Integrated Atlas of Mental Health and Alcohol and Other Drugs of Western Australia – Volume II
Country WA

Disclaimer

Inherent Limitations

ConNetica have prepared this report at the request of Western Australia Primary Health Alliance (WAPHA) and the Mental Health Commission of WA (the Commission) in our capacity as consultants and in accordance with the terms and conditions of contract provided by WAPHA. The report is solely for the purpose and use of WAPHA (ABN 11 602 416 697), the Commission and the Western Australian Department of Health.

The report has been prepared through a consultancy process using specific methods outlined in the Framework section of this report. ConNetica has relied upon the information obtained through the consultancy as being accurate. Reasonable efforts have been made to obtain and verify information from service providers across the region. However, some service providers did not respond to requests for information, invitations to complete a survey or to participate in an interview.

The information, statements, statistics and commentary (together the "information") contained in this report has been prepared by ConNetica from publicly available materials, materials provided by WAPHA, the Commission, the WA Department of Health, and various mental health service providers. A lengthy feedback process was undertaken to verify information contained in this report.

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

Suggested Citation

Acknowledgements

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Abbreviations and Definitions

Abbreviation	Definition
ABS	Australian Bureau of Statistics
ACTT	Aboriginal Children's Therapy Team
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
CSRP	Community Supported Rehabilitation Program
CSRU	Community Supported Residential Units
CWAPHN	Country WA PHN
DBT	Dialectical Behaviour Therapy
DESDE-LTC	Description and Evaluation of Services and Directories in Europe for Long-Term Care
DHS	Department of Human Services
DoH	Department of Health
ECATT	Enhanced Crisis, Assessment and Treatment Teams
ECT	Electro Convulsive Therapy
EDCLS	Emergency Department Consultation Liaison Service
GIS	Geographical Information System
GP	General Practitioner
HACC	Home and Community Care
HREC	Human Research Ethics Committee
ICOT	Intensive Community Outpatient Team

ICLS	Individualised Community Living Strategy
IRSD	Index of Relative Socio-economic Disadvantage
ITS	Integrated Therapy Service
LGA	Local Government Area
MATT	Mobile Assessment and Treatment Team
MCOT	Mobile Community Outpatient Team
MHCSS	Mental Health Community Support Service
MHNIP	Mental Health Nurse Incentive Program
MHPU	Mental Health Policy Unit, Brain and Mind Centre, University of Sydney
MTC	Main Type of Care
NDIS	National Disability Insurance Scheme
NGO	Non-Government Organisation (or community service provider)
PADAP	Pilbara Alcohol and Other Drug Program
PHaM	Personal Helpers and Mentors Program
PHN	Primary Health Network
PIR	Partners in Recovery
PNPHN	Perth North PHN
PSPHN	Perth South PHN
SA2	Statistical Area 2
SSAMHS	Statewide Specialist Aboriginal Mental Health Services
SECU	Secure Extended Care Unit
SEIFA	Socio Economic Indexes for Areas
SRS	Supported Residential Service
WA	Western Australia
WAPHA	Western Australian Primary Health Alliance
WHO	World Health Organisation
YEP	Youth Early Psychosis

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, 2015). This equates to 395,000 persons, with a severity profile similar in proportion to national estimates. However Australians that live with serious mental illness and those with drug and alcohol issues continue to struggle with a disconnected, complex and fragmented health and social service systems.

The 2014 National Review of Mental Health Programmes and Services by the National Mental Health Commission 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". It also called for responsiveness to the diverse local needs of different communities across Australia (NHMC, 2014).

This Integrated Atlas of Western Australia, commissioned by the Western Australian Primary Health Alliance (WAPHA) and the Western Australia Mental Health Commission aligns with this recommendation. It is a tool for evidence-informed planning that critically analyses the pattern of mental health care provided across Western Australia.

The Atlas uses a standard classification system, the "Description and Evaluation of Services and Directories in Europe for long-term care" model (DESDE-LTC), to describe and classify the services; as well as geographical information systems to geolocate the services. By utilising this internationally recognised and evidence-based tool as its supporting methodology, it is possible to derive benchmarks and comparisons with other regions both within Australia and internationally. This provides a sound basis for long-term service planning and development and significantly advances efforts towards more integrated care and achieving improved outcomes for all service users.

This supports WAPHA's stated intention to focus on integrating services and building collaborative models of care, an approach also in line with the Western Australian Mental Health Commission's strategic policy (Western Australian Mental Health Commission, *2015).* The National Ice Taskforce report also highlights the need for improved coordination between existing services, including the need to improve referral pathways and provide greater access to care through GPs (Commonwealth of Australia, 2015).

The Integrated Mental Health and Alcohol and Other Drug Atlas of Western Australia 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).

The Atlas project involved 240 stakeholders, with 75 interviews conducted and 165 organisations invited to complete a survey. There were 192 Organisations with services that met the criteria for inclusion in the Atlas, comprising 847 service delivery teams. Of these, 77% were providing mental health care (n = 654) and 23% AOD care (n = 193). This data is examined by PHN and is presented in two parts. Volume One covers Metropolitan Perth and encompasses Perth North (PNPHN) and Perth South (PSPHN). Volume Two (this report) covers the Country WA PHN and its seven sub-regions.

Summary of Findings

The Country WA PHN (CWAPHN) catchment encompasses an area of just over 2.5 million km^2, representing approximately 32% of Australia's land area and encompassing a population of just over half a million people. It is a vast geographical area, approximately as big as half of the United States of America. It is comprised of seven regional health districts with 105 LGAs in total. There were a total of

213 teams identified as delivering mental health care across Country WA. Health service (clinical) teams deliver 58% of this care. There is significant variation between and even within individual regions.

The Atlas reveals key differences in the provision of mental health and AOD services across Metropolitan Perth and within and across Country WA, when compared with other regions in Australia and other countries around the world. These are:

- A lack of services providing day care

- A lack of sub-acute inpatient care

- High variability in patterns of care across Country regions

- Regional imbalances in patterns of care requiring further analysis, and

- A concentration of metropolitan services towards the inner-city areas rather than the outer suburban growth corridors.

There was significant disparity in the availability and capacity of services across the different jurisdictions, both between Perth North and Perth South, but more particularly between the seven Country regions covered in detail in this Volume. Whilst most of this variation can be explained by the very different characteristics of each region, some however, could be due to limitations with the analysis.

Data collection for the Atlas project took place during a time of intense change particularly in the metropolitan health sector. Additionally, the complexity and unique characteristics of service provision across remote areas presented unique challenges. Many teams in regional areas must necessarily be flexible and adaptive and frequently provide both acute and non-acute care of varying intensities. Functions that may be provided by separate clinical teams in the Metropolitan area are often covered by the one team in regional areas. Additionally, it is acknowledged that given the remote nature of some communities, emergency services, hospital emergency departments and many generalist services (including Aboriginal services) provide responses to and support for mental health issues. Additional analysis around the unique characteristics of rural and remote service provision, including bed occupancy, care transfer rates and the unique characteristics of the Aboriginal services would be highly beneficial.

There is no generally accepted 'perfect' system of care for mental health or AOD. Needs, environments and circumstances vary significantly between regions and indeed even within regions, especially regions as large as those in Country WA. 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.

In considering future system structure, consistent with National and State strategy, it should rely less heavily on acute inpatient acute care and provide more resource in sub-acute beds, 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.

This Atlas provides a baseline measure of service availability at a critical time, immediately preceding the full roll-out of the NDIS and significant changes in commissioning of services at State and Federal levels. It is the 'before' picture against which the changes to the system can be measured and visualised in the future. As such it not only serves as a planning tool, but also as a measure of change.

The Atlas would not have been possible without the initiative of the Government of Western Australian Mental Health Commission and the Western Australian Primary Health Alliance and they are thanked

for their willingness to push the envelope here in the interests of better planning and ultimately better service delivery for people experiencing mental illness and alcohol and other drug issues in Western Australia.

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Key Findings - Country WA

- There is a large variation in the pattern of care between regions

- Consistent with other remote areas in Australia and overseas, there is substantially more Outpatient care (for both AOD and mental health) than in metropolitan areas, including Perth South and Perth North

- Taken as a whole, Country WA has moderately acceptable levels of acute inpatient beds, but there are no acute inpatient care in the Midwest, Pilbara and Wheatbelt regions. It is also relatively less than other remote areas in Australia and around the world.

- There are no sub-acute hospital beds in any of the country regions

- The amount of care provided by the Health (clinical) sector verses the NGO sector varies substantially between regions. The Midwest region has a relatively stronger reliance on NGO providers for Non-Acute Outpatient care, whilst the Kimberley region has a relatively stronger reliance on health sector for Mobile Outpatient care. A reflection perhaps of the complexity and seriousness of mental health issues in the Kimberley.

- The Kimberley has the largest volume of services. Reflecting the high rates of alcohol related hospital admissions here, there are also a higher volume of AOD services

- Existing service locations and catchments are relatively well aligned to geographic areas of higher population need

- Relative to other remote parts of the world, including Sør-Trøndelag, Norway and Far West NSW, Country WA has relatively less Non-Acute Outpatient care, but relatively more Acute Outpatient care delivered by clinicians

- There is relatively little AOD care provided in the South West region

- There are no AOD beds in the Great Southern region

- There is a relatively strong number of AOD residential rehab beds in the Midwest and Wheatbelt regions

- Day programs are lacking

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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 National Disability Insurance Scheme (NDIS) and the introduction of Primary Health Networks 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 (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 often cluster as comorbidities, and the historical demarcation between the mental health and drug and alcohol sectors has begun to lessen. Many of the principles around mental health reform have relevance to the delivery of drug and alcohol services also.

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 and the utilisation of these resources (WHO, 2008). It is not only important to know the numbers of services in each health area, but also to describe what they are doing and where they are located. This information also enables an understanding of the context of health-related interventions that are essential for the development of evidence- informed policy (Health Foundation, 2014).

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

The National Review draws attention to 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 and care coordination 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 (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 comorbidities 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 alcohol and other drugs (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, 2012).

Integrated Atlases allow 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. This is particularly important as mental health and AOD services become more 'person-centred' (placing the person and their needs at the centre of their care) and public investment focuses on person-centred care coordination programs 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 resource (Oxman et al, 2009).

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

It is expected that the Integrated Atlas of WA will support a systems approach to planning and, consequentially, improve the provision of care through facilitating the integration and coordination of services, both in terms of service commissioning and delivery. Ultimately this will be reflected in the quality of care provided and in the longer term, better health outcomes for people with a lived experience of mental illness and/or alcohol or drug issues.

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-term programs and interventions.

DESDE-LTC

To overcome these limitations, in this project, the "Description and Evaluation of Services and Directories in Europe 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 (LTC). 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 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 and that the Integrated Atlas requires that comparisons must be made across a single and common 'unit of analysis' group. Different units of analysis include: Macro-organisations (e.g. Local Health Networks), Meso-organisations (e.g. Hospitals), and Micro-organisations (e.g. Services). It could also include smaller units within a service: 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 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).

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 **3** 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 (Figure 1).

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 (Figure 2).

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 periods during which they have face to face contact with staff, these include the more traditional long-stay day programs (Figure 3).

Outpatient Care - Used to code care provided by service delivery teams which: (i) involve contact between staff and clients for some purpose related to the management of their condition and associated clinical and social needs; and (ii) are not provided as a part of delivery of residential or day services, these include outreach services (Figure 4). 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 (Figure 5).

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 (Figure 6).

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 7).
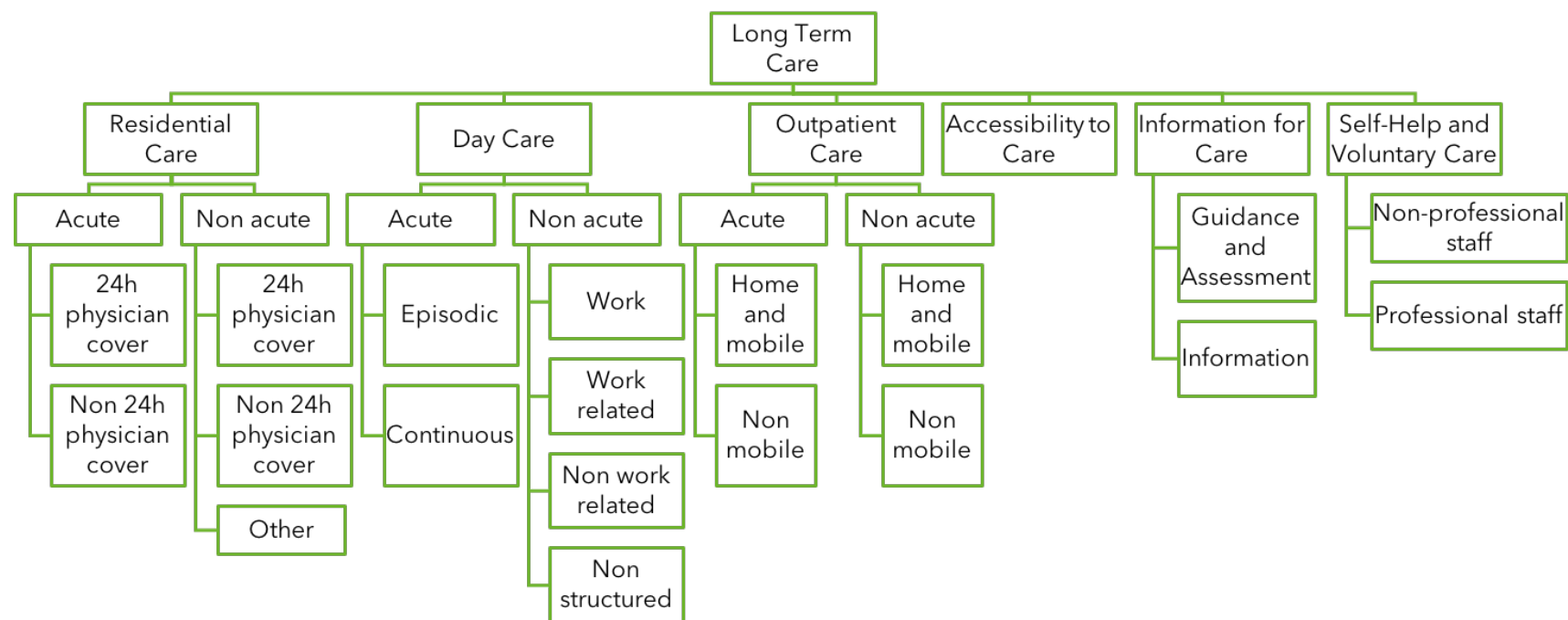
FIGURE 1 MAIN TYPE OF CARE - CORE VALUES
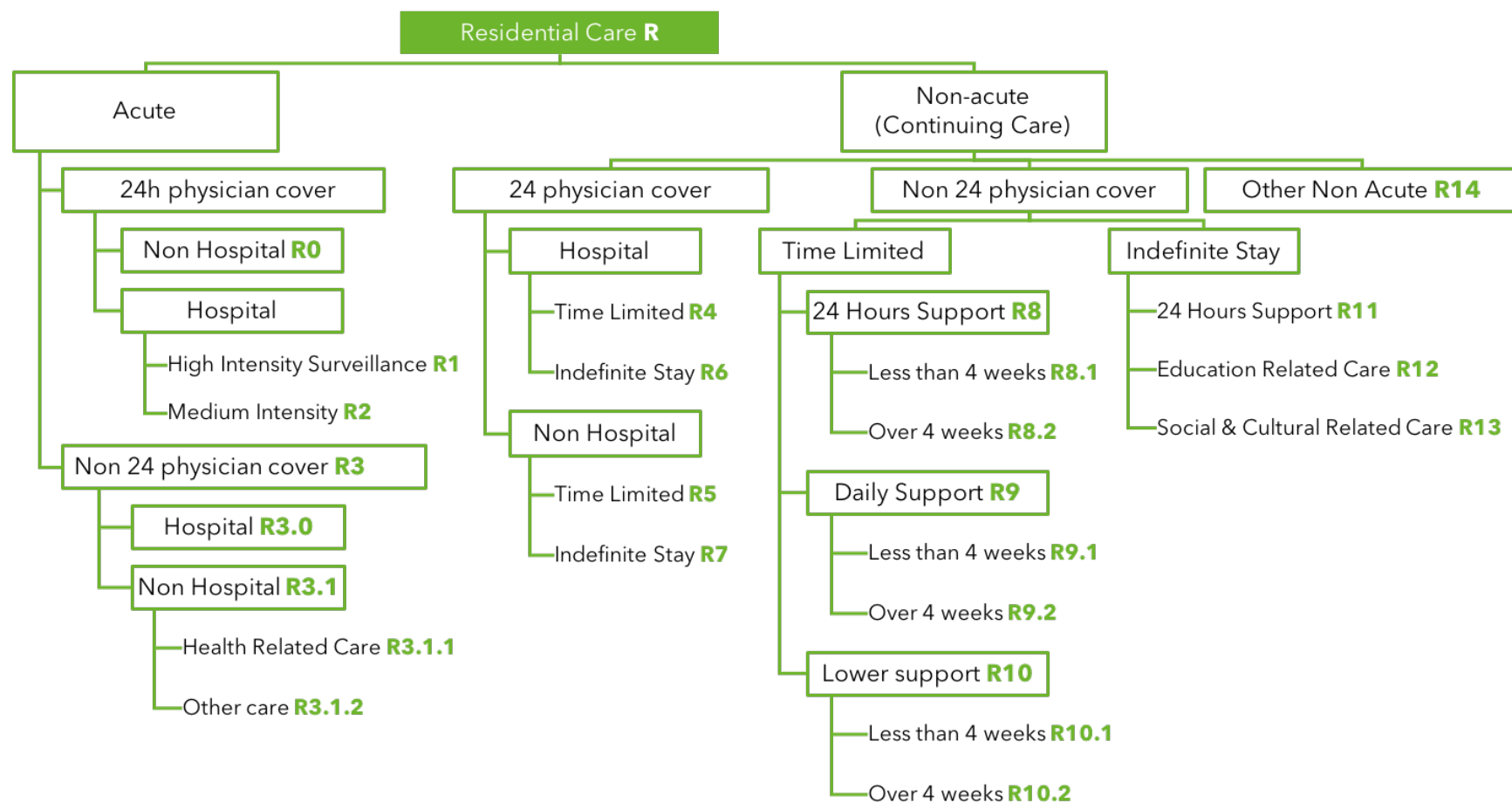
FIGURE 2 Residential care Coding Branch
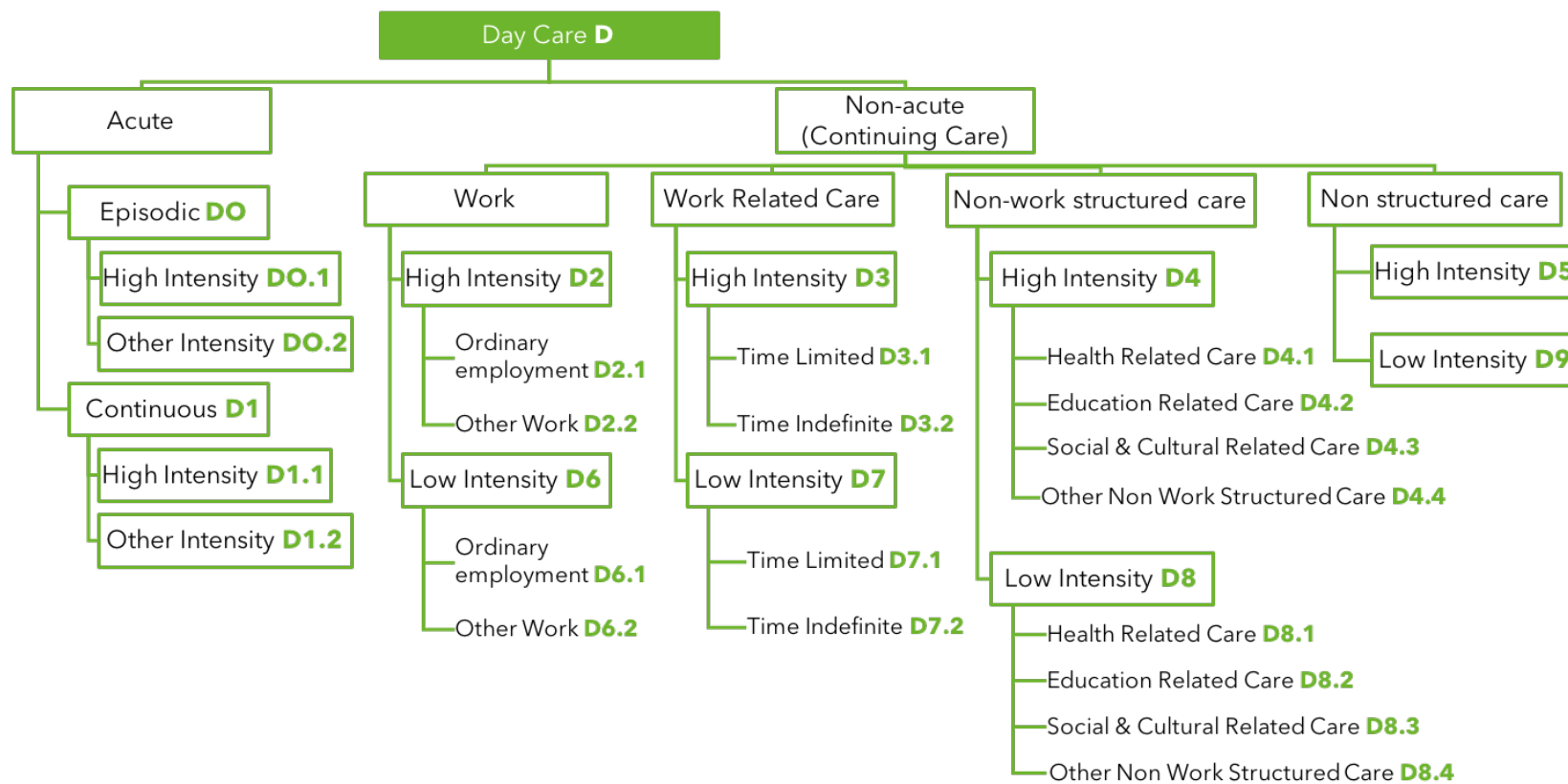
FIGURE 3 Day Care Coding Branch
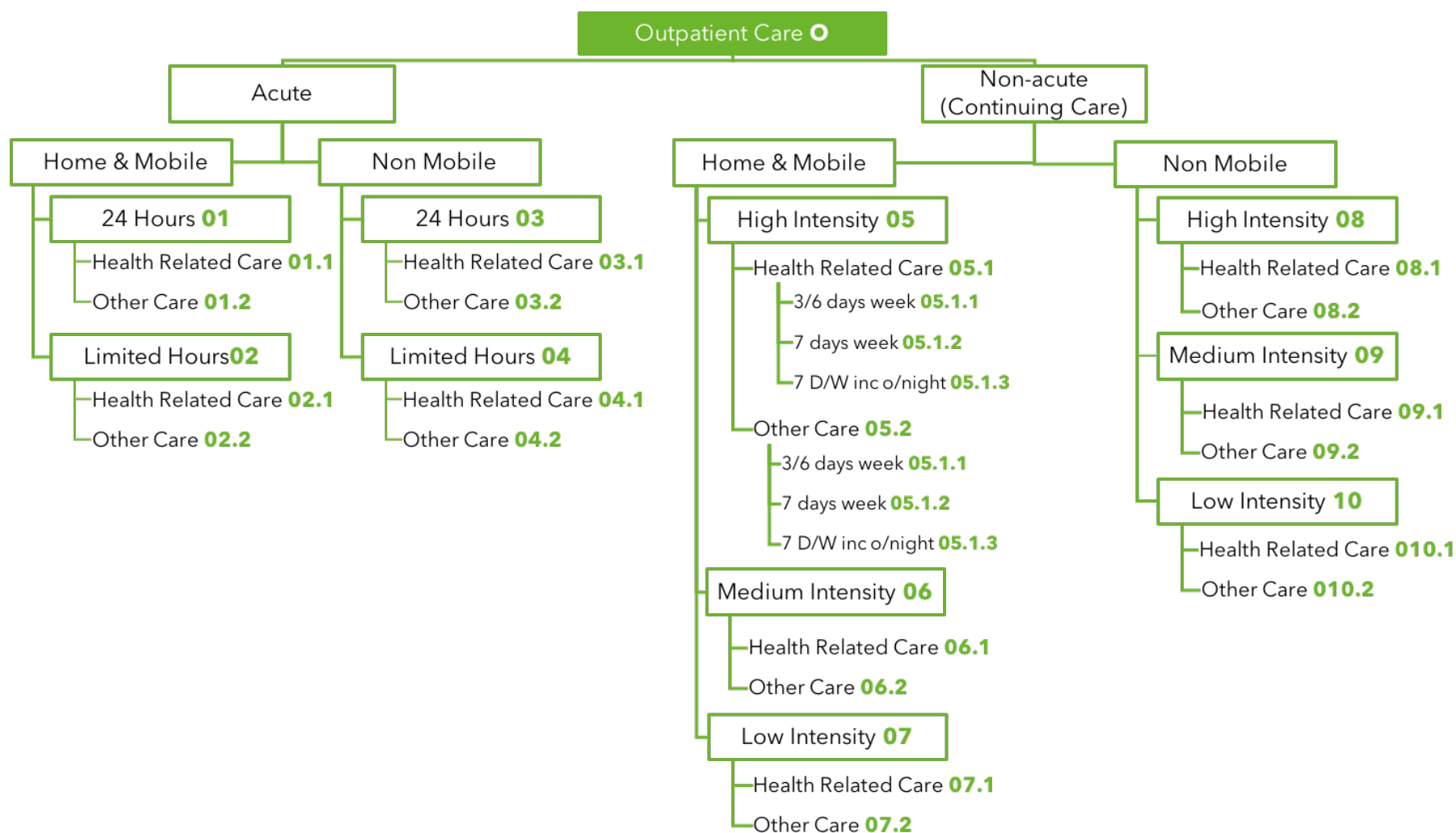
FIGURE 4 OUTPATIENT CARE CODING BRANCH
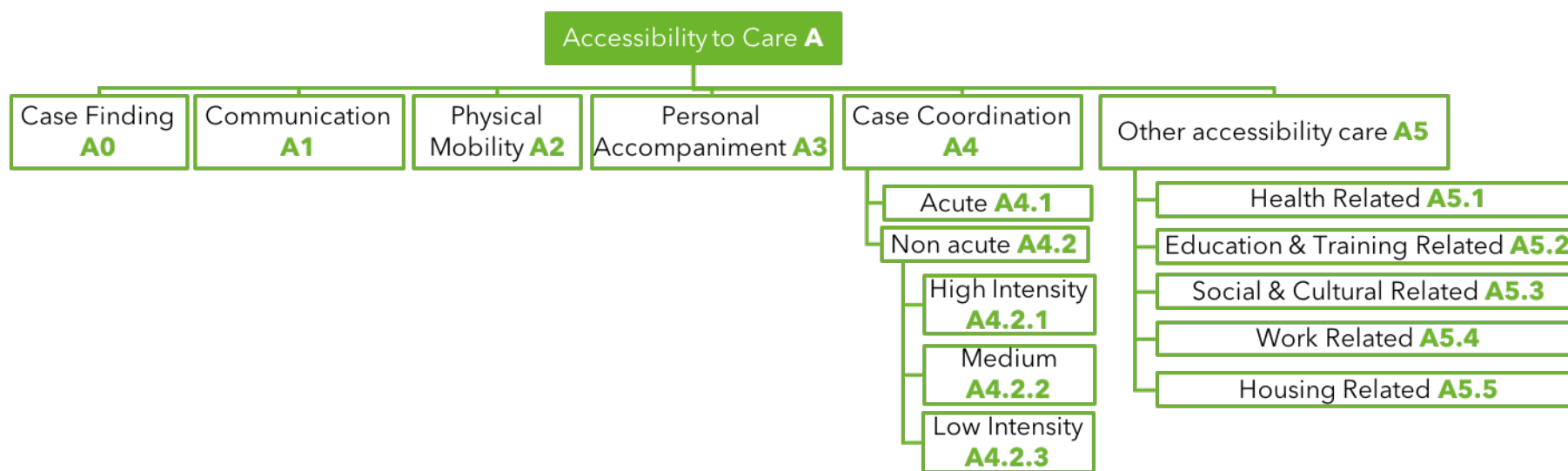
FIGURE 5 ACCESSIBILITY TO CARE CODING BRANCH
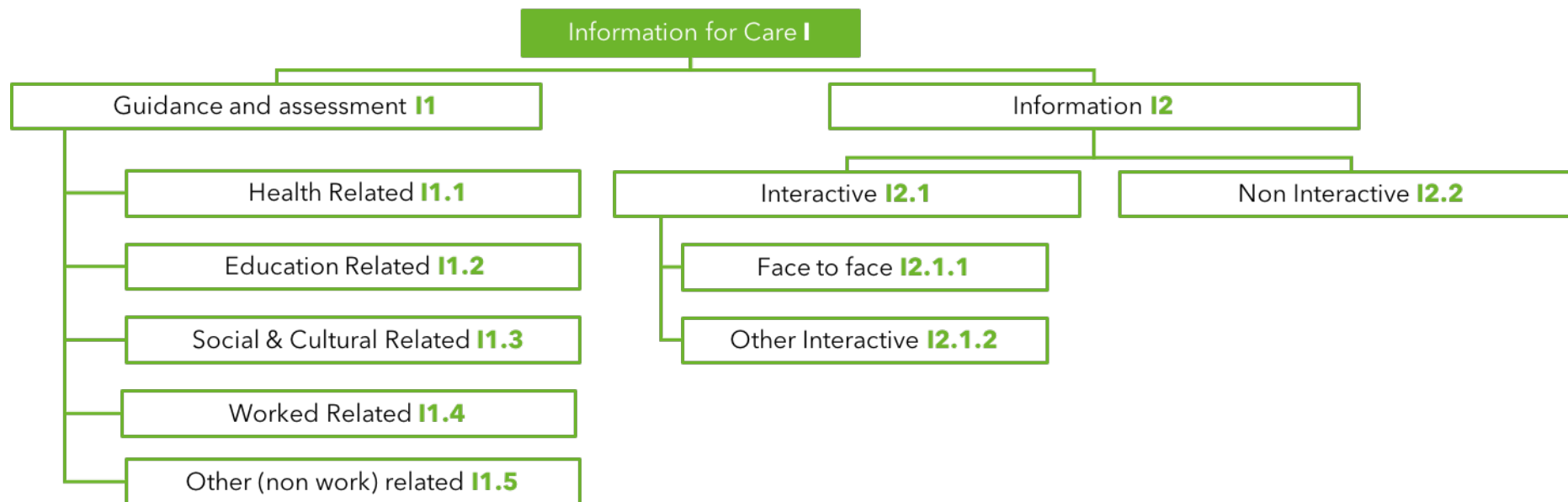
FIGURE 6 INFORMATION FOR CARE CODING BRANCH

Self- help and Volunteer Care **S**

Non Professional Staff **S1**

Information on Care **S1.1**

Accessibility to Care **S1.2**

Outpatient Care **S1.3**

Day Care **S1.4**

Residential Care **S1.5**

Professional Staff **S2**

Information on Care **S2.1**

Accessibility to Care **S2.2**

Outpatient Care **S2.3**

Day Care **S2.4**

Residential Care **S2.5**
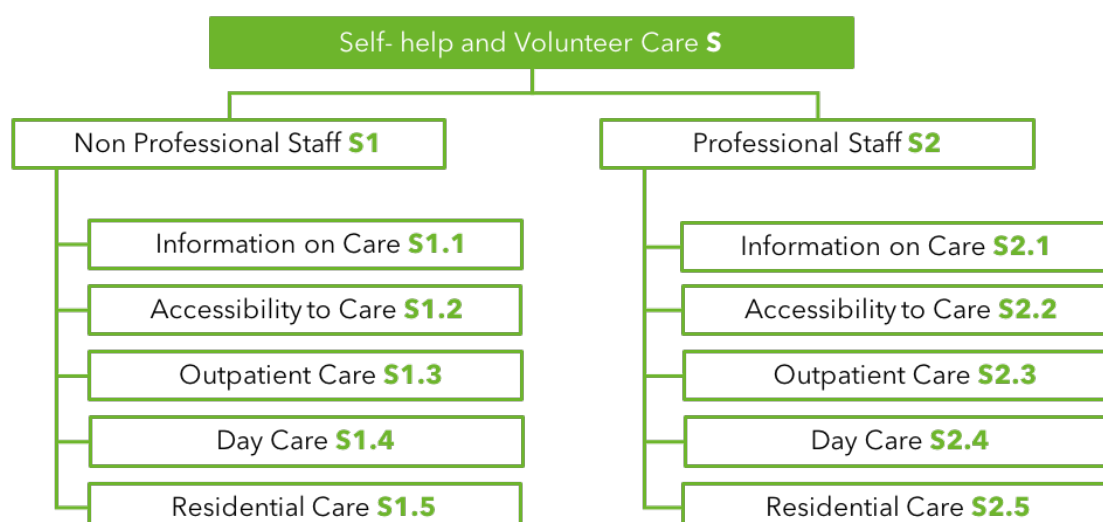
FIGURE 7 SELF-HELP AND VOLUNTEER CARE CODING BRANCH

1.4   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, or AOD issues. That is, the primary reason for using the service is for treatment of mental ill-health or AOD related issue. This excludes generalist services that may lack staff with specialised mental health or AOD 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-related 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 ATAPs and 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 and 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. As such, some flexibility has been applied with this criterion. For example, services were included where they were considered to be ongoing, or had been delivered over a long period of time, even when their ongoing funding may not be secured beyond one year.

The service team is based within the boundaries of the relevant mapping area - The inclusion of services that are within the boundaries of WAPHA 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 coordination of other services or system improvement, without any type of direct contact with people with a lived experience of mental ill-health, AOD issues were excluded.

1.5   Atlas Development Process

There were five key steps involved in the creation of the Integrated Mental Health and AOD Atlas for the WAPHA (Figure 8).
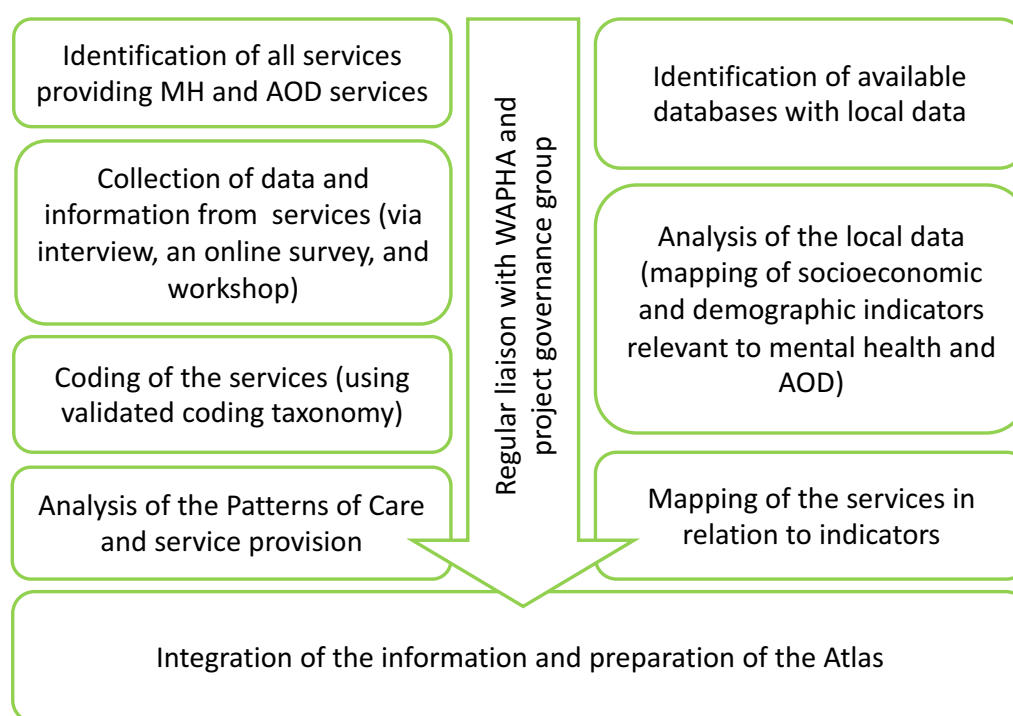
FIGURE 8 INTEGRATED MENTAL HEALTH AND AOD ATLAS DEVELOPMENT PROCESS

Step 1 – Ethics and Governance Approval

The project obtained all the requisite ethics, ethics exemption and governance approvals (Site Specific Assessments) (Table 2). Separate applications were submitted for North Metropolitan, South Metropolitan and Country WA to cover all the Department of Health organisations, hospitals and sites, and a separate application for Joondalup Health Campus.

In addition to the required application forms, these applications included the following materials:

- Participant Information Form

- Participant Consent form

- Project summary

- Draft on-line survey

The project was initially assessed by the North Metropolitan Health Service Mental Health (NMHS MH) Research Ethics and Governance Office and determined to be a low risk quality improvement project. A Quality Improvement (QI) application was submitted and once approved an ethics exemption was sought and received from the NMHS MH Human Research Ethics Committee (HREC). In accordance with the Department of Health's reciprocal acknowledgment of HREC approvals and exemptions, this was subsequently recognised also by the HREC of South Metro and Country WA.

TABLE 2 ETHICS PROCESS

PHN Region	Ethics Body	Applications and outcome
North Metro	North Metropolitan Health Service Mental Health - Human Research Ethics Committee Joondalup Health Campus - Human Research Ethics Committee	Quality Improvement application to Area SQRM committee – ethics exemption granted Modified Site Specific Assessment (SSA) approved HREC application submitted and approved
South Metro	South Metropolitan Health Service Human - Research Ethics Committee	Application for reciprocal DoH recognition of ethics exemption granted by North Metro HREC SSA approved
Country WA	WA Country Health Service - Human Research Ethics Committee	Application for reciprocal DoH recognition of ethics exemption granted by North Metro HREC SSA approval request submitted to each of the seven Regional WACHS Directors and approved

The WA Health Declaration of Confidentiality form was completed and signed by each member of the ConNetica research team.

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 Commission, Department of Health, peak bodies and sector representatives to build a list of all services providing mental health and/or AOD care across Western Australia. WAPHA regional coordinators played a critical role in the identification of services in the seven regional areas of WA.

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 is 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.

a) **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
CC	Only children (0-11 years)
CA	Only adolescent (12-17 years)
CX*	Child & Adolescents (0-17 years)
CY*	Adolescents and Young Adults (12-25 years)
TA	Period from adolescent to adult (16-25 years)
AX	Adults (18-65 years)
OX	Older adults (> 65 years)

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

** In Western Australia services frequently straddle 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

b) **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 [F00-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) the code [Z56-Z65] is 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, the code [e310] (immediate family or Carers) from the International Classification of Functioning (ICF) is used.

The key diagnostic codes used in this Atlas, with the three main codes used shown in bold, are:

F00-F99	**All types of Mental disorders**
F10-F19	**AOD disorders**
Z59	**Problems related to housing and economic circumstances**
F5	Delirium due to known physiological condition
F20-F29	Schizophrenia, schizotypal, delusional and other non-mood psychotic disorders
F50	Eating Disorders
F59	Unspec' behav' syndromes assoc' with physiological disturb' & physical factors
F63	Impulse Disorders
F64	Gender identity disorders
B20-B24	Human immunodeficiency virus [HIV] disease
e310	Services for immediate family or Carers
Z04.71/2	Encounter for examination and observation following alleged physical abuse
Z20-Z29	Persons with potential health hazards related to communicable diseases
Z65	Problems related to other psychosocial circumstances
Z69	Encounter for mental health services for victim and perpetrator of abuse
Z70	Counselling related to sexual attitude, behaviour and orientation
Z72	Problems related to lifestyle
ICD – T	Used where there is not a specific diagnostic group for this service

c) **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 MTC classifications are:

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

d) **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. Qualifiers used in this Atlas are:

a   **Acute care (complimentary) –** Used where acute care is provided within a Non-Acute, non-Residential setting but does not fit the criteria for the addition of a second MTC

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 DRAFT 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** - Describes BSIC whose main aim is to provide care to individuals in contact with crime and justice services.
l	**Liaison care** - Describes liaison BSIC where 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, coordination or navigation of care a core part the provision of their Outpatient care
r	**Reference –** describes a MTC which operates as the main intake or referral point for the local area
s	**Specialised care** - Describes 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.

*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 sub-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).
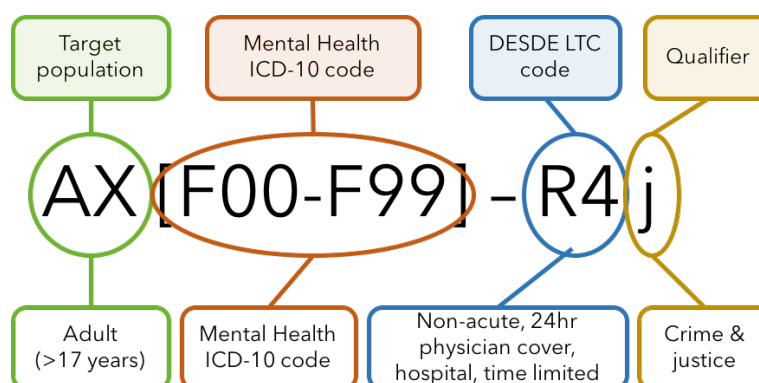
FIGURE 9 CODE COMPONENTS EXAMPLE

To assist the reader, a DESDE-LTC Quick Reference Guide is included Appendix A. This can be removed and laminated to use as an interpretation guide whilst reading the Atlas.

Step 4 - Mapping the BSIC

The next step in the construction of the Atlas was to map the supply of mental health and AOD services in relation to indicators of potential demand within the three WAPHA PHN areas. 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 usable upon demand to perform its designated or required function. The availability rate for the MTC is calculated per 100,000 of the target population. 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 a 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 populations' needs. WAPHA has been compared with Western Sydney PHN, North Brisbane PHN and Central and Eastern Sydney PHN within Australia and with Barcelona 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).

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 Country WA region. The primary data sources for this information were:

- 2011 Census of Population and Housing (ABS, 2011)

- Social Health Atlases of Australia (PHIDU, 2016)

- Small Area Labour Market Data (CDE, 2016)

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

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

Demographic Factors

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 3). In addition, throughout the Atlas the population is divided into discrete age groups to report rates of services per 100,000 target population.

TABLE 3 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)

These indicators are examined for the entire state of Western Australia as well as separately for each of the three PHNs.

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 that have been shown to influence mental health and/or AOD and/or contribute to an increased risk of suicide and self-harm have been presented in this Atlas (Table 4).

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

disadvantage across geographic areas. 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 and 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 representing a greater level of relative disadvantage (e.g. 1 represents the most disadvantaged areas).

TABLE 4 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

Health and Mortality

As health usually deteriorates with age and the majority of deaths occur at older ages, it is reasonable to expect areas with older populations to show lower self-assessed health and higher mortality rates. Therefore, to allow fair comparisons of rates amongst LGAs within CWAPHN, 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 5).

Self-assessed health status is a commonly used measure of overall health. It captures a person's perception of their own health and has been found to be a good predictor of morbidity and mortality (Joung et al, 2002). Psychological distress is an indicator of the mental health of a community and is

the best population wide measure currently available. This indicator is used as an indicative measure of the mental health needs of a population rather than measuring rates of mental illness (Statistics Solutions, 2016).

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 dominant the national injury burden or burden of disease in Australia (AIHW, 2016).

TABLE 5 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

2.1　Population Data for Western Australia

This section summarises the population health and socio-demographic indicators for Western Australia and compares these indicators across the three PHN areas of Perth North (PN), Perth South (PS) and Country WA (CWA). It is acknowledged that within each PHN catchment these demographics will vary, and for Country WA there are seven regions, and considerable population variability between and within these that is not reflected in the aggregated comparisons.

Population Profile

The 2.59 million people within Western Australia are differentially dispersed across the catchment from areas of low density in Country WA (Density Ratio = 0.22), through to the highly populated areas of PNPHN with a density ratio over 100 times that of the whole of Australia (Table 6). Not surprisingly PNPHN also has the lowest dependency ratio at 0.45, reflecting the high proportion of working age population living near the metropolitan centre of Perth.

TABLE 6 DEMOGRAPHIC FACTORS FOR WESTERN AUSTRALIA

PHN	Area[*] (sq. km)	Total Population[†]	Density Ratio	Dependency Ratio	Ageing Index	Indigenous Status (%)[§]	Overseas Born (%)[¶]
PNPHN	2,975	1.07 million	358.2	0.46	69.0	1.6	35.1
PSPHN	5,148	978,278	190.0	0.48	70.7	2.1	33.6

CWAPHN	2.5 million	546,206	0.22	0.50	64.0	10.3	15.6
WA	**2.64 million**	**2.59 million**	**0.98**	**0.48**	**68.4**	**3.6**	**33.0**
Australia	7.7 million	23.49 million	3.1	0.54	78.1	3.1	24.6

Sourced from: [*] ASGS (ABS, 2011); [†]ERP 2015 (PHIDU, 2016); [§]ERP (non ABS) 2015 (PHIDU, 2016); [¶]ABS, 2011

There is a strong association between ageing and health issues, including physical conditions, mental illness and dementia (AIHW, 2015). As the population has aged, conditions such as dementia (including Alzheimer's disease) have increased (ABS, 2016a). Additionally, many of the lifestyle changes associated with ageing can impact on mental health, including retirement and associated income changes, loss of capacity to live independently, bereavement, and social isolation (Domènech-Abella et al, 2017). None of the PHNs within Western Australia have higher numbers of older people compared to children (i.e. ageing index >100) and all were lower than the Australian average (78.1).

Cultural Diversity

Overall, 3.62% of the WA population identifies as Aboriginal[1], with Aboriginal people comprising over 10% of the Country WA population. The Kimberley, Pilbara and Goldfields regions within Country WA have the greatest proportions of Aboriginal people.

Western Australia has a higher proportion of persons born overseas (33%) compared to Australia (24.6%). However, there is a large variation between PHNs with PNPHN being the most diverse with 35% of the population being born overseas. By contrast, 16% of residents in Country WA were born overseas.

Families

PNPHN has the lowest proportion of single parent families within its catchment compared with the average rate for both Western Australia (19.9%) and Australia (21.3%) (Table 7).

TABLE 7 SOCIOECONOMIC FACTORS FOR WESTERN AUSTRALIA

PHN	Single parent families (%)[*]	Homelessness (per 1,000)[†]	Needing Assistance (%)[*]	Early school leavers[*] (ASR per 100)	Un employment (%)[‡]	Income <$400 / wk (%)[†]	IRSD score[§]
Perth North	18.2	NA	5.8	28.7	5.5	34.2	1045
Perth South	20.7	NA	4.0	32.8	5.8	37.1	1020
Country WA	21.8	NA	3.8	40.2	5.6	35.4	983
WA	**19.9**	**4.3**	**4.5**	**32.8**	**5.6**	**35.5**	**1022**
Australia	21.3	4.9	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)

Human function

The proportion of the WA population needing assistance with core activities (4.5%) is below the Australian (4.9%) average, so too is the proportions in Perth South and Country WA, 4.0% and 3.8%, respectively.

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[1] Within Western Australia, the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of Western Australia. No disrespect is intended to our Torres Strait Islander colleagues and community. Please see: http://www.health.wa.gov.au/circularsnew/pdfs/12966.pdf for more information

Education

A strong link between health and education has been evident for many decades and relatedly, education can be highly predictive of employment and income, which can in turn influence health. Overall, the proportion of the WA population who left school prior to Year 10 or who did not go to school at all is slightly lower (ASR 32.8 per 100) compared to the Australian rate of 34.3 per 100. However, Country WA PHNs rate of early school leavers of 40.2 per 100 is higher than both the state and national rates.

Employment

Unemployment has direct effects on mental health and wellbeing, in particular where feelings of being unproductive or isolated may lead to anxiety or depression. Whilst the unemployment rate within Western Australia (5.6%), as measured in the June quarter 2016, is slightly lower than the Australian rate of 5.9%, PNPHN has a slightly lower unemployment rate at 5.5%.

Income

PSPHN has the highest percentage of individuals with low income, defined as less than $400 per week, with 37.1% of the population identified in this category, however this is still below national rate of 38.9%. Both PNPHN (34.2%) and CWAPHN (35.4%) PHNs have lower proportions of people on low income compared to the state average (35.5%).

Index of Relative Socio-economic Disadvantage

PNPHN is the most advantaged area within Western Australia with an average score of 1045 which is only slightly higher than the WA overall average of 1022. The PHN of Country WA is the only catchment with an average IRSD score below 1000.

Health Status

Estimates of self-reported health in WA indicate that people in Country WA PHN reported slightly higher rates of fair or poor health (15.1 per 100) compared to both the WA and Australian averages, 13.7 and 14.6 per 100 respectively. PSPHN also reported a slightly higher rate than the WA average at 14.1 with PNPHN reporting the lowest rate (Table 8).

TABLE 8 HEALTH AND MORTALITY FOR WESTERN AUSTRALIA

PHN	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)[†]
Perth North	12.8	10.1	552	11.6	185	3.9
Perth South	14.1	11.0	560	13.2	213	5.0
Country WA	15.1	10.6	447	18.0	335	13.7
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)

However, PSPHN reported a slightly higher rate of psychological distress (11.0 per 100) compared to both the WA and Australian rates of 10.5 and 10.8 respectively, with PNPHN again reporting the lowest rate for this indicator.

Mortality

In Australia, deaths from suicide are well in excess of transport-related mortality with the latest data released indicating that there were 3,027[2] registered suicide deaths in Australia in 2015, representing an age-standardised rate of 10.2 per 100,000 (ABS, 2016). Suicide rates in Australia are rising and suicide is now the 13th leading cause of death in Australia, compared to the 14th leading cause in 2006 (ABS, 2016b).

Deaths from intentional self-harm occur among males at a rate three times greater than that for females. In 2015, the standardised death rate for males was 19.3 deaths per 100,000 people, while for females it was 6.1 deaths per 100,000 people (ABS, 2016b).

Despite the estimated mortality, the prevalence of suicide and self-harming behaviours remains difficult to gauge due to the difficulties associated with obtaining reliable data. De Leo et al (2009) estimate that the ABS suicide reports are some 20-30% below the actual number of deaths due to intentional self-harm.

Overall, Western Australia had a higher rate of suicide in 2015 (13.7 per 100, 000) compared to the Australian average (11.2 per 100, 000). Like the rest of the country, suicide rates in WA are rising – the rate in 2006 was 11.9 per 100,000.

Whilst all three PHNs in WA have rates higher than both the national rate, the Country WA PHN rate of 18.0 per 100,000, is significantly higher. This is largely explained by the higher proportion of Aboriginal people in Country WA and the alarming rates of suicide among Australia's Aboriginal people. A recent report published in the Medical Journal of Australia has found suicide rates for Aboriginal people in remote parts of WA are among the worst in the world (McHugh et al, 2016). It reported an age adjusted suicide rate of 74 per 100,000 for Aboriginal people in the Kimberley population. The report also found:

- Those affected were becoming increasingly younger
- Incidents of self-harm among Aboriginal people in the region were also disproportionally high
- The age stratified rate of presentations with suicidal behaviour was highest amongst women aged 15-24 years (63 per 100,000) and men aged 25-34 years (44 per 100,000)
- Of the presentations for suicidal behaviour recorded in the Kimberley database, 97.3% involved people unknown to the Kimberley Mental Health and Drug Service

When compared to the road toll rates, almost all PHNs in WA report rates which are at least half of the reported suicide rates. Suicide now accounts for more years of potential life lost than any other single cause and more than all CVD causes of death (ABS, 2016).

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[2] Note this figure (3,027) is a preliminary number reported by the ABS. Further revised figures will be released for the 2015 calendar year in 2017 and 2018. For further information, see Explanatory Notes 52-55 and "A more timely annual collection: changes to ABS processes" (Technical Note). See also the Causes of Death Revisions, 2012 and 2013 Technical Note in Causes of Death, Australia, 2014 for further details.
http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3303.0Explanatory%20Notes12015?OpenDocument

3. Country WA PHN

3.1 Introduction

The Country WA PHN (CWAPHN) catchment encompasses an area of just over 2.5 million km^2, representing approximately 32% of Australia's land area and encompassing a population of just over half a million people. The catchment is comprised of seven regional health districts with 105 LGAs in total (Table 9 and Figure 10).

Unlike the other PHNs within WAPHA, or indeed around Australia, the geographic scale and the sheer number of LGAs within Country WA PHN makes presenting data at this level difficult. For this reason, population data and the data relating to population health and demographic information and mental health and AOD service arrays and locations is presented initially in overview and then in detail within seven separate sections that follow i.e. Goldfields (8 LGAs), Great Southern (13 LGAs), Kimberley (4 LGAs), Midwest (8 LGAs), Pilbara (4 LGAs), South West (12 LGAs) and the Wheatbelt (43 LGAs).

TABLE 9 COUNTRY WA PHN HEALTH REGIONS AND LOCAL GOVERNMENT AREAS

Health Regions	LGAs		
	Albany (C)	East Pilbara (S)	Narrogin (S)
Goldfields	Ashburton (S)	Esperance (S)	Narrogin (T)
Great Southern	Augusta-Margaret River (S)	Exmouth (S)	Ngaanyatjarraku (S)
Kimberley	Beverley (S)	Gingin (S)	Northam (S)
Midwest	Boddington (S)	Gnowangerup (S)	Northampton (S)
Pilbara	Boyup Brook (S)	Goomalling (S)	Nungarin (S)
South West	Bridgetown-Greenbushes (S)	Greater Geraldton (C)*	Perenjori (S)
Wheatbelt	Brookton (S)	Halls Creek (S)	Pingelly (S)
	Broome (S)	Harvey (S)	Plantagenet (S)
	Broomehill-Tambellup (S)	Irwin (S)	Port Hedland (T)
	Bruce Rock (S)	Jerramungup (S)	Quairading (S)
	Bunbury (C)	Kalgoorlie/Boulder (C)	Ravensthorpe (S)
	Busselton (S)	Katanning (S)	Karratha (C) [†]
	Capel (S)	Kellerberrin (S)	Sandstone (S)
	Carnamah (S)	Kent (S)	Shark Bay (S)
	Carnarvon (S)	Kojonup (S)	Tammin (S)
	Chapman Valley (S)	Kondinin (S)	Three Springs (S)
	Chittering (S)	Koorda (S)	Toodyay (S)
	Collie (S)	Kulin (S)	Trayning (S)
	Coolgardie (S)	Lake Grace (S)	Upper Gascoyne (S)
	Coorow (S)	Laverton (S)	Victoria Plains (S)
	Corrigin (S)	Leonora (S)	Wagin (S)
	Cranbrook (S)	Manjimup (S)	Wandering (S)
	Cuballing (S)	Meekatharra (S)	West Arthur (S)
	Cue (S)	Menzies (S)	Westonia (S)
	Cunderdin (S)	Merredin (S)	Wickepin (S)
	Dalwallinu (S)	Mingenew (S)	Williams (S)
	Dandaragan (S)	Moora (S)	Wiluna (S)
	Dardanup (S)	Morawa (S)	Wongan-Ballidu (S)
	Denmark (S)	Mount Magnet (S)	Woodanilling (S)
	Derby-West Kimberley (S)	Mount Marshall (S)	Wyalkatchem (S)
	Donnybrook-Balingup (S)	Mukinbudin (S)	Wyndham-East Kimberley (S)
	Dowerin (S)	Murchison (S)	Yalgoo (S)
	Dumbleyung (S)	Nannup (S)	Yilgarn (S)
	Dundas (S)	Narembeen (S)	York (S)

* Geraldton-Greenough (C) and Mullewa (S) merged to become Greater Geraldton (C) on 1st July 2011; [†] Roebourne (S) changed name to Karratha (C) on 1st July 2014
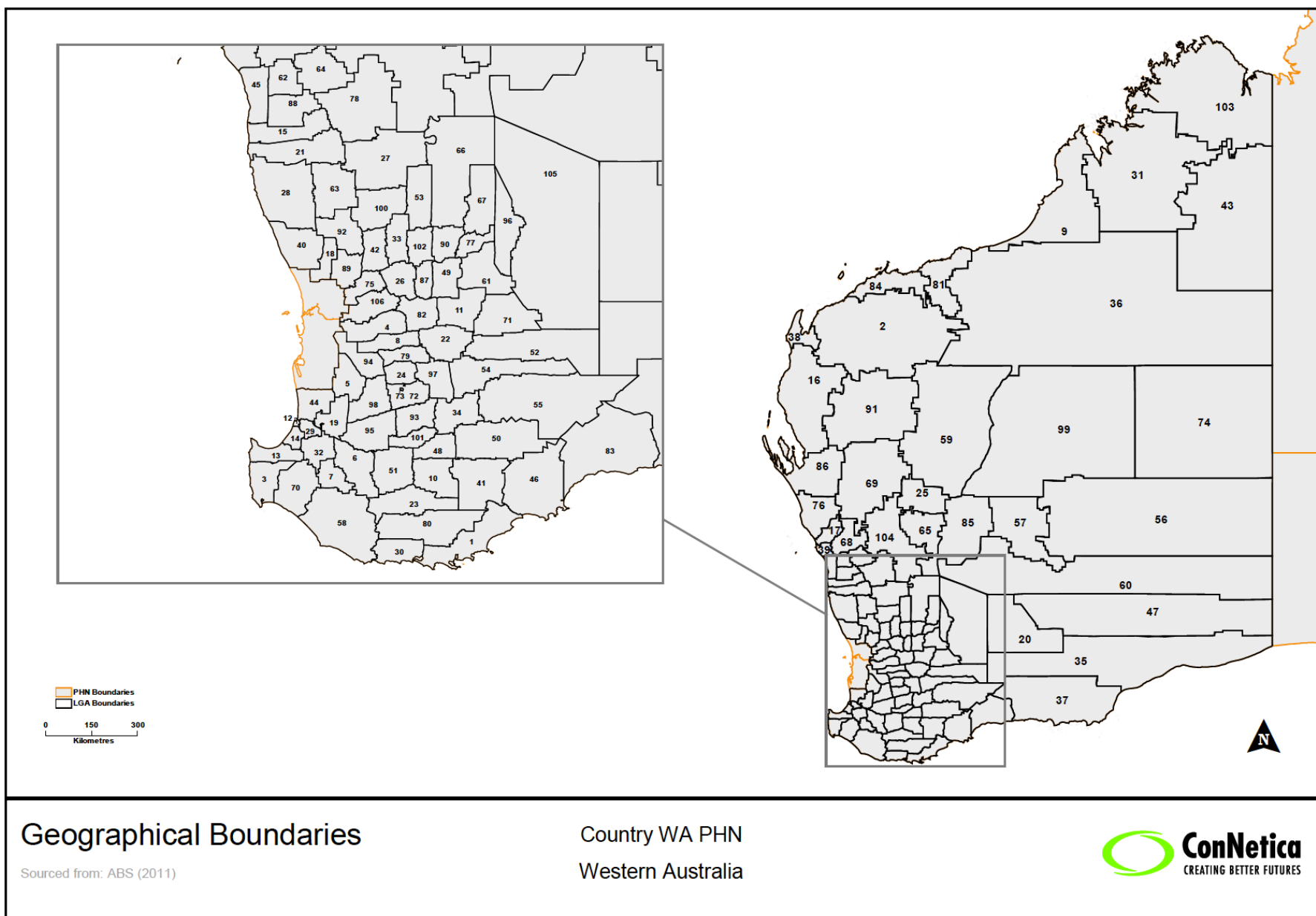
FIGURE 10 Geographical Boundaries of Country WA PHN

Note: A key for the LGA boundary numbers can be found in Appendix B

INTEGRATED ATLAS OF MENTAL HEALTH AND ALCOHOL AND OTHER DRUGS
- COUNTRY WA   26 of 207

3.2   Population Health and Socio-Demographic Profile

Population Profile

The 546,206 people within Country WA are differentially dispersed, with considerable variation in population density and distribution both within and between regions and LGAs.

Only 26 of the 105 LGAs have density ratios similar to the state average of 1.0 and the majority of these were in the South West Health District. The most populated area within Country WA is Bunbury with a density ratio over 500 times that of the whole of Australia at 528.4.

According to the ABS Regional Population Growth, Australia, 2015-16, included in the SA2s that experienced the highest population decline were the mining areas of Leinster - Leonora (-330), Boulder (-270), Kambalda - Coolgardie - Norseman and Meekatharra (both -210) (ABS, 2017).

The SA2s with the largest growth in the CWAPHN area were the South West areas of Australind-Leschenault (480 people, 2.6%) and Busselton (470, 3.2%) (ABS, 2017). The LGA of Ashburton in the Pilbara Health District has the lowest dependency ratio, reflecting the high proportion of working age population living in this region (Figure 11).

Beverley LGA in the Wheatbelt Health District had the highest number of older people compared to children (i.e. ageing index of 162). The Health Districts of Kimberley, Pilbara and Goldfield had LGAs with consistently significant lower ageing indices than the state and nation, 66.7 and 78.1 respectively.

Cultural Diversity

The Indigenous Status is above both the Western Australian average (3.62%) and the Australian average (3.06%) for Country WA at 10.25%. The Kimberly, Goldfields and Pilbara are the LGAs with the highest Indigenous Status, with wide variability across the towns and communities within each of these LGAs (Figure 12). Within other regions there are also LGAs with Indigenous Status considerably higher than the state average. Across the state, the Ngaanyatjarraku LGA has the highest Indigenous Status at 87%. Just under half (n = 47) of the 105 LGAs in CWAPHN had a lower Indigenous Status compared to the state average.

The CWAPHN catchment has a lower proportion of persons born overseas (15.6%) compared to Australia (24.6%) as a whole. However, there is a large variation between and within LGAs (Figure 13). For example, Ngaanyatjarraku in the Goldfields Region has no population born overseas, compared with Leonora in the same Region having 23.6%.

Population

Sourced from: ERP 2015 (PHIDU, 2016)

Country WA PHN

Western Australia
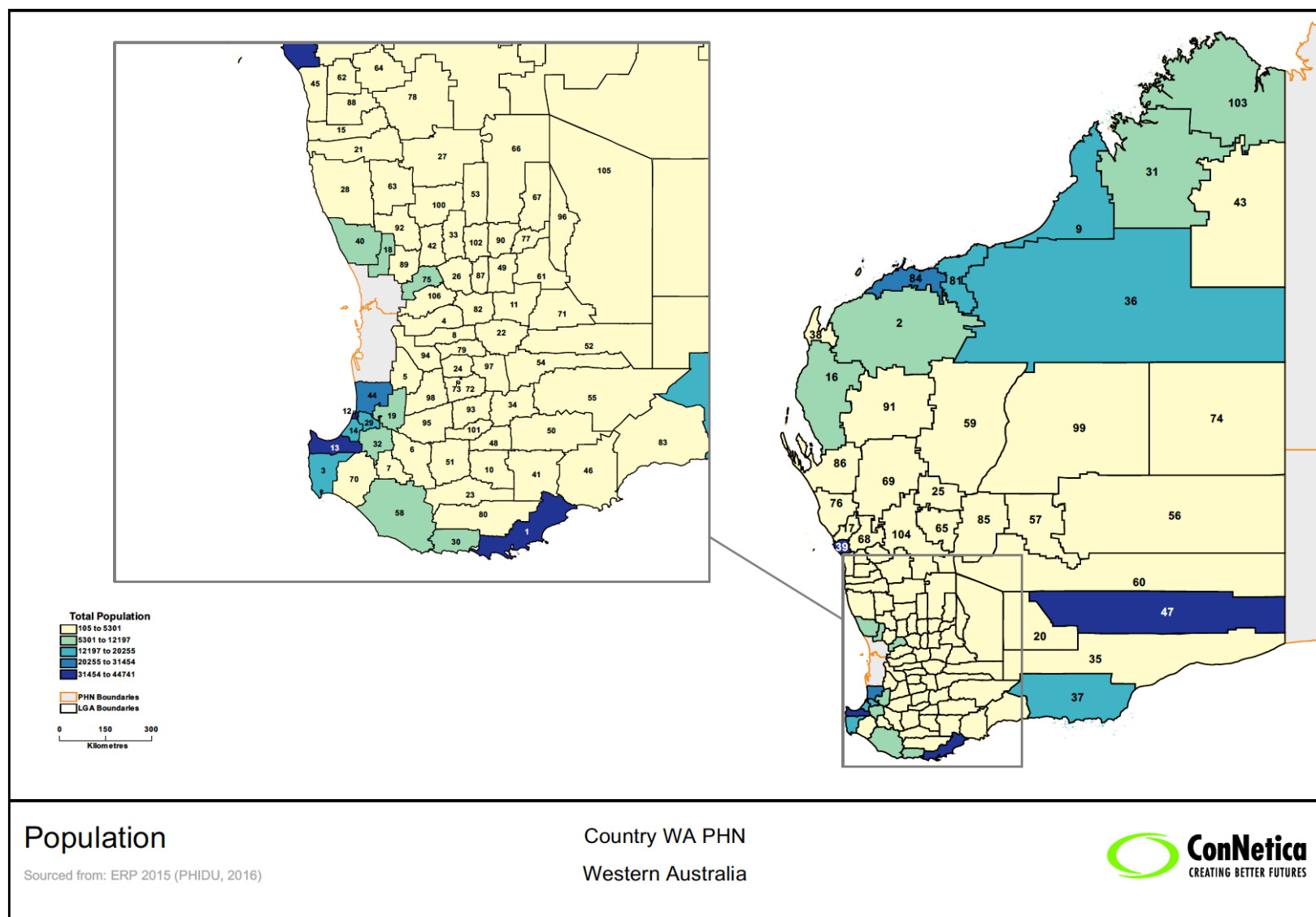
FIGURE 11 POPULATION (ERP 2011) BY LGA IN COUNTRY WA

Indigenous Status (%)
- 0.0 to 6.3
- 6.3 to 17.2
- 17.2 to 32.6
- 32.6 to 59.0
- 59.0 to 89.8

PHN Boundaries
LGA Boundaries

0   150   300
Kilometres

Indigenous Status

Sourced from: ERP (non ABS) 2015 (PHIDU, 2016)

Country WA PHN
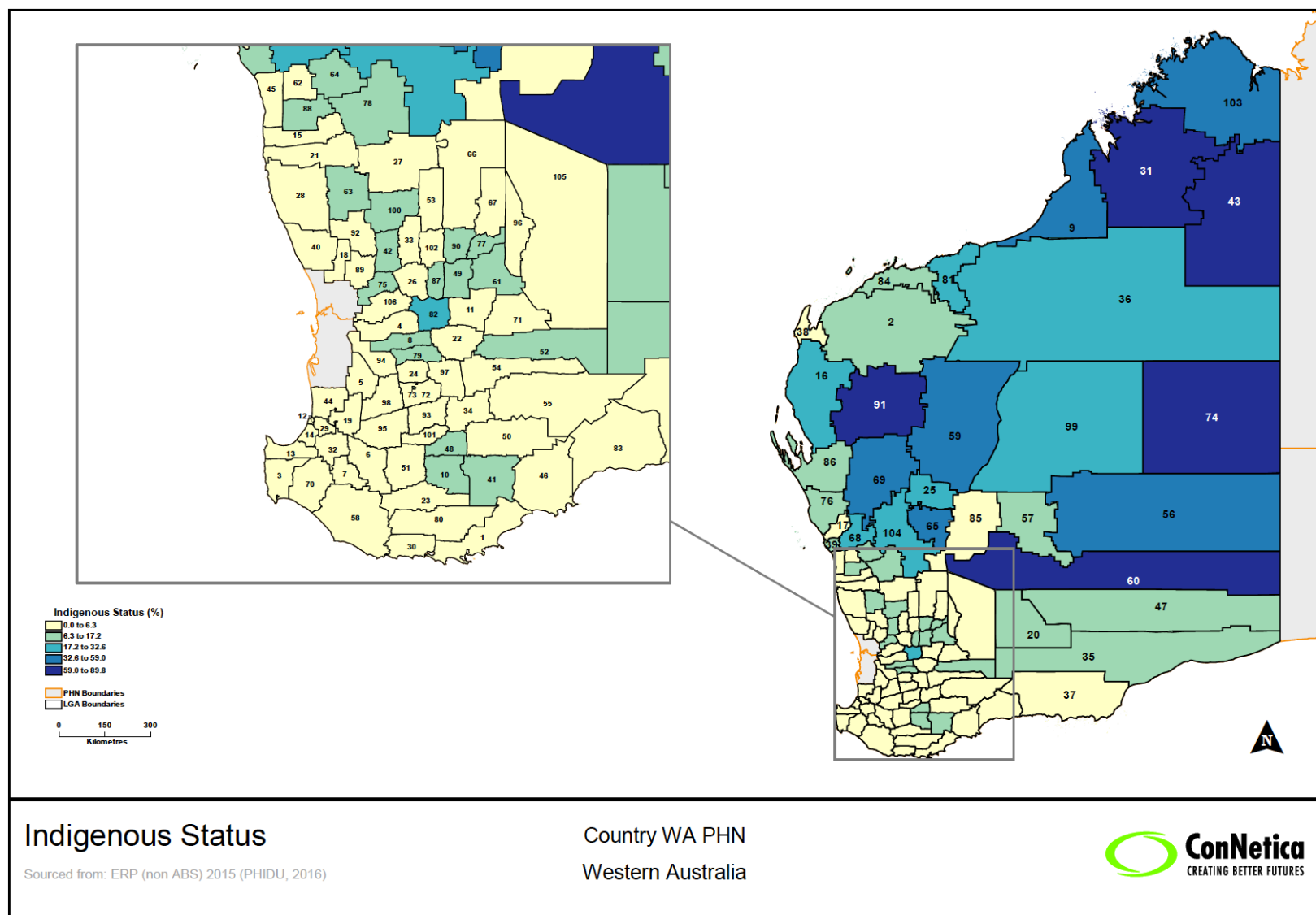
Western Australia

FIGURE 12 INDIGENOUS STATUS BY LGA IN COUNTRY WA PHN

Overseas Born (%)
0.0 to 5.3
5.3 to 10.1
10.1 to 15.8
15.8 to 22.6
22.6 to 30.0

PHN Boundaries
LGA Boundaries

0   150   300
Kilometres

Overseas Born

Sourced from: ABS (2011)

Country WA PHN

Western Australia

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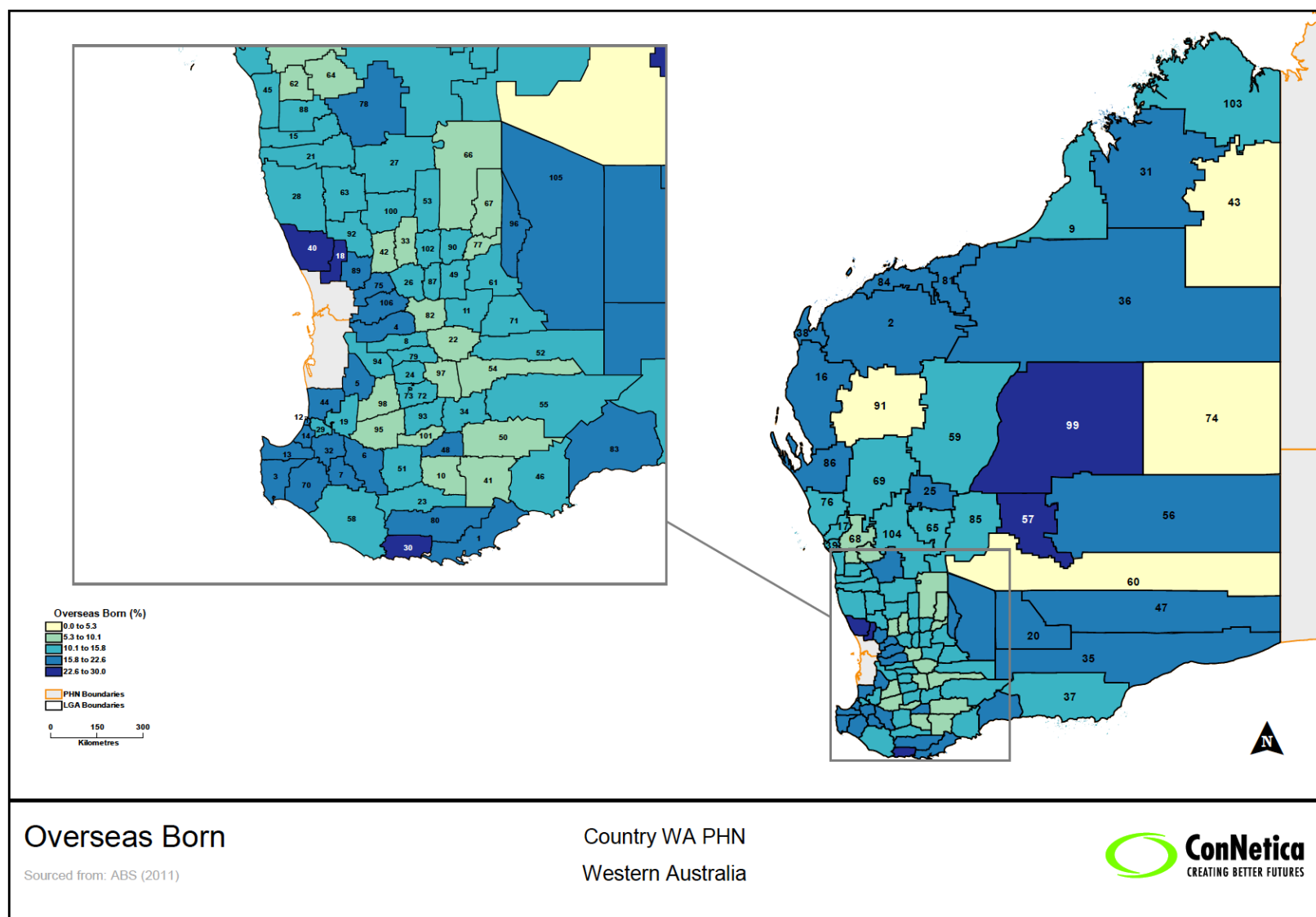
FIGURE 13 PROPORTION OF POPULATION BORN OVERSEAS BY LGA IN COUNTRY WA PHN

INTEGRATED ATLAS OF MENTAL HEALTH AND ALCOHOL AND OTHER DRUGS
- COUNTRY WA

Whilst CWAPHN has a slightly higher proportion of single parent families (21.8%) compared to both Western Australia (19.9%) and Australia (21.3%), less than half of the LGAs (n = 48) have above 19.9% (Figure 14). However, within the Kimberly Health District, all LGAs have significantly higher proportions of single parent families compared to both the state and national figures. By contrast, Victoria Plains, in the Wheatbelt Health District, has one of the lowest LGA rates of single parent families, at only 7.8%.

Needing Assistance

The proportion of the CWAPHN population needing assistance with core activities (mobility, communications and or self-care) is 3.8%, below the Western Australian (4.5%) and Australian (4.9%) averages. For approximately half of the LGAs within the catchment (n = 53) the proportion was also lower than the state and national average. The Pilbara Health District has all four LGAs well below the state average ranging from only 0.7% to 1.9% of the population recorded as needing assistance. Brookton LGA within the Wheatbelt Health District had the highest proportion within the CWAPHN catchment with 9.4% of people needing assistance (Figure 15).

Education

Overall, the CWAPHN population has a significantly higher rate of the population who have left school prior to Year 10 or who did not go at to school at all (ASR 40.2 per 100) compared to both the Western Australian and Australian rates of 32.8 and 34.3 per 100 respectively. In fact, all but two LGAs within the catchment have a higher rates of early school leavers, with Roebourne within the Pilbara Health District (ASR 32.1 per 100) and Augusta-Margaret River (ASR 30.7 per 100) within the South West Health District the only LGAs with lower rates (Figure 16).

Unemployment

The unemployment rate with the CWAPHN catchment (5.6%), as measured in the June quarter 2016, is higher than the Australian rate (5.9%). Across the catchment, the highest unemployment rates were recorded in the Kimberley Health District with Halls Creek LGA reporting a rate over five times that of the state at 36.1% and Derby-West Kimberly LGA with a lower rate at 28.8% (Figure 17). The lowest figures for the CWAPHN catchment were within the Pilbara Health District with Ashburton LGA recording 1.2% unemployment and Roebourne LGA slightly higher with 2.1%.

Income

The Ngaanyatjarraku LGA, in the Goldfields Health District has the highest percentage of individuals with low income, defined as less than $400 per week, with 71.6% of the population identified in this category which is almost double the national rate of 38.9%. Along with low unemployment, the LGAs within the Pilbara Health District also experience the lowest proportions of low income population, with Ashburton LGA recording the lowest proportion with only 14.2% of the population on low income, less than half Australian average (Figure 18).

Disadvantage

Overall, as measured by the Index of Relative Socio-economic Disadvantage (IRSD), the CWAPHN region is more disadvantaged than Western Australia and Australia as a whole. The most disadvantage LGA in the CWAPHN region is Halls Creek in the Kimberley Health District (IRSD - 598) (Figure 19). Only around a quarter of the LGAs within the CWAPHN catchment have less disadvantage compared to the whole of the state with Kent within the Great Southern Health District the least disadvantaged LGA (IRSD - 1067).
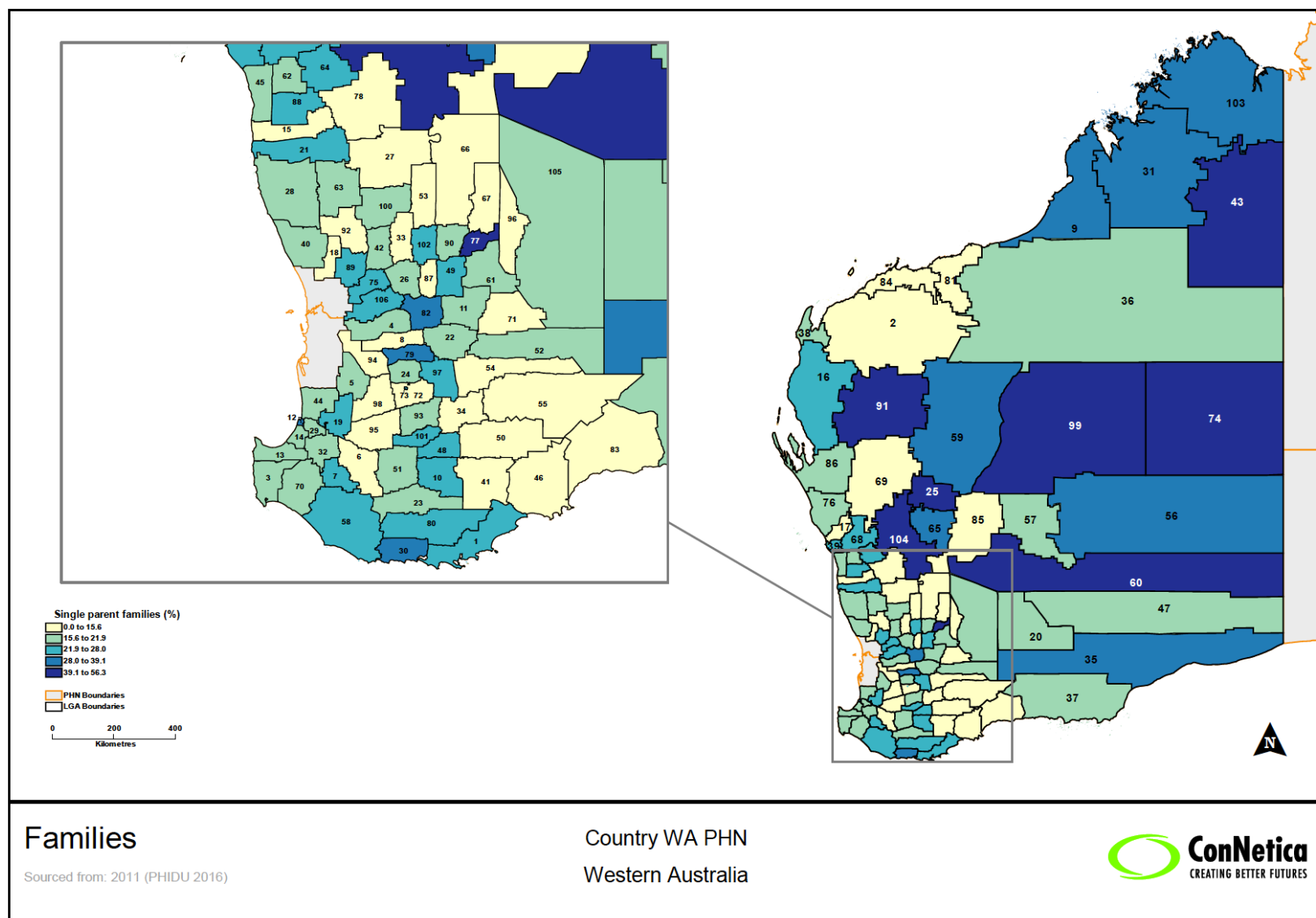
FIGURE 14 PROPORTION OF SINGLE PARENT FAMILIES BY LGA IN COUNTRY WA PHN

Needing Assistance (%)
- 0.0 to 2.8
- 2.8 to 4.3
- 4.3 to 5.7
- 5.7 to 7.2
- 7.2 to 11.3

PHN Boundaries
LGA Boundaries

0   150   300
Kilometres

Needing Assistance

Sourced from: ABS (2011)

Country WA PHN

Western Australia
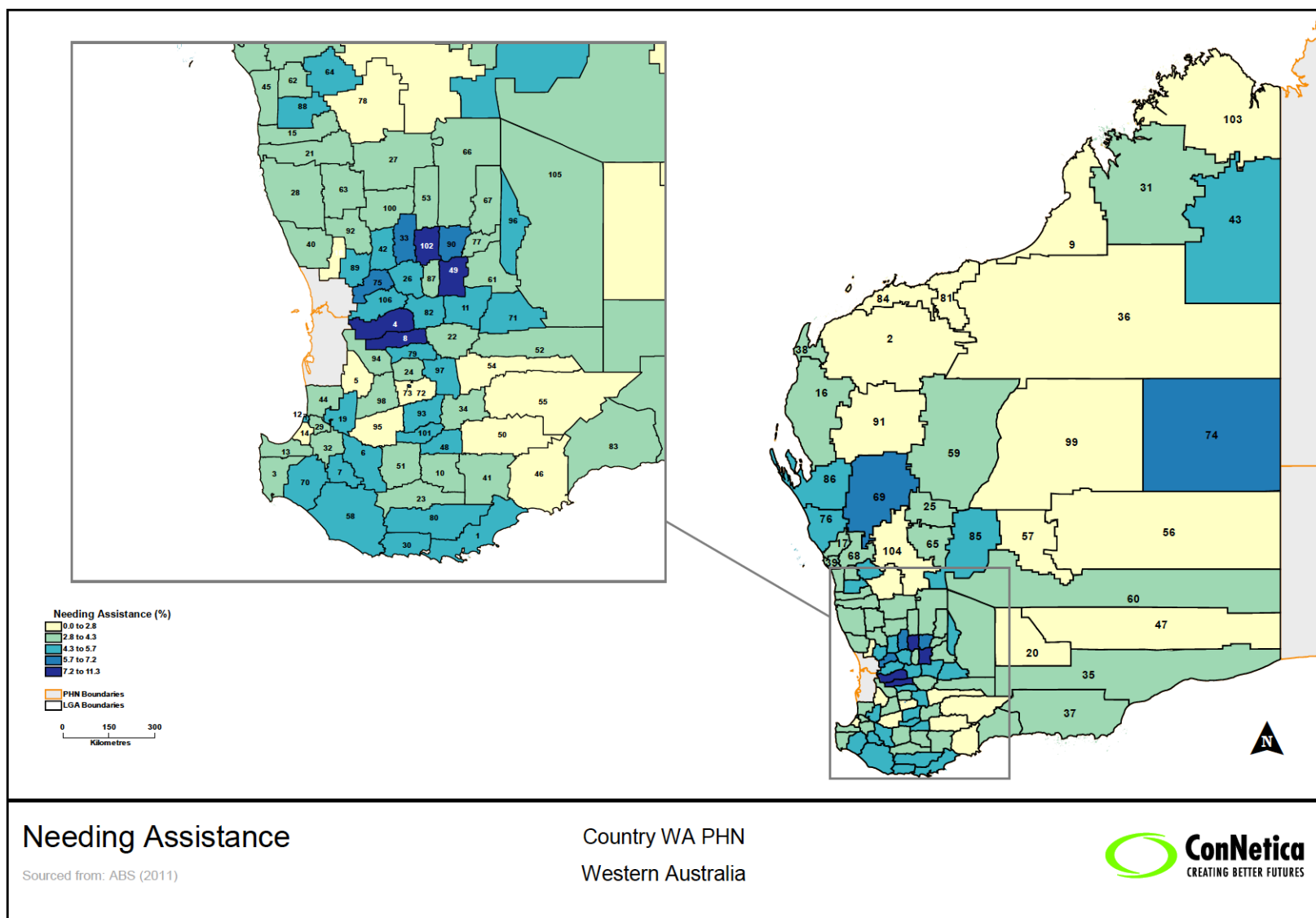
FIGURE 15 PROPORTION OF THOSE NEEDING ASSISTANCE BY LGA IN COUNTRY WA PHN
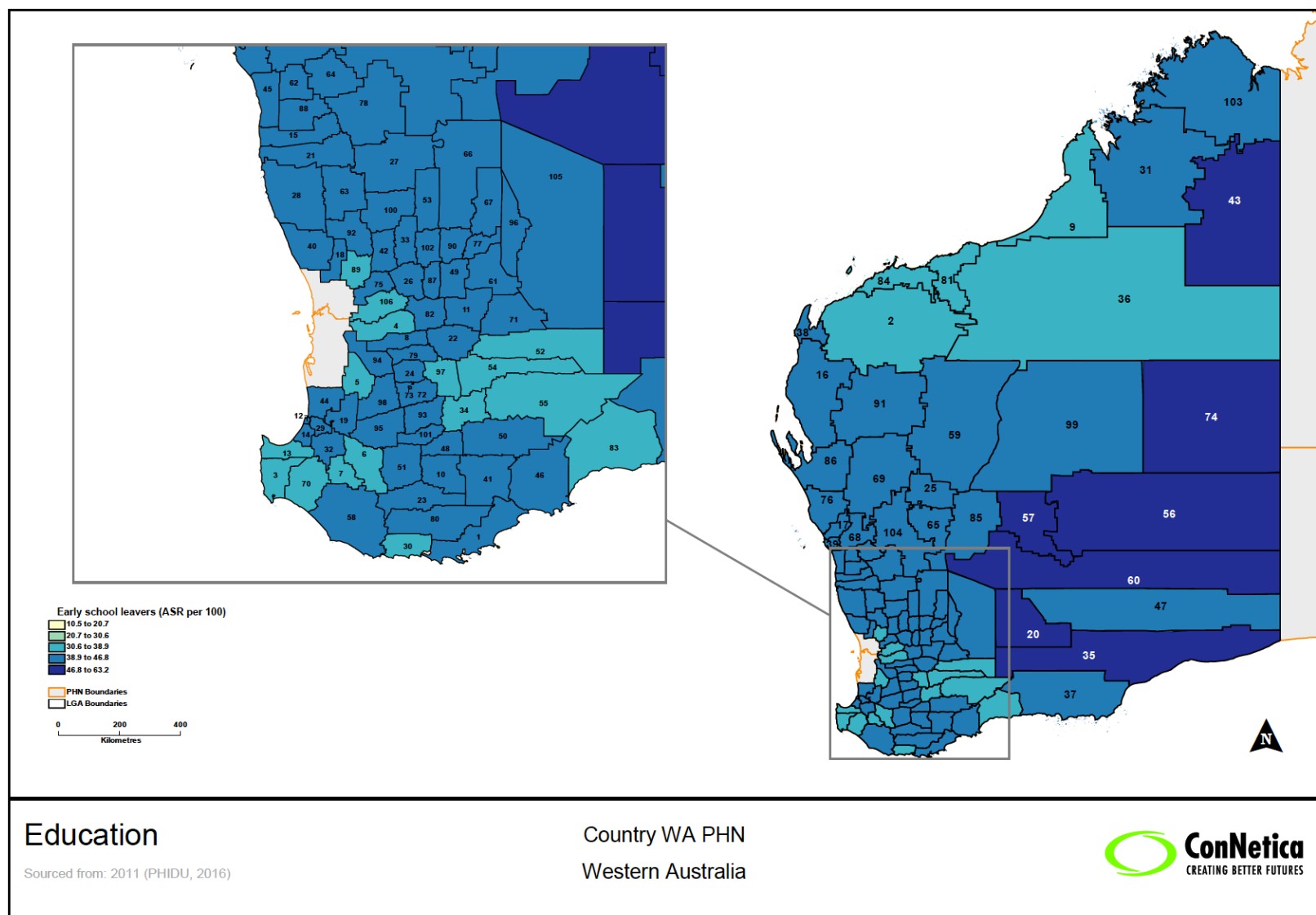
FIGURE 16 PROPORTION OF EARLY SCHOOL LEAVERS BY LGA IN COUNTRY WA PHN

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Education

Country WA PHN

Western Australia

Sourced from: 2011 (PHIDU, 2016)

Early school leavers (ASR per 100)
- 10.5 to 20.7
- 20.7 to 30.6
- 30.6 to 38.9
- 38.9 to 46.8
- 46.8 to 63.2

PHN Boundaries
LGA Boundaries

Unemployment (%)
- 0.7 to 4.6
- 4.6 to 7.2
- 7.2 to 10.7
- 10.7 to 27.2
- 27.2 to 36.1

PHN Boundaries
LGA Boundaries

0   150   300
Kilometres

Unemployment

Sourced from: December Quarter, 2016 (DCE)

Country WA PHN

Western Australia

FIGURE 17 Proportion of Unemployment by LGA in Country WA PHN

Income

Sourced from: ABS (2011)

Country WA PHN

Western Australia
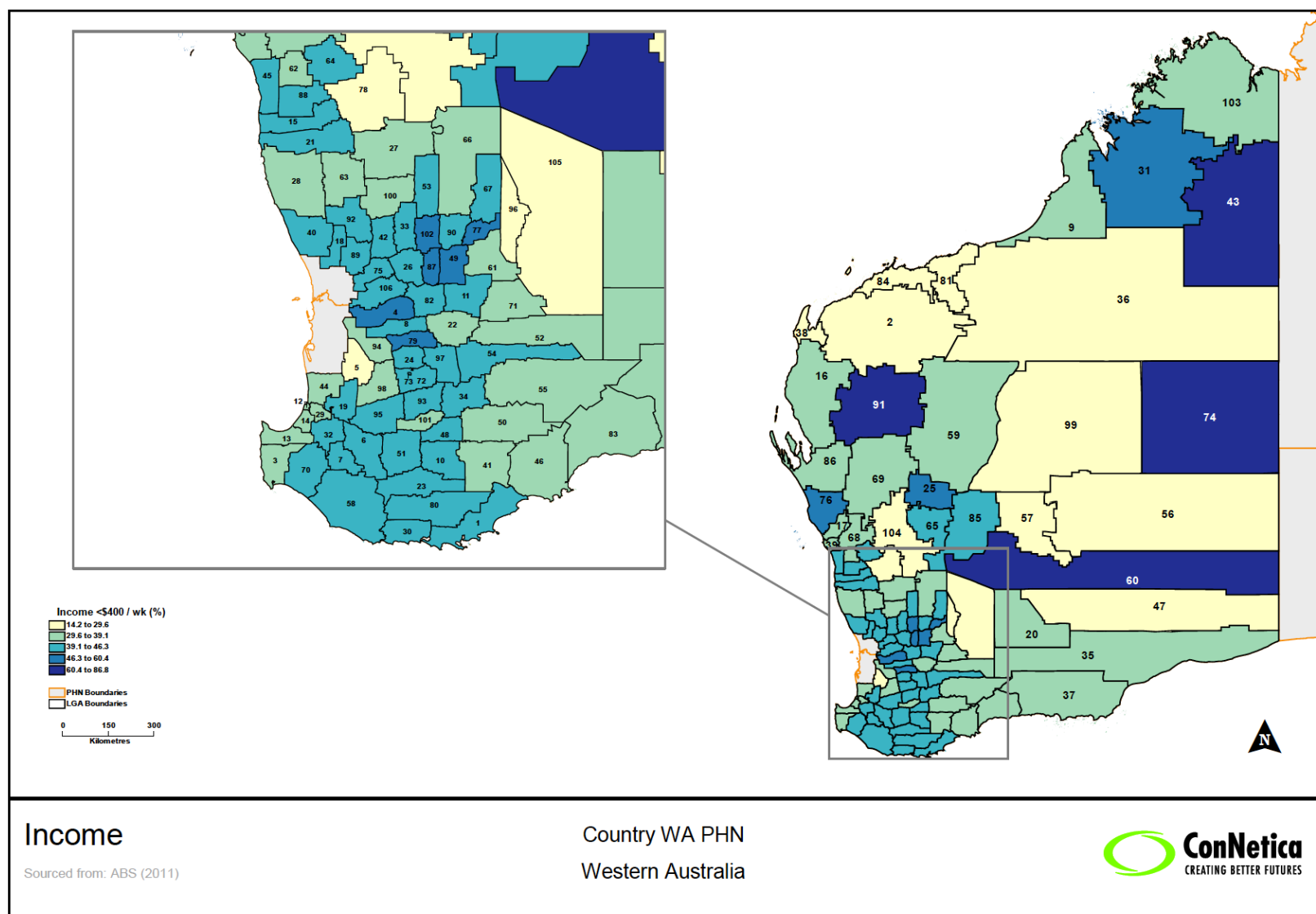
FIGURE 18 PROPORTION OF INCOME BY LGA IN COUNTRY WA PHN
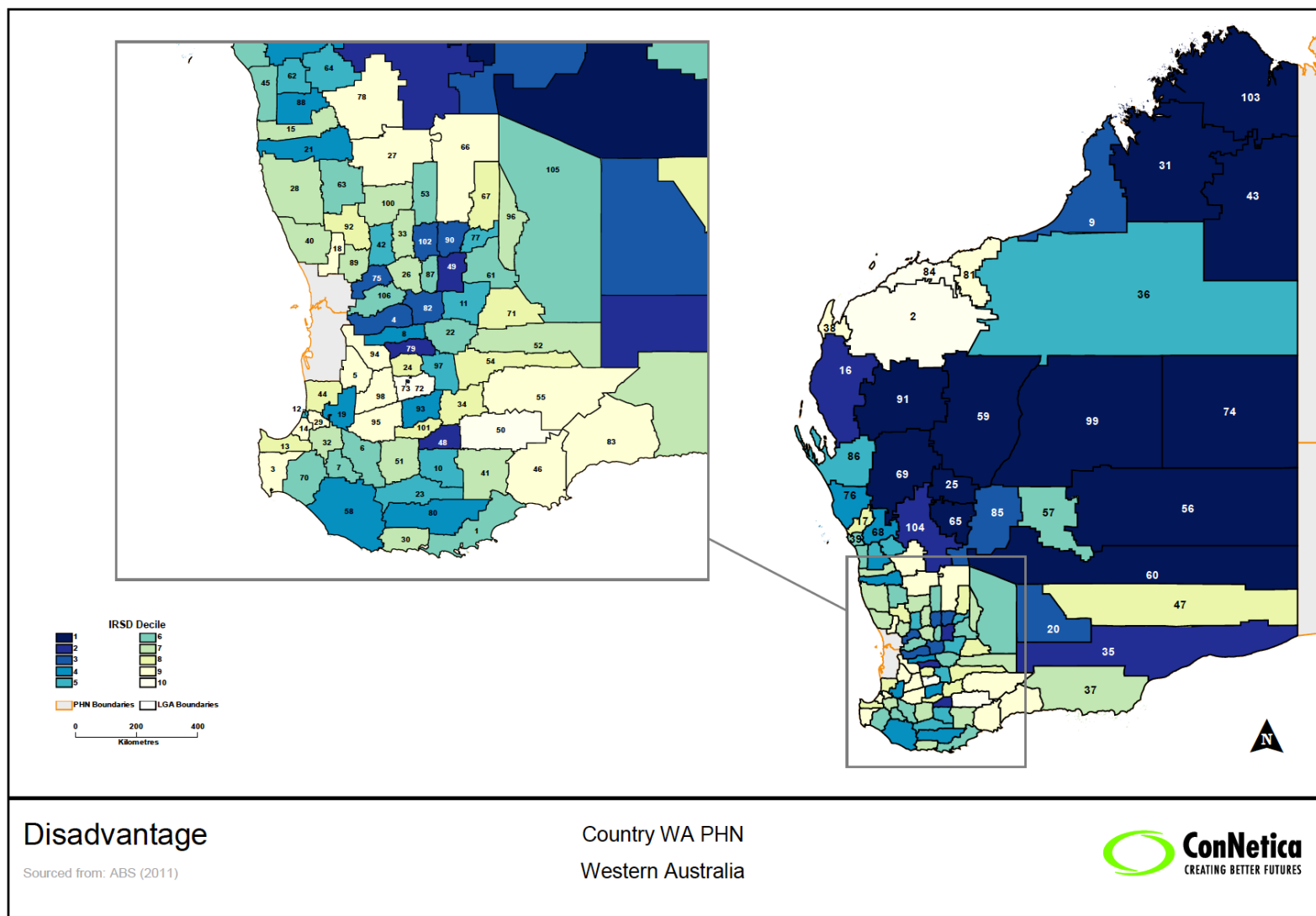
FIGURE 19 Index of Relative Socio-Economic Disadvantage (IRSD) 2011 by LGA in Country WA PHN

Health and Wellbeing

All LGAs within the Great Southern, Wheatbelt, Midwest and Kimberley Health Regions reported higher self-reported health compared to both the Western Australian and Australian averages of 13.7 and 14.6 per 100 respectively. Of the LGAs for which self-reported health data was available, the highest reporting of fair to poor health within the CWAPHN catchment was amongst people in the Collie LGA in the South West Health District, with rates of fair or poor health (17.9 per 100) (Figure 20).

Carnarvon LGA in the Midwest Health District has the highest rate of psychological distress (17.3 per 100) in the CWAPHN and this was higher than both the Western Australian and Australian rates of 10.5 and 10.8 respectively (Figure 21).

Mortality

With a suicide rate of 81.5 per 100,000, Halls Creeks LGA, in the Kimberley Health District is the highest for the CWAPHN at a rate in excess of seven times that of the Australian average (11.2 per 100,000) (Figure 22). In fact, all LGAs within The Kimberley Health District have rates that are more than double the state and national rates. Comparatively, almost all LGAs in the CWAPHN catchment report road toll death rates which are less than the suicide rates.

Suicide data from the WA Regional profiles compiled by WACHS indicates that between 2007-2011 the youth suicide rates in the Kimberley (106 per 100,000) were 8 times higher amongst males and 6 times higher amongst females, compared with the State rates (WACHS, 2015). These suicide statistics can be explained, in part, by the high proportion of Aboriginal people living in the Kimberley and the high rates of suicide amongst Aboriginal people.

Fair/poor Health (ASR per 100)
- 7.4 to 11.2
- 11.2 to 13.7
- 13.7 to 15.5
- 15.5 to 17.4
- 17.4 to 20.0
- PHN Boundaries
- LGA Boundaries

Health

Sourced from: 2011-12 (PHIDU, 2016)

Country WA PHN

Western Australia
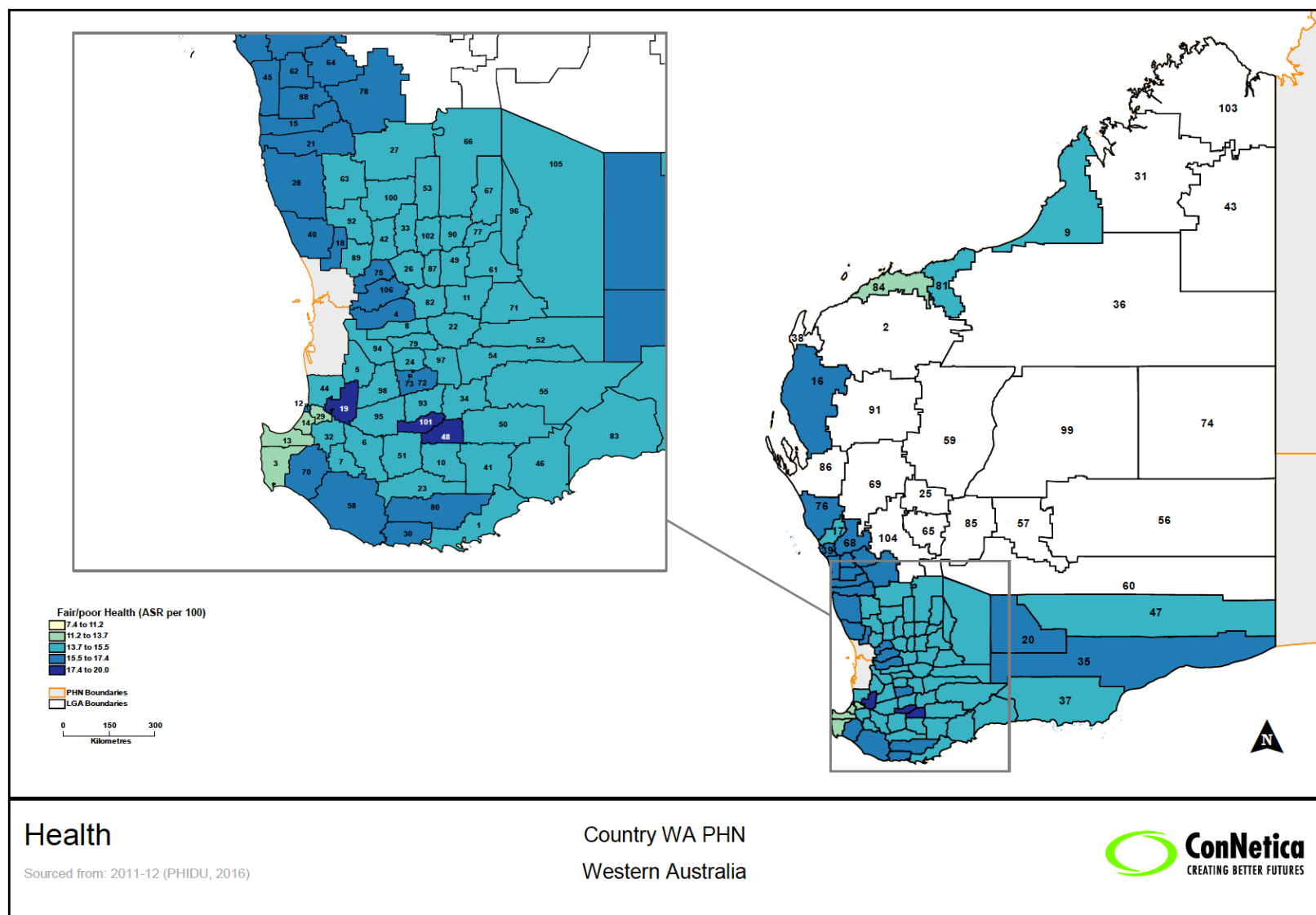
FIGURE 20 FAIR/POOR HEALTH BY LGA IN COUNTRY WA PHN

Psychological Distress (ASR per 100)
- 7.1 to 8.8
- 8.8 to 9.9
- 9.9 to 10.9
- 10.9 to 12.2
- 12.2 to 14.4

PHN Boundaries
LGA Boundaries

0   200   400
Kilometres

Psychological Distress

Sourced from: 2011-12 (PHIDU, 2016)

Country WA PHN

Western Australia

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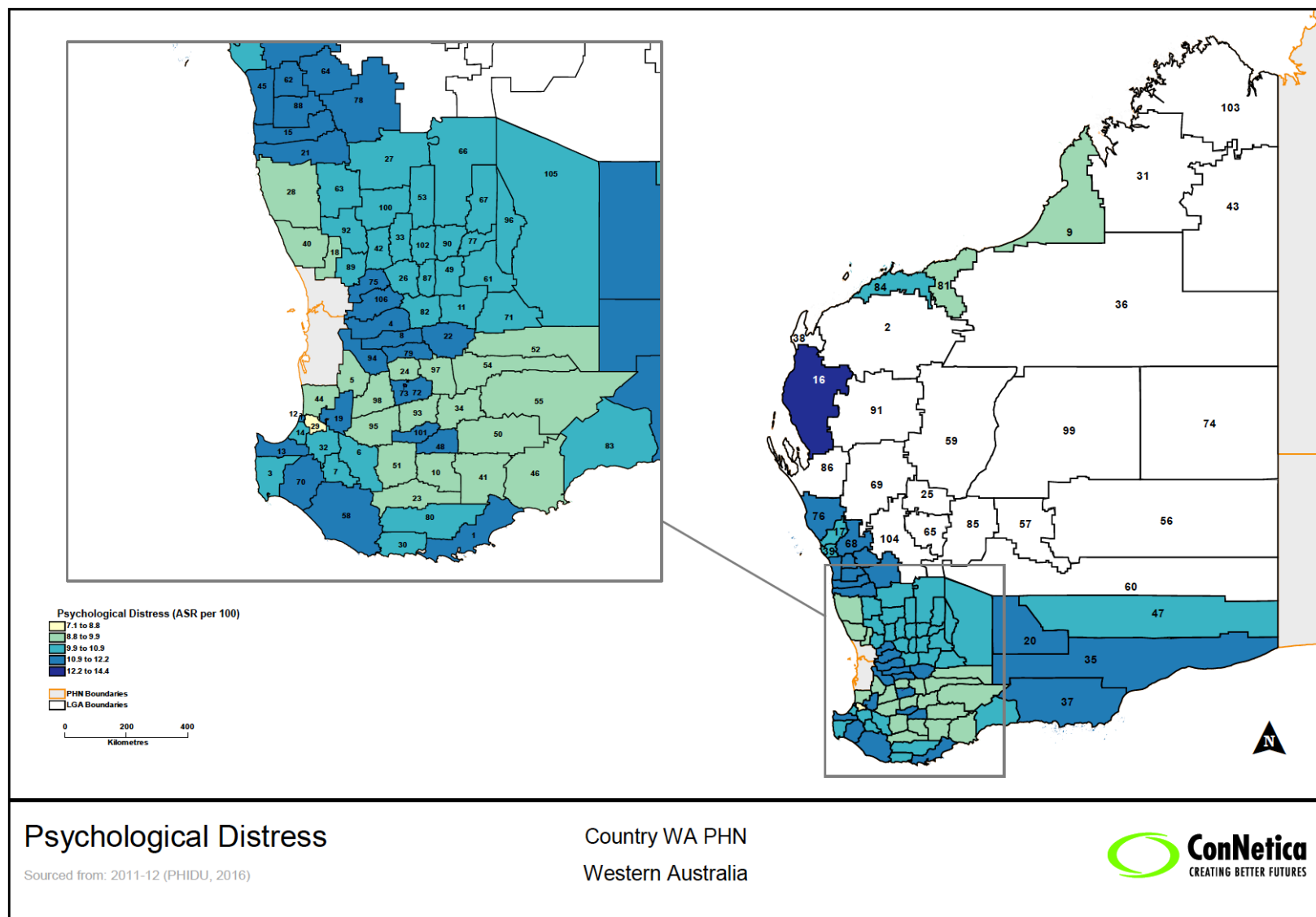
FIGURE 21 PSYCHOLOGICAL DISTRESS BY LGA IN COUNTRY WA PHN
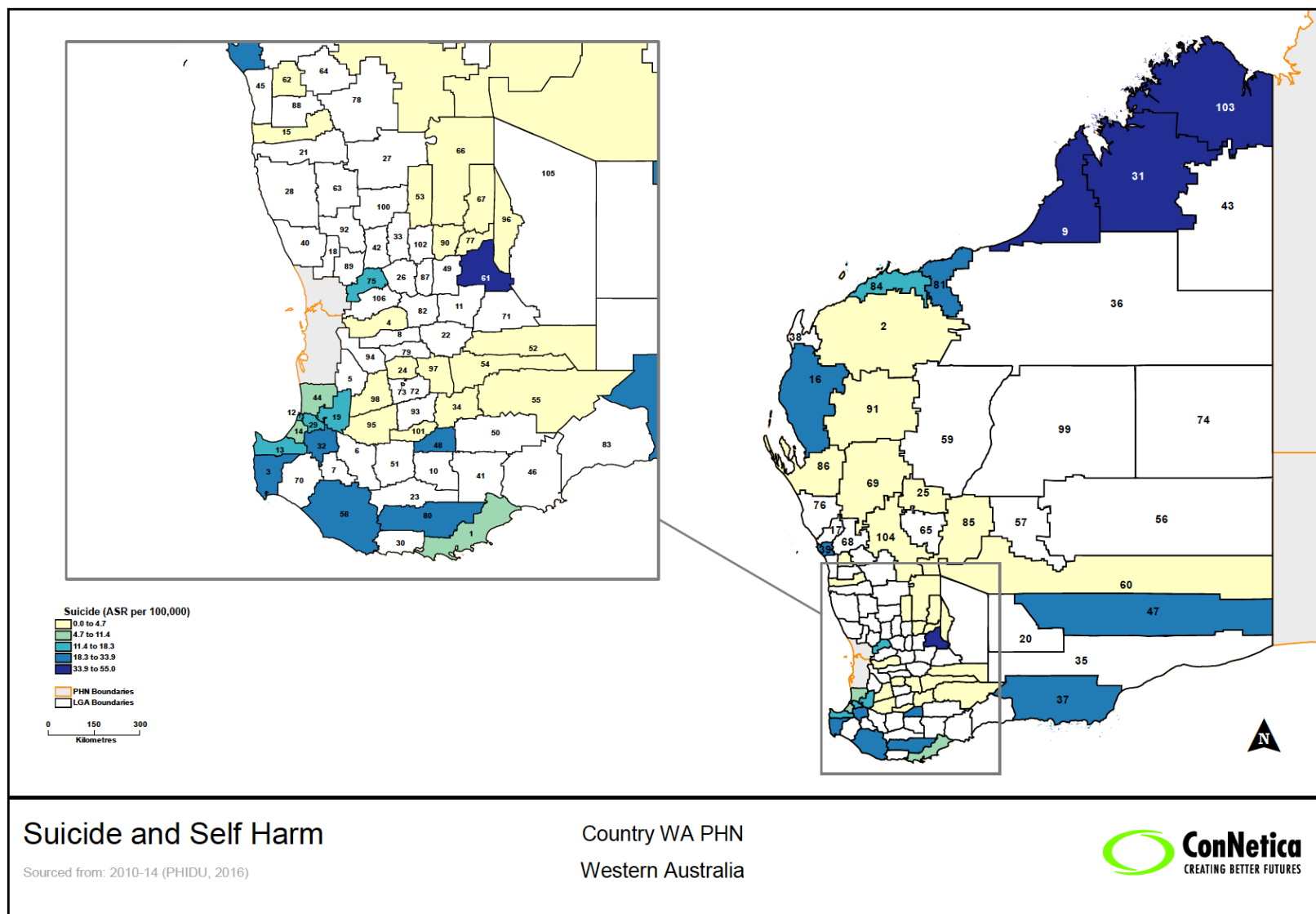
FIGURE 22 SUICIDE BY LGA IN COUNTRY WA PHN

Suicide and Self Harm

Sourced from: 2010-14 (PHIDU, 2016)

Country WA PHN

Western Australia

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4. CWAPHN – Service Overview

4.1 Mental Health Services

In this section of the Atlas an overview of the type, availability and location of service delivery teams (or BSIC) delivering mental health care across the CWAPHN region is provided. This information is then broken down and presented in seven regional sections.

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. This exclusion is based on the atlas methodology but does not negate that mental health issues are often present among clients accessing these other types of services. This is particularly so in regional areas, in smaller town and communities, where there are typically fewer mental health specific services. Consequently, other 'on the ground' service providers may often be working with clients who have mental health issues implicated in their reasons for presentation.

A total of 213 service delivery teams or BSIC that deliver 259 Main Types of Mental Health Care were identified across Country WA (Figure 23). Of these, 75% are services for adults, 17% are for children and adolescents and 8% are for older adults.
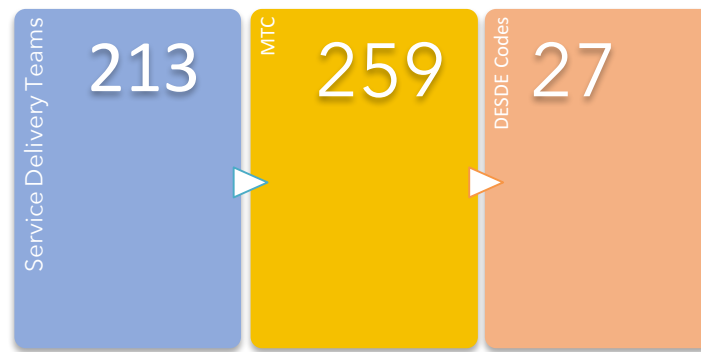
FIGURE 23 SUMMARY OF SERVICES PROVIDING CARE FOR MENTAL HEALTH

150 of the 259 MTC (58%) are provided by Health Services and 109 are provided by others such as NGOs and a small number of private providers (providing free services) (Table 10).

TABLE 10 MAIN TYPES OF MENTAL HEALTH CARE IN COUNTRY WA

Population Group	Provider Type	R	D	O	A	I	S	TOTAL
Child & Adolescent	Health	0	0	26	0	0	0	26
	NGO/Other	0	0	17	0	0	0	17
	Sub-total	**0**	**0**	**43**	**0**	**0**	**0**	**43**
Adult	Health	8	1	94	0	0	0	103
	NGO/Other	5	3	74	6	3	1	92
	Sub-total	**13**	**4**	**168**	**6**	**3**	**1**	**195**
Older Adult	Health	0	0	21	0	0	0	21
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**21**	**0**	**0**	**0**	**21**
Total	Health	13	4	141	6	3	1	150
	NGO/Other	0	0	91	0	0	0	109
	Total	**13**	**4**	**232**	**6**	**3**	**1**	**259**
		5%	**2%**	**90%**	**2%**	**1%**	**0%**	**100%**

R - Residential; **D** – Day Care; **O** – Outpatient; **A** – Accessibility; **I** – Information and Guidance; **S** – Self-help and voluntary

By far the largest number of teams are focused on delivering Outpatient services (90%), followed by Residential services (5%) (Figure 24). In terms of team sizes, these teams average 3.6 Full Time Equivalent (FTE) staff each.

- Residential
- Day Care
- Outpatient
- Acccessibility
- Information & Guidance
- Self-help/Voluntary
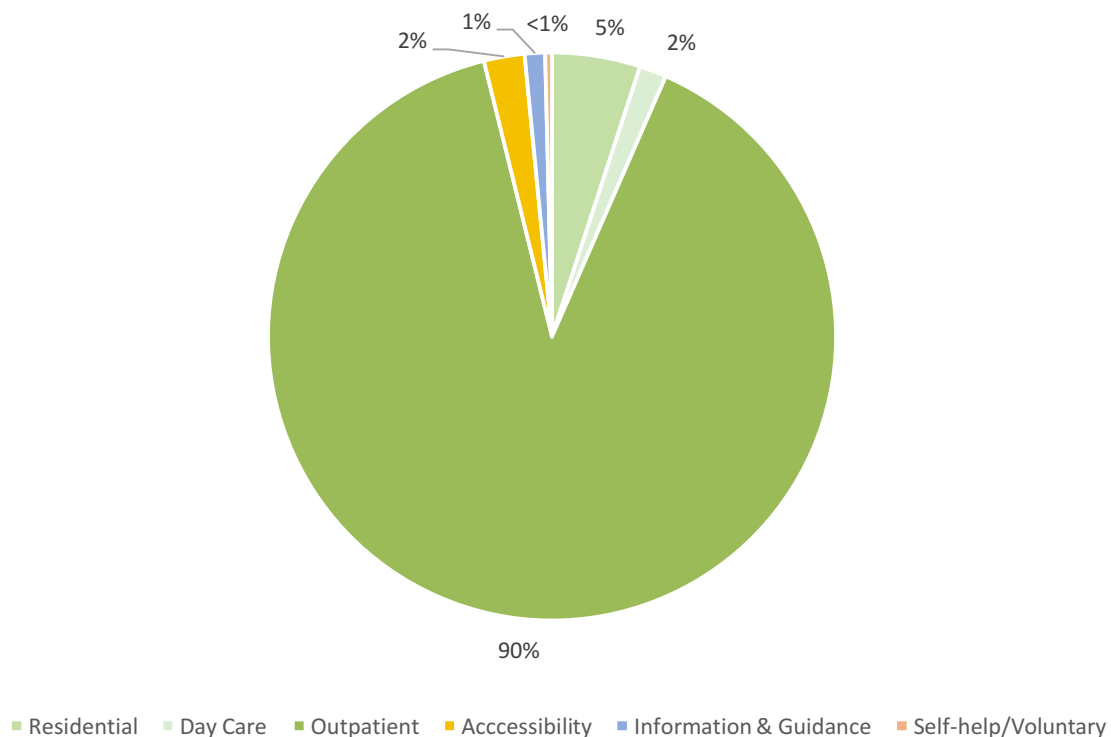
FIGURE 24 MENTAL HEALTH MTC BY SERVICE TYPE

The unique nature of regional services presented some interesting challenges when mapping and classifying services. Services provided by the Health sector, particularly through WACHS, are highly integrated and flexible in nature. As such, describing them as 'Acute' or 'Non-Acute' and assigning a level of intensity to their service is subjective. By nature of their location and remoteness, many of these services necessarily provide both Acute and Non-Acute care. Services have generally been given two DESDE codes to reflect this, rather than allocating the 'a' qualifier to a Non-Acute care code as might normally be done.

The intensity of care also varies across the spectrum from low to high intensity, but for the purposes of this exercise a 'medium' intensity has been applied where stakeholders indicated a range of intensity was normal for their locations. Codes allocated to these services were reviewed by WACHS and key stakeholders, including an expert reference group. In some cases, the choice of code shifted several times during the lengthy review process, indicating subjectivity and variability in how different people perceive the same service. The final codes assigned to each service are considered the 'best fit' for the services concerned.

Another important consideration when viewing this information is the role of country hospitals, Aboriginal Medical Services (AMS) and generalist health centres providing services across regional and remote communities, and many are providing support for mental health issues. Where it was identified that an AMS provides a specialist mental health service this was included in the mapping. It is understood that many emergency departments are the first and frequently the only point of presentation for people with mental ill-health. Hospital and other services have only been mapped if they could be identified as dedicated specialised mental health resources such as Acute Inpatient mental health beds or specialist consultation and liaison positions. It was beyond the scope of this project to interview each

of the many regional hospitals but it is a recommendation of this project that a separate piece of work be undertaken to delve deeper into the Country WA regions to attain a deeper understanding of the complexity of delivering services in these areas.

In order to place data relating to the MTC into context, comparisons can be made between each service type and both the total number of MTC per region as well as the rate per 100,000 adult population (Table 11).

TABLE 11 TOTAL RESIDENTIAL, DAY AND OUTPATIENT MTC COMPARISONS - ADULTS

	Residential		Day Care		Outpatients	
Region	**n**	**MTC /100,000**	**n**	**MTC /100,000**	**n**	**MTC /100,000**
Goldfields	2	5.10	2	5.10	20	50.96
Great Southern	3	9.00	1	3.00	15	44.98
Kimberley	2	7.76	0	0.00	36	139.63
Midwest	2	4.90	0	0.00	24	58.84
Pilbara	0	0.00	0	0.00	20	38.90
South West	4	3.95	1	.99	25	24.71
Wheatbelt	0	0.00	0	0.00	28	62.63
PNPHN	**43**	**6.50**	**0**	**0.00**	**123**	**18.58**
PSPHN	**30**	**5.05**	**0**	**0.00**	**89**	**14.97**

It is noted that there is a larger volume of Outpatient teams servicing country regions verses the metropolitan areas of Western Australia. In particular, there is a significant volume of teams servicing the Kimberley region. However, it is important to keep in mind the average team sizes when comparing these figures.

4.2   Private Hospitals

Abbotsford Private Hospital runs the Blackwood River Clinic, a specialist mental health service that runs Day Therapy programs in the South West region. The services this clinic provides that are free are included in the South West of the Atlas.

4.3   Helplines

Many of the country mental health services are run only during business hours. After hours people in the more remote areas dealing with an acute mental health crisis or emergency have limited options. They can present to the emergency department of their local health service or hospital (which may not have mental health specific beds), they can attempt to make contact with their local physician or they can call RuralLink. They may also end up relying on emergency services such as police or ambulance services**.**

RuralLink is the specialist after hours mental health telephone service for people in rural and remote communities across WA. It provides access, via telephone, to experienced mental health staff and provides information, advice, assessment and referrals to mental health services.

Data from a 2011 review of RuralLink show that it takes approximately 320 calls each month from rural area (Dept. of Health WA, 2011). Approximately 15% of calls assessed required an immediate or rapid response (within 2 hours), 45% did not require any response.

The review highlighted that the peak time for calls to this line is between 3pm and 10 pm. It found that the main avenue for obtaining an emergency response after hours is through emergency departments, and that is also where police generally take people. The review commented further that there was support from regional hospitals for specialist mental health input into the emergency departments both during and after hours. It is unclear to what extent there was an extension to the availability of mental health consultation/liaison into regional EDs as a result of the recommendations of the report.

4.4 Local Drug Action Groups

The remit of Local Drug Action Groups (LDAG) is around harm minimisation, information and addressing local drug and alcohol issues from a community and prevention perspective. Prevention services are generally excluded from the Atlas on the basis that they are not providing direct care or treatment and are more broadly targeted at the general population, especially parents and families and young people. These services receive funding from the WA Department of Health and are coordinated by the Mental Health Commission. They play an important role in the communities in which they work, using a grass roots approach to encourage community activation. There are over 800 volunteer community members involved with LDAG across WA (Local Drug Action Groups, 2017).

4.5 Aboriginal Community Patrols

Aboriginal Community Patrols work to empower the communities in which they operate and reduce crime rates and alcohol-related harm. The success of these patrols is determined by how well they involve the local community and service networks in their work and on the strength of their collaboration with police.

Due to the nature of local involvement, these patrols vary from region to region. Their functions include:

- Safe transportation for those at risk of causing or being the victims of harm,
- Dispute resolution and mediation,
- Interventions to prevent self-harm, family violence, homelessness and substance,
- Misuse, and
- Diversion from contact with the criminal justice system.

Community patrols cooperate closely with other community-based programs and initiatives as well as the local police unit (AIHW, 2013). Those community patrols that were identified during the development of this Atlas are included in the AOD tables for each region. It is acknowledged that there were some patrols that did not provide information for inclusion in the Atlas. An overview table of Patrols included this Atlas is in Appendix C.

4.6 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 seniors, who are more likely to be in contact with their General Practitioner than with other health or community services.

For the purpose of this Atlas, mental health nurses were mapped to the regions where they were located and were classified as a Non-Acute Non-Mobile Outpatient service.

Data extracted from the MHNIP data tables (Commonwealth of Australia, 2016) indicate that the number of patients as well as the number of services provided under the MHNIP in the CWAPHN catchment declined during the period from 2012/13 to 2014/15 (Figure 25).
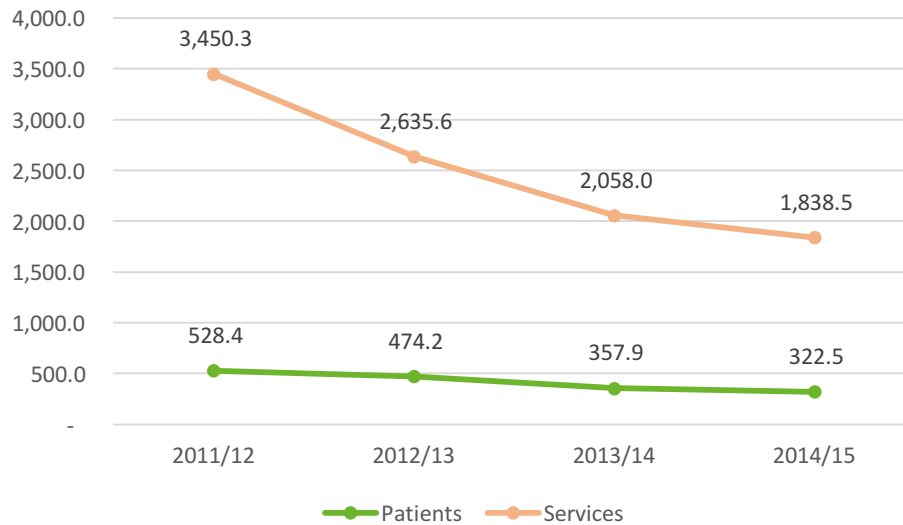
FIGURE 25 MHNIP Clients and Services, CWAPHN catchment 2011/12 – 2014/15

4.7 Medical Benefits or Medicare Funded Services

Within the CWAPHN catchment, the highest number of services were provided by General Practitioners (39,128 or 40.1%) (Table 12). This is not surprising given the comparative lack in regional WA of health professionals in allied health, psychology and psychiatry. There were many examples given in regional workshops and interviews of people having to travel to Perth or long distances to major regional centres to access services other than a GP.

TABLE 12 CWAPHN MBS UTILISATION BY PROVIDER TYPE 2014-15

Service Type	Gender	Patients (n)	Services (n)	Benefits Paid	Fees Charged
Psychiatrists	Male	3,112	10,425	$1,370,969	$2,221,119
	Female	2,130	11,950	$1,592,103	$2,399,125
	Total	**5,242**	**22,375**	**$2,963,072**	**$4,620,244**
General Practitioners	Male	9,455	14,545	$1,227,519	$1,278,961
	Female	15,746	24,583	$2,080,332	$2,187,946
	Total	**25,201**	**39,128**	**$3,307,851**	**$3,466,907**
Clinical Psychologists	Male	1,530	6,139	$781,080	$993,332
	Female	2,559	10,548	$1,349,305	$1,710,097
	Total	**4,090**	**16,687**	**$2,130,385**	**$2,703,429**
Other Allied Health Providers	Male	2,778	10,759	$974,803	$1,223,175
	Female	4,743	18,333	$1,604,777	$2,034,490
	Total	**7,521**	**29,092**	**$2,579,580**	**$3,257,665**
TOTAL		**29,440**	**29,440**	**97,522**	**$9,699,402**

4.8   Access to Allied Psychological Services (ATAPS)

Access to Allied Psychological Services (ATAPS) is provided under the Better Access to Services strategy to enable patients to access assistance for short-term intervention. As such it is targeted at support and treatment for people who have mild to moderate mental illness. It should be noted that the Commonwealth has discontinued ATAPS as well as the Mental Health Services to Rural and Remote Areas (MHSRRA) programs. A total of 10,271 clients accessed the ATAPS program in the CWAPHN catchment over the period 2011/12 – 2014/15 (Figure 26). The number of clients increasing over this time, as did the number of sessions.
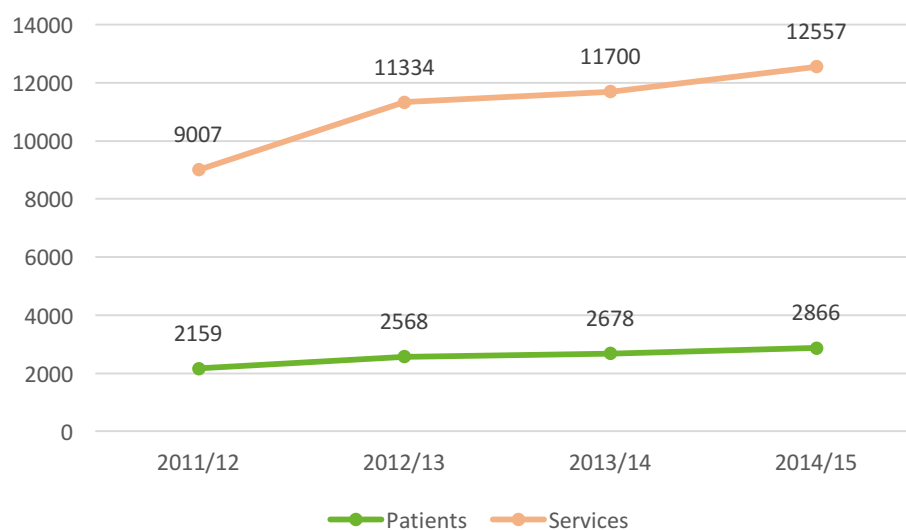
FIGURE 26 ATAPS MDS TOTAL PATIENTS AND SESSIONS 2011/12 – 2014/15

The profile of ATAPS clients in 2014/15 demonstrates that the largest cohort accessing ATAPS services were those aged 25-34 years (19.4%), followed by people aged 35-44 years (16.8%) (Table 13). This suggests either the need for, or update of, ATAPS services in the CWAPHN catchment is highest amongst adults.

TABLE 13 DISTRIBUTION OF ATAPS PATIENTS BY AGE GROUP

Age Group (years)	Patients	
	Number	Percent
0-4	25	0.9
5-11	389	13.6
12-17	309	10.8
18-24	308	10.7
25-34	555	19.4
35-44	481	16.8
45-54	399	13.9
55-64	270	9.4
65-74	95	3.3
75-84	34	1.2
85+	1	0.0
Total	**2,866**	**100**

Sourced from: Department of Health (2016)

4.9 Alcohol and Other Drugs Services

There was a total of 79 service delivery teams or BSIC identified that deliver 87 MTC of AOD care in CWAPHN (Figure 27).
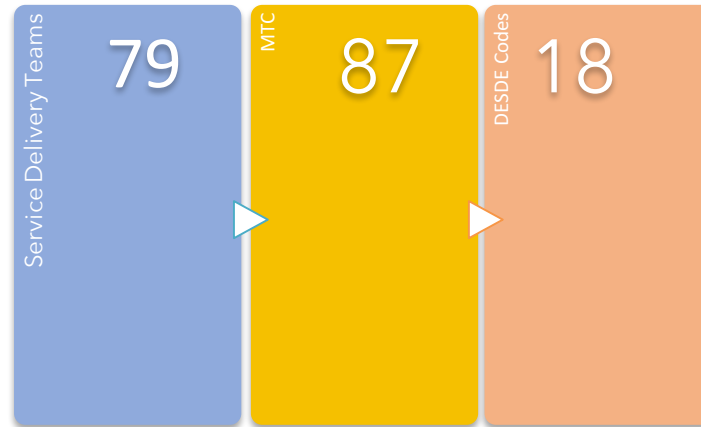
FIGURE 27 Summary of Services Providing Care for AOD

Of the 87 MTC, 96.6% are services provided for adults and 3.4% are for children and adolescents. Whilst there are generalist services included within these adult figures, there were no specific teams identified as delivering AOD services exclusively to the older population. Of the 80 service delivery teams, 15 are provided by Health Services and 72 are provided by others such as NGOs and a small number of private providers (providing free services)

The breakdown between the different classifications of MTC is shown in Table 14 and Figure 28 below. By far the largest number of teams are focused on delivering Outpatient services (67%), followed by Residential services (29%). In terms of team sizes, these teams average 4.94 FTE each.

TABLE 14 Number of Main Types of AOD Care in CWAPHN

Population Group	Service Type	R	D	O	A	I	S	TOTAL
Child & Adolescent	Health	0	0	0	0	0	0	0
	NGO/Other	0	0	1	0	2	0	3
	Sub-total	**0**	**0**	**1**	**0**	**2**	**0**	**3**
Adult	Health	0	0	15	0	0	0	15
	NGO/Other	25	1	42	1	0	0	69
	Sub-total	**25**	**1**	**57**	**1**	**0**	**0**	**84**
Older Adult	Health	0	0	0	0	0	0	0
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Health	0	0	15	0	0	0	15
	NGO	25	1	43	1	2	0	72
TOTAL		25	1	58	1	2	0	87
		29%	1%	67%	1%	2%	0%	100%

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

Residential Day Care Outpatient Accessibility Information Self-Help & Voluntary
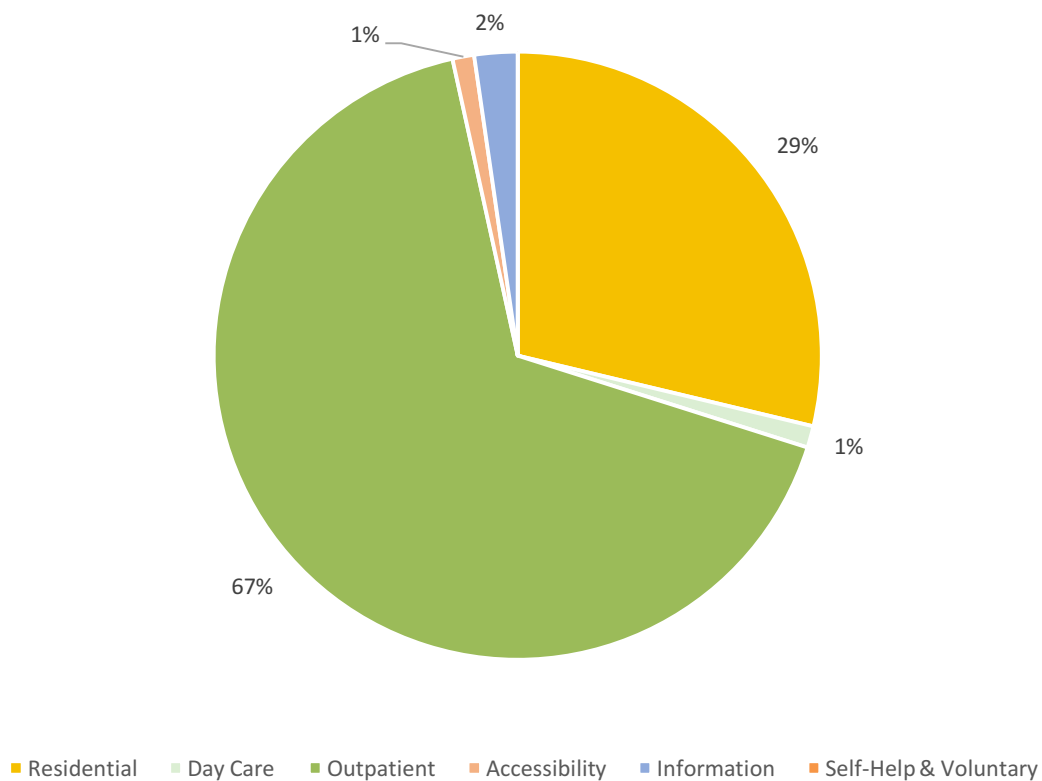
FIGURE 28 AOD Services by MTC Service Type

4.10   Workforce

Introduction

During the data gathering process for this Atlas stakeholders were asked to report the full time equivalent (FTE) staffing levels for each service delivery team (BSIC).

FTE data was sometimes not able to be provided, and at times what was provided was more an estimation or lacked specificity. Sometimes FTE was provided for a group of teams instead of for each team. As such, the data presented here should not be relied upon but rather used as an approximation of the workforce characteristics. Data was collected for 109 of the 213 Mental Health teams (51%) and for 38 of the 79 AOD teams (48%) identified in this project.

For those services that were able to provide FTE data, Mental Health service delivery teams averaged 5.24 FTE and AOD service delivery teams averaged 4.51 FTE across Country WA.

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; extra small (<1 FTE), small (1-5 FTE), medium (6-20 FTE) and large (>20 FTE). The majority of mental health teams across Country WA were classified as extra small or small, whilst most AOD teams were classified as small in size (Table 15).

TABLE 15 TEAM SIZES COUNTRY WA

Teams	Not Stated	Extra Small (<1 FTE)	Small (1-5 FTE)	Medium (6-20 FTE)	Large (>20FTE)	Total
Mental Health	104	38	46	20	5	213
AOD Teams	41	5	25	7	1	79

5. Goldfields Region

The Goldfields region is the largest of the seven regions in country WA spanning close to a third of WA's land mass. The region has the Kalgoorlie-Boulder LGA as the regional centre, coupled with the Esperance LGA of the south coast.

5.1 Population Demographics

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 ratio and ageing index. The diversity of the population is examined utilising the indicators of Indigenous status and proportion of those born overseas. Table 16 below presents key population demographics for the Goldfields region, disaggregated by LGA.

Excluding Esperance, every LGA within the Goldfields region has a lower ageing index compared with the country WA total (64.0) with Leonora the lowest at 24.6 (Table 16). The Menzies and Ngaanyatjarraku LGAs have considerably higher rates of Indigenous Status (71.6% and 87.0% respectively) when compared with the national average of 3.06%.

TABLE 16 KEY POPULATION DEMOGRAPHICS FOR GOLDFIELDS HEALTH DISTRICT BY LGA

LGA	Area[*] (sq. km)	Total Population[†]	Density Ratio	Dependency Ratio	Ageing index	Indigenous Status n (%)[§]	Overseas Born (%)[¶]
Coolgardie	30353.9	4,112	0.1	0.43	30.0	581 (13.4)	20.8
Dundas	92587.2	1,127	0.0	0.44	74.7	199 (16.7)	20.6
Esperance	45038.8	14,478	0.3	0.58	72.8	913 (6.1)	13.1
Kalgoorlie / Boulder	95151.5	33,062	0.4	0.40	28.6	3,423 (10.4)	21.9
Laverton	179892.2	1,216	0.0	0.19	65.6	396 (32.6)	19.6
Leonora	31893.2	2,476	0.1	0.17	24.6	273 (11.4)	23.6
Menzies	124577.2	378	0.0	0.39	81.4	296 (71.6)	3.1
Ngaanyatjarraku	160378.1	1,420	0.0	0.37	23.5	1,402 (87.0)	0.0
Country WA	**2.5 million**	**546,206**	**0.22**	**0.50**	**64.0**	**57,126 (10.3)**	**15.6**
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

5.2 Social Determinants of Health

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

Unemployment is lowest in Esperance and Kalgoorlie-Boulder (4.6%) and highest in Laverton, Leonora, Menzies and Ngaanyatjarraku at 16.7% (Table 17). These LGAs, excluding Leonora, also experience the greatest disadvantage in the region.

TABLE 17 Socioeconomic Factors for the Goldfields region by LGA

LGA	Single parent families (%)*	Needing Assistance (%)*	Early school leavers* (ASR per 100)	Un employment (%)‡	Income <$400 / wk (%)†	IRSD score§
Coolgardie	21.0 ⇑	2.5 ⇓	47.1 ⇑	6.9 ⇑	33.9 ⇓	3 (948) ⇓
Dundas	37.1 ⇑	4.2 ⇓	47.1 ⇑	6.9 ⇑	32.9 ⇓	2 (899) ⇓
Esperance	21.2 ⇑	4.0 ⇓	40.0 ⇑	4.6 ⇓	37.4 ⇑	7 (993) ⇓
Kalgoorlie/Boulder	18.7 ⇓	2.6 ⇓	41.1 ⇑	4.6 ⇓	28.8 ⇓	8 (1015) ⇓
Laverton	31.9 ⇑	1.6 ⇓	50.2 ⇑	16.7 ⇑	23.8 ⇓	1 (770) ⇓
Leonora	18.6 ⇓	1.3 ⇓	50.2 ⇑	16.7 ⇑	15.6 ⇓	6 (984) ⇓
Menzies	54.3 ⇑	3.6 ⇓	50.2 ⇑	16.7 ⇑	67.1 ⇑	1 (612) ⇓
Ngaanyatjarraku	39.4 ⇑	6.4 ⇑	50.2 ⇑	16.7 ⇑	71.6 ⇑	1 (607) ⇓
Country WA	**21.8**	**3.8**	**40.2**	**5.6**	**35.4**	**983**
WA	19.9	4.5	32.8	6.0	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)

5.3   Health and Mortality

Despite the Kalgoorlie-Boulder LGA having the lowest proportion of those experiencing psychological distress it has the highest suicide rate, 20.5 per 100,000 (ASR) (Table 18).

TABLE 18 Health and Mortality for Goldfields Region by LGA

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)†
Coolgardie	17.3 ⇑	12.0 ⇑	n/a	n/a	n/a	n/a
Dundas	17.3 ⇑	12.0 ⇑	n/a	n/a	n/a	n/a
Esperance	15.0 ⇑	11.3 ⇑	12	18.6 ⇑	9	14.2 ⇑
Kalgoorlie/Boulder	15.1 ⇑	10.2 ⇓	32	20.5 ⇑	19	12.1 ⇑
Laverton	n/a	n/a	n/a	n/a	n/a	n/a
Leonora	n/a	n/a	n/a	n/a	n/a	n/a
Menzies	n/a	n/a	0	0.0 ⇓	0	0.0 ⇓
Ngaanyatjarraku	n/a	n/a	n/a	n/a	n/a	n/a
Country WA	**15.1**	**10.6**	**447**	**18.0**	**335**	**13.7**
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)

6.   Goldfields Mental Health Services

There was a total of 25 mental health service delivery teams or BSIC across the Goldfields region delivering 30 MTC across 12 different DESDE classifications (Figure 29). This included three child and adolescent MTC (10%), 25 adult MTC (83%) and two older adult MTC (7%) (Table 19).
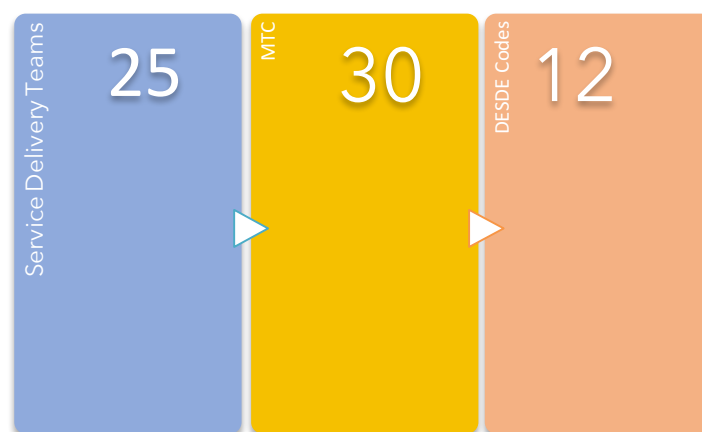
FIGURE 29 SUMMARY OF MENTAL HEALTH SERVICES IN GOLDFIELDS REGION OF COUNTRY WA

Outpatient services account for 83% of the MTC with the health sector providing 15 of the 30 MTC (50%).

TABLE 19 NUMBER OF MENTAL HEALTH SERVICE TYPES GOLDFIELDS REGION

Age Group	Provider Type	R	D	O	A	I	S	Total
Child & Adolescent	Health	0	0	2	0	0	0	2
	NGO/Other	0	0	1	0	0	0	1
	Sub-total	**0**	**0**	**3**	**0**	**0**	**0**	**3**
Adult	Health	2	1	8	0	0	0	11
	NGO/Other	0	1	12	0	1	0	14
	Sub-total	**2**	**2**	**20**	**0**	**1**	**0**	**25**
Older Adult	Health	0	0	2	0	0	0	2
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**2**	**0**	**0**	**0**	**2**
	Total	**2**	**2**	**25**	**0**	**1**	**0**	**30**

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

6.1   Residential Care – Mental Health

Acute Inpatient Services

There were no Acute Inpatient beds for children and adolescents or older adults identified in the Goldfields region.

Kalgoorlie has the sole adult Acute Inpatient service with six beds in the Authorised Inpatient Unit (Table 21). With high rates of suicide in the Goldfields observed in recent years, the dearth of acute mental health was lamented in the atlas workshop held in the Goldfields region.

There were no Sub-Acute or other Residential services identified in the Goldfields region.

6.2   Day Care – Mental Health

There were no Day Care services identified for children and adolescents or for older adults in the Goldfields region.

There was only one day service identified in the Goldfields region for adults (and general population) namely Harmonee House in Esperance run by Bay of Isles Community Outreach (Table 21). This seeks to provide a supportive, non-stigmatised environment for people with mental illness, and also provides Carer support and serves as a conduit for information and support.

6.3   Outpatient Care – Mental Health

Acute Mobile Outpatient Care

Goldfields Kalgoorlie/Boulder Community Mental Health Services provides two CAMHS teams in the region, one in Kalgoorlie and one in Esperance.

Goldfields Kalgoorlie/Boulder Community Mental Health Services provides adult (dual diagnosis) and Aboriginal Mental Health services in Kalgoorlie and Esperance. It also provides the Older Adult MHS from Kalgoorlie and Esperance (Table 22).

There were no identified Acute Non-Mobile Outpatient services (O3 and O4) within the Goldfields region.

Non-Acute Mobile Outpatient Care

No child, adolescent or older adult specific services delivery teams in the Non-Acute Mobile Outpatient category were identified.

RUAH & Hope Community Services work in partnership to provide the ICLS teams for adults in Kalgoorlie and Esperance (Table 21).

CentreCare provides both Counselling and Personalised Support Services and Families First in both Kalgoorlie and Esperance. Goldfields Individual and Family Support Association (GIFSA) has one location in Kalgoorlie providing Carer respite services covering Jameson, Warburton, Giles, Wingellina and Warrukuna locales.

Ngaanyatjarra Health provides PHaMs services in Warburton, a remote indigenous community just south of the Gibson Desert, the centre of a very large and extremely isolated Aboriginal reserve, Ngaanyatjarra, which stretches east to the Northern Territory border.

Non-Acute Non-Mobile Outpatient Care

Hope Community Services manages the Headspace located in Kalgoorlie which provide child and adolescent Non-Acute Non-Mobile Outpatient care services (Table 20).

Adult services are varied, with GIFSA providing Carer and respite services, 360 Health and Community providing Partners in Recovery and CentreCare providing Family and Carer Support – all based in Kalgoorlie (Table 21).

Ngaanyatjarra Health is providing Visiting Outreach Psychiatry across the Ngaanyatjarra lands based from Warburton.

6.4 Information and Guidance, Accessibility and Self-Help/Voluntary Services

The only Information and Guidance services identified were provided by Escare in Esperance (Table 21). There was an information service provided for Indigenous youth out of the CAMHS in Kalgoorlie. This was established under the Footprints for Better Health Program, however currently there was not enough information on the service to provide an accurate DESDE code.

6.5 Pattern of Mental Health Care

In the Goldfields region services are primarily skewed toward Non-Acute Mobile Outpatient care, along with Acute Mobile and Non-Acute Mobile teams. There is also a presence of Acute hospital beds, and unlike most other regions, a small amount of day programs per 100,000 adults (Figure 30).

6.6 Placement of Mental Health Services

Services for children and adolescents are located in Kalgoorlie and Esperance. Services for adults are focused in Kalgoorlie and Esperance, with two services located in remote Warburton (Figure 31).

TABLE 20 CHILD AND ADOLESCENT MENTAL HEALTH SERVICES IN GOLDFIELDS

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Acute, Mobile Outpatient	Goldfields Kalgoorlie/Boulder - Community Mental Health Services	CAMHS Community Mental Health Services	CX[F0-F99] - O2.1e	Kalgoorlie	Goldfields
	Goldfields Esperance – Community Mental Health Services	CAMHS Community Mental Health Services	CX[F0-F99] - O2.1e	Esperance	Goldfields
Non-Acute, Non-Mobile Outpatient	Hope Community Services	Headspace Kalgoorlie	CY[F0-F99] - O9.1	Kalgoorlie	Kalgoorlie

TABLE 21 ADULT MENTAL HEALTH SERVICES IN GOLDFIELDS

Classification	Organisation	Team Name	DESDE - 1 (beds)	Suburb	Catchment
Acute Inpatient care	Mental Health Services Inpatient Services	Authorised Inpatient Unit	AX[F0-F99] - R2(6) AX[F0-F99] - R1	Kalgoorlie	Goldfields
Day Programs	Bay of Isles Community Outreach Inc	BOICO Inc Harmony House and Wellways	GX[F0-F99] - D5 GX[e310][F0-F99] - O5.2.1	Esperance	South East Coastal WA
Acute, Mobile Outpatient care	Goldfields Kalgoorlie/Boulder - Community Mental Health Services	Adult Community Mental Health Services	AX[F0-F99][F10-F19] - O2.1e AX[F0-F99] - O6.1e	Kalgoorlie	Goldfields
		Aboriginal Mental Health Services	AXIN[F0-F99] - O2.1 AXIN[F0-F99] - O6.1	Kalgoorlie	Goldfields
	Goldfields Esperance – Community Mental Health Services	Adult Community Mental Health Services	AX[F0-F99] - O2.1 AX[F0-F99] - O6.1	Esperance	Goldfields
		Aboriginal Mental Health Services	AXIN[F0-F99] - O2.1u AXIN[F0-F99] - O6.1u	Esperance	Goldfields
Non-Acute, Mobile Outpatient care	RUAH & Hope Community Services	ICLS Team - Kalgoorlie	AX[F0-F99] - O6.2	Kalgoorlie	Northern Goldfields Kalgoorlie boulder Esperance
		ICSL Team - Esperance	AX[F0-F99] - O6.2	Esperance	Northern Goldfields Kalgoorlie boulder Esperance

	CentreCare	Goldfields Branch – Kalgoorlie Mental Health Service – Counselling and Personalised Support	AX[F0-F99] - O6.2	Kalgoorlie	Kalgoorlie/Boulder, Coolgardie, Kambalda, Esperance, and out to outreach locations such as Norseman and Northern Corridor.
		Goldfields Branch – Kalgoorlie Mental Health Service – Counselling and Personalised Support	AX[F0-F99] - O6.2	Esperance	N/S
		Goldfields Branch – Kalgoorlie Families First	CX[F0-F99] -O6.2	Kalgoorlie	N/S
		Goldfields Branch – Esperance Families First	GX[F0-F99] -O6.2	Esperance	N/S
	Goldfields Individual and Family Support Association GIFSA	Carer Respite - Outreach mobile Carer support	GX[e310][F0-F99] - O6.2u	Kalgoorlie	Located the southern part of Great Central Road and includes towns of Jameson, Warburton, Giles, Wingellina, Warrukuna
	Ngaanyatjarra Health	Personal Helpers and Mentors Scheme	AXIN[F0-F99] - O6.2	Warburton	Warburton Community
Non-Acute, Non-Mobile Outpatient care	360 Health and Community	Partners in Recovery	AX[F0-F99] - O9.2u	Kalgoorlie	Kalgoorlie
	Ngaanyatjarra Health	Visiting Outreach Psychiatry	GX[F0-F99] - O10.1a	Warburton	Ngannyatjarra Lands
	CentreCare	Goldfields Branch – Kalgoorlie Family and Carer Support	GX[e310][F0-F99] - O10.2	Kalgoorlie	Kalgoorlie area
	Goldfields Individual and Family Support Association GIFSA	Carer Respite - Pamper me Program	GX[e3.10][F0-F99] - O10.2g	Kalgoorlie	Goldfields region – covers towns of Kalgoorlie, Leonora, Menzies, Kambalda, Laverton and Esperance
Information	Escare	Escare	GX[F0-F99] - I2.1.1u	Esperance	Esperance

TABLE 22 OLDER ADULT MENTAL HEALTH SERVICES IN GOLDFIELDS

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Acute, Mobile Outpatient care	Goldfields Kalgoorlie/Boulder - Community Mental Health Services	Older Adult MHS	OX[F0-F99] - O2.1u	Kalgoorlie	Goldfields
	Goldfields Esperance – Community Mental Health Services	Older Adult MHS	OX[F0-F99] - O2.1	Esperance	Goldfields
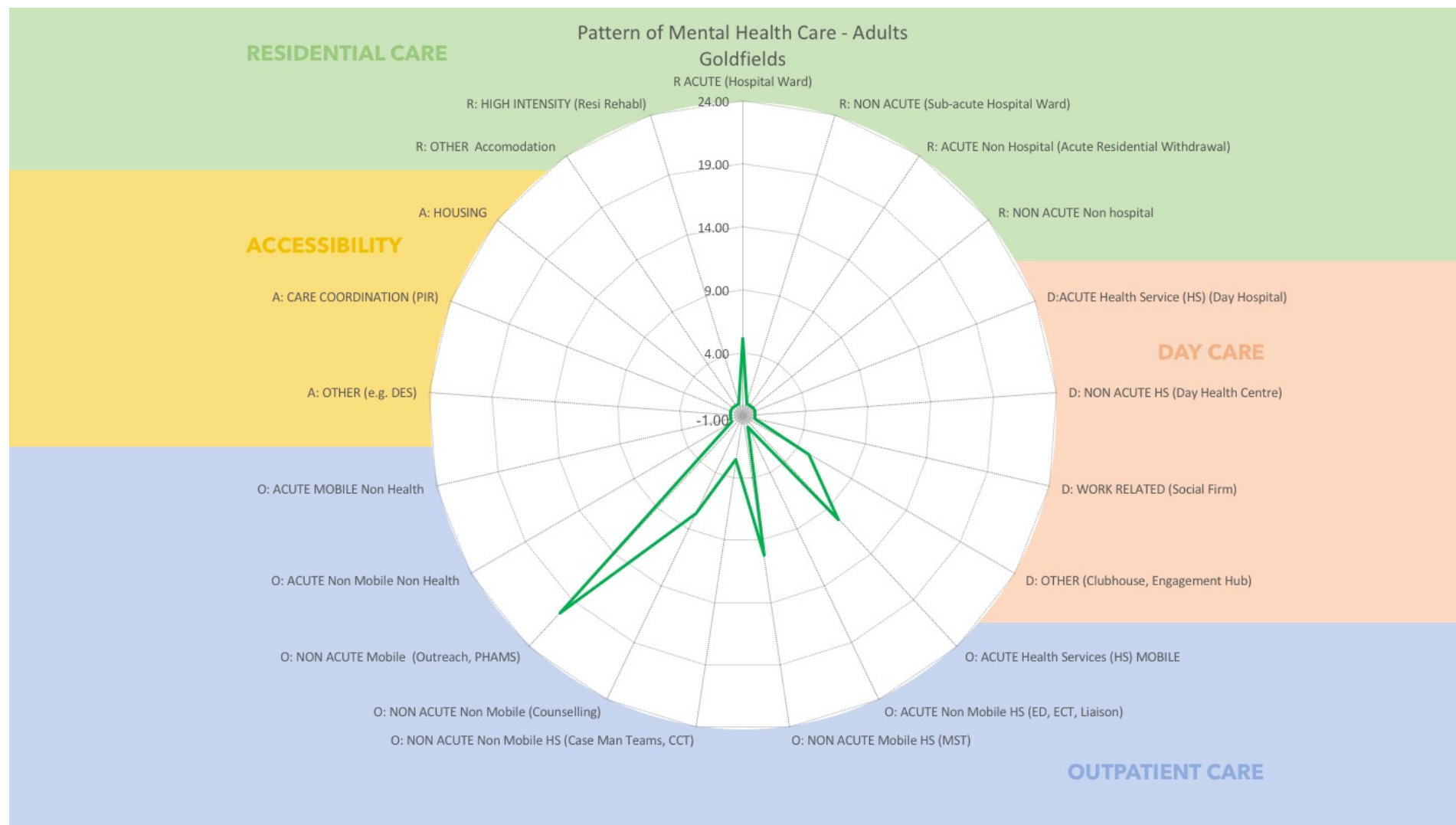
FIGURE 30 Pattern of Mental Health Care for Adults in Goldfields
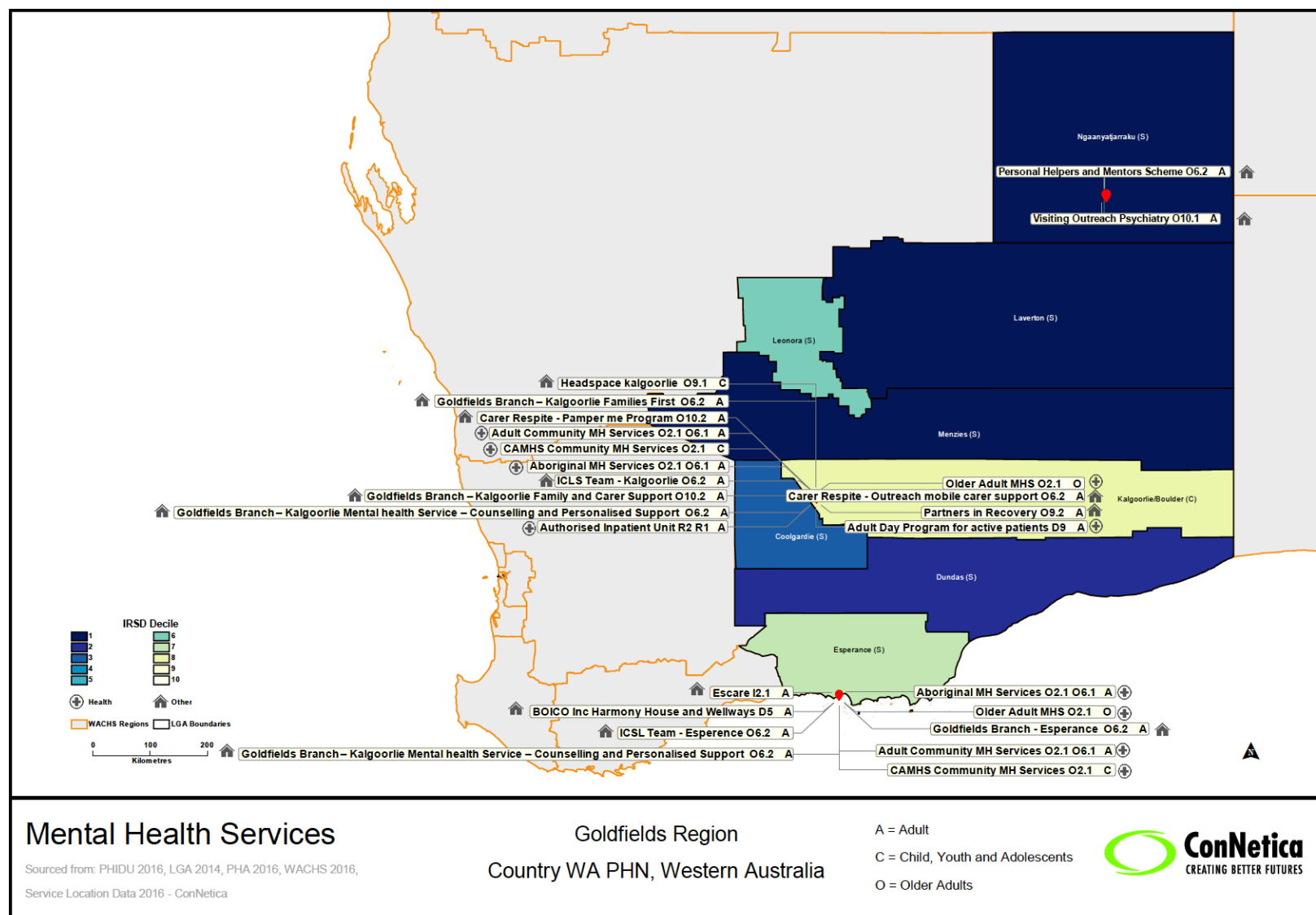
FIGURE 31 PLACEMENT OF GOLDFIELDS MENTAL HEALTH SERVICES

7. Goldfields Region AOD

The alcohol related hospitalisations in the Goldfields region (Figure 32) show no clear trend between 2008 and 2012. There is concern within the community regarding solvent sniffing and amphetamine use, particularly around the capacity of services to meet the needs of this specialised cohort (Estellar Consulting, 2016a). Drug related hospitalisations are lower than the state average in the most recent available data (Figure 33).
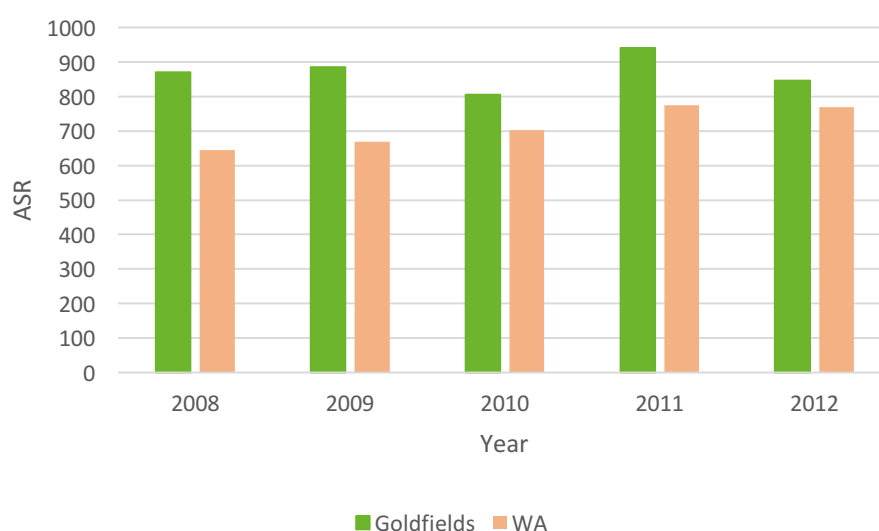
FIGURE 32 ALCOHOL-RELATED HOSPITALISATIONS IN GOLDFIELDS

Source: Alcohol and Other Drug Indicators Reports (2015)
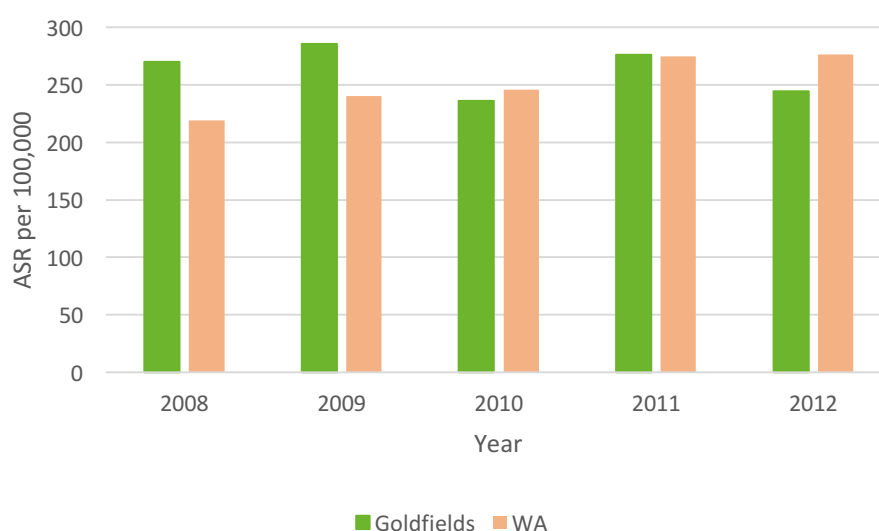
FIGURE 33 OTHER DRUG-RELATED HOSPITALISATIONS IN GOLDFIELDS

Source: Alcohol and Other Drug Indicators Reports (2015)

8. Goldfields AOD Services

There was a total of seven AOD BSIC identified across the Goldfields region, one for adults and six for children or adolescents. All are provided by the NGO sector.
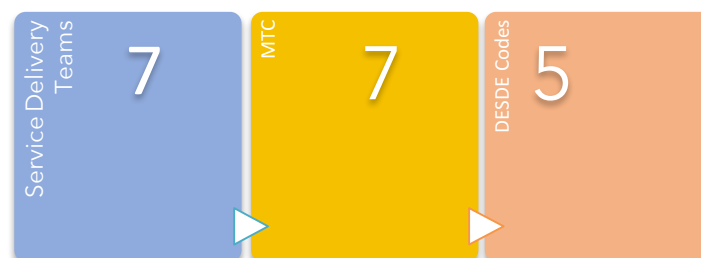
FIGURE 34 SUMMARY OF AOD SERVICES IN THE GOLDFIELDS REGION OF COUNTRY WA

8.1 Residential Care – AOD

Acute Inpatient Residential Services

There were no Acute AOD Inpatient services identified within the Goldfields region.

Non-Acute Residential Services

The Goldfields Rehabilitation Services Incorporated (GRSI) has a total of seven beds available for adults and is located in Kalgoorlie. The second service, the Teen Challenge Grace Academy has a total of 40 beds available and is located in Esperance (Table 23).

Other Residential Care

Bega Garnbirringu Health runs a Sobering up centre located in Kalgoorlie-Boulder which has a total of 15 beds available overnight.

It is noted that a large volume of AOD service is provided through the Emergency Departments of hospitals including Kalgoorlie, Esperance, Leonora, Laverton and Norseman. This includes medical services, mental health assessments, and admission for medical care and unplanned detox. Follow up for these patients may be provided either through the MHIU or through the Community Mental Health services in Kalgoorlie and Esperance.

8.2 Day Care - AOD

There were no identified Day Care facilities within the Goldfields region.

8.3 Outpatient Care – AOD

Non-Acute Mobile Outpatient Care

Hope Community Services run the Goldfields Community Alcohol and Drug Services for adults in Esperance and Kalgoorlie.

Non-Acute Non-Mobile Outpatient Care

Bega Garnbirringu Health provide AOD counselling for Aboriginal clients (GX – a generalist service) in Kalgoorlie.

8.4 Information and Guidance, Accessibility and Self-Help and Voluntary Services – AOD

Hope Community Services runs the only service team identified as delivering an 'Information and Guidance' service across the Goldfields region. This is a Street Van and Diversion service located from a base in Kalgoorlie.

8.5 Pattern of AOD Care

AOD Care in Goldfields has a unique pattern of care compared with other regions in CWAPHN (Figure 35). This is characterised by the lower number of services per 100,000 adults when compared with other regions such as Kimberley and Pilbara. AOD care is primarily Non-Acute Mobile Outpatient care and high intensity Residential rehabilitation care.

8.6 Placement of AOD Services

Figure 36 shows the locations of the AOD services across the Goldfields region, which are solely located in Kalgoorlie and Esperance.

TABLE 23 ADULT AOD SERVICES IN GOLDFIELDS

Classification	Organisations	Team Name	DESDE - 1 (beds)	Suburb	Catchment
Non-Acute Inpatient care	Teen Challenge Grace Academy - 16+	Grace Academy	AX[F10-F19] - R8.2 (40)	Esperance	N/S
	Goldfields Rehabilitation Services Inc.	GRSI	AX[F10-F19] - R8.2 (7)	Kalgoorlie	Goldfields-Esperance region
Other Inpatient care	Bega Garnbirringu Health	Sobering up centre	AXIN[F10-F19] - R14 (15)	Kalgoorlie	Kalgoorlie boulder
Non-Acute, Mobile Outpatient care	Hope Community Services	Goldfields community alcohol and drug service	AX[F10-F19] - O6.1	Esperance	Northern Goldfields Kalgoorlie boulder Esperance
		Goldfields community alcohol and drug service	AX[F10-F19] - O6.1	Kalgoorlie	Northern Goldfields Kalgoorlie boulder Esperance
Non-Acute, Non-Mobile Outpatient care	Bega Garnbirringu Health	AOD counselling	GXIN[F10-F19] - O9.2	Kalgoorlie	Kalgoorlie boulder
Information	Hope Community Services	Street Van and Diversion Service Kalgoorlie/Coolgardie	AX[F10-F19] - I2.1.1	Kalgoorlie	Kalgoorlie/Coolgardie
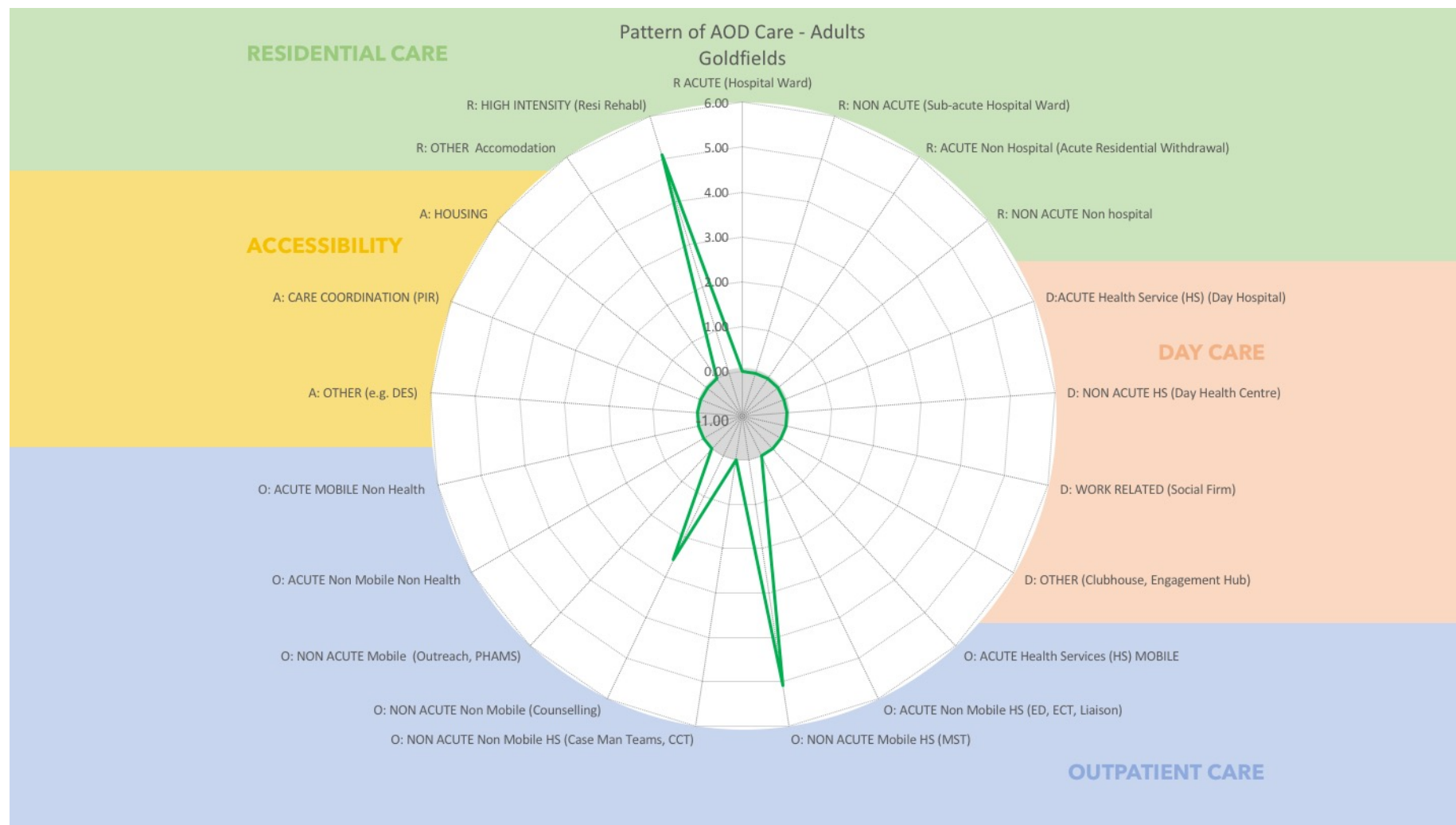
FIGURE 35 PATTERN OF AOD CARE FOR ADULTS IN GOLDFIELDS
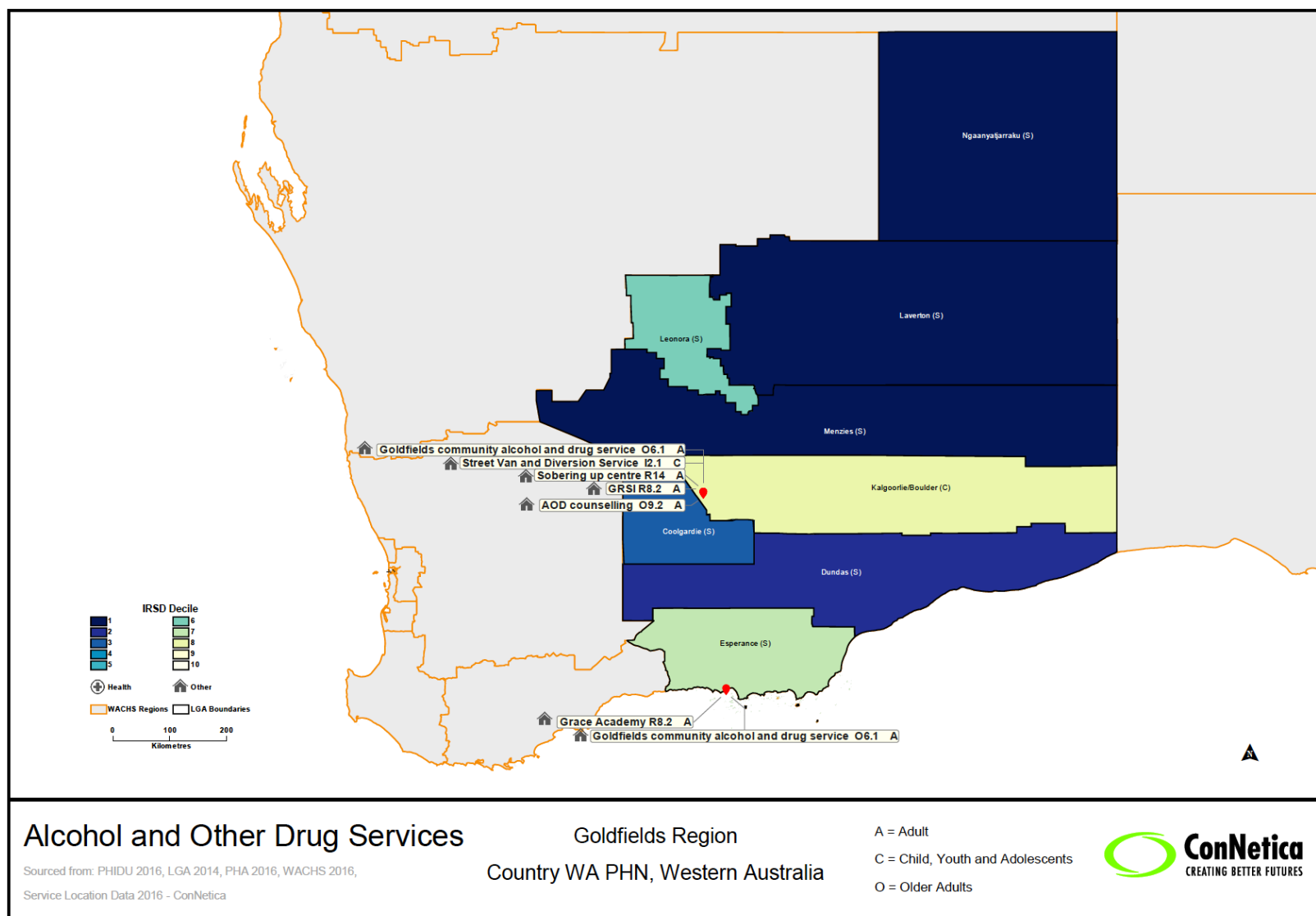
FIGURE 36 PLACEMENT OF GOLDFIELDS AOD SERVICES

9.   Great Southern Region

The Great Southern region lies on the south coast of Western Australia and is anchored by Albany (population of 37,233) as the main regional centre on the coast.

9.1   Population Demographics

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 ratio and ageing index. The diversity of the population is examined utilising the indicators of Indigenous Status and proportion of those born overseas. Table 24 below presents key population demographics for the Great Southern Region, disaggregated by LGA.

The ageing index is highest in the LGA of Denmark (124.6) and lowest in Kent at 40.3. The Denmark LGA has an overseas population of 24%, the highest in the Great Southern region.

TABLE 24 KEY POPULATION DEMOGRAPHICS FOR THE GREAT SOUTH REGION BY LGA

LGA	Area[*] (sq. km)	Total Population[†]	Density Ratio	Dependency Ratio	Ageing Index	Indigenous Status (%)[§]	Overseas Born (%)[¶]
Albany	4309.9	37,233	8.6	0.63	99.0	1,495 (3.9)	18.8
Broomehill-Tambellup	2609.1	1,134	0.4	0.73	35.1	198 (16.8)	10.0
Cranbrook	3277.5	1,071	0.3	0.62	69.9	26 (2.4)	14.8
Denmark	1859.9	5,886	3.2	0.70	124.6	76 (1.3)	24.0
Gnowangerup	4265.6	1,289	0.3	0.64	53.7	151 (11.6)	8.7
Jerramungup	6507.5	1,079	0.2	0.44	72.1	23 (2.2)	11.5
Katanning	1518.3	4,350	2.9	0.64	71.2	488 (10.9)	19.7
Kent	5630.1	521	0.1	0.46	40.3	0 (0.0)	9.4
Kojonup	2931.1	1,999	0.7	0.71	84.9	118 (5.9)	13.4
Lake Grace	11885.8	1,314	0.1	0.50	67.8	24 (1.8)	13.1
Plantagenet	4876.5	5,185	1.1	0.56	119.6	189 (3.6)	20.0
Ravensthorpe	9829.0	2,263	0.2	0.61	74.6	37 (1.6)	16.4
Woodanilling	1128.4	442	0.4	0.63	48.3	7 (1.7)	9.6
Country WA	**2.5 million**	**546,206**	**0.22**	**0.50**	**64.0**	**57,126 (10.3)**	**15.6**
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

9.2   Social Determinants of Health

Table 25 displays various social determinants of health for the Great Southern region.

Kent has the lowest proportion of the population requiring assistance (1.6%). The Kent LGA has no single parent families within its population and the least social disadvantage among the region. Unemployment is highest in Katanning (9.8%) and lowest in Ravensthorpe (2.8%).

TABLE 25 KEY POPULATION DEMOGRAPHICS FOR THE GREAT SOUTHERN REGION BY LGA

LGA	Single parent families (%)[*]	Needing Assistance (%)[*]	Early school leavers[*] (ASR per 100)	Un employment (%)[‡]	Income <$400 / wk (%)[†]	IRSD score[§]
Albany	22.7⇧	5.5⇧	39.2⇧	5.9⇩	40.6⇧	6 (987) ⇩
Broomehill-Tambellup	22.3⇧	3.8⇩	39.3⇧	5.8⇩	44.8⇧	5 (967) ⇩
Cranbrook	21.2⇧	3.4⇩	39.3⇧	5.8⇩	43.3⇧	5 (962) ⇩
Denmark	28.3⇧	4.7⇧	31.2⇩	5.6⇩	44.0⇧	7 (998) ⇩
Gnowangerup	15.3⇩	4.1⇧	40.4⇧	3.7⇩	36.2⇧	7 (990) ⇩
Jerramungup	10.9⇩	2.0⇩	40.4⇧	3.7⇩	33.5⇩	9 (1037) ⇧
Katanning	25.5⇧	4.9⇧	45.1⇧	9.8⇧	40.4⇧	2 (909) ⇩
Kent	0.0⇩	1.6⇩	40.4⇧	3.9⇩	38.0⇧	10 (1067) ⇧
Kojonup	19.6⇩	3.5⇩	39.3⇧	5.7⇩	39.6⇧	7 (992) ⇩
Lake Grace	9.3⇩	1.8⇩	37.7⇧	3.3⇩	35.2⇩	9 (1042) ⇧
Plantagenet	24.5⇧	5.0⇧	39.1⇧	7.2⇧	45.0⇧	4 (960) ⇩
Ravensthorpe	10.3⇩	2.9⇩	38.7⇧	2.8⇩	33.5⇩	9 (1026) ⇧
Woodanilling	23.6⇧	4.5⇧	45.1⇧	9.7⇧	35.9⇧	8 (1008) ⇩
Country WA	**21.8**	**3.8**	**40.2**	**5.6**	**35.8**	**983**
WA	19.9	4.3	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)

9.3 Health and Mortality

A number of indicators of health status have been examined including self-report health status, a population based indicator of psychological distress and some mortality measures (see Table 26).

A number of fields are not available for several LGAs; however, some interesting comparisons can be made. Both Katanning and Woodanilling have the highest proportion of residents with psychological distress, yet Plantagenet has the highest suicide rate per 100,000 residents (25.1) and there were no suicide deaths reported in Woodanilling. The regional centre, Albany, has a suicide rate (10.6) just below the national average (11.2).

TABLE 26 HEALTH AND MORTALITY FOR THE GREAT SOUTHERN REGION BY LGA

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)[†]
Albany	15.1 ⇑	11.0 ⇑	17	10.6 ⇓	10	6.3 ⇓
Broomehill-Tambellup	13.8 ⇑	9.6 ⇓	n/a	n/a	n/a	n/a
Cranbrook	13.8 ⇑	9.6 ⇓	n/a	n/a	n/a	n/a
Denmark	15.7 ⇑	10.1 ⇓	n/a	n/a	n/a	n/a
Gnowangerup	13.8 ⇑	9.6 ⇓	n/a	n/a	n/a	n/a
Jerramungup	13.8 ⇑	9.6 ⇓	n/a	n/a	n/a	n/a
Katanning	17.6 ⇑	11.6 ⇑	5	23.7 ⇑	n/a	n/a
Kent	13.8 ⇑	9.6 ⇓	n/a	n/a	n/a	n/a
Kojonup	13.8 ⇑	9.6 ⇓	n/a	n/a	n/a	n/a
Lake Grace	14.4 ⇑	9.5 ⇓	0	0.0 ⇓	n/a	n/a
Plantagenet	15.7 ⇑	10.1 ⇓	6	25.1 ⇑	n/a	n/a
Ravensthorpe	13.8 ⇑	10.0 ⇓	n/a	n/a	n/a	n/a
Woodanilling	17.6 ⇑	11.6 ⇑	0	0.0 ⇓	0	0.0 ⇓
Country WA	**15.1**	**10.6**	**447**	**18.0**	**335**	**13.7**
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)

10. Great Southern Mental Health Services

There was a total of 22 mental health service delivery teams or BSIC across the Great Southern region delivering 26 MTC across 14 different DESDE classifications. This includes four child and adolescent MTC (15%), 20 adult MTC (77%) and two older adult MTC (8%) (Figure 37).
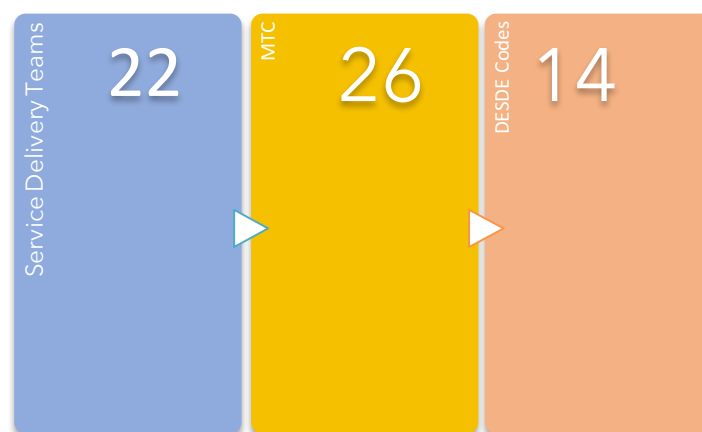
FIGURE 37 SUMMARY OF MENTAL HEALTH SERVICES IN GREAT SOUTHERN REGION OF COUNTRY WA

A breakdown of these services is provided in Table 27 below. Outpatient services account for 80% of the MTC and Residential care 10%. The health sector provides the greatest proportion of care across the region, with 18 of the 30 MTC (60%).

TABLE 27 NUMBER OF MENTAL HEALTH SERVICE TYPES SOUTH WEST COUNTRY WA

Age Group	Provider Type	R	D	O	A	I	S	Total
Child & Adolescent	Health	0	0	2	0	0	0	2
	NGO/Other	0	0	2	0	0	0	2
	Sub-total	**0**	**0**	**4**	**0**	**0**	**0**	**4**
Adult	Health	2	0	9	0	0	0	11
	NGO/Other	1	1	6	1	0	0	9
	Sub-total	**3**	**1**	**15**	**1**	**0**	**0**	**20**
Older Adult	Health	0	0	2	0	0	0	2
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**2**	**0**	**0**	**0**	**2**
	Total	**3**	**1**	**21**	**1**	**0**	**0**	**26**

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

The services available in the Greater Southern to Children and adolescents, adults and older adults are detailed in Table 28, Table 29 and Table 30 respectively.

Note, there are services provided by WACHS Great Southern Mental Health that are located in the Wheatbelt town of Narrogin. As such they will be found in the Wheatbelt tables.

10.1   Residential Care – Mental Health

The two mental health Residential services that operate across the Great Southern region are both located in Albany and are both adult services.

Acute Inpatient Services

There were no age specific Acute inpatient services identified for children and adolescents or for older adults across the Great Southern region.

There was one adult acute inpatient service provided by WACHS Great Southern Mental Health and it provides 12 standard and four higher intensity beds and is located in Albany.

Other Residential Services

The Albany Halfway House Association provides the Community Supported Residential Unit (CSRU) at Albany with 11 beds.

10.2   Day Care – Mental Health

There is one day based mental health service for adults in the region and this is located in Albany and run by Richmond Wellbeing; the Albany Fellowship House is a drop-in resource centre for community members affected by mental distress and is one of one of only three-day care services available across the Country WA area.

10.3   Outpatient Care – Mental Health

Acute Mobile Outpatient Care

There were no Acute Outpatient Care services (O1-O4) identified for children and adolescents across Great Southern.

There were three Acute Mobile Outpatient Care service (O2) delivery teams identified in the Great Southern region.

The WACHS Great Southern Mental Health Service in Albany incorporates the adult Sub-Acute team and Aboriginal mental health services. It also provides adult Aboriginal mental health services into Katanning. These services also provide Non-Acute Outpatient Care (O6.1).

Acute Non-Mobile Outpatient Care

For older adults, the emergency department in Albany provides a psychiatric liaison nurse.

Non-Acute Mobile Outpatient Care

Community First International run the Individualised Community Living Strategy in Albany, along with Partners in Recovery and Personal Helpers and Mentors in the same location. The former services the Albany, Bunbury and Perth South areas, the latter caters for Albany, Denmark and Mt Barker localities.

Non-Mobile Non-Acute Outpatient Care

WACHS Great Southern Mental Health provides the CAMHS services in both Albany and Katanning, described as Non-Acute and Non-Mobile services.

Youth Focus provides both Albany clinical support teams and Headspace services in Albany.

There are mental health nurses provided in Denmark at two separate medical centres as part of the Mental Health Nurse Incentive Program (MHNIP). WACHS Great Southern Mental Health provides adult Mental Health services in both Albany and Katanning described as Non-Acute and Non-Mobile but acknowledged to offer some acute care with the 'a' qualifier.

Also based in Albany and providing a service for the great southern region is the Depression Support Network; in addition to a drop-in centre once a week, the Network offers peer support to people with depression along with Carers and families, with services including web-based information, workshops, forums and support groups.

10.4 Information and Guidance, Accessibility and Self-Help/Voluntary Services

The Partners in Recovery teams provided by Community First International provides both Accessibility and Outpatient services and as such appears in both categories. The Albany PIR services the South West and Wheatbelt in addition to the Great Southern Region. Interestingly, there is no PIR service in Katanning, an area identified as having a higher unemployment rate then the rest of the region.

10.5 Pattern of Mental Health Care

Figure 38 represents the distribution and volume of mental health service delivery teams across the various DESDE classifications. Non-Acute Non-Mobile services are the most concentrated mental health service type in the Great Southern region.

10.6 Placement of Mental Health Services

In terms of placement of services a map is found in Figure 39. Most services are located in the main centre of Albany. There are several MHNIP Nurses in Denmark, an area with a higher ageing index than elsewhere in the region. Katanning has a high suicide rate compared with other areas (23.7 per 100,000). There is one child and adolescent service, two adult services and one older adult service located in Katanning, all provided by WACHS. There was a higher level of psychological distress reported in Woodanilling which is likely serviced by the Katanning WACHS teams.

TABLE 28 CHILD AND ADOLESCENT MENTAL HEALTH SERVICES IN GREAT SOUTHERN

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Non-Acute, Non-Mobile Outpatient care	WACHS Great Southern Mental Health	CAMHS	CX[F0-F99] - O8.1e	Albany	Great Southern & Southern Wheatbelt
		CAMHS	CX[F0-F99] - O9.1 e	Katanning	Great Southern & Southern Wheatbelt
	Youth Focus	Headspace Albany	CX[F0-F99] - O9.1	Albany	N/S
		Albany CST	CY[F0-F99] - O9.2	Albany	N/S

TABLE 29 ADULT MENTAL HEALTH SERVICES IN GREAT SOUTHERN

Classification	Organisation	Team Name	DESDE - 1 (beds)	Suburb	Catchment
Acute Inpatient care	WACHS Great Southern Mental Health	Inpatient	AX[F0-F99] - R2 (12) AX[F0-F99] - R1 (4)	Albany	Great Southern & Southern Wheatbelt
Non-Acute Inpatient care	Albany Halfway House Association	Community options CSRU	AX[F0-F99] - R11 (11)	Albany	Great Southern region
Day programs	Richmond Wellbeing	Albany Fellowship House	AX[F0-F99] - D9	Albany	Albany
Acute, Mobile Outpatient care	WACHS Great Southern Mental Health	Aboriginal Mental Health Services	AXIN[F0-F99] - O2.1e AXIN[F0-F99] - O9.1ae	Albany	Great Southern & Southern Wheatbelt
		Albany Sub-Acute Team	AX[F0-F99] - O2.1e AX[F0-F99] - O6.1e	Albany	CUGS
		Aboriginal Mental Health Services	AXIN[F0-F99] - O2.1e AXIN[F0-F99] - O6.1e	Katanning	Great Southern & Southern Wheatbelt
	Community First International	Individualised Community Living Strategy Albany - 4 clients supported	AX[F0-F99] - O6.2	Albany	Albany, Bunbury, Perth South. Access Housing manages the properties.
		Partners in Recovery	AX[F0-F99] - O6.2	Albany	Albany, Denmark, Mount Barker
		Personal Helpers and Mentors	AX[F0-F99] - O6.2	Albany	Albany, Denmark and Mount Barker

Non-Acute, Non-Mobile Outpatient care	WACHS Great Southern Mental Health	Adult Mental Health Services	AX[F0-F99] - O8.1ae	Albany	Great Southern & Southern Wheatbelt
		Adult Mental Health Services	AX[F0-F99] - O9.1ae	Katanning	Great Southern & Southern Wheatbelt
	Mental Health Nurse Incentive Program	Denmark Medical Centre Shadford Rd	AX[F0-F99] - O9.1	Denmark	N/S
		Denmark Medical Centre Strickland St	AX[F0-F99] - O9.1	Denmark	N/S
	Depression Network - Albany	Depression Support Networks	AX[F0-F99] - O10.2g	Spencer Park	Albany Central - Great Southern Area
Access	Community First International	Partners in Recovery	AX[F0-F99] -A4.2.1	Albany	South West, Wheatbelt, Great Southern

TABLE 30 OLDER ADULT MENTAL HEALTH SERVICES IN GREAT SOUTHERN

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Acute, Non-Mobile Outpatient care	WACHS Great Southern Mental Health	Emergency Department Albany Hospital Psychiatric Liaison Nurse	GX[ICD][F0-F99] - O4.1le	Albany	Great Southern & Southern Wheatbelt
Non-Acute, Non-Mobile Outpatient care		Older Adult MHS	OX[F0-F99] - O8.1ae	Albany	Great Southern & Southern Wheatbelt
		Older Adult MHS	OX[F0-F99] - O9.1ae	Katanning	Great Southern & Southern Wheatbelt
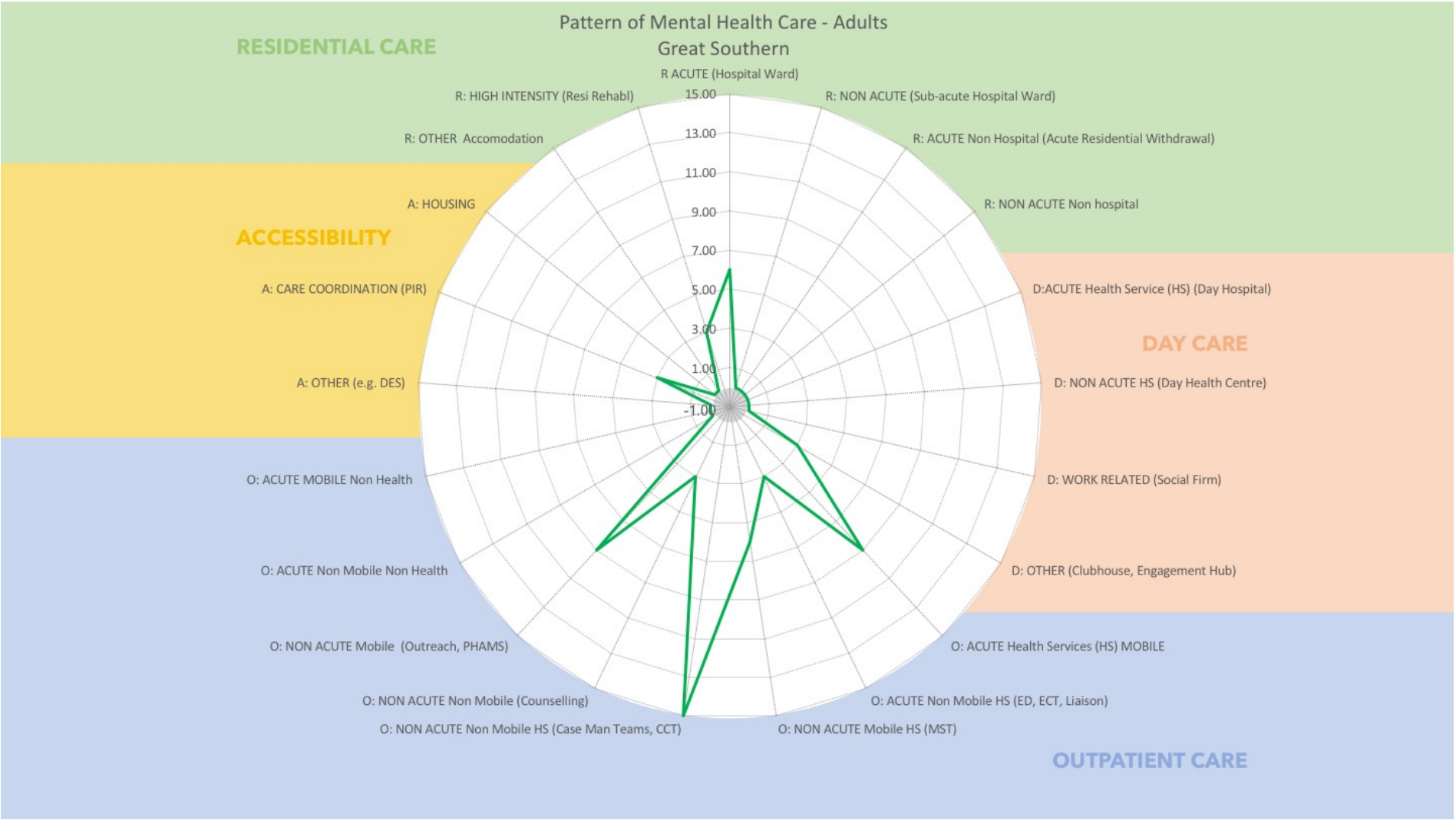
FIGURE 38 PATTERN OF MENTAL HEALTH CARE FOR ADULTS IN GREAT SOUTHERN
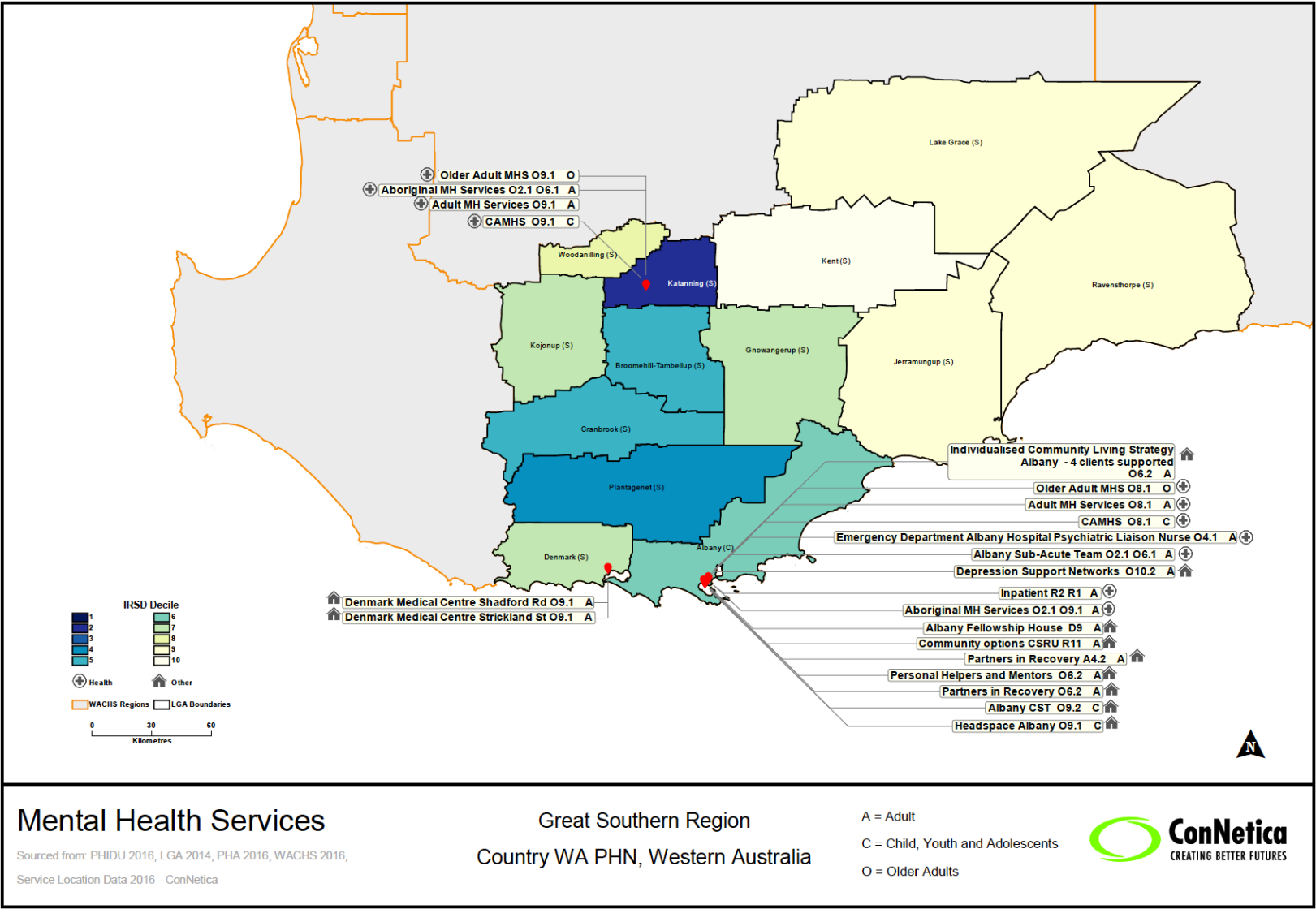
FIGURE 39 PLACEMENT OF GREAT SOUTHERN MENTAL HEALTH SERVICES

11. Great Southern Region AOD

Figure 40 and Figure 41 display AOD related hospitalisations (age standardised rate) in the Great Southern region between 2008 and 2012 compared with WA. There is no clear trend in hospitalisation rates across the region, with rates being slightly lower than all of WA in 2012.

FIGURE 40 ALCOHOL RELATED HOSPITALISATIONS IN GREAT SOUTHERN

Source: Alcohol and Other Drug Indicators Reports (2015)

FIGURE 41 DRUG RELATED HOSPITALISATIONS IN GREAT SOUTHERN

Source: Alcohol and Other Drug Indicators Reports (2015)

12. Great Southern AOD Services

There was a total of eight AOD BSIC identified across the Great Southern region (Figure 42). All are described as adult services, although most of the Palmerston services are considered generalist, servicing all age groups (GX).
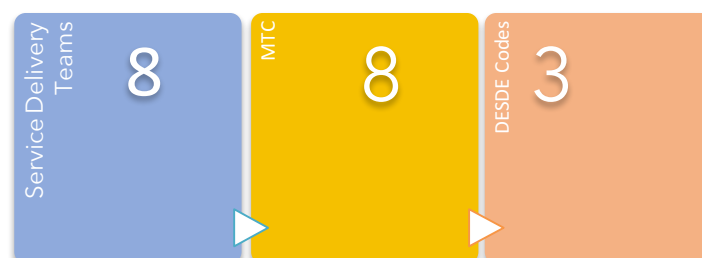
FIGURE 42 SUMMARY OF AOD SERVICES IN THE GREAT SOUTHERN REGION OF COUNTRY WA

12.1 Residential Care – AOD

There were no identified Residential care facilities within the Great Southern region.

12.2 Day Care – AOD

There were no identified Day Care facilities within the Great Southern region.

12.3 Outpatient Care - AOD

Non-Acute Mobile Outpatient Care

Outpatient care options for adults in the Great Southern region are detailed in Table 31.

Palmerston provides the Great Southern Community Drug and Alcohol Service (CADS) in the locations of Albany, Denmark, Mount Barker and Katanning; these provide a range of services to support supporting people with alcohol and drug issues, including assessment, referral, counselling and support.

Palmerston also offers Self Management and Recovery Training (SMART) groups out of Katanning and Albany. The aim of SMART Recovery is to help individuals gain control over their addictive alcohol or drug behaviour, achieve a balanced lifestyle and lead meaningful lives.

For Aboriginal people, the Southern Aboriginal Corporation runs the Gnumaries Hurt Program in Albany, the aim of which is to support the community to reduce alcohol use and its effects.

Finally, Regional Counselling and Mentoring Services runs the Pathways Criminal Conduct and Substance Abuse Program from Albany.

12.4 Information and Guidance, Accessibility and Self-Help and Voluntary Services – AOD

There were no identified services within these categories in the Great Southern region.

12.5 Pattern of AOD Care

As can be seen in the pattern of care diagram in Figure 43, Non-Acute Non-Mobile and Non-Acute Mobile Outpatient services are both equally represented across the region.

12.6   Placement of AOD Services

Figure 39 shows the location of AOD services across Great Southern. Services are located in Albany, Denmark, Katanning and Mount Barker.

12.6   Placement of AOD Services

TABLE 31 ADULT AOD SERVICES IN GREAT SOUTHERN

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Non-Acute, Mobile Outpatient care	Palmerston	Great Southern Community Alcohol and Drug Service (CADS) - Albany, plus outreach to GS region	AX[F10-F19] - O6.1	Albany	Walpole, Albany, Cranbrook, Bremer Bay Kojonup, Mt Barker, Lake Grace
		Great Southern CADS– Katanning	GX[F10-F19] - O6.1	Katanning	Katanning
		Great Southern CADS – Denmark	GX[F10-F19] - O6.1	Denmark	
		Great Southern CADS– Mt Barker	GX[F10-F19] - O6.1	Mount Barker	
Non-Acute, Non-Mobile Outpatient care	Southern Aboriginal Corporation	Gnumaries Hurt Program	AXIN[F10-F19] - O9.2	Albany	Great Southern
	Palmerston	Smart Recovery Groups	GX[F10-F19] - O10.2g	Albany	N/S
		Smart Recovery Groups	GX[F10-F19] - O10.2g	Katanning	N/S
	Regional Counselling & Mentoring Services	Pathways Criminal Conduct and Substance Abuse Program	AX[F10-F19] - O10.2j	Albany	Department of Correctional Services only
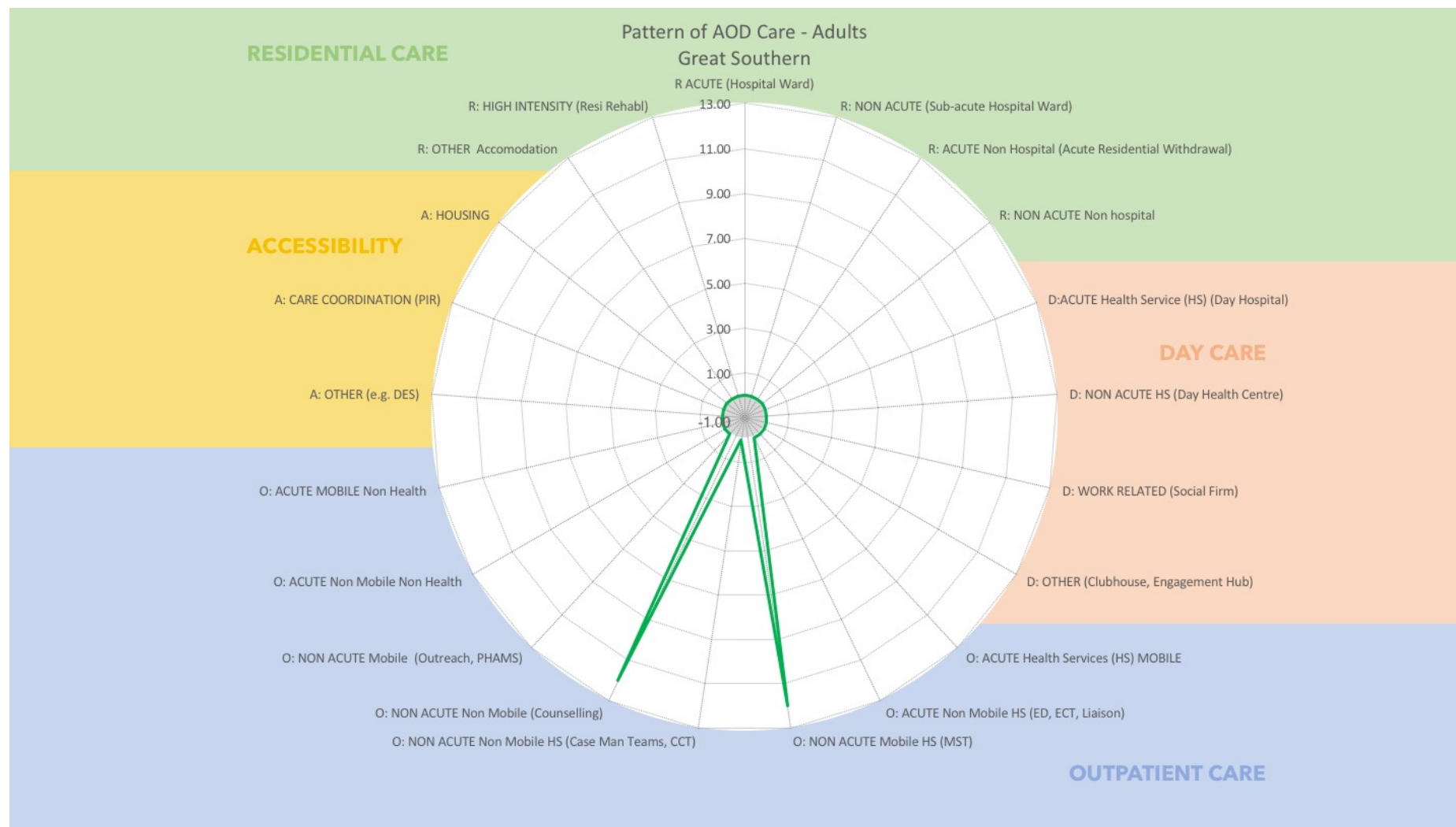
FIGURE 43 PATTERN OF AOD CARE FOR ADULTS IN GREAT SOUTHERN

IRSD Decile

1
2
3
4
5
6
7
8
9
10

⊕ Health   🏠 Other

☐ WACHS Regions   ☐ LGA Boundaries

0   30   60
Kilometres

Alcohol and Other Drug Services

Sourced from: PHIDU 2016, LGA 2014, PHA 2016, WACHS 2016,
Service Location Data 2016 - ConNetica

Great Southern Region
Country WA PHN, Western Australia

A = Adult

C = Child, Youth and Adolescents

O = Older Adults

ConNetica
CREATING BETTER FUTURES
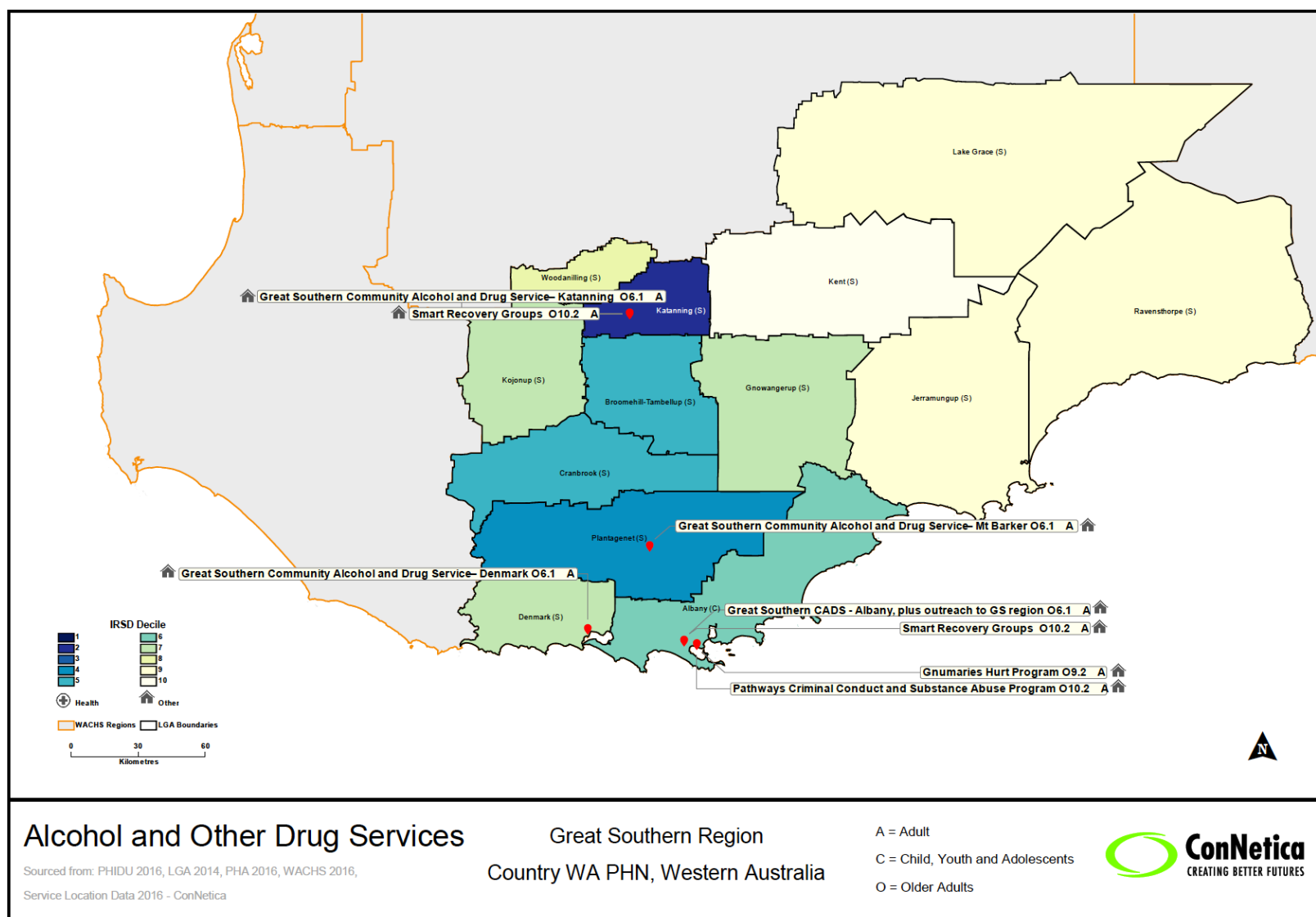
FIGURE 44 PLACEMENT OF GREAT SOUTHERN AOD SERVICES

13. Kimberley Region

The Kimberley region is the northern most region of Country WA, surrounded by the Northern Territory to the east and the Great Sandy Desert to the South.

13.1 Population Demographics

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 index. The diversity of the population is examined utilising the indicators of Indigenous status and proportion of those born overseas. Table 32 below presents key population demographics for the Kimberley region, disaggregated by LGA.

The Kimberley region has the highest Indigenous Status for WA, and is significantly higher than the national average. It is also the region with the second lowest ageing index, ranging from 22.4 in Broome through to 28.4 in Halls Creek (Country WA average is 64). With a total population of approximately 40,000 people it is the least populated region within Country WA.

TABLE 32 DEMOGRAPHIC FACTORS FOR THE KIMBERLEY REGION BY LGA

LGA	Area[*] (sq. km)	Total Population[†]	Density Ratio	Dependency Ratio	Ageing Index	Indigenous Status (%)[§]	Overseas Born (%)[¶]
Broome	54631.8	17,308	0.3	0.41	22.4	5,921 (33.8)	12.8
Derby-West Kimberley	119841.9	8,903	0.1	0.38	25.2	5,119 (59.0)	21.7
Halls Creek	133061.4	3,930	0.0	0.42	28.4	3,182 (79.9)	3.8
Wyndham-East Kimberley	112022.8	8,660	0.1	0.41	25.3	3,664 (41.5)	12.1
Country WA	**2.5 million**	**546,206**	**0.22**	**0.50**	**64.0**	**57,126 (10.3)**	**15.6**
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

13.2 Social Determinants of Health

Social determinants of health can be found in Table 33 below. The highest proportion of single parent families reside in Halls Creek (42.6%), whilst the lowest reside in Broome (28.3%). Halls Creek is a clear area of disadvantage marked by its high proportion of school leavers (63.2 per 100 persons), high unemployment rate (36.1%), proportion of people earning less than $400 per week (62.8%) and very low score on the social disadvantage scale (598, or the tenth lowest decile). The Derby-West Kimberley region also scores low on the disadvantage measure and high on unemployment.

TABLE 33 SOCIOECONOMIC FACTORS FOR THE KIMBERLEY REGION BY LGA

LGA	Single parent families (%)[*]	Needing Assistance (%)[*]	Early school leavers[*] (ASR per 100)	Un employment (%)[‡]	Income <$400 / wk (%)[†]	IRSD score[§]

Broome	28.3⇧	2.6⇩	36.7⇧	8.9⇧	31.2⇩	3 (947) ⇩
Derby-West Kimberley	37.3⇧	4.0⇩	42.8⇧	28.8⇧	49.6⇧	1 (746) ⇩
Halls Creek	42.6⇧	5.0⇧	63.2⇧	36.1⇧	62.8⇧	1 (598) ⇩
Wyndham-East Kimberley	31.7⇧	2.0⇩	43.6⇧	9.7⇧	30.6⇩	3 (890) ⇩
Country WA	**21.8**	**3.8**	**40.2**	**5.6**	**35.8**	**983**
WA	19.9	4.3	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)

13.3   Health and Mortality

A number of indicators of health status have been examined including a self-reported health status, a population based indicator of psychological distress and two key mortality measures (Table 34).

The age standardised suicide rates across the Kimberley are all much higher than the national average (11.2) and the Country WA average (18), ranging from 36.7 per 100,000 persons in Broome to 81.5 per 100,000 persons in Halls Creek LGA. A similar trend can also be observed in the road toll statistics, with all regions except Broome recording higher rates when compared with Country WA.

TABLE 34 HEALTH AND MORTALITY FOR THE KIMBERLEY REGION BY LGA

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)†
Broome	14.4⇧	9.7⇩	29	36.7⇧	9	11.6⇧
Derby-West Kimberley	n/a	n/a	24	54.3⇧	12	26.3⇧
Halls Creek	n/a	n/a	14	81.5⇧	8	43.4⇧
Wyndham-East Kimberley	n/a	n/a	16	39.4⇧	8	19.8⇧
Country WA	**15.1**	**10.6**	**447**	**18.0**	**335**	**13.7**
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)

14. Kimberley Mental Health Services

There was a total of 47 mental health BSIC across the Kimberley region delivering 57 main types of care (MTC) across 11 different DESDE classifications. 14 of these MTC are for children and adolescents (25%), 38 for adults (66%) and five for older adults (9%) (Figure 45).
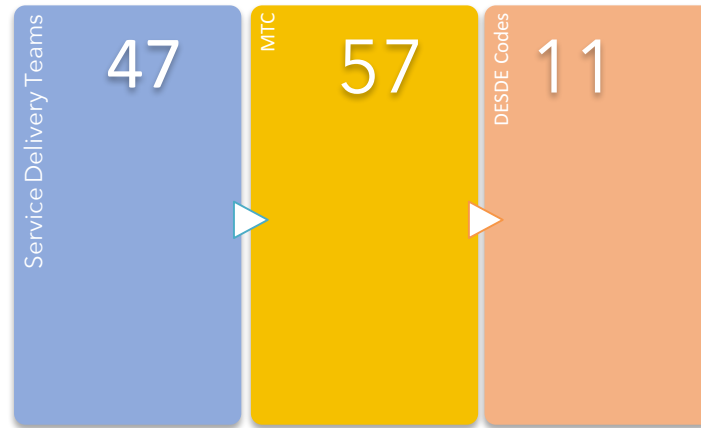
FIGURE 45 SUMMARY OF MENTAL HEALTH SERVICES IN THE KIMBERLEY REGION OF COUNTRY WA

A breakdown of these services is provided in Table 35 below. Outpatient services account for 55 of the 57 MTC (96%). The health sector provides the greatest proportion of care across the region, with 44 of the 57 MTC (77%).

TABLE 35 NUMBER OF MENTAL HEALTH SERVICE TYPES SOUTH WEST COUNTRY WA

Age Group	Provider Type	R	D	O	A	I	S	Total
Child & Adolescent	Health	0	0	9	0	0	0	9
	NGO/Other	0	0	5	0	0	0	5
	Sub-total	**0**	**0**	**14**	**0**	**0**	**0**	**14**
Adult	Health	2	0	28	0	0	0	30
	NGO/Other	0	0	8	0	0	0	8
	Sub-total	**2**	**0**	**36**	**0**	**0**	**0**	**38**
Older Adult	Health	0	0	5	0	0	0	5
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**5**	**0**	**0**	**0**	**5**
	Total	**2**	**0**	**55**	**0**	**0**	**0**	**57**

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

14.1   Residential Care – Mental Health

Acute Inpatient Services

There were no specific bed-based services identified for children, adolescents or older adults across the Kimberley region and this was a gap noted in some of the stakeholder interviews, particularly given the significant travel distance from Perth.

For adults, WACHS Kimberley region provides acute inpatient services via the Kimberley Mental Health and Drug Service (See Table 37). These include an Adult low dependency unit with 11 beds and an Adult high dependency unit with two beds.

Beyond Acute Inpatient services, no other providers were identified in either Sub-Acute care or other Residential care service categories.

14.2   Day Care – Mental Health

No day programs or other types of Day Care mental health services were identified within the Kimberley region.

14.3   Outpatient Care – Mental Health

Acute Mobile Outpatient Care

There were no specific Acute Mobile Outpatient services identified for children, adolescents or older adults across the Kimberley region.

The WACHS Kimberley Mental Health and Drug Service has five locations across the region each providing both Acute Mobile (O2.1) and Non-Acute Mobile Outpatient Care (O6.1) to both Aboriginal and adult populations. These are in Broome, Derby, Fitzroy Crossing, Halls Creek and Kununurra. Each serves different geographical locales, radiating out from their location across surrounding communities.

The Aboriginal mental health services are provided within mainstream WACHS services and supplemented by local initiatives such as Aboriginal community health clinics and the employment of specific health professionals, e.g. Aboriginal health workers and Aboriginal Liaison Officers (WACHS, 2017). These teams provide telephone consultation in addition to their face to face work as amatter of necessity.

Acute Non-Mobile Outpatient Care

There were no child, adolescent or older adult specific services identified in this category.

Once again, the WACHS Kimberley Mental Health and Drug Service caters for the Kimberley region in this category (See Table 37), with mental health liaison and triage services based in Broome, Derby, Fitzroy Crossing, Halls Creek and Kununurra (O4.1le).

Anglicare WA offers the standby service in Broome and Kununurra; a suicide bereavement response service that provides immediate support to people and communities who have been affected by suicide.

StandBy is one of the few suicide specific services identified in the region despite the high levels of suicide that occur in the Kimberley.

Non-Acute Mobile Outpatient Care

Children and adolescents (See Table 36) receive services from the WACHS Kimberley Mental Health and Drug Service in the form of CAMHS teams in the Broome, Derby, Fitzroy Crossing, Halls Creek and Kununurra locales (O5.1e). In addition, WACHS provides a Community Education liaison position working from Broome. An additional position is provided in Kununurra in partnership with Department of Education (DET). WACHS also runs youth counselling (O5.1) from its sites in Broome and Derby.

In terms of services for the adult and Aboriginal populations in this category (Table 37), WACHS Kimberley Mental Health and Drug Service provides Individual Community Living Strategy services in Broome and Derby.

The Ngnowar Aerwah Aboriginal Corporation is providing Men's Outreach services in the Wyndham area (approx. 1FTE). This is a Social and emotional wellbeing counselling service that also provides educational programs within the schools.

Life Without Barriers provides ICLS and Helping Minds provides Carer Support, both from Broome.

WACHS Kimberley Mental Health and Drug Service provides Older Adult Mental Health Service (Table 38) in Broome and Kununurra, and Older Adult Community Mental Health Service in Derby, Fitzroy Crossing and Halls Creek.

Non-Acute Non-Mobile Outpatient Care and Other Non-Acute Outpatient Care

Mirroring most regions, the Non-Acute Non-Mobile services across the Kimberley region are varied across age and type of service.

Children and adolescents can access several services in this region. The Broome Headspace is provided through the Kimberley Aboriginal Medical Services. Anglicare provides Kutjungka in Kununurra (Table 36). The Kutjunga Youth Social and Emotional Wellbeing Service (SEWB) provides counselling, psychosocial education and other community activities to enhance the wellbeing of young people. Services are provided to Balgo, Mulan and Billiluna communities on a fortnightly basis.

Alive and Kicking Goals is a youth suicide prevention project for Aboriginal young people which includes peer education workshops, one-on-one mentoring, and counselling. It is provided by the Men's Outreach Service in Broome.

Helping Minds provides Family Mental Health Services Support (FMHSS) in both Broome and Kununurra. FMHSS provide early intervention support to assist vulnerable families with children and young people up to age 18 years who are at risk of, or affected by, mental illness.

For the adult population, WACHS Kimberley Mental Health and Drug Service provides a Community Recovery Centre in Broome. The Ngnowar Aerwah Aboriginal Corporation provides the Building Solid Families Program from Wyndham. There is a PHaMs/Social Emotional Wellbeing Unit run by the Yura Yungi Aboriginal Medical Centre in Halls Creek.

The Waringarri Aboriginal Corporation provides CAPS, the Community Action Plan – Suicide Prevention program. It works alongside communities and individuals to heal the impact of trauma, and strengthen community capacity to prevent suicide. The CAPS service offers training and Aboriginal Mental Health First Aid workshops in partnership with Ord Valley Aboriginal Health Services and Kimberley Aboriginal Medical and Health Services. (Kununurra Waringarri Aboriginal Corporation, 2017).

Finally, Helping Minds provides a Mental Health Carer Support program from Broome.

There were no specific services of this type identified for older adults across the Kimberley region.

14.4   Information and Guidance, Accessibility and Self-Help/Voluntary Services

No services with a primary role within these categories were identified in the Kimberley region. It is pertinent to note however that many services that provide Outpatient or outreach support provide information and accessibility support as an integral part of their service and most have information resources available for clients visiting their premises.

14.5   Pattern of Mental Health Care

Figure 46 displays the pattern of care of mental health services across the Kimberley region. The Kimberley region has comparatively the largest number of teams per 100,000 adults across all CWAPHN regions. This is most evident across the Outpatient service categories.

14.6   Placement of Mental Health Services

Compared with other regions, services are generally spread across the Kimberley area with most services found in highly populated Broome, along with a number in Kununurra (Figure 47).

TABLE 36 CHILD AND ADOLESCENT MENTAL HEALTH SERVICES IN KIMBERLEY

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Non-Acute, Mobile Outpatient care	WACHS Kimberley Mental Health and Drug Service	CAMHS	CX[F0-F99] - O5.1e	Broome	Fitzroy Crossing and surrounding communities. Includes all Fitzroy Valley communities. Main communities include Wangkatjungka, Yirimalay.
		CAMHS	CX[F0-F99] - O5.1e	Derby	Derby, Surrounds including Pandanus Park, Looma, Mowanjum
		CAMHS	CX[F0-F99] - O5.1eu	Fitzroy Crossing	Fitzroy Crossing, surrounding communities including Fitzroay Valley, Yirimalay, Wangkatjungka
		CAMHS	CX[F0-F99] - O5.1eu	Halls Creek	Halls Creek
		CAMHS	CX[F0-F99] - O5.1 e	Kununurra	Kununurra and Halls Creek and surrounding communities. Also includes Wyndham, Kalumburu, Warmun, Yiyli, Kutjungka
		Community Education Liaison	CY[F0-F99] - O5.1	Broome	Broome
	WACHS and DET	Community Education Liaison (CELT)	CY[F0-F99] - O5.1	Kununurra	Kununurra

	WACHS Kimberley Mental Health and Drug Service	Youth Counselling	CY[F0-F99] - O5.1	Broome	Broome
		Youth Counselling	CY[F0-F99] - O5.1	Derby	Derby, Mowanjum, Imintji, Kupungarri
Non-Acute, Non-Mobile Outpatient care	Kimberley Aboriginal Medical Services Ltd	Headspace Broome	CY[F0-F99] - O9.1	Broome	Derby, Mowanjum, Imintji, Kupungarri
	Anglicare WA	Kutjungka	CXIN[F0-F99] - O9.2u	Kununurra	Broome & The Dampier Peninsula communities of Beagle Bay, Lombadina, Djarindjin and One Arm Point
	Helping Minds	FMHSS - Kimberley, Broome	CX[F0-F99] - O9.2	Broome	Kutjunka Region
		FMHSS - Kimberley, Kununurra	CX[F0-F99] - O9.2	Kununurra	Kimberley
	Men's Outreach Service	Alive and Kicking Goals	CYIN[T14.91][F0-F99] - O10.2	Broome	N/S

TABLE 37 Adult Mental Health Services in Kimberley

Classification	Organisation	Team Name	DESDE - 1 (beds)	Suburb	Catchment
Acute Inpatient care	WACHS Kimberley Mental Health and Drug Service	Adult Authorised Inpatient - Low Dependency Unit	AX[F0-F99] - R2 (11)	Broome	Kimberley, Pilbara
		Adult Authorised Inpatient High Dependency Unit	AX[F0-F99] - R2c (2)	Broome	Kimberley, Pilbara
Acute, Mobile Outpatient care	WACHS Kimberley Mental Health and Drug Service	Adult Community Mental Health Services	AX[F0-F99] - O2.1e AX[F0-F99] - O6.1e	Broome	Broome and surrounding communities. Also includes Dampier Peninsular (Beagle Bay, Lombadina, Djarradjin, Ardyaloon), Bidyadanga
		Aboriginal Mental Health Services	AXIN[F0-F99] - O2.1e AXIN[F0-F99] - O6.1e	Broome	Broome and surrounding communities. Also includes Dampier Peninsular (Beagle Bay, Lombadina, Djarradjin, Ardyaloon), Bidyadanga
		Adult Community Mental Health Services	AX[F0-F99] - O2.1e AX[F0-F99] - O6.1e	Derby	Derby and surrounding communities. Also includes Pandanus Park, Looma, Mowanjum, Gibb River
		Aboriginal Mental Health Services	AXIN[F0-F99] - O2.1eu AX[F0-F99] - O6.1e	Derby	Derby and surrounding communities. Pandanus Park, Looma, Mowanjum, Gibb River

		Adult Community Mental Health Services	AX[F0-F99] - O2.1eu AX[F0-F99] - O6.1eu	Fitzroy Crossing	Fitzroy Crossing, surrounding communities, including Fitzroy Valley, Noonkanbah, Wangkatjungka
		Aboriginal Mental Health Services	AXIN[F0-F99] - O2.1e AXIN[F0-F99] - O6.1e	Fitzroy Crossing	Fitzroy Crossing, surrounding communities, including Fitzroy Valley, Noonkanbah, Wangkatjungka
		Adult Community Mental Health Services	AX[F0-F99] - O2.1eu AXIN[F0-F99] - O6.1eu	Halls Creek	Halls Creek and surrounds, including Warmun, Yiyli, Kutjungka
		Aboriginal Mental Health Services	GXIN[F0-F99] - O2.1e GXIN[F0-F99] - O6.1e	Halls Creek	Halls Creek and surrounds, including Warmun, Yiyli, Kutjungka
		Adult Community Mental Health Services	AX[F0-F99] - O2.1e AX[F0-F99] - O6.1e	Kununurra	Kununurra, surrounds, including Wyndham, Kalumburu
		Aboriginal Mental Health Services	GXIN[F0-F99] - O2.1e GXIN[F0-F99] - O6.1e	Kununurra	Kununurra and surrounding communities. Also includes Wyndham, Kalumburu
Acute, Non-Mobile Outpatient care	WACHS Kimberley Mental Health and Drug Service	Mental Health Liaison Services/Triage for Adult, Older Adult, CAMHS and Alcohol and Drug Services	AX[F0-F99] - O4.1le	Broome	Broome M-F Kimberley/Pilbara weekends

		Mental Health Liaison Services/Triage for Adult, Older Adult, CAMHS and Alcohol and Drug Services	AX[F0-F99] - O4.1	Kununurra	Kununurra and surrounding communities. Also includes Wyndham, Kalumburu
		Mental Health Liaison Services/Triage for Adult, Older Adult, CAMHS and Alcohol and Drug Services	AX[F0-F99] - O4.1	Halls Creek	Halls Creek and surrounding communities. Also includes Yiyli, Warmun, Kutjungka
		Mental Health Liaison Services/Triage for Adult, Older Adult, CAMHS and Alcohol and Drug Services	AX[F0-F99] - O4.1	Fitzroy Crossing	Fitzroy Valley communities
		Mental Health Liaison Services/Triage for Adult, Older Adult, CAMHS and Alcohol and Drug Services	AX[F0-F99] - O4.1	Derby	Derby and surrounding communities M-F. Includes Pandanus Park, Looma, Mowanjum, Gibb River
	Anglicare WA	Standby - Broome	GX[E95][F0-F99] - O4.2u	Broome	Broome
		Standby - Kununurra	GX[E95][F0-F99] - O4.2u	Kununurra	Kununurra
Non-Acute, Mobile Outpatient care	WACHS Kimberley Mental Health and Drug Service	Individualised Community Living Strategy (ICLS) - Supported Accomodation	AX[F0-F99] - O6.1aeu	Broome	Broome
		Individualised Community Living Strategy (ICLS)	AX[F0-F99] - O6.1aeu	Derby	Derby
	Life Without Barriers	ICLS	AX[F0-F99] - O6.2	Broome	N/A
	Ngnowar Aerwah Aboriginal Corporation	Men's Outreach	AXMIN[F10-F19] - O6.2u	Wyndham	Wyndham

Non-Acute, Non-Mobile Outpatient care	WACHS Kimberley Mental Health and Drug Service	Broome Community Recovery Centre	AX[F0-F99][F10-F19] - O8.1	Broome	Broome
	Ngnowar Aerwah Aboriginal Corporation	The Building Solid Families Program	AXMIN[F0-F99] - O9.2	Wyndham	Wyndham
	Helping Minds	Mental Health Carer Support -Broome	GX[e310][F0-F99] - O9.2u	Broome	Broome township
	Yura Yungi Aboriginal Medical Service	PHaMs/SEWB UNIT	AXIN[F0-F99] - O9.2u	Halls Creek	within in the whole of Shire of Halls Creek
	Warringarri Aboriginal Corporation	CAPS (Community Action Plan-Suicide Prevention)	GXIN[F0-F99] - O10.2g	Kununurra	Kununurra

TABLE 38 Older Adult Mental Health Services in Kimberley

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Non-Acute, Mobile Outpatient care	WACHS Kimberley Mental Health and Drug Service	Older Adult MHS	OX[F0-F99][F10-F19] - O5.1ae	Broome	Broome, surrounds, including Dampier Peninsular, Bidyadanga
		Older Adult Community MHS	OX[F0-F99][F10-F19] - O5.1ae	Derby	Derby & Surrounds, including Pandanus Park, Looma, Mowanjum, Gibb River
		Older Adult Community MHS	OX[F0-F99][F10-F19] - O5.1a	Fitzroy Crossing	Fitzroy Crossing, surrounding communities, including Fitzroy Valley, Noonkanbah, Wangkatjungka
		Older Adult Community MHS	OX[F0-F99][F10-F19] - O5.1ae	Halls Creek	Halls Creek & Surrounds including Warmun, Yiyli, Kutjunka
		Older Adult MHS	OX[F0-F99][F10-F19] - O5.1ae	Kununurra	Kununurra & Surrounds including Wyndham, Kalumburu
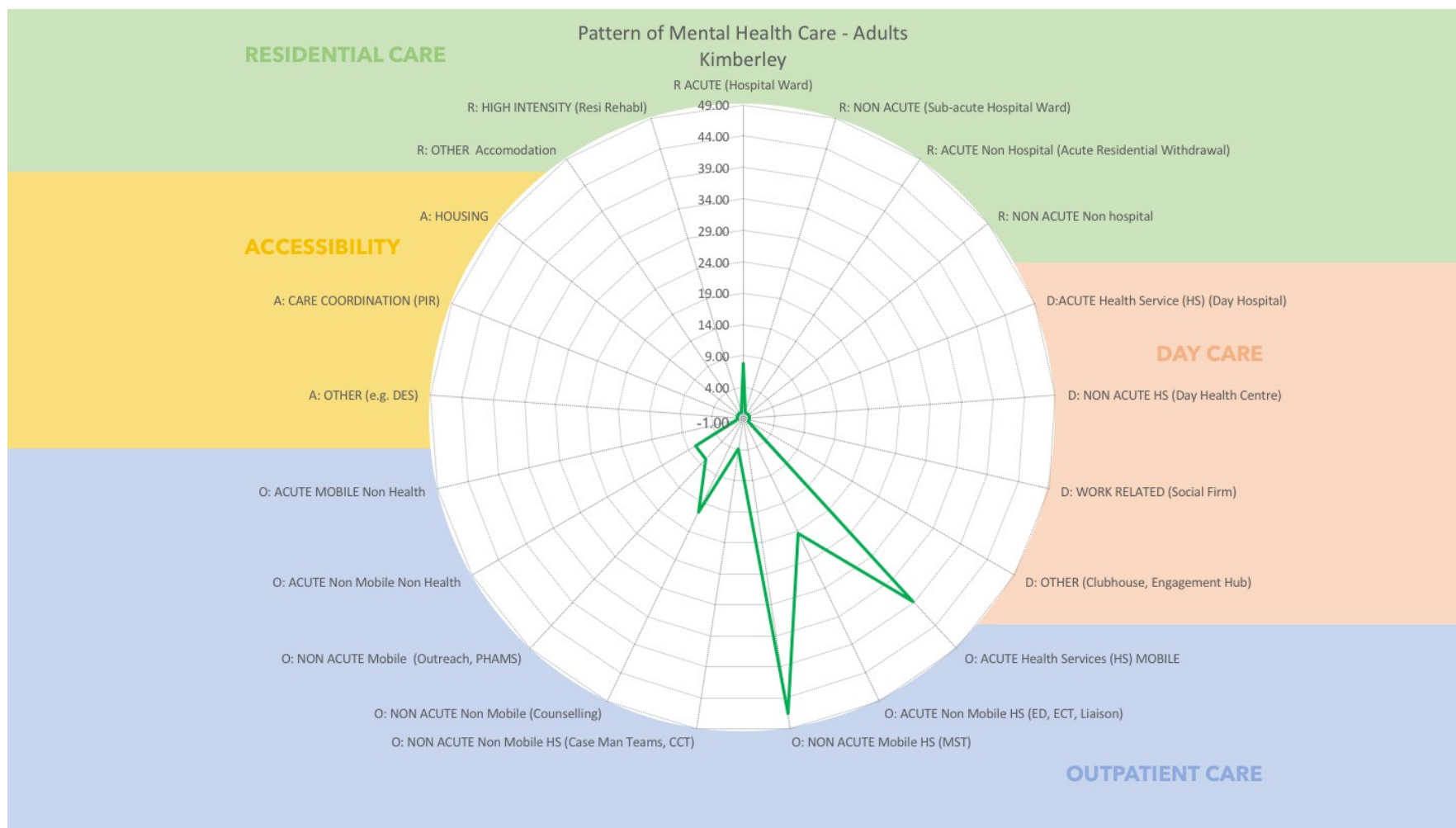
FIGURE 46 PATTERN OF MENTAL HEALTH CARE FOR ADULTS IN KIMBERLEY
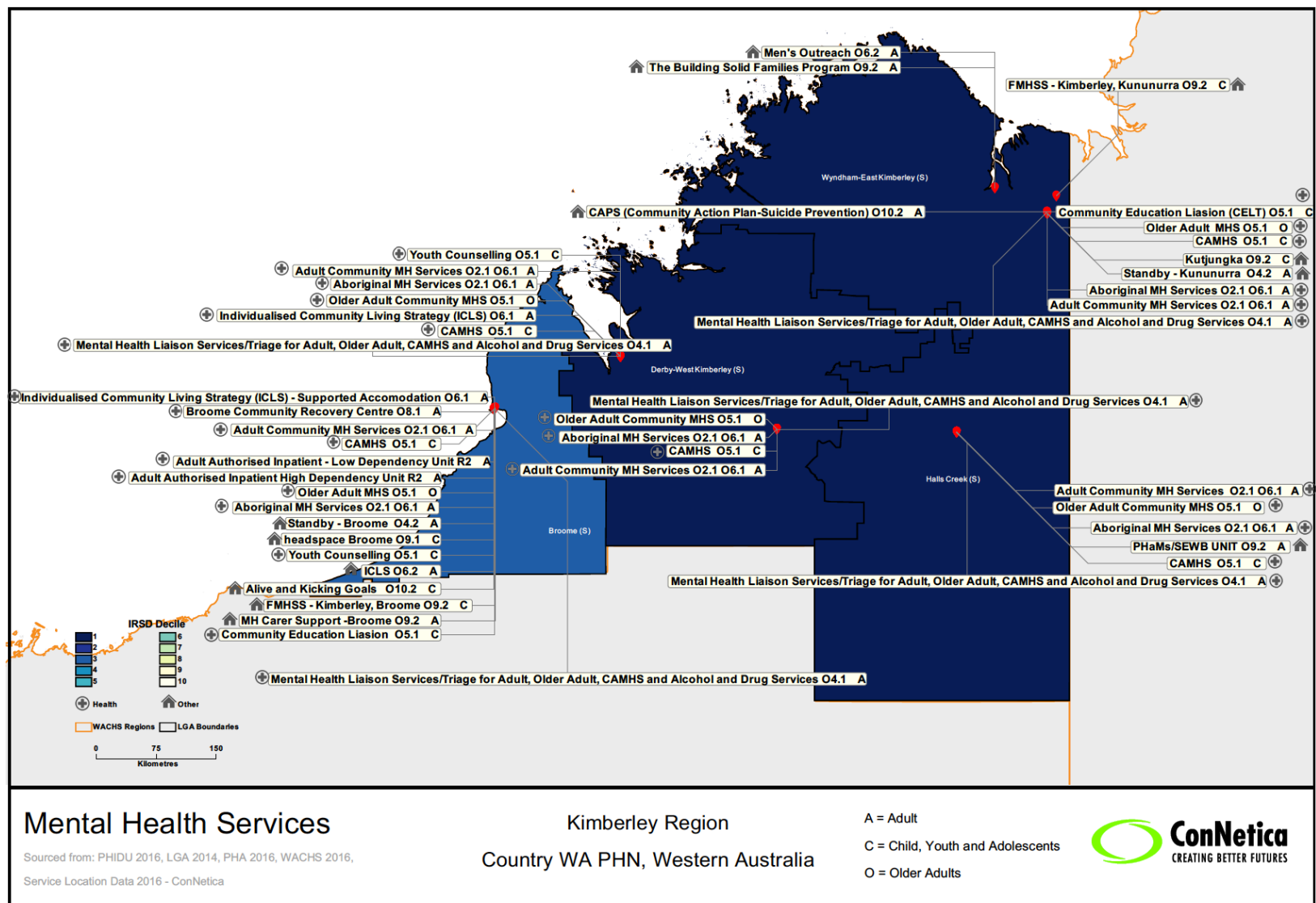
FIGURE 47 PLACEMENT OF KIMBERLEY MENTAL HEALTH SERVICES

15. Kimberley Region AOD

Alcohol related hospitalisations in the Kimberley region far exceed the WA state age standardised rate. Hospitilisations with alcohol as the key aetiology have hovered around 2250 per 100,000 persons, compared with the state average of approximately 750 per 100,000 persons (Figure 48). Drug related hospitalisations, however, remain lower than the state average according to the most recent available data in 2012 (Figure 49). Of concern is the rising use of Ice in the region, and the lack of AOD support for youth (Estellar Consulting, 2016b).

FIGURE 48 ALCOHOL RELATED HOSPITALISATIONS IN KIMBERLEY

Source: Alcohol and Other Drug Indicators Reports (2015)

FIGURE 49 OTHER DRUG RELATED HOSPITALISATIONS IN KIMBERLEY

Source: Alcohol and Other Drug Indicators Reports (2015)

16. Kimberley AOD Services

There was a total of 25 AOD BSIC across the Kimberley region, all being adult general (open age) services (Figure 50). There was no age specific specialist AOD services identified for children and adolescents or older adults, although the Ngnowar Aerwah services in Wyndham and the Milliya Rummara service in Broome are identified as 'GX' meaning they are open age services.
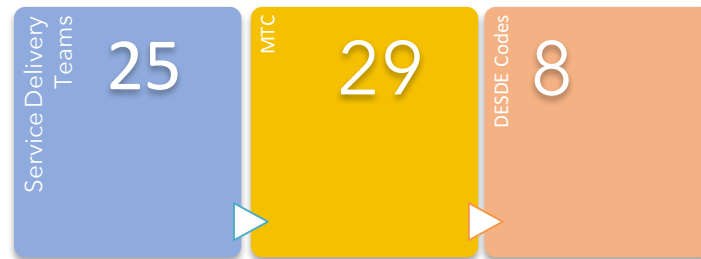
FIGURE 50 SUMMARY OF AOD SERVICES IN THE KIMBERLEY REGION OF COUNTRY WA

16.1 Residential Care – AOD

Acute Inpatient Services

In terms of bed-based AOD Residential services, there were no Acute services identified.

Non-Acute Residential Care

The Milliya Rummara Aboriginal Corporation provides a 24 bed non-government Residential rehabilitation centre in Broome that provides treatment and rehabilitation to Aboriginal people wishing to address their AOD use (Table 39). This program seeks to address the effects of alcohol and drugs upon the individual, family and community. It provides Outpatient care as part of this service.

Ngnowar Aerwah Aboriginal Corporation provides the 7 Mile Residential drug and alcohol rehabilitation service in Wyndham, bed numbers were not able to be determined. This Residential AOD rehabilitation service is specifically for Aboriginal people and involves 13-19 weeks of Residential rehabilitation with case management.

Other Residential Care Services

Following consultation and review with the sector, short term sobering up shelters were categorised as 'Other Residential Care'. The main purpose of sobering up shelters is to provide a safe, care oriented environment in which persons found intoxicated in public can sober up, reducing the likelihood of them causing harm to themselves or to others in the community.

In the Kimberley region, sobering up centres are located in Derby, (21 places provided by the Garl Walbru Aboriginal Association), and in Broome (26 places provided by Milliya Rummara Aboriginal Corporation).

Ngnowar Aerwah Aboriginal Corporation provides both a sobering up shelter and a night patrol in Wyndham. The sobering up shelter has five places for females and 10 for males and the patrol service offers 28 places. The Kununurra Warringarri Aboriginal Corporation also provides a sobering up shelter (Moongoong) in Kununurra offering 24 places.

16.2 Day Care - AOD

There were no identified AOD Day Care facilities within the Kimberley region.

16.3   Outpatient Care – AOD

Acute Mobile Outpatient Care

Kimberley has the most comprehensive Mobile Outpatient Acute care services of all the regions in the CWAPHN (See Table 39). The WACHS Kimberley Community Alcohol and Drug Service provides Acute Mobile care out of the Derby, Halls Creek, Kununurra and Fitzroy Crossing localities.

There is a night patrol provided by Ngnowar Aerwah Aboriginal Corporation in Wyndham (included in Residential Care) and the Kununurra Miriwoong Community Patrol Service in Kununurra offered by the Kununurra Warringarri Aboriginal Corporation.

The Jungarni Jutiya Indigenous Corporation runs a night patrol and alcohol centre in Halls Creek.

No Acute Non-Mobile Outpatient Care services (O3 and O4) were identified.

Non-Acute Mobile Outpatient Care

As shown in Table 39, the Kimberley region has a number of Non-Acute Mobile Outpatient services. The Cyrenian House and Milliya Rumurra partner together to provide CHMR Outreach services which are located in Broome. This service provides individuals and their families with access to AOD services on an outreach basis, servicing the communities north of Broome along the Dampier Peninsula and south to Bidyadanga.

The Nindilingarri Cultural Health Service provides AOD outreach services with one team for adults and one team providing care for all ages in the Fitzroy Crossing locality.

WACHS Kimberley Community Alcohol and Other Drug Service provides specific AOD services in Broome.

Non-Mobile Non-Acute Outpatient Care

For adults, services are provided by four different organisations across Broome, Warmun, Wyndham and Kununurra. Services provided include treatment, counselling, continued care, rehabilitation, social support and specialist AOD services (See Table 39).

Milliya Rumurra Aboriginal Corporation runs educational sessions twice per week on Tuesday and Thursday mornings, which have been classified as Outpatient care O10.2g.

16.4   Information and Guidance, Accessibility and Self-Help and Voluntary Services – AOD

There were no identified available services within these categories in the Kimberley region.

16.5   Pattern of AOD Care

Similar to mental health services, there is a strong representation of AOD services in the Outpatient category in the Kimberley. There is however a provision of Residential accommodation services unique to the AOD service pattern in this region (Figure 51).

16.6   Placement of AOD Services

Once again, AOD services mirror the mental health service map with services located across the Kimberley region. AOD services stretch from the far western tip of the Kimberley region right up to Wyndham and Kununurra in the North East (Figure 52).

TABLE 39 Adult AOD Services in Kimberley

Classification	Organisation	Team Name	DESDE - 1 (beds)	Suburb	Catchment
Non-Acute Inpatient care	Milliya Rumarra Aboriginal Corporation	Milliya Rumurra Residential Rehab	AXIN[F10-F19] - R9.2 (24) AXIN[F10-F19] - 09.2	Broome	Statewide
	Ngnowar Aerwah Aboriginal Corporation	7 Mile Residential drug and alcohol rehabilitation	AXIN[F10-F19] - R9.2	Wyndham	Statewide
Other Inpatient care	Garl Garl Walbru Aboriginal Association	Derby Sobering Up Service	AXIN [F10-F19] - R14 (21)	Derby	Derby & Surrounds
	Milliya Rumarra Aboriginal Corporation	Broome Sobering Up shelter	AXIN[F10-F19] - R14 (26)	Broome	Broome & Surrounds
	Ngnowar Aerwah Aboriginal Corporation	Wyndham sobering up shelter	GXFIN[F10-F19] - R14 (5) GXMIN[F10-F19] - R14 (10)	Wyndham	Wyndham
		Night Patrol/Sobering Up Service	AXIN[F10-F19] - R14 (28)	Wyndham	Wyndham
	Kununurra Warringarri Aboriginal Corporation	Moongoong Sober Up Shelter	AXIN[F10-F19] - R14 (24)	Kununurra	Kununurra
Acute, Mobile Outpatient care	WACHS Kimberley Mental Health and Drug Service	Kimberley Community Alcohol and Drug Service	AX[F10-F19] - O2.1e AX[F10-F19] - O6.1e	Derby	Derby, Pandanus Park, Looma, Mowanjum, Gibb River, Looma
		Kimberley Community Alcohol and Drug Service	AX[F10-F19] -O2.1e AX[F10-F19] - O6.1e	Fitzroy Crossing	Fitzroy Crossing, surrounding communities, Noonkanbah, Wangkatjungka

		Kimberley Community Alcohol and Drug Service	AX[F10-F19] - O2.1e AX[F10-F19] - O6.1e	Halls Creek	Halls Creek, Yiyilli, Ringer Soak, Balgo Mulen, Bililluna, Warmun, Frog Hollow
		Kimberley Community Alcohol and Drug Service	AX[F10-F19] - O2.1e AX[F10-F19] - O6.1e	Kununurra	Kununurra, Kalumburu, Wyndham, Doon Doon, Glen Hill Outstation
	Waringarri Aboriginal Corporation	Kununurra Miriwoong Community Patrol Service.	AXIN[F10-F19] - O2.1	Kununurra	Kununurra
	Jungarni Jutiya Indigenous Corp	Halls Creek Night Patrol and Alcohol Centre	AXIN[F10-F19] - O2.1	Halls Creek	Halls Creek & Surrounds
Non-Acute, Mobile Outpatient care	Milliya Rumarra Aboriginal Corporation	CHMR Outreach	GXIN[F10-F19] - O5.2	Broome	Broome
	Nindilingarri Cultural Health Service	Nindilingarri Cultural Health Service AOD Outreach	AXIN[F10-F19][F0-F99] - O5.2	Fitzroy Crossing	Fitzroy crossing area
	WACHS Kimberley Mental Health and Drug Service	Kimberley Community Alcohol and Drug Service	AX[F10-F19] - O6.1e	Broome	Broome, Looma, Dampier Peninsular
	Nindilingarri Cultural Health Service	Nindilingarri Cultural Health Service	AXIN[F0-F99] - O6.2	Fitzroy Crossing	N/S
		Nindilingarri Cultural Health Service	AXIN[F0-F99] - O6.2	Fitzroy Crossing	N/S
	Cyrenian House	CHMR	AX[F10-F19] - O6.2	Broome	West Kimberley Dampier Peninsula Bidyadanga Broome

Non-Acute, Non-Mobile Outpatient care	Milliya Rumarra Aboriginal Corporation	Continued Care	AXIN[F10-F19] - O9.2	Broome	Broome & Surrounds
		Specialist Alcohol and Other Drug Treatment	AXIN[F10-F19] - O9.2j	Broome	Broome & Surrounds
	Warmun Drug and Alcohol	Warmun Drug and Alcohol	AXIN[F10-F19] - O9.2	Warmun	Warmun and Surrounds
	Ngnowar Aerwah Aboriginal Corporation	Non-Residential Treatment and Counselling	AXMIN[F10-F19] - O9.2	Wyndham & Surrounds	Wyndham & Surrounds
	Milliya Rumarra Aboriginal Corporation	Day program	AXIN[F10-F19] - O10.2g	Broome	Broome
	Ord Valley Aboriginal Health Service	Social Support Unit (SSU)	AXIN[F10-F19] - O10.2	Kununurra	Kununurra
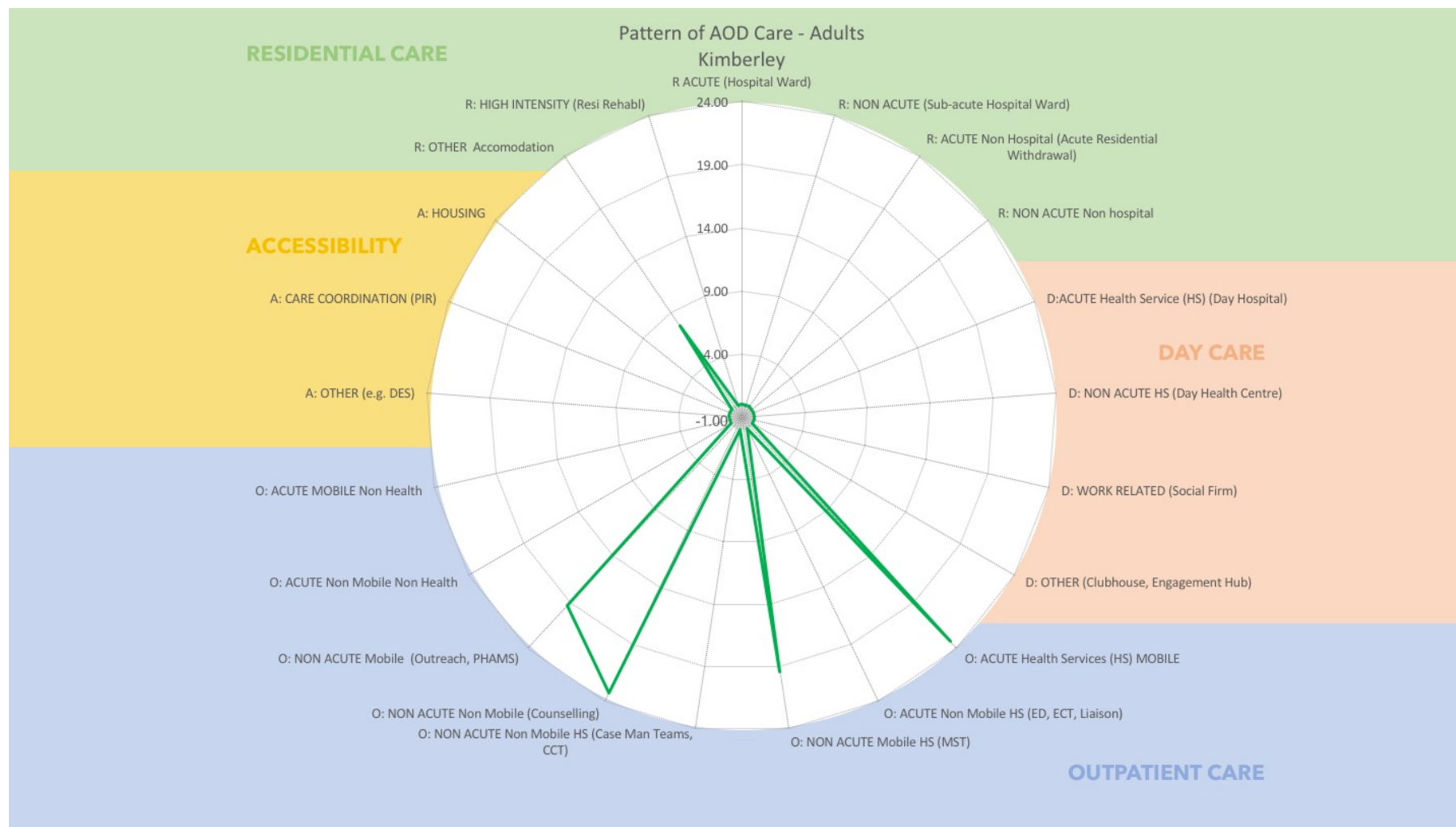
FIGURE 51 PATTERN OF AOD CARE FOR ADULTS IN KIMBERLEY

Wyndam sobering up shelter R14   A

7 Mile Residential drug and alcohol rehabilitation
R9.2   A

Night Patrol/Sobering Up Service R14   A

Non-residential Treatment and Counselling O9.2   A

Kimberley Community Alcohol and Drug Service O2.1 O6.1   A

Wyndham-East Kimberley (S)

Social Support Unit (SSU) O10.2   A

Moongoong Sober Up Shelter R14   A

Kununurra Miriwoong Community Patrol Service.   O2.1   A

Kimberley Community Alcohol and Drug Service O2.1 O6.1   A

Derby Sobering Up Service R14   A

Warnum Drug and Alcohol O9.2   A

Derby-West Kimberley (S)

CHMR O6.2   A

Broome Sobering Up shelter R14   A

Kimberley Community Alcohol and Drug Service O6.1   A

Kimberley Community Alcohol and Drug Service O2.1 O6.1   A

Halls Creek Night Patrol and Alcohol Centre O2.1   A

Halls Creek (S)

Continued Care O9.2   A

Day program O10.2   A

CHMR Outreach O5.2   A

Specialist Alcohol and Other Drug Treatment O9.2   A

Milliya Rumurra Residential Rehab R9.2   A

Broome (S)

Nindilingarri Cultural Health Service AOD Outreach
O5.2   A

Nindilingarri Cultural Health Service O6.2   A

Nindilingarri Cultural Health Service O6.2   A

Kimberley Community Alcohol and Drug Service O2.1 O6.1   A

IRSD Decile
1
2
3
4
5
6
7
8
9
10
Health
Other
WACHS Regions   LGA Boundaries
0   75   150
Kilometres

Alcohol and Other Drug Services

Kimberley Region

Country WA PHN, Western Australia

A = Adult

C = Child, Youth and Adolescents

O = Older Adults

ConNetica
CREATING BETTER FUTURES

FIGURE 52 PLACEMENT OF KIMBERLEY AOD SERVICES

INTEGRATED ATLAS OF MENTAL HEALTH AND ALCOHOL AND OTHER DRUGS
- COUNTRY WA

17. Midwest Region

The Midwest region stretches from the west coast and is bordered by the Pilbara, Wheatbelt and Goldfields regions. The Midwest region's population is most densely concentrated in the Geraldton-Greenough LGA on the west coast.

17.1 Population Demographics

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 ratio and ageing index. The diversity of the population is examined utilising the indicators of Indigenous status and proportion of those born overseas. Table 40 below presents key population demographics for the Midwest Region, disaggregated by LGA.

The Upper Gascoyne LGA has the highest Indigenous Status (62.7%), with the lowest proportion residing in Exmouth (2.6%). The Wiluna LGA has the greatest cultural diversity with 24.2% of the people in this LGA being born overseas (Table 40).

TABLE 40 KEY POPULATION DEMOGRAPHICS FOR THE MIDWEST REGION BY LGA

LGA	Area* (sq. km)	Total Population[†]	Density Ratio	Dependency Ratio	Ageing Index	Indigenous Status (%)[§]	Overseas Born (%)[¶]
Carnamah	2873	535	0.2	0.50	86.6	17 (3.3)	12.8
Carnarvon	46562.2	6,098	0.1	0.53	71.4	1,440 (23.3)	16.7
Chapman Valley	3982.6	1,229	0.3	0.53	72.1	55 (5.0)	14.6
Coorow	4188.8	1,053	0.3	0.59	158.7	29 (2.8)	11.7
Cue	13584.9	271	0.0	0.41	132.8	82 (29.5)	15.9
Exmouth	6488.1	2,591	0.4	0.48	57.0	67 (2.6)	16.7
Geraldton-Greenough[#]	1778.7	40,440	22.7	0.54	59.1	4,718 (11.4)	13.7
Irwin	2372	3,753	1.6	0.73	122.1	102 (2.7)	13.9
Meekatharra	100120.8	1,376	0.0	0.25	58.7	520 (36.4)	13.4
Mingenew	1934.9	473	0.2	0.44	65.1	27 (5.7)	7.8
Moora	3763	2,539	0.7	0.57	64.7	359 (14.2)	11.9
Mount Magnet	13872.9	643	0.1	0.36	70.1	267 (39.8)	12.5
Mullewa[#]	8110.4	783	0.1	0.54	59.1	186 (25.0)	9.7
Murchison	45030.2	114	0.0	0.30	85.4	42 (35.2)	12.2
Northampton	12617.7	3,253	0.3	0.71	128.7	213 (6.6)	13.6
Perenjori	8300.5	895	0.1	0.24	70.2	64 (7.1)	18.2
Sandstone	32666.5	105	0.0	0.26	175.0	5 (4.3)	12.5
Shark Bay	24140.2	951	0.0	0.55	111.3	93 (9.6)	17.7
Three Springs	2652.9	614	0.2	0.53	86.1	42 (6.8)	15.3
Upper	57883.4	264	0.0	0.76	25.2	194 (62.7)	4.4

Gascoyne						
Wiluna	181294.4	1,156	0.0	0.13	49.4	325 (27.4)	24.2
Yalgoo	27936.4	402	0.0	0.15	54.0	106 (25.6)	14.4
Country WA	**2.5 million**	**546,206**	**0.22**	**0.50**	**64.0**	**57,126 (10.3)**	**15.6**
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
[#] Geraldton-Greenough merged with Mullewa in 2011 to become Greater Geraldton

17.2   Social Determinants of Health

Table 41 displays various social determinants of health for the Midwest region.

The Sandstone LGA has the highest unemployment rate (11.8%), more than double the rate in Exmouth (4.6%). The Yalgoo region has the lowest proportion of residents earning less than $400 per week (16.7%), less than half that of the national average.

TABLE 41 Socioeconomic Factors for the Midwest Region by LGA

LGA	Single parent families (%)[*]	Needing Assistance (%)[*]	Early school leavers[*] (ASR per 100)	Un employment (%)[‡]	Income <$400 / wk (%)[†]	IRSD score[§]
Carnamah	11.5 ⇩	3.0 ⇩	39.8 ⇧	5.1 ⇩	40.3 ⇧	7 (1000) ⇩
Carnarvon	26.1 ⇧	4.2 ⇩	43.6 ⇧	11.1 ⇧	36.2 ⇧	2 (924) ⇩
Chapman Valley	12.3 ⇩	3.0 ⇩	42.4 ⇧	6.0 ⇧	37.6 ⇧	8 (1023) ⇧
Coorow	25.3 ⇧	3.6 ⇩	39.8 ⇧	4.9 ⇩	43.9 ⇧	4 (960) ⇩
Cue	47.4 ⇧	3.6 ⇩	43.3 ⇧	11.4 ⇧	52.3 ⇧	1 (867) ⇩
Exmouth	17.1 ⇩	3.0 ⇩	39.7 ⇧	4.6 ⇩	27.0 ⇩	9 (1026) ⇧
Geraldton-Greenough[§]	25.9 ⇧	4.2 ⇩	41.9 ⇧	7.3 ⇧	36.4 ⇧	6 (978) ⇩
Irwin	19.5 ⇩	4.1 ⇩	42.6 ⇧	5.5 ⇩	42.1 ⇧	6 (986) ⇩
Meekatharra	35.7 ⇧	3.1 ⇩	43.3 ⇧	11.2 ⇧	32.2 ⇩	1 (852) ⇩
Mingenew	21.1 ⇧	3.3 ⇩	39.8 ⇧	4.8 ⇩	31.4 ⇩	5 (974) ⇩
Moora	18.8 ⇩	3.4 ⇩	40.3 ⇧	5.0 ⇩	37.3 ⇧	6 (987) ⇩
Mount Magnet	31.6 ⇧	3.0 ⇩	43.3 ⇧	11.2 ⇧	42.1 ⇧	1 (854) ⇩
Mullewa[§]	23.3 ⇧	3.3 ⇩	41.3 ⇧	7.3 ⇧	35.4 ⇩	4 (949) ⇩
Murchison	0.0 ⇩	5.8 ⇧	43.3 ⇧	11.5 ⇧	38.7 ⇧	1 (883) ⇩
Northampton	19.3 ⇧	4.9 ⇧	41.3 ⇧	7.3 ⇧	47.7 ⇧	4 (958) ⇩
Perenjori	11.6 ⇩	1.2 ⇩	39.8 ⇧	5.0 ⇩	22.8 ⇩	9 (1031) ⇧
Sandstone	0.0 ⇩	4.4 ⇩	43.3 ⇧	11.8 ⇧	41.1 ⇧	3 (940) ⇩

Shark Bay	19.2⬇	4.6⬆	39.7⬆	4.7⬇	36.8⬆	5 (972) ⬇
Three Springs	23.7⬆	5.4⬆	39.8⬆	5.1⬇	41.1⬆	4 (958) ⬇
Upper Gascoyne	56.3⬆	0.0⬇	39.7⬆	4.9⬇	62.2⬆	1 (717) ⬇
Wiluna	49.0⬆	2.0⬇	43.3⬆	11.3⬆	21.5⬇	1 (799) ⬇
Yalgoo	41.2⬆	1.6⬇	43.3⬆	11.5⬆	16.7⬇	2 (914) ⬇
Country WA	**21.8**	**3.8**	**40.2**	**5.6**	**35.8**	**983**
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)
[§] Geraldton-Greenough merged with Mullewa in 2011 to become Greater Geraldton

17.3   Health and Mortality

A number of indicators of health status have been examined including self-report health status, a population based indicator of psychological distress and some mortality measures (see Table 42).

The data for Carnarvon is relatively low with respect to a number of health and mortality markers, with 17.3 people per 100 people having fair or poor health, and 13.1 per 100 people experiencing psychological distress. Carnarvon has the highest suicide rate (25.1 per 100,000) and the highest road toll (18.7 per 100,000). These metrics are all larger than Country WA, WA State and national statistics.

TABLE 42 HEALTH AND MORTALITY FOR THE MIDWEST REGION BY LGA

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)[†]
Carnamah	15.7⬆	11.3⬆	0	0.0⬇	n/a	n/a
Carnarvon	17.3⬆	13.1⬆	7	25.1⬆	5	18.7⬆
Chapman Valley	15.0⬆	10.1⬇	n/a	n/a	n/a	n/a
Coorow	15.7⬆	11.3⬆	n/a	n/a	n/a	n/a
Cue	n/a	n/a	0	0.0⬇	0	0.0⬇
Exmouth	n/a	n/a	n/a	n/a	n/a	n/a
Geraldton-Greenough[§]	15.5⬆	10.7⬆	34	19.5⬇	16	9.3⬆
Irwin	15.7⬆	11.3⬆	n/a	n/a	n/a	n/a
Meekatharra	n/a	n/a	n/a	n/a	n/a	n/a
Mingenew	15.7⬆	11.3⬆	0	0.0⬇	n/a	n/a
Moora	14.3⬆	10.0⬇	n/a	n/a	n/a	n/a
Mount Magnet	n/a	n/a	n/a	n/a	n/a	n/a
Mullewa[§]	15.7⬆	11.3⬆	n/a	n/a	0	0.0⬇
Murchison	n/a	n/a	0	0.0⬇	0	0.0⬇

Northampton	15.7 ⬆	11.3 ⬆	n/a	n/a	n/a	n/a
Perenjori	15.7 ⬆	11.3 ⬆	n/a	n/a	n/a	n/a
Sandstone	n/a	n/a	0	0.0 ⬇	0	0.0 ⬇
Shark Bay	n/a	n/a	0.0	0.0	n/a	n/a
Three Springs	15.7 ⬆	11.3 ⬆	n/a	n/a	n/a	n/a
Upper Gascoyne	n/a	n/a	0	0.0 ⬇	0	0.0 ⬇
Wiluna	n/a	n/a	n/a	n/a	n/a	n/a
Yalgoo	n/a	n/a	0	0.0 ⬇	0	0.0 ⬇
Country WA	**15.1**	**10.6**	**447**	**18.0**	**335**	**13.7**
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)
§Geraldton-Greenough merged with Mullewa in 2011 to become Greater Geraldton

18. Midwest Mental Health Services

There was a total of 33 mental health service delivery teams or BSIC across the Midwest region delivering 36 MTC across 13 different DESDE classifications (Figure 53). This includes eight child and adolescent MTC (22%), 27 adult BSIC (75%) and one older adult MTC (3%).
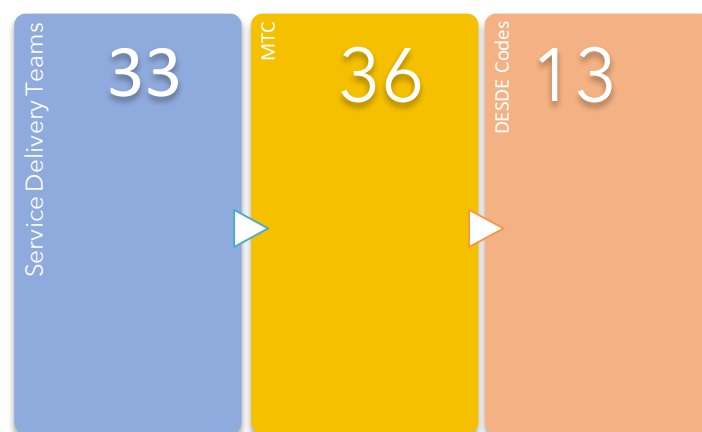
FIGURE 53 Summary of Mental Health Services in the Midwest of Country WA

A breakdown of these services is provided in Table 43 below. Outpatient services account for 33 of the 36 MTC or 92% of the MTC. The NGO sector provides the greatest proportion of care across the region, with 27 of the 36 MTC (75%).

TABLE 43 Number of Mental Health Service Types Midwest Country WA

Age Group	Provider Type	R	D	O	A	I	S	Total
Child & Adolescent	Health	0	0	2	0	0	0	2
	NGO/Other	0	0	6	0	0	0	6
	Sub-total	**0**	**0**	**8**	**0**	**0**	**0**	**8**
Adult	Health	0	0	6	0	0	0	6
	NGO/Other	2	0	18	0	0	1	21
	Sub-total	**2**	**0**	**24**	**0**	**0**	**1**	**27**
Older Adult	Health	0	0	1	0	0	0	1
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**1**	**0**	**0**	**0**	**1**
	Total	**2**	**0**	**33**	**0**	**0**	**1**	**36**

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

18.1   Residential Care – Mental Health

Acute Inpatient Services

There were no Acute Inpatient Services identified for any age groups across the Midwest.

Non-Acute Residential Care

Non-Acute Residential services for adults in the Midwest region are provided by Fusion's Community Supported Residential Units (CSRU) in Geraldton with 14 beds and Baptist Care, also in Geraldton, with Compass House (four beds) (Table 45).

Other Residential Care

At present, no age specific 'Other' Residential Services were identified available for children, adolescents or older adults in the Midwest region.

18.2   Day Care – Mental Health

There were no identified Day Care services within the Midwest region.

18.3   Outpatient Care – Mental Health

Acute Mobile Outpatient Care

The Midwest region has three Acute Mobile Outpatient Services for adults (See Table 45). These include the WACHS Midwest Mental Health and CADS services in Geraldton and Meekatharra, and its Aboriginal Mental Health Service in Meekatharra.

No other age specific services were identified in this category.

Acute Non-Mobile Outpatient Care

No Acute Non-Mobile Outpatient care services were identified in the Midwest region despite all other regions having some sort of service catering for an adult population in this category.

Non-Acute Mobile Outpatient Care

Children and adolescent residents have access to CAMHS in Geraldton, Carnarvon and Exmouth (Table 44). Further services for this age group include Young Minds in Geraldton and the Nganganawilli Aboriginal Health Service which runs the Young Minds program in Wiluna.

Services for adults within this category are detailed in Table 45. Baptist Care provides a diverse range of services including personalised support and various supported accommodation options, including outreach support from Compass House. All of these are located in Geraldton. Avivo provides ICLS and PHaMs in Geraldton. Hope Community Services provides ICLS in Geraldton.

Helping Minds provides the Mental Health Carer Support service in Carnarvon.

An older adult specific service is operated by WACHS Midwest Mental Health and CADS team in Geraldton.

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

Child and adolescent services (Table 44) include the Headspace in Geraldton run by Youth Focus and FMHSS services run by Helping Minds from Geraldton and Carnarvon. Youth Focus also provides a youth clinical services team from Geraldton.

Services for adults (Table 45) include the 360 Health and Community PIR program in Geraldton and the Mindcare team that focuses on Geraldton, Exmouth, Carnarvon, Northampton, Mullewa, Three Springs, Kalbarri, Leeman and Dongara localities.

The Women's Health Resource Centre runs both individual and group support in Geraldton.

Helping Minds runs Carer support and mental health respite for non-specific, general age group (GX), also in Geraldton. The Geraldton Regional Aboriginal Medical Service (GRAMS) provides mental health services in Rangeway that cover the Midwest region inland as far as Yulga Jinna, Cue Mt Magnet and Yalgoo.

18.4   Information and Guidance, Accessibility and Self-Help/Voluntary Services

The Midwest is one of the only Country WA regions with an identified service in this category (Table 45). This service is the Midwest Yellow Ribbon in Geraldton. This is a community based suicide prevention program and provides people with access to a support group, mental health first aid training, workshops and its website, which provides information about helplines that are available.

18.5   Pattern of Mental Health Care

The pattern of care (Figure 54) is heavily skewed toward Non-Acute Mobile and Non-Acute Non-Mobile NGO services in the Midwest region. There is also a small amount of high intensity Residential rehabilitation service in the region.

18.6   Placement of Mental Health Services

Geraldton is the main location of the Midwest Mental Health services, with 26 services located here (Figure 55). Three services are located in Carnarvon (two child/adolescent), an area with a particularly high suicide rate (25.1 per 100,000) and high levels of psychological distress. There is one BSIC in both Wiluna and Ridgeway.

TABLE 44 CHILD AND ADOLESCENT MENTAL HEALTH SERVICES IN MIDWEST

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Non-Acute, Mobile Outpatient care	WACHS Midwest Mental Health and CADS	CAMHS Community Mental Health Services	CX[F0-F99] - O6.1e	Geraldton	Midwest
		CAMHS Community Mental Health Services	CX[F0-F99] - O6.1eu	Carnarvon	Gascoyne-exmouth, Shark Bay
	Helping Minds	Young Minds	CX{F0-F99] - O6.2	Geraldton	Midwest Region
	Ngangganawili Aboriginal Health Service	Ngaanawilli Aboriginal Health Service	CAIN[F0-F99] - O7.2u	Wiluna	N/S
Non-Acute, Non-Mobile Outpatient care	Youth Focus	Headspace Geraldton	CY[F0-F99] - O9.1	Geraldton	N/S
		Geraldton Clinical Services Team (CST)	CY[F0-F99] - O9.2u	Geraldton	Geraldton region, no boundary
	Helping Minds	FMHSS - Midwest, Geraldton	CX[F0-F99] - O9.2	Geraldton	Midwest
		FMHSS - Gascoyne, Carnarvon	CX[F0-F99] - O9.2u	Carnarvon	Gascoyne

TABLE 45 ADULT MENTAL HEALTH SERVICES IN MIDWEST

Classification	Organisation	Team Name	DESDE - 1 (beds)	Suburb	Catchment
Non-Acute Inpatient care	Fusion Australia Ltd.	CSRU	AX[F0-F99] - R11 (14)	Geraldton	Midwest Region
Other Inpatient care	Baptist care - Midwest	Compass House	AX[F0-F99] - R14 (4)	Geraldton	6530, Midwest
Acute, Mobile Outpatient care	WACHS Midwest Mental Health and CADS	Adult Community Mental Health Services	AX[F0-F99] - O2.1e AX[F0-F99] - O6.1e	Geraldton	Midwest
		Adult Community Mental Health Services	AX[F0-F99] - O2.1e AX[F0-F99] - O6.1e	Meekatharra	Murchison- Mount Magnet, Cue, Yalgoo, Sandstone, Murchison Stellement
		Aboriginal Mental Health Services	AXIN[F0-F99] - O2.1 AXIN[F0-F99] - O6.1a	Meekatharra	Murchison
Non-Acute, Mobile Outpatient care	Avivo	Individualised Community Living Strategy Team	AX[F0-F99] - O5.2.1u	Geraldton	Geraldton
	Hope Community Services	ICLS Team - Geraldton	AX[F0-F99] - O6.2	Geraldton	Geraldton
	Baptistcare	Mental Health Services	AX[F0-F99] - O6.2	Geraldton	Greater Geraldton region
		Support to help people live independently in the community	AX[F0-F99] - O6.2	Geraldton	Greater Geraldton region
		Independent Living Accommodation	AX[F0-F99] - O6.2	Geraldton	Greater Geraldton region
		Crisis Accommodation Compass House	AX[F0-F99] - O6.2	Geraldton	Greater Geraldton region

	Helping Minds	Mental Health Carer Support (MHC) - Carnarvon	GX[e310][F0-F99] - O6.2u	Carnarvon	Carnarvon Township
	Avivo	Personal Helpers and Mentor's Services	AX[F0-F99] - O6.2	Geraldton	Shire of Northampton, Shire of Irwin, City of Greater Geraldton
	Baptist care - Midwest	Personalised Support	AX[F0-F99] - O6.2	Geraldton	Midwest/ Murchison
		Personalised Support Linked to Housing	AX[F0-F99] - O6.2	Geraldton	Midwest / Murchison / Gascoyne
	Perth Home Care Services (AVIVO)	Avivo Geraldton	AX[F0-F99] - O6.2	Geraldton	Greater Geraldton region
Non-Acute, Non-Mobile Outpatient care	Helping Minds	Carer Support	GX[e310][F0-F99] - O8.2	Geraldton	Midwest Region
	360 Health and Community	Partners in Recovery	AX[F0-F99] - O9.2du	Geraldton	N/S
	Helping Minds	Mental Health Respite - Midwest Carer Support	GX[e310][F0-F99] - O9.2	Geraldton	Midwest
	360 Health and Community	Mindcare Team	AX[F0-F99] - O9.2d	Geraldton	N/S
	GRAMS	GRAMS	AX[F0-F99] - O9.2	Rangeway	Midwest Region - inland to as far as Yulga Jinna, Cue, Mt Magnet and Yalgoo
	Women's Health Resource Centre	Women's Health Services - Individual	AXF[F0-F99] - O9.2	Geraldton	N/S
		Women's Health Services - Groups	AXF[F0-F99] - O10.2g	Geraldton	N/S
Self-Help and Volunteer	Midwest Yellow Ribbon	Midwest Yellow Ribbon	GX[E95] -S1.1	Geraldton	Midwest centred in Geraldton

TABLE 46 OLDER ADULT MENTAL HEALTH SERVICES IN MIDWEST

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Non-Acute, Mobile Outpatient care	WACHS Midwest Mental Health and CADS	Older Adult MHS	OX[F0-F99] - O5.1a	Geraldton	Geraldton & Midwest
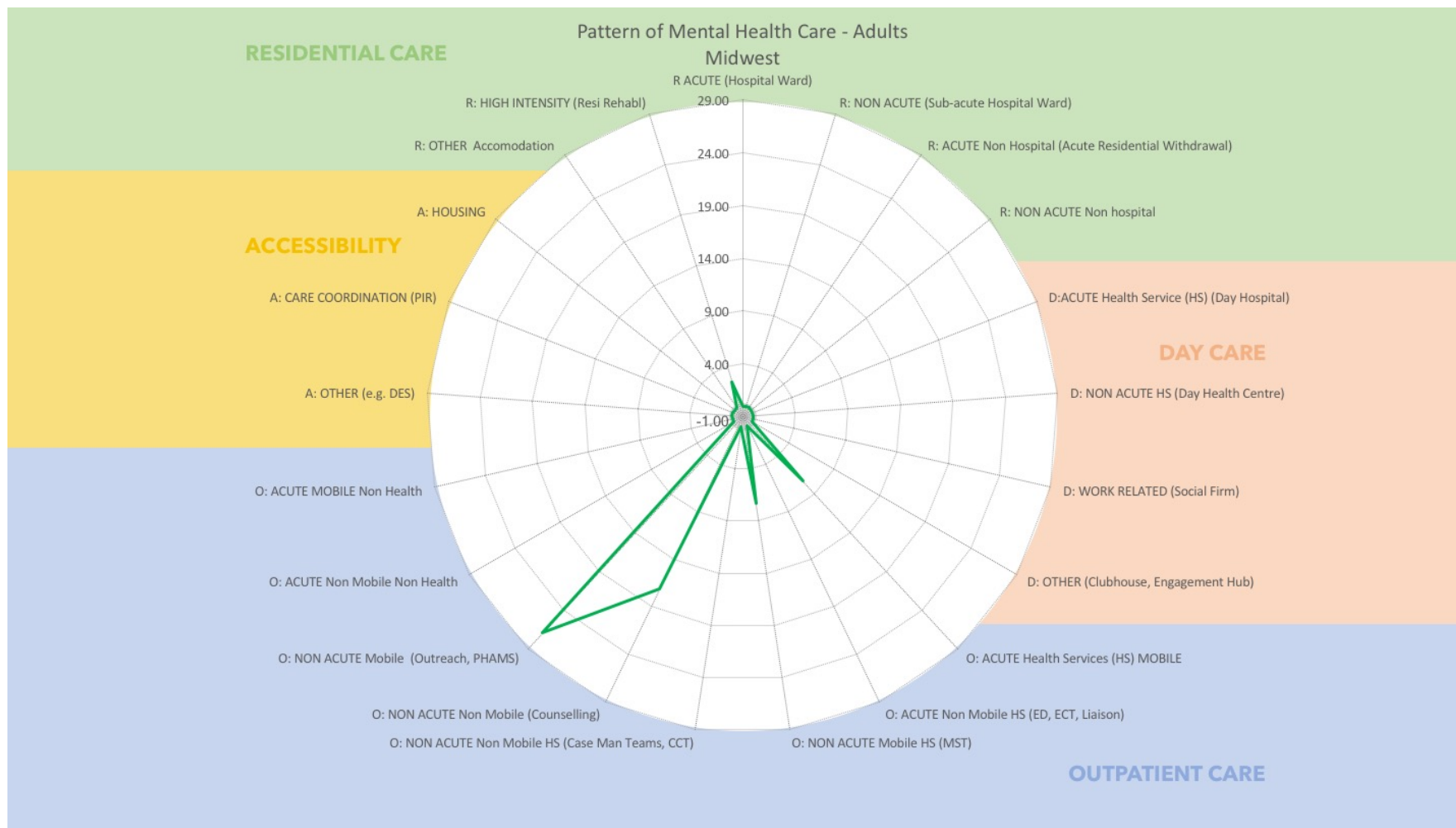
FIGURE 54 Pattern of Mental Health Care for Adults in Midwest
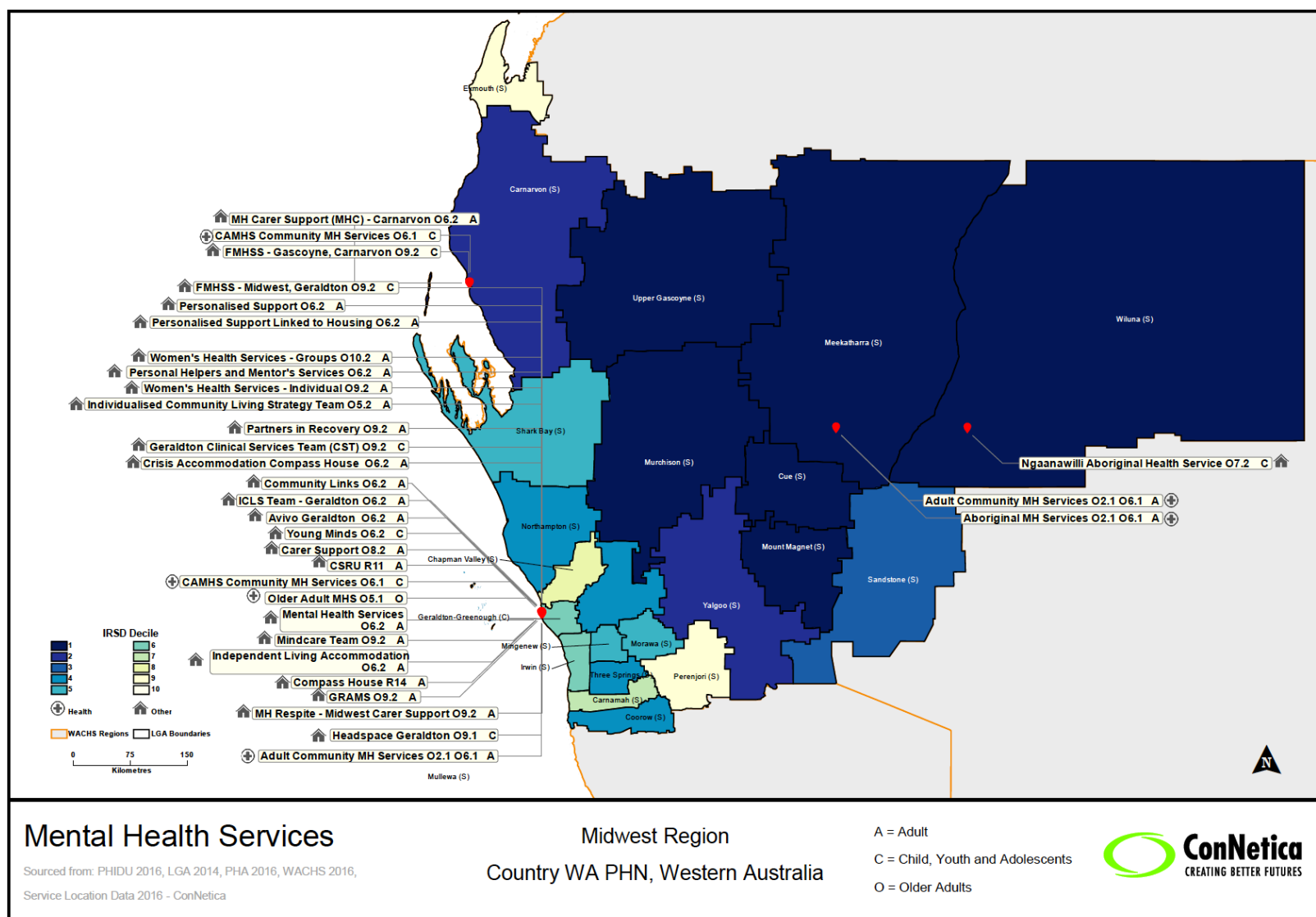
FIGURE 55 PLACEMENT OF MIDWEST MENTAL HEALTH SERVICES

19. Midwest Region AOD

Age standardised rates of hospital admissions relating to alcohol (Figure 56) and drugs (Figure 57) appear to be trending upward between the years of 2008 and 2012 in the Midwest region. For alcohol related admissions, this number is approaching 1000 hospitalisations per 100,000 persons. Of concern in the region are the numbers of youth using methamphetamines, particularly in the Geraldton area (Estellar Consulting, 2016c).
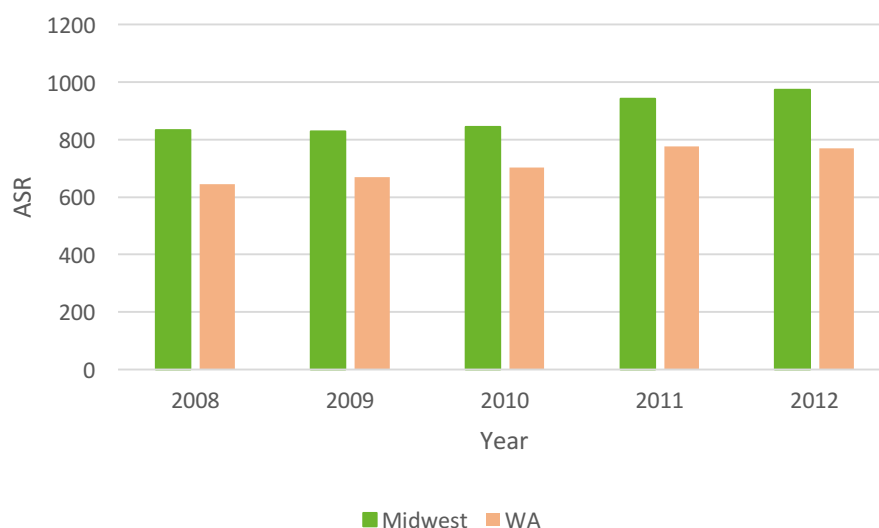
FIGURE 56 ALCOHOL RELATED HOSPITALISATIONS IN MIDWEST

Source: Alcohol and Other Drug Indicators Reports (2015)
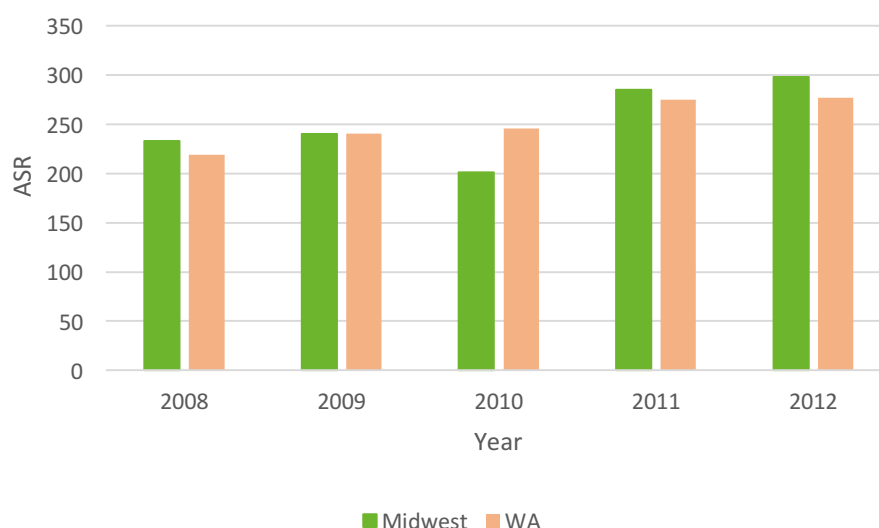
FIGURE 57 OTHER DRUG RELATED HOSPITALISATIONS IN MIDWEST

Source: Alcohol and Other Drug Indicators Reports (2015)

20. Midwest AOD Services

There was a total of nine AOD BSIC providing 11 MTC across 5 DESDE codes across the Midwest region (Figure 58). All are for adults and 66% are provided by the NGO sector.
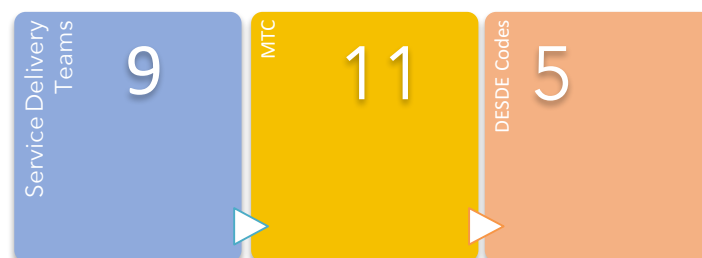
FIGURE 58 SUMMARY OF AOD SERVICES IN THE MIDWEST REGION OF COUNTRY WA

20.1 Residential Care – AOD

Acute Inpatient Services

There were no Acute Residential AOD services identified in the Midwest region.

Non-Acute Residential Services

Hope Community Services run Rosella House (six beds) and Transitional Housing (10 beds), both for adults and both located in Geraldton. It also provides the Hope Springs Community Farm with a further 12 beds, also a Geraldton property.

There were two sobering up shelters, one in Carnarvon provided by the Carnarvon Family Support Service and the Geraldton Sobering up Centre run by Hope Community Services (Table 47) providing overnight inpatient care for people who are intoxicated by alcohol, with 18 beds available.

20.2 Day Care – AOD

There were no identified Day Care facilities within the Midwest region.

20.3 Outpatient Care – AOD

Acute Mobile Outpatient Care

In the Midwest region, a sobering up bus provides Acute Mobile Outpatient care to the Wiluna area. This is provided by the Ngangganawili Aboriginal Health Service (Table 47). This is one of the few towns providing a sobering up service in a Mobile form (i.e. in contrast to a sobering up shelter)

There were no Acute Non-Mobile (O3 and O4) or Non-Acute Non-Mobile Outpatient Care (O8, O9 and O10) identified across the Midwest.

Non-Acute Mobile Outpatient Care

The Ngangganawili Aboriginal Health Service also provides Social and Emotional Wellbeing services in the Wiluna area. In addition to these, WACHS Midwest Mental Health Service and CADS provides specialised AOD services from Meekatharra, Carnarvon and Geraldton.

20.4 Information and Guidance, Accessibility and Self-Help and Voluntary Services – AOD

There were no identified services within these categories in the Midwest region.

20.5 Pattern of AOD Care

The pattern of care (Figure 59) shows services primarily in the high intensity Residential rehabilitation type, along with Non-Acute Mobile health service teams.

20.6 Placement of AOD Services

Five of the nine BSIC are located in Geraldton, two in Carnarvon and one in Wiluna (Figure 60). As indicated, all of these services are specifically for adult populations.

TABLE 47 ADULT AOD SERVICES IN MIDWEST

Classification	Organisation	Team Name	DESDE - 1 (beds)	Suburb	Catchment
Non-Acute, Inpatient care	Hope Community Services	Rosella House and Transitional Housing	AX[F10-F19] - R8.2 (6) AX[F10-F19] - R13 (10)	Geraldton	N/S
		Hope Springs Community Farm	AX[F10-F19] - R8.2 (12)	Geraldton	N/S
Other Inpatient care	Carnarvon Family Support Services Inc.	Carnarvon Sobering Up Centre	AX[F10-F19] - R14 AX[F10-F19] - 10.2	Carnarvon	N/S
	Geraldton Sobering Up Centre	The Sobering Up Centre	AXIN [F10-F19] - R14	Geraldton	Geraldton
	Hope Community Services	The Geraldton Sobering up centre	AXIN[F0-F99] - R14 (18)	Geraldton	Geraldton
Acute, Mobile Outpatient care	Nangganawili Aboriginal Health Service	Mobile Patrol Service (4 nights per week)	AXIN[F10-F19] - O2.1	Wiluna	Wiluna
Non-Acute, Mobile Outpatient care	Nangganawili Aboriginal Health Service	Social Emotional Well Being SEWB	AXIN[F10-F19] - O6.2	Wiluna	6646
	WACHS Midwest Mental Health and CADS	Community Alcohol &Drug Service (CADS) Team	AX[F10-F19] - O6.1	Meekatharra	Murchison
		Midwest Community Alcohol &Drug Services (CADS) Team	AX[F10-F19] - O6.1	Carnarvon	Gascoyne
		Midwest Community Alcohol &Drug Services (CADS) Team	AX[F10-F19] - O6.1	Geraldton	N/S
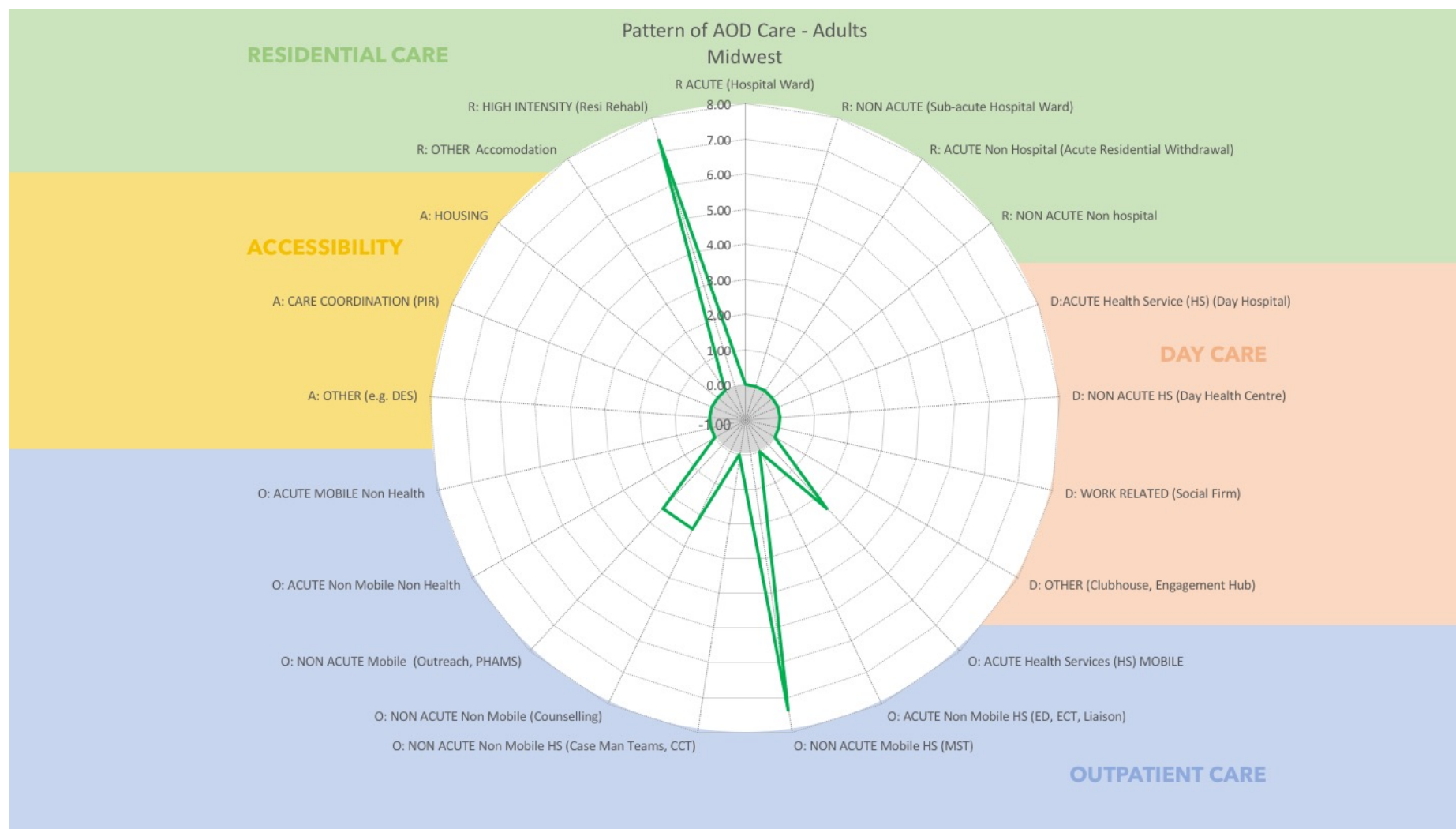
FIGURE 59 Pattern of AOD Care for Adults in Midwest
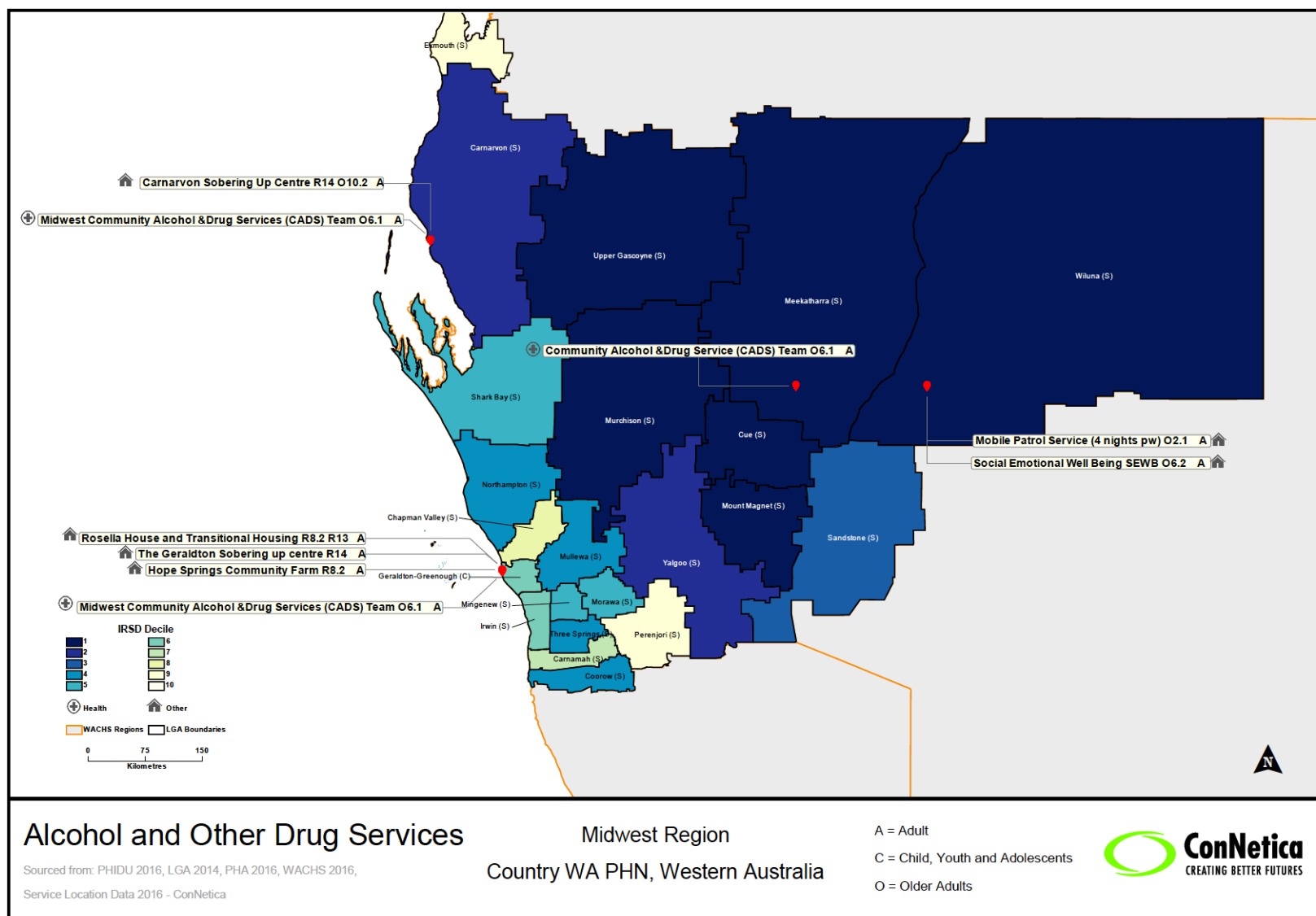
FIGURE 60 PLACEMENT OF MIDWEST AOD SERVICES

21. Pilbara Region

The Pilbara region stretches to the east toward the Northern Territory, through to the western coast, bordered by the Kimberley, Midwest and Goldfields regions.

21.1 Population Demographics

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 ratio and ageing index. The diversity of the population is examined utilising the indicators of Indigenous status and proportion of those born overseas. Table 48 below presents key population demographics for the Pilbara Region, disaggregated by LGA.

The Pilbara region has the youngest demographic with the ageing index ranging from 12 in Roebourne to 19.6 in East Pilbara. Those with higher Indigenous Status are mostly found in the East Pilbara (20.4%) and Port Headland (21.5%) LGAs (Table 48).

TABLE 48 KEY POPULATION DEMOGRAPHICS FOR PILBARA REGION BY LGA

LGA	Area* (sq. km)	Total Population[†]	Density Ratio	Dependency Ratio	Ageing Index	Indigenous Status (%)[§]	Overseas Born (%)[¶]
Ashburton	100959.3	10,951	0.1	0.18	17.6	1,303 (11.7)	19.5
East Pilbara	371344.0	12,197	0.0	0.20	19.6	2,664 (20.4)	19.8
Port Hedland	18431.1	16,483	0.9	0.30	16.2	3,703 (21.5)	17.6
Roebourne[#]	15235.8	26,228	1.7	0.27	12.0	3,434 (12.5)	19.8
Country WA	**2.5 million**	**546,206**	**0.22**	**0.50**	**64.0**	**57,126 (10.3)**	**15.6**
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
[#] Roebourne renamed Karratha in 2014

21.2 Social Determinants of Health

Table 49 displays various social determinants of health for the Pilbara region.

Unemployment rates in the Pilbara region, across the LGAs, are lower than the national and Country WA averages, likely boosted by the significant mining ventures in the region. Between LGAs, the East Pilbara LGA has an IRSD Decile score of five, compared with 10 for Ashburton and Roebourne/Karratha, and nine for Port Headland.

TABLE 49 SOCIOECONOMIC FACTORS FOR PILBARA REGION BY LGA

LGA	Single parent families (%)*	Needing Assistance (%)*	Early school leavers* (ASR per 100)	Un employment (%)[‡]	Income <$400 / wk (%)[†]	IRSD score[§]
Ashburton	12.7 ⇩	0.7 ⇩	38.8 ⇧	1.2 ⇩	14.2 ⇩	10 (1057) ⇧

East Pilbara	15.9⇩	0.9⇩	38.7⇧	3.8⇩	16.3⇩	5 (962) ⇩
Port Hedland	15.4⇩	1.9⇩	35.5⇧	4.6⇩	20.0⇩	9 (1033) ⇧
Roebourne§	11.9⇩	1.2⇩	32.1⇩	2.1⇩	17.8⇩	10 (1060) ⇧
Country WA	**21.8**	**3.8**	**40.2**	**5.6**	**35.8**	**983**
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)
§Roebourne renamed Karratha in 2014

21.3 Health and Mortality

A number of indicators of health status have been examined including self-reported health status, a population based indicator of psychological distress and key mortality measures (see Table 50).

Most data is only available for Port Headland and Roebourne/Karratha LGAs.

Roebourne has an age standardised suicide rate (13.2) on par with the national average, whilst Port Headland is greater than the national average at 19.3. This is despite each LGA having similar rates of psychological distress within their respective communities.

TABLE 50 HEALTH AND MORTALITY FOR PILBARA HEALTH DISTRICT BY LGA

LGA	Fair/poor Health (ASR per 100)*	Psychologic al Distress (ASR per 100)*	Suicide (n)†	Suicide (ASR per 100,000)†	Road Toll (n)†	Road Toll (ASR per 100,000)†
Ashburton	n/a	n/a	n/a	n/a	n/a	n/a
East Pilbara	n/a	n/a	n/a	n/a	9	13.9⇧
Port Hedland	15.1⇧	9.5⇩	16	19.3⇧	7	8.5⇩
Roebourne§	12.9⇩	9.9⇩	17	13.2⇩	7	5.7⇩
Country WA	**15.1**	**10.6**	**447**	**18.0**	**335**	**13.7**
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)
§Roebourne renamed Karratha in 2014

22. Pilbara Mental Health Services

There was a total of 17 mental health service delivery teams or BSIC across the Pilbara region delivering 23 main types of care (MTC) across seven different DESDE classifications. This includes three child and adolescent MTC (13%), and 20 adult BSIC (87%) (Figure 61).
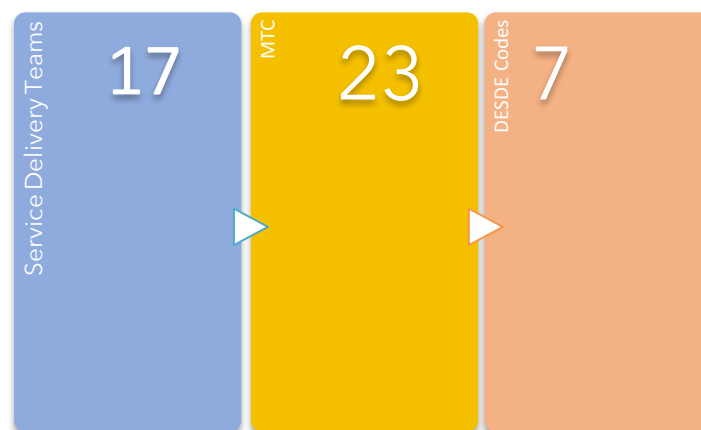
FIGURE 61 SUMMARY OF MENTAL HEALTH SERVICES IN THE PILBARA REGION OF COUNTRY WA

A breakdown of these services is provided in Table 51 below. Outpatient services account for these MTC. The health sector provides the greatest proportion of care across the region, with 15 of the 23 MTC (65%).

TABLE 51 NUMBER OF MENTAL HEALTH SERVICE TYPES PILBARA REGION COUNTRY WA

Age Group	Provider Type	R	D	O	A	I	S	Total
Child & Adolescent	Health	0	0	3	0	0	0	3
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**3**	**0**	**0**	**0**	**3**
Adult	Health	0	0	12	0	0	0	12
	NGO/Other	0	0	8	0	0	0	8
	Sub-total	**0**	**0**	**20**	**0**	**0**	**0**	**20**
Older Adult	Health	0	0	0	0	0	0	0
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Total	**0**	**0**	**23**	**0**	**0**	**0**	**23**

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

22.1   Residential Care – Mental Health

There were no Residential Care services identified across the Pilbara, only Outpatient mental health services (Table 53).

22.2   Day Care – Mental Health

There were no Day Care services identified across the Pilbara, only Outpatient mental health services (Table 53).

22.3   Outpatient Care – Mental Health

Acute Mobile Outpatient Care

WACHS Pilbara Mental Health and Drug Service runs both adult and Aboriginal mental health services in South Hedland, Karratha and Newman classified as O2.1 and O6.1. This team is working both in the acute and Non-Acute space.

Acute Non-Mobile Outpatient Services

Mission Australia also provides crisis support services in Port Headland, identified as a general age group (GX) service.

There are no child adolescent or older adult specific services in this category and this was noted as a significant gap noted in some of the stakeholder interviews.

Non-Acute Mobile Outpatient Care

The Pilbara region only has a small number of adult specific services available in the Non-Acute Mobile category. Aboriginal specific services include the Social and Emotional Wellbeing program provided by the Wirraka Maya Health Services Aboriginal Corporation in South Headland, and by the Mawarnkarra Health Service Aboriginal Corporation in Roebourne (both GX or general age group). The OzHelp Foundation is based in Karratha and has a focus on men and the prevention of mental health issues, with activities including counselling and training in workplaces.

Non-Acute Non-Mobile Outpatient Services

For youth (Table 52), CAMHS deliver services located in South Headland, Karratha and Newman.

Adult specific services (Table 53) include the Lean on Me service provided by Yaandina Family Centre, mental health carer and respite support by Helping Minds in South Headland and Silver Chain in the Pilbara serving Pilbara, Hedland, Karratha, Roebourne, Onslow, Newman and Western Desert locations.

22.4   Information and Guidance, Accessibility and Self-Help/Voluntary Services

There were no services located within the Pilbara region with a primary focus relating to these categories. It is important to note that in regional and remote areas particularly, existing services with other primary foci often also provide information for people about where to access mental health services, and often have information resources available for clients visiting their premises.

22.5   Pattern of Mental Health Care

The mental health pattern of care in the Pilbara is characterised by evenly distributed Outpatient NGO services, with a spike in Acute Mobile health services (Figure 62).

22.6   Placement of Mental Health Services

There is a spread of service locations across the Pilbara with seven of the BSIC being located in South Headland, four in Karratha, three in Newman, two in Roebourne and one in Port Hedland (Figure 63).

TABLE 52 CHILD AND ADOLESCENT MENTAL HEALTH SERVICES IN PILBARA

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Non-Acute, Non-Mobile Outpatient care	WACHS Pilbara Mental Health and Drug Service	CAMHS Community MH Services	CX[F0-F99] - O9.1e CX[F0-F99] - O9.1e	South Hedland	Port Hedland, South Hedland, Warralong, Yandiyarra, Strelley, Marble Barr, Nullagine, Western Desert Communities,
		CAMHS Community MH Services	CX[F0-F99] - O9.1 e	Karratha	Karratha, Roebourne, Wickham, Point Sampson, Onslow, Dampier and surrounding Aboriginal Communities
		CAMHS Community MH Services	CX[F0-F99] - O9.1 eu	NEWMAN	Newman, Jigalong, in reach to Tom-Price, Paraburdoo and the surrounding Aboriginal Communities Wakathuni, Bellary Springs.

TABLE 53 ADULT MENTAL HEALTH SERVICES IN PILBARA

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Acute, Mobile Outpatient care	WACHS Pilbara Mental Health and Drug Service	Adult Community MH Services	AX[F0-F99] - O2.1e AX[F0-F99] - O9.1e	South Hedland	Port Hedland, South Hedland, Warralong, Yandiyarra, Strelley, Marble Barr, Nullagine, Western Desert Communities,
		Aboriginal MH Services (SSAMHS)	AXIN[F0-F99] - O2.1e AXIN[F0-F99] - O6.1e	South Hedland	Port Hedland, South Hedland, Warralong, Yandiyarra, Strelley, Marble Barr, Nullagine, Western Desert Communities,
		Adult Community MH Services	AX[F0-F99] - O2.1e AX[F0-F99] - O9.1e	Karratha	Karratha, Roebourne, Wickham, Point Sampson, Onslow, Dampier and surrounding Aboriginal Communities
		Aboriginal MH Services (SSAMHS)	AXIN[F0-F99] - O2.1e AXIN[F0-F99] - O6.1e	Karratha	Karratha, Roebourne, Wickham, Point Sampson, Onslow, Dampier and surrounding Aboriginal Communities
		Adult Community MH Services	AX[F0-F99] - O2.1eu AX[F0-F99] - O9.1eu	Newman	Newman, Jigalong, in reach to Tom-Price, Paraburdoo and the surrounding Aboriginal Communities Wakathuni, Bellary Springs.
		Aboriginal MH Services (SSAMHS)	AXIN[F0-F99] - O2.1eu AXIN[F0-F99] - O6.1eu	Newman	Newman, Jigalong, in reach to Tom-Price, Paraburdoo and the surrounding Aboriginal Communities Wakathuni, Bellary Springs.
	Mission Australia (WA)	Crisis Support - Port Hedland	GX[E95][F0-F99] - O3.2u	Port Hedland	Port Hedland
Non-Acute, Mobile	Mawarnkarra Health Service Aboriginal Corporation	Social Emotional Wellbeing	GXIN[F0-F99] - O6.2	Roebourne	Roebourne

Outpatient care	Wirraka Maya Health Services Aboriginal Corporation (WMHSAC)	Social and Emotional Wellbeing and Mental Health	GXIN[F0-F99] - O6.2	South Hedland	South Hedland
	Ozhelp Foundation	OzHelp Foundation	AX[F0-F99] - O6.2	Karratha	Pilbara
Non-Acute, Non-Mobile Outpatient care	Helping Minds	MH Carer Support - Pilbara	GX[e310][F0-F99] - O9.2u	South Hedland	Pilbara
		Carer Respite - Pilbara	GX[e310][F0-F99] - O9.2u	South Hedland	Pilbara
	Silver Chain - Pilbara	Pilbara	AX[F0-F99][e310] - O9.2d	South Hedland	Pilbara region; including Hedland, Karratha, Roebourne, Onslow, Newman and Western Desert
	Yaandina Family Centre	Lean on me	GX[F0-F99] - O10.2g	Roebourne	N/S
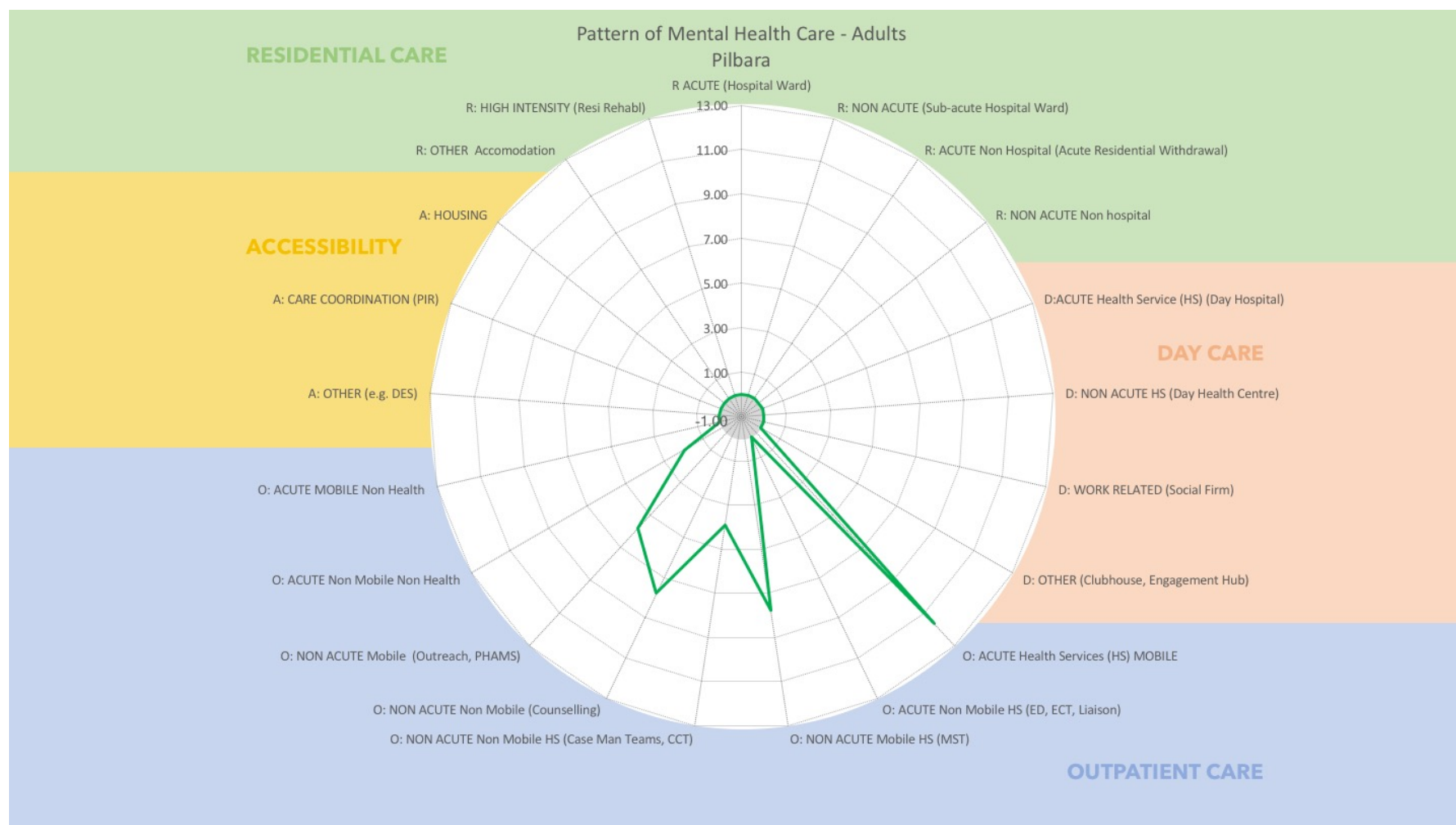
FIGURE 62 PATTERN OF MENTAL HEALTH CARE FOR ADULTS IN PILBARA
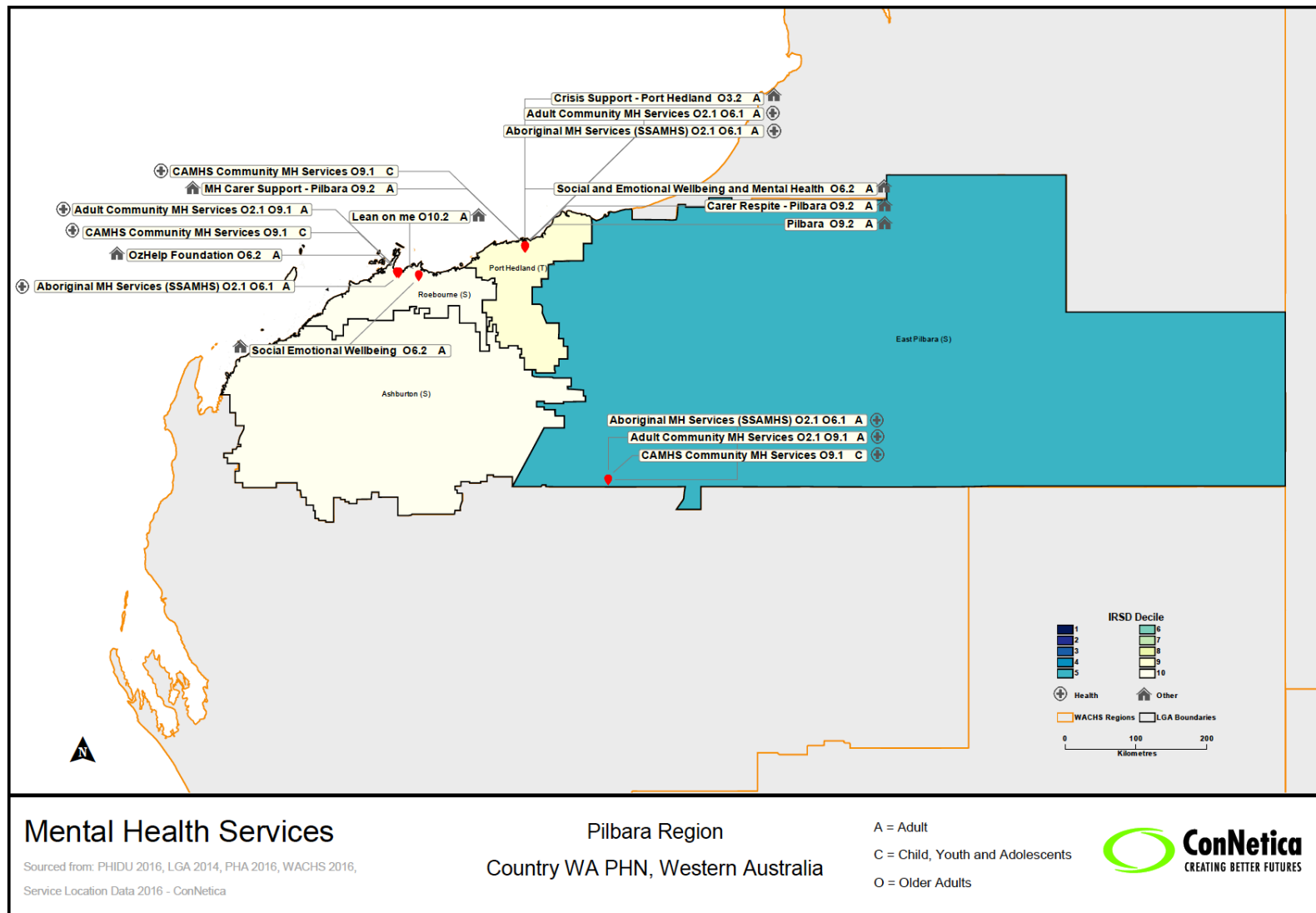
FIGURE 63 PLACEMENT OF PILBARA MENTAL HEALTH SERVICES

23. Pilbara Region AOD

Relative to other regions (excluding Kimberley), the alcohol related hospitalisation rate is somewhat larger (Figure 64) in the Pilbara region, being around the 1000 admissions per 100,000 persons. In contrast, drug related hospitalisations are much lower than the state average at approximately 150 per 100,000 persons (Figure 65). This is much lower than any other region discussed previously.

FIGURE 64 ALCOHOL RELATED HOSPITALISATIONS IN PILBARA

Source: Alcohol and Other Drug Indicators Reports (2015)

FIGURE 65 OTHER DRUG-RELATED HOSPITALISATIONS IN PILBARA

Source: Alcohol and Other Drug Indicators Reports (2015)

24. Pilbara AOD Services

There was a total of 17 AOD BSIC identified across the Pilbara region (Figure 66). All are adult or general services, 14 of these are provided by NGOs. All are described as 'adult' services, however eight are described as general or unrestricted ages (GX).
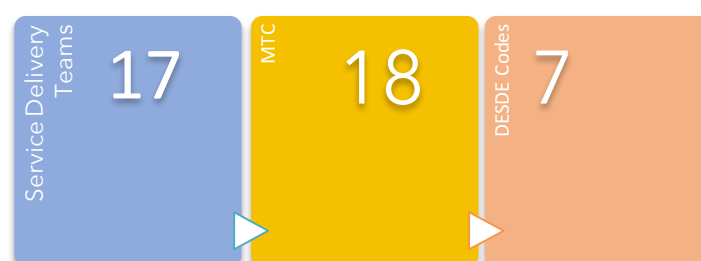
FIGURE 66 Summary of AOD Services in the Pilbara Region of Country WA

24.1 Residential Care – AOD

Acute Inpatient Services

There were no Acute Inpatient AOD services identified across the Pilbara region.

Other Residential Services

Adults in the Pilbara region can access the Turner River Rehabilitation Centre which is a 24-bed facility that uses a Therapeutic Community Model for treatment and addiction recovery. This is run by the Yaandina Family Centre (See Table 54). Yaandina also provide a Detox service that offers a Residential, seven days a week, 24 hours a day, low medical detox service. This service offers 18 beds.

In terms of sobering up shelters or patrols, the Bloodwood Tree Association runs the Wapa Maya sobering up shelter in South Hedland where 16 beds are available for overnight sobering (an open age or GX service), with eight available for females and eight for males. Yaandina also runs a sobering up centre and Mingaa patrol from Queen Street and a sobering up shelter in Hampton Street (also GX), both in Roebourne. In Roebourne, Yaandina provides a Detox Centre has four beds available.

24.2 Day Care – AOD

There were no identified AOD Day Care facilities within the Pilbara region.

24.3 Outpatient Care – AOD

Acute Mobile Outpatient Services

Night patrols are provided by the Bloodwood Tree Association in South Hedland and these have been classified as Acute Mobile Outpatient services in this context. Note that the Yaandina Mingaa Patrol has been classified above as Residential Care.

Non-Acute Mobile Outpatient Services

The WACHS Pilbara Mental Health and Drug service provides three AOD-Pilbara Aboriginal Drug and Alcohol Programs (PADAP in South Hedland, Karratha and Newman (Table 54). Mission Australia

provides the Pilbara Community AOD Service into Port Hedland (and region), Tom Price (and region), Karratha and Newman (and region). These are described as open age (GX services).

Non-Acute Non-Mobile Outpatient Services

Bloodwood Tree Association provides counselling in South Hedland. Mawarnkarra Health Service provides a family support program in Roebourne (GX) and Mission Australia provides a Diversion program in Newman (also GX), all classified as Non-Acute Non-Mobile Outpatient services.

24.4 Information and Guidance, Accessibility and Self-Help and Voluntary Services – AOD

There were no identified services within these categories in the Pilbara region.

24.5 Pattern of AOD Care

Non-Acute Mobile health service AOD teams are the primary form of AOD support in the Pilbara region. This is addition to Non-Acute Non-Mobile NGO teams and a small amount of high intensity Residential rehabilitation services (Figure 67).

24.6 Placement of AOD Services

In terms of the location of AOD services across the Pilbara, Roebourne has 24 beds of rehabilitation, two sobering up shelters, one patrol and four beds for Detox. It also has a family support program.

There are 18 Detox beds in Boodarie (Yaandina).

In South Hedland there is a sobering up shelter (16 places), a mobile patrol, an AOD-PADAP and a counselling program. In Karratha there is an AOD-PADAP, and the Pilbara CADS which is run by Mission Australia. In Newman there is an AOD-PADAP, a Diversion program and the Pilbara CADS run by Mission Australia. Finally, In Port Hedland and Tom Price there is are Pilbara CADS run by Mission Australia (Figure 68).

TABLE 54 ADULT AOD SERVICES IN PILBARA

Classification	Organisation	Team Name	DESDE - 1 (beds)	Suburb	Catchment
Non-Acute Inpatient care	Yaandina Family Centre	Turner River Rehabilitation Centre	AXIN[F10-F19] - R8.2 (24)	Roebourne	Roebourne and region
		Turner River Rehabilitation Centre – Detox*✱	AX[F0-F99] - R11 (18)	Boodarie	Pilbara
Other Inpatient care	Bloodwood Tree Association	Wapa maya sobering up shelter	GXFIN[F10-F19] - R14 (8) GXMIN[F0-F99] - R14 (8)	South Hedland	South Hedland
	Yaandina Family Centre	Roebourne Sobering up Shelter and Mingaa Patrol**	AXFIN[F10-F19] - R14 (18)	Roebourne	Roebourne
		Sobering Up Shelter**	GXFIN[F10-F19] - R14	Roebourne	Roebourne
		Yaandina Detox Centre**	AXIN[F0-F99] - R14(4)	Roebourne	Pilbara
Acute, Mobile Outpatient care	Bloodwood Tree Association	Mobile patrol	AXIN[F10-F19] - O2.1	South Hedland	South Hedland
Non-Acute, Mobile Outpatient care	WACHS Pilbara Mental Health and Drug Service	AOD-PADAP Programme	AX[F10-F19] - O6.1aeu	South Hedland	Port Hedland, South Hedland, Warralong, Yandiyarra, Strelley, Marble Barr, Nullagine, Western Desert Communities,

		AOD-PADAP Programme	AX[F10-F19] - O6.1aeu	Karratha	Karratha, Roebourne, Wickham, Point Sampson, Onslow, Dampier and surrounding Aboriginal Communities
		AOD-PADAP Programme	AX[F10-F19] - O6.1aeu	Newman	Karratha, Roebourne, Wickham, Point Sampson, Onslow, Dampier and surrounding Aboriginal Communities
	Mission Australia (WA)	Pilbara Community Alcohol and Drug Service (South Hedland)	GX[F10-F19] - O6.1	Port Hedland	Port Hedland & Region
		Pilbara Community Alcohol and Drug Service (Tom Price)	GX[F10-F19] - O6.1	Tom Price	Tom Price and region
		Pilbara Community Alcohol and Drug Service (Karratha)	GX[F10-F19] - O6.1	Karratha	Karratha
		Pilbara Community Alcohol and Drug Service (Newman)	GX[F10-F19] - O6.1	Newman	Newman and region
Non-Acute, Non-Mobile Outpatient care	Mawarnkarra Health Service Aboriginal Corporation	Family Support Program	GX[F10-F19] - O9.2	Roebourne	Roebourne
	Mission Australia (WA)	Diversion Program	GX[F0-F19] - O9.2ju	Newman	Newman
	Bloodwood Tree Association	Counselling	AXIN[F10-F19] - O10.2	South Hedland	South Hedland

** indicates this may be a duplication, although different addresses were provided. This was not able to be confirmed prior to publication.
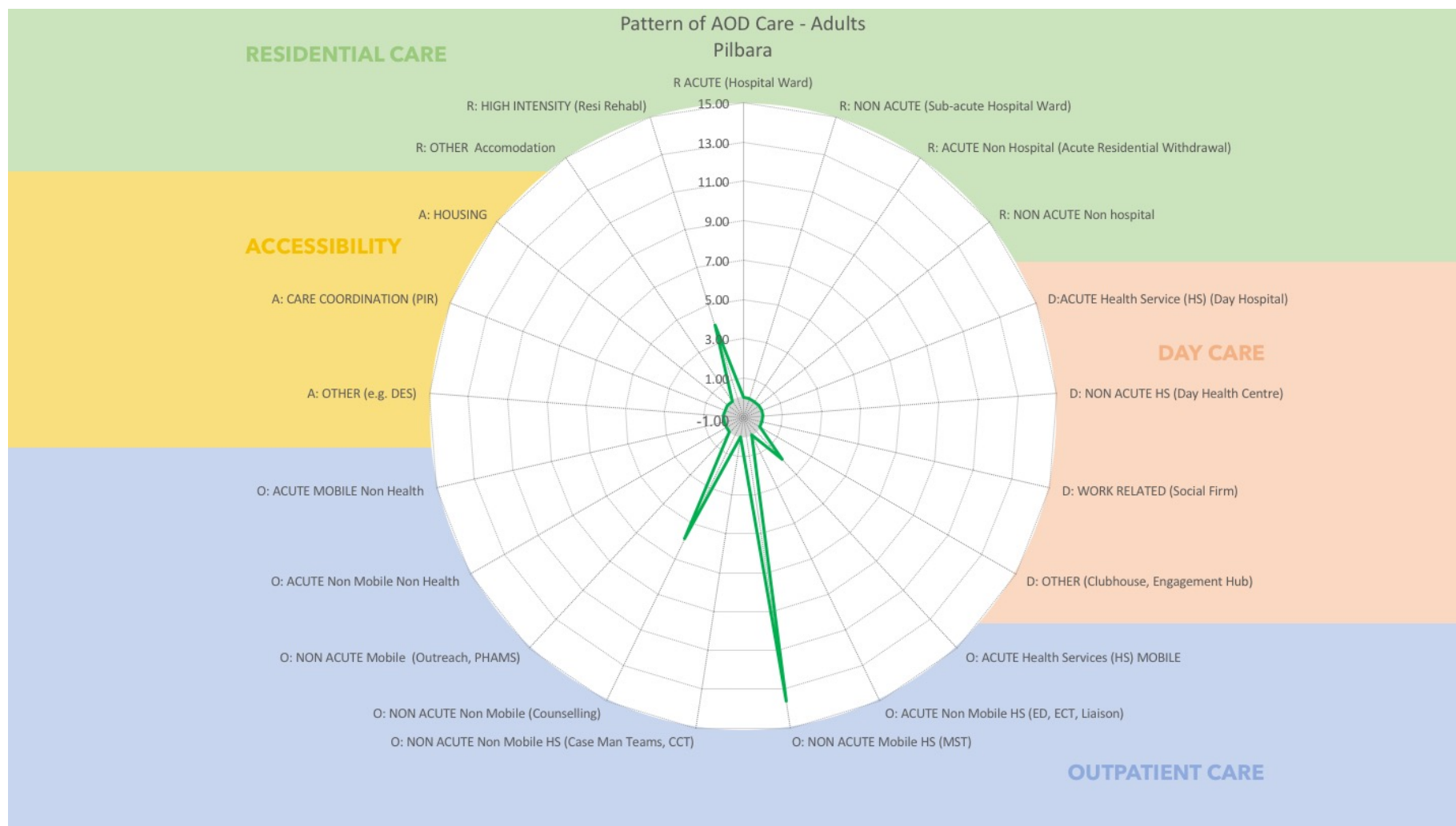
FIGURE 67 PATTERN OF AOD CARE FOR ADULTS IN PILBARA
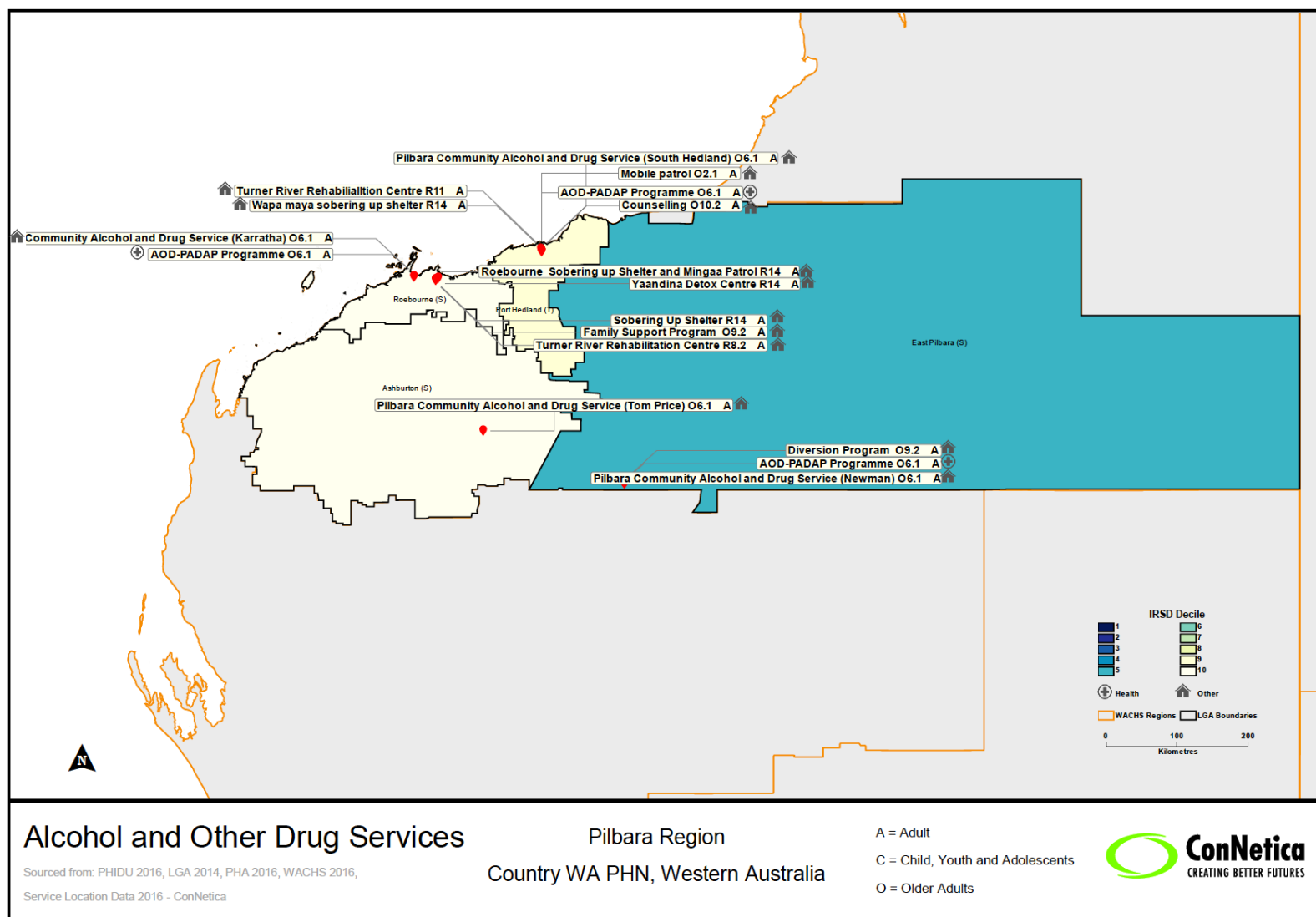
FIGURE 68 PLACEMENT OF PILBARA AOD SERVICES

25. South West Region

The South West region comprises of 12 local government areas. The South West region has the largest population of the seven regions within CWAPHN, with 174,052 estimated Residential population (PHIDU, 2016).

25.1 Population Demographics

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 ratio and ageing index. The diversity of the population is examined utilising the indicators of Indigenous status and proportion of those born overseas. Table 55 below presents key population demographics for the South West Region, disaggregated by LGA.

Busselton and Bunbury are the most populated local government areas with 36,335 and 34,467 persons respectively. The LGA of Nannup has the highest ageing index of the 12 LGAs and the lowest Indigenous Status at 1% (compared with the highest percentage of 3.9% in Bunbury).

TABLE 55 KEY POPULATION DEMOGRAPHICS FOR THE SOUTH WEST REGION BY LGA

LGA	Area[*] (sq. km)	Total Population[†]	Density Ratio	Dependency Ratio	Ageing Index	Indigenous Status (%)[§]	Overseas Born (%)[¶]
Augusta-Margaret River	2122.4	13,807	6.5	0.55	69.7	172 (1.2)	19.9
Boyup Brook	2826.5	1,625	0.6	0.69	112.4	22 (1.3)	16.2
Bridgetown-Greenbushes	1339.4	4,662	3.5	0.69	106.1	81 (1.7)	22.3
Bunbury	65.2	34,467	528.4	0.51	95.4	1,372 (3.9)	19.7
Busselton	1454	36,335	25.0	0.63	84.7	752 (2.0)	17.4
Capel	557.8	17,316	31.0	0.55	35.1	504 (2.8)	20.8
Collie	1710	9,656	5.7	0.48	78.6	371 (3.7)	14.5
Dardanup	525.9	14,233	27.1	0.55	62.1	331 (2.3)	15.6
Donnybrook-Balingup	1560	5,849	3.8	0.66	102.0	145 (2.4)	19.4
Harvey	1727.9	27,288	15.8	0.54	55.8	680 (2.4)	18.6
Manjimup	7025.8	9,404	1.3	0.65	89.0	309 (3.2)	15.4
Nannup	3053.7	1,307	0.4	0.65	153.2	14 (1.0)	21.8
Country WA	**2.5 million**	**546,206**	**0.22**	**0.50**	**64.0**	**57,126 (10.3)**	**15.6**
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

25.2 Social Determinants of Health

Table 56 displays various social determinants of health for the South West region.

Bunbury has the highest proportion of single-parent families (29.6%), along with the greatest number of people needing assistance (5.4%). Unemployment within the South West is at its greatest in Collie at 6.9%, while almost half (45.6%) of the population in Nannup earn less than $400 per week though this may be due to the ageing population in this LGA.

TABLE 56 SOCIOECONOMIC FACTORS FOR THE SOUTH WEST REGION BY LGA

LGA	Single parent families (%)[*]	Needing Assistance (%)[*]	Early school leavers[*] (ASR per 100)	Un employment (%)[‡]	Income <$400 / wk (%)[†]	IRSD score[§]
Augusta-Margaret River	19.9	2.9 ⇩	30.7 ⇩	3.5 ⇩	34.6 ⇩	9 (1025) ⇧
Boyup Brook	15.2 ⇩	4.6 ⇧	38.5 ⇧	4.6 ⇩	42.8 ⇧	6 (989) ⇩
Bridgetown-Greenbushes	24.0 ⇧	4.7 ⇧	38.5 ⇩⇧	4.5 ⇩	44.8 ⇧	6 (979) ⇩
Bunbury	29.6 ⇧	5.4 ⇧	41.7 ⇧	6.4 ⇧	37.4 ⇧	5 (973) ⇩
Busselton	21.3 ⇧	4.1 ⇧	37.2 ⇩	4.1 ⇩	38.0 ⇧	8 (1011) ⇩
Capel	17.8 ⇩	2.5 ⇩	39.0 ⇧	3.3 ⇩	35.6 ⇧	9 (1045) ⇧
Collie	23.4 ⇧	5.0 ⇧	46.3 ⇧	6.9 ⇧	41.8 ⇧	4 (958) ⇩
Dardanup	19.6 ⇩	3.9 ⇩	43.8 ⇧	2.9 ⇩	35.1 ⇩	9 (1028) ⇧
Donnybrook-Balingup	18.0 ⇩	4.2 ⇩	42.1 ⇧	4.2 ⇩	43.2 ⇧	7 (996) ⇩
Harvey	18.9 ⇩	3.2 ⇩	43.1 ⇧	3.7 ⇩	37.9 ⇧	8 (1014) ⇩
Manjimup	22.7 ⇧	4.9 ⇧	41.0 ⇧	4.8 ⇩	42.9 ⇧	4 (958) ⇩
Nannup	20.6 ⇧	5.3 ⇧	37.7 ⇧	4.2 ⇩	45.6 ⇧	6 (978) ⇩
Country WA	**21.8**	**3.8**	**40.2**	**5.6**	**35.4**	**983**
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)

25.3 Health and Mortality

A number of indicators of health status have been examined including self-reporting health status, a population based indicator of psychological distress and some mortality measures (Table 57).

The age standardised rate of suicide in Donnybrook-Balingup is the highest in the South West region at 30.5 per 100,000 residents. This is over double the rate of both the WA and Australian figures. Manjimup follows at a rate of 20.9, whilst this region shares the highest proportion of residents experiencing psychological distress with Nannup (11.8%). The Harvey LGA has the lowest rate of suicide with 11.3 deaths per 100,000 persons, just above the national rate (Table 57).

TABLE 57 HEALTH AND MORTALITY FOR THE SOUTH WEST REGION BY LGA

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)[†]
Augusta-Margaret River	13.5 ⇩	9.9 ⇩	11	18.3 ⇧	9	15.8 ⇧

Boyup Brook	15.1 ⇧	9.9 ⇩	n/a	n/a	n/a	n/a
Bridgetown-Greenbushes	15.1 ⇧	9.9 ⇩	n/a	n/a	n/a	n/a
Bunbury	16.2 ⇧	11.4 ⇧	26	17.0 ⇧	13	8.6 ⇧
Busselton	13.5 ⇩	11.6 ⇧	23	15.5 ⇧	16	11.0 ⇧
Capel	13.2 ⇩	10.1 ⇩	8	11.2 ⇩	6	8.5 ⇧
Collie	17.9 ⇧	11.7 ⇧	6	13.3 ⇩	8	18.2 ⇧
Dardanup	13.5 ⇩	8.7 ⇩	9	14.0 ⇩	8	12.6 ⇧
Donnybrook-Balingup	15.1 ⇧	9.9 ⇩	8	30.5 ⇧	n/a	n/a
Harvey	14.9 ⇧	9.7 ⇩	13	11.3 ⇩	11	19.6 ⇧
Manjimup	16.2 ⇧	11.8 ⇧	9	20.9 ⇧	7	16.7 ⇧
Nannup	16.2 ⇧	11.8 ⇧	n/a	n/a	n/a	n/a
Country WA	**15.1**	**10.6**	**447**	**18.0**	**335**	**13.7**
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)

26. South West Mental Health Services

There was a total of 37 mental health service delivery teams or BSIC across the South West region delivering 48 main types of care (MTC) across 13 different DESDE classifications (Figure 69). This includes seven child and adolescent MTC (14.5%), 34 adult BSIC (71%) and seven older adult MTC (14.5%).
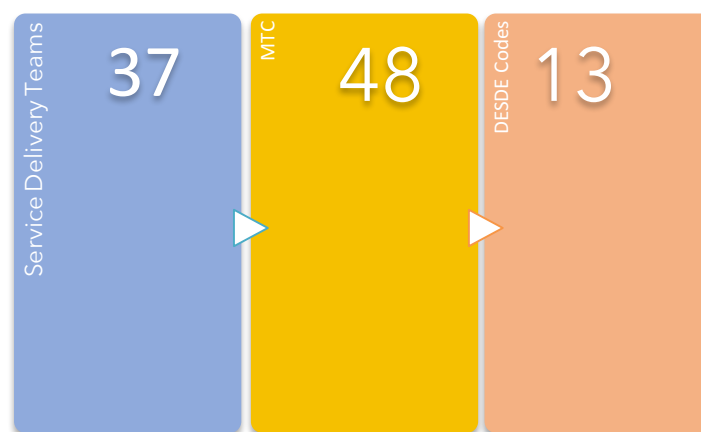
FIGURE 69 SUMMARY OF MENTAL HEALTH SERVICES IN SOUTH WEST REGION OF COUNTRY WA

A breakdown of these services is provided in Table 58 below. Outpatient services account for 81% of the MTC. The health sector provides the greatest proportion of care across the region, with 29 of the 48 MTC (60%).

TABLE 58 NUMBER OF MENTAL HEALTH SERVICE TYPES SOUTH WEST COUNTRY WA

Age Group	Provider Type	R	D	O	A	I	S	Total
Child & Adolescent	Health	0	0	4	0	0	0	4
	NGO/Other	0	0	3	0	0	0	3
	Sub-total	**0**	**0**	**7**	**0**	**0**	**0**	**7**
Adult	Health	2	0	16	0	0	0	18
	NGO/Other	2	1	9	3	1	0	16
	Sub-total	**4**	**1**	**25**	**3**	**1**	**0**	**34**
Older Adult	Health	0	0	7	0	0	0	7
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**7**	**0**	**0**	**0**	**7**
	Total	**4**	**1**	**39**	**3**	**1**	**0**	**48**

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

26.1   Residential Care – Mental Health

Descriptions of the mental health services provided in the South West Country WA PHN region is provided below and summarised in Table 59 (Children and Adolescents), Table 60 (Adults) and Table 61 (Older Adults).

Acute Inpatient Services

There are no age specific Acute Inpatient services identified for children, adolescents or older adults within the South West region. The absence of Inpatient mental health services for children and adolescents was noted as an area of need in a number of interviews undertaken in the development of this atlas.

Acute inpatient services available in the South West region for adults include the Bunbury Acute Psychiatric Unit (Inpatient), which has 21 beds within its Authorised Inpatient Unit and six beds within the Psychiatric Intensive Care Unit. Whilst the services are specific for the South West region the units do service clients from all other areas upon appropriate admission.

Other Residential Care

No age specific other Residential Care services were identified for children, adolescents or older adults.

For adults, other Residential Care in the form of community supported Residential units is provided through Richmond Wellbeing, located in both Busselton and Bunbury. This accommodation supports people with mental health issues towards independent living. A total of 10 beds are available in Busselton, with 15 beds available in Bunbury. Whilst located in these towns, Richmond Wellbeing can take referrals from anywhere in the state.

26.2   Day Care – Mental Health

There is only one day program (Day Care in Atlas terminology) available across Country WA. It is for adults and appears in Table 60 below. This service is provided by Lamp Incorporated in Busselton for day to day living requirements.

Funding for these types of services has been discontinued across the mental health sector in WA and nationally. One other service existed however recently ceased due to the loss of its funding stream.

26.3   Outpatient Care – Mental Health

Acute Mobile Outpatient Care

There were no services of this type identified for children and adolescents or for older adults across the South West region.

WACHS provides Community Mental Health Service teams for adults and Aboriginals. These services are located in Bunbury, Busselton, Bridgetown and Margaret River, aligning with the most populated areas in the region. As discussed earlier, it is in the nature of these service teams to be providing highly flexible care across the spectrum of Acute and Non-Acute care and with varying intensity.

As such these teams have generally been given both an Acute and a Non-Acute DESDE Code, generally a O2.1 and an O6.1 code. Whilst an 'a' (Acute) qualifier could have been applied to the O6.1 code to indicate that a team does some acute work, following feedback with WACHS and others, it was determined a second code was the most appropriate way to express the nature of these teams.

It should be noted there were no services (Acute or Non-Acute) identified as located in Donnybrook and Balinghup, areas which have a suicide rate more than twice the WA or Australian averages, at 27.1 deaths per 100,000. The same applies for Manjimup which is also an area with a high psychological distress rate.

There were four older adult Community Mental Health (CMH) teams identified in the region, in Bunbury, Busselton, Bridgetown and Margaret River. Additionally, there are no Acute services for older adults in Nannup, an area identified as having the highest ageing index in the region (as well as the low-income levels). It is 46 km from Nannup to Bridgetown and 70km to Margaret River, the closest CMH team locations to Nannup.

Acute Non-Mobile Outpatient Care

Acute Non-Mobile Outpatient care is generally provided by the health sector. Four services for children and adolescents (CAMHS) are located in Bunbury, Busselton, Bridgetown and Margaret River. There are no services specifically of this type for adults (or older adults) as the Community Mental Health Services have been identified as Mobile (see above).

Non-Acute Mobile Outpatient Care

There were no Non-Acute Mobile Outpatient services identified for children and adolescents across the South West Country WA region.

The services available to adults characterised as Non-Acute Mobile Outpatient care are shown in Table 60. Services provided by WACHS have been discussed above. Three separate MGO providers service the region with personal support services across the Bunbury and Busselton localities including Community First International, Lamp Incorporated (including a specialist homelessness and mental health service) and a service provided by a partnership between Pathways South West and MIFWA.

For older adults, one service is located in the South West region, the Older Adult Mental Health Service in Margaret River situated within the Margaret River Community Mental Health Clinic.

Non-Mobile Non-Acute Outpatient Care and Other Non-Acute Outpatient Care

There are several Non-Acute Non-Mobile Outpatient services for children and adolescents (Table 59).

Youth Focus run clinical support teams in Bunbury, whilst Relationships Australia provides the Headspace service in Bunbury and Lamp Incorporated runs Youth Outreach from Busselton.

Non-Acute Non-Mobile Outpatient care for adults in the South West region is located in Busselton and Bunbury, consisting of the South West Aboriginal Mental Health Service, a mental health program by GP Down South, the Aboriginal Mental Health Team and the Duchess Medical Centre provides a mental health nurse through the MNIP program.

There were no Non-Acute Non-Mobile Outpatient services identified for older adults.

There were no 'Other' Non-Acute Outpatient Care services identified across the South West region.

Information and Guidance, Accessibility and Self-Help/Voluntary Services

There were no Information and Guidance, Accessibility or Self-Help services provided for children and adolescents in the South West Country WA region.

Adult specific information services (Table 60) within the South West region are provided for Carers, through Lamp Incorporated. The Lower South West, Vasse-Lueewin, Warren and Blackwood areas fall within this service's remit.

It is noted that Rural Link provides a specialist after hours' mental health telephone support line for people in rural communities of Western Australia (1800 552 002). This would be categorised as an information (and Outpatient) service.

Accessibility services for adults are provided by the Partners in recovery services provided by Community First International across the South West region. These services are located in Bunbury

and Busselton, while a third service engages within Bunbury in addition to the Wheatbelt and Great Southern regions.

No Self-Help or voluntary services were identified in the South West region.

Pattern of Mental Health Care

The pattern of care in the South West region is distinct from other regions in CWAPHN, mainly because of the presence of accessibility services, as demonstrated on the associated spider diagram (Figure 70). There are some Acute hospital beds along with other Residential accommodation. The pattern of care is primarily dominated by Non-Acute Mobile and Acute Mobile Outpatient health services.

Placement of Mental Health Services

As shown in Figure 71, most mental health services are located in the most populated towns in the South West region, Bunbury or Busselton.

TABLE 59 CHILD AND ADOLESCENT MENTAL HEALTH SERVICES IN SOUTH WEST

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Acute, Non-Mobile Outpatient care	WACHS South West Mental Health Service	CAMHS	CX[F0-F99] - O4.1	Bunbury	Upper SW - Greater Bunbury region
		CAMHS	CX[F0-F99] - O4.1	Busselton	Lower South West - Busselton region
		CAMHS	CX[F0-F99] - O4.1eu	Bridgetown	Lower South West - Warren Blackwood
		CAMHS	CX[F0-F99] - O4.1u	Margaret River	Lower South West - Margaret River region
Non-Acute, Non-Mobile Outpatient care	Youth Focus	Bunbury CST	CY[F0-F99] - O9.2	Bunbury	N/S
	Relationships Australia - Headspace	Bunbury Headspace	TA[F0-F99] - O9.1	Bunbury	N/S
	Lamp Incorporated	Youth Outreach Services	CX[F0-F99] - O9.2j	Busselton	Lower South West

TABLE 60 Adult Mental Health Services in South West

Classification	Organisation	Team Name	DESDE - 1 (beds)	Suburb	Catchment
Acute Inpatient care	Bunbury Acute Psychiatric Unit (Inpatient)	Acute Inpatient Unit	AX[F0-F99] - R2 (21)	Bunbury	South West and all areas if appropriate admission
		Psychiatric Intensive Care Unit	AX[F0-F99] - R2c (6)	Bunbury	South West and all areas if appropriate admission
Non-Acute Inpatient care	Richmond Wellbeing	Busselton Community Supported Residential Units (CSRU)	AX[F0-F99] - R9.2 (10)	Busselton	Busselton + state and nation wide referrals
		Bunbury Community Supported Residential Units (CSRU)	AX[F0-F99] - R9.2 (15)	Bunbury	Bunbury + state and nation wide referrals
Day programs	Lamp Incorporated	D2DL	AX[F0-F99] - D4	Busselton	Lower South West Vasse-Lueewin
Acute, Mobile Outpatient care	WACHS South West Mental Health Service	Adult Community MH Services	AX[F0-F99] - O2.1 AX[F0-F99] - O6.1	Bunbury	Upper SW - Greater Bunbury region including Harvey, Dardanup, Donnybrook and Capel Shires
		Aboriginal MH Services	AXIN[F0-F99] - O2.1 AXIN[F0-F99] - O6.1	Bunbury	Upper SW - Greater Bunbury region
		Adult Community MH Services	AX[F0-F99] - O2.1 AX[F0-F99] - O6.1	Busselton	Lower South West - Busselton region
		Aboriginal MH Services	AXIN[F0-F99] - O2.1u AXIN[F0-F99] - O6.1u	Busselton	Lower South West - Busselton region
		Adult Community MH Services	AX[F0-F99] - O2.1 AX[F0-F99] - O6.1	Bridgetown	Lower South West - Warren Blackwood
		Aboriginal MH Services	AXIN[F0-F99] - O2.1 AXIN[F0-F99] - O6.1	Bridgetown	Lower South West - Warren Blackwood
		Adult Community MH Services	AX[F0-F99] - O2.1 AX[F0-F99] - O6.1	Margaret River	Lower South West - Margaret River region

		Aboriginal MH Services	AXIN[F0-F99] - O2.1 AXIN[F0-F99] - O6.1	Margaret River	Lower South West - Margaret River region
Non-Acute, Mobile Outpatient care	Lamp Incorporated	National Partnership Agreement Homelessness	AX[F0-F99][Z59] - O5.2u	Busselton	Lower South West Vasse-Lueewin
	Lamp Incorporated	Partners in Recovery	AX[F0-F99] - O5.2.1	Busselton	Lower South West
	Community First International	Personal Helpers & Mentors	AX[F0-F99] - O6.2	Bunbury	N/S
	Community First International	Individualised Community Living Strategy Bunbury - 2 Clients	AX[F0-F99] - O6.2	Bunbury	Albany, Bunbury, Perth South. Access Housing manages the properties.
	Lamp Incorporated	Personal Support Other	AX[F0-F99] - O6.2	Busselton	Lower South West Vasse-Lueewin
	Pathways South West & MIFWA	Pathways South West & MIFWA	AX[e310][F0-F99] - O6.2	Bunbury	Bunbury, Harvey, Margaret River, Busselton, Augusall, Manjimup, Boyup Brook, Donnybrook, Bridgetown, Nannup Dunsborough
Non-Acute, Non-Mobile Outpatient care	South West Aboriginal Medical Service	South West Aboriginal Mental Health Service	AXIN[F0-F99] - O9.1	Bunbury	N/S
	Mental Health Nurse Incentive Program	Duchess Medical Centre	AX[F0-F99] - O9.1	Busselton	N/S
	GP Down South	GP down south Mental Health Program	AX[F0-F99] - O9.2	Busselton	South West Western Australia
Information	Lamp Incorporated	Lamp Incorporated Carers Program	GX[e310][F00-F99] - I2.1.1e	Busselton	Lower South West Vasse-Lueewin and Warren Blackwood
Access	Community First International	Partners in Recovery	AX[F0-F99] -A4.2.1	Bunbury	N/S
		Partners in Recovery	AX[F0-F99] -A4.2.1	Busselton	N/S
		Partners in Recovery	AX[F0-F99] -A4.2.1	Bunbury	South West, Wheatbelt, Great Southern

TABLE 61 Older Adult Mental Health Services in South West

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Acute, Mobile Outpatient care	Older Adult Mental Health	Older Adult MHS	OX[F0-F99] - O2.1 OX[F0-F99] - O6.1	Bunbury	Upper SW
		Older Adult MHS	OX[F0-F99] - O2.1 OX[F0-F99] - O6.1	Busselton	Lower South West - Busselton region
		Older Adult MHS	OX[F0-F99] - O2.1 OX[F0-F99] - O6.1	Bridgetown	Lower South West - Warren Blackwood
Non-Acute, Mobile Outpatient care		Older Adult MHS	OX[F0-F99] - O5.1a	Margaret River	Lower South West - Margaret River region
Non-Acute, Mobile Outpatient care	WACHS Great Southern Mental Health	Older Adult MHS	OX[F0-F99] - O5.1.1ae	Narrogin	Great Southern & Southern Wheatbelt
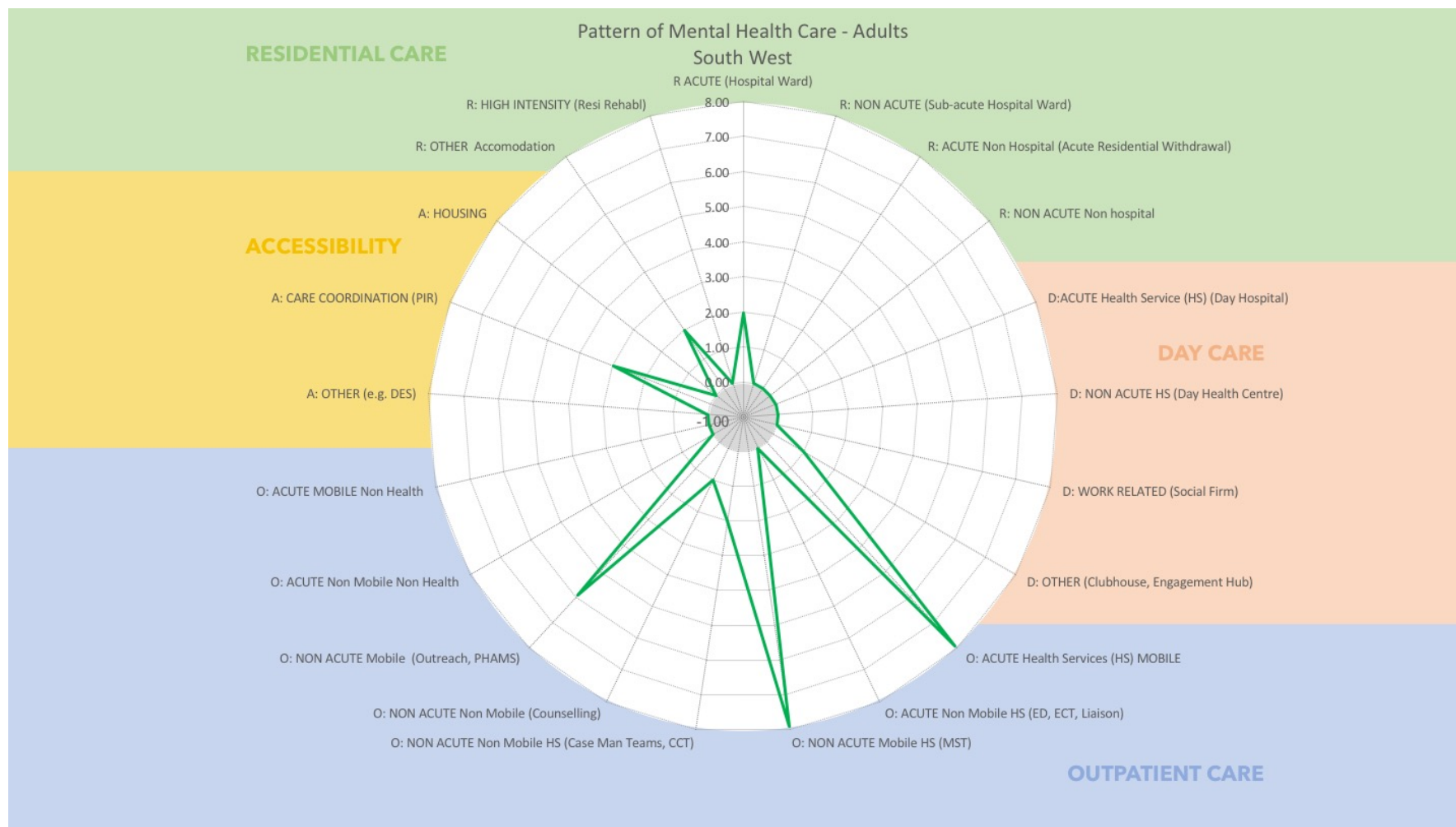
FIGURE 70 PATTERN OF MENTAL HEALTH CARE FOR ADULTS IN THE SOUTH WEST
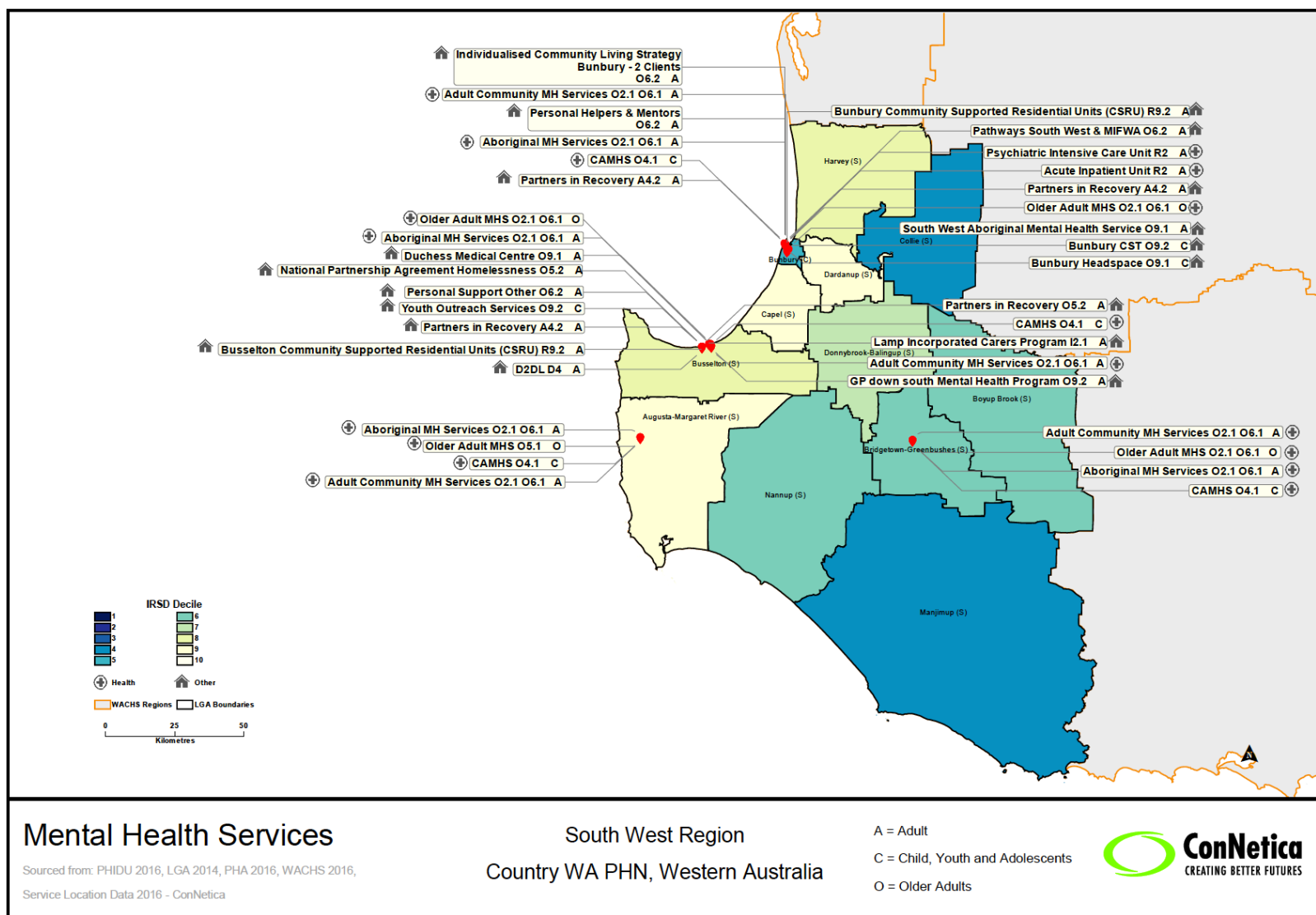
FIGURE 71 PLACEMENT OF SOUTH WEST MENTAL HEALTH SERVICES

27. South West Region AOD Data

Figure 72 displays alcohol related hospitalisations (age standardised rate) in the South West region compared with statewide statistics for the years 2008 to 2012. Whilst there is a perception from some stakeholders within the South West region that drug and alcohol use was increasing, this is yet to be substantiated with quantitative data (Estellar Consulting, 2016d). Figure 72 shows the number of drug related hospitalisations (age standardised rate) in the South West across the same time period, compared with WA. In 2012, the number of drug related hospitalisations in the South West was higher than the state level for the first time since 2008.

FIGURE 72 ALCOHOL RELATED HOSPITALISATIONS IN SOUTH WEST

Source: Alcohol and Other Drug Indicators Reports (2015)
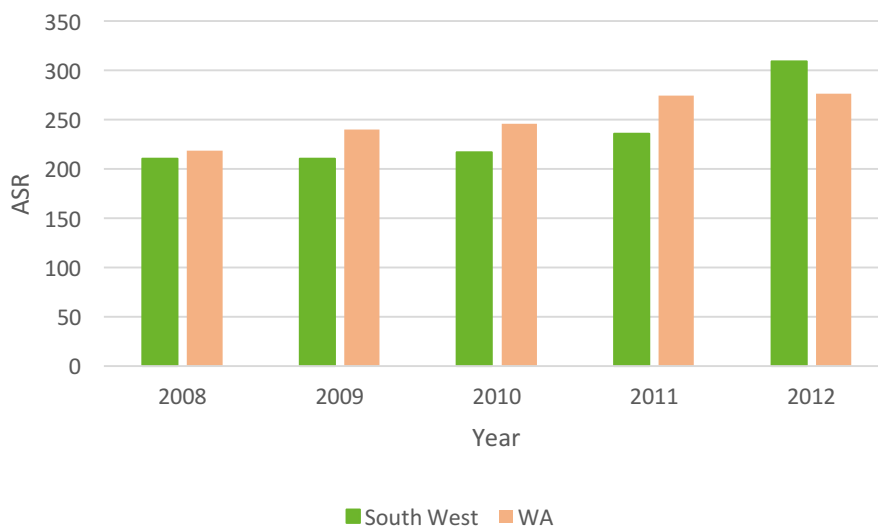
FIGURE 73 DRUG RELATED HOSPITALISATIONS IN SOUTH WEST

Source: Alcohol and Other Drug Indicators Reports (2015)

28. South West AOD Services

There was a total of eight AOD BSIC providing nine MTC across the South West region (Figure 74). This is divided into two child and adolescent BSIC and seven adult BSIC.
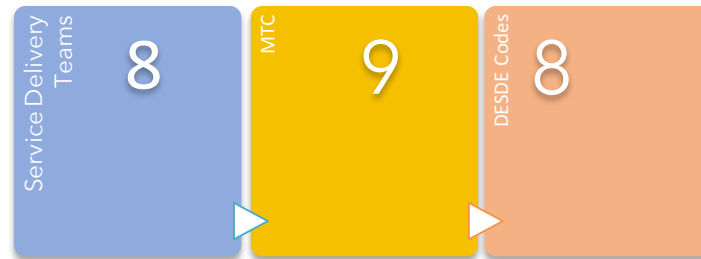
FIGURE 74 SUMMARY OF MENTAL HEALTH SERVICES IN SOUTH WEST REGION OF COUNTRY WA

28.1 Residential Care – AOD

There were no identified Residential care facilities for people with AOD problems within the South West region. This has been identified as a gap in the region.

28.2 Day Care – AOD

There were no identified Day Care facilities within the South West region. It is pertinent to note however that day based programs or drop in centres are less common in the AOD area compared with mental health (although in the latter many that existed have been defunded in recent years).

28.3 Outpatient Care – AOD

Acute Mobile Outpatient Care

The South West Aboriginal Mental Health Services Team (SWAMS) runs a dual diagnosis service for adults from its Bunbury location, servicing all of the South West region from this location.

Non-Acute Mobile Outpatient Care

Accordwest runs a Substance Counselling and Support service for young people in South Bunbury, the only service in this category for children and adolescents.

St John of God runs the South West Community Alcohol and Drug Service for adults. This service is located in Bunbury (See Table 63).

Other Non-Acute Outpatient Care

The South West region is the only Country WA region to have a service falling within the category of Non-Acute Outpatient Care. This is the WA Substance Users Association (WASUA) Non-Acute Non-Mobile Needle and Syringe Exchange Program. This is located in Bunbury and provides a mobile unit offering the same service. Some of the Palmerston branches in regional areas also provide needle and syringe exchange but this is not a core focus of activity.

28.4 Information and Guidance, Accessibility and Self-Help and Voluntary Services – AOD

The only identified service for children and adolescents in this category takes the form of a school leavers program located in Dunsborough, provided by Hope Community Services (Table 62).

For adults, there is one service in Bunbury that supports people who are homeless or at risk of homelessness and who have AOD issues. This National Partnership Agreement on Homelessness (NPAH) funded program assists people to access and continue engagement with AOD services, access and maintain stable accommodation and link them to counselling, education and/or employment training opportunities.

Pattern of AOD Care

The pattern of AOD care in the South West region is perhaps the most distinct of all regions in CWAPHN (Figure 75). Relative to other regions, the South West has a very low number of AOD service per 100,000 adult population. There is a very low level of NGO sector Outpatient services in this region.

Placement of AOD Care Services

AOD services are almost exclusively located in the major regional centre of Bunbury, with the exception of a school leavers program in Busselton and a methamphetamine detox program in the Nannup LGA (Figure 76).

TABLE 62 CHILD AND ADOLESCENT AOD SERVICES IN SOUTH WEST

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Non-Acute, Mobile Outpatient care	Accordwest	Substance Counselling and Support	CY[F10-F19] - O7.2	South Bunbury	N/S
Information	Hope Community Services	School Leavers Program	TA[F10-F19] - I2.1.1t	Dunsborough	N/S

TABLE 63 ADULT AOD SERVICES IN SOUTH WEST

Classification	Organisation	Team Name	DESDE - 1 (beds)	Suburb	Catchment
Non-Acute Inpatient care	Blackwood River Clinic	Meth Detox	AX[F15] - R8.1 (16) AX[F15] - D4.1	Nannup	Statewide
Acute, Mobile Outpatient care	South West Aboriginal Mental Health Services Team (SWAMS)	SWAMS	GXIN[F10-F19][F0-F99] - O2.1	Bunbury	south west of WA
Non-Acute, Mobile Outpatient care	St John of God Health Care	SWCADS	AX[F10-F19] - O6.1	Bunbury	South West - Bunbury, Bridgetown, Manjimup, Collie, Harvey, Busselton and Margaret River
Other Non-Acute Outpatient care	WA Substance Users Association (WASUA)	South West Fixed NSEP Site	AX[F10-F19] - O11	Bunbury	South West
		South West Mobile NSEP	AX[F10-F19] - O11	Bunbury	South West
Access	CentreCare	Bunbury Branch - NPAH Drug and Alcohol	AX[F10-F19][Z59] - A5.5	Bunbury	South West
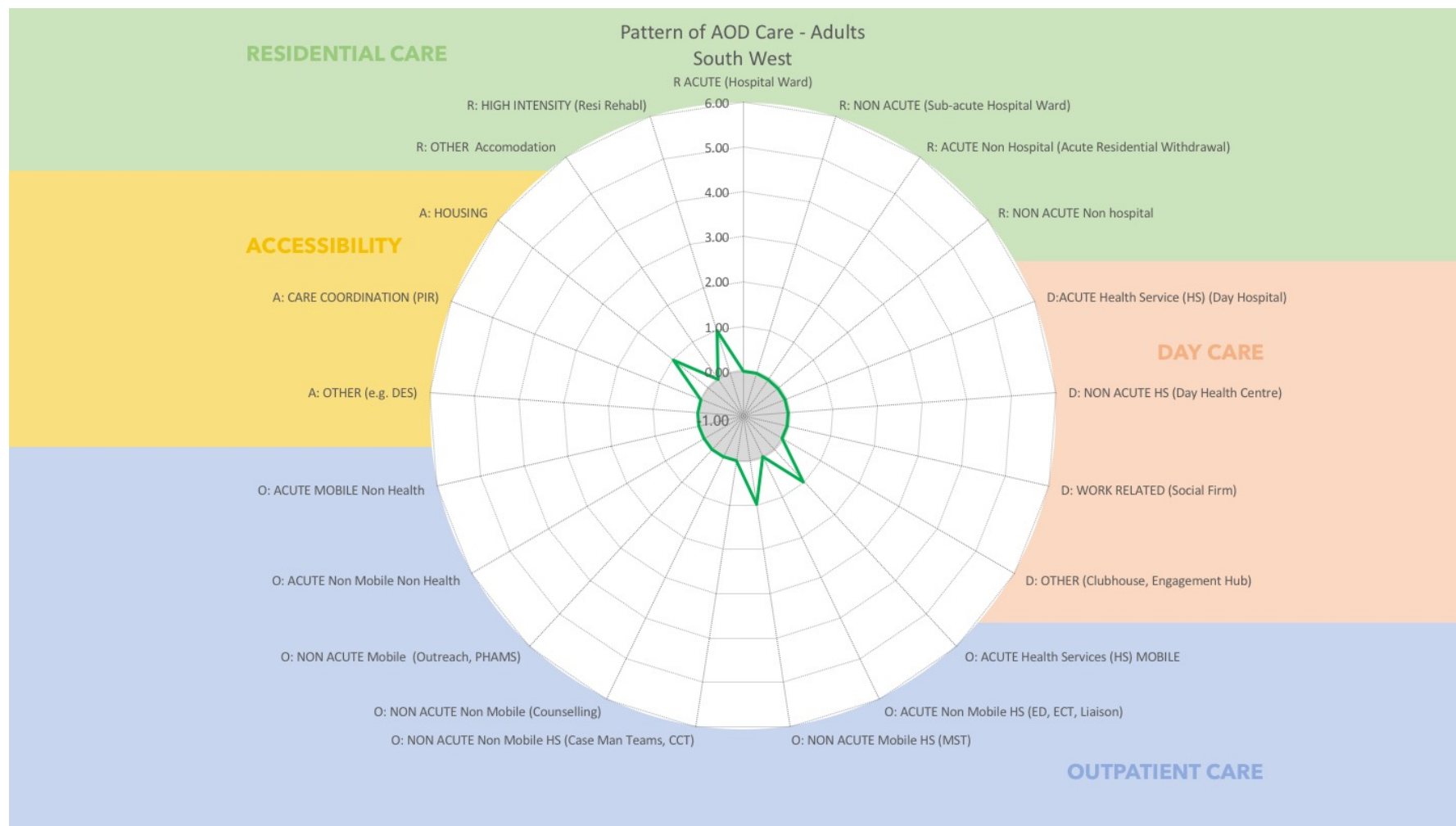
FIGURE 75 PATTERN OF AOD CARE FOR ADULTS IN SOUTH WEST
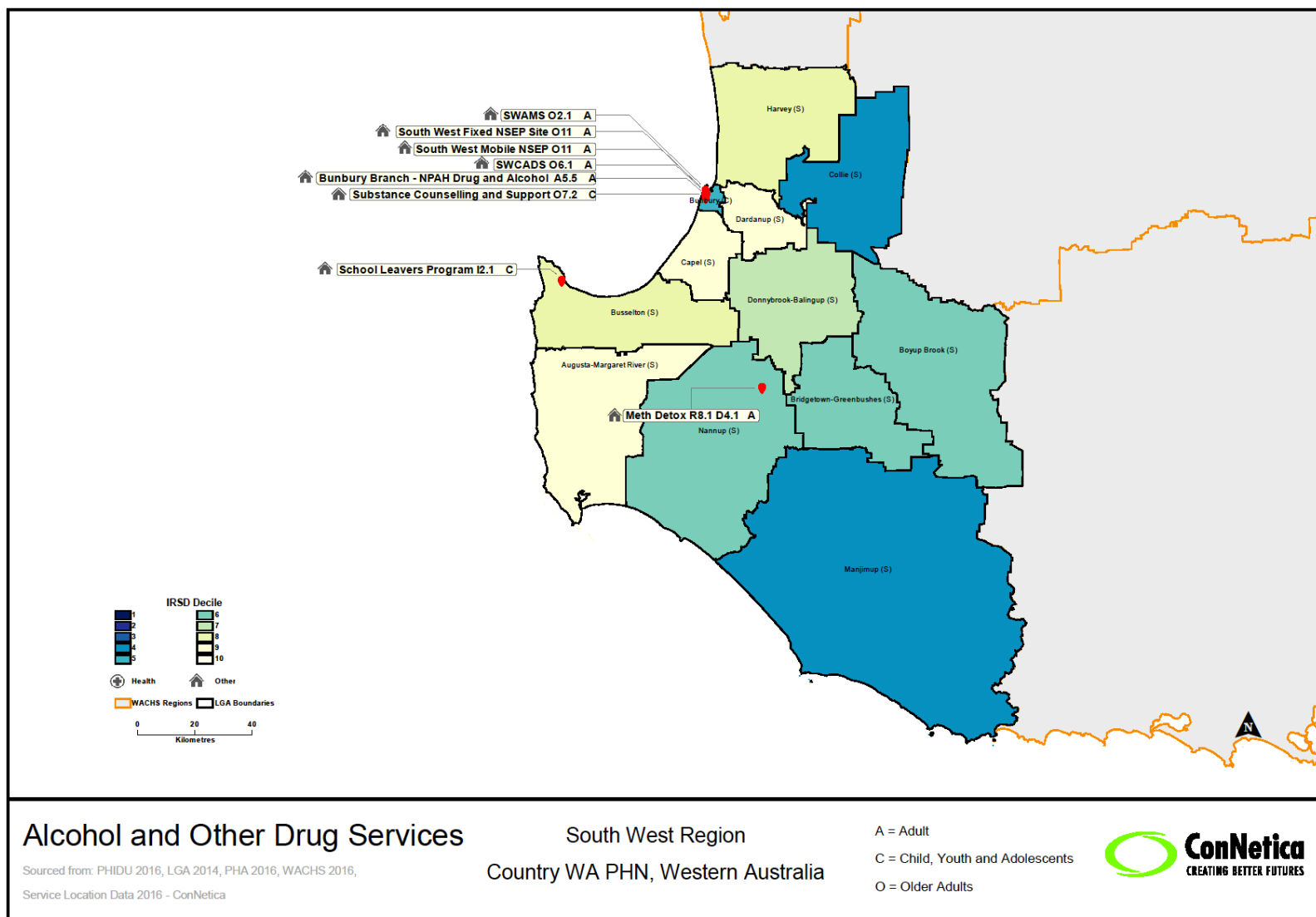
FIGURE 76 Placement of South West AOD Services

29. Wheatbelt Region

The Wheatbelt region has 45 LGAs, the most of any regional area in country WA. The region spreads east from the PNPHN and PSPHN regions.

29.1 Population Demographics

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 ratio and ageing index. The diversity of the population is examined utilising the indicators of Indigenous status and proportion of those born overseas. Table 64 below presents key population demographics for the Wheatbelt Region, disaggregated by LGA.

Narrogin Town is the densest LGA in the Wheatbelt with 340.2 persons per square km. Boddington has a younger population with an ageing index of 62.2. The highest Indigenous Status can be found in the Quairading LGA (17.4%).

TABLE 64 KEY POPULATION DEMOGRAPHICS FOR THE WHEATBELT REGION BY LGA

LGA	Area* (sq. km)	Total Population†	Density Ratio	Dependency Ratio	Ageing Index	Indigenous Status (%)§	Overseas Born (%)¶
Beverley	2370.5	1,582	0.7	0.77	162.0	98 (6.1)	16.7
Boddington	1899.4	2,537	1.3	0.33	62.2	102 (3.9)	16.7
Brookton	1601.2	1,008	0.6	0.85	141.1	115 (11.7)	10.6
Bruce Rock	2724.7	939	0.3	0.64	80.6	54 (5.6)	11.5
Chittering	1219.9	5,301	4.4	0.53	75.6	96 (1.8)	23.9
Corrigin	2680.6	1,083	0.4	0.73	139.8	38 (3.4)	9.9
Cuballing	1195	897	0.8	0.65	72.7	25 (2.8)	13.2
Cunderdin	1862.5	1,325	0.7	0.57	81.4	40 (3.0)	15.0
Dalwallinu	7227.2	1,284	0.2	0.51	85.8	73 (5.7)	12.9
Dandaragan	6711.5	3,253	0.5	0.68	121.4	114 (3.1)	14.2
Dowerin	1863.1	679	0.4	0.75	77.9	10 (1.5)	7.5
Dumbleyung	2541.3	581	0.2	0.74	134.8	11 (1.9)	11.6
Gingin	3208.4	5,450	1.7	0.67	108.9	116 (2.2)	22.8
Goomalling	1835.4	985	0.5	0.85	73.9	86 (8.5)	9.7
Kellerberrin	1915.6	1,219	0.6	0.85	112.4	142 (11.7)	10.2
Kondinin	7422.1	1,055	0.1	0.47	113.4	82 (8.3)	12.2
Koorda	2832.4	435	0.2	1.02	91.3	14 (3.3)	10.4
Kulin	4716.9	799	0.2	0.69	86.3	28 (3.6)	9.7
Merredin	3294.4	3,291	1.0	0.53	76.5	220 (6.8)	14.6
Morawa	3512.6	879	0.3	0.58	92.1	101 (11.4)	9.4
Mt Marshall	10185.9	449	0.0	0.49	78.4	0 (0.0)	8.0
Mukinbudin	3435	468	0.1	0.64	132.9	20 (4.2)	8.8

Narembeen	3833.3	795	0.2	0.66	130.8	20 (2.5)	11.7
Narrogin shire	1618.4	891	0.5	0.44	64.9	12 (1.3)	13.6
Narrogin town	13.1	4,467	340.2	0.62	68.9	523 (11.6)	13.7
Northam	1431.2	11,555	8.1	0.58	81.3	853 (7.2)	16.0
Nungarin	1163	218	0.2	0.57	119.4	24 (10.9)	9.5
Pingelly	1294.1	1,188	0.9	0.74	101.4	171 (13.7)	13.8
Quairading	2016.9	1,044	0.5	0.79	130.2	189 (17.4)	8.7
Tammin	1101.7	406	0.4	0.74	39.9	61 (14.8)	11.6
Toodyay	1691.7	4,544	2.7	0.55	136.7	140 (3.0)	21.7
Trayning	1650.9	326	0.2	0.78	164.5	30 (8.9)	13.5
Victoria Plains	2550.9	914	0.4	0.49	71.5	25 (2.8)	13.6
Wagin	1945.7	1,920	1.0	0.78	124.6	76 (4.0)	15.3
Wandering	1899.6	434	0.2	0.63	89.7	0 (0.0)	13.0
West Arthur	2832.7	904	0.3	0.69	85.0	12 (1.4)	9.1
Westonia	3314	259	0.1	0.37	84.3	4 (1.7)	17.1
Wickepin	2039.8	718	0.4	0.61	75.9	25 (3.6)	7.7
Williams	2304.5	937	0.4	0.62	84.6	4 (0.4)	9.0
Wongan-Ballidu	3365.1	1,480	0.4	0.69	60.4	137 (9.3)	10.3
Wyalkatchem	1594.4	525	0.3	0.84	120.2	17 (3.2)	13.2
Yilgarn	30376.3	1,552	0.1	0.39	80.0	28 (1.8)	16.4
York	2131.6	3,460	1.6	0.65	131.0	155 (4.5)	17.9
Country WA	**2.5 million**	**546,206**	**0.22**	**0.50**	**64.0**	**57,126 (10.3)**	**15.6**
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

29.2   Social Determinants of Health

Table 65 displays socioeconomic factors for the Wheatbelt region.

Boddington has the lowest proportion of residents requiring assistance (1.8%), lowest proportion of early school leavers (37.7 per 100) and the lowest proportion of the population earning less than $400 a week (24.4%). Conversely, 51.3% of those residing in Kellerberrin earn less than $400 per week and 43 per 100 residents left school early. Pingelly is the LGA classified as most disadvantaged.

TABLE 65 SOCIOECONOMIC FACTORS FOR THE WHEATBELT REGION BY LGA

LGA	Single parent families (%)*	Needing Assistance (%)*	Early school leavers* (ASR per 100)	Un employment (%)‡	Income <$400 / wk (%)†	IRSD score§
Beverley	20.0⇧	7.4⇧	37.9⇧	6.5⇧	49.6⇧	3 (942) ⇩
Boddington	19.0⇩	1.8⇩	37.7⇧	2.7⇩	24.4⇩	9 (1025) ⇧

Brookton	15.5 ⇩	9.4 ⇧	42.1 ⇧	8.1 ⇧	45.6 ⇧	4 (954) ⇩
Bruce Rock	17.1 ⇩	5.4 ⇧	42.0 ⇧	5.8 ⇧	42.8 ⇧	5 (971) ⇩
Chittering	14.0 ⇩	2.7 ⇩	39.9 ⇧	2.6 ⇩	39.9 ⇧	9 (1040) ⇧
Corrigin	15.7 ⇩	4.0 ⇩	42.1 ⇧	8.2 ⇧	38.9 ⇧	6 (987) ⇩
Cuballing	15.6 ⇩	3.7 ⇩	40.3 ⇧	4.1 ⇩	44.9 ⇧	8 (1005) ⇩
Cunderdin	18.5 ⇩	4.7 ⇧	43.0 ⇧	8.8 ⇧	43.2 ⇧	7 (1004) ⇩
Dalwallinu	11.0 ⇩	4.1 ⇩	40.3 ⇧	5.0 ⇩	29.4 ⇩	9 (1031) ⇧
Dandaragan	18.7 ⇩	3.2 ⇩	41.2 ⇧	4.6 ⇩	36.2 ⇧	7 (1003) ⇩
Dowerin	13.0 ⇩	6.4 ⇧	41.4 ⇧	6.5 ⇧	42.2 ⇧	7 (989) ⇩
Dumbleyung	10.8 ⇩	4.0 ⇩	37.7 ⇧	3.3 ⇩	41.6 ⇧	8 (1018) ⇩
Gingin	18.0 ⇩	4.1 ⇩	41.2 ⇧	4.6 ⇩	45.5 ⇧	7 (992) ⇩
Goomalling	18.7 ⇩	5.1 ⇧	41.4 ⇧	6.5 ⇧	44.0 ⇧	5 (973) ⇩
Kellerberrin	22.7 ⇧	7.6 ⇧	43.0 ⇧	8.9 ⇧	51.3 ⇧	2 (910) ⇩
Kondinin	16.8 ⇩	3.4 ⇩	37.7 ⇧	3.3 ⇩	33.8 ⇩	7 (993) ⇩
Koorda	10.0 ⇩	3.5 ⇩	41.4 ⇧	6.6 ⇧	42.4 ⇧	6 (979) ⇩
Kulin	9.5 ⇩	2.5 ⇩	37.7 ⇧	3.4 ⇩	39.7 ⇧	8 (1011) ⇩
Merredin	17.8 ⇩	3.8	42.0 ⇧	5.8 ⇧	37.5 ⇧	6 (983) ⇩
Morawa	23.1 ⇧	5.1 ⇧	39.8 ⇧	4.9 ⇩	40.2 ⇧	5 (970) ⇩
Mount Marshall	12.7 ⇩	2.8 ⇩	42.5 ⇧	4.2 ⇩	33.5 ⇩	9 (1048) ⇧
Mukinbudin	9.1 ⇩	2.9 ⇩	42.5 ⇧	4.4 ⇩	39.4 ⇧	8 (1020) ⇩
Narembeen	9.6 ⇩	5.5 ⇧	42.0 ⇧	5.9 ⇧	38.3 ⇧	8 (1005) ⇩
Narrogin shire	8.0 ⇩	2.5 ⇩	41.0 ⇧	6.4 ⇧	41.1 ⇧	10 (1065) ⇧
Narrogin town	26.9 ⇧	6.0 ⇧	41.6 ⇧	8.2 ⇧	42.4 ⇧	3 (942) ⇩
Northam	26.7 ⇧	5.7 ⇧	41.8 ⇧	9.7 ⇧	42.6 ⇧	3 (947) ⇩
Nungarin	42.9 ⇧	3.2 ⇩	42.5 ⇧	4.8 ⇩	46.7 ⇧	5 (967) ⇩
Pingelly	29.2 ⇧	4.8 ⇧	42.1 ⇧	8.2 ⇧	49.2 ⇧	2 (903) ⇩
Quairading	30.3 ⇧	5.6 ⇧	43.0 ⇧	8.9 ⇧	44.7 ⇧	3 (931) ⇩
Tammin	13.5 ⇩	3.9 ⇧	43.0 ⇧	8.8 ⇧	47.9 ⇧	6 (987) ⇩
Toodyay	25.3 ⇧	4.7 ⇧	38.4 ⇧	6.0 ⇧	43.7 ⇧	7 (994) ⇩
Trayning	19.4 ⇩	7.1 ⇧	42.5 ⇧	4.2 ⇩	42.2 ⇧	3 (941) ⇩
Victoria Plains	7.8 ⇩	3.1 ⇩	40.3 ⇧	4.9 ⇩	41.1 ⇧	8 (1017) ⇩
Wagin	18.4 ⇩	5.6 ⇧	40.3 ⇧	4.1 ⇩	45.6 ⇧	4 (956) ⇩
Wandering	10.2 ⇩	3.1 ⇩	42.1 ⇧	8.2 ⇧	34.3 ⇩	9 (1041) ⇧

West Arthur	9.1 ⇩	2.5 ⇩	40.3 ⇧	4.2 ⇩	43.5 ⇧	9 (1036) ⇧
Westonia	11.5 ⇩	4.9 ⇧	42.5 ⇧	4.7 ⇩	28.3 ⇩	7 (995) ⇩
Wickepin	25.8 ⇧	4.5	37.7 ⇧	3.4 ⇩	44.4 ⇧	5 (977) ⇩
Williams	14.1 ⇩	3.0 ⇩	40.3 ⇧	4.2 ⇩	31.8 ⇩	9 (1033) ⇧
Wongan-Ballidu	19.8 ⇩	3.4 ⇩	41.4 ⇧	6.5 ⇧	35.0 ⇩	7 (990) ⇩
Wyalkatchem	26.9 ⇧	7.3 ⇧	41.4 ⇧	6.3 ⇧	47.6 ⇧	8 (944) ⇩
Yilgarn	20.4 ⇧	2.8 ⇩	42.5 ⇧	4.4 ⇩	28.4 ⇩	6 (984) ⇩
York	24.1 ⇧	5.6 ⇧	37.9 ⇧	6.6 ⇧	44.8 ⇧	6 (983) ⇩
Country WA	**21.8**	**3.8**	**40.2**	**5.6**	**35.8**	**983**
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)

29.3   Health and Mortality

A number of indicators of health status have been examined including self-report heath status, a population based indicators of psychological distress and some mortality measures (Table 66).

Merredin has the highest suicide rate (34.3 per 100,000) within the Wheatbelt region. This rate is considerably higher than the national and WA averages. Psychological distress is observed at its highest in Narrogin Town LGA (12.4%) (Table 66).

TABLE 66 HEALTH AND MORTALITY FOR THE WHEATBELT REGION BY LGA

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)†
Beverley	16.9 ⇧	12.0 ⇧	0	0.0 ⇩	n/a	n/a
Boddington	14.4 ⇧	9.5 ⇩	n/a	n/a	n/a	n/a
Brookton	14.5 ⇧	11.3 ⇧	n/a	n/a	0	0.0 ⇩
Bruce Rock	15.1 ⇧	10.1 ⇩	n/a	n/a	n/a	n/a
Chittering	15.7 ⇧	9.4 ⇩	n/a	n/a	n/a	n/a
Corrigin	14.5 ⇧	11.3 ⇧	n/a	n/a	0	0.0 ⇩
Cuballing	14.4 ⇧	9.5 ⇩	0	0.0 ⇩	n/a	n/a
Cunderdin	15.1 ⇧	10.1 ⇩	n/a	n/a	n/a	n/a
Dalwallinu	14.3 ⇧	10.0 ⇩	n/a	n/a	n/a	n/a
Dandaragan	15.7 ⇧	9.4 ⇩	n/a	n/a	n/a	n/a
Dowerin	14.3 ⇧	10.0 ⇩	n/a	n/a	n/a	n/a
Dumbleyung	14.4 ⇧	9.5 ⇩	0	0.0 ⇩	n/a	n/a
Gingin	15.7 ⇧	9.4 ⇩	n/a	n/a	n/a	n/a
Goomalling	14.3 ⇧	10.0 ⇩	n/a	n/a	n/a	n/a

Kellerberrin	15.1 ⇧	10.1 ⇩	n/a	n/a	n/a	n/a
Kondinin	14.4 ⇧	9.5 ⇩	0	0.0 ⇩	n/a	n/a
Koorda	14.3 ⇧	10.0 ⇩	n/a	n/a	n/a	n/a
Kulin	14.4 ⇧	9.5 ⇩	0	0.0 ⇩	n/a	n/a
Merredin	15.1 ⇧	10.1 ⇩	5	34.3 ⇧	7	47.3 ⇧
Morawa	15.7 ⇧	11.3 ⇧	n/a	n/a	n/a	n/a
Mount Marshall	15.1 ⇧	10.1 ⇩	0	0.0 ⇩	n/a	n/a
Mukinbudin	15.1 ⇧	10.1 ⇩	0	0.0 ⇩	n/a	n/a
Narembeen	15.1 ⇧	10.1 ⇩	n/a	n/a	n/a	n/a
Narrogin shire	15.8 ⇧	11.1 ⇧	n/a	n/a	n/a	n/a
Narrogin town	16.8 ⇧	12.4 ⇧	n/a	n/a	5	27.2 ⇧
Northam	16.9 ⇧	12.0 ⇧	6	11.9 ⇩	14	27.8 ⇧
Nungarin	15.1 ⇧	10.1 ⇩	0	0.0 ⇩	0	0.0 ⇩
Pingelly	14.5 ⇧	11.3 ⇧	n/a	n/a	0	0.0 ⇩
Quairading	15.1 ⇧	10.1 ⇩	n/a	n/a	n/a	n/a
Tammin	15.1 ⇧	10.1 ⇩	0	0.0 ⇩	n/a	n/a
Toodyay	14.3 ⇧	10.0 ⇩	n/a	n/a	6	28.4 ⇧
Trayning	15.1 ⇧	10.1 ⇩	0	0.0 ⇩	n/a	n/a
Victoria Plains	14.3 ⇧	10.0 ⇩	n/a	n/a	n/a	n/a
Wagin	14.4 ⇧	9.5 ⇩	n/a	n/a	n/a	n/a
Wandering	14.5 ⇧	11.3 ⇧	n/a	n/a	0	0.0 ⇩
West Arthur	14.4 ⇧	9.5 ⇩	0	0.0 ⇩	n/a	n/a
Westonia	15.1 ⇧	10.1 ⇩	0	0.0 ⇩	0	0.0 ⇩
Wickepin	14.4 ⇧	9.5 ⇩	0	0.0 ⇩	n/a	n/a
Williams	14.4 ⇧	9.5 ⇩	0	0.0 ⇩	n/a	n/a
Wongan-Ballidu	14.3 ⇧	10.0 ⇩	n/a	n/a	n/a	n/a
Wyalkatchem	14.3 ⇧	10.0 ⇩	n/a	n/a	n/a	n/a
Yilgarn	15.1 ⇧	10.1 ⇩	n/a	n/a	n/a	n/a
York	16.9 ⇧	12.0 ⇧	n/a	n/a	8	53.5 ⇧
Country WA	**15.1**	**10.6**	**447**	**18.0**	**335**	**13.7**
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)

30. Wheatbelt Mental Health Services

There was a total of 32 mental health service delivery teams or BSIC across the Wheatbelt region delivering 39 main types of care (MTC) across 12 different DESDE classifications (Figure 77). This includes four child and adolescent MTC (10%), 31 adult BSIC (80%) and four older adult MTC (10%).
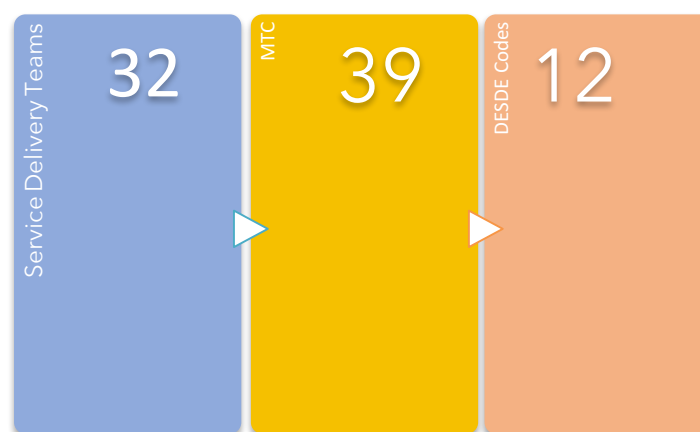
FIGURE 77 SUMMARY OF MENTAL HEALTH SERVICES IN MIDWEST REGION OF COUNTRY WA

A breakdown of these services is provided in Table 67 below. Outpatient services account for 36 of the 39 or 92% of the MTC. The health sector provides the greatest proportion of care across the region, with 23 of the 39 MTC (59%).

TABLE 67 NUMBER OF MENTAL HEALTH SERVICE TYPES MIDWEST COUNTRY WA

Age Group	Provider Type	R	D	O	A	I	S	Total
Child & Adolescent	Health	0	0	4	0	0	0	4
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**4**	**0**	**0**	**0**	**4**
Adult	Health	0	0	15	0	0	0	15
	NGO/Other	0	0	13	2	1	0	16
	Sub-total	**0**	**0**	**28**	**2**	**1**	**0**	**31**
Older Adult	Health	0	0	4	0	0	0	4
	NGO/Other	0	0	0	0	0	0	0
	Sub-total	**0**	**0**	**4**	**0**	**0**	**0**	**4**
	Total	**0**	**0**	**36**	**2**	**1**	**0**	**39**

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

30.1   Residential Care – Mental Health

There is an absence of Acute and Sub-Acute inpatient beds in the Wheatbelt region for all age groups, with those in need of care having to be referred to the metropolitan area which may be dependent upon availability of beds. This deficit in critical services was frequently noted by stakeholders in this region.

30.2   Day Care – Mental Health

There were no identified Day Care services available in the Wheatbelt region, a trend that is persistent across the Country WA area.

30.3   Outpatient Care – Mental Health

Acute Mobile Outpatient Care

There were no services of this classification for either children or older adults identified in this region.

For adults, there are a number of services available and these are presented in Table 69. WACHS Wheatbelt Mental Health Service provides both adult community Mental Health and Aboriginal Mental Health services in Northam, Merredin and Gingin localities. Community Mental Health provides Aboriginal Mental Health services in Narrogin.

There was no Acute Non-Mobile Outpatient Care (O3 and O4) identified across the region.

Non-Acute Mobile Outpatient Care

Table 68 displays child and adolescent Non-Acute Mobile Outpatient care available in the Wheatbelt region.

WACHS provides CAHMS Services in Northam, Merredin and Gingin, whilst WACHS Great Southern provides the CAMHS in Narrogin which services the Great Southern and Southern Wheatbelt areas.

For adults, Non-Acute Mobile services are located only in Northam and Narrogin. WACHS Great Southern provides adult mental health services in Narrogin, which services the Great Southern and Southern Wheatbelt areas.

Avivo (Perth Home Care Services) provide a mental health service, PHaMs and PIR services, all in Northam. The Share and Care Community Services Group Inc provides several mental health services including mental health support and a suicide bereavement service. These are all located in Northam. MIFWA also has a team based in Northam.

In Narrogin, Kaata Koorliny Employment and Enterprise Corp is running a PHaMs and Baptistcare has a mental health team also based here.

The WACHS Wheatbelt Mental Health Service has older adult specific services located in Northam, Merredin and Gingin (Table 70).

Non-Mobile Non-Acute Outpatient Care

The Wheatbelt GP network provides mental health services including a senior psychologist in Northam which is classified as Non-Acute and Non-Mobile Care. Amity Health – Wheatbelt Initiative focuses on potentially preventable hospital admissions, which is an early intervention mental health service based in Narrogin.

There were no Non-Acute Non-Mobile Outpatient services for children or adolescents and older people identified in the region.

30.4 Information and Guidance, Accessibility and Self-Help/Voluntary Services

The Wheatbelt has several information and accessibility services (Table 69) available to residents. There is a Resilience Service as part of the Wheatbelt Men's Health Incorporation which is based in Northam. With regard to accessibility services, Avivo provide Respite for Carers in Northam, and Forrest Personnel runs Partners in Recovery in Narrogin.

30.5 Pattern of Mental Health Care

The pattern of care in the Wheatbelt region is characterised by an almost equal proportion of Non-Acute Mobile health and NGO sector services, with a comparable amount of Acute Mobile health services. All of these fall within the Outpatient category (Figure 78).

30.6 Placement of Mental Health Services

Figure 79 shows the placement of mental health services across the Wheatbelt region.

There are 16 teams located in Northam, with 12 being for adults. There are four services in Merredin, which also has the highest suicide rate across the region (34.3 per 100,000). Gingin has four services. Narrogin, which has the highest levels of psychological distress has eight services, including six for adults. There is an aged service and a children/adolescents service in each of these localities.

TABLE 68 CHILD AND ADOLESCENT MENTAL HEALTH SERVICES IN WHEATBELT

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Non-Acute, Mobile Outpatient care	WACHS Wheatbelt Mental Health Service	CAMHS Community MH Services	CX[F0-F99] - O6.1e	Northam	Wheatbelt
		CAMHS Community MH Services	CX[F0-F99] - O6.1eu	Merredin	Wheatbelt
		CAMHS Community MH Services	CX[F0-F99] - O6.1eu	Gingin	Wheatbelt
	WACHS Great Southern Mental Health	CAMHS	CX[F0-F99] - O5.1.1	Narrogin	Great Southern & Southern Wheatbelt

TABLE 69 ADULT MENTAL HEALTH SERVICES IN WHEATBELT

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Acute, Mobile Outpatient care	WACHS Wheatbelt Mental Health Service	Adult Community MH Services	AX[F0-F99] - O2.1e AX[F0-F99] - O6.1e	Northam	Wheatbelt
		Aboriginal MH Services	AXIN[F0-F99] - O2.1e AXIN[F0-F99] - O6.1e	Northam	Wheatbelt
		Adult Community MH Services	AX[F0-F99] - O2.1e AX[F0-F99] - O6.1e	Merredin	Wheatbelt
		Aboriginal MH Services	AXIN[F0-F99] - O2.1e AXIN[F0-F99] - O6.1e	Merredin	Wheatbelt
		Adult Community MH Services	AX[F0-F99] - O2.1e AX[F0-F99] - O6.1e	Gingin	Wheatbelt
		Aboriginal MH Services	AXIN[F0-F99] - O2.1e AXIN[F0-F99] - O6.1e	Gingin	Wheatbelt
	Community Mental Health - Narrogin	Aboriginal MH Services	AXIN[F0-F99] - O2.1e AXIN[F0-F99] - O6.1e	Narrogin	CUGS
Non-Acute, Mobile Outpatient care	WACHS Great Southern Mental Health	Adult MH Services	AX[F0-F99] - O5.1.1a	Narrogin	Great Southern & Southern Wheatbelt
	Perth Home Care Services (AVIVO)	Avivo Wheatbelt	AX[e310][F0-F99] - O5.2	Northam	Wheatbelt
	Kaata Koorliny Employment and Enterprise Corporation (KEEDAC)	Personal Helpers and Mentor Service PHaMs	AXIN[F0-F99] - O6.2	Narrogin	Narrogin
	Baptistcare	Mental Health Services	AX[F0-F99] - O6.2u	Narrogin	Great Southern region including Narrogin, Corrigin, Katanning, Gnowangerup

	Share & Care Community Services Group Inc	Mental Health Support Service	GX[F0-F99] - O6.2	Northam	This service covers the Wheatbelt and contract stipulates the service must take GP referrals from Wheatbelt GPs. Covers 250,000 sq km. Includes towns of Lancelin, Jurien, Lake Grace, Lake King, Southern Cross, Newdegate, Koolyanobbing and Northam
		Mental Health Mobile Support	AX[E310][F0-F99] - O6.2	Northam	This service covers the Wheatbelt and contract stipulates the service must take GP referrals from Wheatbelt GPs. Covers 250,000 sq km. Includes towns of Lancelin, Jurien, Lake Grace, Lake King, Southern Cross, Newdegate, Koolyanobbing and Northam
		Suicide Bereavement Service	AX[E310][F0-F99] - O6.2	Northam	This service covers the Wheatbelt and contract stipulates the service must take GP referrals from Wheatbelt GPs. Covers 250,000 sq km. Includes towns of Lancelin, Jurien, Lake Grace, Lake King, Southern Cross, Newdegate, Koolyanobbing and Northam
	Avivo	PHaM's	AX[F0-F99] - O6.2	Northam	Wheatbelt
		PIR	AX[F0-F99] - O6.2	Northam	Wheatbelt
	Mental Illness Fellowship WA	Wheatbelt Team	AX[e310][F0-F99] - O7.2	Northam	HACC area Wheatbelt, Goldfields and Southwest
Non-Acute, Non-Mobile Outpatient care	Wheatbelt GP Network	Mental Health Services & Senior Psychologist,	GXIN[F0-F99] - O9.1	Northam	Wheatbelt PHN
	Amity Health – Wheatbelt initiative	Potentially Preventable Hospital Admissions – MH early intervention initiative	AX[F0-F99] - O9.2u	Narrogin	Narrogin Hospital Catchment – Narrogin, Lake Grace, Hyden, Corrigin, Boddington areas.

Information	Wheatbelt Men's Health (Inc.) Regional Men's Health Initiative	Resilience Service	GX[F0-F99] - I2.1.1eu	Northam	Regional WA
Access	Forrest Personnel - Partners in Recovery Wheatbelt	Forrest Personnel - Partners in Recovery Wheatbelt	AX[F0-F99] - A4.2.1u	Narrogin	Upper great southern Wheatbelt
	Avivo	Respite For Carers	GX[e310][F0-F99] - A5u	Northam	Wheatbelt

TABLE 70 Older Adult Mental health Services in Wheatbelt

Classification	Organisation	Team Name	DESDE - 1	Suburb	Catchment
Non-Acute, Mobile Outpatient care	WACHS Wheatbelt Mental Health Service	Older Adult MHS	OX[F0-F99] - O5.1aeu	Northam	Wheatbelt
		Older Adult MHS	OX[F0-F99] - O5.1ae	Merredin	Wheatbelt
		Older Adult MHS	OX[F0-F99] - O5.1ae	Gingin	Wheatbelt
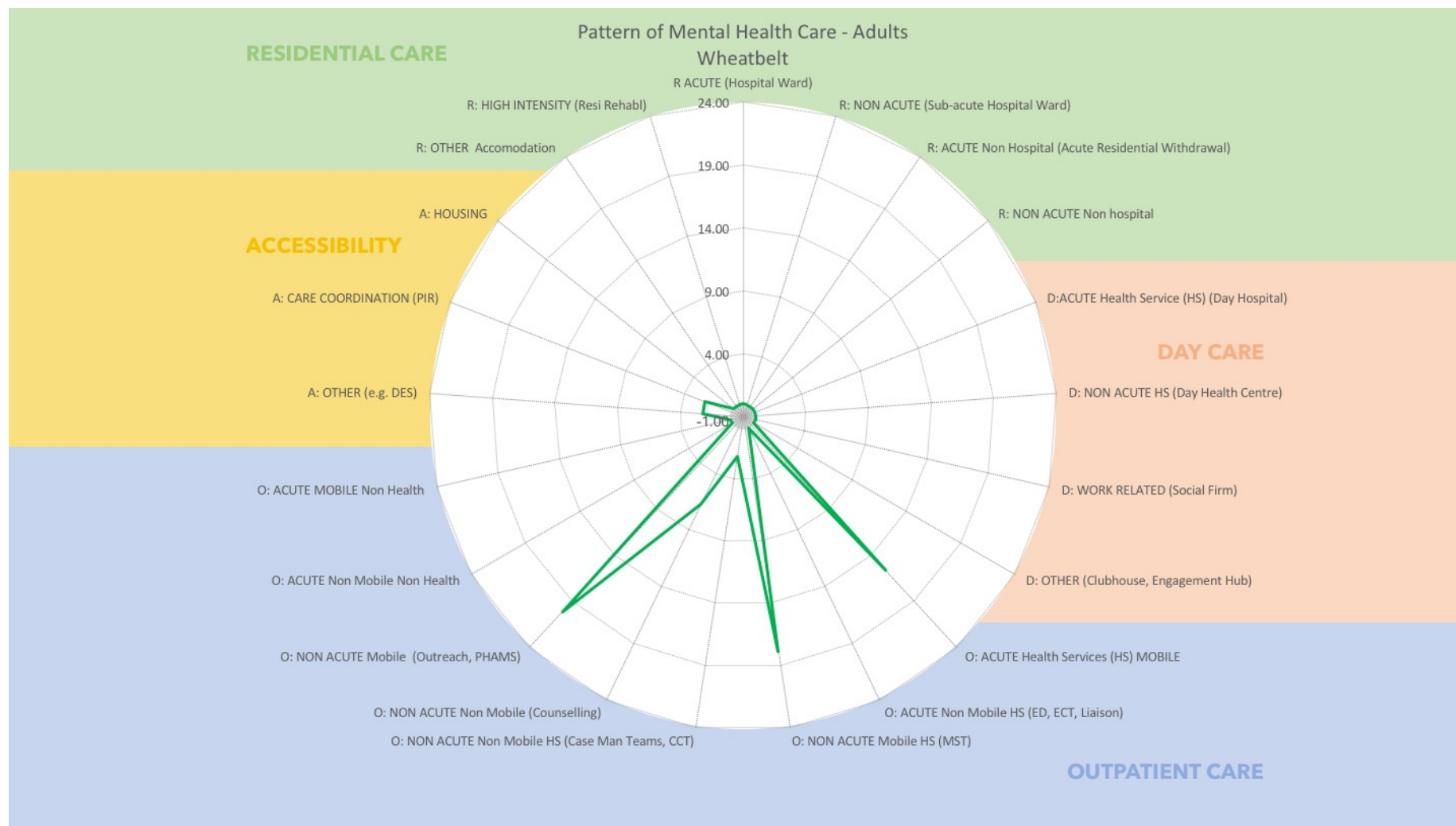
FIGURE 78 PATTERN OF MENTAL HEALTH CARE FOR ADULTS IN WHEATBELT
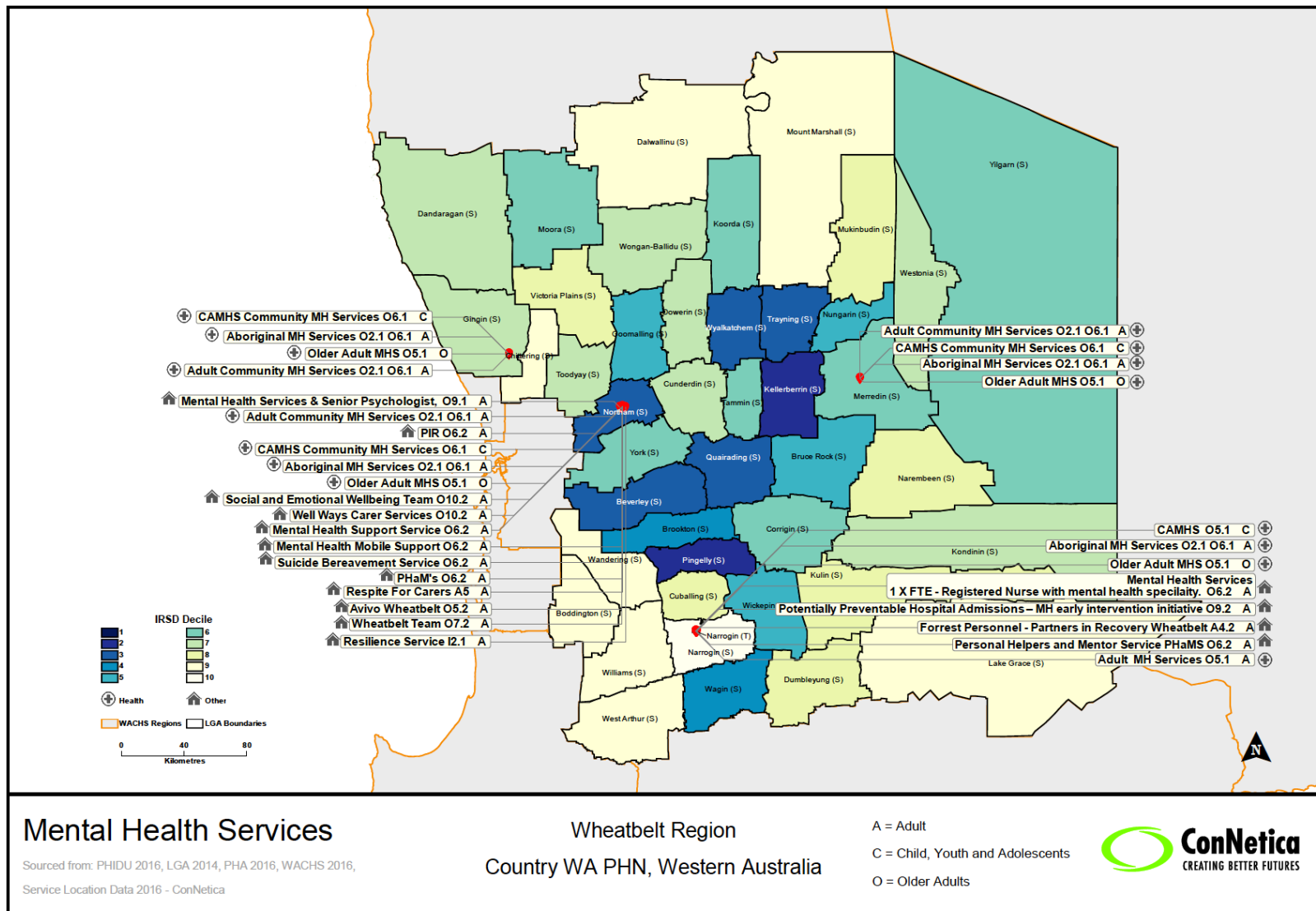
FIGURE 79 Placement of Wheatbelt Mental Health Services

31. Wheatbelt Region AOD

In the Wheatbelt, alcohol related hospital admissions appear higher than that of the South West and Great Southern regions. Figure 80 shows the age standardised rate for alcohol related hospital admissions, and whilst declining slightly over the period shown, admissions remain higher than the statewide average. Drug related hospitalisations peaked in 2011 and stabilised the following year at under 300 per 100,000, in line with the previous two regions discussed (Figure 81). Drug related hospitalisations are now at a level which is similar to the Statewide average. An issue raised during stakeholder interviews in the Wheatbelt region was a lack of services catering for comorbid presentations of AOD related admissions and mental health concerns.

FIGURE 80 ALCOHOL-RELATED HOSPITALISATIONS IN WHEATBELT

Source: Alcohol and Other Drug Indicators Reports (2015)

FIGURE 81 OTHER DRUG-RELATED HOSPITALISATIONS IN WHEATBELT

Source: Alcohol and Other Drug Indicators Reports (2015)

32. Wheatbelt AOD Services

There was a total of five AOD BSIC across the Wheatbelt region, with all services being provided for adults (Figure 82).
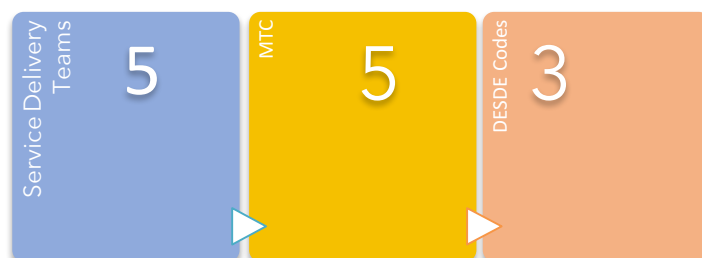
FIGURE 82 SUMMARY OF AOD SERVICES IN THE WHEATBELT REGION OF COUNTRY WA

32.1 Residential Care – AOD

Fresh Start has Residential AOD programs located in Northam (39 beds for adult males) and Mulakine (96 beds for adult males) for people overcoming drug addiction (Table 71).

32.2 Day Care – AOD

There were no identified AOD related day care facilities within the Wheatbelt region.

32.3 Outpatient Care – AOD

Non-Acute Mobile Outpatient Care

The sole provider of AOD Mobile Outpatient care in the Wheatbelt region is Holyoake, comprising of three Wheatbelt Community Drug Service teams located in Northam, Narrogin and Merredin (Table 71).

32.4 Information and Guidance, Accessibility and Self-Help and Voluntary Services – AOD

There were no AOD related services of this type in the Wheatbelt region.

32.5 Pattern of AOD care

Non-Acute Mobile Outpatient health services are the main type of care depicted on the pattern of care diagram for the Wheatbelt. This is balanced with a small amount of high intensity Residential rehabilitation service and one other accommodation service (Figure 83).

32.6 Placement of AOD services

Figure 84 shows the location of AOD services across the Wheatbelt. Two of these are in Northam and one each in Mulakine, Narrogin and Merredin.

TABLE 71 ADULT AOD SERVICES IN WHEATBELT

Classification	Organisation	Team Name	DESDE - 1 (beds)	Suburb	Catchment
Non-Acute inpatient care	Fresh Start Recovery Program	Rehabilitation - Men	AXM[F11] - R8.2 (39)	Northam	N/S
		Rehabilitation - Men	AXM[F11] - R10.2 (96)	Mulakine	N/S
Non-Acute, mobile Outpatient care	Holyoake	Wheatbelt Community Drug Service Team - Northam	AX[F10-F19] - O6.1	Northam	Wheatbelt
		Wheatbelt Community Drug Service Team - Narrogin	AX[F0-F19] - O6.1t AX[F0-F19] - O6.1tj	Narrogin	Wheatbelt
		Wheatbelt Community Drug Service Team - Merriden	AX[F0-F19] - O6.1t AX[F0-F19] - O6.1tj	Merredin	Wheatbelt
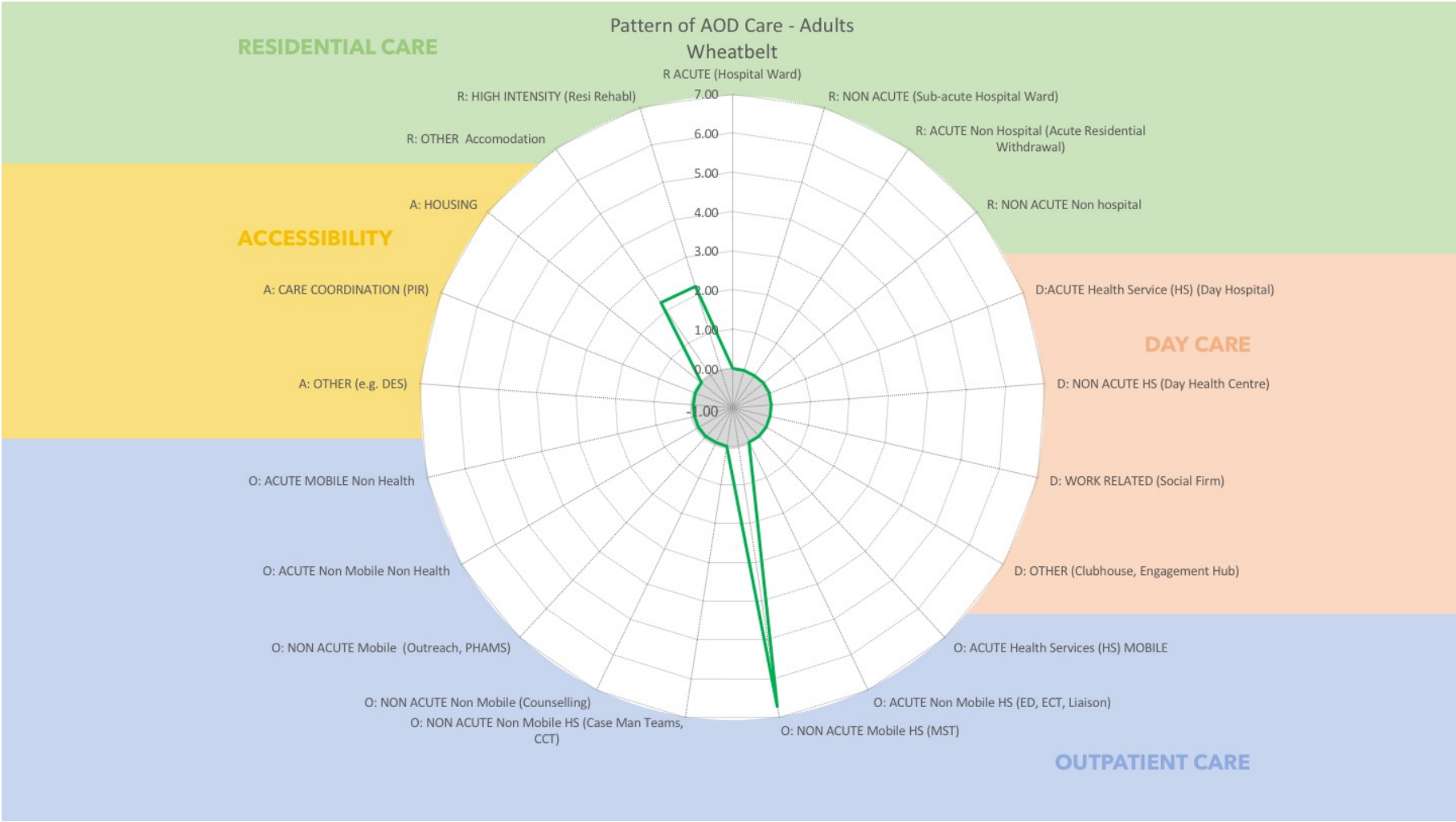
FIGURE 83 PATTERN OF AOD CARE FOR ADULTS IN WHEATBELT
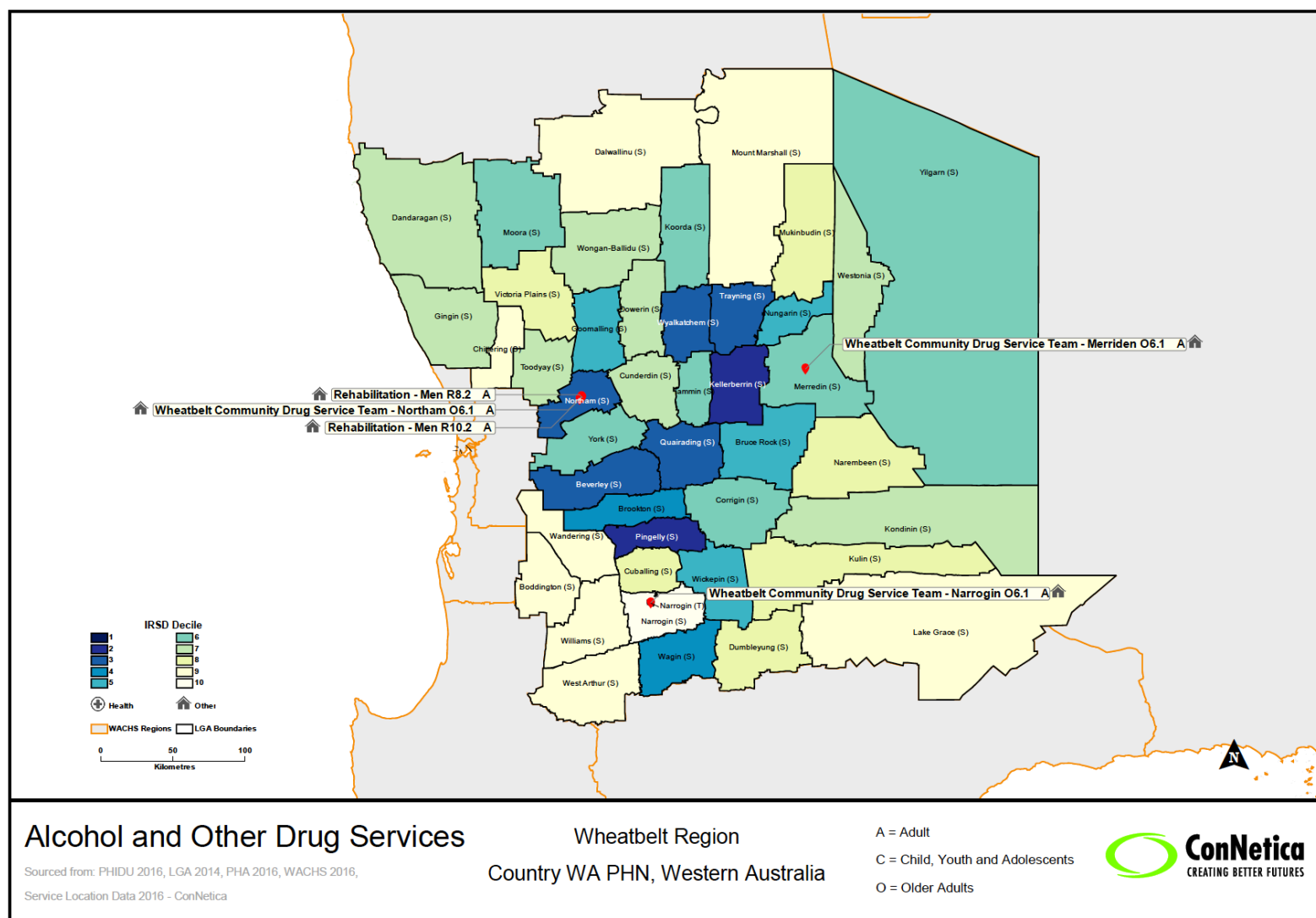
FIGURE 84 PLACEMENT OF WHEATBELT AOD SERVICES

33. Patterns of Care

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

Comparisons allow for the contrast the patterns of care to be visualised and for reflection on the differences and consistencies between them. There is no 'right' pattern of care. Indeed, as there is an increasing move toward regionalised service planning and design to best meet specific regional needs, there is an expectation that differences in these patterns with occur. Comparison, both international and national, allows for conversations in relation service planning and commissioning discussions, which may be termed 'fire starters.'

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

- The integrated Mental Health Atlas of the Central and Eastern Sydney Primary Health Network Region (Salvador-Carulla et al, 2016b)

- The Integrated Mental Health Atlas of Western Sydney (Salvador-Carulla et al, 2016a)

- The Integrated Mental Health Atlas of The Far West (Salvador-Carulla et al, 2015b)

- The Integrated Mental Health Atlas of South Western Sydney (Salvador-Carulla et al, 2015a) and,

- The Integrated Mental Health Atlas of Brisbane North (Mendoza et al, 2015).

It is also being utilised in Atlases that are currently underway and due for publication in 2017 including:

- The Integrated Mental Health Atlas of Country Western Australia PHN Region

- The Integrated Mental Health Atlas of Perth North and Perth South PHN Regions

- The Integrated Mental Health Atlas of the Australian Capital Territory PHN Region

- The Integrated Mental Health Atlas of Western NSW PHN

- The Integrated Chronic Care Atlas of Dubbo and Coonamble, and,

- The Integrated Mental Health Atlas of Northern Sydney PHN.

33.1 WAPHA PHN Comparatives

Figure 85 compares the pattern of mental health care for the three Western Australian PHNs i.e. Perth North, Perth South and Country WA.

This figure highlights the large differences in the volume of Outpatient teams in Country WA when compared to Metropolitan Perth. As discussed earlier, in the Kimberley there is an extremely large volume of services, reflected in an overall rate of 139.63 Outpatient MTC per 100,000 adults. The second highest region is the Wheatbelt with 62.63 followed by Midwest with 58.84. These are substantially more than identified in the Metropolitan area, where PNPHN has 18.58 MTC and PSPHN 14.97 MTC per 100,000 adults.

In terms of AOD care, Figure 86 shows there is significant disparity between the rates of MTC for Non-Acute Non-Mobile Outpatient care, with much higher rates across Country WA. Interestingly there are also more Residential withdrawal and Residential rehabilitation beds identified in the regional areas. This may be explained by the preference of people to travel away from their home area to complete withdrawal or rehabilitation, to remove themselves from existing networks or influences that might impede their recovery.

33.2   Country WA Comparatives

Figure 87 illustrates the patterns of care for mental health between CWAPHN against the sub-regions of the Midwest and the Kimberley.

This comparative pattern shows the level of variability found in service rates per 100,000 adults in rural regions throughout WA. The Midwest region is characterised by a reliance on Non-Acute Mobile and Non-Acute Non-Mobile NGO service providers. Conversely, the Kimberley region has a significantly large number of Non-Acute Mobile and Acute Non-Mobile health service providers. This is important to keep in mind when viewing the composite CWAPHN pattern of care given the significant variability from region to region.

33.3   National and International Comparatives

In Figure 88 the pattern of mental health care for CWAPHN, Far West NSW and Norway are overlayed for comparison.

Non-Acute Mobile Outpatient services provided by non-clinical teams and Non-Acute Non-Mobile services provided by clinical teams are much more prominent in the Far West NSW. Non-Acute Non-Mobile services provided by clinical teams are also more prominent within the area of focus in Norway. Acute Mobile health services are however better represented in the CWAPHN region. Norway also has more Day Care activity and more Sub-Acute non-hospital rather than Acute hospital Inpatient care.
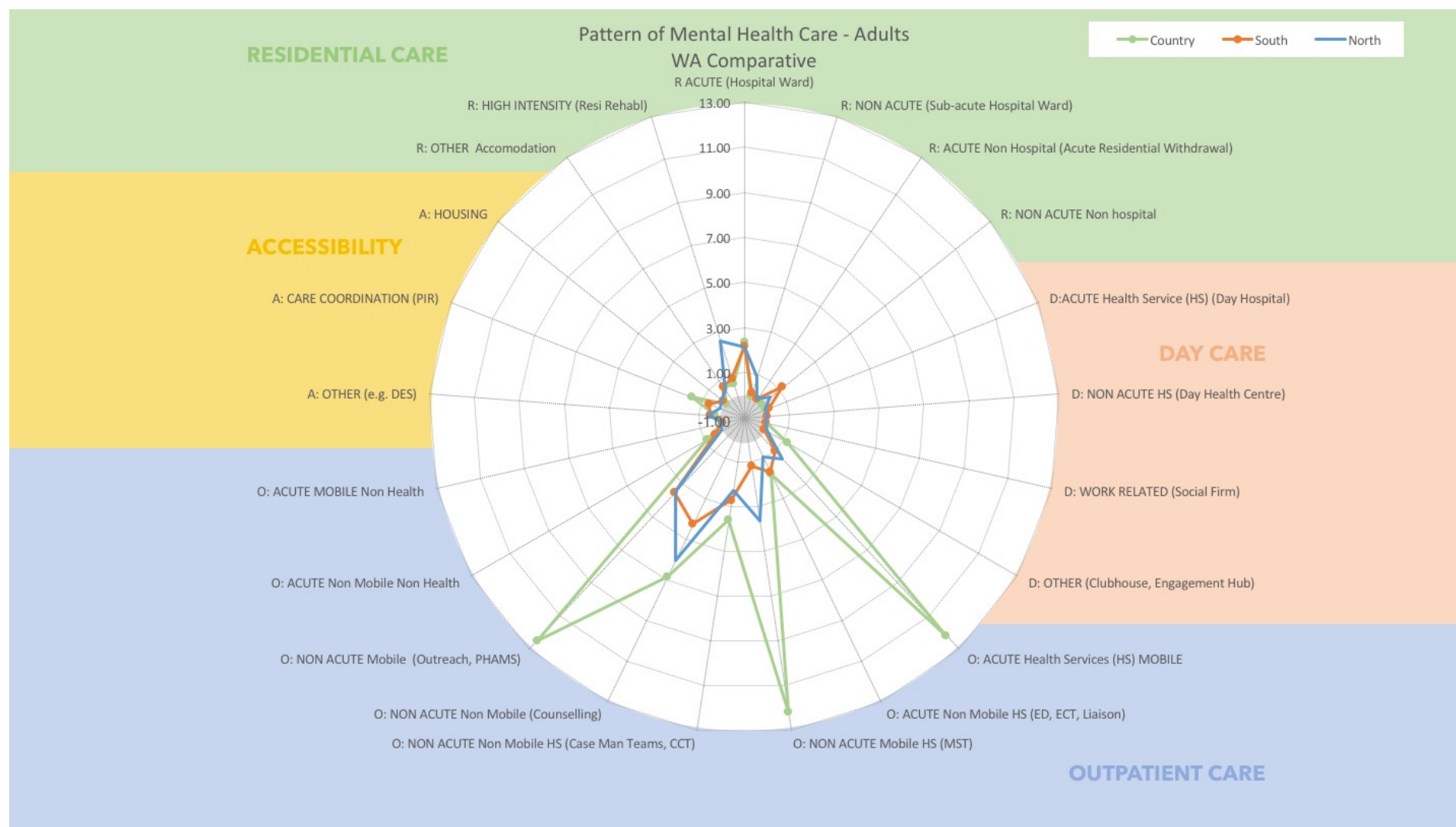
FIGURE 85 Pattern of Care for Mental Health - PNPHN, PSPHN and CWAPHN
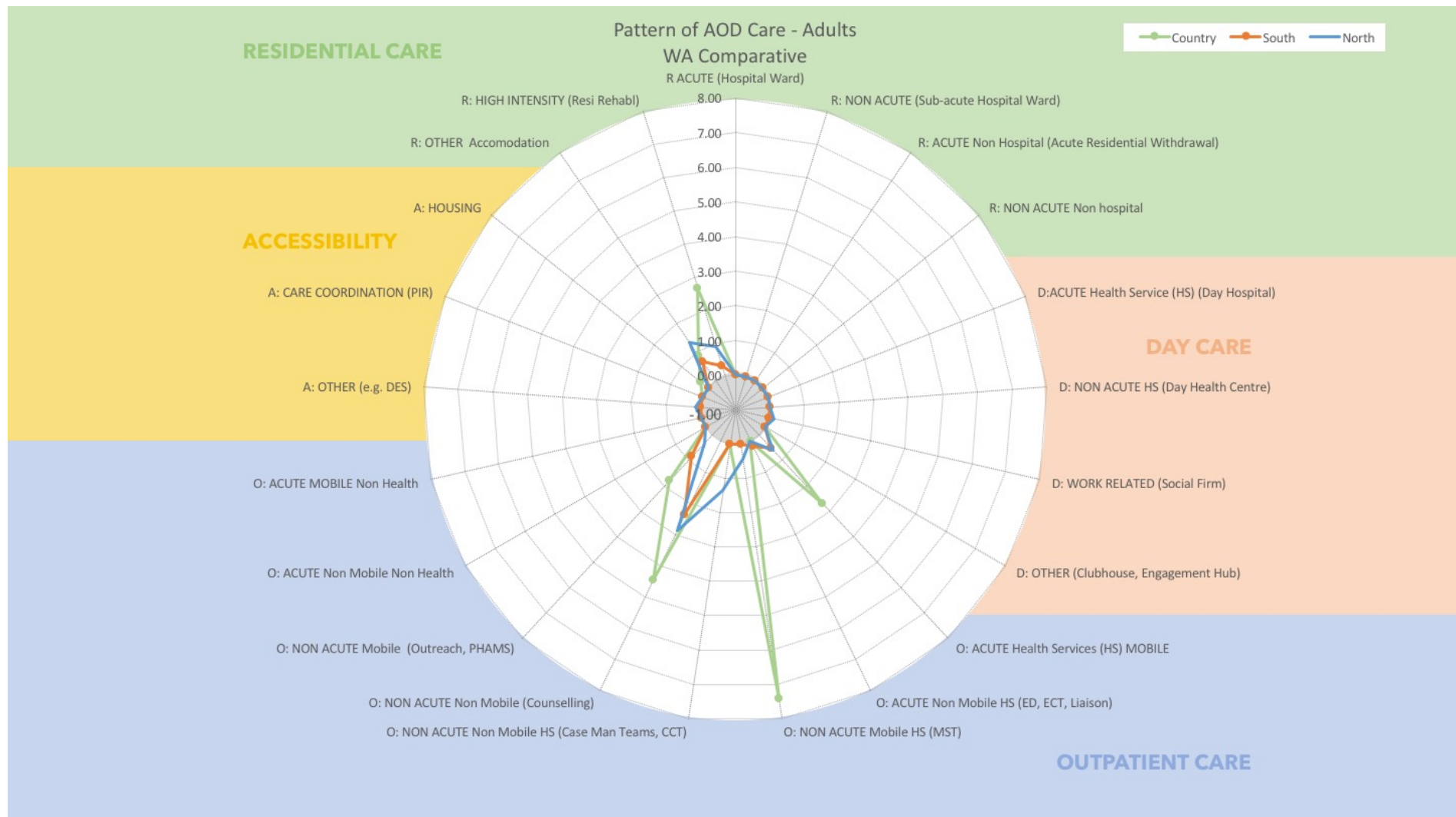
FIGURE 86 PATTERN OF CARE FOR AOD - PNPHN, PSPHN AND CWAPHN
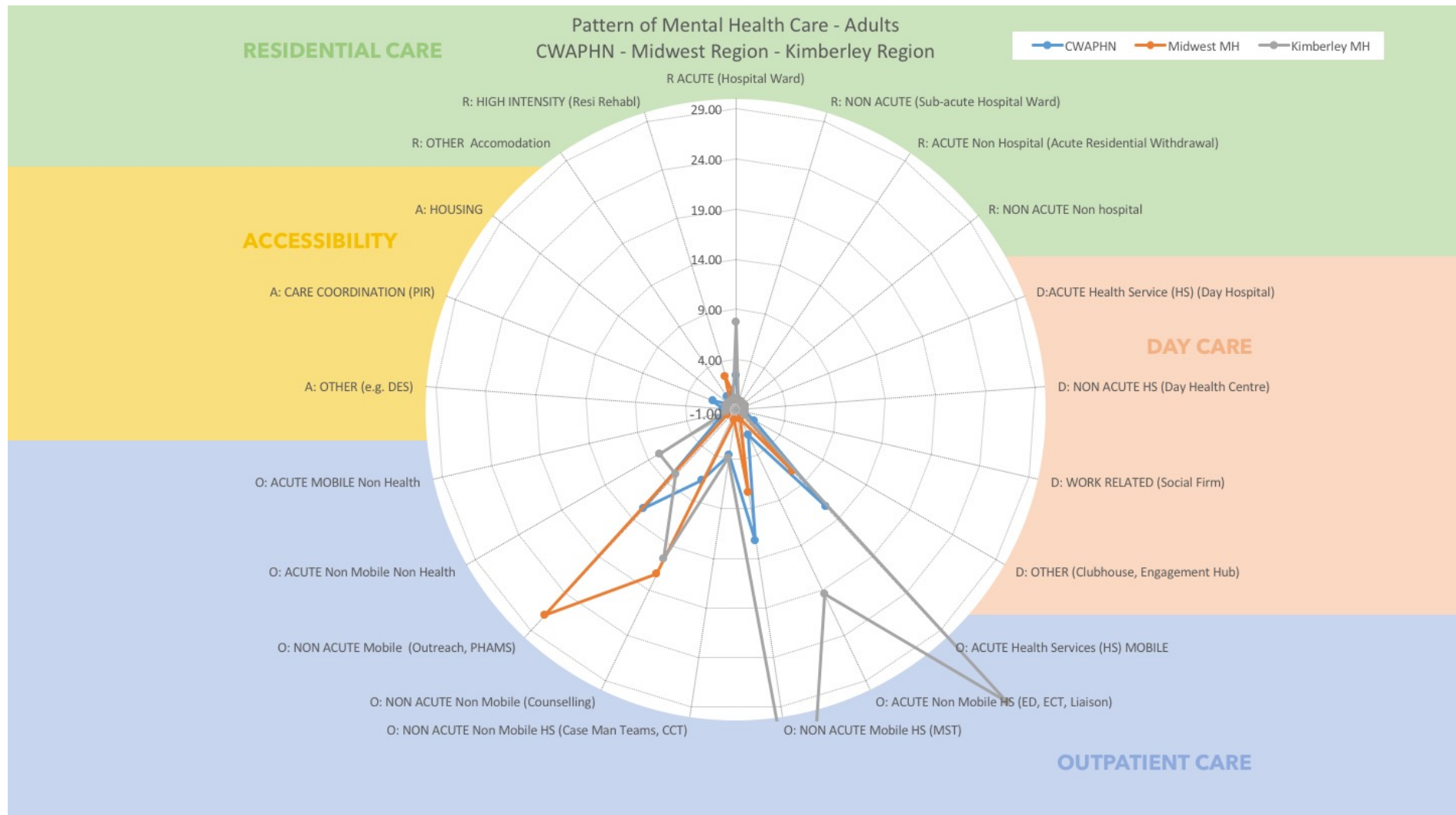
FIGURE 87 PATTERNS OF CARE FOR MENTAL HEALTH - CWAPHN, MIDWEST REGION AND KIMBERLEY REGION
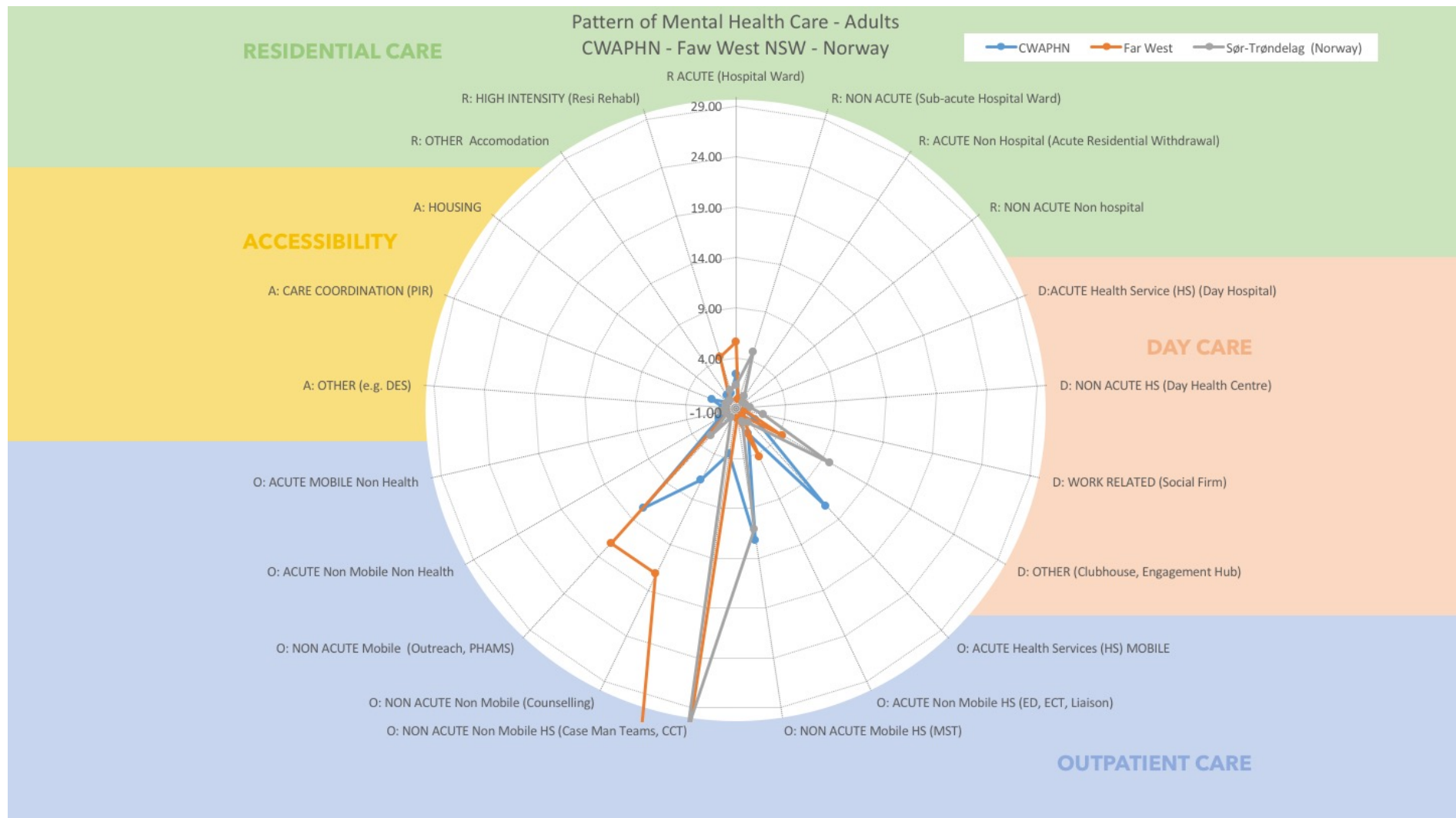
FIGURE 88 PATTERNS OF CARE FOR MENTAL HEALTH - CWAPHN, FAR WEST NSW AND NORWAY

34. 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 response to the National 'Ice' Taskforce's Final Report.

Such magnitude of change puts systems and the people and organisations within them under intense pressure. Approaching stakeholders with requests for information and survey tools in this environment is understandably challenging. Stakeholder support is vital to the quality of this work and we appreciate and acknowledge we would be unable to achieve this work without that support.

The data presented here, including the visual representations of the placement and mix of services is intended to be used as a service planning tool. Atlases are not service directories or gazettes. 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 facilitate direct comparisons with other mapped regions within Australia and overseas.

This Atlas project engaged with 240 stakeholders, conducted 75 interviews, surveyed 165 organisations with a completion rate of 76% (82% for Country WA).

The Country WA PHN (CWAPHN) catchment encompasses an area of just over 2.5 million km^2, representing approximately 32% of Australia's land area and encompassing a population of just over half a million people. It is comprised of seven regional health districts with 105 LGAs in total.

Country WA is a vast geographical area, approximately as big as half of the United States of America. This size, along with the unique nature of regional services presented 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. One challenge we faced when doing this was incomplete or inconclusive information. In order to classify a team we need to understand three key characteristics about their work:

- 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?

- 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.

Where information was lacking about a team, we have relied on our experience and feedback from the stakeholders and project reference group to reach decisions. At times this required us to make assumptions about the nature of the work of a team.

We must also acknowledge that the complexity of the work of many of the remote teams makes them very difficult to classify.

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. By way of their locations, these teams must necessarily be flexible and adaptive. They must at times be the 'jack of all trades'. As such, describing them as 'acute' or 'non-acute' and ascribing a level of intensity to their service is particularly subjective. By nature of their location and remoteness, many of these services must provide both acute and non-acute care. Whereas in the City there may be separate clinical teams such as ATT, ICOT and CTT teams, in the country this work is done by instead by one team. These teams generally work standard business hours, whilst the City acute teams will frequently offer extended hours and some even provide a 24-hour service. In Country areas out of hours care is instead provided by emergency departments or GP's (where available) and via the RuralLink telephone service. Emergency services such as police and ambulance are also frequently required to provide assistance in acute or crisis situations.

Generally, the work of a team is described with one DESDE MTC code. However, to acknowledge and support this complexity, in this volume of the Atlas we have allocated two DESDE codes more frequently than usual. Secondary MTC codes given to 46 of the mental health BSIC.

This is done to best reflect the flexible and broad nature of the service these teams provide. As an example, an outpatient non-acute mobile team doing a little (<20%) acute work would generally be given a code of O6.1a. But in this Atlas, we have frequently given these teams two DESDE codes, classifying them as 'acute' O2.1, as well as 'non-acute' O6.1. Out of the 213 teams identified across Country WA, 46 (21.5%) have been allocated a secondary MTC code. This should be factored in when considering the patterns of care or 'spider' diagrams. The key difference between these teams classified as O2 and metropolitan teams with this classification is in the hours of service provided.

We also understand intensity of care also varies across the spectrum of low to high intensity, but for the purposes of this exercise we have ascribed 'medium' intensity where stakeholders indicated a range of intensity was normal for their locations.

In total across Country WA we identified a total of 213 service delivery teams or BSIC that deliver 259 Main Types of Mental Health Care (MTC). Of these, 75% of these are services for adults, 17% are for children and adolescents and 8% are for older adults. 150 of the 260 MTC (58%) are provided by Health Services and 109 are provided by others such as NGOs and a small number of private providers (providing free services). By far the largest number of these teams are focused on delivering Outpatient services (89%), followed by Residential services (5%).

In terms of alcohol and other drug service, there was a total of 80 service delivery teams or BSIC identified that deliver 87 MTC of AOD care in WA Country. Of these, 15 are provided by Health Services and 72 are provided by others such as NGOs and a small number of private providers (providing free services).

Of the 87 MTC, 96.6% are services provided for adults and 3.4% are for children and adolescents. Whilst there are generalist services included within these adult figures, there were no specific teams identified as delivering AOD services exclusively to the older population. By far the largest number of these teams are focused on delivering Outpatient services (67%), followed by Residential services (29%).

In terms of workforce characteristics, data was received for 51% of mental health teams and 48% of AOD teams.

Clinical services teams are generally larger than non-clinical teams, the overall averages for team sizes were 5.24 FTE for mental health and 4.51 for AOD. Although data was incomplete, we can however be reasonably confident that team sizes in rural and remote areas are generally extra small (<1 FTE) or small (1-5 FTE).

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. Across the regions, the largest teams were found in the Kimberley and the Wheatbelt. A deeper analysis of the rural and remote workforce including staff qualifications, staff turnover, vacancy rates and client volumes would be recommended to gain a deeper understanding in order to better support capacity building for Country services.

Across the regions there were differences in the balance of care provided by the health sector vs. the NGO sector. The percentage provided by the health sector was highest across the Kimberley region (54%) and the Wheatbelt (53%) and lowest across the Midwest (21%) and Goldfields (31%). This is partly a reflection of the location of inpatient mental health units. This is able to be visualised when comparing the pattern of care ('spider') diagrams between regions.

In terms of beds, mental health units exist in the South West (Bunbury), Kimberley (Broome), Goldfields (Kalgoorlie) and Great Southern Regions (Albany).

Where there are no mental health units in an area, or where there are limited beds, there will admissions made to the general hospital wards for mental health treatment. WACHS mental health teams will sometimes provide inreach to these hospitals. We understand that patients are frequently transported from regional areas for treatment elsewhere. In some cases patients are transferred to Perth instead of the nearest regional hospital with a mental health unit. This is because transportation between remote areas can be difficult. Whilst the Royal Flying Doctor service might fly an acutely unwell patient to a regional hospital, when it comes to returning home, it can be a long an arduous journey as many regions are not connected by direct flights.

It is important to consider this when viewing the patterns of care, as the beds utilised out of region are not able to be reflected in these diagrams. Care transfer rates can provide more detail on the extent of this movement and a deeper analysis of the patient flows, utilisation and care transfer rates would enhance the analysis presented in this Atlas. This is especially important, as we understand care transfer rates for mental health related issues far exceed those of other conditions such as chronic diseases and there is apparently a strong variation in these rates between regions.

Utilisation analysis would also assist in gaining a deeper understanding of the patient flows and capacity of the NGO sector, including the Aboriginal Controlled Community Organisations (ACCO) and the Aboriginal Medical Services (AMS). In some areas, such as the Kimberley there is an extremely large volume of services, reflected in the 139.63 outpatient MTC per 100,000 adults. The next closest region to this figure is the Wheatbelt with 62.63 and Midwest with 58.84. Residential MTC per 100,000 adults are considerably smaller, ranging from between zero (there are none in the Wheatbelt), to 5.1 in the Goldfields, 4.9 in the Midwest and a high of 7.76 in the Kimberley.

There is no generally accepted 'perfect' system of care for mental health or AOD. Indeed, nor should there be. Needs, environments and circumstances vary significantly between regions and indeed even within regions, especially regions as large as those in Country WA. This should be reflected in regional and sub-regional variations in care. What is generally accepted is that in considering future system structure, it should rely less heavily on acute inpatient acute care and provide more resource in sub-acute beds, early intervention and prevention and community based outpatient care. Whilst sometimes contentious, it is also considered that more day programs, particularly those specifically targeted at providing supported employment, vocational training and assistance, structured programs and social opportunities.

In terms of early intervention and prevention programs, these are generally excluded from Integrated Atlases of Mental Health as they are applied to the general population and do not involve the provision of direct care.

35. 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 and AOD issues. For a detailed and thorough discussion of findings related to the provision of mental health and AOD care in Metropolitan Perth and Country WA, along with study limitations and future steps for action, please see Volume I.

This Integrated Atlas of Mental Health and Alcohol and Other Drugs for Western Australia 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.

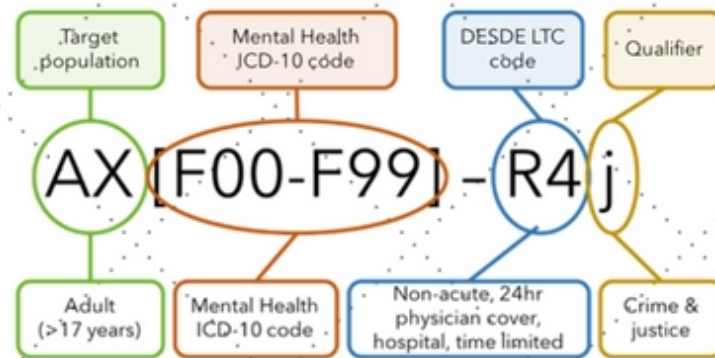The Atlas can support WAPHA to play a key role in the implementation of significant reform to the mental health system and deliver substantial improvements in the way residents access and utilise mental health care across the region.

It can support the development of the 'right care at the right time in the right place' for those experiencing ill-mental health and/or AOD issues.

Appendix A
DESDE Quick Reference Guide

DESDE-LTC Quick Reference Guide

Target population — AX — Adult (>17 years)

Mental Health JCD-10 code — [F00-F99] — Mental Health ICD-10 code

DESDE LTC code — R4 — Non-acute, 24hr physician cover, hospital, time limited

Qualifier — j — Crime & justice

Age Codes

GX All age groups
NX None/Undetermined
CC Only children (0-11 years)
CA Only adolescent (12-16 years)
CX Child & adolescents (<18 years)
CY* Adolescents and young adults (12-25 years)
TA Period from adolescent to adult (16-24 years)
AX Adults (18-65 years)
TO Period from adult to older adult (60-70 years)
OX Older adult (>64 years)

In analysis section, age codes are grouped as follows:
Children and adolescents (including young adults) - Codes CC, CA, CX, CY and TA
Adults (including services with no age specification) - Codes AX and GX
Older adults - Codes TO and OX

* CY is a new DRAFT code utilised in this Atlas based on the unique service characteristics in Victoria

DESDE-LTC Codes

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

Diagnostic Groups

F00-F99 All types of mental disorders
F10-F19 Alcohol and other drug disorders
Z59 Problems related to housing and economic circumstances
F5 Delirium due to known physiological condition
F20-F29 Schizophrenia, schizotypal, delusional, and other non-mood psychotic disorders
F39 Unspecified mood disorder
F43 Acute stress reaction
F50 Eating disorders
F59 Unspecified behavioural syndromes associated with physiological disturbances & physical factors
F63 Impulse disorders
F64 Gender identity disorders

B20-B24 Human immunodeficiency virus (HIV)
310 Services for immediate family or carers
Z04.71/2 Encounter for examination and observation following alleged physical abuse
Z20-Z29 Persons with potential health hazards related to communicable diseases
Z65 Problems related to other psychosocial circumstances
Z69 Encounter for mental health services for victim and perpetrator of abuse
Z70 Counselling related to sexual attitude, behaviour and orientation
Z72 Problems related to lifestyle
ICD-T Used where there is not a specific diagnostic group for this service

Qualifiers

a - Acute care (complimentary) - Used where acute care is provided within a non-acute, non-residential setting but does not fit the criteria for the addition of a second MTC

d - Domiciliary care - Denotes this service is provided wholly at the home of the service user

e - eCare - Includes all care services relying on telephone, modern information and communication technologies (ICTs) (e.g. telecare/telemedicine, teleconsultation, teleradiology, telemonitoring)

g* - Group - This DRAFT 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 MTCs ("O" or "D") provided within the hospital setting

j - Justice care - Describes BSICs whose main aim is to provide care to individuals in contact with crime and justice services

l - Liaison care - Describes liaison BSICs where 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, coordination or navigation of care a core part the provision of their outpatient care

r - Reference – describes a MTC which operates as the main intake or referral point for the local area

s - Specialised care - Describes BSICs for a specific subgroup within the target population of the catchment area (e.g. eating disorders service)

t - Tributory – Describes an MTC that is a satellite team dependant on another main care team

v - Variable – Service is subject to strong limitations of capacity or fluctuations in demand
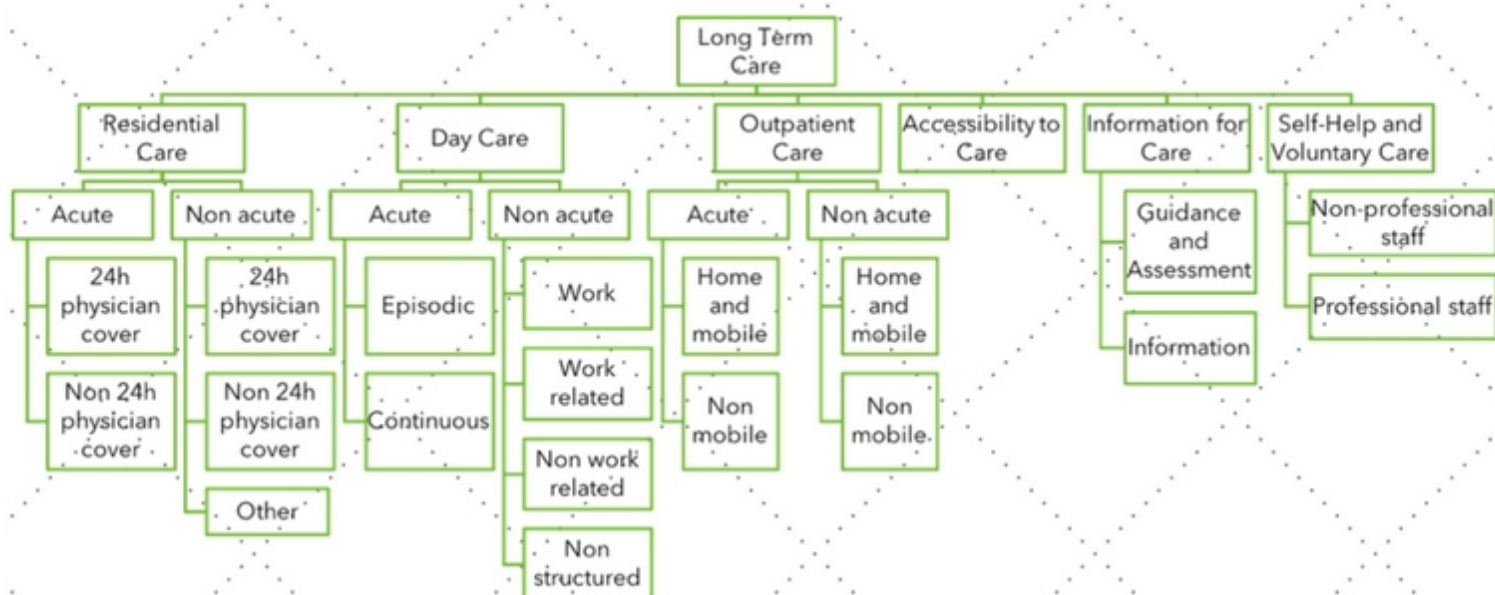
MTC Codes

Residential Care

R0 Acute, 24-hours physician cover, non-hospital
R1 Acute, 24-hours physician cover, hospital, high intensity
R2 Acute, 24-hours physician cover, hospital, medium intensity
R3.0 Acute, non 24-hours physician cover, hospital
R3.1 Acute, non 24-hours physician cover, non-hospital, health related care
R3.2 Acute, non 24-hours physician cover, non-hospital, other
R3.2.1 Acute, non 24-hours physician cover, non-hospital, other, 24 hour care
R3.2.2 Acute, non 24-hours physician cover, non-hospital, other, Daily care
R3.2.3 Acute, non 24-hours physician cover, non-hospital, other, lower care
R4 Non-acute, 24-hours physician cover, hospital, time limited
R5 Non-acute, 24-hours physician cover, non-hospital, time limited
R6 Non-acute, 24-hours physician cover, hospital, indefinite stay
R7 Non-acute, 24-hours physician cover, non-hospital, indefinite stay
R8 Non-acute, non 24-hour physician cover, time limited, 24 hours support
R8.1 Non-acute, non 24-hour physician cover, time limited, 24 hours support, less than 4 weeks stay
R8.2 Non-acute, non 24-hour physician cover, time limited, 24-hours support, over 4 weeks
R9 Non-acute, non 24-hours physician cover, time limited, daily support
R9.1 Non-acute, non 24-hours physician cover, time limited, daily support, < 4 weeks
R9.2 Non-acute, non 24-hours physician cover, Time limited, Daily Support, > 4 weeks
R10 Non-acute, non 24-hours physician cover, time limited, lower support
R10.1 Non-acute, non 24-hours physician cover, time limited, lower support, < 4 weeks
R10.2 Non-acute, non 24-hour physician cover, time limited, lower support, > 4 weeks
R11 Non-acute, non 24-hours physician cover, indefinite stay, 24-hours support
R12 Non-acute, non 24-hours physician cover, indefinite stay, daily support
R13 Non-acute, non 24-hours physician cover, indefinite stay, lower support
R14 Non-acute, other non-acute

Outpatient Care

O1 Acute, home & mobile, 24 hours support
O1.1 Acute, home & mobile, 24 hours support, health related care
O1.2 Acute, home & mobile, 24 hours support, other Care
O2 Acute, home & mobile, limited Hours
O2.1 Acute, home & mobile, limited Hours, other care
O2.2 Acute, home & mobile, limited Hours, health related care
O3 Acute, non-mobile, 24 hours support
O3.1 Acute, non-mobile, 24 hours support, health related care
O3.2 Acute, non-mobile, 24 hours support, other care
O4 Acute, non-mobile, limited hours
O4.1 Acute, non-mobile, limited hours, health related care
O4.2 Acute, non-mobile, limited hours, other care
O5 Non-acute, home & mobile, high intensity
O5.1 Non-acute, home & mobile, high intensity, health related care
O5.1.1 Non-acute, home & mobile, high intensity, health related care, 3/6 days per week
O5.1.2 Non-acute, home & mobile, high intensity, health related care, 7 days per week
O5.1.3 Non-acute, home & mobile, high intensity, health related care, 7 days per week including overnight
O5.2 Non-acute, home & mobile, high intensity, other care
O5.2.1 Non-acute, home & mobile, high intensity, other care, 3/6 days per week
O5.2.2 Non-acute, home & mobile, high intensity, other care, 7 days per week
O5.2.3 Non-acute, home & mobile, high intensity, other care, 7 days per week including overnight
O6 Non-acute, home & mobile, medium intensity
O6.1 Non-acute, home & mobile, medium intensity, health related care
O6.2 Non-acute, home & mobile, medium Intensity, other care
O7 Non-acute, home & mobile, low intensity
O7.1 Non-acute, home & mobile, low Intensity, health related care
O7.2 Non-acute, home & mobile, low Intensity, other care
O8 Non-acute, non-mobile, high intensity
O8.1 Non-acute, non-mobile, high intensity, health related care
O8.2 Non-acute, non-mobile, high intensity, other care
O9 Non-acute, non-mobile, medium intensity
O9.1 Non-acute, non-mobile, medium intensity, health related care
O9.2 Non-acute, non-mobile, medium intensity, other care
O10 Non-acute, non-mobile, low intensity
O10.1 Non-acute, Non-mobile, low intensity, health related care
O10.2 Non acute, non-mobile, low intensity, other care
O11 Other non-acute outpatient care

Day Care

D0 Acute, episodic
D0.1 Acute, episodic, high intensity
D0.2 Acute, episodic, other intensity
D1 Acute, continuous
D1.1 Acute, continuous, high intensity
D1.2 Acute, continuous, other intensity
D2 Non-acute, work related, high intensity
D2.1 Non-acute, work, high intensity, ordinary employment
D2.2 Non-acute, work, high intensity, other work
D3 Non-acute, work related care, high intensity
D3.1 Non-acute, work related care, high intensity, time limited
D3.2 Non-acute, work related care, high intensity, time indefinite
D4 Non-acute, non-work structured care, high intensity
D4.1 Non-acute, non-work structured care, high intensity, health related
D4.2 Non-acute, non-work structured care, high intensity, Education related care
D4.3 Non-acute, non-work structured care, high intensity, social and cultural related care
D4.4 Non-acute, non-work structured care, high intensity, other non-work structured care
D5 Non-acute, non structured care, high intensity
D6 Non-acute, work, low intensity
D6.1 Non-acute, work, low intensity, ordinary employment
D6.2 Non-acute, work, low intensity, other work
D7 Non-acute, work related care, low intensity
D7.1 Non-acute, work related care, low intensity, time limited
D7.2 Non-acute, work related care, low intensity, time indefinite
D8 Non-acute, non-work structured care, low intensity
D8.1 Non-acute, non-work structured care, low intensity, health related care
D8.2 Non-acute, non-work structured care, low intensity, education related care
D8.3 Non-acute, non-work structured care, low intensity, social and cultural related care
D8.4 Non-acute, non-work structured care, low intensity, other non-work structured care
D9 Non-acute, non-structured day care
D10 Other non-acute day care

Information & Guidance

I1 Guidance and assessment
I1.1 Professional assessment and guidance related to health
I1.2 Professional assessment and guidance related to education
I1.3 Professional assessment and guidance related to social and cultural issues
I1.4 Professional assessment and guidance related to work
I1.5 Professional assessment and guidance related to other (non-work)
I2 Information
I2.1 Information provided through interaction
I2.1.1 Information provided through interaction - face to face
I2.1.2 Information provided through interaction - other
I2.2 Information, non-interactive

Accessibility to Care

A1 Access to communication
A2 Access to physical mobility
A3 Access to personal accompaniment
A4 Case coordination
A4.1 Case coordination, acute care
A4.2 Case coordination, non-acute care
A4.2.1 Case coordination, non-acute, high intensity
A4.2.2 Case coordination, non-acute, medium intensity
A4.2.3 Case coordination, non-acute, low intensity
A5 Other accessibility care
A5.1 Access to health services
A5.2 Access to Education and Training
A5.3 Access to social and cultural relations
A5.4 Access to employment
A5.5 Access to housing

Self-help & Volunteer

S1 Non-professional unpaid staff
S1.1 Non-professional unpaid staff, information on care
S1.2 Non-professional unpaid staff, accessibility to care
S1.3 Non-professional unpaid staff, outpatient care
S1.4 Non-professional unpaid staff, day care
S1.5 Non-professional unpaid staff, residential care
S2 Professional staff
S2.1 Professional staff, information on care
S2.2 Professional staff, accessibility to care
S2.3 Professional staff, outpatient care
S2.4 Professional staff, day care
S2.5 Professional staff, residential care

Appendix B

LGA Boundary Key

LGA	Key	LGA	Key	LGA	Key	LGA	Key	LGA	Key
Albany (C)	1	Cranbrook (S)	23	Irwin (S)	45	Mukinbudin (S)	67	Toodyay (S)	89
Ashburton (S)	2	Cuballing (S)	24	Jerramungup (S)	46	Mullewa (S)	68	Trayning (S)	90
Augusta-Margaret River (S)	3	Cue (S)	25	Kalgoorlie/Boulder (C)	47	Murchison (S)	69	Upper Gascoyne (S)	91
Beverley (S)	4	Cunderdin (S)	26	Katanning (S)	48	Nannup (S)	70	Victoria Plains (S)	92
Boddington (S)	5	Dalwallinu (S)	27	Kellerberrin (S)	49	Narembeen (S)	71	Wagin (S)	93
Boyup Brook (S)	6	Dandaragan (S)	28	Kent (S)	50	Narrogin (S)	72	Wandering (S)	94
Bridgetown-Greenbushes (S)	7	Dardanup (S)	29	Kojonup (S)	51	Narrogin (T)	73	West Arthur (S)	95
Brookton (S)	8	Denmark (S)	30	Kondinin (S)	52	Ngaanyatjarraku (S)	74	Westonia (S)	96
Broome (S)	9	Derby-West Kimberley (S)	31	Koorda (S)	53	Northam (S)	75	Wickepin (S)	97
Broomehill-Tambellup (S)	10	Donnybrook-Balingup (S)	32	Kulin (S)	54	Northampton (S)	76	Williams (S)	98
Bruce Rock (S)	11	Dowerin (S)	33	Lake Grace (S)	55	Nungarin (S)	77	Wiluna (S)	99
Bunbury (C)	12	Dumbleyung (S)	34	Laverton (S)	56	Perenjori (S)	78	Wongan-Ballidu (S)	100
Busselton (S)	13	Dundas (S)	35	Leonora (S)	57	Pingelly (S)	79	Woodanilling (S)	101
Capel (S)	14	East Pilbara (S)	36	Manjimup (S)	58	Plantagenet (S)	80	Wyalkatchem (S)	102
Carnamah (S)	15	Esperance (S)	37	Meekatharra (S)	59	Port Hedland (T)	81	Wyndham-East Kimberley (S)	103
Carnarvon (S)	16	Exmouth (S)	38	Menzies (S)	60	Quairading (S)	82	Yalgoo (S)	104
Chapman Valley (S)	17	Geraldton-Greenough (C)	39	Merredin (S)	61	Ravensthorpe (S)	83	Yilgarn (S)	105
Chittering (S)	18	Gingin (S)	40	Mingenew (S)	62	Roebourne (S)	84	York (S)	106
Collie (S)	19	Gnowangerup (S)	41	Moora (S)	63	Sandstone (S)	85		
Coolgardie (S)	20	Goomalling (S)	42	Morawa (S)	64	Shark Bay (S)	86		
Coorow (S)	21	Halls Creek (S)	43	Mount Magnet (S)	65	Tammin (S)	87		
Corrigin (S)	22	Harvey (S)	44	Mount Marshall (S)	66	Three Springs (S)	88		

Appendix C

Aboriginal Community Patrols

Area	Name of Corporation or NGO	Patrol Name	Address	Size of Patrol	Frequency of Patrol	Location	Region
Metropolitan WA	Nyoongar Outreach Services Incorporated	Nyoongar Outreach Service	35 Gladstone St, Perth, WA 6000	N/S	8 mobile patrols daily	City of Vincent (9 postcodes) and Belmont WA 6104 Day Mon-Fri11am-7pm Midland WA 6056 Tues-Thurs Day 11am-7pm	Both North and South Metro
Country WA	Mamabulanjin Aboriginal Corporation	Kullarri Patrol	640 Dora St Broome WA 6725	8 people	Mon-Fri 830am-9pm	Broome	Kimberley
	Mamabulanjin Aboriginal Corporation	Junkurna Patrol	11 Stuart St Carnarovon WA 6701	4 people	Wed-Sat	Carnarvon	Midwest
	Garl Garl Walbu Aboriginal Corporation	Derby Night Patrol	23 Stanley St Derby WA 6728	3-4 people	Mon-Wed 4pm-10pm Thurs-Fri 4pm-12midnight	Derby	Kimberley
	Jungarni-Jutiya Indigenous Corporation	Aboriginal Community Patrol Services	24 Thomas St Halls Creek WA 6770	3 people	Tues - Sat 6pm-11pm	Halls Creek	Kimberley
	Bloodwood Tree Association Incorporated*	Bloodwood Community Patrol	19 Hamilton Rd South Hedland WA 6722	4 people	Mon-Sat 3.30pm-9.30pm	South Hedland	Pilbara
	Midwest Employment & Economic Development Aboriginal Corporation	Kalgoorlie Patrol	Maku Stadium 62 Lionel St Kalgoorlie WA 6430	2 people (2 buses on weekends)	Sat/Sun 4pm-12pm Mon Mon-Wed 10am-2pm & 4pm-12md Thurs-Fri 10pm-2pm & 4-12 midnight	Kalgoorlie	Goldfields

Area	Name of Corporation or NGO	Patrol Name	Address	Size of Patrol	Frequency of Patrol	Location	Region
Country WA	Kununurra Waringarri Aboriginal Corporation*	Kunurra Miriwoong Community Patrol Service	2229 Speargrass Rd Kununurra WA 6743	6 people	Mon-Sun 4pm-11pm	Kununurra	Kimberley
	Midwest Employment & Economic Development Aboriginal Corporation	Kunurra Miriwoong Community Patrol Service	2 Crawford St Laverton WA 6440	2 people	Mon-Fri 8am-12md & 6 pm-12midnight Sat 6pm-12midnight	Laverton	Goldfields
	Yulella Incorporated	Yulella Community Patrol	848 Marmont St Meekatharra WA 6642	3 people	Mon-Sun 10am-2pm & 6pm-10pm		Midwest
	Midwest Employment & Economic Development Aboriginal Corporation	Meekatharra Patrol	31 Jose St Mullewa WA 6330	2 people	mon-Fri 9am-2pm & 5pm-9pm Sun 4pm-8pm	Mullewa	Midwest
	Yaandina Family Centre Limited*	Mingga Patrol	52 Hampton St Roebourne WA 6718	2 people	Tues-Sat 5pm-12midnight	Roebourne	Pilbara
	Ngnowar Aerwah Aboriginal Corporation*	Ngnowar Aerwah Aboriginal Corporation Night Patrol	Lot 471 Great Northern Highway Wyndham WA 6740	5 people	Mon-Fri 3.30pm-11.30pm	Wyndham	Kimberley
	Geraldton Yamatji Aboriginal Patrol Corporation	Aboriginal Community Patrol	7 Larkin St Wonthella WA 6530	5 people	Tues - Sat 4pm-11pm	Geraldton	Midwest
	Ngangganawili Aboriginal Health Service*	Wiluna Sobering Up Bus	44 Scotia St Wiluna WA 6646	2 people	Tues-Fri 3pm-11pm	Wiluna	Midwest

*Included in regional tables

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