and Northam	Midland	GX[F0-F99] - O9.2u	0.4	NDIA Perth Hills, Bayswater, Bassendean, Chittering, Toodyay, York and Northam
Joondalup Hospital	Antenatal clinic	Joondalup	AX[F][F53] - O10.1h	NA	City of Wanneroo and City of Joondalup
Lifeline WA	Suicide Bereavement Support Counselling	Northbridge	GX[Z63.4][T14.91]- O8.2e	1.8	Metro Perth for face to face counselling, Regional and remote WA for telephone and Skype for counselling
Lifeline WA	Suicide Bereavement Support Counselling	Hillarys	GX[Z63.4][T14.91]- O8.2	NA	N/S
Mental Illness Fellowship of WA	Family Support Program	Midland	GX[e310][F0-F99] - O9.2	NA	North Metro
Mental Illness Fellowship of WA	The Meerkat Mob	Midland	GX[F0-F99] - O9.2g	1.5	No boundaries
Mental Illness Fellowship of WA	Well Ways Carer Services	Midland	GX[e310][F0-F99] - O10.2	3.2	Perth Metro Wheat belt South West Goldfields
Mental Illness Fellowship of WA	Parent Peer Support Program	Midland	GX[F0-F99] - O10.2	1.7	North Metro
	Well Ways MI Recovery	Midland	GX[F0-F99] –O10.2guk	0.3	Offered at various location across WA each year

Provider	Name	Suburbs	DESDE-1	FTE	Catchment
Midland Community Mental Health	Early Intervention Team (EIT)	Midland	AX[F29] - O9.1	NA	Swan
Midlands Women's Health Care Place	Midland Women's Health Care Place	Midland	AX[F][F53] - O9.2	NA	Ellenbrook WA, City of Swan, Shire of Mundaring, Town of Bassendean, Shire of Kalamunda
Osborne Park Community Mental Health	Dialectical Behaviour Therapy (DBT)	Stirling	AX[F60.3] - O9.1	3.1	Stirling
Rise Network	Tenancy Support	Midland	AX[F0-F99]-O10.2k	1	N/S
Ruah	RUAH Recreation Program	West Perth	AX[F0-F99] - O10.2g	4	Perth Metro
Ruah	RUAH Rec – Urban Network	Northbridge	AX[F0-F99] - O10.2g	NA	Northbridge
Salvation Army	The Beacon - Recovery Living Program	Northbridge	AX[Z59][F0-F99] - O9.2u	1	Houses based across northern suburbs
Sir Charles Gairdner Mental Health Unit	Neurophysiology Unit	Mt Claremont	AX[F0-F99] – O9.1hs	2.4	N/S
Statewide and Tertiary Mental Health Service	Centre for Clinical Interventions	Northbridge	AX[F0-F99] - O10.1	NA	N/S
Statewide and Tertiary Mental Health Service	Graylands - Creative Expression Centre for Arts Therapy (CECAT)	Mt Claremont	AX[F0-F99] - O10.2g	NA	N/S
Statewide and Tertiary Mental Health Service	Graylands Campus Team (i)	Mt Claremont	AX[F0-F99] - O10.2	NA	N/S
Statewide and Tertiary Mental Health Service	Graylands Campus Team(ii)	Mt Claremont	AX[F0-F99] - O10.2	NA	N/S

Provider	Name	Suburbs	DESDE-1	FTE	Catchment
Uniting Care West	Community Connections	Ballajurra	AX[F0-F99] - O10.2	NA	Northern Perth Metro
Uniting Care West	Community Connections	Darch	AX[F0-F99] - O10.2	NA	Northern Perth Metro
Uniting Care West	Recovery Options – Aboriginal Family Respite	Balga	GX[IN][e310][F0-F99] - O10.2	NA	Northern Perth Metro, Wanneroo, Joondalup and Stirling
Women's Health and Family Services	Mental Health Community Outreach Program (MHCOP)	Northbridge	AX[F][F0-F99] - O10.2g	1	Northern Perth Metro
Women's Health and Family Services	The Peri-natal Mental Health Program	Northbridge	AX[F][F53] - O10.2g	1	Northern Perth Metro
Women's Health and Family Services	Making Sense of Motherhood	Joondalup	AX[F][F53] - O10.2g	2	Joondalup, Northbridge
Women's Health and Family Services	Body Esteem Program	Joondalup	AX[F][F50] - O10.2gk	1.2	Perth Metro
Women's Health and Family Services	Body Esteem Program	Northbridge	AX[F][F50] - O10.2gk	NA	N/S
Women's Health and Family Services	ABC Program (Part of the Peri-natal Mental Health Service)	Northbridge	AX[F][F53] - O10.2g	NA	Mount Lawley
Yorgum	Workforce Support Unit	East Perth	AX[IN][F0-F99] - O10.2g	NA	East Perth
55 Central Inc	Community Support Program	Maylands	AX[F0-F99] - O9.2u	NA	N/S
360 Health and Community	ALIVE Program	Guildford	AX[T14.9][F0-F99] - O9.1	NA	North and East Metro
	Partners in Recovery (PIR)	Guildford	AX[F0-F99] - O9.2m	7.5	N/S

Other Non-Acute Outpatient Care

Adults

There were three 'Other' Non-Acute Outpatient teams in PNPHN.

The Women's Health and Family Services runs two Carer specific group programs.

The Parent/Partner Education and Support Program (PESP) is a service for anyone supporting someone with an eating disorder. This may be a parent, sibling, partner, friend or adult child. Their Grandparent Family Support Program provides counselling and support to ATSI women and their families with AOD concerns, along with a range of other services. The program aims to reduce the negative impact of AOD for families. The program is free to all members of the family including teenagers and adults directly or indirectly affected.

Derbarl Yerrigan Health Service in East Perth runs a four-day camp allowing Stolen Generation members, who suffered abuse, the chance to connect with country in the regional area of Moora, WA. The camp offers free health checks and advice from a mental health nurse and an Aboriginal Health Worker. The program aims to improve the mental and physical health of the participants who had suffered because they had not been able to return to country.

There are three BSICs (care teams) providing Other Non-Acute Outpatient care to adults aged 18-65 years in the PNPHN region, or 0.45 BSICs per 100,000 adults.

TABLE 29 OTHER NON-ACUTE OUTPATIENT CARE FOR ADULTS IN PNPHN

Provider	Name	Suburb	DESDE - 1	FTE	Catchment
Derbarl Yerrigan	Healing Camps	East Perth	AX[IN][F0-F99] - O11g	1	N/S
Women's Health and Family Services	Aboriginal Grandparent and Family support program	Northbridge	AX[IN][e310][F10-F19] - O11g	NA	Metropolitan
Women's Health and Family Services	The Parent / Partner Education and Support Program (PESP)	Joondalup	AX[e310][F50] - O11g	NA	Joondalup

5.5 Information and Guidance Services

Children and Adolescents

There were two Information and Guidance services targeted specifically toward children and adolescents. CAMHS provides the Acute Response Team based in Subiaco, whilst Helping Minds offers a COPMI service in Perth.

There are two BSICs (care teams) providing Information and Guidance Services to children and adolescents aged 18 years and under in the PNPHN region, or 0.75 BSICs per 100,000 children and adolescents.

TABLE 30 INFORMATION AND GUIDANCE FOR CHILDREN AND ADOLESCENTS IN PNPHN

Provider	Name	Suburbs	DESDE - 1	FTE	Catchment
Child and Adolescent Health Service (CAHS) Child and Adolescent MH Services WA (CAMHS)	Acute Response Team (ART)	Subiaco	CX[F0-F99] - I1.1le	10	Statewide
Helping Minds	Children of Parents with Mental Illness (COPMI) - North Metro	Perth	CX[e310][F0-F99] - I2.1.1u	0.75	Statewide

Adults

Table 31 displays the six Information and Guidance services for adults..

Three of the six services are open age, as indicated by the GX prefix. There is one Carer specific service, the Recovering Our Families Online Support Program run by Helping Minds.

There are six BSICs (care teams) providing Information and Guidance Services to adults aged 18-65 years in the PNPHN, or 0.91 BSICs per 100,000 adults.

TABLE 31 INFORMATION AND GUIDANCE CARE FOR ADULTS IN PNPHN

Provider	Name	Suburbs	DESDE - 1	FTE	Catchment
Clan WA	Clan WA	Kewdale	AX[F0-F99] - I2.1.1g	NA	South East Metro Peel region Mirrabooka
Graylands Hospital	Triage	Mt Claremont	AX[F0-F99] - I1.1	7.4	Lower West
Helping Minds	Recovering Our Families Online Support Program	Perth	AX[e310][F0-F99] - I2.1.2eu	1	N/S
Helping Minds	Client Service Advisor	Perth	GX[F0-F99] I2.1.2e	3.8	Statewide

Provider	Name	Suburbs	DESDE - 1	FTE	Catchment
Lifeline WA	Community Education	Northbridge	GX[F0-F99] - I2.1.1g	1.8	Statewide
	Community Education	Hillarys	GX[F0-F99] - I2.1.1g	NA	N/S

5.6 Accessibility Services

Children and Adolescents

The Mission Australia Children and Adolescent Family Support Service supports families and children experiencing mental health issues through planning and linking to services.

One care team (BSIC), or 0.38 BSICs per 100,000 children and adolescents aged 18 years and under and their families was identified, providing an Accessibility service in the PNPHN region.

TABLE 32 ACCESSIBILITY SERVICES FOR CHILDREN AND ADOLESCENTS IN PNPHN

Provider	Name	Suburbs	DESDE – 1	FTE	Catchment
Mission Australia (WA)	Children and Adolescent Family Support Service (CAFS)	Osborne Park	CX[e310][F0-F99] - A4.2.2	8	Osborne Park

Adults

There were 11 Accessibility services for adults in PNPHN.

Uniting Care West's Independent Living service assists people with a chronic, persistent mental illness. It provides a supportive landlord service to people renting accommodation. Referrals for accommodation are received from mental health clinics and individuals cannot apply for accommodation themselves.

Mental Health Advocacy Service provides six teams across the region, helping people with a lived experience of mental illness know and protect their rights.

atWork Australia runs an employment service in Herdsman that specialises in supporting people with mental illness to return to work. In addition to this, Advanced Personnel Management runs a specialist PHaMs that offer employment support in Perth.

There are 11 BSICs (care teams) providing Accessibility Services to adults aged 18-65 years in the PNPHN region, or 1.66 BSICs per 100,000 adults.

TABLE 33 ACCESSIBILITY CARE FOR ADULTS IN PNPHN

Provider	Name	Suburbs	DESDE – 1	FTE	Catchment
Advanced Personnel Management	Personal Helpers and Mentors (PhaMs) Employment	Mirrabooka	AX[F0-F99] - A5.4	6	North Metro region using DSS boundaries. This covers Mirrabooka, Joondalup, Swan River border to include Morley, Bassendean, Ashfield, Midland border
Attford Mental Health Services	AttfordMHS	Perth	AX[F0-F99] - A5	NA	Central Perth

atWork Australia	Mental Health Employment Services	Herdsman	AX[F0-F99] - A5.4	NA	Perth, North Adelaide, Liverpool, Ryde, Newcastle
Mental Health Advocacy Service	Bunbury Team	West Perth	GX[F0-F99] - A5.2e	NA	Bunbury – Busselton
	East Team	West Perth	GX[F0-F99] - A5.2e	NA	Bentley - Armadale
	North Team	West Perth	GX[F0-F99] - A5.2e	NA	Joondalup – Midland and North Perth
	Regional Team	West Perth	GX[F0-F99] - A5.2e	NA	Broome, Kalgoorlie, Albany, Geraldton
	South Team	West Perth	GX[F0-F99] - A5.2e	NA	Fremantle, Murdoch, Rockingham, Peel
	West Team	West Perth	GX[F0-F99] - A5.2e	NA	Graylands, Subiaco, Nedlands
Midland Community Mental Health	CASS	Midland	AX[F0-F99] - A5.1	6	Swan
Uniting Care West	Independent living	Perth	AX[F0-F99] - A5.5	3.4	Northern Perth Metro

5.7 Self-Help and Voluntary Services

Adults

Seven services were identified in the Self-Help and voluntary category. There were several additional services that were not included in this category because sufficient information was not received prior to publication.

Rainbow, a service provided by Uniting Care West, is a unique service run in a number of meeting places in the Perth Metropolitan area. People using this service can connect with other community members while enjoying a meal and a chat.

There are seven BSICs (care teams) providing Self-Help and Voluntary care to adults aged 18-65 years in the PNPHN region, or 1.06 BSICs per 100,000 adults.

TABLE 34 SELF-HELP AND VOLUNTARY CARE FOR ADULTS IN PNPHN

Provider	Name	Suburbs	DESDE - 1	FTE	Catchment
GROW	Grow WA	Wembley	AX[F0-F99] - S1.3g	NA	Perth
Helping Minds	Mental Health Promotion Team	Perth	GX[F0-F99]-S1.1	1.25	Perth, Bunbury
Uniting Care West	Rainbow	Nedlands	AX[F0-F99] - S1.4	NA	Metro
	Rainbow	Wembley Downs	AX[F0-F99] - S1.4	NA	Metro
	Rainbow	Maylands	AX[F0-F99] - S1.4	NA	Metro

	Rainbow	Como	AX[F0-F99] - S1.4	NA	Metro
	Rainbow	Duncraig	AX[F0-F99] - S1.4	NA	Metro

5.8 Forensic Services

Children and Adolescents

There are two forensic or justice related teams providing care to children and adolescents with a lived experience of mental illness in the PNPHN. One is provided by the State Forensic Mental Health Service. The NGO Outcare supports this program. The LINKS program is a Diversion and Support Program in the Magistrates' Courts for offenders with a lived experience of mental illness. Outcare's Children's Mental Health Court offers high intensity assistance for those facing mental health issues, offering therapeutic intervention, diversionary programs and brokerage funding to assist with recovery.

There are two BSICs (care teams) providing Justice related care to children and adolescents aged 18 years and under in the PHPHN region, or 0.75 BSICs per 100,000 children and adolescents

TABLE 35 FORENSIC OR JUSTICE RELATED MENTAL HEALTH SERVICES FOR CHILDREN AND ADOLESCENTS IN PHPHN

Provider	Name	Suburbs	DESDE – 1(beds)	FTE	Catchment
Outcare	Children's Mental Health Court (LINKS)	East Perth	CA[F0-F99] - O6.2j	2.5	Metropolitan
State Forensic Mental Health Service	Children's Court Program - Links Mental Health Intervention Team	Perth	TA[F0-F99] - O5.1j	NA	N/S

Adults

There are six forensic or justice related teams providing care to adults with a lived experience of mental illness in the PNPHN. Two are Residential teams at Graylands, while State Forensic Mental Health Service provides the Prison Outreach Program and a Community Forensic Mental Health Team. The START Court program for adult offenders with a lived experience of mental illness operates in the Magistrates' Courts. The program is supported in the community sector by case workers provided by the NGO Outcare.

There are six BSICs (care teams) providing Justice related care to adults aged 18-65 years in the PNPHN, or 0.91 BSICs per 100,000 adults.

Table 36 FORENSIC OR JUSTICE RELATED MENTAL HEALTH SERVICES FOR ADULTS IN THE PNPHN

Provider	Name	Suburbs	DESDE – 1(beds)	FTE	Catchment
State Forensic Mental Health Service	Frankland Centre - Acute Inpatient High security unit at Graylands	Mt Claremont	AX[F0-F99] – R2jc (30)	NA	N/S

State Forensic Mental Health Service	Hutchison - Open Forensic, Non-Acute Inpatient Service (Rehab Program), Male only	Mt Claremont	AX[M][F0-F99] - R6j (7)	NA	N/S
State Forensic Mental Health Service	START Court	Perth	AX[F0-F99] - O9.1j	NA	N/S
Outcare	Adult Mental Health Court (START)	Perth	AX[F0-F99] - O6.2j	5	Metropolitan
State Forensic Mental Health Service	Community Forensic Mental Health Service (CFMHS):	Mt Claremont	AX[F0-F99] - O5.1j	NA	N/S
State Forensic Mental Health Service	Prison outreach program	Mt Claremont	AX[F0-F99] - O9.1j	NA	N/S

6. Patterns of Mental Health Care – PNPHN

To understand the balance between the different types of care offered in an area, a radar tool, also known as a spider diagram, is utilised. The spider diagram is essentially a tool to visually depict the mix of service types (pattern of care) in a particular area. Each of the 21 points on the radius of the spider diagram represents the number of MTC for a particular type of care per 100,000 adults.

Figure 31 shows the pattern of mental health care for the PNPHN represented as a radar or spider diagram.

The results depicted on the PNPHN spider diagram are relatively consistent with those in other parts of Australia, and with Perth South, in that they show little to no Day Care, a high level of Outpatient Care, a similar level of Acute Inpatient beds (with more Non- Acute beds), and a low rate of Accessibility and Information services.

The key differences are in the balance between the levels of Mobile and Non- Mobile Outpatient care. PNPHN has relatively more Non- Acute Non- Mobile Outpatient care provided by the social sector.

It also has relatively more Residential rehabilitation, which includes the psychiatric hostels. In the absence of more detailed information, these have been classified on the assumption that they provide 24-hour staff care (R11 DESDE Code).

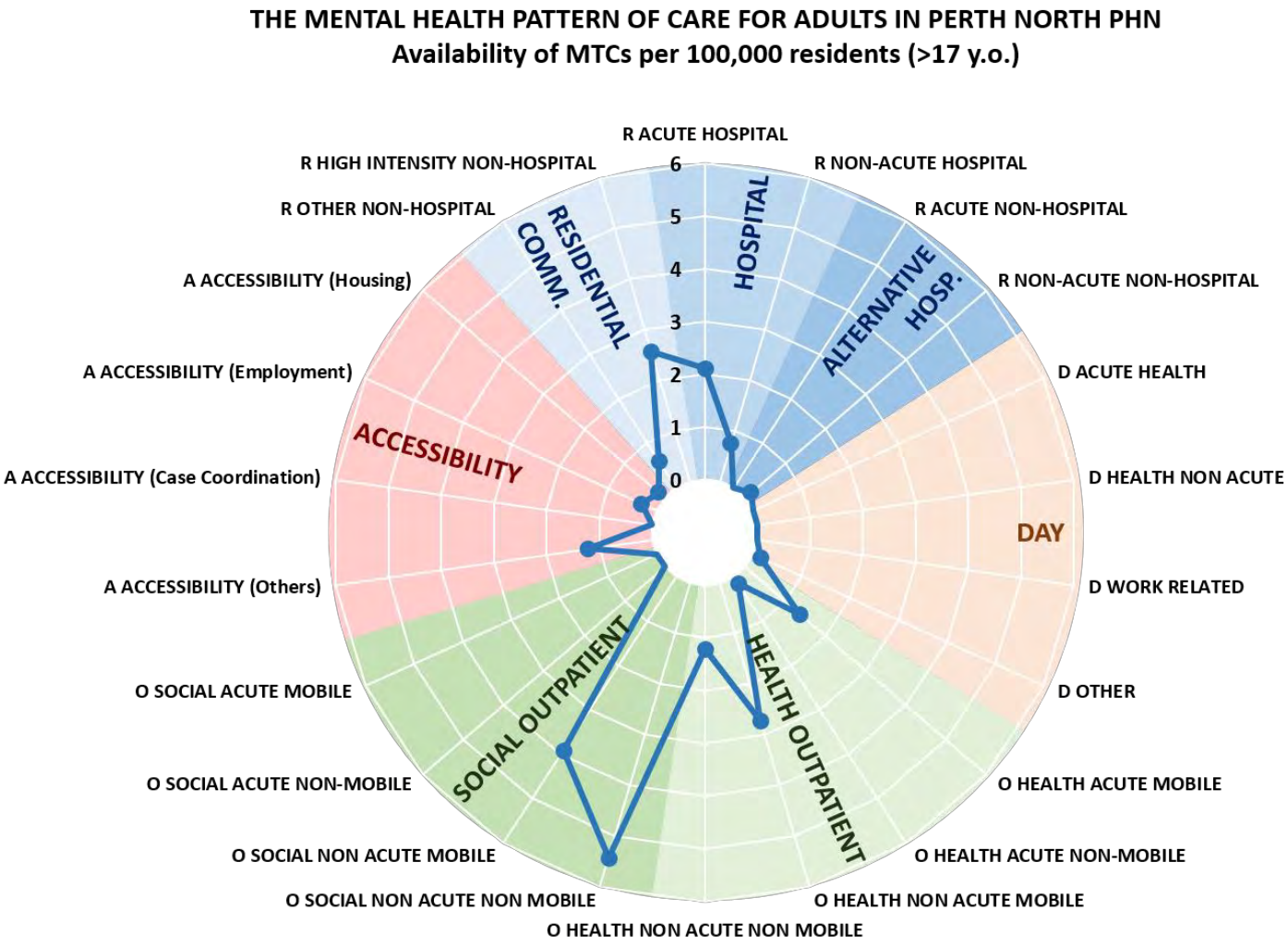


FIGURE 31 MENTAL HEALTH PATTERN OF CARE PNPHN-MTC PER 100,000 RESIDENTS

6.1 National Comparatives

In the following four figures, the pattern of mental health care for PNPHN is overlaid with those of Australian Capital Territory (ACT) PHN (Fig 32), Central and Eastern Sydney (CES) PHN (Fig 33), South West Sydney (SWS) PHN (Fig 34) & Western Sydney (WS) PHN (Fig 35) respectively.

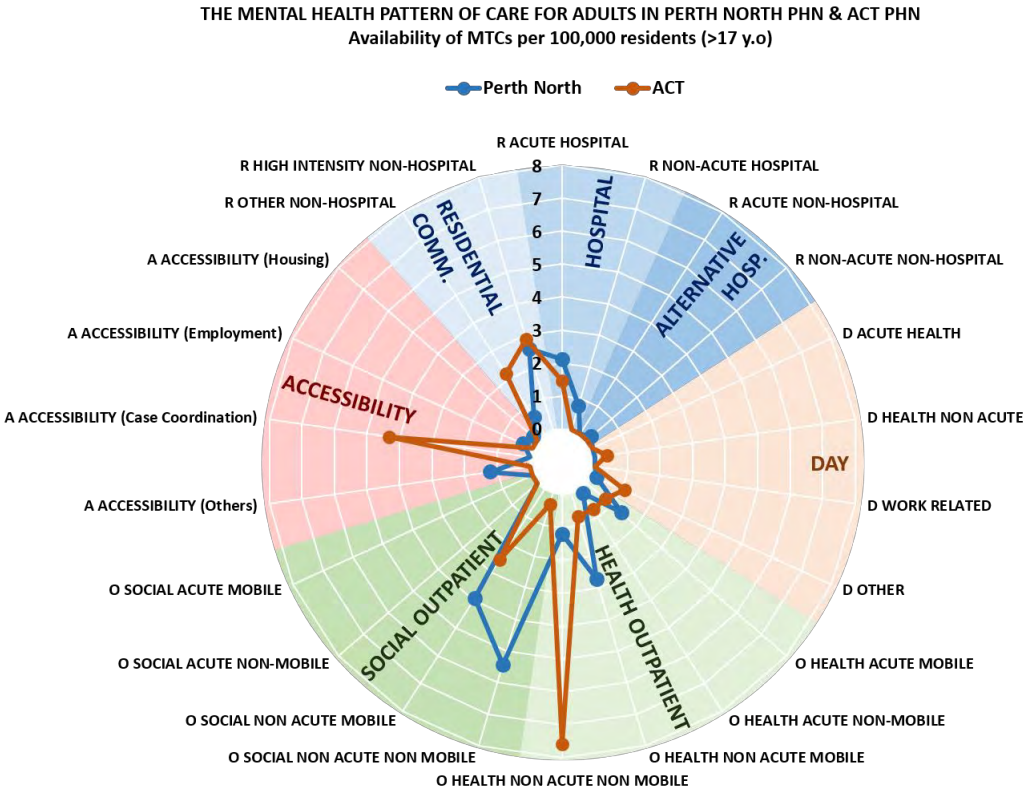


FIGURE 32 PATTERN OF MENTAL HEALTH CARE PNPHN AND ACTPHN-MTC PER 100,000 RESIDENTS

In comparison to the ACT, Perth North has a higher rate of Non- Acute Mobile and Non-Mobile Outpatient social care and of Non-Acute Mobile health related care, while it has lower rates of Non-Acute Non-Mobile health related care, Accessibility services, and low intensity community residential care.

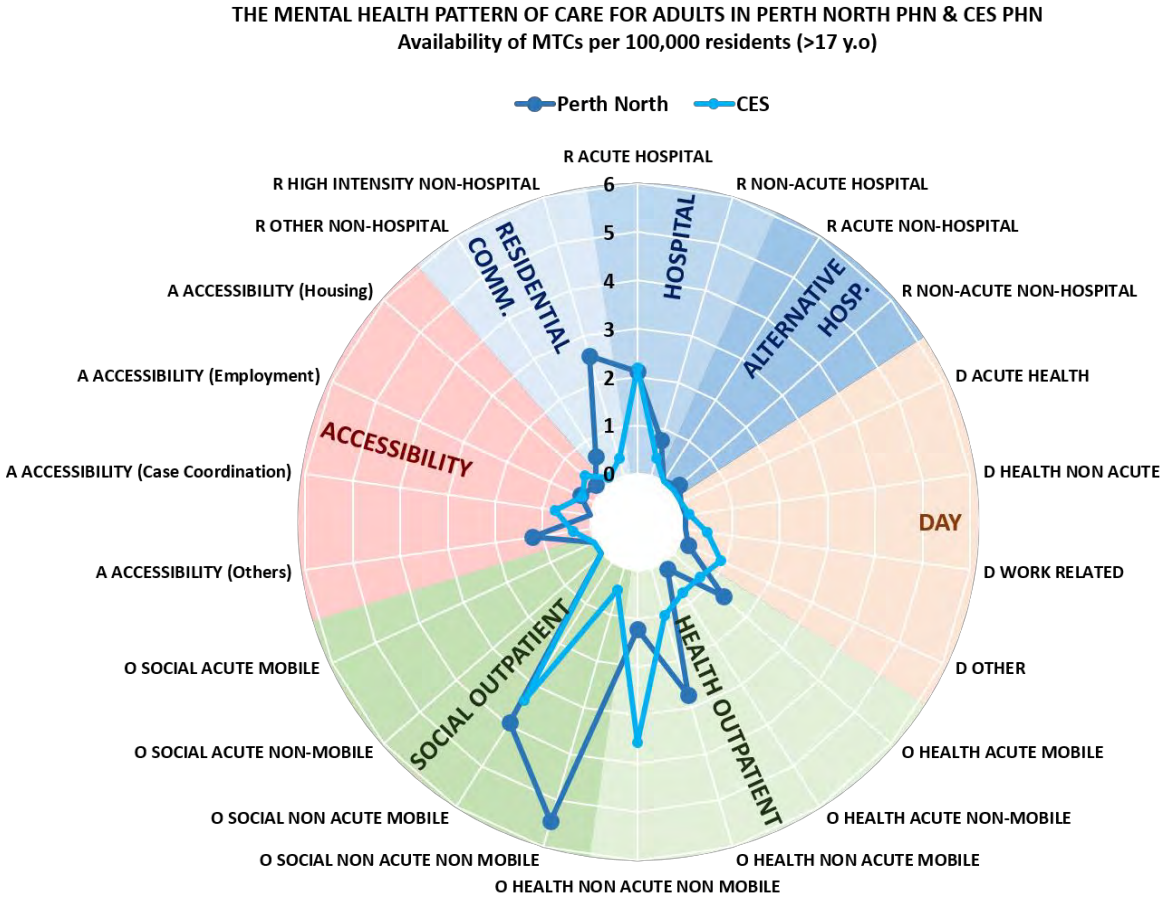


FIGURE 33 PATTERN OF MENTAL HEALTH CARE CESPHN AND PNPHN-MTC PER 100,000 RESIDENTS

When compared to CESPHN, PNPHN has a higher rate of Non- Acute, Non- Mobile social care, Non-Acute Mobile Outpatient health care and high intensity Non- hospital care, and a lower rate of Non-Acute Non- Mobile Outpatient health care.

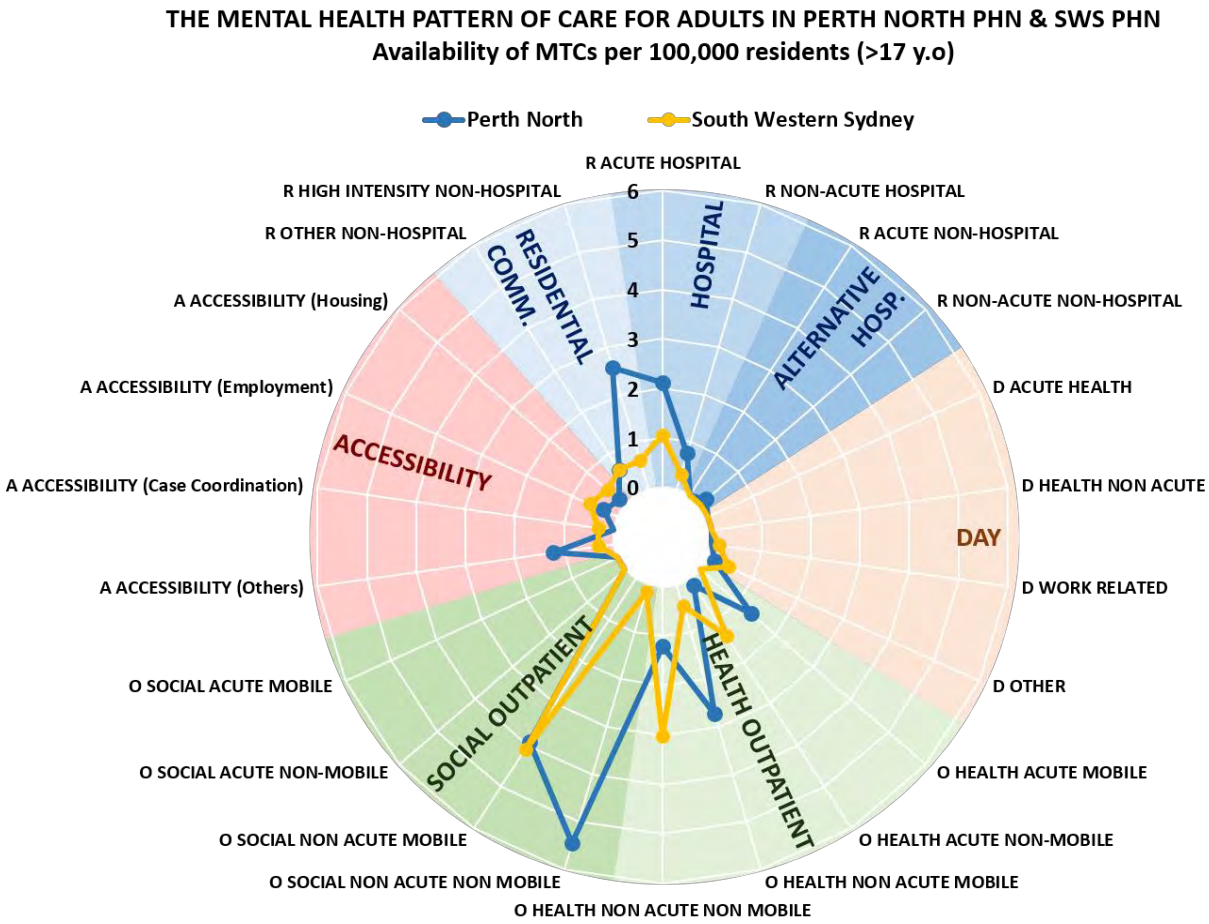


FIGURE 34 PATTERN OF MENTAL HEALTH CARE SWSPHN AND PNPHN-MTC PER 100,000 RESIDENTS

Perth North's rate of Non- Acute Non- Mobile social Outpatient care is higher than that in South Western Sydney, as is its rate of high intensity Non-hospital care, Acute hospital care, and Non- Acute Mobile Outpatient health care. SWS has a higher rate of Acute and Non- Acute Non- Mobile Outpatient health care than Perth North.

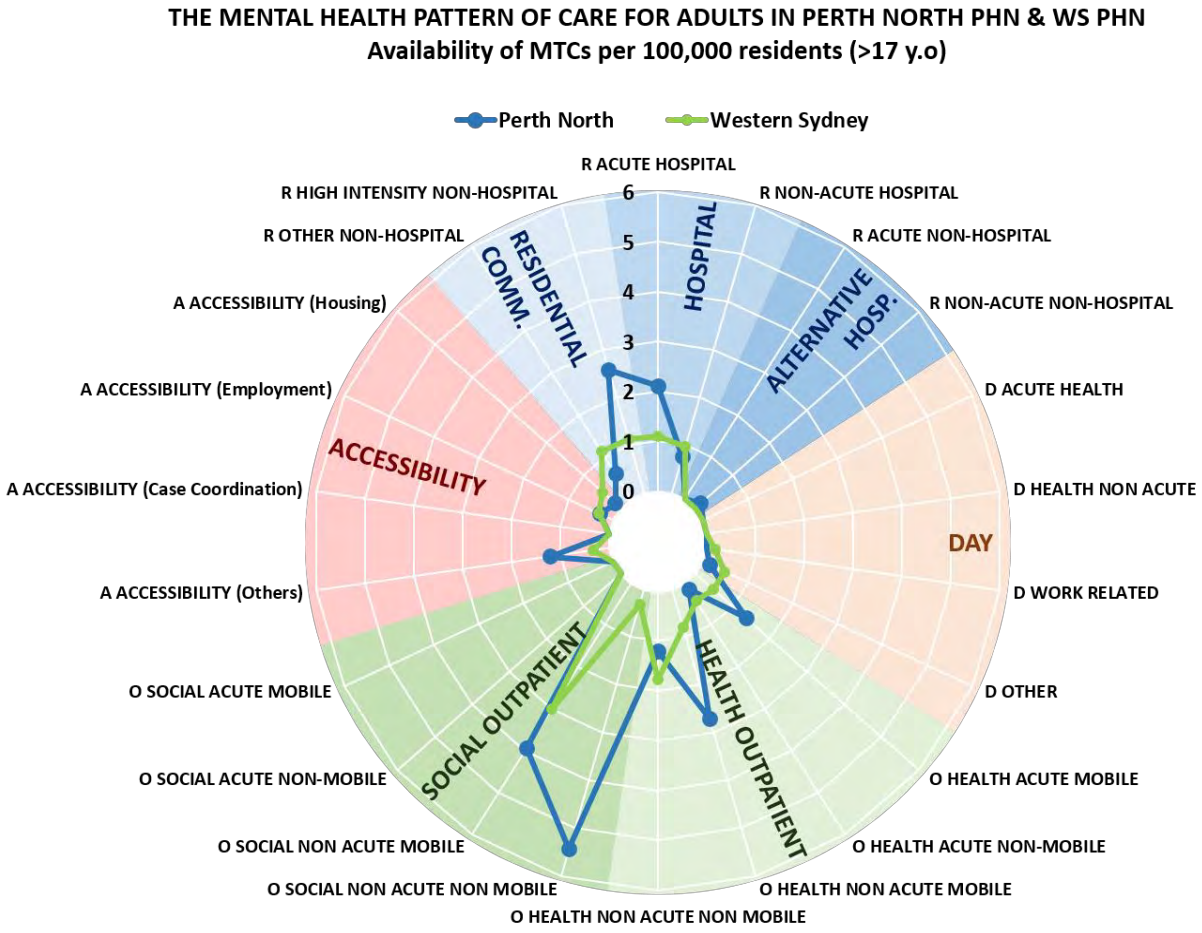


FIGURE 35 PATTERN OF MENTAL HEALTH CARE WSPHN AND PNPHN-MTC PER 100,000 RESIDENTS

In comparison with Western Sydney, North Perth again has a comparatively high rate of Non- Acute Non- Mobile social Outpatient care, high intensity Non- hospital care and Acute hospital care, as well as higher rates of services providing Non- Acute and Acute Mobile Outpatient health care. The provision of all types of care overall is higher in Perth North than in Western Sydney.

6.2 International Comparatives

Figures 36 to 40 overlay the patterns of care for mental health of the PNPHN area with those in mapped areas of Finland, Norway, Spain, Italy, and England. There are quite striking differences between the Australian region and the European areas that have been mapped. The major differences lie in the provision of Day Care services. In Finland, and Spain, Day Care programs related to work or employment are well provided. However, PNPHN does not provide any Day Care programs related to work or employment. In comparison with Finland, PNPHN has significantly fewer Non- Acute Residential beds per 100,000 adult population, as well as a significantly lower bed rate for high intensity Residential types of care. Norway has one of the highest per capita health care expenditures. Its pattern of care includes very high rates particularly in Non-Acute Outpatient health care, Non-Acute hospital care and Day services. However, Perth North has higher rates of service provision in Non-Acute Mobile and Non- Mobile Outpatient social care than Norway, as it does in comparison with other geographical areas.

Finland and Norway

The main characteristic of the Northern Europe Community Mental Care Model is the high availability of different types of services – the spectrum of care. Norway has one of the highest per capita health care expenditures. Both Finland and Norway raise funds for mental health primarily from general taxes.

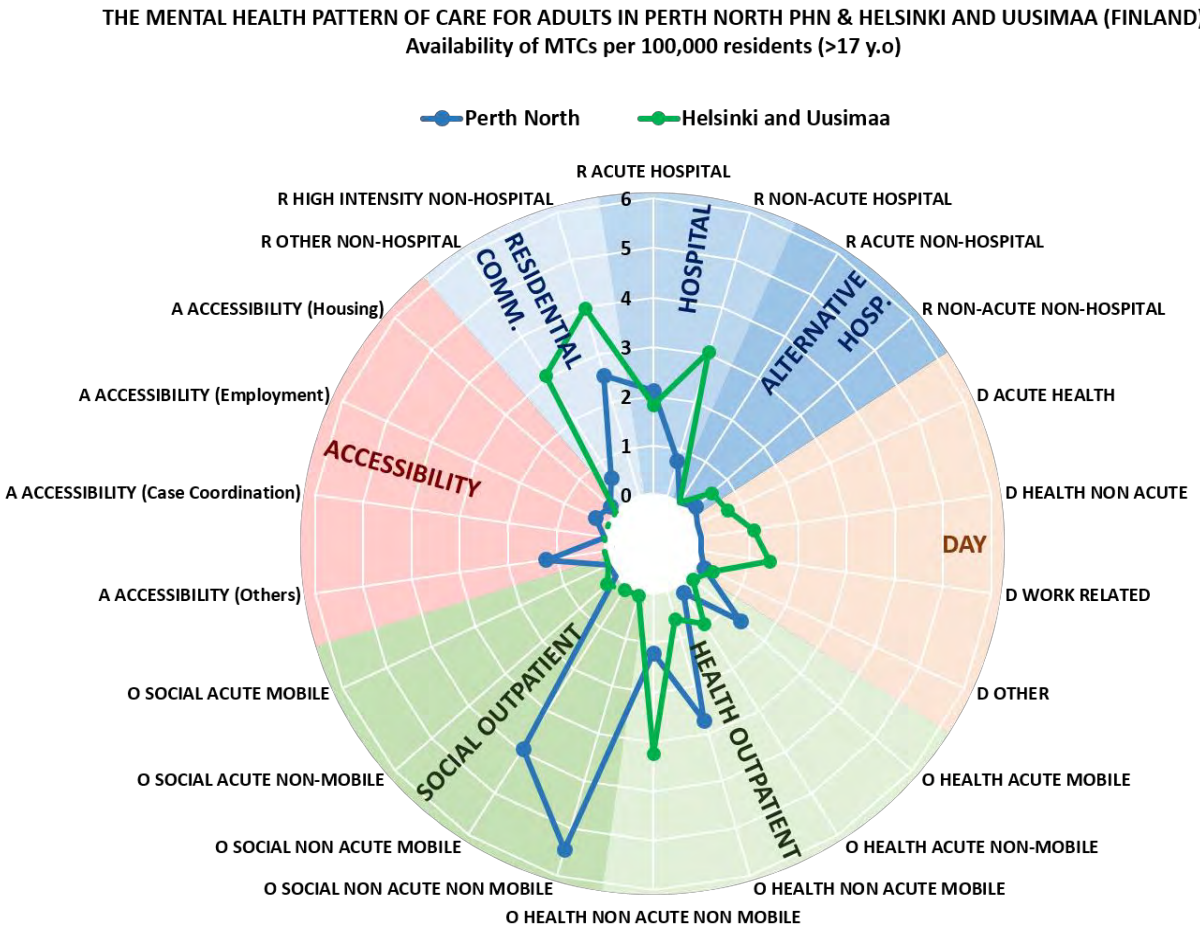


FIGURE 36 PATTERN OF MENTAL HEALTH CARE PNPHN AND FINLAND-MTC PER 100,000 RESIDENTS

The Finnish area (Helsinki and Uusimaa Hospital District) is owned and governed by 26 municipalities. Each municipality is free to provide the public services as a municipal activity, or to purchase the services from an external provider. Primary care is organised by the municipalities, and represents the main access point for people with mental health problems while specialised care is organised by the hospital districts. More than 40% of the households of the area of Helsinki and Uusimaa are occupied by just one person (Salvador-Carulla, 2016).

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

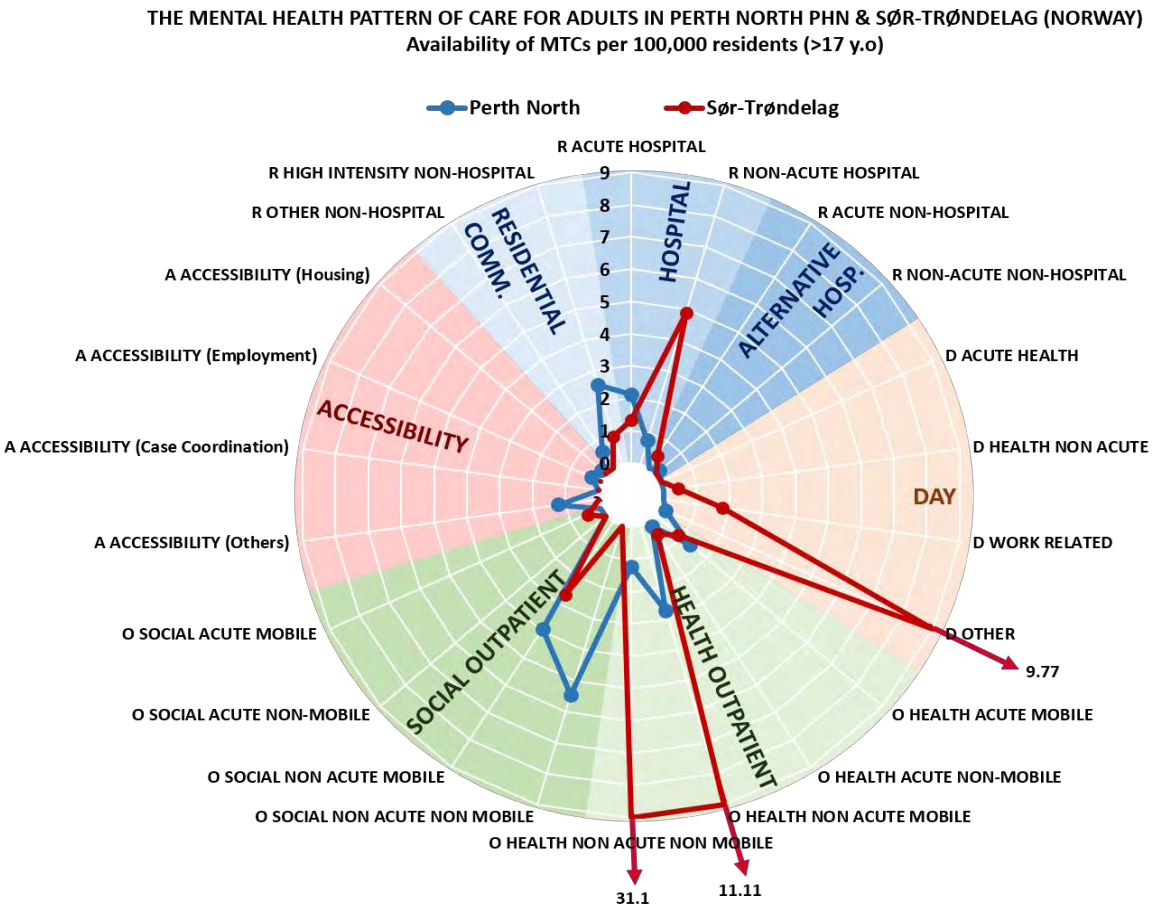


FIGURE 37 PATTERN OF MENTAL HEALTH CARE PNPHN AND NORWAY-MTC PER 100,000 RESIDENTS

The provision of mental health services in Norway is organised within Health Authorities (HF), each one including several institutions/hospitals. The area in Norway (Sør-Trøndelag) covers 25 municipalities and it is the catchment area of the St Olavs Hospital HF. The municipalities are obliged to offer primary health care and long term care to all people in need of municipal services, regardless of diagnosis. The GP is responsible for planning and coordinating preventive work, evaluation and treatment and provides an important link between primary health care and the specialised health services.

Spain and Italy

Mental health care 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.

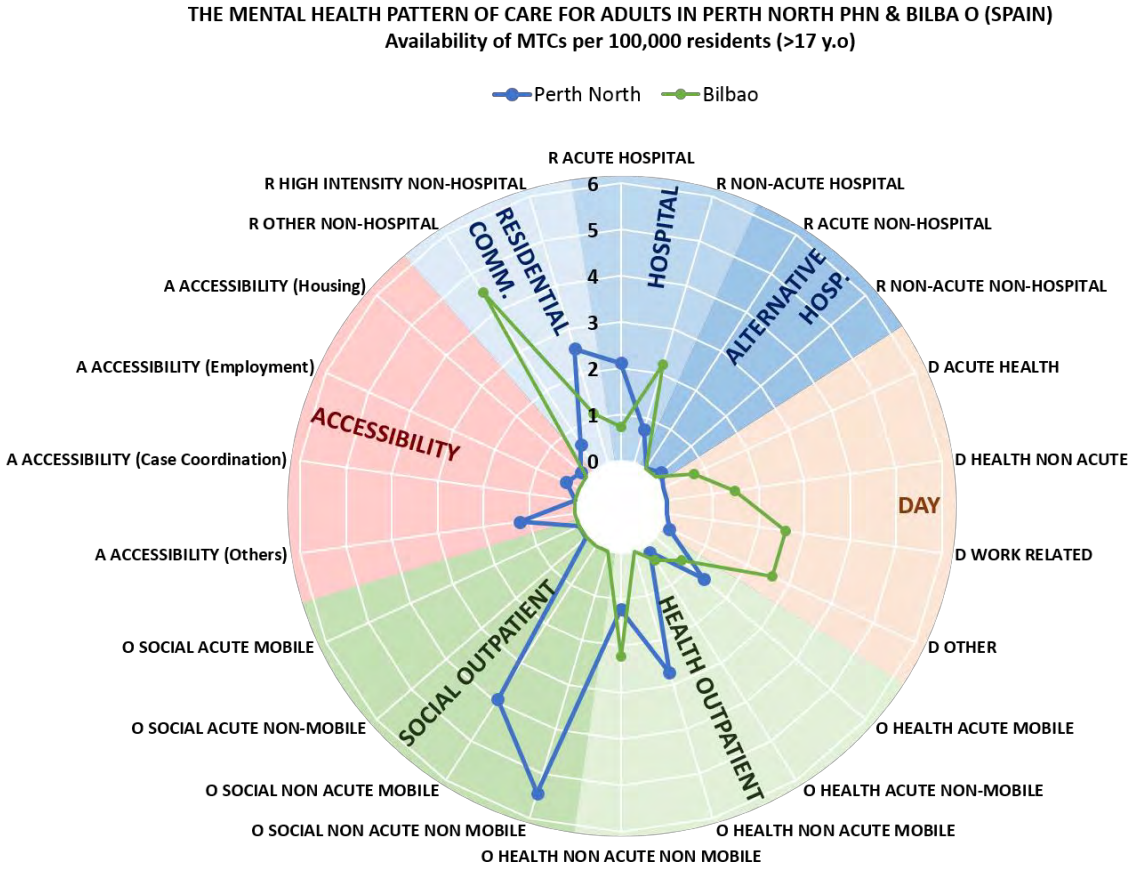


FIGURE 38 PATTERN OF MENTAL HEALTH CARE PNPHN AND SPAIN-MTC PER 100,000 RESIDENTS

In Spain, most of the mental health services are funded by the Regional Health Authorities. Social services are paid for by the social and employment authority.

There is a high proportion of Day care, specifically work related Day care due to a strong emphasis in Spain on work related mental health support such as social firms.

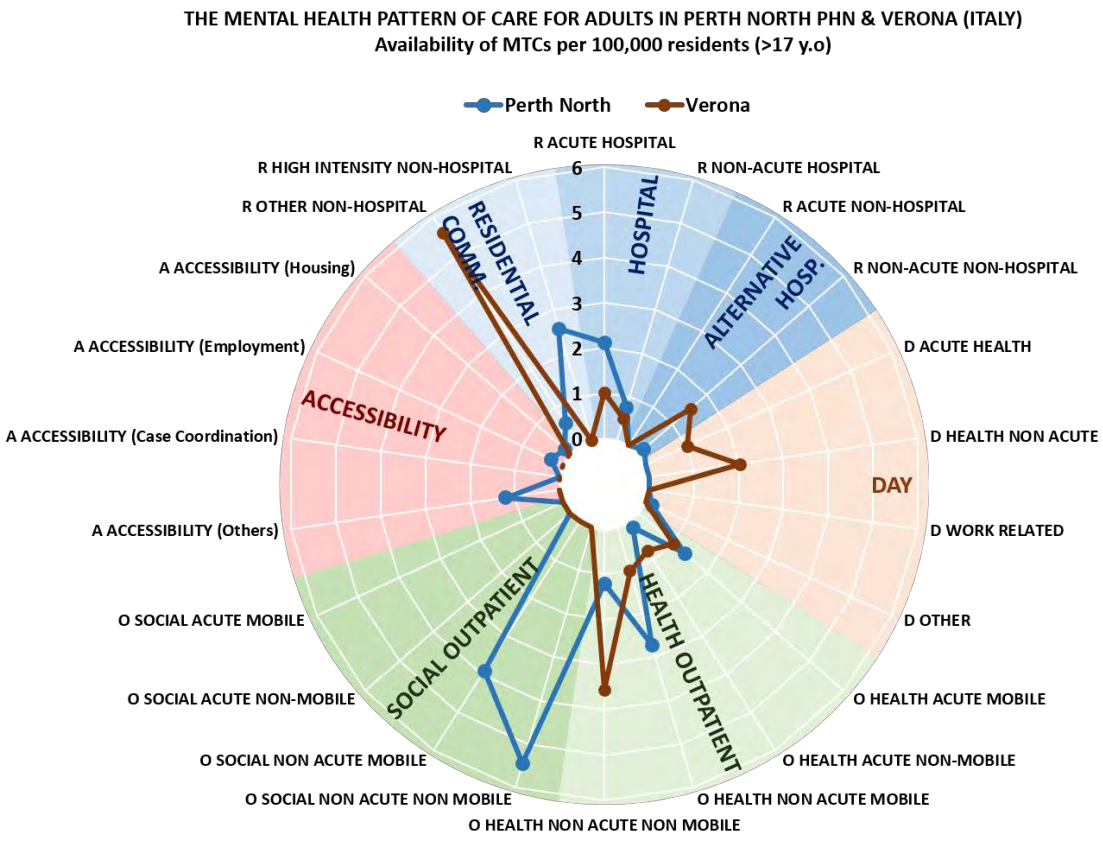


FIGURE 39 PATTERN OF MENTAL HEALTH CARE PNPHN AND ITALY-MTC PER 100,000 RESIDENTS

In Italy, the Local Health Authorities, which are the local branches of the Regional National Health System, are the purchasers of health care services. They also finance social care services together with the municipalities. There are 21 Local Health Authorities in the Veneto Region. Each Local Health Authority has assigned a Mental Health Department, which is in charge of the planning and management of all medical and social resources related to prevention, treatment, and rehabilitation in mental health within the area.

England

England raises funds for mental health care primarily from general taxes. There is one purchaser organisation for most health care services. Since 2013 this function is held by the Clinical Commission Groups (CCGs). Local Health authorities are involved in funding social care services, in addition to local authorities and the state. CCGs tend to contract one local Mental Health Trust, an organisation that will be responsible for providing most mental health services for a locality. These Trusts may also subcontract to others.

With regard to the socio-economic characteristics, Hampshire shows a high population density with relatively low unemployment figures. It is also an aged population

One of the main characteristics of the English model is the lack of day care/programs related to health and Non-Acute care in the hospital, which is similar to our findings in the Perth North PHN region.

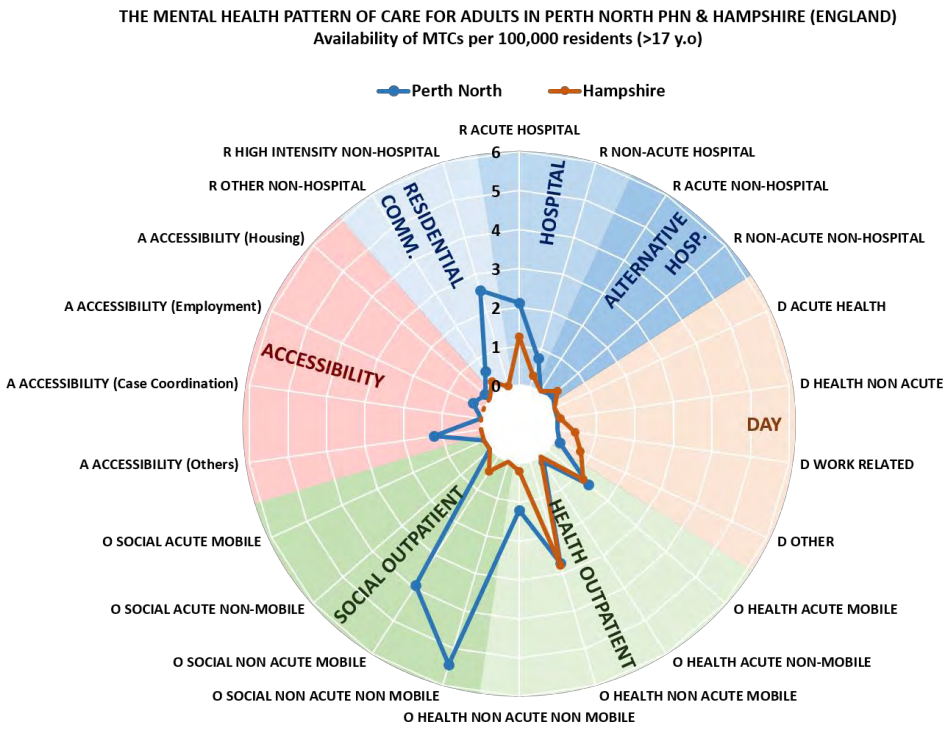
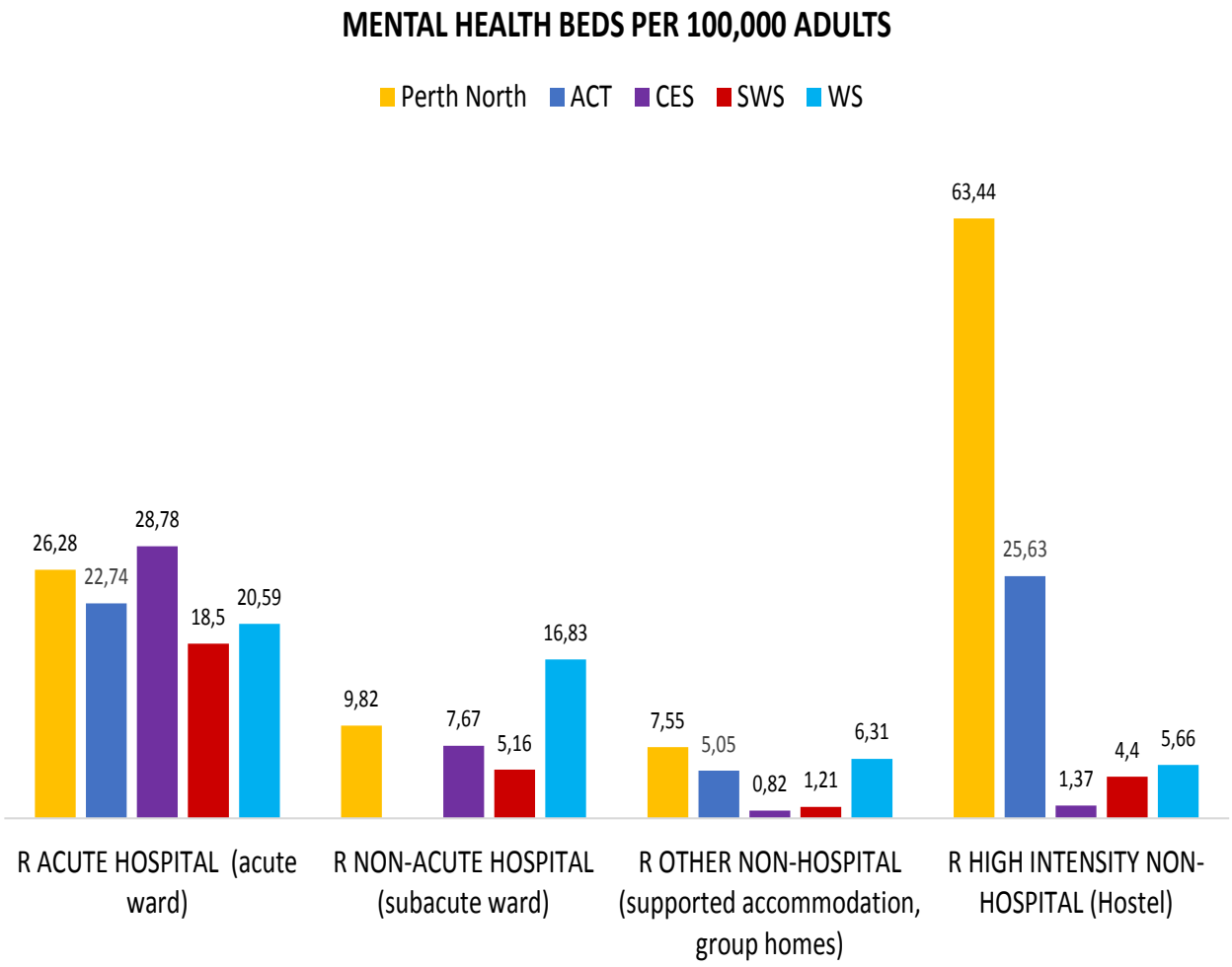


Figure 40 Pattern Of Mental Health Care PNPHN And England-MTC per 100,000 residents

The pattern in Hampshire is relatively similar to that in Perth North, with low levels of Day services and few alternatives to hospitalisation .

6.3 Placement Capacity - National Comparisons

Figure 41 displays the number of beds per 100,000 adults in PNPHN with a number of PHNs already mapped in Australia: Australian Capital Territory (ACT),Central and Eastern Sydney (CES), South West Sydney (SWS), and Western Sydney (WS).



ACUTE HOSPITAL: R1,R2,R3; NON-ACUTE HOSPITAL: R4-R6; OTHER NON-HOSPITAL: R 9,R10,R12, R13,R14; HIGH INTENSITY NON-HOSPITAL: R8,R11

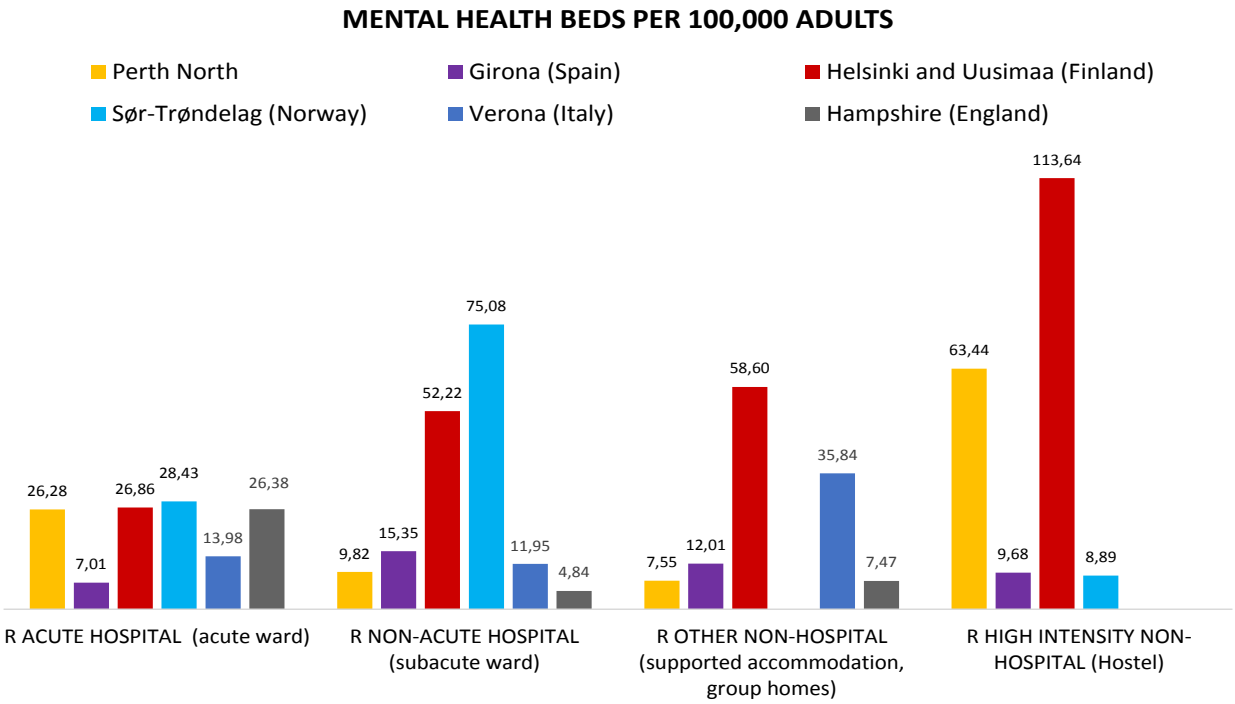
FIGURE 41 MENTAL HEALTH BEDS PER 100,000 ADULTS – NATIONAL COMPARATIVE

PNPHN has a rate of 26.28 beds per 100,000 population in the Acute Residential category, higher than any other mapped Australian region except PSPHN, which has 28.11 per 100,000 adult population (Hopkins et al., 2017a).

As can be clearly seen, PNPHN has a significant number of high intensity hostel type beds in the PHN area. While the ACT has more overall MTCs of this category than PNPHN, its bed capacity is lower.

6.4 Placement Capacity – International Comparisons

Figure 42 displays the number of beds per 100,000 adults in PNPHN with a number of international geographical areas already mapped.



Acute Hospital: R1,R2,R3; Non-Acute Hospital: R4-R6; Other Non-Hospital: R 9,R10,R12, R13,R14; High Intensity Non-Hospital: R8,R11

Figure 42 MENTAL HEALTH BEDS PER 100,000 ADULTS - INTERNATIONAL COMPARATIVE

There are large differences across countries related to the availability of beds per 100,000 adults. These rates mirror the different models of mental health care, and the overall investment in mental health care.

The bed rate per 100,000 adult population of Acute residential beds ranges from 7 in Spain, to 28 in Norway. Norway and Finland, however, are characterised by a large number of Non- Acute Residential beds per 100,000 adult population, dwarfing all other mapped areas. PNPHN has a lower number of supported accommodation beds per 100,000 adult population when compared with the mapped regions in Finland and Italy.

6.5 Workforce Capacity – PNPHN

During the data gathering process for this Atlas, stakeholders were asked to report the FTE staffing levels for each BSIC.This was occurring at a time of intense structural change. FTE data was sometimes not able to be provided, and at times, that which was provided was more of an estimation, or lacked specificity. As such, the data presented here should not be relied upon, but rather used as an approximation of the workforce characteristics.

Data in relation to PNPHN mental health workforce FTE was collected for 56% (n=125) of the 224 BSICs across PNPHN.Thus, data presented here should be treated with caution.

In terms of capacity, it helps to understand the sizes of the teams working across the area. To do this teams are broken down into three types; small (<5 FTE), medium (from 6-20 FTE) and large (over 20 FTE). As seen in Table 37 below, most mental health teams are small or medium in size.

There is a lack of clarity around staff types. Whilst sometimes a breakdown of staff qualification types was provided, there is an inconsistency in the fullness or accuracy of this detail to provide a proper analysis. In the mental health sector, one organisation might describe its staff as 'Outreach Workers', another will call them 'Community Mental Health Practitioners' and yet another 'Community Mental Health Workers'.

TABLE 35 MENTAL HEALTH TEAM SIZE

Teams	Not Stated	X-Small (<1 FTE)	Small (1-5 FTE)	Medium (6-20 FTE)	Large (>20FTE)	Total
Total	99	16	44	48	17	
%	-	12.8%	35.2%	38.4%	13.6%	100%*

*Please note – This is as a percentage for those that provided FTE.

7. Discussion

The mental health care system in Australia, and more especially within WA, is at the precipice of a significant shift in its structure. This could be described as a 'perfect storm' of change. Changes occurring at both state and Federal level include:

- The restructure of the Metropolitan Health Districts to add East Metropolitan Health Service to the North and South Metropolitan Health Services;
- The transitioning of some mental health services previously funded at the federal level to be instead commissioned by PHNs;
- The rolling out of the NDIS; and
- The Fifth National Mental Health and Suicide Prevention Plan

The magnitude of change, and disparities between and within regions puts mental health systems, and those working within them, under intense pressure. The planning challenges facing Perth North can be better understood within this context.

This Atlas has been created to provide a deeper understanding of the range, types and locations of mental health services across Perth North. It overlays this data with socio-economic factors to provide insight into gaps and identify possible areas of over or under supply.

The Integrated Atlas of Mental Health is a technical document. Atlases are not service directories or gazettes. Atlases should be considered an important component (but not the only component) of a suite of decision support tools, such as local needs analysis. Utilised in this way, they help to identify gaps, duplications, and potential barriers to care, and can facilitate direct comparisons with other mapped regions within Australia, and overseas.

The scale of the task, and the disparities between and within regions present some interesting challenges when mapping and classifying services.

Classification necessarily involves having to make informed judgements about the 'best' or 'most appropriate' fit (in terms of the DESDE code) for a team. In order to classify a team three key characteristics about their work need to be understood:

- Acuity: Is their work Acute?;
- Mobility: Are they Mobile? That is, do they drive to visit the people they are working with in their own homes or, do those people come to them at a fixed location, such as a clinic, instead?; and
- Intensity: How much time do they spend with people? For example, medium intensity work involves seeing a client between once a fortnight and three times a week.

One challenge faced when doing this was incomplete or inconclusive information. Where information was lacking about a team, prior experience and feedback from the stakeholders and project reference group have been drawn upon to reach classification decisions. Experience from Atlas projects in other areas around the world informs the process of stakeholder engagement, and has shown that data collection improves as stakeholders see the Atlas, and gain knowledge and confidence in the results of the process. The transition underway in mental health care delivery in Australia has implications for services in current stability and future planning, and has meant greater challenges for services in their ability to provide definitive information. DESDE-LTC is not designed to map systems in transition; hence, although not utilised in this Atlas, an additional qualifier has been added to the DESDE coding system ("v") to denote services which lack the funding stability otherwise required to be included in the Atlas. Many of these services have historical stability and may expect funding to continue, but current instability within the entire system has reduced their capacity to plan in the longer term.

Services provided by the health sector (e.g. through WACHS) are highly integrated and flexible in nature. Indeed, so is the work of many of the NGO teams. Many teams cover both mental health and AOD, although they will generally have staff with specialised qualifications in one or the other. They must at times be the 'jack of all trades'. As such, describing their work as 'Acute' or 'Non- Acute' and ascribing a level of intensity to their service can be subjective.

Intensity of care also varies across the spectrum of low to high intensity, but for the purposes of this exercise, 'medium' intensity is used where stakeholders indicated a range of intensity was normal for their locations.

In terms of workforce characteristics, team sizes can have significant impact on service availability and potentially quality. Smaller teams are particularly vulnerable to staff absences or vacancies. They may also be under considerable demand pressure.

Utilisation analysis would also assist in gaining a deeper understanding of the patient flows and capacity of the NGO sector.

Key findings of this Atlas include:

- Relatively high percentage of NGOs compared to other mapped areas in Australia;
- Relatively high number of very small services (services with "u" qualifiers) when compared to other mapped areas in Australia;
- Relatively high rate of Residential rehabilitation beds and Non-Acute hospital care when compared to other areas in Australia including Perth South, CWAPHN and Kimberleys, and internationally (Spain, Italy and the United Kingdom);
- Relatively high rate of Non-Acute social Outpatient care, particularly Non-Mobile;
- Lack of Day Care services; and
- Low rate of Accessibility services.

A key part of the national reform agenda is the stepped care approach. The stepped care approach is a staged system comprising a hierarchy of interventions from the least to the most intensive, matched to individual need and building more options and range into the market. A comprehensive and integrated system is a key requirement of an effective stepped care model, as it assumes both availability of, and clear pathways between, services required at an individual level. In the stepped care approach, inpatient hospital care provides support primarily for those at the severe end of the spectrum, estimated to be 3.2% of the population, while services provided in the community should cater for the majority of people experiencing mild and moderate to severe mental illness.

The PNPHN region has a high proportion of NGOs to public sector services. SWS and the ACT are the only other areas in Australia where this is the case. Additionally, NGOs in PNPHN provide more Residential care than in other areas. This is reflected in the balance of hospital to community care, with more Residential care in the community than in other areas. This aligns with a balanced care model and with the prevailing philosophy of community based care. However, the high number of these Residential services which have a wider catchment than Perth North must be remembered. Additionally, there is a lack of stability in the provision of this care: the higher number of NGOs meaning greater vulnerability due to funding instability associated with an overall system in transition. The relatively high percentage of very small services in other care branches with only one provider (those given a "u" qualifier), also increases system vulnerability.

The PNPHN region also provides a higher proportion of Residential rehabilitation care. While there is no evidence for the best model of care, supported housing may provide greater cost effectiveness than other models. Studies in Canada on "Housing First", a rehabilitative model which provides supported housing to people with a lived experience of mental illness who are homeless, suggest that the immediate provision of short to medium term- one to three years- housing, along with appropriate, and if needed, intensive, clinical and social support, assists in promoting recovery, and housing stability (

Aubry et al., 2016). The higher rate of Residential services in PNPHN means that initiatives in Residential care for people with a mental illness could be implemented in the region, as the necessary infrastructure would be better developed than in other areas.

7.1 Residential Care

The rate of Acute hospital Residential care in PNPHN is similar to other mapped areas in Australia except Western Sydney, (which has a lower rate), although PNPHN has a higher bed capacity than these other areas. It is important to note that the balance of care in Australia is skewed towards hospital care, and there is an ongoing debate in the Australian literature on the need to invest in community beds at the expense of hospital beds (Allison, Bstaiampillai T & Goldney, 2014).

IIn international comparison, availability of Acute hospital care in PNPHN is similar to Finland and Norway, with bed capacity again slightly greater in PNPHN, while Spain has a lower rate of Acute hospital care. However, Finland has higher rates of community Residential care, Non- Acute hospital care, and day services, and lower rates of most types of Outpatient care; while Spain has more lower intensity community Residential care and Day services than PNPHN, but less Outpatient care. In any case, it is relevant to show that benchmark areas in Europe show a very different pattern of service delivery.

While PNPHN has a relatively high rate of high intensity Residential care, Non- Acute Residential care and Acute bed capacity, it must be noted that this is partly attributable to its being the location for a number of services with a wider catchment area than the PNPHN, for example Graylands Hospital, which has a statewide catchment. Notably, while the ACT is the only other mapped PHN with a higher rate of high intensity Non hospital MTCs than PNPHN, it has a lower bed capacity (R8 and R11).

Differences in availability of Residential care types and placement capacity indicate variability across jurisdictions, rather than differences in quality of care. In order to derive organisational learning, it is necessary to complement this information with data on service utilisation, and quality indicators.

7.2 Day Care

The dearth of Day services in PNPHN is similar to findings in other mapped areas of Australia, but dissimilar to Spain, Finland and Norway, where health, social and work related Day services are provided to a much greater extent. Day care for people with a lived experience of mental illness has been considered a key component of psychiatric reform since the early 60s (Salvador-Carulla et al., 2013). Acute Day care (ADC) provided by qualified mental health professionals (e.g. psychiatrists, nurses and psychologists) is a less restrictive alternative to inpatient admission for people who are experiencing Acute and severe mental illness, while social and work related. Day services can provide social and cultural activities and opportunities to remain in, or return to, meaningful employment. Only two Day services were identified in PNPHN, both social care related. The disappearance of Day services in Australia in recent decades is attributable to the redirection of mental health funding from the health sector to NGOs, reducing health related Day services, and the shift to individualisation of care and tailored programs of daily activities, changes which will be amplified under the NDIS.

7.3 Outpatient Care

The rates of Non- Acute, Non- Mobile social Outpatient care and Non- Acute, Mobile health Outpatient care are higher in PNPHN than in other mapped Australian regions, including Perth South. The relatively high percentage of NGOs in PNPHN may be a factor in the high number of Non- Acute, Non- Mobile social care teams. The relative efficiency of the different models of balance of care (e.g. Mobile versus Non- Mobile teams, Acute versus Non- Acute) has not been tested, and a proper analysis will require the incorporation of utilisation data.

7.4 Accessibility

North Perth has a low rate of Accessibility services, including care co- ordination services. An example of this is the relatively low number of PIR services identified, when compared to Local Health Districts in

the Central and Eastern Sydney PHN. PNPHN has six PIR teams, or 0.91 per 100,000 adults, compared to 1.43 per 100,000 adults in Sydney Local Health District, 1.39 per 100,000 adults in South Eastern Sydney Local Health District. This should be considered within the context of greater system complexity, due to the relatively high percentage of NGOs. Additionally, a finding made in previous Atlases that some PIRs, while intended to provide Accessibility services, in practice are providing Outpatient care, is also evident in PNPHN, with all six PIRs identified being coded as Outpatient, rather than Accessibility. It is possible that PIR teams have been filling gaps that have been identified in care provision, namely poor access to psychosocial services.

8. Study 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 the survey. Additionally, it is possible that others were overlooked in the creation of the initial stakeholder lists. An extensive feedback process was undertaken to verify and qualify the final data presented in the Atlas. It should be noted that services may have been excluded from the final data not because they were missed, but rather because they do not meet Atlas criteria (see below).

Some services are not included because they are not specialist mental health services. These generalist services may still treat people with mental health ill-health, however 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. This necessarily means some more generalist services are excluded from analysis.

Private providers are generally not included in an Atlas, as it is focused on services with a minimum level of universal accessibility (that is services must be free or have low out of pocket fees). As such private providers are generally only included where they are providing free services. 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.

The assessment of services was made through a process of face to face interviews, emails and telephone interviews. Some information may not have been provided, some information may have been misinterpretedor may contain inaccuracies, and some assumptions may have been required to finalise a code or classification. Three drafts of the “Alpha” version of this Atlas were created prior to this “Beta” version, and feedback was actively encouraged to ensure the data contained here is as accurate as it can be.

It is noted that the data collection period for this Atlas took place during a time of substantial change within the mental health sector in WA. In July 2016, the East Metropolitan Health Service was created from parts of the South and North Metropolitan Services. In addition to this, the roll out of the NDIS and the commencement of recommissioning of some services through the PHNs also added additional pressures and complexity to the services that were being mapped.

The Atlas focuses only on services provided from a base within Western Australia. It is acknowledged that there are services that residents of Perth North will use that may be outside of this catchment.

The Atlas compares the rates of beds, places and the numbers of teams (BSIC) and Main Types of Care (MTCs) per 100,000 population across the area of focus. These rates are then compared with other areas across Australia and internationally. However, when comparing the rates of teams, it is important to understand the size of these teams to get the most accurate assessment of the capacity of the services in a particular area. Therefore, additional effort has been applied to exploring the size of teams with additional commentary provided to add further depth to the analysis. Data on FTE was however often not available or lacked specificity. The analysis provided should be viewed with this in mind.

9. Future Steps

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

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, some of which is detailed below.

Rates of utilisation of the services, by MTC, using the information provided in the administrative databases. The analysis of service utilisation will detect hot and cold spots and areas of improvement. The information collected in the local Atlas of Mental Health Care can be combined with utilisation and outcome data to produce decision support tools that may help decision for the analysis of benchmarking and relative efficiency, as well as to redesign and improve available services.

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.

Rates of other chronic diseases relevant to people with mental ill-health issues. Cardio-vascular disease, Type 2 Diabetes, obesity and muscular-skeletal conditions could be added to future maps.

In-depth workforce analysis 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.

More information on service utilisation would add further depth to current data set and analysis. What else could be added to future mapping exercises? Waiting lists, volumes?

Further exploration of financing mechanisms and financing flows could be conducted. This would allow important areas such as the Better Access Program, Community Mental Health services provided by NGOs 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 services 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.

Pathways to care. Understanding how people navigate a system is a key area of knowledge that would add depth to service planning, design, utility and efficiency.

10. Conclusion

Integrated Atlases are a key tool for evidence- informed service planning and policy development. They are not a service directory or gazette of services. This Atlas included comprehensive mapping of services identified as stable and specifically tailored for the treatment of mental illness.

This Integrated Atlas of Mental Health for the Perth North Primary Health Network Region is a snapshot of this pivotal point in time and a jumping off point for further discussion across the region. It provides a great opportunity to harness this 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.

It can support the WAPHA to play a key role in the implementation of significant reform to the Mental Health system and deliver substantial improvements in the way residents access and utilise Mental Health Care across the region.

It can support the development of the ‘right care at the right time in the right place’ for those experiencing mental ill-health.

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