HEALTH PROFILE

A POPULATION HEALTH NEEDS ASSESSMENT OF THE CENTRAL ADELAIDE AND HILLS REGION

2015

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- Employment Options Youth Services
- Arthritis SA
- Heart Foundation
- Western Linkages
- Uniting Care Wesley Port Adelaide
- SA Podiatry Association
- Life Care Active
- South Australian Council of Social Services (SACOSS)
- Seniors Information Service
- Multicultural Communities Council SA (MCCSA)
- Council of the Ageing (COTA (SA)
- Multicultural Aged Care SA – (MACSA)
- Carers SA

Community Health Services

- Country Health SA HSFKI Community Health
- Mount Barker Child and Adolescent Mental Health Service
- Adelaide Hills Community Health Service
- Community Access and Services SA

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ABBREVIATIONS

AATSIHS	Australian Aboriginal and Torres Strait Islander Health Survey
ABS	Australian Bureau of Statistics
AEDI	Australian Early Development Index
AH	After Hours
AHS	Australian Health Survey
AIHW	Australian Institute of Health and Welfare
ALOS	Average length of stay
AMLA	Australian Medical Local Alliance
ANPHA	Australian National Preventive Health Agency
APCC	Australian Primary Care Collaborative
AHPRA	Australian Health Practitioner Regulation Agency
ASR	Age Standardised Rate
ATAPS	Access to Allied Psychological Services
ATSI	Aboriginal and Torres Strait Islander
AOW	Aboriginal Outreach Workers
BMI	Body Mass Index
CAHML	Central Adelaide and Hills Medicare Local
CALD	Culturally and Linguistically Diverse
CALHN	Central Adelaide Local Health Network
CAMHS	Child and Adolescent Mental Health Services
CD	Collection Districts
CDCB	Communicable Disease Control Branch
CDM	Chronic Disease Management
CHB	Chronic Hepatitis B
COTA	Council of the Ageing
CNA	Comprehensive Needs Assessment
CNAHS	Central Northern Adelaide Health Service
COAG	Council of Australian Governments
CoD	Cause of Death
COPD	Chronic Obstructive Pulmonary Disease
CTG	Closing the Gap
DASSA	Drug and Alcohol Service of South Australia
DoH	Department of Health
DVA	Department of Veterans' Affairs
ED	Emergency Department
ERP	Estimated Resident Population
FWE	Full time workload equivalent
GMA	Greater Metropolitan Adelaide
GP	General Practitioner
HACC	Home and Community Care
HWA	Health Workforce Australia
IHI	Indigenous Health Incentive
LGA	Local Government Area
LHN	Local Hospital Network
MACSA	Multicultural Aged Care South Australia
MBS	Medical Benefits Schedule
MCCSA	Multicultural Communities Council South Australia
ML	Medicare Local
NDA	National Disability Agreement
NDS	National Disability Service
NES	Non-English Speaking
NGO	Non-government organisation
NHSD	National Health Services Directory
NHS	National Health Survey
NHPA	National Health Performance Authority
PIP	Practice Incentives Program
PHA	Population Health Area
PHC	Primary Health Care
PHCA	Population Health Commissioning Atlas
PHIDU	Public Health Information Development Unit
PPA	Potentially Preventable Admissions
TQEH	The Queen Elizabeth Hospital
RAH	Royal Adelaide Hospital
SA	South Australia
SACOSS	South Australian Council of Social Services
SAFKIML	Southern Adelaide, Fleurieu and Kangaroo Island Medicare Local
SAMSS	South Australian Monitoring and Surveillance System
SEIFA	Socio-Economic Indexes for Areas
SLA	Statistical Local Area
SLG	Strategic Leadership Group
STI	Sexually Transmitted Infections
WHO	World Health Organization

DATA NOTES

The strength of a Comprehensive Needs Assessment is that it uses a wealth of data from a range of sources. Data has been sourced on a range of relevant indicators using the most appropriate, current data for each indicator. In some cases, data limitations may require readers of the CNA to interpret findings with caution.

Some of the data limitations include:

- Currency of the data and whether it accurately represents the current situation.
- Geographic specificity and granularity. Some data is only available at ML, South Australian or Australian level, which makes it difficult to identify needs in sub-regions within CAHML. Some data relates to regions that only partly align with the CAHML boundaries.
- The boundaries of geographic sub regions changed between the 2007-08 and 2011-13 data from Statistical Local Area to Statistical Area Level 2, which makes comparison between the two time periods difficult. This particularly relates to chronic disease and mental health prevalence data.
- Some data did not have a comparator or benchmark, making it difficult to determine whether CAHML's data is unfavourable or not. This was the case with much of the health workforce data.
- Validity of self-report data (eg National Health Survey in PHIDU data, local surveys). Survey respondents may not recall, or may not wish to disclose health information.
- Interpretation of health service utilisation data is risky as it is difficult to say whether low use of a service represents low need, or whether there is an access gap/barrier.
- Health conditions or populations with small numbers may not be apparent from quantitative data alone.
- Limited representativeness of qualitative data, due to sampling limitations. Selection bias limited the validity of the qualitative data e.g. by leveraging CNA data collection into pre-arranged events being conducted for a different purpose (opportunistic, ad hoc data collection at program- specific events). Targeted data collection through specific focus groups had the benefit of providing deeper investigation and understanding of the needs affecting some population groups, but cannot be considered representative of the wider CAHML population. The sampling method carried the risk of omitting 'hard- to-reach' groups of the population and identifying their health needs. This is a well-recognised, and difficult to overcome challenge of sociological research, particularly that which is conducted in a short time frame.

The project team has attempted to source and attribute data where possible throughout the document, directly above tables. These references should be used in conjunction with this document when interpreting the CNA. In addition to these references Appendix 1 contains the data list for sources used within the environmental scan.

Throughout the document there are a number of heat maps which form a visual picture of a health indicator or issue across the region. Due to space constraints we are not able to include an index against each map in the document.

The index that is applicable for SLA level maps is:

SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

The index that is applicable for PHA level maps is:

PHA	Index
Adelaide	1
North Adelaide	2
Adelaide Hills/ Lobethal - Woodside	3
Aldgate - Stirling/ Uraidla - Summertown	4
Hahndorf - Echunga/ Mount Barker Region/ Nairne	5
Mount Barker	6
Burnside - Wattle Park	7
Glenside - Beaumont/ Toorak Gardens	8
Athelstone	9
Paradise - Newton	10
Rostrevor - Magill	11
Norwood (SA)/ St Peters - Marden	12
Payneham - Felixstow	13
Nailsworth - Broadview/ Prospect/ Walkerville	14
Goodwood - Millswood	15
Unley - Parkside	16
Beverley/ Hindmarsh - Brompton	17
Flinders Park/ Seaton - Grange	18
Henley Beach	19
Charles Sturt - North West	20
West Lakes	21
Dry Creek - South/ Port Adelaide/ The Parks	22
Largs Bay - Semaphore/ North Haven	23
Adelaide Airport/ Lockleys	24
Fulham/ West Beach	25
Plympton	26
Richmond (SA)	27

The index that is applicable for SA2 level maps is:

SA2	Index
Adelaide	1
North Adelaide	2
Adelaide Hills	3
Aldgate - Stirling	4
Hahndorf - Echunga	5
Lobethal - Woodside	6
Mount Barker	7
Mount Barker Region	8
Nairne	9
Uraidla - Summertown	10
Burnside - Wattle Park	11
Glenside - Beaumont	12
Toorak Gardens	13
Athelstone	14
Paradise - Newton	15
Rostrevor - Magill	16
Norwood (SA)	17
Payneham - Felixstow	18
St Peters - Marden	19
Nailsworth - Broadview	20
Prospect	21
Walkerville	22
Goodwood - Millswood	23
Unley - Parkside	24
Beverley	25
Flinders Park	26
Henley Beach	27
Hindmarsh - Brompton	28
Royal Park - Hendon - Albert Park	29
Seaton - Grange	30
West Lakes	31
Woodville - Cheltenham	32
Dry Creek - South	33
Largs Bay - Semaphore	34
North Haven	35
Port Adelaide	36
The Parks	37
Adelaide Airport	38
Fulham	39
Lockleys	40
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GLOSSARY

Age Weighting
A method used to adjust the relative value of years lived at different ages, for example, to value a year lived by a young adult more highly than a year lived at older ages. Age weighting means that some age groups will have greater influence on the results than others.

Australian Standard Geographic Classification (AGSC) Remoteness Areas (RA)
The purpose of the RA is to provide a classification for the release of statistics that inform policy development by classifying Australia into large regions that share common characteristics of remoteness. This classification allocates areas of land to one of five arbitrary categories: Major cities, Inner regional, Outer regional, Remote, and Very remote.

Burden of Disease
Term referring to the quantified impact of a disease or injury on an individual or population.

Culturally and Linguistically Diverse Communities
Defined as those whose first language is not English and who were born in a country other than Australia.

Comorbidity
When a person has two or more health problems at the same time.

Condition (Health Condition)
A broad term that can be applied to any health problem, including symptoms, diseases, and certain risk factors, such as high blood cholesterol and obesity. Often used synonymously with disorder or problem.

Data Linkage
The bringing together (linking) of information from two or more different data sources that are believed to relate to the same entity, for example, the same individual or the same institution. The term is used synonymously with 'record linkage' and 'data integration'.

Disability
In burden of disease analysis, any departure from an ideal health state.

Effect Size
A statistical measure of the strength of the relationship between two variables, which is relatively independent of sample size. For example, the relative risk or the odds ratio.

Greater Metropolitan Adelaide
A geographic area legally defined by a declaration by the Minister responsible for planning and development matters (under section 4 of the Development Act 1993). In very general terms, the boundary for metropolitan Adelaide is located: north of the Town of Gawler; south near Sellicks Beach (in the City of Onkaparinga); east, through the Adelaide Hills, east of the towns of Bridgewater and One Tree Hill; west, along the coast, three (3) nautical miles seaward of the low water mark.

Incidence
The number of new cases (of an illness or event, and so on) occurring during a given period.

Local Government Area
A spatial unit which represents the whole geographical area of responsibility of an incorporated Local Government Council.

Life Expectancy
How long a person can expect to live on average given prevailing mortality rates.

Medicare Benefits Schedule
Is a listing of the Medicare services subsidised by the Australian Government. Health care providers can claim MBS items dependent on what services are provided to the patient.

Prevalence
The number or proportion (of cases, instances, and so forth) in a population at a given time.

Population Health Area
The Public Health Information Development Unit has constructed a set of areas that comprised of a combination of whole SA2s and multiple (aggregates of) SA2s to ensure that fewer areas need to have data suppressed.

Quintile
A statistical value of a data set that represents 20% of a given population.

Risk Factor
Any factor which represents a greater risk of a health disorder or other unwanted condition or event. Some risk factors are regarded as causes of disease, others are not necessarily so. Along with their opposites, protective factors, risk factors are known as determinants.

Social Determinants of Health
The economic and social conditions (such as income, level of education and employment status) that influence health status.

Social Economic Indexes for Areas
A product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage based on a series of attributes including income, education, employment and occupation. The higher the score the less disadvantaged the population in the area.

Statistical Areas Level 2
A general-purpose medium sized area built from whole SA1s. Their aim is to represent a community that interacts together socially and economically. SA2s generally have a population range of 3,000 to 25,000 persons and have an average population of about 10,000 persons. The SA2 is the lowest level of the ASGC structure for which Estimated Resident Population (ERP), Health and Vitals and other non-Census ABS data are generally available.

Statistical Local Area
An Australian Standard Geographical Classification (ASGC) defined area. SLAs are Local Government Areas (LGAs) or part thereof. SLAs are also defined for unincorporated areas, those areas for which LGAs are not defined. They therefore cover the whole of Australia without gaps or overlaps. The equivalent area level in the new structure to the Statistical Local Area (SLA) is the Statistical Area Level 2 (SA2)

EXECUTIVE SUMMARY

Central Adelaide and Hills Medicare Local (CAHML) covers the geographical area from the coastal suburbs of western Adelaide through the CBD corridor to the eastern reaches of Kersbrook and Callington in the Adelaide Hills. The region encompasses 12 Local Government Areas (LGAs) and 26 Statistical Local Areas (SLAs). Over 517,000 people, many from diverse cultural and linguistic backgrounds, live in the CAHML region, in both inner and outer metropolitan and rural settings.

A key part of CAHML's work has been to better understand the health needs of our community so that CAHML's key priorities, strategies and activities address these identified needs. CAHML has not embarked on assessing and addressing these needs in isolation. CAHML's approach has been to listen to community members, health service providers and key stakeholders to understand the enablers and challenges, and then collaborate to achieve long term outcomes.

As part of this commitment to working with our community, health providers and stakeholders, CAHML conducted a detailed Comprehensive Needs Assessment (CNA) in 2014 to identify the population characteristics and health needs across the region, the current profile of services and programs, the gaps in service options, and enablers and barriers for consumers accessing services. This information was used to further define CAHML's key priorities and activities for the 2014-15 financial year.

CAHML established a Strategic Leadership Group (SLG) to oversee and inform the process of the Comprehensive Needs Assessment, and then guide the development of key priorities for CAHML. The SLG was comprised of key stakeholders from across the region, including representatives from Central Adelaide Local Health Network, Country Health SA, SA Health, Aboriginal Health Council SA, Health Consumers' Alliance, University of Adelaide, the Local Government Association and Local Government representatives. One of the key outcomes from the CNA has been disseminating the information we learned from this process to the many health providers, organisations and stakeholders that each play a role in keeping people well. They have subsequently used this information to assist in planning and re-orienting provision of their services.

The CAHML region is characterised by a number of inequities– including a large variation in socio-economic status. Some of the areas in our region have the highest levels of socioeconomic disadvantage in Australia, while other areas have the lowest. Our communities also face a range of challenges – ones that tend to separate rather than strengthen. Education levels, health literacy and employment participation vary greatly across the region, with primary care services often being under-represented in the most disadvantaged areas. There are higher rates of chronic disease in the most disadvantaged regions combined with a difficulty in accessing services required. Higher socio-economic areas do not remain untouched by challenges however, with these areas often showing high levels of mental health issues, high levels of risk factors for chronic disease, and high prevalence of people with severe and profound disabilities that require support from carers.

The key focus areas for CAHML that have been shaped by the findings from the Comprehensive Needs Assessment are reflective of these challenges and include:

- Integrating care for mental health, particularly youth mental health
- Integrating care for chronic and complex conditions
- Integrating care and implementing strategies for older adults to assist with positive and healthy ageing
- Health promotion and preventative strategies.

This Health Profile is a result of the CNA process and provides a detailed analysis of both quantitative and qualitative data for the CAHML region including indicators of the social determinants of health and a range of health issues. Specific populations within our region are addressed in focus. The heat maps included in each chapter enable you to quickly form a visual picture of a particular health indicator or issue across the region, whilst the data tables provide you with more detailed information to assist you in making your own informed decisions with the data. We have also included an extensive data matrix, affectionately named within our organisation as the 'mega-matrix' that highlights and compares health indicators for each Statistical Local Area within the CAHML region. This data matrix instantly provides a visual representation of key health indicators across the region.

At the end of the document you will also find a summary of recommendations. This brings together the findings from our CNA with the experience and understanding of each of our key priority areas. It is a roadmap for the future for those working in primary care, to help inform the work that needs to occur in primary care to assist in addressing the health needs of the CAHML region.

We hope you find this document useful in gaining a better understanding of the health status and needs of our region, and that you find it useful for planning services and programs to meet these needs.

Yours in health

Chris Seiboth
Chief Executive Officer

1

COMPREHENSIVE NEEDS ASSESSMENT

1.1

COMPREHENSIVE NEEDS ASSESSMENT OVERVIEW

The Comprehensive Needs Assessment (CNA) used a rigorous, population based approach to identify health needs in the CAHML region, based on a range of perspectives and methods. The CNA builds on earlier analysis conducted in 2012-13, and has enabled CAHML to further examine the quantitative data and support this with qualitative data by engaging with community, health providers and key stakeholders. This provided CAHML with deeper understanding of the enablers and barriers to health and wellbeing, gaps in primary care services or programs, and the capacity of the primary health care system. Quantitative methods have been used to understand:

- Demographic characteristics
- Special needs groups and health inequities
- Health status, disease/risk factor prevalence and premature mortality
- Health service utilisation
- Service and capacity mapping; current primary health service availability

Data from the Public Health Information Development Unit (PHIDU) at the University of Adelaide was used as the premium source of quantitative data. PHIDU data are mainly drawn from ABS Census (2011) data, and National Health Survey (2007-08 or 2011-13) data. PHIDU data on a large range of indicators were compared at Statistical Local Area (SLA) level (grouped in quintiles). Quintiles have been used to create a cut-off point for the data and the top two quintiles (least favourable or highest prevalence) are used within this document to emphasise the key areas of concern. Data was presented on 'heat maps' to highlight which areas compared relatively unfavourably on the indicator in question. To further contextualise the data on each indicator, each SLA was given a rating based on its comparison against Australian and Greater Metropolitan Adelaide benchmarks, and its quintile rating within CAHML. These ratings were plotted on a matrix to give a clear indication of which geographic areas had higher need based on the different indicators.

A large range of data were not available at sub-regional level so could not be meaningfully compared using the matrix method described above, however it was still analysed and appropriate comparisons made to determine whether any health needs of the CAHML region could be identified. Where available, data of disease/risk factor prevalence for specific population groups (e.g. Aboriginal and Torres Strait Islander people) were compared with overall CAHML prevalence, to give approximate rate ratios.

Qualitative data on health concerns, access barriers and system capacity issues was captured in a systematic way based on CAHML's stakeholder strategy, to ensure a broadly representative sample of community members, health professionals and other stakeholders. The methods included online surveys, face to face surveys, face to face focus groups, key stakeholder interviews, participation at community/stakeholder events and an environmental scan of existing publications from health organisations that have also undertaken qualitative research.

CAHML has continued to engage with community, health providers and key stakeholders to better understand the health needs of the region, as the extent of consultation during the CNA was limited due to tight timeframes.

More than 500 health needs for the CAHML region were identified through the quantitative and qualitative data process.

1.1.1

Processes used to Identify and Prioritise

Mixed methods analysis (or triangulation) was used to increase the validity of the CNA by deliberately drawing on evidence from a wide range of perspectives and methods, and comparing findings. Qualitative and quantitative data were brought together to ascertain agreement between different sources of data to 'build a case' for the need/issue, and develop a shortlist of needs. These were then prioritised in consultation with the CNA Strategic Leadership Group, the CAHML Board and staff. Priority needs were used to inform the CAHML Strategic Plan for 2014-17 and the Annual Plan for 2014-15.

1.1.2

Strategic Activities and Priorities

As a result of the CNA findings, and building on its previous work with community members, health providers and key stakeholders, CAHML identified four key focus areas, with a number of key priorities identified within these focus areas:

1. Integrating care for mental health, with a focus on youth mental health:
   - High prevalence of mental ill-health across the spectrum (mild-severe)
   - Access and service gaps, system fragmentation and MBS uptake of mental health items
   - **Special populations;** Youth, ATSI, CALD (established migrant groups, newly arrived migrants and refugees), older persons and children in care.
2. Integrating care for complex conditions and complex co-morbidities; COPD, Aboriginal Health and Wellness, People with multi-morbidities:
   - **Health inequity;** Difficulty accessing transport, reduced access to services based on affordability, difficulty accessing services
   - **ATSI:** Need for culturally appropriate services, chronic conditions; diabetes, obesity, mental health, respiratory health, and childhood immunisation
   - **CALD:** Need for culturally appropriate services, difficulty navigating health system, chronic conditions; diabetes, obesity, mental health, cancer and Hepatitis B.
   - **Persons with a disability;** access and service gaps and system fragmentation
   - **Carers;** support services and access to and reducing barriers to respite care
   - **Chronic and complex conditions:** High prevalence of obesity/overweight, respiratory conditions, diabetes, cardiovascular conditions, musculoskeletal, cancer
   - **System capacity;** workforce gaps including GPs, Practice Nurses, AHPs and Specialist services and MBS uptake of chronic disease management items.
3. Integrating care and implementing strategies for older adults to assist with positive and healthy ageing; Falls prevention, use of medications, mental health, maintaining wellness:
   - **Special populations:** High proportion of CALD who are 65+, Persons with a disability 65+

COMPREHENSIVE NEEDS ASSESSMENT OVERVIEW

- **Chronic and complex conditions;** musculoskeletal, dementia, pain management, heart health, diabetes and respiratory
- **Falls;** high occurrence of injuries and hospitalisations due to falls
- **Healthy ageing:** low rates of uptake for 75+ health checks, screening, palliative care and end of life care including advanced care directives/planning
- Access, affordability, service gaps and capacity and system fragmentation.

4. Health promotion and prevention program; health literacy, immunisation, screening, healthy weight:

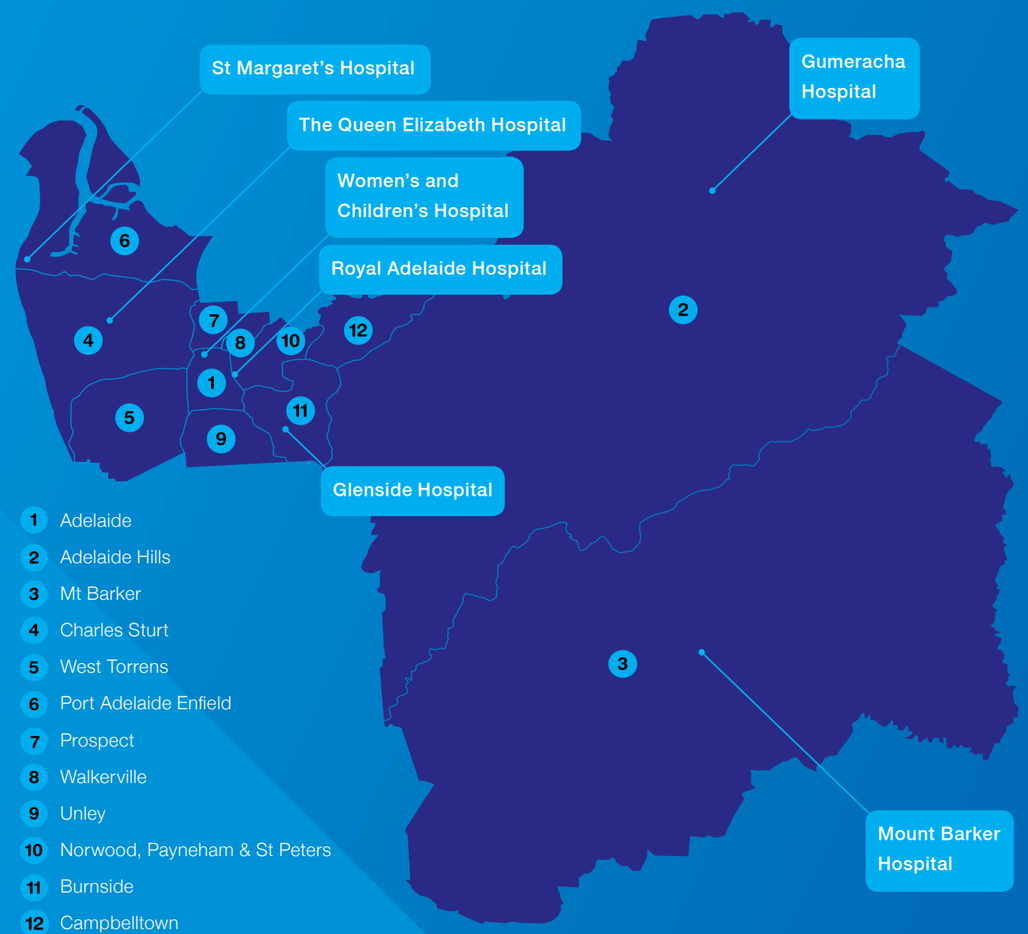
- **Immunisation:** Need to improve childhood immunisation rates and for populations at risk
- **Health Literacy:** Low rates of health literacy
- **Language and access to appropriate health services:** CALD including new and emerging communities
- **Modifiable behaviours:** healthy eating, smoking cessation and physical inactivity
- **Preventative health:** screening and health assessments.

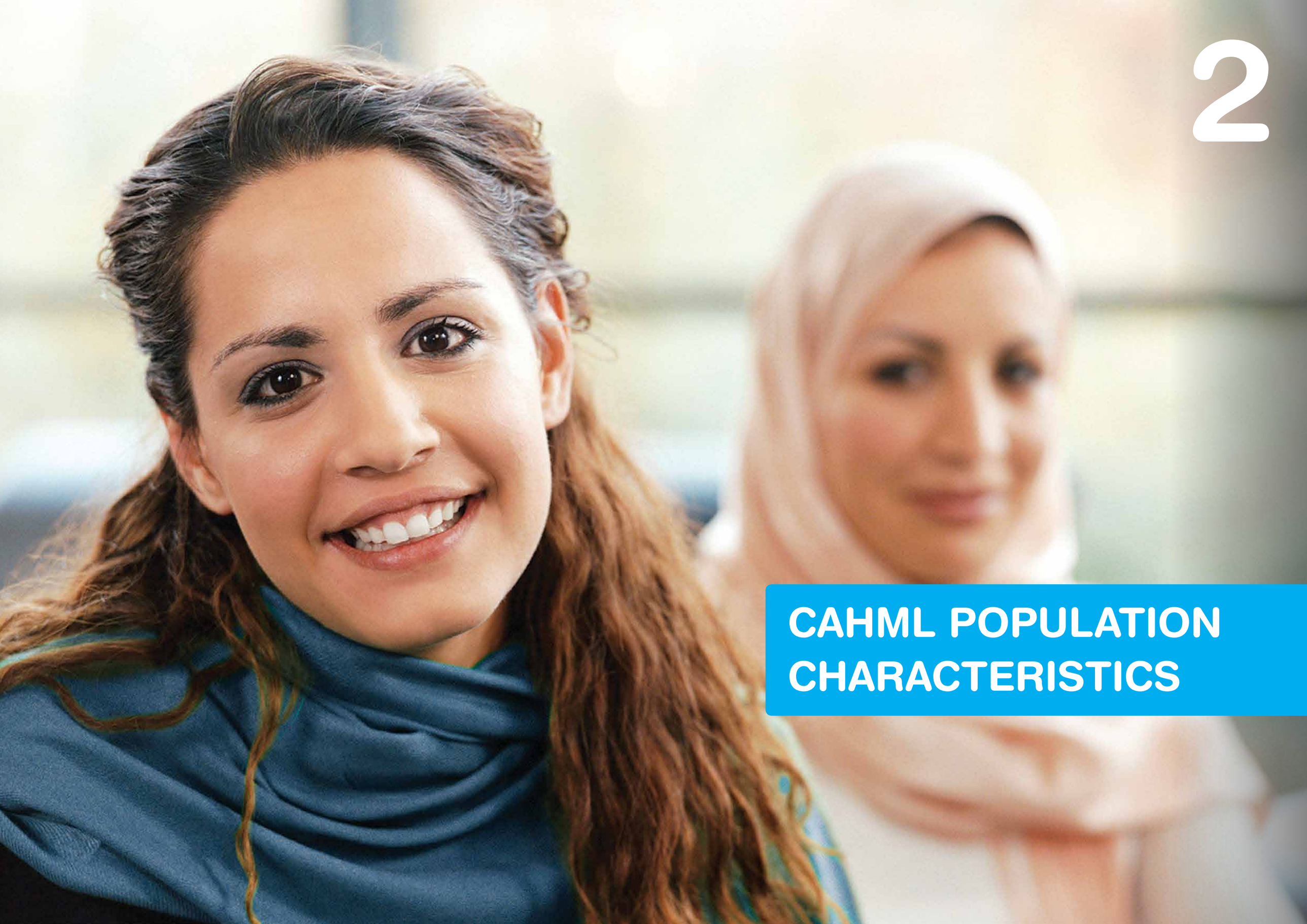
1.1.3

Areas not Shortlisted as Priorities

There were a range of key health needs identified that CAHML has not included as key priorities for 2014-15, as these were deemed to either be outside of CAHML's influence and/or there was significant activity already occurring by a large number of organisations to address these health needs. This includes within the disability and carer sectors. However, CAHML has identified there might be some specific activities relating to primary care access for these two population groups that it will consider addressing.

The CAHML Region





2

CAHML POPULATION CHARACTERISTICS

POPULATION SIZE

CAHML has a population of 517,054 people living in both inner and outer metropolitan and rural areas.

CAHML has a population of 517,054 people[1] living in both inner and outer metropolitan and rural settings. In terms of population size, CAHML is the 12th largest Medicare Local (ML) of the 61 MLs in Australia. The CAHML population represents over 31% of the total South Australian population and 2.3% of the total Australian population.

Compared with the other South Australian MLs, CAHML has a substantially larger population, approximately 22% greater than the second largest SA ML (Northern Adelaide Medicare Local) (See Table 1).

Table 1: Population Size by Medicare Local - South Australia[2]

Region	Population
Northern Adelaide ML	405,092
Southern Adelaide - Fleurieu - Kangaroo Island ML	401,466
Country North SA ML	198,945
Country South SA ML	133,742
Central Adelaide and Hills ML	**517,054**
Average ML Population (61 ML's nationally)	**372,301**
Greater Metropolitan Adelaide	**1,219,730**
Australian Population	**22,710,352**

2.1.1

Population Density and Distribution

Central Adelaide and Hills Medicare Local (CAHML) covers the geographical area from the coastal suburbs of western Adelaide through the CBD corridor to the eastern reaches of Kersbrook and Callington in the Adelaide Hills, and encompasses 12 Local Government Areas (LGAs) and 26 Statistical Local Areas (SLAs). CAHML's total area is 1,657km^2 which is 0.17% of South Australia and 0.022% of Australia.

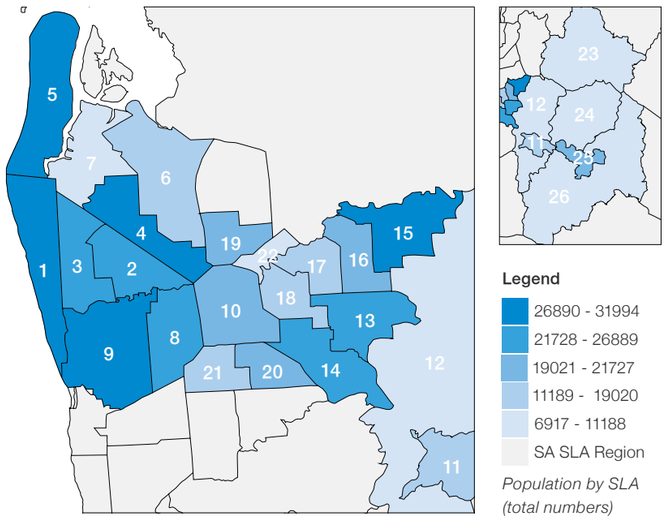
As at June 2011, two of the three most densely populated Statistical Local Areas (SLAs) in South Australia, rated by people per square kilometre, were within the CAHML boundary. These two SLAs are comprised of Unley (C) – East and Prospect (C). The population density for the CAHML region is 309 people per square kilometre compared with the South Australia state density of 1.7 people per square kilometre.[3]

Table 2: Population Distribution Among the Top Two Quintiles in the CAHML Region. These 11 SLAs Account for over 56% of the Entire CAHML Population (2011)[4]

Statistical Local Area (SLA)	Population (Number)	Population (% of CAHML)
Charles Sturt (C) - Coastal	31,994	6.19
West Torrens (C) - West	30,636	5.93
Port Adel. Enfield (C) - Coast	29,631	5.73
Charles Sturt (C) - North-East	29,082	5.62
Campbelltown (C) - East	28,707	5.55
West Torrens (C) - East	26,889	5.20
Charles Sturt (C) - Inner West	25,866	5.00
Charles Sturt (C) - Inner East	23,015	4.45
Burnside (C) - North-East	22,372	4.33
Burnside (C) - South-West	21,891	4.23
Mount Barker (DC) - Central	21,727	4.20
Central Adelaide and Hills (CAHML)	**517,054**	
Greater Adelaide and Hills (CAHML)	**1,219,730**	**42.4** *(CAHML pop % of Adelaide)*
Australia	**22,710,352**	*(% CAHML pop % of Aust)*

The population distribution across the CAHML region is displayed in Figure 1 and shows total population per SLA. The high density population areas are clearly highlighted along the coastal boundary and greater Adelaide area.

Figure 1: CAHML population density by Statistical Local Area (SLA) (2011)[5]



SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

2.1.2

Growth Rate and Projections

South Australia has one of the slowest growth rates for all states in Australia. In 2012, the South Australian population increased by 16,500 people (1.0%). This was the second slowest growth rate of all states and territories excluding Tasmania 0.2% (ABS). Table 3 shows the population growth rates for the period 2007-2012, during which South Australia recorded a minimal population growth of 5.5%.

Table 3: Australian Growth Rates by States and Territories (2007-2012)[6]

State	Growth (%)
Western Australia	16
Queensland	11
Northern Territory	10
Australian Capital Territory	9.4
Victoria	9.2
New South Wales	6.8
South Australia	5.5
Tasmania	3.9

POPULATION SIZE

In 2010, the South Australian Government put in place a 30 Year Plan to increase the state's population growth rate.

The population projection figures for the CAHML region supplied by the Department of Social Services predict a 13.9% growth over the period of 2015 to 2026.

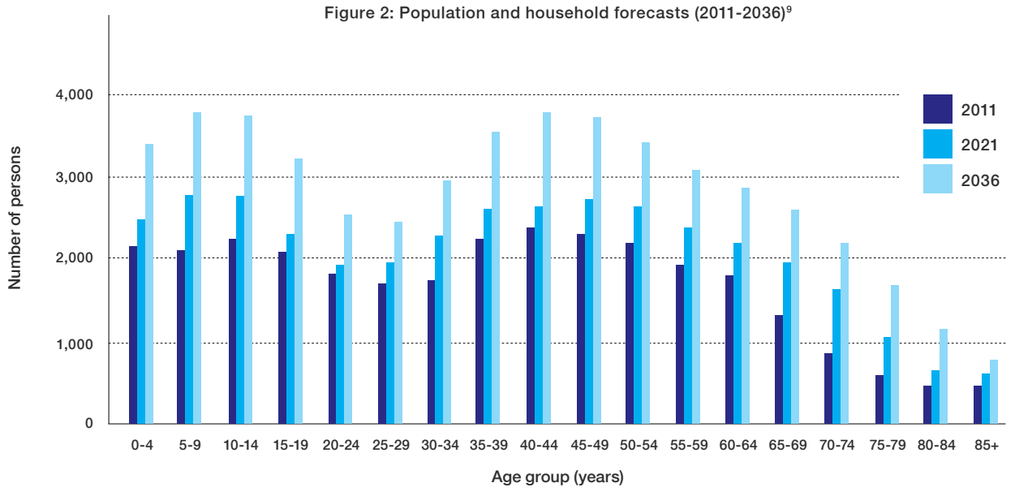
Table 4: Population Projection for SLAs in CAHML Region[7]

Year	2015	2016	2017	2018
Estimated Population	529,403	534,569	539,646	544,628
Year	**2019**	**2024**	**2025**	**2026**
Estimated Population	549,510	573,148	577,711	582,197

In 2010, the South Australian Government put in place a 30 Year Plan to increase the state's population growth rate. The target is to increase the population of Greater Metropolitan Adelaide (GMA) by 560,000 people over the next 30 years. The population targets will be achieved by increasing population densities in existing urban areas and developing new residential areas in greenfield locations.[8]

An area of higher population growth in the CAHML region is Mount Barker, situated in the Adelaide Hills. According to ABS statistics, Mount Barker experienced the largest population growth in Outer Adelaide during 2010-11 followed by the neighbouring Adelaide Hills SLA. As a direct result of the 30 year plan 1300 hectares of land has been re-zoned for residential use around Mount Barker and neighbouring Nairne. This allows the development of at least a further 7000 dwellings. Population projections published by the Department of Social Services indicate a population increase of over 18% in the combined SLAs of Mount Barker (DC) – Central and Mount Barker (DC) -Bal between 2011 and 2026.

Figure 2: Population and household forecasts (2011-2036)[9]



The western region of CAHML (comprised of the Charles Sturt, West Torrens and Port Adelaide councils) is also expected to experience significant growth due to South Australia's 30 Year Plan. The estimated targets for this region are an additional 83,000 people and 42,560 new residential dwellings.

The 30 year plan targets for Adelaide City include; 15,040 additional dwellings and an increase in population of 27,300 people. This increase would double the current population size of a relatively small geographical area and correspondingly there will be an increased demand for additional city based health services.[10]

2.1.3

Remoteness

According to the Australian Bureau of Statistics (ABS) Remoteness Areas (ASGC-RA) classification, the CAHML region is comprised of categories RA1 and RA2 as shown in Table 5. The ASGC-RA classification indicates a relative lack of remoteness in the CAHML region with over 90% of the population living in RA1 (major cities of Australia). However, the Australian Institute of Health and Welfare (AIHW) state that typically a full range of goods and services is not obtained in a region until its population reaches around 250,000. This would suggest that the 10% of the CAHML population living in the RA2 classification may have restricted access to health care and other services.

Figure 3: CAHML Region - Remoteness classifications

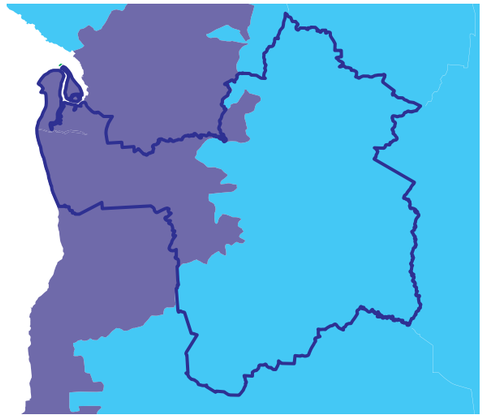


Table 5: CAHML Population per ASGC-RA Classification

	Remoteness Category	% of Total Population	CAHML Population
RA1	Major Cities of Australia	90.29%	463,428
RA2	Inner Regional Australia	9.71%	49,838
RA3	Outer Regional Australia	N/A	N/A
RA4	Remote Australia	N/A	N/A
RA5	Very Remote Australia	N/A	N/A

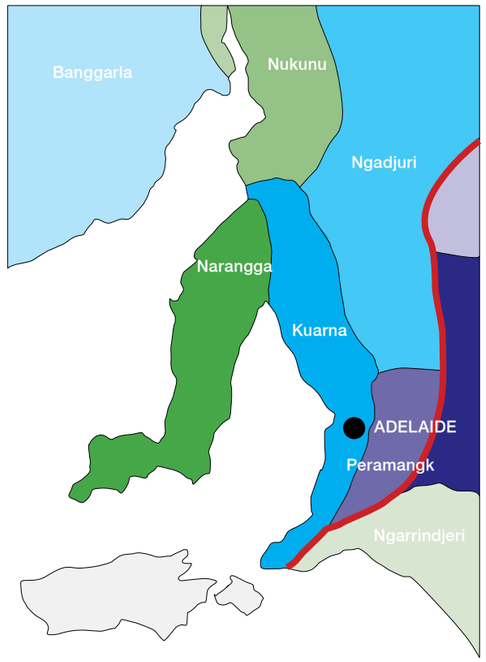
2.2

ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

According to the 2011 Census, there were 4828 Aboriginal and Torres Strait Islander people living in CAHML.

Central Adelaide and Hills Medicare Local (CAHML) would like to acknowledge the Kaurna and Peramangk people, who are the traditional custodians, and to elders past and present, who are connected to this land on which CAHML conducts its business. Aboriginal culture is continuous and the relationships with this land before colonisation exist today, and will exist into the future. Figure 4 indicates the Aboriginal and Torres Strait Islander language and cultural groups, and Aboriginal and Torres Strait Islander country on which the CAHML region is located.

Figure 4: Aboriginal and Torres Strait Islander country of the CAHML region[11]



Aboriginal and Torres Strait Islander people frequently experience social disadvantage, poorer general health and less favourable health outcomes than non-Aboriginal people, including reduced life expectancy. A proportion of the CAHML population are Aboriginal or Torres Strait Islander and the considerable health needs of this segment of the population have been identified as a priority.

2.2.1

Aboriginal and Torres Strait Islander people in CAHML

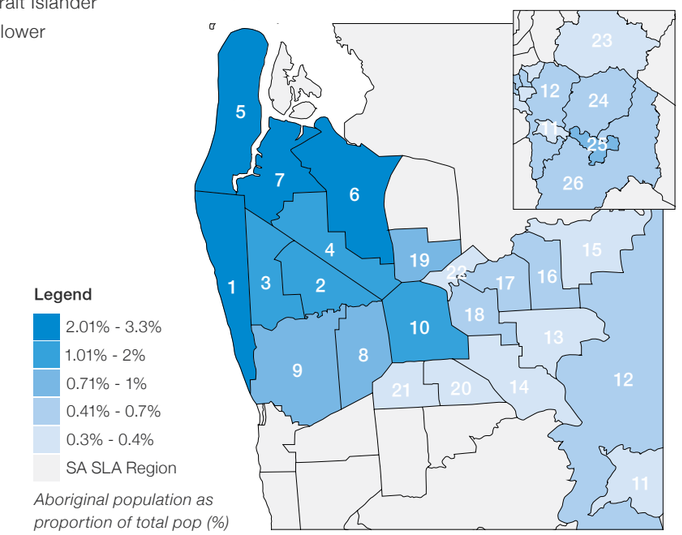
According to the 2011 Census, there were 4828 Aboriginal and Torres Strait Islander people living in CAHML, comprising 1% of the CAHML population. While the overall proportion is low relative to the Australian proportion of 2.5% and the Adelaide proportion of 1.3%, there are areas within CAHML with a comparatively high proportion. CAHML ranks 46th out of 61 MLs across Australia for proportion of population who are Aboriginal or Torres Strait Islander. The north western suburbs of Adelaide have the highest proportion of Aboriginal and Torres Strait Islander people. Table 6 shows the SLAs with the highest proportions of Aboriginal and Torres Strait Islander people, with comparison to Greater Metropolitan Adelaide, national and CAHML proportions. While the proportions are highest in the Port Adelaide Enfield SLAs, the number of Aboriginal and Torres Strait Islander people is also very high in the neighbouring SLA of Charles Sturt – North East.

Table 6: SLAs with Highest Aboriginal and Torres Strait Islander Populations in CAHML, 2011[12]

Region	Number of Aboriginal and Torres Strait Islander People	Aboriginal and Torres Strait Islander Population as Proportion of Total Population (%)
Port Adelaide, Enfield (C) - Port	353	3.3
Port Adelaide, Enfield (C) - Coast	745	2.6
Port Adelaide, Enfield (C) - Park	375	2.2
Charles Sturt (C) - North-East	550	2.0
Charles Sturt (C) - Inner East	277	1.3
Charles Sturt (C) - Inner West	297	1.2
Adelaide (C)	218	1.1
West Torrens (C) - East	254	1.0
Campbelltown (West)	132	1.0
Mount Barker (DC) - Central	179	0.9
CAHML	**4,828**	**1.0**
Greater Metropolitan Adelaide	**15,121**	**1.3**
Australian	**548,371**	**2.5**

Figure 5 shows regions within CAHML with higher proportions of Aboriginal and Torres Strait Islander people (shaded in bolder colours), and lower proportions (shaded in lighter colours).

Figure 5: Aboriginal and Torres Strait Islander population as a proportion of total population within CAHML (2011)[13]



ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

The Aboriginal and Torres Strait Islander population has a markedly different age profile, than the non-Indigenous population.

2.2.2

Age Profile

Figure 6-11 shows the age profile of Aboriginal and Torres Strait Islander people in CAHML (outline), as compared with non-Aboriginal people (solid colour). The Aboriginal and Torres Strait Islander population has a markedly different age profile, with a far greater proportion of the population comprised of young adults and children, and a smaller proportion of older people. This reflects the shorter life expectancy of Aboriginal and Torres Strait Islander people, compared with non-Aboriginal people. The population pyramids are also shown comparing proportions of Aboriginal and non-Aboriginal people for the Port Adelaide Enfield, Charles Sturt, Adelaide, West Torrens and Mount Barker Local Government Areas (LGAs), which have the highest Aboriginal and Torres Strait Islander populations in CAHML.

Aboriginal and Torres Strait Islander Australians born in the period 2010-2012 are estimated to have a life expectancy at birth of 69.1 years for males, and 73.7 years for females. This is respectively 10.6 and 9.5 years less than the non-Aboriginal Australian population born over the same period.[20]

Figure 6: Population age profile of Aboriginal and Torres Strait Islander and non-Aboriginal people in CAHML (2011)[14]

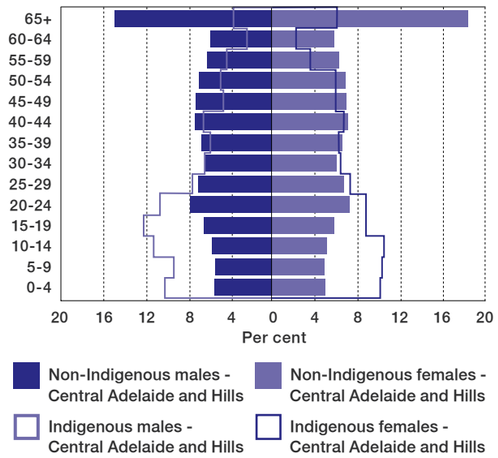


Figure 7: Population age profile of Aboriginal and Torres Strait Islander and non-Aboriginal people in Port Adelaide Enfield[15]

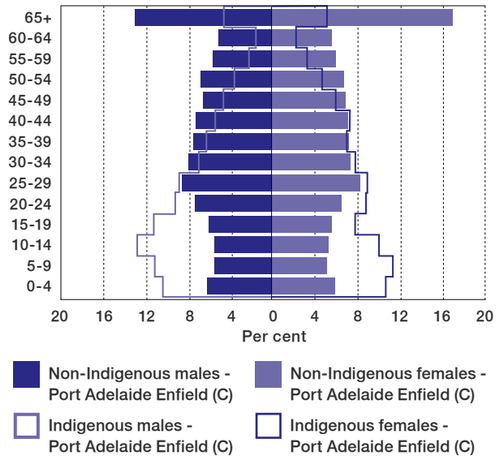


Figure 8: Population age profile of Aboriginal and Torres Strait Islander and non-Aboriginal people in Charles Sturt[16]

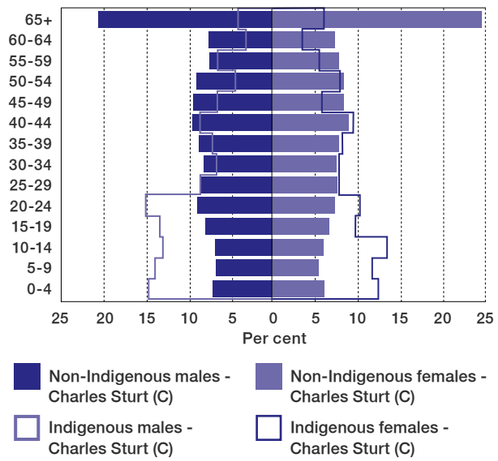


Figure 9: Population age profile of Aboriginal and Torres Strait Islander and non-Aboriginal people in Adelaide[17]

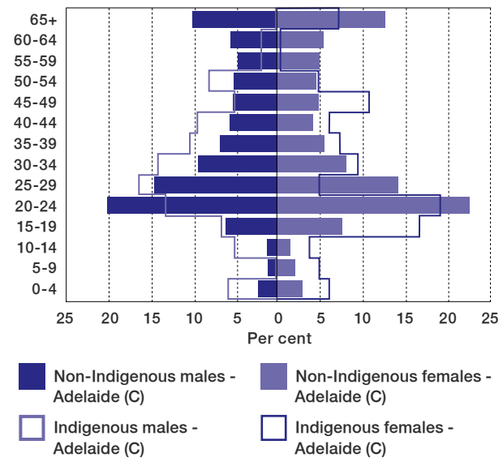


Figure 10: Population age profile of Aboriginal and Torres Strait Islander and non-Aboriginal people in West Torrens[18]

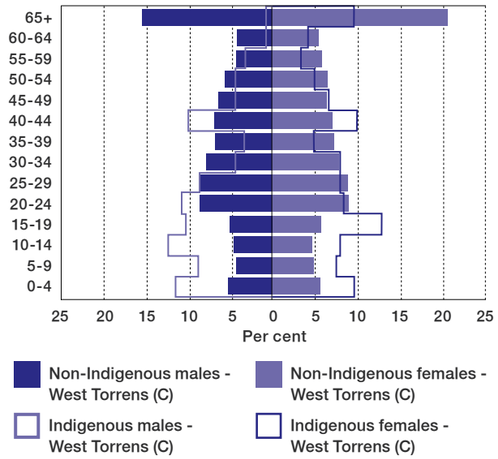
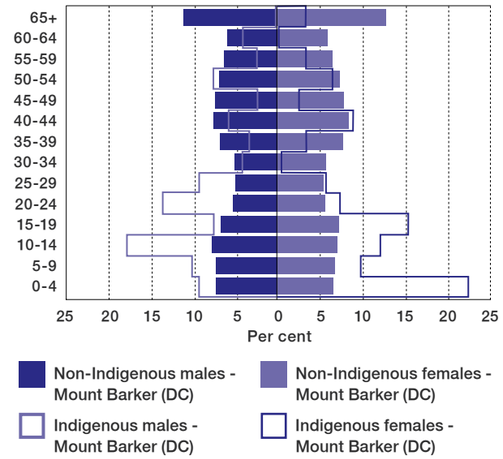


Figure 11: Population age profile of Aboriginal and Torres Strait Islander and non-Aboriginal people in Mount Barker[19]



ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

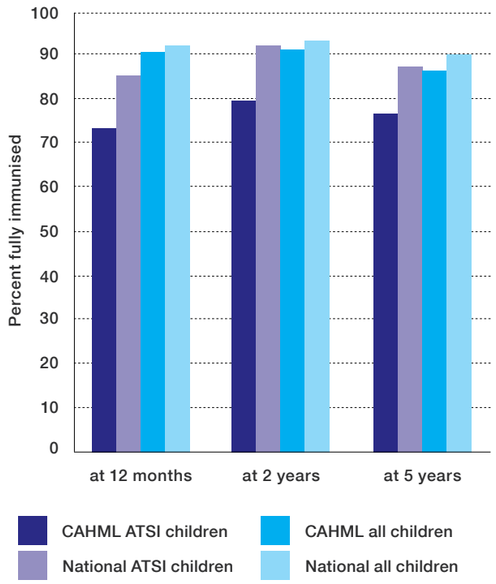
According to SA Health data, the rate of immunisation of Aboriginal and Torres Strait Islander children was 74% in metro Adelaide.

2.2.3

Aboriginal and Torres Strait Islander Childhood Immunisation Rates

The CAHML region has significantly lower rates of immunisation of Aboriginal and Torres Strait Islander children at ages one, two and five years when compared to the corresponding national benchmarks. Figure 12 shows the significantly lower rates of childhood immunisation of Aboriginal and Torres Strait Islander children in CAHML, when compared to immunisation rates for the overall CAHML population, and national immunisation rates.

Figure 12: Childhood Immunisation Rates, CAHML vs Australia (2011-12)[21]



According to SA Health data, the rate of immunisation of Aboriginal and Torres Strait Islander children was 74% in metropolitan Adelaide , which correlates with the most recent data available for CAHML overall. The Aboriginal childhood immunisation rate is most concerning in the Charles Sturt LGA, where the rate is only 55% of Aboriginal children fully immunised. The rate is comparable with that of metropolitan Adelaide in the following regions:

- Port Adelaide Enfield (71%)
- Adelaide /Woodville/Prospect (75%)
- West Adelaide (82%)

The rate was similar to or higher than the national rate for all children in the following regions:

- Unley/Burnside/Mitcham (100%)
- Adelaide Hills/ Mount Barker (100%)
- Campbelltown/Norwood, Payneham, St Peters (92%)

2.2.4

Health Status Indicators

Table 7 shows key findings from the South Australian Aboriginal Health Survey,[23] as compared with the CAHML average (PHIDU). Of concern are the higher unemployment rates, prevalence of diabetes and obesity and smoking rates, as well as the lower fruit consumption and physical activity measures of Aboriginal and Torres Strait Islander people compared to the total CAHML population. The other indicators also show Aboriginal and Torres Strait Islander people are disadvantaged but to a lesser degree.

Table 7: Health Indicator Comparison between Aboriginal and Torres Strait Islander People and the Total CAHML Population

	Aboriginal and Torres Strait Islander People in Metro SA[6] (2012)	Aboriginal and Torres Strait Islander People in SA[24] (2012-2013)	CAHML Total Population[25]	Approximate Rate Ratio (Metro ATSI: CAHML)
Unemployment Rate	22.3% 13% in peri –urban ring 18% in CNAHS* region (SA Health 2010 data)	11% of females 16.5% of males	4.9% (2013)	4.55 2.65 3.67
Diabetes	13.4%	8.5%	3.4% (2007-08)	3.94
Mental Health Problem	15.5%	(data not available)	10.3% males (2007-08) 11.8% females (2007-08)	1.5, 1.3
Asthma	12.4%	(data not available)	9.4% (2007-08)	1.32
Hypertension	17.6%	6.0%	10.7% (2007-08)	1.64
Kidney Disease	6.1% 3.4% (AIHW 2004-05) 6 times as many Aboriginal and Torres Strait Islander people were treated for end stage kidney disease in 2008 compared to non-Aboriginal people	1.5% (unreliable data)	No national data available in Australia on the number of people who develop CKD each year (AIHW)	
Overweight	24.5%	28.6%	29.5% (2007-08)	0.83
Obese	50.2%	36.1%		3.12
Current Smokers	44.8%	46.5% of males 37.9% of females		2.59
Physically Inactive	8.4% no activity			1.38
	38.3% insufficient activity** (46.7% total)			
Fruit Consumption	14.2% one or more serves/day (inversely 85.8% < 1 serve/day)	62-66% (2013 vs 2003 NHMRC guidelines)	52.4% two or more serves/day (2007-08) (inversely 47.6% < 2 serves/day)	1.8 (different measure)
Self-rated Health as 'Fair' or 'Poor'	19.1%	24.5%	14.7% (2007-08)	1.30

**CNAHS – the former Central Northern Adelaide Are Health Service, which partly aligns with CAHML boundaries in metropolitan Adelaide*

*** Sufficient Physical Activity (SPA) is defined as: The completion of 150 minutes of walking, moderate and vigorous activity (with vigorous multiplied by two to account for its greater intensity) in the past week.*

**** Physical inactivity is defined as those aged 15 years and over who did not exercise in the two weeks prior to interview for the 2007–08 NHS, through sport, recreation or fitness (including walking)*

ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

Early prenatal care is important for ensuring a healthy pregnancy, and early identification of health risk factors.

2.2.5

Child and Maternal Health

In South Australia, the majority of Aboriginal and Torres Strait Islander women give birth between the ages of 20 and 30 years (60%), whereas Caucasian and Asian women are more likely to give birth at a later age, between 25 and 35 years (61% and 71% respectively). Approximately 18% of Aboriginal and Torres Strait Islander women gave birth before the age of 20 years, as compared to only 4% of Caucasian women and less than 1% of Asian women. Aboriginal and Torres Strait Islander women are significantly less likely to give birth over the age of 40 (2%), as compared to 4.4% of Caucasian women and 3% of Asian women.[26]

Low birth weight is an important health indicator, as it is closely associated with higher risk of poor infant health and childhood mortality, as well as inhibited growth and cognitive development, and chronic diseases later in life.[27] In the CAHML region, 10.6% of babies born to Aboriginal and Torres Strait Islander women were of low birth weight (<2.5kg), compared with 4.8% to non-Aboriginal women. The mean proportion among Metro 2 peer group MLs is 10.2% for Aboriginal and Torres Strait Islander women.[28]

According to SA Health data,[29] 14% of Aboriginal and Torres Strait Islander women in GMA have low birth weight babies, and the areas with the highest rates of low weight births by Aboriginal and Torres Strait Islander women in the CAHML region are:

- Campbelltown/Norwood, Payneham, St Peters (21%)
- Adelaide /Woodville/Prospect (21%)
- West Adelaide (17%)

Early prenatal care is important for ensuring a healthy pregnancy, and early identification of health risk factors. In CAHML, 51.9% of Aboriginal and Torres Strait Islander women had a prenatal visit in their first trimester of pregnancy. This compares favourably with the Metro 2 Peer group mean rate of 32.2% of Aboriginal and Torres Strait Islander women. Overall, CAHML had a very favourable rate of first trimester prenatal visits, at 84.7%, which was the highest in the Metro 2 Peer group, which averaged 63.5%.[32]

According to SA Health data, only 44% of Aboriginal and Torres Strait Islander women in GMA received first trimester prenatal care, and the areas of CAHML with the lowest rates were:

- Campbelltown/ Norwood, Payneham, St Peters (20%)
- Port Adelaide Enfield (38%)
- Adelaide/ Woodville/ Prospect, Adelaide Hills/ Mount Barker, West Adelaide (50%)

2.2.6

Health Service Utilisation

Potentially Preventable Hospitalisations

The SA Burden of Disease Study (1999-2006)[33] showed that in the regions that include CAHML, the rate of potentially preventable hospitalisations (PPHs) was significantly higher for Aboriginal and Torres Strait Islander people compared to non-Aboriginal people. In the former Central Northern Adelaide Health Service (CNAHS) area (which includes the metropolitan regions of CAHML, as well as a significant part of Northern Adelaide Medicare Local) the rate for Aboriginal and Torres Strait Islander people was 7263 PPHs (per 100,000 persons), compared with 2790 for non-Aboriginal people. Around 32% of PPHs of Aboriginal and Torres Strait Islander people were for diabetes complications and 15% of PPHs were for chronic obstructive pulmonary disease (COPD). Convulsions, epilepsy and angina each accounted for around 8% of PPHs.

In the peri-urban ring, which includes the hills region of CAHML, the rate of PPHs for Aboriginal and Torres Strait Islander people was 4565 (per 100,000 persons), compared with 2602 for non-Aboriginal people. Similar to GMA, the main conditions were diabetes complications (35%), COPD (15%), and pyelonephritis (kidney infection) (~8%).

Aboriginal and Torres Strait Islander people are admitted to hospital at a higher rate than non-Aboriginal people. SA Health data[34] shows that there are 26.9 hospital admissions per 100 Aboriginal and Torres Strait Islander people in Adelaide per year, as compared to 98 admissions per 100,000 (approximately 0.098 per 100) in the population overall.[35] Table 8 shows hospitalisation rates among Aboriginal people in GMA as compared with the population overall, for selected conditions. For the three health conditions where classifications are similar, the hospital admission rate is considerably greater among Aboriginal and Torres Strait Islander people generally. The right hand column shows the areas of CAHML which have the highest rates of hospitalisation of Aboriginal and Torres Strait Islander people.

Table 8: Hospitalisation Rates in Adelaide[36]

Disease	% of Aboriginal People Hospitalised (Greater Metropolitan Adelaide)	Hospitalisations per 100,000 Population (Standardised Rate for Adelaide) (Approx %)	Highest Rate in CAHML Aboriginal Population
Cancer	0.5%	110 (0.001%)	3% (Adelaide/ Woodville/Prospect)
Cardiovascular / Circulatory	2.2%	93 (0.0009%)	4.7% (Adelaide/ Woodville/Prospect)
Psychiatry / Mental Health	2.3%	72 (0.0007%)	9.2% (Adelaide/ Woodville/Prospect)

ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

The CTG program in CAHML aims to increase the uptake of mainstream health services for Aboriginal and Torres Strait Islander people.

2.2.7

Closing The Gap

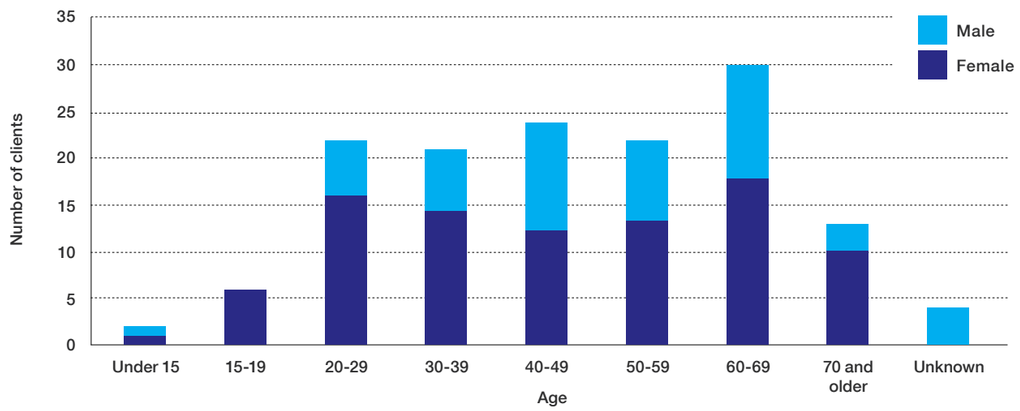
The Closing the Gap (CTG) strategy aims to reduce Aboriginal and Torres Strait Islander disadvantage with respect to life expectancy, child mortality, access to early childhood education, educational achievement and employment outcomes. The CTG program in CAHML aims to increase the uptake of mainstream health services for Aboriginal and Torres Strait Islander people. A range of services are available through the CTG program, primarily care coordination and outreach worker support. The services are supported by a flexible funding stream allowing purchase of supplementary services such as private medical specialist and allied health treatment, medical aides and transport services.

According to CAHML CTG data,[37] 41 general practices in the region are registered with the CTG program. In 2013-14, 143 Aboriginal people used 2475 care coordination services in the CAHML region. Aboriginal Outreach Workers (AOWs) have continued to work closely with CTG Care Coordinators to provide a broad range of supports to CTG clients, tailored to each client's individual needs. In 2013-14, AOWs provided 412 support services including attending medical and allied health appointments with the client, home visits, telephone support, linking clients with local Aboriginal community support programs, and transport services.

In the period from July 1 – Dec 31 2014, between 100-120 people were receiving CTG services in any one month, with a total of 2420 care coordination services provided, not including 237 additional occasions of service provided by AOWs.

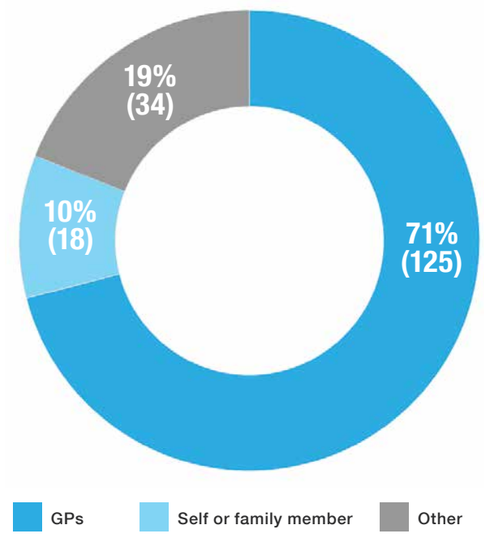
There has been significant growth in the use of CTG services in the region, with approximately the same volume of care coordination services provided in six months, as had been provided in the previous 12 months. Figure 13 shows the age and gender profile of CAHML CTG clients in 2013-14.

Figure 13: CAHML Closing the Gap client profile (2013-14)[38]



As shown in Figure 14, 71% (125) of CTG clients in 2013-14 were referred to the service by a General Practitioner (GP). Thirty GPs in the CAHML region made referrals. In the second half of 2014, 14 GPs and seven nurses/health workers made referrals to CTG, which is comparable to the previous time period.[39]

Figure 14: 2013-14 CAHML CTG referrals by source (number and percent of clients)[40]

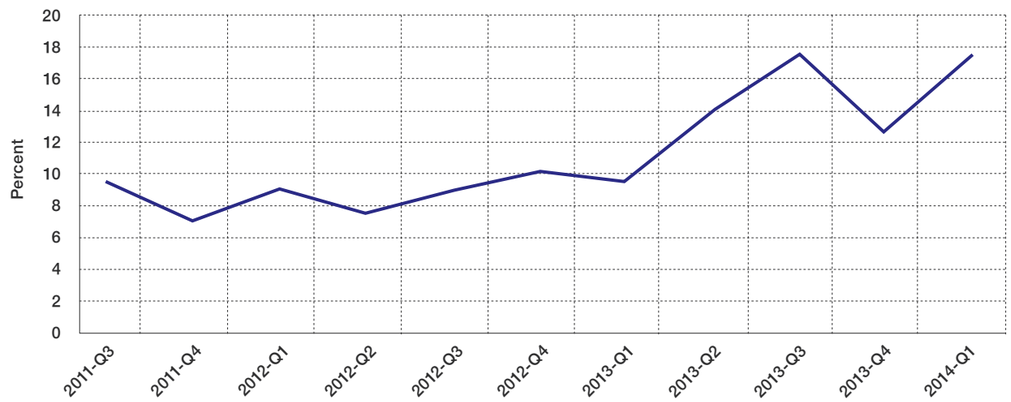


2.2.8

General Practitioner Health Assessments

In the CAHML region between July 2012 and June 2013, 648 health assessments of Aboriginal and Torres Strait Islander people were conducted by 48 GPs (MBS Item 715). This represents 10.7% of the eligible Aboriginal and Torres Strait Islander population. This proportion is relatively low when compared to other MLs in the Metro 2 peer group, where the proportion of eligible people having a health check ranges from 2.6% to 24.4%. The national usage rate in this period was 17.5%. CAHML ranks 8th out of the 12 MLs in this peer group. In 2011-12 the proportion of Aboriginal and Torres Strait Islander people having a health check was lower at 8.4% (510 Health Checks) so the increase the following year was positive. Despite this, the ranking slipped from 7 to 8, as many other MLs had a greater increase in their uptake of Aboriginal Health Checks in the same period. In this period the national usage rate of Aboriginal and Torres Strait Islander health checks was 14.1%. In CAHML the proportion has continued to increase, from 8.4% to 17.3%, 12.7% and 17.8% in the three quarters since July 2013. Figure 15 shows the uptake rates of Aboriginal Health Checks in CAHML since July 2011.[41]

Figure 15: MBS Item 715 Aboriginal Health Check usage rate in CAHML



2.2

ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

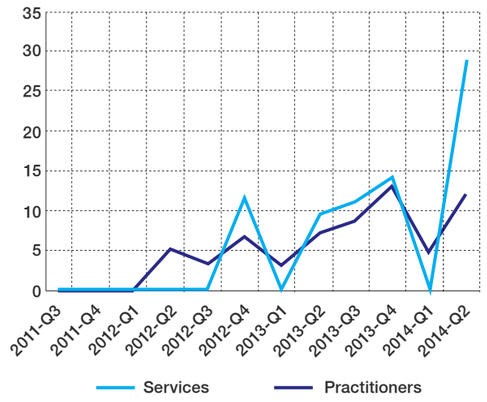
In the 2012-13 financial year, there were 648 Aboriginal Health Checks.

While CAHML has seen increases in the use of Aboriginal Health Checks, compared with other MLs and with national rates, there is potential for improvement in the usage rate of this service.

The provision of allied health services to Aboriginal and Torres Strait Islander people following completion of a health check has been very low and sporadic in CAHML, as shown in Figure 16.[42] In the 2012-13 financial year, there were 648 Aboriginal Health Checks, yet only 21 allied health services subsequently provided.

Not all individuals having a health check necessarily require allied health services, however the numbers are surprisingly low. Any individual diagnosed with a chronic disease and with a GP Management Plan is eligible for up to five free allied health services per year. The low numbers of these MBS items specific to Aboriginal and Torres Strait Islander people could be explained by allied health services being claimed under the MBS items that are available to the wider population, and not under the correct MBS Item specific for Aboriginal and Torres Strait Islander people. It is also possible that there are other barriers, as well as cost, that limit provision to/use of allied health services with Aboriginal and Torres Strait Islander people. The follow up of Aboriginal and Torres Strait Islander people who have had a health check (MBS Item 10987) by a Practice Nurse or Aboriginal Health Worker has also been very low within CAHML (less than 10 per quarter).[43]

Figure 16: Allied Health Services for Aboriginal and Torres Strait Islander people within CAHML who have had a Health Check (MBS Group M11 Items)[44]



2.2.9

Indigenous Health Incentives

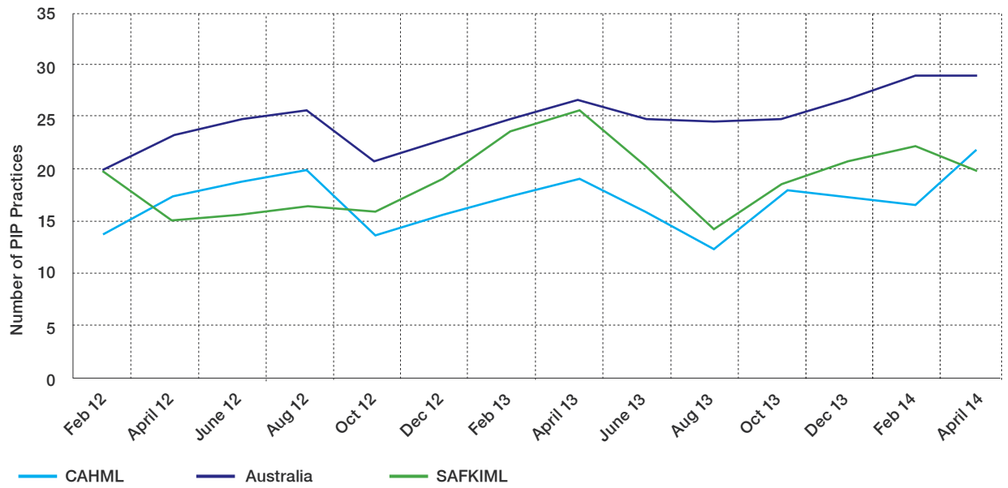
The Practice Incentives Program (PIP) is funded by the Australian Government and provides incentive payments to general practice to promote comprehensive, quality care, enhance capacity, and improve access and health outcomes for patients.[45] The PIP Indigenous Health Incentive aims to support general practices and Indigenous health services to provide better health care for Aboriginal and Torres Strait Islander patients, including best practice management of chronic disease.

To participate in the PIP, practices must be accredited to the Standards of the Royal Australian College of General Practice. The PIP Indigenous Health Incentive (IHI) has three components:

- The practice sign-on payment of $1000 upon registration with the PIP Indigenous Health Incentive.
- The patient registration payment of $250 for each Aboriginal and Torres Strait Islander patient (aged over 15) who is registered with the practice for chronic disease management.
- The outcomes payment which consists of 2 tiers. Tier 1 ($100) is for the completion and review of a GP Management Plan or Team Care Arrangement in a calendar year. Tier 2 ($150) is for providing the majority of care (and a minimum of 5 eligible Medicare services) for a registered Aboriginal or Torres Strait Islander patient.

Figure 17 below shows the proportion of (PIP) general practices with at least one Aboriginal or Torres Strait Islander person registered with the practice. This has increased only very slightly in CAHML over the past two years, as it has in the comparable Southern Adelaide, Fleurieu and Kangaroo Island Medicare Local (SAFKIML). These two MLs both have 1% of their populations consisting of Aboriginal and Torres Strait Islander people. The national proportion of PIP practices with new Aboriginal and Torres Strait Islander patient registrations is greater, however this possibly reflects the fact that nationally the proportion of Aboriginal and Torres Strait Islander people is also greater, at 2.5%. This data needs to be interpreted with caution, as it only reflects PIP practices, not all practices in the region. Also, some practices are likely to have higher numbers of Aboriginal and Torres Strait Islander patients than others, yet these practices will only appear in this data once per quarter. Therefore it is not an accurate reflection of activity related to services to Aboriginal and Torres Strait Islander people in the CAHML region.

Figure 17: Number of PIP practices receiving at least one Indigenous Health Incentive patient registration payment for the quarter (%)[46]



2.2

ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

Figure 18 shows the number of PIP practices receiving a Tier 1 outcomes payment under the IHI. This reflects the number of practices participating in the program, but does not reflect the volume of service delivery provided by the participating practices. Practice participation at Tier 1 level (i.e. preparing GP Management Plans/ Team Care Arrangements and reviewing them) has fluctuated over recent quarters in CAHML, as it has in SAFKIML. The proportion of practices delivering services to Tier 1 level is lower in both CAHML and SAFKIML than in Australia. This is possibly explained by the lower proportion of Aboriginal and Torres Strait Islander in these ML regions (1%) compared with the higher proportion of Aboriginal and Torres Strait Islander people in the Australian population (2.5%).

Figure 18: Number of PIP practices receiving an Indigenous Health Incentive Tier 1 payment for the quarter (%)

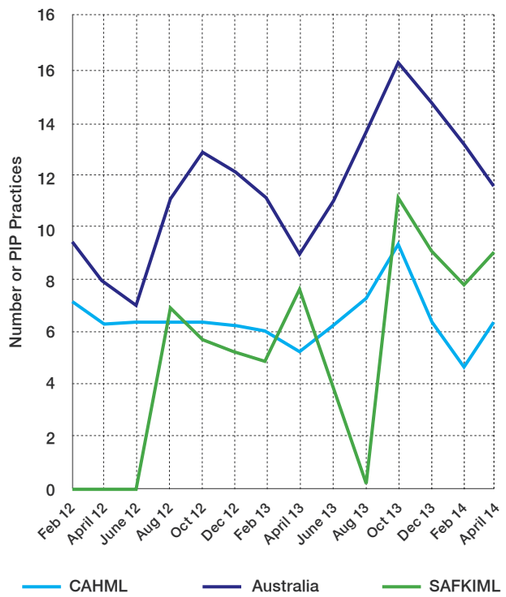
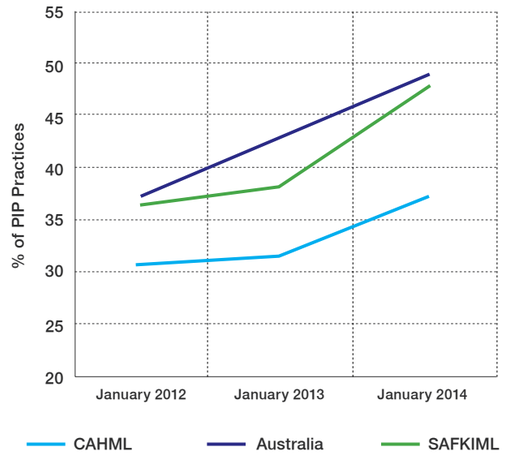


Figure 19 shows the proportion of practices delivering services to Aboriginal and Torres Strait Islander people at the Tier 2 level (i.e. delivering the majority of Medicare services to an individual). There has been a steady increase in CAHML in the 2012 and 2013 calendar years, however the proportion is still somewhat lower than the national proportion or that in SAFKIML. This demonstrates that the number of practices providing a relatively high level of service in managing chronic disease in Aboriginal and Torres Strait Islander people is increasing. It is difficult to determine whether the relatively low proportion in CAHML reflects an access or service capacity problem. It may be that a small number of practices are providing a larger proportion of the services. This explanation is likely given that the Aboriginal and Torres Strait Islander population in CAHML tends to be concentrated in the western and central part of the region. The CAHML SLAs with the highest proportions and numbers of Aboriginal and Torres Strait Islander people are also those with the lowest ratios of general practitioners per capita. (See the Primary Health Care System Capacity section of this document).

PIP data does not show the volume of services provided, or what proportion of the Aboriginal and Torres Strait Islander population are receiving services. The fact that the number of GP Aboriginal Health Assessments has steadily increased is a favourable indicator, and it would be expected that there would be a related increase in practices claiming Tier 1 IHI payments. The fact that there is not suggests that while the number of practices working in Aboriginal and Torres Strait Islander health has remained relatively static, those practices that are participating are conducting more health assessments. The IHI PIP data only represents those services that are accredited and choose to apply for PIP incentives. It is likely that there are a number of practices that are providing services (including health assessments) to Aboriginal and Torres Strait Islander people that are not captured in this data.

Figure 19: Number of PIP practices receiving an Indigenous Health Incentive Tier 2 payment for the quarter (%)[47]



2.2.10

Mental Health Services

Using data from SA Health,[48] when compared to the other health regions in South Australia, the then CNAHS had a slightly higher rate of Aboriginal and Torres Strait Islander users of 'ambulatory mental health' services, at 65 per 1000 and the peri-urban region rate was 47 per 1000 (range 40-98). Psychiatry related hospitalisations were comparatively low in both CNAHS (23 per 1000) and peri-urban ring regions (8 per 1000) where the range was 8 to 59 per 1000 separations. This does not necessarily indicate a lack of need, and could be explained by a lack of access to services, particularly in the peri-urban ring region.

CNAHS had a relatively high rate (3rd in SA) of life years lost due to poor mental health and suicide, at 11.7 per 1,000, and the peri-urban ring had the lowest rate of the SA regions at 2.8 (range 2.8-17.1 per 1000).

2.2.11

Drug and Alcohol Services

CNAHS and the peri urban ring regions both had relatively low rates of drug and alcohol related hospital separations (11 and 2 per 100 respectively, range 0 -37). The CNAHS region had the highest rate of Drug and Alcohol Service SA (DASSA) services provided to Aboriginal and Torres Strait Islander people at 32 per 1000, and the peri urban ring had the lowest rate of 9 per 1000.

ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

In metro SA, 46.1% of Aboriginal and Torres Strait Islander people indicated they preferred to attend an Aboriginal-specific health service for their general health needs.

2.2.12

Use of Home and Community Care (HACC) Services by Aboriginal and Torres Strait Islander People

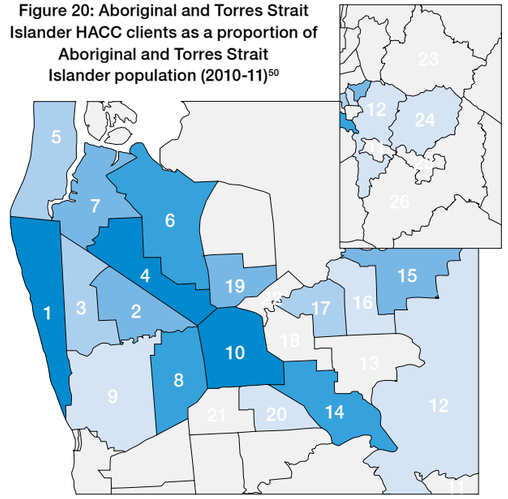
Figure 20 shows by SLA where there are relatively high and low proportions of Aboriginal and Torres Strait Islander people who use HACC services. On this map, it is the light shaded areas that are of potential concern, as they indicate that a relatively low proportion of Aboriginal and Torres Strait Islander people use HACC services. This may indicate an access gap where Aboriginal and Torres Strait Islander people are less able to access HACC services. Of the 10 SLAs with the highest proportion of Aboriginal and Torres Strait Islander people in CAHML, all but one (Adelaide) showed significantly lower proportion of Aboriginal and Torres Strait Islander people received HACC services compared to the proportion of the general population who received HACC services (Table 9). The Port and Coast SLAs of the Port Adelaide Enfield LGA have the greatest differences between proportions of Aboriginal and Torres Strait Islander people who use HACC services compared with the general population use. This suggests that there are barriers to accessing HACC services for Aboriginal and Torres Strait Islander people, even in areas where there are relatively high numbers and proportions of Aboriginal and Torres Strait Islander people.

Table 9: Use of HACC Services by Aboriginal and Torres Strait Islander People and Non-Aboriginal People in the SLAS with Highest Aboriginal and Torres Strait Islander Population (2010-11)[49]

Region	Proportion of Aboriginal and Torres Strait Islander Population using HACC Services (%, not age adjusted)	Total Instances of Assistance (%, aged standardised)	Estimated Rate Ratio
Port Adel. Enfield - Port	7.1	17.62	0.40
Port Adel. Enfield - Coast	6.4	13.6	0.47
Port Adel. Enfield - Park	8	14.7	0.54
Charles Sturt - North-East	8.6	14.9	0.58
Charles Sturt - Inner East	7.2	12.9	0.56
Charles Sturt - Inner West	6.3	12.2	0.52
Adelaide (SLA)	28	14.4	1.94
West Torrens - East	7.9	13.7	0.58
Mount Barker - Central	#	15.1	

 # data suppressed due to low numbers

Figure 20: Aboriginal and Torres Strait Islander HACC clients as a proportion of Aboriginal and Torres Strait Islander population (2010-11)[50]



Legend

8.1 - 28	6.5 - 7.8	0.0 - 4.0
7.9 - 8	4.1 - 6.4	SA SLA Region

% HACC Indigenous clients (per Indigenous population)

2.2.13

Health Service Access Considerations

In metro SA, 46.1% of Aboriginal and Torres Strait Islander people indicated they preferred to attend an Aboriginal-specific health service for their general health needs. 43% percent indicated no preference. 72% of respondents (in metro SA) indicated that they had not been able to use a health service at a time they wanted to. This is significantly less than in rural SA, where the proportion is 85.6%.[51]

In metropolitan SA, 33.6% of Aboriginal and Torres Strait Islander people reported using medicines on a regular basis, of which 13.8% reported problems with accessing their medicines. Cost was most commonly reported to be the main barrier to accessing medicines. In a different survey, 9.8% of the overall CAHML population reported they had delayed purchasing prescribed medication because they could not afford it.[52]

2.2.14

Aboriginal Health Services

Table 10 lists the Aboriginal and Torres Strait Islander health services provided in the CAHML region. The geographic distribution of these services is illustrated in Figure 21. Many of these are not exclusively for Aboriginal and Torres Strait Islander people, but may include an Aboriginal and Torres Strait Islander health service. In addition to the services listed here, there are 41 general practices in the CAHML region that are registered for the 'Closing the Gap' program.

Table 10: Aboriginal and Torres Strait Islander Health Services in the CAHML Region

Service Name	Location	Service Types
Nunkuwarrin Yunti (Aboriginal Community Controlled Health Service)	Wakefield Street, Adelaide	Community health care, Aboriginal Health Workers, Maternal and Child care, Drug and Alcohol services, Counselling, Dental, Disability support, Allied health, Support groups
Kanggawodli (Aboriginal step down service) Lead Agency: Central Northern Adelaide Health Service	2 Clements St, Dudley Park 5008	Non-medical services for Aboriginal people from rural and remote communities who travel to Adelaide for acute services care - including transport and accommodation coordination
Kokotina Tappangga	(Mobile Clinic, which visits Kanggawodli in Dudley Park, along with 2 other sites outside CAHML)	Mobile service including general practitioners, registered nurses, and Aboriginal clinical health workers, podiatrist, nutritionist, diabetes nurse educator, speech pathologist and occupational therapist. The clinic is registered with the Close the Gap Practice Incentive Program to support access to subsidised, and in some cases free medication.
Adelaide Hills Community Health Service:	87 Wellington Rd, Mount Barker	Allied health, nursing, Aboriginal Health Workers, group programs etc.
Kumangka Aboriginal Youth Service (ACCHS)	6 Mary Street, Hindmarsh	Aims to serve the needs of 'at risk' Aboriginal youth between the ages of 12-25 (social work).
GP Plus Health Care Centre Woodville: Karrparrinthi Aboriginal Health and Wellbeing Centre	64c Woodville Road Woodville	Medical clinic (sexual and reproductive health)
Aboriginal Health Team, (Formerly Parks Primary Health Care Centre – Trafford St, Angle Park)	221 Main North Rd, Sefton Park, SA 5083	• Open Nunga Clinic Days - includes lunch and services including medical, physiotherapy, podiatry, speech therapy, immunisation • Having A Yarn - drop in counselling service • Family & Community Healing Program - domestic violence support • Diabetes support and education • Home Detox Support • Methadone program • Nunga IT drop in program - web design and information technology education for young Aboriginal people • Nunga IT Schools Program and Journey of Healing in the West - promoting ongoing reconciliation practice and coordination of reconciliation activities
Port Adelaide Primary Health Care Centre	Dale St, Port Adelaide	Health services for Aboriginal people - Nunga Health Clinic, Thursday afternoons.
The Second Story Youth Health Service (TSS)	57 Hyde Street, Adelaide	Free health service for young people aged between 12 and 25. Service includes Aboriginal Clinical Health Worker.
Kura Yerlo (ACCHS)	208 Lady Gowrie Drive, Largs Bay	HACC (aged care) services, carers group, disability support
Tauondi Aboriginal Community College	1 Lipson St, Port Adelaide	Tertiary/vocational education, with health services available on site.
Royal Adelaide Hospital Aboriginal Health Clinic	North Terrace, Adelaide	Supporting hospital patients and discharge/care continuity planning
Women's and Children's Hospital Aboriginal Health Unit	72 King William Rd, North Adelaide 5006	Food, Financial assistance, Orientation of the hospital, Warm clothing, Accommodation, Transport, Discharge planning, Community contact

NB. This information changes currency frequently and was correct at time of publication.

ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

2.2.15

Qualitative Data Perspectives

Information from survey and focus group data collection (consumer, health provider and stakeholder engagement) specific to Aboriginal and Torres Strait Islander people within the CAHML community identified the following emerging issues:

Older person's access
Limited access to primary care, home and community care and support, and aged care services for Aboriginal and Torres Strait Islander Elders is a significant issue. Eligibility for aged care packages are available for people 65+ years but Aboriginal and Torres Strait Islander people may need to access services earlier due to the difference in mortality rates compared to the non-Aboriginal community. It is also felt that there is limited funding for the full range of Home and Community Care (HACC) services (more available for low care) and not enough packages to cover community need.

Health Literacy
Lack of knowledge of health services and how to access them was a common concern, especially after-hours or same day access for urgent care. Young adults in particular felt unsure about what services they could access.

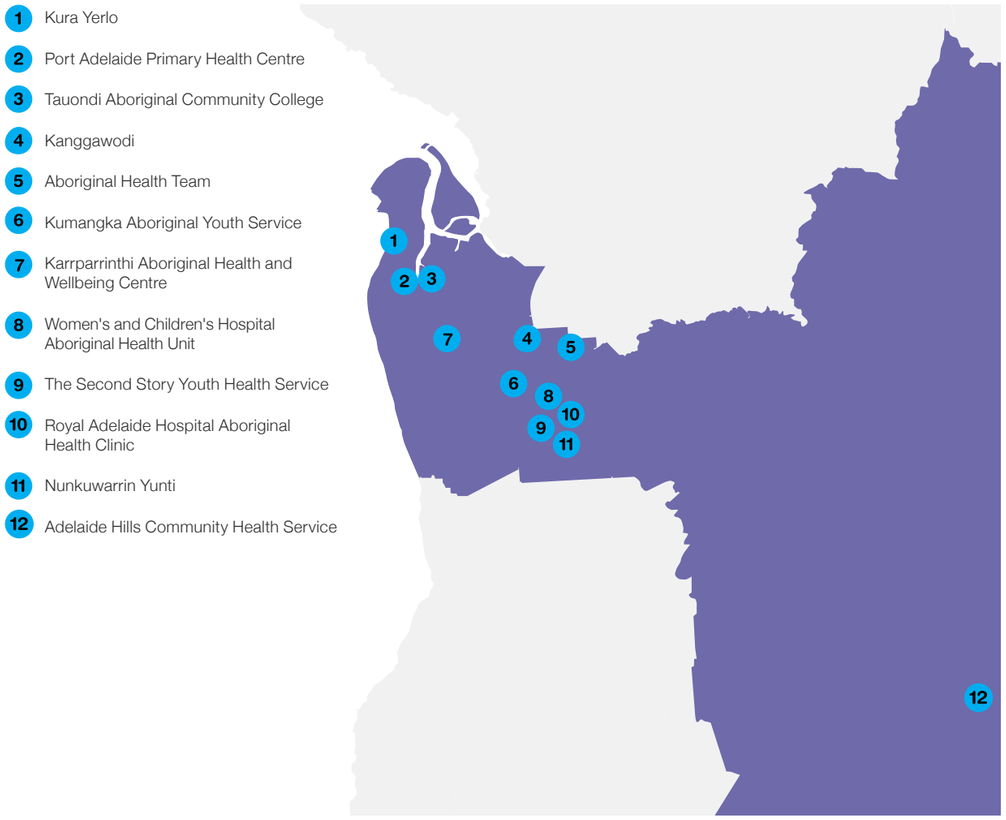
Mental Health
Mental health issues were perceived to be a significant issue, particularly as they relate to youth mental health and the levels of substance abuse and youth suicide within the community. A lack of understanding of Aboriginal and Torres Strait Islander people with mental health problems was identified as was the need to think wider than just medication in terms of treatment options.

Prison Health
Lack of mental health support services as part of prison health was identified. Other issues were related to the difficulty experienced by people on release from prison; service navigation i.e. knowing what service are available and how to access primary care, and the need for better socialisation within the community to provide support.

Cultural Competency
Lack of culturally competent health services was a significant issue for Aboriginal and Torres Strait Islander people within the CAHML community. It was believed that the Aboriginal and Torres Strait Islander culture should be respected and not seen as an obstacle by health services and providers. Respondents believed that roles for Aboriginal and Torres Strait Islander people should be established in mainstream and Aboriginal health services, to educate from within to provide unique experience and perspectives. Similarly, it was considered important to educate primary care services in how to appropriately support Aboriginal and Torres Strait Islander people to build safety in the community. There is a perceived reliance on Aboriginal health teams from other services to deal with any communication problems or service issues.

Amongst stakeholders and health providers surveyed, Aboriginal and Torres Strait Islander people were identified as people within the CAHML community whose needs are not being met. This particularly relates to the level of chronic disease amongst Aboriginal and Torres Strait Islander communities within the CAHML region and the access to timely, affordable and culturally appropriate services. Knowledge of various Aboriginal and Torres Strait Islander specific programs and services that are available varies within the community, as well as among health providers which therefore limits access to appropriate referral pathways.

Figure 21: Aboriginal and Torres Strait Islander health services in the CAHML region



2.3

CULTURALLY AND LINGUISTICALLY DIVERSE COMMUNITIES

26.9% of residents living in the CAHML region were born overseas. 19.3% (95,457) were born in predominantly non-English speaking (NES) countries.

Culturally and Linguistically Diverse (CALD) communities are defined as those whose first language is not English and who were born in a country other than Australia. They may have migrated to Australia or they might be refugees or asylum seekers.

CALD communities in Australia, whilst often referred to as one homogenized group; in reality have a varying range of characteristics and needs based on factors such as country of origin and nature of migration. One distinction that is often drawn is between new and emerging communities and established CALD groups.

Established communities include Greek, Italian and Vietnamese groups who have generally, as a population, been in Australia for decades. By definition established CALD communities have developed significant community infrastructure, including specialist health services, aged care and other programs and have established media networks.[53] Because of significant community infrastructure and services, established communities are seen to have the capacity to meet the needs of individuals within those communities.

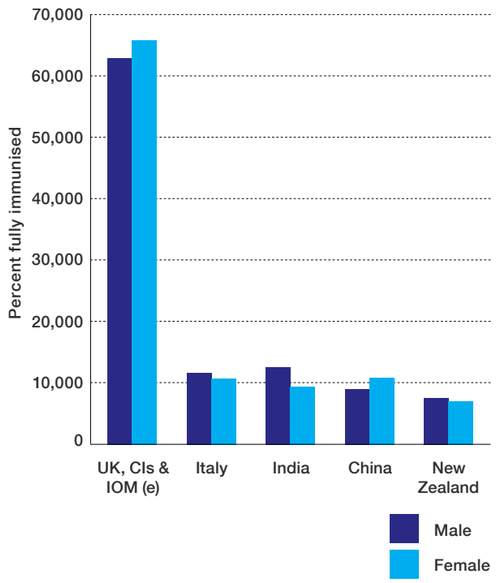
New and emerging communities include individuals from Afghanistan, Burma, Iran, Iraq, Bosnia, Sudan, Somalia and West Africa. The relative number of migrants from these countries is small, but individuals may be particularly disadvantaged due to limited culturally specific infrastructure, resources and established networks in Australia. For these groups, settlement can be much more difficult without the support of a large network of community, family members, financially secure community members and businesses able to offer employment and support.[54] People from new and emerging communities often enter Australia through the permanent Humanitarian and Refugee visa process and have experienced displacement due to civil unrest.[55]

2.3.1

South Australia

According to the 2011 Australian Census, 388 900 (23.7%) of people living in South Australia were born overseas, with 33.2% of those people born in the United Kingdom (UK). Figure 22, shows the top five countries of origin of people who live in South Australia and were born overseas.

Figure 22: Top 5 Countries of Origin of South Australia Residents - by Gender[56]



2.3.2

Central Adelaide and Hills Medicare Local Region (2011)

26.9% of residents living in the CAHML region were born overseas. 19.3% (95 457) were born in predominantly non-English speaking (NES) countries. This rate is higher than both GMA and Australia (both at 15.7%), and ranks 15th in Australia when compared to other ML.[57]

Approximately 13% of the 19.3% residents born in NES countries have lived in Australia for five or more years. Figure 23 shows these rates are higher in CAHML when compared to GMA and Australia.[58]

Within the CAHML region, people born in NES countries who have lived in Australia for five or more years, are most densely populated in Campbelltown and the western suburbs. High proportions of NES people who have lived in Australia for less than five years, are living in Adelaide, Port Adelaide and Enfield and West Torrens (East) LGAs (Figure 24).

While there are common areas to both groups, such as Campbelltown and Port Adelaide -Park, there are higher proportions of individuals living in Adelaide (C).
An explanation for the high rate in Adelaide city might be international university students living on campus or in accommodation close to campus.

Figure 23: Australian residents born in NES countries - years spent living in Australia[59]

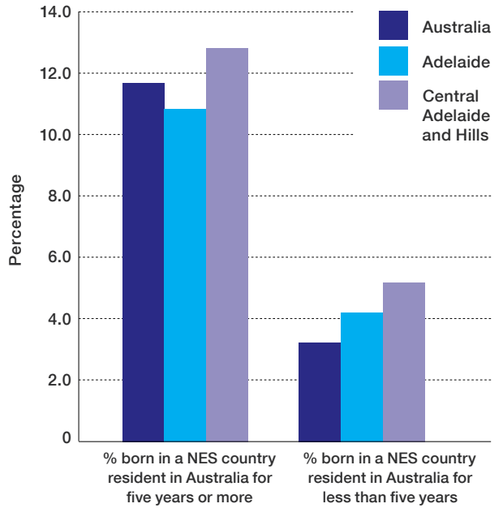
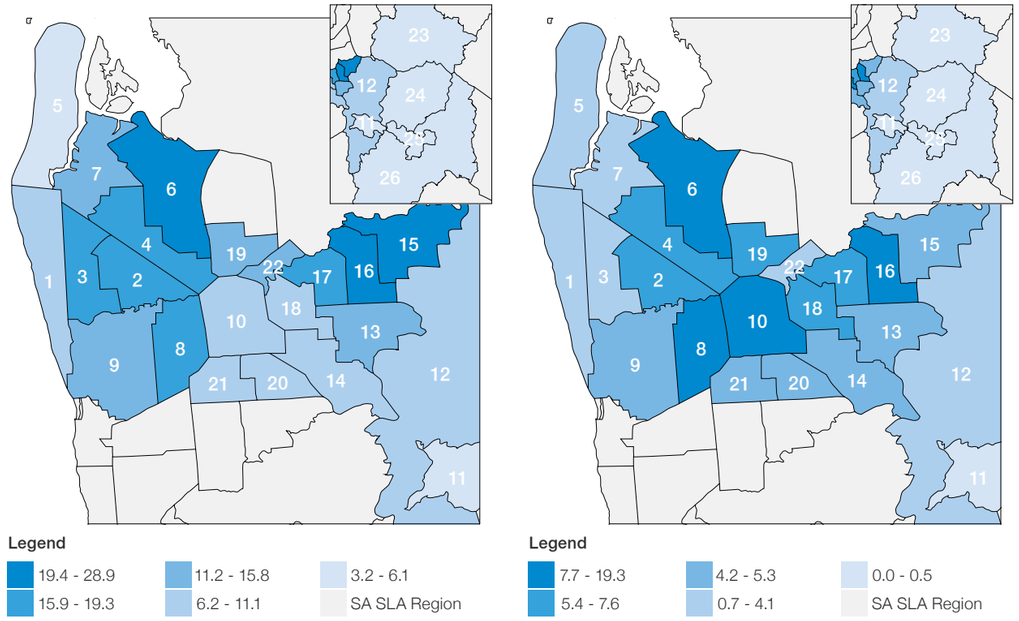


Figure 24: 'Percentage of CAHML population born in a NES country - Resident for five years or more' and 'Percentage of CAHML population born in a NES country - Resident for less than five'[60]



CULTURALLY AND LINGUISTICALLY DIVERSE COMMUNITIES

The largest NES migrant population in CAHML is from Italy, making up 2.8% of the total population.

Table 11: Statistical Local Areas (SLA) with the Highest Number of People Born in a NES Country, who have Lived in Australia for Five Years or more (2 Highest Quintiles)[61]

SLA with highest prevalence	People born in a NES country resident in Australia for five years or more	Total population	% born in a NES country resident in Australia for five years or more
Port Adelaide, Enfield (C) - Park	4,968	17,165	28.9
Campbelltown (C) - West	4,063	20,656	19.7
Campbelltown (C) - East	5,348	27,507	19.4
Charles Sturt (C) - North-East	5,331	27,649	19.3
Charles Sturt (C) - Inner West	4,738	24,752	19.1
Norwood, Payneham, St Peters (C) - East	2,780	16,840	16.5
Charles Sturt (C) - Inner East	3,584	21,956	16.3
West Torrens (C) - East	4,127	25,707	16.1
Central Adelaide and Hills (17th)	**64,578**	**493,529**	**13.1**
Greater Metropolitan Adelaide	**127,336**	**1,168,423**	**10.9**
Australia	**2,524,300**	**21,507,719**	**11.7**

Table 12: SLA's with the Highest Number of People Born in a NES Country, who have Lived in Australia for less than Five Years (2 Highest Quintiles)[62]

SLA with highest prevalence	People born in a NES country resident in Australia for less than five years	Total population	% born in a NES country resident in Australia for less than five years
Adelaide (C)	3,790	19,640	19.3
Port Adelaide, Enfield (C) - Park	1,959	17,165	11.4
West Torrens (C) - East	2,786	25,707	10.8
Campbelltorn (C) - West	1,730	20,656	8.4
Prospect (C)	1,507	19,957	7.6
Norwood, Payneham, St Peters (C) - East	1,221	16,840	7.3
Charles Sturt (C) - North - East	1,850	27,649	6.7
Norwood, Payneham, St Peters (C) - West	1,138	18,048	6.3
Charles Sturt (C) - Inner East	1,351	21,956	6.2
Central Adelaide and Hills (9th)	**26,407**	**493,529**	**5.4**
Greater Metropolitan Adelaide	**47,516**	**1,168,423**	**4.1**
Australia	**705,953**	**21,507,719**	**3.9**

2.3.3

CAHML Residents who were Born in Non-English Speaking Countries

The largest NES migrant population in CAHML is from Italy, making up 2.8% of the total population. This is higher than both GMA (1.7%) and Australia (0.9%) ranking CAHML 3rd when compared to other MLs in Australia.

Figure 25: Top Ten NES Countries of Origin of people living in Central Adelaide and Hills Medicare Local[63]

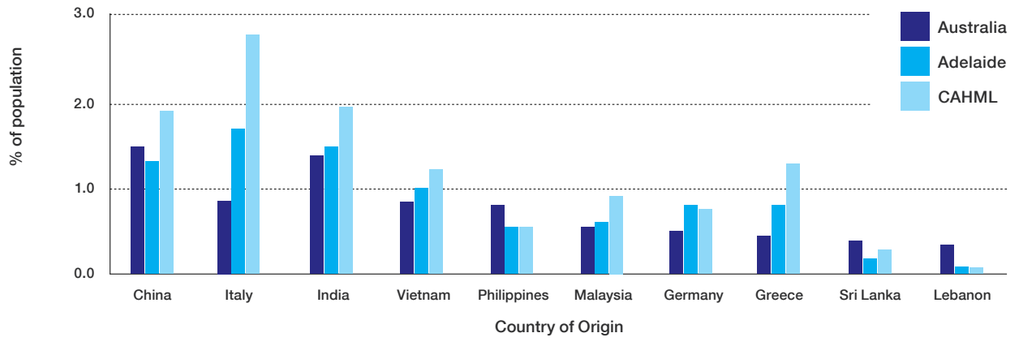
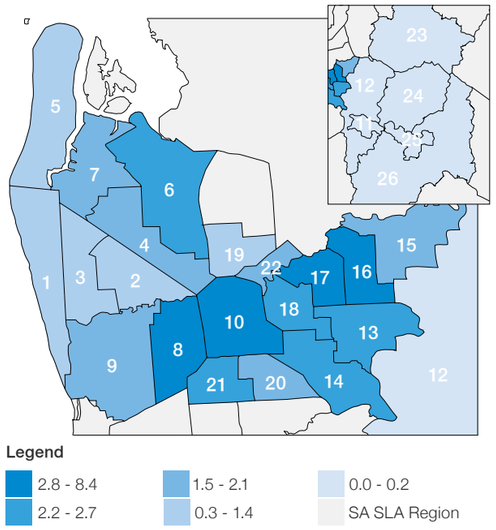


Figure 26 shows the geographic distribution within CAHML by the five most common NES countries of origin. As can be seen in all cases, distribution is concentrated in the metropolitan region of CAHML with lower population numbers in the more regional hills areas.

Figure 26: Geographic distribution of the five most common NES countries of origin[64]

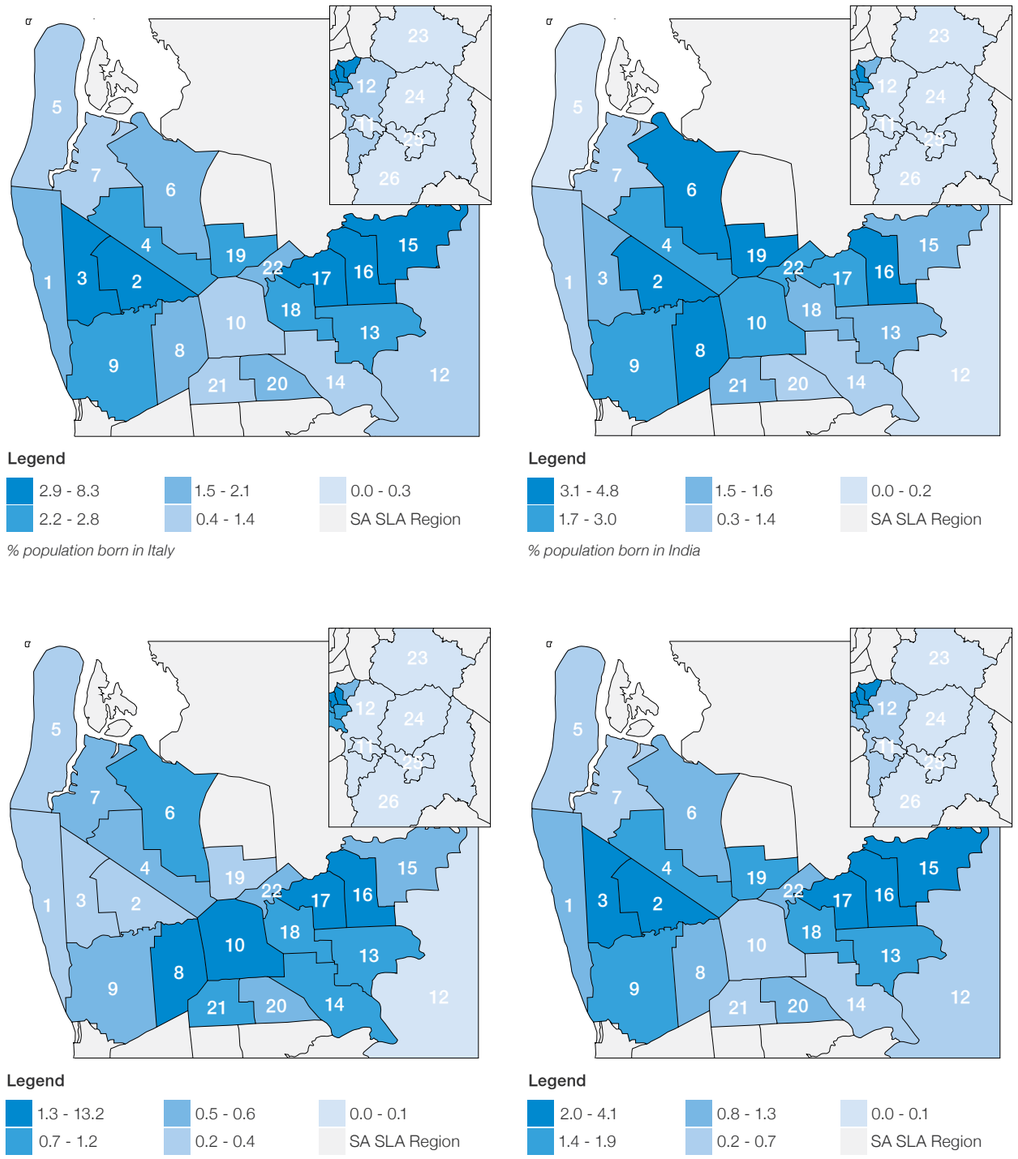


% population born in China (excluding special administrative regions of Hong Kong, Macau and Taiwan)

CULTURALLY AND LINGUISTICALLY DIVERSE COMMUNITIES

There were 30,349 migrant arrivals who settled in the CAHML region between January 2008 and January 2014.

(cont.) Figure 26: Geographic distribution of the five most common NES countries of origin (2011)[64]



2.3.4

Recent Migrant Arrivals (2008-2014)

There were 30,349 migrant arrivals who settled in the CAHML region between January 2008 and January 2014. Most arrivals (61%) migrated through the skilled visa stream, 21% migrated through the family stream and 7.3% through the humanitarian stream (the remaining % were unclassified). 2215 humanitarian entrants settled in the CAHML region and over half of those settled in the five following areas:

- Port Adelaide – Parks (n=364)
- Charles Sturt - North East (n=314)
- Charles Sturt – Inner East (n=229)
- Charles Sturt – Inner West (n=193)
- West Torrens – East (n=184)[65]

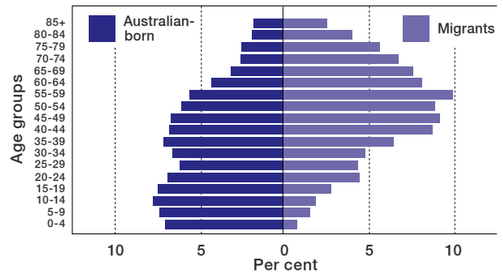
The top five countries of origin for CAHML humanitarian entrants were Afghanistan, Iran, Iraq, Burma and Ethiopia with 58% being aged between 16 - 44 years on arrival.[66]

2.3.5

Culturally and Linguistically Diverse Older Adults

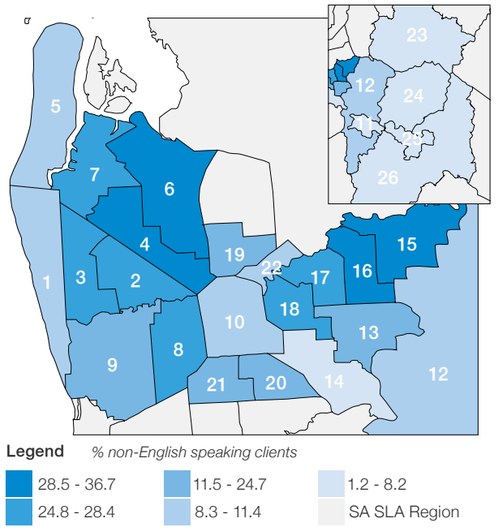
In 2006, the percentage of adults aged 65+ years born in a NES country was 21% of the 65+ South Australian population (49,000 people). As can be seen in Figure 27 age distributions of the SA migrant population is markedly different to the Australian born population. As per Figure 27, there is a greater number of the migrant population aged 65+ years compared to the Australian born population in South Australia.

Figure 27: Migrants and persons born in Australia, SA (2006)[67]



Significantly, the percentage of Home and Community Care (HACC) clients who are NES in the CAHML region is double the Australian rate, and reflects the high proportion of older CALD members in the CAHML region.

Figure 28: Percentage of HACC clients that are non-English speaking in the CAHML region (2011)[68]



Some services such as the Ethnic Link Services operate to support the ageing CALD population. It is a state-wide program funded by the Department of Human Services within the HACC program and aims to ensure people from CALD backgrounds have access to support to remain living in their own home. Their role is to ensure equity of access to mainstream services by providing language assistance, information and advocacy.

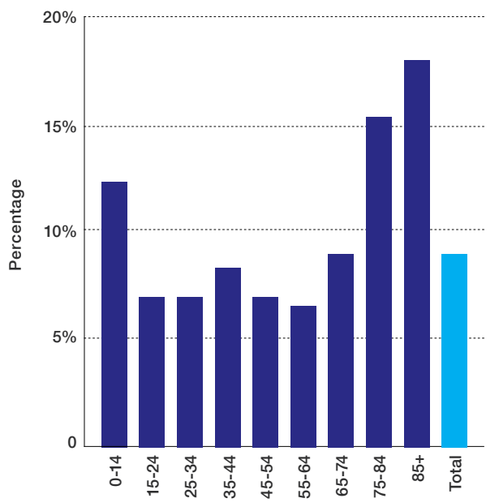
CULTURALLY AND LINGUISTICALLY DIVERSE COMMUNITIES

2.3.6

English Proficiency and Languages Spoken

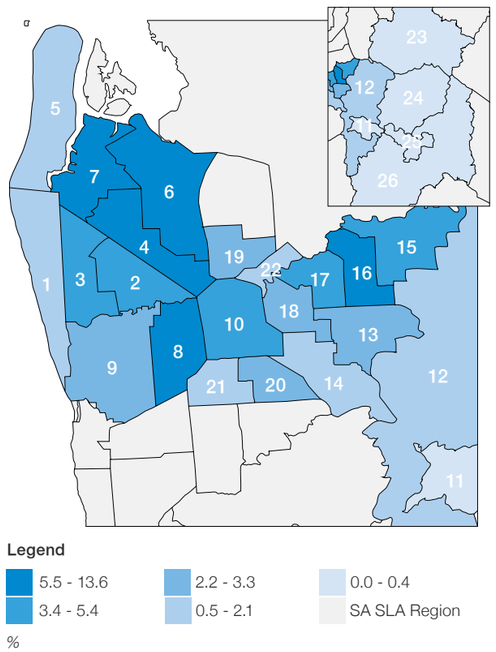
Language barriers are known to affect an individual's ability to access appropriate health care. This can result in reduced communication during medical appointments, leading to poorer health outcomes. People with limited English proficiency are often reliant on family, friends and community members to act as interpreters at appointments. People from new and emerging communities may have limited or no family or community networks to fulfil such a role, and as a result may be most impacted by language barriers and limited English proficiency. Figure 29 shows the age breakdown of South Australians who reported they speak English 'not well' or 'not at all' in the ABS 2011 Census of Population and Housing (South Australia). CALD people 75 years and over reported the highest proportions of low English proficiency.[169]

Figure 29: Age breakdown of South Australians who reported they speak English 'not well' or 'not at all' (2011)



Within CAHML, the rates of people born overseas who report limited proficiency in English are higher (3.5%) than both GMA (2.7%) and national (2.6%) levels. CAHML was ranked 12th when compared to MLs nationally. Within CAHML, Port Adelaide and Enfield – Park SLA had the highest percentage of people born overseas with 13.5% (n = 2171 people) reporting 'poor proficiency' in English (see Figure 30 and Table 13).

Figure 30: Percentage of population born overseas who speak English 'not well' or 'not at all' (2011)[70]



Between January 2008 and January 2014, 5,888 new migrants within the CAHML region reported as having limited English proficiency and 1532 people reported as having 'nil' English proficiency , with their main languages reported as Arabic, Cantonese, Dari, Farsi (Persian), Gujarati, Hindi, Korean, Mandarin, Nepali, Persian, Punjabi, Spanish and Vietnamese.

Table 13: People Born Overseas Reporting 'Poor Proficiency' in English 2011 (Top 2 Quintiles) within the CAHML Region[71]

SLA with highest prevalence	Number of people born overseas who have 'poor proficiency' in English	Total population	% born overseas who have 'poor proficiency' in English
Port Adelaide, Enfield (C) - Park	2,171	16,084	13.5
Charles Sturt (C) - North-East	1,955	25,949	7.5
West Torrens (C) - East	1,369	24,301	5.6
Campbelltown (C) - West	1,089	19,486	5.6
Port Adelaide, Enfield (C) - Port	569	10,182	5.6
Charles Sturt (C) - Inner West	1,261	23,500	5.4
Charles Sturt (C) - Inner East	1,044	20,590	5.1
Norwood, Payneham, St Peters (C) - East	739	15,937	4.6
Campbelltown (C) - East	968	26,062	3.7
Adelaide (C)	700	19,109	3.7
CAHML (12th)	**16,257**	**467,278**	**3.5**
Greater Metropolitan Adelaide	**29,751**	**1,098,602**	**2.7**
Australia	**513,583**	**20,086,671**	**2.6**

2.3.7

Health Care Access Barriers to CALD Communities

There are a range of health characteristics that demonstrate the poorer health status and outcomes of CALD communities (when compared to the general population of Australia). Higher rates of cancer, type 2 diabetes, obesity, hepatitis B and C, and mental health issues[72] are commonly seen amongst CALD communities. This can in part be explained by the barriers to health care experienced by CALD communities, including affordability and ability to navigate the health care system. Fear, related to accessing the health system, as well as distrust are sometimes evident and may relate to issues of grief, trauma and loss associated with experiences in either Australia or their country of origin.[73]

It also is well understood that culture-specific factors such as language, literacy and cultural and spiritual beliefs, as well as the process of settlement following migration, can all present significant obstacles to equitable access to services and programs. Each of these barriers can impact differently depending on an individual's culture, circumstances and needs.[74]

These barriers can be addressed by services tailoring programs to better reach particular cultural communities, providing health information in appropriate languages, providing translation services and connecting with CALD community leaders to increase awareness of available services and programs. Services may provide cultural awareness training to medical and health services staff to increase knowledge and cultural literacy.

CULTURALLY AND LINGUISTICALLY DIVERSE COMMUNITIES

A GP or health provider who did not speak the same language, especially for older people was a significant barrier, as was attendance at a specialist service with no access to an interpreter.

2.3.8

Qualitative Data Perspectives

Information from survey and focus group data collection (consumer, health provider and stakeholder engagement) specific to CALD communities highlights the following emerging issues within the CAHML community:

Chronic Disease

The most commonly reported health priorities for CALD people were for chronic diseases such as diabetes, cancer, heart disease, high cholesterol, blood pressure and overweight and or obese. For some CALD people, significant changes from traditional diets to a high intake of sugar, salt and fat has negatively impacted on health. Reduced amounts of exercise due to less physical work or being able to exercise safely in the community were also related issues. Respondents believed there was a need to educate communities early about the consequences of these choices and promoting healthy lifestyle options.

Mental Health

Mental health issues also ranked highly with respondents and specific issues included:

- Lack of knowledge in communities about types of mental health conditions,
- Lack of education regarding mental health conditions as a treatable illness which can then lead to stigma,
- People find it hard to speak about how they feel or admit that they are experiencing difficulties as from a cultural perspective they are fearful of being labelled,
- Depression; limited culturally specific support available and lack of knowledge within communities about the help that is available,
- Post-traumatic stress disorder; people may not be aware they have it, limited support available and lack of knowledge within communities about help that is available,
- Youth mental health including issues of addiction,
- Services that are used are not culturally appropriate; language barriers limit communication of issues. The use of interpreters that are members of their own community is problematic, as it leads to a loss of confidentiality with the community.
- Perception that doctors misdiagnose and too readily prescribe anti-depressant medication which leads to perpetuation or aggravation of conditions or dependence,
- Lack of follow-up services, or continuity of care with specialists,
- Treatment should be culturally specific and provide a range of options or alternatives for addressing an issue.

Access to services

Respondents indicated it was extremely important to be able to see their own GP and there was a reluctance to see another GP within the same clinic or at another service. It was revealed there were general concerns about having a regular GP that they felt comfortable with. Not having a regular GP led to delaying treatment and then accessing emergency hospital care when the condition worsened. Trying a known cultural treatment first was common, usually from traditional healers and community members practising traditional medicine. Traditional medicines may also be used by members of the community but not reported to mainstream doctors which increases the risks of medication mismanagement. Having a GP who is closely linked with the community was very important as the concept of community and GPs are interrelated.

Flexibility of opening hours was important and respondents believed it was hard to get convenient appointment times during work hours. It was also felt that access to weekend services and home visits for older persons was lacking.

A GP or health provider who did not speak the same language, especially for older people was a significant barrier, as was attendance at a specialist service with no access to an interpreter. Telephone interpreter services available through general practice were not always appropriate as different dialects are spoken and consumers were also concerned about speaking about personal issues with a stranger. Family members also had to give up their own time to attend appointments for family members who did not speak English to act as interpreters. Longer appointment times were also felt to be necessary due to cultural differences and language issues.

Affordability and cost of health services was an issue among CALD respondents, specifically the lack of bulk billing, and the cost of specialist and allied health services. Specialist costs were seen as high even with private health insurance. If accessing public services due to cost, the long wait times were of concern.

Transport was recorded as a common access issue with older generations relying on younger generations to take them to appointments or access public transport.

Knowledge about services or how to access them was a common issue. There was a need for more education and information about what services are available e.g. Local councils provide a number of services for CALD communities that are not always known and in a culturally appropriate format.

Cultural appropriateness

There was acknowledgement that the need for culturally appropriate services would require education on both sides; from health professionals treating CALD communities as well as the communities themselves and understanding the expectation of health services. There was a reluctance in communities to undertake screening programs i.e. mammograms and pap smears as they were not seen as culturally appropriate services. Access to female doctors/technicians was also important for females for cultural reasons.

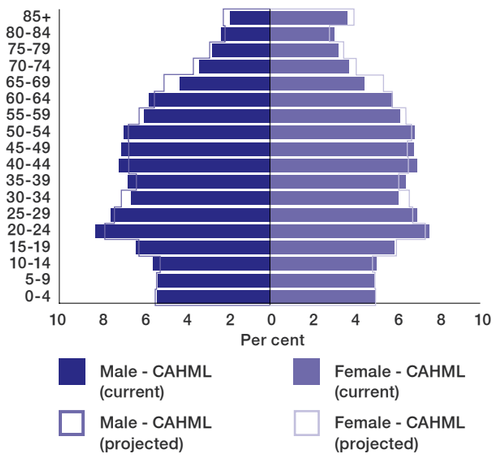
OLDER PEOPLE

The risk of health problems increases with increasing age as does the complexity of treating chronic conditions and multimorbidity. It is important to understand the age characteristics of a population, in order to better plan for appropriate services to meet community needs. People aged 65 years and over account for 30% of GP encounters in Australia,[75] while constituting only 14% of the population.[76]

In many western countries including Australia, there was a 'baby boom' in the years following the end of the Second World War between 1946 and 1961. This generation are now approaching the age of 70 years which has many implications for broad social and economic policy and planning, including health.

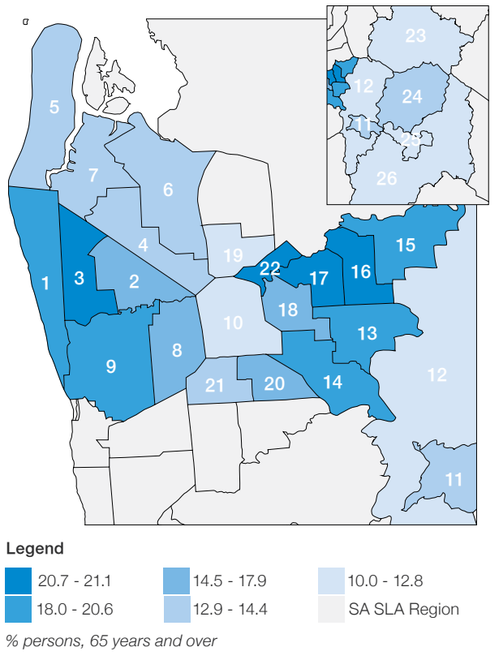
The population pyramid shown in Figure 31 shows the 2011 CAHML population in blue, with the projected 2025 CAHML population in blue outline. This clearly shows that in every age band above 64 years, the population will comprise a greater proportion of older people than it currently does.

Figure 31: CAHML Population pyramid (2011 vs 2015)[77]



According to the 2011 Australian Bureau of Statistics Census there were 84,925 people aged 65 years and older living in CAHML, comprising 16.6% of the population. The proportion of older people in CAHML is slightly higher than the GMA proportion of 15.8% and higher than the Australian proportion of 13.8%. As shown in Figure 32, there is considerable geographic variation across CAHML with the proportion of older people exceeding 20% in numerous SLAs. Table 14 shows the SLAs in CAHML with the highest proportions of older persons, in comparison with state, national and CAHML proportions.

Figure 32: Proportion of population in CAHML aged 65 years+, by SLA (2012)[78]



According to the 2011 Australian Bureau of Statistics Census there were 84,925 people aged 65 years and older living in CAHML, comprising 16.6% of the population.

Table 14: CAHML SLAs with Highest Proportion of People Aged 65 Years+ (2012)[79]

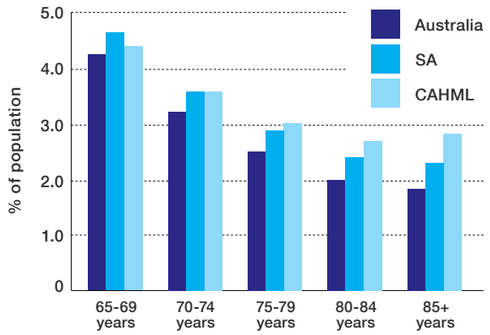
SLA with highest prevalence	Number of people 65 years and older	Total population	Proportion of population aged 65+ (%)
Walkerville (M)	1,529	7,262	21.1
Campbelltown (C) - West	4,464	21,302	21.0
Norwood, Payneham, St Peters (C) - East	3,638	17,503	20.8
Charles Sturt (C) - Inner West	5,317	25,620	20.8
Charles Sturt (C) - Coastal	6,524	31,688	20.6
West Torrens (C) - West	6,216	60,292	20.5
Burnside (C) - South-West	4,416	21,842	20.2
Burnside (C) - North-East	4,413	22,198	19.9
Campbelltown (C) - East	5,160	28,347	18.2
Unley (C) - East	3,624	20,273	17.9
Charles Sturt (C) - Inner East	3,825	22,614	16.9
CAHML (12th)	**84,925**	**511,246**	**16.6**
Greater Metropolitan Adelaide	**193,227**	**1,219,730**	**15.8**
Australia	**3,076,539**	**22,323,933**	**13.8**

2.4.1

Age Distribution

Figure 33 shows the age distribution of people 65 years and over in five year increments for CAHML, South Australia and Australia. The data highlights that CAHML has a larger proportion of people aged 80 years and over than the South Australian and Australian averages. CAHML is the highest ranked ML in Australia for proportion of population aged 85 years and older.

Figure 33: Older people as proportion of population, by 5 year age band, across CAHML, SA and Australia (2012)[80]



2.4.2

Age Pension Recipients

The age pension is provided by the Australian Government to people aged over 65 who meet eligibility criteria, including thresholds for other income sources. The basic rate per fortnight (as at September 2014) for a single person is $766 and $1154 for couples.[81] CAHML has just over 60,000 people receiving an age pension. The Charles Sturt and Port Adelaide Enfield local government areas have over 85% of the older population receiving an age pension while Burnside, Walkerville and Adelaide City have less than 50% of older people receiving an age pension. This reflects the socio-economic profile of these regions. Overall, CAHML has a lower proportion of the older population in receipt of an aged care pension at 71.3%, compared with South Australia at 77.2% and Australia at 74.6%.[82]

OLDER PEOPLE

Many older people remain healthy and independent well into their seventies and beyond, while others experience increasing levels of ill health and functional decline at earlier ages.

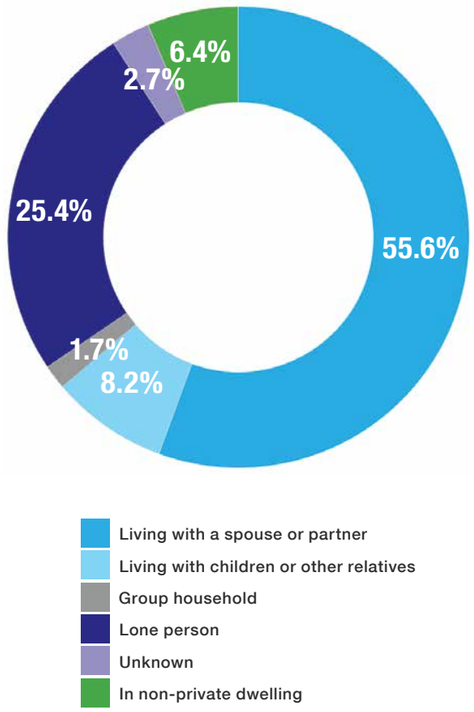
2.4.3

Living Arrangements

Living arrangements have implications for health service delivery and access, particularly for older people with limited mobility and those unable to drive. Most older people are able to live independently in their own homes and access family, friends and community assistance as their needs change.[83] In CAHML in 2011, most people aged 65 years and over lived in a private dwelling (93.6%) either with a husband, wife or partner (56%); or lived alone (24%). A small proportion of older people lived with other relatives such as their brother or sister or their children (8.2%). This is shown in Figure 34. People aged 65–74 years were most likely to be living with a spouse or partner (67%) and people aged 85 years and over were the least likely (23%). This reflects the increased death rates at older ages which leave many people widowed, and a higher proportion of people living in residential care accommodation at older ages.[84]

South Australian survey data correlates with national data where more than half the survey respondents are living with a spouse or partner and 25% are living alone. 48% of those aged 80 and over live alone.[85] Home and Community Care data for the CAHML region reveal that 39.5% of clients live alone.[86] In 2026 it is projected that up to 42% of the 75 yeaers and older population in South Australia will live alone. The remaining older population will be living with their partner who is likely to be of a similar age.[87]

Figure 34: Living Arrangements of Older People in CAHML[88]



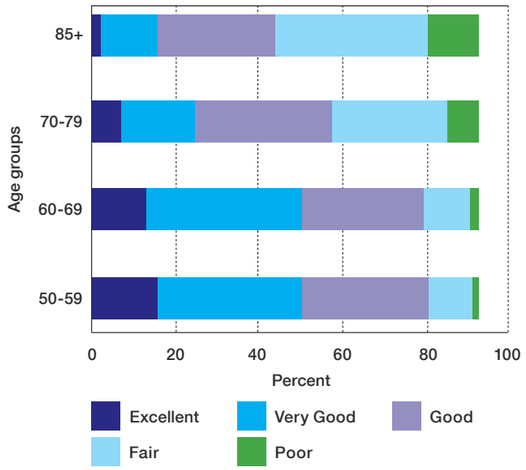
2.4.4

Health Profile of Older People

There is great diversity in the health and wellbeing of older people. Many older people remain healthy and independent well into their seventies and beyond, while others experience increasing levels of ill health and functional decline at earlier intervals. Normal ageing involves gradual physical and mental changes which impact on vision, hearing, memory, motor-sensory skills, mobility and balance. Ageing also brings increased risk of acute and chronic diseases. The rate of decline is influenced by a complex range of genetic, biological, behavioural and environmental factors.

A South Australian survey[89] of older people found that 92% of survey respondents selected health and wellbeing as an important aspect of growing older. The results also showed a clear decline in self-rated health with age as seen in Figure 35. Approximately 40% of those aged 70-79 years, and more than 50% of those aged over 80 years rated their health as fair or poor. The health issues that most affected daily activities were vision (22%) and mobility (19%).

Figure 35: Self-rated health of older people in South Australia (2014)[90]



2.4.5

Chronic Disease and Multi-Morbidity

The prevalence of chronic disease increases with age. According to the National Health Survey, 99% of people aged 75 years and over reported at least one long term condition, compared with 87% of those aged 15 years and over.[91]

The National Health Survey (NHS) 2007–08 showed that the long-term health condition most commonly affecting people aged 65 years and over was long-sightedness (53% of males and 57% of females), followed by deafness for older males (43%) and hypertensive disease (high blood pressure or related conditions) for older females (38%). Around a third of older males and females in the NHS reported they were short-sighted (32% and 36% respectively), the third most common condition for both. For people aged 85 years and over, deafness was the most common long-term health condition reported (57% of males and 52% of females).[92]

Multi-morbidity is most simply defined as the co-occurrence of two or more chronic medical conditions in one person.[93] It has also been defined by the European General Practice Research Network as any combination of chronic disease with at least one other disease (acute or chronic) or bio-psychosocial factor (associated or not) or somatic risk factor.[94]

The risk of multi-morbidity increases with age, but it is not limited to older people. It is estimated that half of people aged 45 to 65 years, two thirds of people aged over 60 years, and 80% of people aged over 75 years experience multimorbidity.[95] Multi-morbidity increases the risk of death; hospitalisation, longer hospital stays, polypharmacy and reduced quality of life, and has implications for health service costs both to the individual and to the health system.[96] The complex interaction of conditions and treatments mean that multi-morbidity is particularly challenging to manage for both service providers and patients. It is recognised in Australia and internationally that fragmented health systems are not well suited to managing multi-morbid patients, and that integrated health care models and individually tailored treatment plans are required to improve care of patients with multimorbidities.[97 98]

OLDER PEOPLE

In South Australia, the 2011 estimate of dementia prevalence is 26,500 people (9,700 males, 16,700 females). This is expected to increase by 26.7% to 33,500 people by 2020.

Table 15: Multi-Morbidity Matrix (% of Patients)[99]

	Diabetes	Asthma	Hypertension	Mental Health	COPD	Coronary Heart Disease	Stroke	CRD/I	Osteoporosis	Dementia	Osteoarthritis
Diabetes	100	10.5	71.8	20.9	7.7	26.5	8.6	5.8	22.1	3.7	38.4
Asthma		100	62.9	25	18.2	22	6.5	3.4	32.8	2.7	49.2
Hypertension			100	20.5	6.9	28.6	8.6	4.7	25.7	3.8	38.4
Mental Health				100	7.6	20.3	9.2	1.4	31.6	6	44.3
COPD					100	37.2	8.7	5	33.1	5.3	10.7
Coronary Heart Disease						100	36.2	7.7	24.9	5.5	38.1
Stroke							100	7.3	29.9	8.3	41.3
CRD/I								100	27.3	5.4	43.9
Osteoporosis									100	5.1	45.4
Dementia										100	39.6
Osteoarthritis											100

Table 15 shows the proportions of general practice patients in a representative sample of CAHML practices (all ages) that experience combinations of chronic health conditions.

2.4.6

Dementia

Dementia is a term used to describe a range of degenerative conditions that are characterised by impaired brain function. Impairments can affect language, memory loss, perception, personality and cognitive skills, and can lead to a loss of intellect, rationality, social skills and normal emotional reactions.[100] The type and severity of symptoms will vary depending on the type of dementia and the stage of the condition. The most common type of dementia is Alzheimer's disease, which accounts for around 75% of all dementia diagnoses.[101] The risk of developing dementia increases with age.

Dementia has significant health service delivery and cost implications. Anticipating and responding to the changing needs of people with dementia remains a continuing challenge for the health and aged care system.[102] A person in the late stages of dementia will present with many symptoms and is likely to require 24 hour care. It is anticipated that by 2016, dementia will be the major cause of disability for Australians, overtaking cardiovascular disease, cancer and depression.[103]

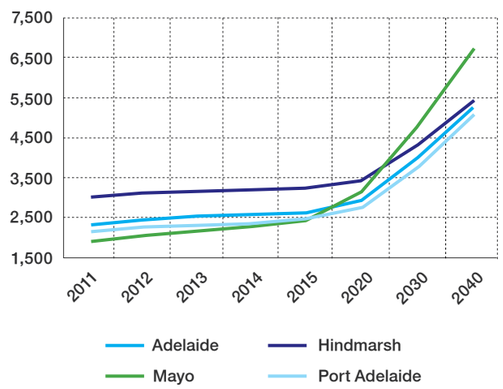
It is estimated that 9% of people aged over 65 years, and 30% of people aged over 85 years have dementia.[104] Given the high proportions of older people in CAHML, dementia is a significant issue in this region. Females are overrepresented in dementia prevalence estimates, accounting for 62% of dementia cases.

Dementia prevalence has increased in recent years, although the extent of this increase has been difficult to quantify due to changing methods for estimating dementia prevalence. This also creates difficulty in estimating increases in dementia prevalence into the future, and there are a number of factors that could impact this, such as unanticipated changes in population demographics, and advances in dementia prevention and/or treatment. It is estimated that the number of people with dementia will increase by around 200% between 2011 and 2050.[105] The largest increase will occur in the decade to 2020, explained by the 'baby boomers' moving into the older age groups, where the risk of dementia is greatest.

In South Australia, the 2011 estimate of dementia prevalence is 26,500 people (9,700 males, 16,700 females). This is expected to increase by 26.7% to 33,500 people by 2020.

While dementia prevalence data is not available at SLA level, a report by Deloitte Access Economics found two South Australian Electorates which fall within CAHML have the two highest counts of people with dementia in Australia: Hindmarsh with 3003, and Sturt with 2671. Dementia cases are predicted to increase significantly in CAHML electorates, as shown in Figure 36.[106]

Figure 36: Dementia prevalence projections by federal electoral division[107]



At present there is no cure for dementia, and prevention is one of the best approaches for reducing the impact on individuals and the community into the future. A range of lifestyle factors have been shown to reduce the risk and severity of dementia, including mental, social and physical activity, nutritious diet, healthy weight, reducing blood pressure and cholesterol, and not smoking. Screening can be used for early detection of dementia, and early intervention with a treatment plan combined with lifestyle factor modification can be implemented to minimise symptoms and slow disease progression.[108]

OLDER PEOPLE

2.4.7

Osteoporosis

Osteoporosis is a common condition in which bones become fragile, leading to increased risk of fracture from minimal trauma. Osteoporosis is low bone density, which results from bones losing minerals (primarily calcium) at a faster rate than the body can replace them. The most common bones to fracture are the hip, spine, wrist, upper arm, ribs or forearm, but any bone can be affected. Fractures of the spine can lead to changes in posture or height. Osteoporosis usually has no symptoms until a fracture occurs, and approximately 50% of people who have an osteoporotic fracture, will have further fractures. Fractures can lead to chronic pain, disability, loss of independence and even premature death.

Osteoporosis affects 1.2 million people in Australia, and this is expected to increase to 3 million by 2021.[109] There are a number of non-modifiable risk factors for osteoporosis. Post-menopausal females have increased risk, due to rapid decrease in oestrogen levels during menopause, resulting in loss of calcium from bones. Men also lose bone density as they age, however the hormonal changes associated with ageing in men are less rapid than those experienced by women.

Risk of osteoporosis can be genetically inherited, and various medical conditions can also increase the risk of developing osteoporosis, such as:

- Low hormone levels
- Thyroid conditions
- Malabsorption conditions such as coeliac disease or inflammatory bowel disease
- Some chronic diseases such as rheumatoid arthritis, chronic liver or kidney disease

Certain medications can also increase the risk of osteoporosis, such as:

- Corticosteroids – commonly used for asthma, rheumatoid arthritis and other inflammatory conditions,
- Cancer chemotherapy,
- Epilepsy medication
- Some anti-psychotics.

There are a number of modifiable risk factors for osteoporosis, which can help build and maintain healthy bone density throughout life, from childhood to old age. These include:

- Inadequate dietary calcium intake. Adults require 1,000 mg per day, increasing to 1,300 mg per day in women over 50 and men over 70.
- Low vitamin D levels, (which occurs due to insufficient exposure to sunlight)
- Low levels of physical (weight bearing) activity
- Smoking
- Excessive alcohol intake
- Being overweight or underweight

People aged 85 years and over comprised 42.8% of falls cases requiring hospitalisation.

Osteoporosis occurs mainly in older people with 84% of cases being 55 years or over. One in two postmenopausal women and one in three men over the age of 60 years will suffer an osteoporosis-related fracture. Mortality is increased after all fragility fractures, particularly hip fractures. Over one in four people who suffer a hip fracture will die during the first year and less than one-third will regain their pre-fracture level of mobility.[110]

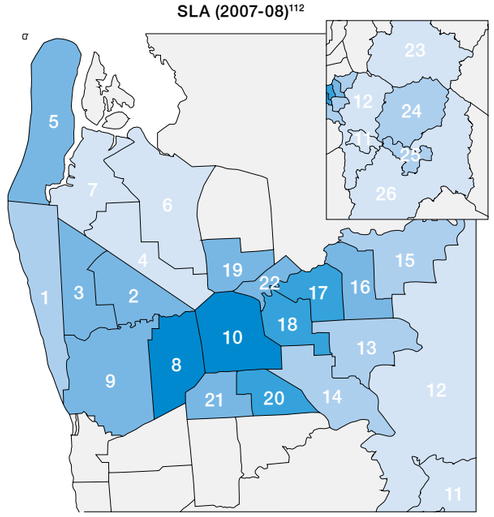
The proportion of females with osteoporosis in CAHML is 5 per 100, which is slightly lower than the average Australian rate of 5.3 per 100. There are several SLAs in CAHML with higher rates; in particular Adelaide (City Council) has a rate of 6.8 per 100. The SLAs with the highest rates of osteoporosis in females are shown in Table 16.

Table 16: CAHML SLAs with the Highest Proportions of Females with Osteoporosis (2007-08)[111]

Females with Osteoporosis	Number	ASR per 100
Adelaide (C)	526	6.8
West Torrens (C) - East	787	5.5
Unley (C) - East	723	5.4
Norw. P'ham, St Ptrs (C) - West	607	5.4
Norw. P'ham, St Ptrs (C) - East	687	5.3
Unley - West	516	5.2
Charles Sturt - Inner East	737	5.2
Port Adel. Enfield - Coast	887	5.2
Campbelltown - West	772	5.2
CAHML	**15,322**	**5.0**
Greater Metropolitan Adelaide	**32,247**	**4.8**
Australia	**567,167**	**5.3**

Figure 37 shows the geographic distribution of osteoporosis in females across CAHML. The available data does not show osteoporosis rates for males or combined rates, by SLA.

Figure 37: Females with osteoporosis within CAHML by SLA (2007-08)[112]



Legend *ASR per 100*

- 5.5 - 8.5
- 5.3 - 5.6
- 5.1 - 5.2
- 4.6 - 5.0
- 4.1 - 4.5
- SA SLA Region

SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

OLDER PEOPLE

People aged 70 years and older account for approximately 38% of hospital admissions of CAHML residents, yet only constitute around 12% of the CAHML population.

2.4.8

Falls Prevention

Falls represent a significant health issue among older people, with 2011-12 data showing that across Australia, 96,385 people aged 65 years and over required hospitalisation as a result of a fall. Twice as many women as men were hospitalised for a fall, and the number of falls cases increased with age. People aged 85 years and over comprised 42.8% of falls cases requiring hospitalisation. The most commonly recorded cause of fall injury was falling on the same level from slipping, tripping and stumbling, which accounted for 33% of falls.[113] Estimates of the annual prevalence of falls among people aged 65 years and over in South Australia range from 27.3% to 36.4%.[114] Of most relevance to CAHML is the estimate gained through the North West Adelaide Health Study, which partly sources subjects from within the western part of the CAHML region. This study found that 33.9% of people (all ages) had experienced a fall in the past year. Of these, 3.8% had experienced a fracture as a result of falling in the past year, and 6.3% in the past 5 years.[115] The prevalence of falls in people aged 50 years and over was very similar (33.1%), but the risk of sustaining a fracture as a result of falling was significantly higher in the 50+ years group (6.2% vs 2.0%).

The most common site of fracture resulting from a fall is to the wrist (30%), with other common sites including the upper arm/shoulder (15%), ribs (15%), ankle (9%), hip (8%), and spine (7%). Approximately 30% of fractures were sustained at other sites.[17] Falls can also result in bruising, sprains and abrasions, and a fear of falling that reduces confidence and restricts activity.

Some strategies that can reduce the risk or consequences of falling include:

- Exercise programs (to develop strength and balance to reduce the likelihood of falling)
- Vitamin D supplementation (to increase bone density and reduce the likelihood of fracture)
- Reduce the use of benzodiazepines (i.e. insomnia/anxiety medications)
- Optimised vision (cataract surgery, appropriate use of multifocal or single lens glasses)
- Home modifications

2.4.9

Health and Aged Care Services for Older People

Hospital Service

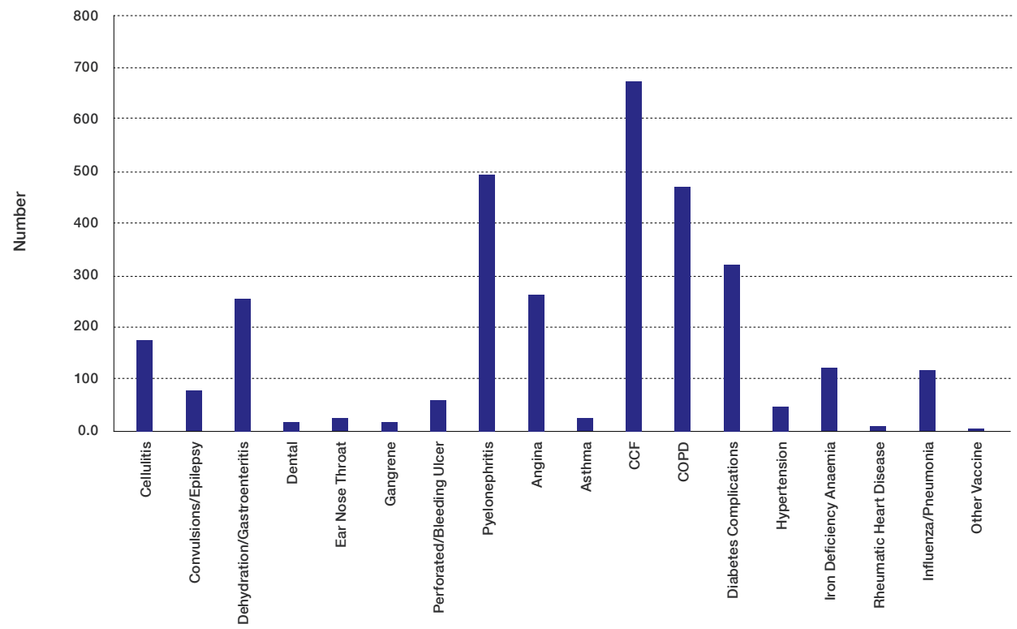
People aged 70 years and older account for approximately 38% of hospital admissions of CAHML residents,[116] yet only constitute around 12% of the CAHML population.[117] People aged over 85 years account for around 10% of hospital admissions[18], yet only 3% of the population.[27]

SA Health data for the 2011/2012 year showed there were 29,544 inpatient hospital separations of people aged over 75 years. Of these, 3,091 were 'potentially preventable' as illustrated in Figure 38.

The top 4 conditions were:

1. Congestive Cardiac Failure
2. Chronic Obstructive Pulmonary Disease
3. Pyelonephritis - inflammation of the kidney and upper urinary tract
4. Diabetes complications

Figure 38: Numbers of 'Potentially Preventable Admissions' of CAHML residents aged 75+ years, by condition (2011-12)[118]



2.4.10

Residential and Community Aged Care Packages

The Australian Government funds a range of organisations to provide aged care services, in residential aged care facilities and to older people living in the community. Older people are assessed either by an aged care service provider, or by an Aged Care Assessment Team (ACAT) to determine eligibility and appropriateness of services. ACAT assessment is essential for entering residential aged care. Residential aged care facilities offer 'high care' and/or 'low care' services. 'High care' refers to high level care for people who require significant (24 hour) assistance with activities of daily living such as feeding, dressing, bathing, toileting and mobility, as well as accommodation, cleaning, laundry and meals. 'Low care' is for people who require accommodation, meals, laundry, room cleaning as well as some help with personal care.[119] Table 17 overleaf shows the numbers of aged care packages in the CAHML region, which increased by 7% between 2011 and 2012.

The proportion of CAHML residents aged 70 and over with residential aged care packages is slightly higher than the South Australian and Australian rate, however the proportion with community aged care packages is lower, as shown in Figure 39 overleaf. This is possibly explained by the fact that CAHML has a higher proportion of its population aged 75 and above, and the highest proportion of people aged 85 and over in Australia.

OLDER PEOPLE

The most commonly reported health priority for older people was the ability to access services and navigate the health system generally.

Figure 39: Aged Care packages per 1,000 people aged 70 years and over

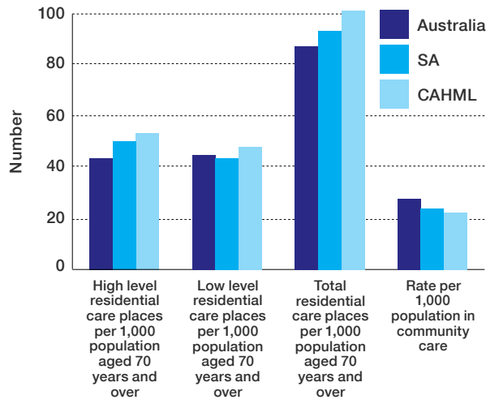


Table 17: Aged Care Packages in CAHML, 2011 and 2012[120]

	Total Packages	Residential - High Care	Residential - Low Care	Community Package
June 2011	7689	3294	2980	1415
June 2012	8227	3437	3037	1753

There are 86 residential aged care facilities in the CAHML region.[121] Of these, 31 provide high care only, 24 provide low care only and 31 provide both high and low care. Thirty-five aged care facilities are operated by religious organisations, 20 by private incorporated bodies, 15 by charitable organisations, 13 by community based organisations, two by state government and one by local government. There are also two state government operated transitional care facilities for older people transitioning from hospital care back to their own homes in the community. There are approximately 39 community aged care service providers based in the CAHML region, however service delivery is not limited to the CAHML region.

Figures 40 and 41 shows the locations of residential aged care facilities against the proportion of people aged over 65 years in the population, with an indication of high and low care bed numbers respectively.

Figure 40: High Care Residential Aged Care Facility Beds and proportion of population aged 65+ years, in CAHML (2011)[122]

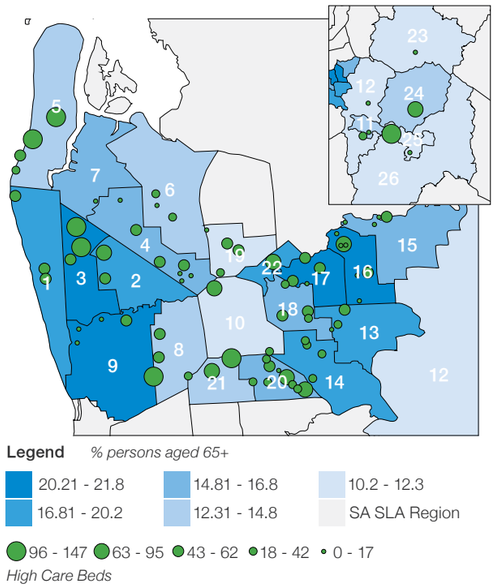
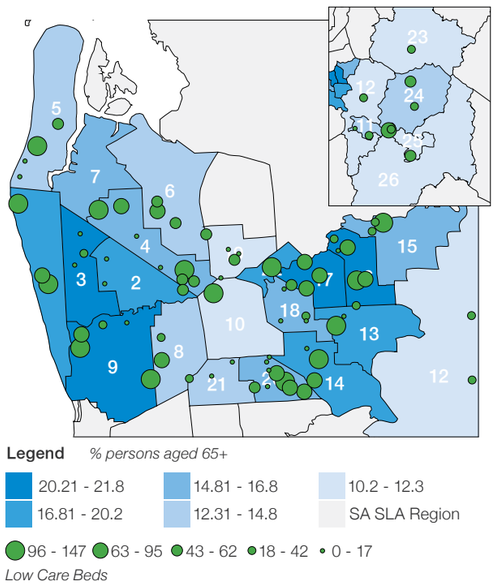


Figure 41: Low Care Residential Aged Care Facility beds and proportion of the population aged 65+ years in CAHML[123]



2.4.11

Qualitative Data Perspectives

Information from survey and focus group data collection (consumer, health provider and stakeholder engagement) specific to older persons within the CAHML community identified the following emerging issues:

Main Health Priorities

The most commonly reported health priority for older people was the ability to access services and navigate the health system generally. There was a lack of awareness of service options and people did not know what services were available and how to access them. Oral health and access to dental services was a priority specifically relating to the cost of dental care and knowing how to access public dental services. Certain chronic conditions such as diabetes, heart disease, arthritis and dementia were also priorities.

Affordability

It was accepted that people require a broader range of services as they age (including allied health services) and that the cost of seeing multiple providers was an issue, especially when needing to access private services. Ability to access bulk billing was an important consideration when accessing health care and making a decision whether 'they could afford to go to the doctor'. Being aware of upfront costs prior to attending medical appointments was important for people who were on fixed incomes. The cost of medication was also a factor, especially for those with multiple health conditions.

Transport Issues

Transport was an issue for older people due to either a lack of public transport, the cost of owning/maintaining a motor vehicle or the inability to drive. In some cases people lacked the confidence to use public transport independently due to their health conditions. Lack of access to reliable and appropriate transport in the Adelaide Hills was a common response for people within the Adelaide Hills and Mount Barker regions and in other regions where transport did not run across suburbs.

Access to Health Services

Continuity of care and being able to attend appointments with their regular GP was a top priority for older persons. Not being able to get an appointment at the point when care was needed was a significant cause of anxiety. A common issue raised was the feeling of not being listened to or being rushed during a consultation, and they believed that insufficient time was allocated for appointments which did not allow for all of their health issues to be discussed.

Medication Management

Being able to manage medications was seen as a difficulty, especially when brands change and the medications appear different; generic vs branded medications, different packages and different pill size and/or colour. This can also lead to medications not being taken or not being taken at the correct dose or time.

Maintaining Health

Respondents believed that early intervention and prevention were the main contributors to good health and the ability to remain physically and mentally capable was very important. Being able to enjoy life and not be a burden on family was also important. Loneliness and social isolation was a significant issue for those who lived alone or did not have any family supports.

DISABILITY

People with disabilities generally have poorer health characteristics, lower educational achievements, fewer economic opportunities and higher rates of poverty than people without disabilities.

People with disabilities generally have poorer health characteristics, lower educational achievements, fewer economic opportunities and higher rates of poverty than people without disabilities. This is largely due to the lack of services available to them and the many obstacles they face in their everyday lives.[124]

2.5.1

Population Demographics

According to the 2011 Census,[125] there were 26,411 (5.4%) people reported to have a profound or severe disability within the CAHML population. This is essentially the same level as GMA at 5.5%, and higher than the Australian rate which is 4.6% of the population. Across CAHML SLAs there is a range from the highest of 8% in Port Adelaide Enfield – Park and the lowest of 2.2% in Adelaide Hills – Central (Figure 42). CAHML is ranked 19th from the 61 MLs in regards to people reported to have a profound or severe disability, and 9th for those aged 65 and over.

Figure 42: People with a profound or severe disability as a proportion of the total population in CAHML (2011)[127]

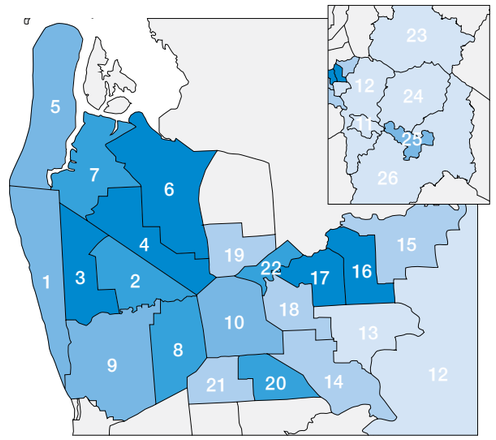
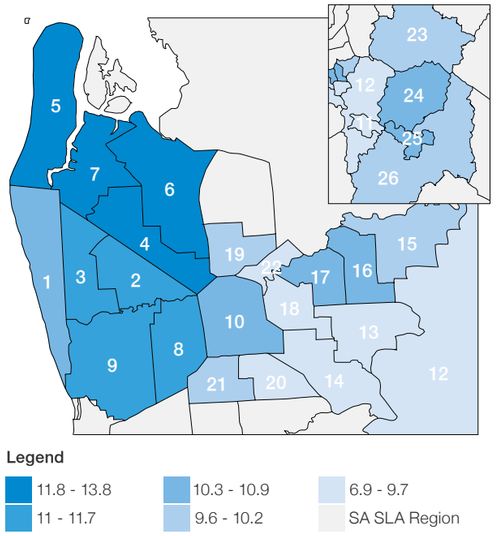


Figure 43: Self-reported core activity restriction as a proportion of the total population in CAHML (2011)[128]



Individuals who experience a core activity restriction (core activities are defined as self-care, mobility and communication) were found to reside primarily in the western area of CAHML. The prevalence ranges from 8.9 Age Standardised Rate (ASR) per 100 in the eastern metropolitan suburbs of CAHML to 13.8 ASR per 100 in the western suburbs of CAHML. (Figure 43 and Table 18).

Table 18: SLAs with the Highest Proportion of People with a Profound or Severe Disability in CAHML (Top 2 Quintiles) (2011)[126]

Region	Persons with a profound or severe disability	% people with a profound or severe disability
Port Adel. Enfield (C) - Park	1,366	8.0
Charles Sturt (C) - Inner West	1,744	7.0
Campbelltown (C) - West	1,434	6.9
Charles Sturt (C) - North-East	1,901	6.9
Norw. P'ham, St Ptrs (C) - East	1,152	6.8
Unley (C) - East	1,275	6.5
Charles Sturt (C) - Inner East	1,414	6.4
West Torrens (C) - East	1,592	6.2
Port Adel. Enfield (C) - Port	667	6.2
Walkerville (M)	404	5.9
Port Adel. Enfield (C) - Coast	1,669	5.8
CAHML	**26,411**	**5.4**
Greater Metropolitan Adelaide	**63,571**	**5.5**

2.5.2

Age Distribution

Given CAHML's ageing population it is not surprising to see that the region contains a marginally higher number, compared to national figures, of persons aged 65 years and older who have a profound or severe disability. CAHML has a prevalence of 20.4 % of people aged 65 years and older with a profound or severe disability, compared to GMA at 19.6% and Australia at 17.8% (Table 19). CAHML has a slightly lower rate of persons (2.3%) from age 0 – 64 years than GMA (2.9%) and Australia (2.5%) with a profound or severe disability.

Figure 44: Age distribution for % of persons with a profound or severe disability (2011)[130]

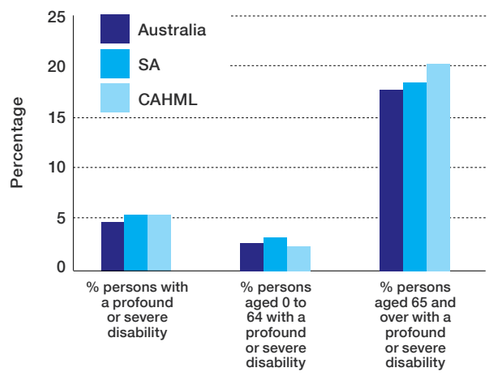


Table 19: Age Distribution for the Number and % of Persons with a Profound or Severe Disability (2011)[131]

	Persons with a profound or severe disability	% people with a profound or severe disability	Persons with a profound or severe disability, 0 to 64 years	% people aged 0 to 64 with a profound or severe disability	Persons with a profound or severe disability, 65 years and over	% people aged 65 and over with a profound or severe disability
Australia	998,603	4.6	461,323	2.5	537,280	17.8
Greater Metropolitan Adelaide (GMA)	63,771	5.5	28,399	2.9	35,172	19.6
CAHML	26,411	5.4	9,450	2.3	16,961	20.4

DISABILITY

Figure 45 provides a comparison of all persons, younger (0-64 years) and older (65+ years), and the geographic distribution (%) of persons with a severe or profound disability. These figures indicate that the geographic distribution varies slightly with more people aged 0 – 64 years with a profound or severe disability residing in the western regions and the older population in western and central region. Tables 20 and 21 show the SLAs within the CAHML region with the highest proportion of persons with a profound or severe disability for 0 to 64 years and 65 years and over respectively.

Figure 45: Comparison of the younger and older age demographic vs. geographic distribution for percentage with a profound or severe disability (2011)[132]

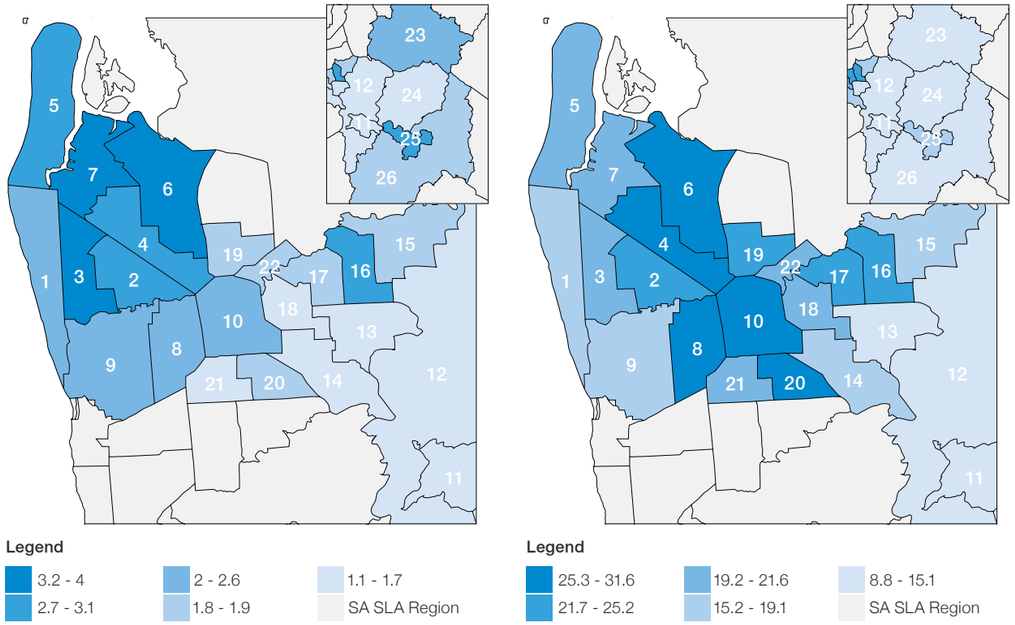


Table 20: Persons with a Profound or Severe Disability, 0 to 64 Years, within the CAHML region, by SLA (2011)[133]

SLA	Persons with a profound or severe disability, 0 to 64 years	Population aged 0 to 64 years	% people aged 0 to 64 with a profound or severe disability
Port Adelaide, Enfield (C) - Park	583	14,652	4.0
Port Adelaide, Enfield (C) - Port	359	9,089	3.9
Charles Sturt (C) - Inner West	618	19,350	3.2
Port Adelaide, Enfield (C) - Coast	756	23,742	3.2
Charles Sturt (C) - North-East	746	23,447	3.2
Campbelltown (C) - West	465	16,168	2.9
Charles Sturt (C) - Inner East	519	18,075	2.9
Mount Barker (DC) - Central	483	17,787	2.7
CAHML	**9,450**	**410,144**	**2.3**
Greater Metropolitan Adelaide	**28,399**	**979,234**	**2.9**
Australia	**461,323**	**18,495,432**	**2.5**

Table 21: Persons with a Profound or Severe Disability, 65 Years and Over, within the CAHML region, by SLA (2011)[134]

SLA	Persons with a profound or severe disability, 65 years and over	Population aged 65 years and over	% people aged 65 and over with a profound or severe disability
Port Adelaide, Enfield (C) - Park	783	2,443	32.1
Charles Sturt (C) - North-East	1,155	3,854	30.0
Unley (C) - East	991	3,524	28.1
West Torrens (C) - East	1,030	3,850	26.8
Norwood, Payneham, St Peters (C) - East	896	3,465	25.9
Unley (C) - West	575	2,402	23.9
Charles Sturt (C) - Inner East	895	3,915	22.9
Campbelltown (C) - West	969	4,276	22.7
Prospect (C)	559	2,467	22.7
Charles Sturt (C) - Inner West	1,126	5,089	22.1
CAHML	**16,961**	**82,350**	**20.6**
Greater Metropolitan Adelaide	**35,172**	**179,868**	**19.6**
Australia	**537,280**	**3,012,287**	**17.8**

DISABILITY

There are 49,128 people providing this assistance or 11.9% of the population.

2.5.3

Service Availability and Usage

National Disability Agreement (NDA)

The following data has been informed by the 2011/2012 Disability Services National Minimum Data Set. It includes the services and service outlet information for agencies and outlets that were funded by the NDA during the 2011/12 financial year. There are 980 service outlets in South Australia identified in this report, of which 234 (24%) are government and 746 (76%) are non-government. The service type categories include accommodation (54%), community access (17%), community support (12%), respite (12%), information/ advocacy (2%) and other (3%).[135]

Service Outlets by Government Region

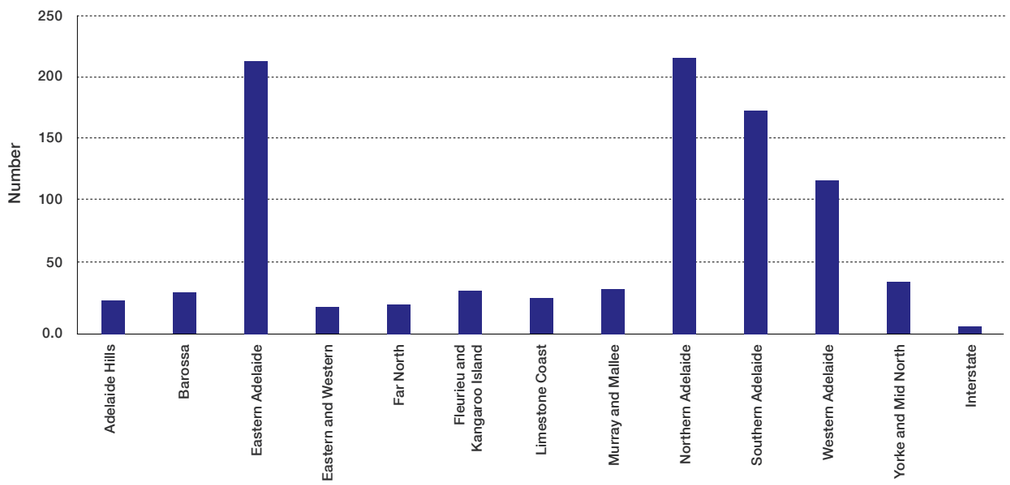
The CAHML region includes the Government regions of Adelaide Hills, Eastern Adelaide and Western Adelaide as highlighted in dark blue in Figure 46. This shows a total of 331 service outlets in the CAHML region, which is 38% of the service outlets in South Australia.

There were 19,561 unique individuals with a disability across South Australia that were provided with a total of 37,870 funded services. Of these individuals, 3,980 received a service though both the government and non-government sector, while 7,132 clients received services from government only and 8,449 from non-government sector organisations only.[137]

Access to Health Services

There are a number of barriers which prevent people with disabilities from accessing timely and effective health care. There are physical and organisational barriers, including inadequate transportation, failure to provide assistance with communication, affordability, limited service availability, limited advocacy and support, and discriminatory attitudes among healthcare staff.[138] As reported above, the GMA has over 60,000 individuals with a severe or profound disability, yet only 19,561 individuals accessed a disability service. This indicates there are individuals who are not accessing any of these services. The barriers mentioned above may go some way to explaining why more individuals did not access these disability services.

Figure 46: Service outlets by Government Region (2011-12)[136]



2.5.4

Unpaid Carers

Providing assistance to an individual with a disability often restricts the lives of individual carers and their families. CAHML is ranked 17 out of 61 MLs, for the number of individuals providing assistance to someone with a disability. There are 49,128 people providing this assistance or 11.9% of the population, which is slightly higher than the GMA average (11.8%) and higher than the Australian percentage of 10.9% as outlined in Table 22. Adelaide Hills has the highest proportion of unpaid carers at 13.6% and Adelaide SLA the lowest proportion at 7.1%. Adelaide Hills has a disproportionately high rate of carers when compared to disability prevalence and potentially reflects service limitations and respite options in that area.

In the National Disability Services data there were 12,487 clients, nearly two thirds of individuals supported by unpaid carers. Seventy four percent shared the same household and 61.9% identified as the mother of the client.

Table 22: Unpaid Assistance to Persons with a Disability (2011)[139]

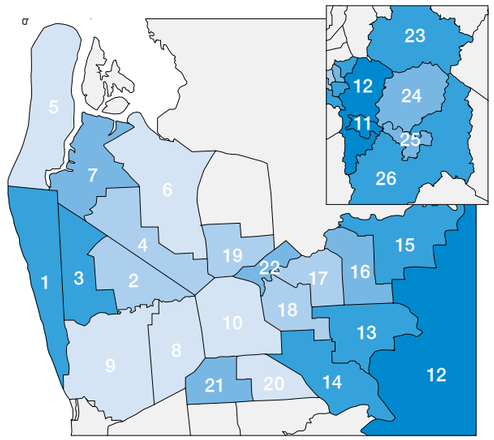
SLA	People aged 15 years and over providing assistance to persons with a disability	Population aged 15 years and over	% providing assistance to persons with a disability
Adelaide Hills (DC) - Ranges	1,110	8,176	13.6
Adelaide Hills (DC) - Central	1,363	10,052	13.6
Charles Sturt (C) - Inner West	2,681	20,894	12.8
Campbelltown (C) - East	2,918	22,827	12.8
Burnside (C) - North-East	2,285	17,900	12.8
Adelaide Hills (DC) - North	693	5,481	12.6
Burnside (C) - South-West	2,214	17,591	12.6
Charles Sturt (C) - Coastal	3,302	26,316	12.5
Mount Barker (DC) Bal	872	7,035	12.4
CAHML	**49,128**	**414,104**	**11.9**
Greater Metropolitan Adelaide	**113,901**	**964,064**	**11.8**
Australia	**1,896,957**	**17,363,696**	**10.9**

Figure 47: Geographical locaion of unpaid assistance to persons with a disability[140]

Legend

12.9 - 13.6
12.4 - 12.8
12.2 - 12.3
11.6 - 12.1
7.1 - 11.5
SA SLA Region

% providing assistance to persons with a disability



DISABILITY

2.5.5

Qualitative Data Perspectives

Information from survey and focus group data collection (consumer, health provider and stakeholder engagement) specific to carers highlights emerging issues within the CAHML community. Responses were collated and themed, and include the following:

Health Priorities

Respondents reported that their own well-being was integral to being able to care for someone else including; getting enough sleep, managing their own stress and mental health and remaining physically well to provide the physical care of being a carer. It was also important that adequate support was provided to carers, enough support when it was needed and access to quality respite care in order for them to re-energise.

Key priorities for the provision of care for caree's centred on continuity of care (being able to see their own GP when care was needed) and good communication between GPs and specialist providers. Having to 'repeat yourself at each visit' was frustrating and in times of stress, carers can sometimes forget the relevant information they should be providing. Continuity of psychiatry care for people with mental health problems was a major issue, particularly in the public sector with the common perception of being 'shuffled' from one department to the next. The constant changing/turnover of medical staff including psychiatrists (especially in the public system) was a concern.

Being able to navigate the health systems was something that was vitally important and having access to a support worker was a key enabler. Greater access to home support in the community was a commonly reported need.

Access to Care

Long wait times for GP and specialist services and long wait times in emergency departments were common issues. Being able to access a hospital bed in a timely way was a concern as long wait times can escalate the situation for the caree and therefore increase the stress of the carer. After hours crisis support was something that was seen as critical but inadequate, as well as being able to access a quick response in a timely way for mental health consumers who will not wait to access services. This supported the need for early and timely intervention and access to services. It was perceived that if the situation can be contained at a lower level first e.g. reduced ambulance or police involvement, then less stress was placed on the caree and carer.

Difficulties in accessing transport was also reported as being an issue for carers, particularly the financial and time cost of accessing public transport as well as the cost of taxis. Affordability of care was an issue with carers who for the most part, have had to give up paid employment to fill the caring role and therefore are living on limited incomes. This was particularly important as it was perceived that the time and financial investment of families and demand for services was increasing.

3

HEALTH DETERMINANTS AND ACCESS

SOCIAL DETERMINANTS OF HEALTH

In countries at all levels of income, health and illness follow a social gradient: the lower the socioeconomic position, the worse the health.

3.1.1

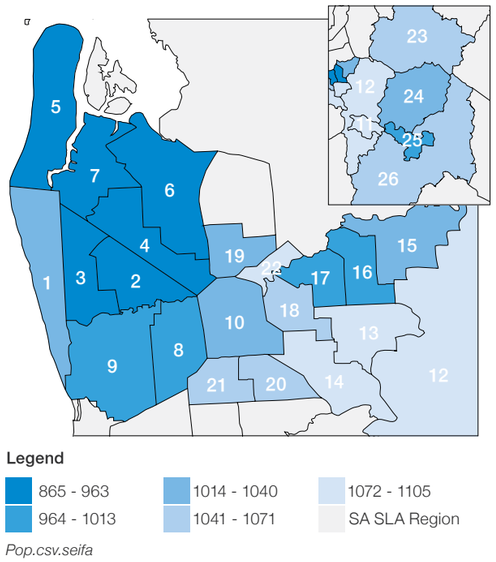
Social Disadvantage

The link between social disadvantage and poor health is well established. According to the World Health Organisation Commission on the Social Determinants of Health "In countries at all levels of income, health and illness follow a social gradient: the lower the socioeconomic position, the worse the health."[142]

The Socio-Economic Index for Areas (SEIFA) measures relative disadvantage based on a series of attributes including income, education, employment and occupation. The higher the score the less disadvantaged the population in the area. The SEIFA rate for Central Adelaide and Hills Medicare Local (CAHML) as a region is 1012 ranking CAHML 17th compared with the 61 Medicare Locals (ML) nationally. This is considered a relatively favourable position in terms of social disadvantage. While CAHML's average SEIFA score was relatively high, 36% of the population did reside in disadvantaged areas. CAHML contains a high proportion of disadvantaged areas when compared to other MLs nationally.

Figure 48 shows the SEIFA score of each Statistical Local Area (SLA) in the CAHML region. The areas of greater disadvantage can be identified through the Charles Sturt (excluding the 'Coast' SLA) and Port Adelaide – Enfield areas in Adelaide's north-western suburbs. The township of Mount Barker also has relatively high levels of disadvantage.

Figure 48: SEIFA Index by SLA in the CAHML region (2011)[143]



Pop.csv.seifa

3.1.2

Income Support

Figure 49 shows the percentage of health care and pension cardholders in the CAHML region overlayed on the SEIFA Index.[145] The proportions of people with health care or pension cards are greater in more disadvantaged areas. There is strong correlation (-0.88 and -0.89 respectively) between the proportion of population with a health care or pension card, against a lower SEIFA score in CAHML SLAs, as shown in Figure 50. This is not surprising given that eligibility for healthcare or pension card is intended for those on low incomes to reduce costs associated with health care, amongst other things. Table 23 shows the proportions of people with a health care or pension card in the most disadvantaged SLAs in the CAHML region.

At 7.3%, the CAHML region has a lower proportion of health cardholders compared to the Greater Metropolitan Adelaide (GMA) proportion of 8.5% and the Australian proportion of 7.8%. The CAHML pension cardholder proportion of 21% is higher than the Australian proportion of 20% and almost 1% lower than the GMA proportion of 21.9%. CAHML also has the lowest proportions of health care and pension card holders compared with other South Australian MLs. The higher proportion of pension card holders is likely reflective of CAHML's older population profile.

Figure 49: Proportion of income support recipients and SEIFA in CAHML SLAs (2012)[146]

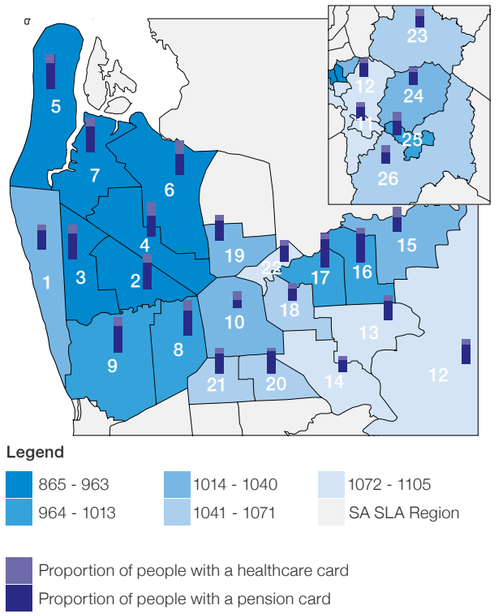


Figure 50: Relationship between SEIFA score and proportion of population receiving income support

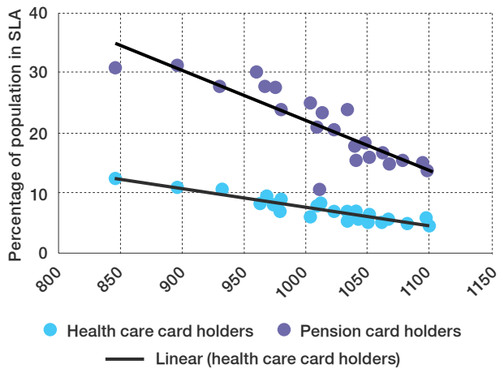


Table 23: CAHML SLAs with lowest SEIFA scores and income support proportions[144]

Statistical Local Area	SEIFA Score (2011)	% Health care card holders (2012)	% Pension card holders (2012)	Population (2012)
Port Adel. Enfield (C) - Park	865	12.3	30.1	17,745
Port Adel. Enfield (C) - Port	895	10.6	30.7	11,123
Charles Sturt (C) - North-East	937	10.4	27.4	28,534
Charles Sturt (C) - Inner West	952	8.2	29.4	25,620
Charles Sturt (C) - Inner East	959	9.0	27.2	22,614
Port Adel. Enfield (C) - Coast	963	8.0	26.6	29,390
West Torrens (C) - East	977	8.6	22.9	26,668
Campbelltown (C) - West	979	7	24	21,302
West Torrens (C) - West	1000	7.2	22.9	30,292
Norw. P'ham St Ptrs (C) - East	1005	6.2	24.0	17,503
Mount Barker (DC) - Central	1013	7.0	19.7	21,244
CAHML	1012	7.3	21.0	
Greater Metropolitan Adelaide	991	8.5	22.9	
Australia	1000	7.8	20.0	

3.1

SOCIAL DETERMINANTS OF HEALTH

Compared with Australia, CAHML has slightly lower proportions of people receiving different types of government income support. However, regions within CAHML have relatively higher proportions, as indicated in Table 24. The relatively disadvantaged Local Government Areas (LGAs) of Port Adelaide- Enfield and Charles Sturt have higher proportions of residents receiving all types of income support, compared with CAHML.[146]

Table 24: Proportion of Population receiving Government Benefits in CAHML LGAs per Benefit Type (2012)

	Total Australia	Total CAHML	Port Adelaide Enfield LGA	Charles Sturt LGA	West Torrens LGA	Adelaide LGA	Prospect LGA	Walkerville LGA	Unley LGA	Norw. P'ham & St Ptrs LGA	Campbelltown LGA	Adelaide Hills LGA	Mount Barker LGA
% Age Pensioners	73.0	69.7	86.0	79.9	76.5	36.9	75.5	46.5	56.3	68.6	73.2	63.5	70.1
% Disability Support Pensioners	5.6	5.9	10.5	8.0	6.3	5.0	4.9	4.4	3.6	4.7	5.4	2.9	4.6
% Female Sole Parent Pensioners	4.8	3.4	6.8	4.6	2.9	0.7	2.3	1.6	1.5	2.1	3.1	2.5	4.2
% People receiving an Unemployment Benefit	4.2	4.0	7.0	5.3	4.3	3.9	3.5	2.5	2.5	2.6	3.1	2.5	3.5
% Young People aged 15-24 receiving Unemployment Benefit	5.4	4.5	8.5	6.5	5.4	3.1	4.2	2.7	2.6	2.7	3.0	3.0	4.3
% Low Income, Welfare-dependant Families (with Children)	9.7	7.3	14.6	9.6	7.2	4.8	5.2	3.5	3.8	5.0	6.7	4.6	7.5
% Children in Low Income, Welfare-dependant Families	22.4	18.4	35.3	24.7	18.9	17.5	12.1	7.7	8.0	12.8	17.6	10.8	16.4
% Healthcare Card Holders	7.5	7.1	10.3	8.3	7.9	8.3	6.5	5.1	5.2	5.7	6.8	5.1	6.6
% Pensioner Concession Card Holders	20.3	21.0	29.1	26.7	22.9	10.1	17.3	15.9	14.3	19.6	23.5	15.2	17.6

3.1.3

Employment as a Social Determinant of Health

Employment is an important factor contributing to health. Unemployment increases the risk of poor physical and mental health. Even after adjusting for other factors, unemployed people are at increased risk of premature death. The health impacts of unemployment are due to both the psychological consequences of being without work, and the financial implications of having low income and debt. It has also been shown that insecure employment has negative physical and mental health consequences, due to being in a chronic state of anxiety.[147]

The relationship between unemployment and poor health outcomes is well established and there is growing evidence that people who are not in the labour force also have very poor health outcomes.

Unemployment Rate

The unemployment rate for the CAHML region is 4.9%, ranking it 41st out of 61 MLs nationally and is lower than both the GMA rate of 5.8% and the Australian rate of 5.4%. The regions of higher unemployment can be identified in Figure 51 through the Port Adelaide-Enfield, Adelaide and Charles Sturt SLAs. Table 25 shows the SLAs within CAHML with the highest rates on unemployment.[148]

Figure 51: Unemployment rate in CAHML SLAs (2013)[149]

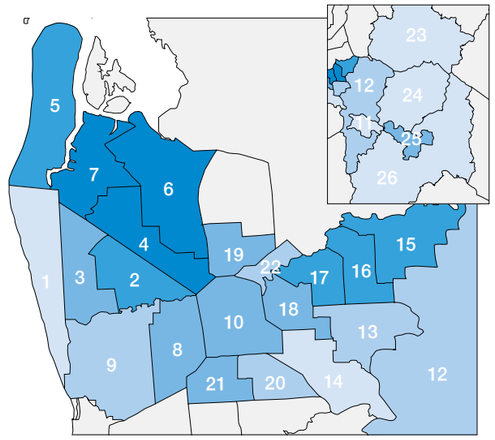


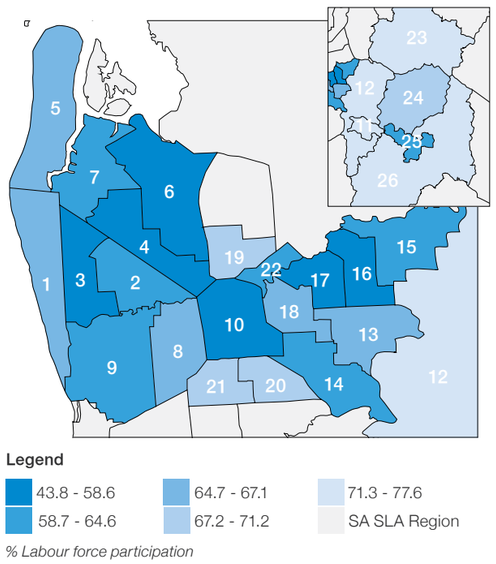
Table 25: SLAs with the Highest Unemployment Rates in CAHML (2013)

SLA	Unemployment Rate (%)
Port Adel. Enfield (C) - Park	10.7
Adelaide (C)	8.9
Port Adel. Enfield (C) - Port	7.7
Charles Sturt (C) - North-East	7.6
Prospect (C)	6.4
Norw. P'ham St Ptrs (C) - East	5.5
Campbelltown (C) - East	5.5
Charles Sturt (C) - Inner East	5.4
Port Adel. Enfield (C) - Coast	5.3
CAHML	**4.9**
Greater Metropolitan Adelaide	**5.8**
Australia	**5.4**

Participation Rate

The participation rate is the number of people who are either employed or are actively seeking work. The labour force participation rate in the CAHML region is relatively low at 63.2%, ranking it 44 out of 61 MLs nationally. The CAHML rate is comparable to the GMA rate of 63.1%, but 2.3% lower than the Australian rate of 65.5%.[150] The low participation rate for CAHML is possibly due to the relatively high proportion of older people who are retired or no longer seeking employment. There is considerable variation in labour force participation between SLAs within the CAHML region, as shown in Figure 52. Port Adelaide-Park has the lowest rate of labour force participation in the CAHML region, as shown in Table 26 overleaf. The relationship between unemployment and poor health outcomes is well established and there is growing evidence that people who are not in the labour force (neither employed nor seeking employment), also have very poor health outcomes.[151]

Figure 52: Labour force participation in CAHML SLAs (2012)[152]



SOCIAL DETERMINANTS OF HEALTH

In 2011, there were 102,660 people (24.2%) across CAHML who had left school at Year 10 or below, or had not been to school.

Table 26:SLAs with Lowest Labour Force Participation Rates in CAHML (2012)[153]

Statistical Local Area	Labour Force	Population Aged 15 Years and Over	% Labour Force Participation
Port Adel. Enfield (C) - Park	6,533	14,925	43.8
Adelaide (C)	9,767	20,333	48.0
Campbelltown (C) - West	9,904	18,209	54.4
Charles Sturt (C) - North-East	13,985	24,067	58.1
Norw. P'ham St Ptrs (C) - East	8,678	14,909	58.2
Charles Sturt (C) - Inner West	12,779	21,811	58.6
Port Adel. Enfield (C) - Port	5,789	9,437	61.3
Charles Sturt (C) - Inner East	11,956	19,245	62.1
West Torrens (C) - West	16,238	26,034	62.4
Walkerville (M)	3,919	6,258	62.6
Mount Barker (DC) - Central	10,967	16,989	64.6
Campbelltown (C) - East	15,446	23,915	64.6
Burnside (C) - South-West	11,948	18,495	64.6
CAHML	**274,902**	**434,845**	**63.2**
Greater Metropolitan Adelaide	**637,339**	**1,009,298**	**63.1**
Australia	**12,073,613**	**18,419,632**	**65.5**

3.1.4

Education

There are significant health disparities between those with high and low levels of education. This is true for both chronic and acute health conditions, however the magnitude of the difference is much greater in relation to risk of chronic disease.[154] In 2011, there were 102,660 people (24.2%) across CAHML who had left school at Year 10 or below, or had not been to school. This is a relatively low proportion when compared to the GMA proportion of 27.7% and the Australian proportion of 34.3%. As with most other indicators, there are areas within CAHML where the proportion of people with low levels of education is relatively high, as indicated in Figure 53. As with other indicators, the north-western suburbs of Adelaide show high proportions of people with low education levels.

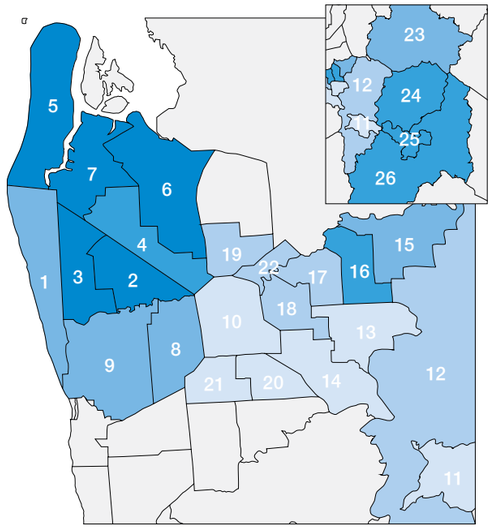
3.1.5

Housing and Homelessness

Safety and belonging are fundamental human needs and housing is a key social determinant of health. The lack of a stable, secure home can impact health and wellbeing, employment, education and other life opportunities. Homelessness has significant health implications, including increased risk of a range of diseases, and premature death. Homeless people also face significant barriers to accessing health care.[156]

The largest concentration of homelessness in South Australia is in central Adelaide SLA and the neighbouring suburbs. The 2011 homelessness estimate for the CAHML region was 1933, representing 32% of the state's homeless population. Ten percent of South Australia's homeless people live in Adelaide city. Table 27 show the numbers of homeless people, by Statistical Area Level 2 (SA2) in the CAHML region.[157]

Figure 53: Proportion of people who left school at Year 10 or below, or did not go to school in the CAHML region (2011)[155]



Legend *% people (ASR per 100)*

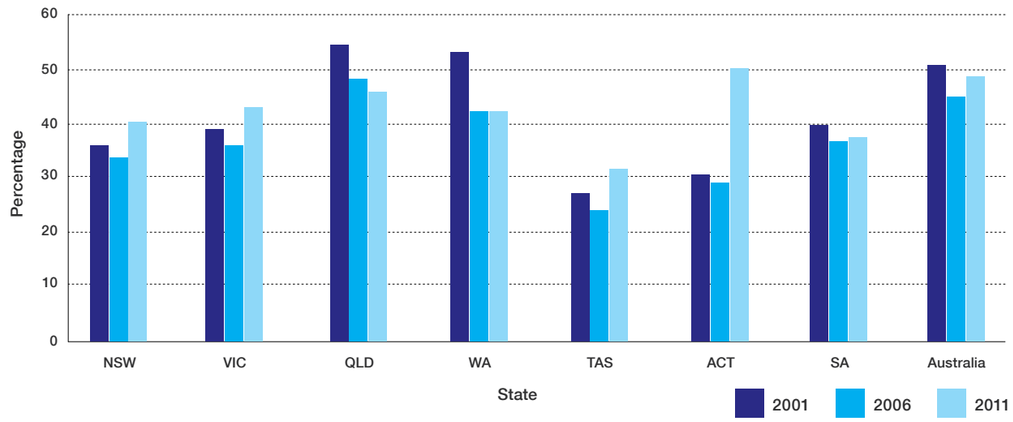
30.1 - 36.1
26.8 - 30.0
25.1 - 26.7
16.4 - 25.0
11.7 - 16.3
SA SLA Region

Table 27: Areas with the Highest Counts of Homeless People in CAHML (2011)

Statistical Area 2 (SA2)	Estimated homeless people (count)
Adelaide	612
The Parks	136
Plympton	130
Hindmarsh – Brompton	83
Richmond (SA)	82
Seaton – Grange	76
Paradise – Newton	61
Port Adelaide	60
Burnside – Wattle Park	58
Woodville – Cheltenham	51
St Peters – Marden	50
North Haven	49
Norwood (SA)	48
Rostrevor – Magill	40
Largs Bay - Semaphore	40
CAHML total	**1933**
Australia	**105,215**

As indicated in Figure 54, South Australia compares relatively favourably with other states in terms of the proportion of the population who are homeless, and the proportion has remained somewhat static between 2001 and 2011. (NB: Figures for the Northern Territory are not shown here. They exceed 700 per 10,000 people.)

Figure 54: Rate of homeless persons per 10,000 by state[158]



SOCIAL DETERMINANTS OF HEALTH

There are different 'degrees' of homelessness. Primary homelessness refers to people without conventional shelter, secondary homelessness refers to people who are staying in any form of temporary accommodation with no other secure housing, and tertiary homeless people are defined as occupants of single rooms in private boarding houses who have lived there for more than three months. According to 2001 Census data, 1322 people in South Australia (230 in Adelaide) were in the 'primary homeless' category. The 2011 Census showed the following breakdown of homelessness categories in South Australia (Table 28):[158]

Table 28: Number of Homeless People Homelessness Category in South Australia (2011)[158]

Persons who are in improvised dwellings, tents or sleeping out	257
Persons in supported accommodation for the homeless	1,620
Persons staying temporarily with other households	1,389
Persons staying in boarding houses	975
Persons in other temporary lodging	27
Persons living in 'severely' crowded dwellings	1,714
All homeless persons (South Australia)	5,982

The following lists the characteristics of homeless people in South Australia: [159, 160]

- 56% are males
- Aboriginal and Torres Strait Islander people are significantly overrepresented among homeless people. 18% (1090 people) are Aboriginal and Torres Strait Islander people, even though they comprise only 2.1% of the South Australian population.
- People born outside of Australia are over represented among homeless people. 35.5% were born outside of Australia, even though they only comprise 16.7% of the South Australian population
- 8% of homeless people speak English 'not very well' or 'not at all'. People who report poor proficiency in English comprise only 2.1% of the South Australian population.
- Nearly 16% are aged less than 12 years, 10.5% are aged 12-18 years, and 5.2% are aged over 65 years.

Data is not available at the CAHML level, however the main reasons for homelessness in South Australia are shown in Table 29.[161]

Table 29: Reasons for Homelessness in South Australia (2012)

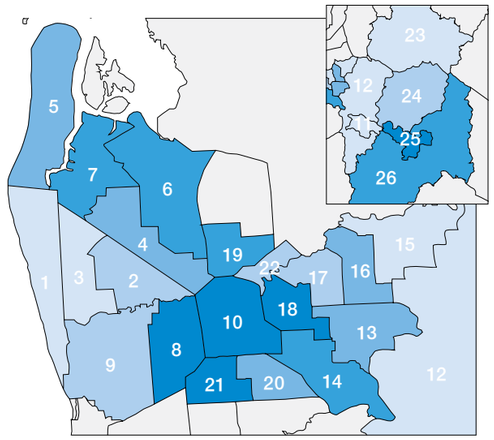
Reason	% of homeless people
Accommodation issues: housing crisis, inadequate or inappropriate dwellings	42
Domestic violence and relationship issues: time out from family, family breakdown, violence and assault	33
Other: transition from care/custody, lack of support, discrimination	14
Financial difficulties: housing stress, unemployment	8
Health reasons: mental health issues, substance abuse issues	2

Over the last decade housing affordability has worsened across Australia, despite a period of general economic growth. Shortages are more pronounced in the lower cost end of the housing market. The Nation Building Economic Stimulus Plan has assisted in providing a supply of lower cost dwellings. However, for every three low income renters there is just one lower cost rental property available.[162] According to the Australian Institute of Health and Welfare, in 2012, there were 24,244 South Australians on social housing waiting lists .

A person or family on low income who pays more than 30% of their income on rent or mortgage is considered to be in housing stress. A low income family is defined as those in the lowest 40% of income distribution.

The rate of housing stress in low income households in the CAHML region is 30.8%, which is slightly lower than the GMA rate of 31.4% and the national rate of 31.7%. CAHML is ranked 29th of 61 MLs nationally. The areas of high rental or mortgage stress can be identified around the Adelaide CBD and Mount Barker area (see Figure 55). The City of Adelaide SLA has a particularly high rate of 61.3% which is nearly double that of the overall CAHML rate, and likely reflects the relative high rental costs and property values of the desirable inner metropolitan area (See Table 30 overleaf).

Figure 55: Proportion of low income households under housing stress in the CAHML region (2011)[164]



Legend

33.3 - 61.3	28.6 - 31.0	23.3 - 25.1
31.1 - 33.2	25.2 - 28.5	SA SLA Region

% low income households under financial stress from mortgage or rent

SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

SOCIAL DETERMINANTS OF HEALTH

Social cohesion and community strength has a positive influence on the health, wellbeing and behaviours of individuals within that community.

Table 30: CAHML SLAs with Highest Proportions of Households under Financial Stress from Mortgage or Rent (2011)[165]

Statistical Local Area	Low income households* under financial stress from mortgage or rent	Total low income households	% Low income households under financial stress from mortgage or rent
Adelaide (C)	1,666	2,716	61.3
Unley (C) - West	636	1,711	37.2
Mount Barker (DC) - Central	882	2,406	36.7
West Torrens (C) - East	1,414	3,984	35.5
Norw. P'ham St Ptrs (C) - West	769	2,202	34.9
Burnside (C) - South-West	641	1,933	33.2
Prospect (C)	693	2,171	31.9
Port Adel. Enfield (C) - Park	1,003	3,144	31.9
Mount Barker (DC) Bal	261	834	31.3
Port Adel. Enfield (C) - Port	635	2,032	31.3
Charles Sturt (C) - North-East	1,332	4,300	31.0
CAHML	**19,857**	**64,460**	**30.8**
Greater Metropolitan Adelaide			**31.4**
Australia			**31.7**

3.1.6

Social Cohesion and Family Composition

This section considers a number of indicators that provide insight into how communities within the CAHML region are performing in areas of social cohesion and community strength. Social cohesion is defined as the quality of social relationships and the existence of trust, mutual obligations and respect in communities or in wider society.[166] Social cohesion and community strength has a positive influence on the health, wellbeing and behaviours of individuals within that community. Societies with high levels of income inequality tend to have less social cohesion and more violent crime.

Voluntary Work for an Organisation or Group

Voluntary work is a contributor to social cohesion. It is an indicator of individual involvement and connectedness in that community. Table 31 shows the number and proportion of people (18 year and over) in each SLA who undertook voluntary work for an organisation in 2010. The areas that had highest volunteer rates were in the semi-rural Adelaide Hills (44-50%) and Mount Barker (49.5%) areas and in Burnside (44-45%). The areas with the lowest volunteer rates were in the western suburbs, with Port Adelaide – Park SLA having the lowest rate of 28.3 per 100 people.

Table 31: CAHML SLAs with the Lowest Proportions of People Aged over 18 who did Unpaid Voluntary Work (2010)[167]

SLA	Number	ASR per 100
Port Adel. Enfield (C) - Park	3,655	28.3
Port Adel. Enfield (C) - Port	2,894	33.0
Charles Sturt (C) - North-East	7,466	34.3
Charles Sturt (C) - Inner East	6,506	36.3
Charles Sturt (C) - Inner West	7,388	36.6
West Torrens (C) - East	7,618	36.8
Port Adel. Enfield (C) - Coast	8,719	37.5
Campbelltown (C) - West	6,225	38.4
Adelaide (C)	6,939	39.1
Norw. P'ham St Ptrs (C) - East	5,375	39.4
CAHML	**162,351**	**40.1**
Greater Metropolitan Adelaide	**363,114**	**38.6**
Australia	**6,419,440**	**37.6**

Acceptance of Other Cultures

The highest rates of racial discrimination occur in areas where there are the highest levels of cultural diversity. Experiencing racial discrimination has been shown to have negative effects on an individual's sense of safety and connectedness to their community and can result in anxiety, depression and other mental health issues.[168]

Figure 56 shows the rate of people 18 years and over who either 'disagree' or 'disagree strongly' with acceptance of other cultures. Port Adelaide SLAs excluding Coast ranked as the areas with the highest number of respondents who 'disagreed' or 'disagreed strongly' with the acceptance of other cultures. (Note: results for only some SLAs within CAHML were available from this survey).

Public safety

Perceptions of safety and crime may influence factors of mental and physical health as well as health behaviours such as exercise. Figure 57 shows that the highest proportions of people who reported they feel 'very safe' or 'safe' walking alone after dark in their area were in the Adelaide Hills and Mount Barker council areas. The areas with the lowest rates were in the north west and Campbelltown-West, with Port Adelaide – Park recording the lowest rate at 39.1 per 100 people.

Figure 56: Proportion of people who disagree/strongly disagree with acceptance of other cultures in CAHML (2010)[169]

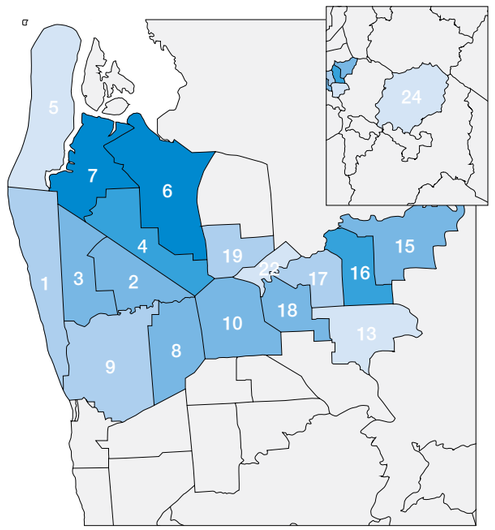
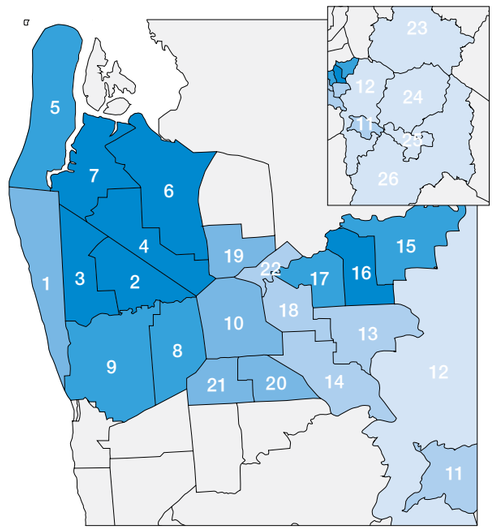


Figure 57: Proportion of people who feel safe/very safe walking alone in local area after dark in CAHML (2010)[170]



3.1

SOCIAL DETERMINANTS OF HEALTH

People without social supports are more likely to have poorer health and experience greater stress, and are at higher risk of poverty and social exclusion.

Crisis Support

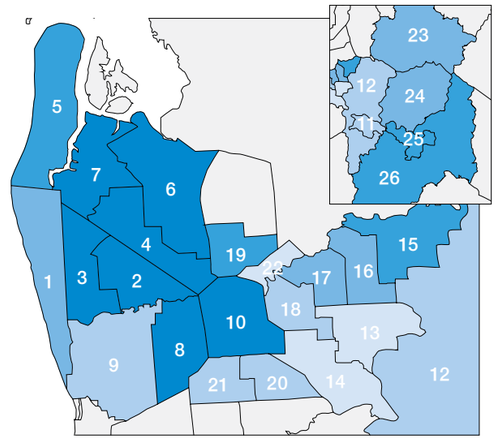
Figure 58 shows the proportion of people who are able to access support in times of crisis from people outside the household. This is an indicator of whether people have positive personal networks. People without social supports are more likely to have poorer health and experience greater stress, and are at higher risk of poverty and social exclusion.[171, 172] Figure 58 also shows that the north western areas, inner western areas and central Adelaide have higher proportions of people without external crisis support. This correlates with areas of poor mental health status.

The areas with the lowest rates of people with positive social networks were in the west with Port Adelaide – Park recording the lowest estimated rate of 87.6 people per 100 and Burnside – South west recording the highest rate of 94.3 per 100. The SLAs with the lowest rates are listed in Table 32. Overall the CAHML rate of 92.2 per 100 people is comparable to the national rate of 92.1 per 100 people and marginally higher than the GMA rate of 91.9 per 100 people.

Table 32: CAHML SLAs with the lowest proportions of people who can access support from outside the household in times of crisis[174]

SLA	Number	ASR per 100
Port Adel. Enfield (C) - Park	11,559	87.6
Port Adel. Enfield (C) - Port	7,919	89.9
Adelaide (C)	16,859	90.2
Charles Sturt (C) - North-East	19,834	90.6
West Torrens (C) - East	19,493	90.8
Charles Sturt (C) - Inner East	16,706	91.6
Charles Sturt (C) - Inner West	18,800	91.6
Port Adel. Enfield (C) - Coast	21,126	91.9
Mount Barker –Bal	6,373	92.3
Prospect	15,421	92.4
Campbelltown - East	21,026	92.4
CAHML	**377,001**	**92.2**
Greater Metropolitan Adelaide	**869,609**	**91.9**
Australia	**15,725,093**	**92.1**

Figure 58: Proportion of people who can access support outside the household in times of crisis in CAHML (2010)[173]



Legend

87.6 - 91.6	92.6 - 92.9	93.6 - 94.3
91.7 - 92.5	93.0 - 93.5	SA SLA Region

ASR per 100

SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

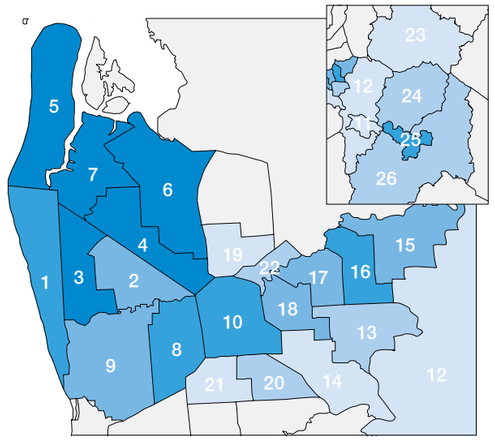
Family Composition, Single Parent Families

Families in which there is only one parent are considered to be at higher risk of disadvantage, with respect to income, housing, employment and social participation.[175] The largest proportion of single parent families are concentrated around the Port Adelaide Enfield and Charles Sturt areas with a relatively large percentage in the central Adelaide area. The other region showing a higher percentage of single families is Mount Barker – Central. Table 33 shows the SLAs with the highest proportions of single parent families. At 19.9%, the CAHML region has a lower rate of single parent families than the GMA rate of 23.6% and the Australian rate of 21.3%.

Table 33: CAHML SLAs with the highest proportions of single parent families (2011)[176]

Statistical Local Area (SLA)	% of families (with children 15 years or less) with a single parent
Port Adel. Enfield (C) – Port	35.1
Port Adel. Enfield (C) – Coast	28.2
Port Adel. Enfield (C) – Park	28.2
Charles Sturt (C) – Inner West	25.8
Charles Sturt (C) – North-East	25.7
Adelaide (C)	23.0
Mount Barker (DC) – Central	21.7
Campbelltown (C) – West	20.7
Charles Sturt (C) – Coastal	20.6
West Torrens (C) – East	20.4
CAHML	**19.9**
Greater Metropolitan Adelaide	**23.6**
Australia	**21.3**

Figure 59: Proportion of families (with children aged 15 or less) with a single parent in CAHML (2011)[177]



Legend

23.1 - 35.1	16.2 - 20.3	9.5 - 14.7
20.4 - 23.0	14.8 - 16.1	SA SLA Region

%

3.1.7

Conclusion

Social determinants of health are a key consideration in identifying the health needs of communities. While direct action on the social determinants of health is outside the scope of primary health care organisations, a sound understanding of community characteristics is essential when planning services and strategies to optimise primary health care access and quality. This helps to ensure that efforts and resources are directed to the areas of greatest need. This section has illustrated that the north western suburbs of Adelaide around Port Adelaide - Enfield and the non-coastal Charles Sturt Local Government Areas consistently have higher levels of disadvantage with regard to financial, employment, education, social and community cohesion indicators. Campbelltown Local Government Area in the north east, and the hills township of Mount Barker also have relatively high levels of disadvantage on a number of indicators.

HEALTH LITERACY

Health Literacy is:

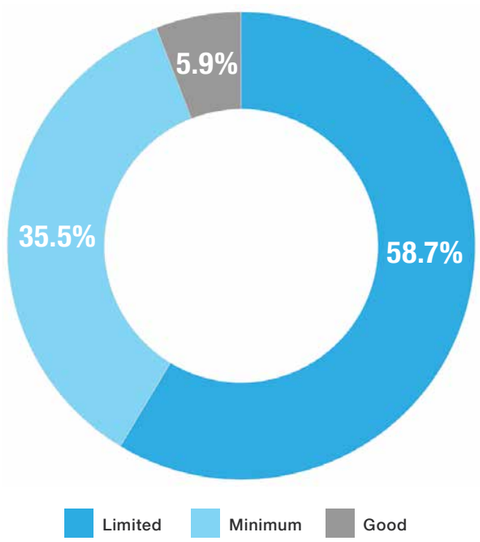
- the ability to read, understand and act upon health information;
- reading, understanding and having the competence to make health decisions;
- essential for service user engagement and relevant to the whole population; and
- critically important in tacking health inequalities that require targeted approaches.[178]

According to the 2006 Adult Literacy and Life Skills Survey,[179] 58.7% of South Australians have very limited health literacy, 35.5% meet the minimum health literacy proficiency standard and 5.9% have good/excellent health literacy, illustrated in Figure 60. This data is not available at ML level or lower, so it is not possible to determine the variation in health literacy levels within the CAHML region. Health literacy levels are similar between South Australia and Australia overall.

Health literacy levels range from level 1 (lowest) through to level 5 (highest), where skill level 3 is regarded as the minimum required for individuals to meet the complex demands of everyday life.[180]

The 2006 Adult Literacy and Life Skills Survey identifies a number of 'at risk' populations with very limited health literacy. These include culturally and linguistically diverse populations where English is not the first language spoken, people aged over 65 years, and socioeconomically disadvantaged people. There are significant populations of these people within the CAHML region, and the risk of low health literacy must be considered when planning strategies to improve health in these priority groups.[180]

Figure 60: Health Literacy Levels in South Australia (2006)



ACCESS TO HEALTH CARE

3.3.1

Access to Health Care

Access can be defined as the opportunity or ease with which consumers or communities are able to use appropriate services in proportion to their need. The extent to which a population gains access to health services depends on financial, organisational and social or cultural barriers that limit the utilisation of the services. Access depends on the affordability, physical accessibility and acceptability of services and not merely adequacy of supply. The availability of services, and barriers to access have to be considered in the context of the differing perspectives, health needs and material and cultural settings of diverse groups in society.

It has been demonstrated that communities with greater access to primary health care have lower avoidable hospitalisation rates.[181]

3.3.2

Affordability

Medical Consultation Affordability

Approximately 11 out of every 100 people in the CAHML region self-reported that they did not see or delayed seeing a GP in the previous 12 months due to cost. The proportion was highest in the Port Adelaide Enfield and Charles Sturt council areas (12-13 per 100), although lower than the Australian rate of 14.2 per 100 (see Table 34).

In 2011-12, 78% of adults in CAHML saw a GP, just under the national average of 80.6%.[182]

The percentage of adults who did not see or delayed seeing a medical specialist due to cost in the preceding 12 months in CAHML (2011–12) was quite low at 4% compared with the Australian average of 8%.[183]

Figure 61: Persons aged 18 years and over within CAHML who delayed medical consultation because they could not afford it (2010)[184]

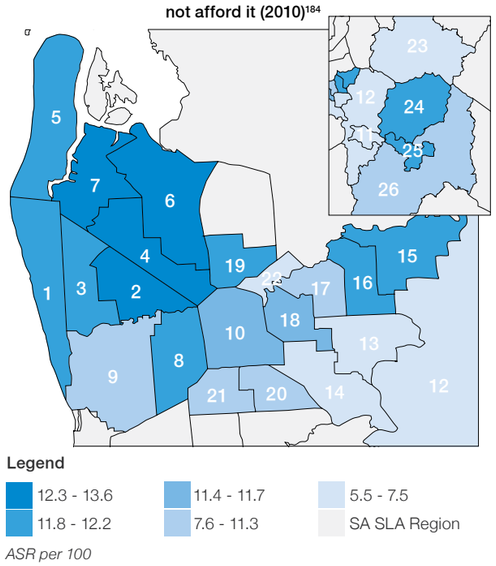


Table 34: CAHML SLAs with the highest rates of people who delay medical consultation due to affordability (2010)[185]

Statistical Local Area (SLA)	People who delayed medical consultation due to affordability (ASR per 100)
Port Adel. Enfield (C) - Port	13.6
Port Adel. Enfield (C) - Park	12.8
Charles Sturt (C) - North-East	12.5
Charles Sturt (C) - Inner East	12.4
Adelaide Hills (DC) Bal	12.2
Campbelltown (C) - West	12.2
Charles Sturt (C) - Inner West	12.2
Charles Sturt (C) - Coastal	12.1
Prospect (C)	11.9
Port Adel. Enfield (C) - Coast	11.9
West Torrens (C) - East	11.9
Mount Barker (DC) - Central	11.9
Campbelltown (C) - East	11.9
CAHML	**10.7**
Greater Metropolitan Adelaide	**11.2**
Australia	**14.2**

ACCESS TO HEALTH CARE

Approximately 11 out of every 100 people in the CAHML region self-reported that they did not see or delayed seeing a GP in the previous 12 months due to cost.

Medication Affordability

The proportion of people who delayed purchase of prescribed medication due to affordability showed a similar pattern of distribution as those who delayed GP consultation, although the proportion in several western SLAs was higher than the Australian rate of 11 per 100 people.

Figure 62: Persons aged 18 years and over within CAHML who delayed purchasing prescribed medication because they could not afford it (2010, ASR per 100)[186]

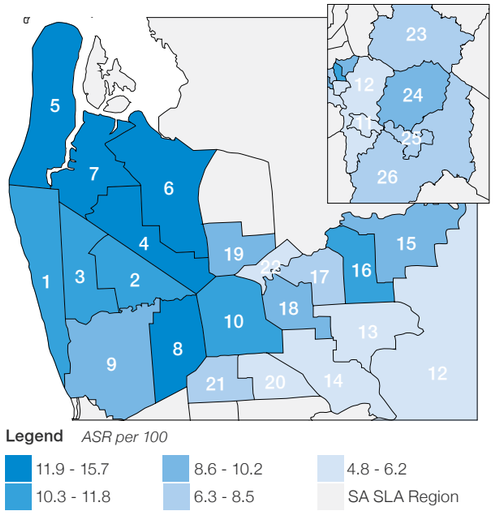


Table 35: CAHML SLAs with the highest rates of adults who delayed filling a prescription in the last 12 months due to affordability (2010)[187]

Statistical Local Area (SLA)	Adults who delayed filling a prescription due to affordability (ASR per 100)
Port Adel. Enfield (C) - Port	15.7
Port Adel. Enfield (C) - Park	14.9
Port Adel. Enfield (C) - Coast	12.8
Charles Sturt (C) - North-East	12.6
West Torrens (C) - East	12.0
Charles Sturt (C) - Inner East	11.8
Charles Sturt (C) - Inner West	11.5
Campbelltown (C) - West	11.4
Charles Sturt (C) - Coastal	10.6
Adelaide (C)	10.5
CAHML	**9.8**
Greater Metropolitan Adelaide	**10.9**
Australia	**11.0**

3.3.3

Difficulty Accessing Services

The more general indicator of people who have difficulty accessing services shows a somewhat different pattern of distribution across SLAs, with access difficulties reported most in the Mount Barker and Adelaide Hills areas Figure 36). The reported difficulty may be due to any number of access barriers, or a combination. Given that the areas with the highest reported difficulty are those most distant from central Adelaide, it suggests that availability of services and distance may be a significant factor in these areas. In contrast, central Adelaide and the inner eastern suburbs also rate relatively highly on this indicator, yet other access barriers are likely to be more relevant in these areas (Table 36).

Figure 63: Persons aged 18 years and over within CAHML who had difficulty accessing services (2010, ASR per 100)[188]

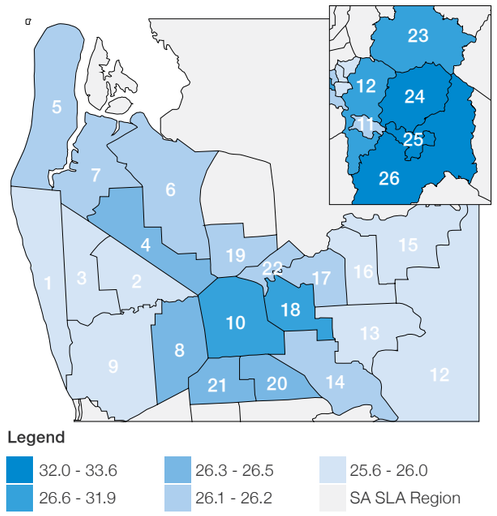


Table 36: CAHML SLAs with the highest rates of people who had difficulty accessing services (2010, ASR per 100)[189]

Statistical Local Area (SLA)	People who had difficulty accessing services (ASR per 100)
Mount Barker (DC) - Central	33.6
Adelaide Hills (DC) Bal	33.3
Mount Barker (DC) Bal	33.3
Adelaide Hills (DC) - North	31.9
Adelaide Hills (DC) - Ranges	28.2
Adelaide (C)	26.8
Norw. P'ham St Ptrs (C) - West	26.6
CAHML	**26.8**
Greater Metropolitan Adelaide	**26.0**
Australia	**29.7**

3.3.4

Home Internet Use

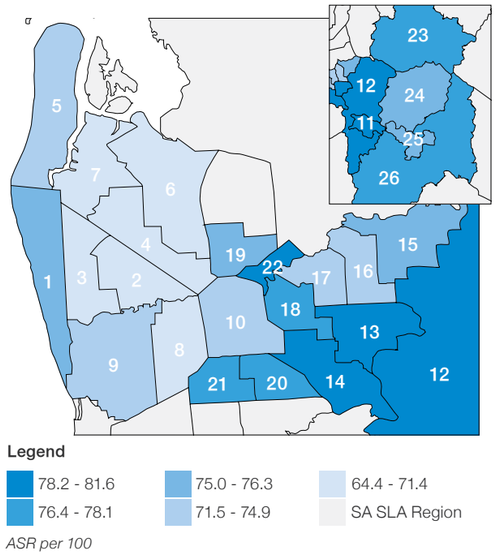
The 'digital divide' is inequity between individuals and communities on the basis of their ability to access information and communication technology. It is influenced not only by economic barriers that limit the affordability of devices, but also by having the skills and knowledge to utilise the information and technology. Limited access to the internet can hinder an individual's social capital, engagement and information access, and contribute to social disadvantage.[190]

In the CAHML region, the total proportion of households with an internet connection was comparable with the GMA proportion but below the national percentage. The Port Adelaide Enfield, Charles Sturt and West Torrens SLAs have the lowest proportions of households with internet access (Figure 64). They also have lower rates of internet access than that of GMA or Australia overall (Table 37). This correlates with areas of greatest socio-economic disadvantage.

Table 37: CAHML SLAs with least internet access at home within the last 12 months (2011)

Statistical Local Area (SLA)	Persons aged 18 years and over who accessed the Internet at home in the past 12 months (ASR per 100)
Port Adel. Enfield (C) - Park	64.4
Port Adel. Enfield (C) - Port	67.4
Charles Sturt (C) - North-East	69.6
Charles Sturt (C) - Inner East	70.6
Charles Sturt (C) - Inner West	70.9
West Torrens (C) - East	71.4
Port Adel. Enfield (C) - Coast	71.9
Campbelltown (C) - West	72.9
Norw. P'ham St Ptrs (C) - East	73.4
Adelaide (C)	74.1
West Torrens (C) - West	74.9
CAHML	**74.6**
Greater Metropolitan Adelaide	**73.8**
Australia	**75.6**

Figure 64: Persons aged 18 years and over in CAHML who accessed the internet in the last 12 months (2011, ASR per 100)[191]



ACCESS TO HEALTH CARE

Significantly, the proportion of dwellings with no motor vehicle across the CAHML catchment is comparably high at 10.8% compared the proportion for Australia being 8.6%.

3.3.5

Transport Barriers

Geographic access (transportation barriers) has been identified as a general barrier to healthcare in a number of studies. This could be due to a lack of public transport, the cost of owning/maintaining a motor vehicle or the inability to drive. Significantly, the proportion of dwellings with no motor vehicle across the CAHML catchment is comparably high at 10.8% compared the proportion for Australia being 8.6%. This needs to be considered in light of the geographic context of the catchment, which includes several SLAs that are situated away from major public transport routes.

According to Currie and Senberg,[192] groups more likely to experience transport disadvantage are; young people, women, families with young children, unemployed people, those on low incomes, senior citizens, CALD people, Aboriginal and Torres Strait Islander people and people with a disability. Additionally, research suggests that people who rated their health as 'poor' were almost twice as likely as other respondents to cite a problem with transportation. This highlights concerns that people experiencing social disadvantage are those most likely to miss out on the health care they need due to transport disadvantages.[193] Areas considered transport disadvantaged are those in outer-urban areas with typically less frequent, less available services and less accessible stops and stations.

The Country Health SA 10 Year Plan[194] identifies the need for a review of the public transport system with a view to increased access to rehabilitation services, outpatient departments, ambulatory centres, and community and acute services across the Hills area.

Qualitative data collected through the CNA stakeholder and consumer strategy indicates that transport access is one of the highest rated issues regarding 'difficulty in accessing services', and is commonly raised as an issue for the Adelaide Hills region. Figure 65 is at odds with this and other qualitative data, but does not necessarily rule out that there are transport and distance/travel time barriers to key health services within this region.

Figure 65: Adults within CAHML who have transport access difficulties (2010, ASR per 100)[195]

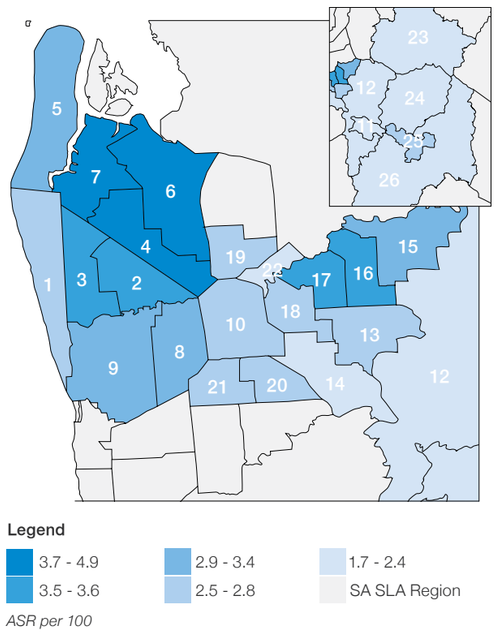


Table 38: CAHML SLAs with highest proportions of adults who have transport access difficulties (2010, ASR per 100)[196]

Statistical Local Area (SLA)	Adults with transport access difficulties (ASR per 100)
Port Adel. Enfield (C) - Park	4.9
Charles Sturt (C) - North-East	4.0
Port Adel. Enfield (C) - Port	3.9
Campbelltown (C) - West	3.6
Charles Sturt (C) - Inner West	3.6
Charles Sturt (C) - Inner East	3.6
Norw. P'ham St Ptrs (C) - East	3.5
West Torrens (C) - East	3.4
Port Adel. Enfield (C) - Coast	3.4
West Torrens (C) - West	3.2
Campbelltown (C) - West	**2.9**
CAHML	**3.1**
Greater Metropolitan Adelaide	**3.1**
Australia	**4.1**

Overall, CAHML has a relatively low proportion of people who have transport access barriers (3.1 per 100), compared to the Australian rate of 4.1 per 100. Table 38 shows that within CAHML, only the Port Adelaide Enfield – Park SLA has a higher proportion than that of Australia overall. The SLAs with the highest proportions of people with transport difficulties are similar to those with lowest car ownership, and highest socio-economic disadvantage, in the Port Adelaide Enfield, Charles Sturt and Campbelltown LGAs.

Households with no Motor Vehicle

Transport and mobility represent important factors contributing to health and community services access. People who do not have access to a motor vehicle are likely to encounter greater difficulty in accessing health and social services, as they will rely on assistance from others, public transport or taxis.

A number of SLAs in CAHML have relatively high proportions of households with no motor vehicle (Table 39). Highest is central Adelaide at 30%, which possibly reflects the 'inner city' lifestyle of this SLA, with high numbers of students and high 'walkability' of the area. Central Adelaide has a walkability score of 90, as compared to the greater metropolitan Adelaide walkability score of 54.[197] Central Adelaide also has somewhat high levels of social disadvantage, which will also account in part for this proportion. Similar factors contribute to the same results in the inner suburbs of West Torrens (walkability score approx. 73-83) and Norwood, Payneham and St Peters, (walkability score is approximately 73-85) who have somewhat low levels of motor vehicle ownership and moderate levels of social disadvantage. Port Adelaide Enfield and Charles Sturt SLAs have low levels of motor vehicle ownership and high social disadvantage, and relatively low walkability around 64-72, suggesting that not having a motor vehicle is likely to be due to economic barriers, and is more likely to impact on service accessibility.

Table 39: percentage of dwellings within CAHML with no motor vehicle (2011)[198]

Statistical Local Area (SLA)	% of dwellings with no motor vehicle
Adelaide (C)	30.0
Port Adel. Enfield (C) - Park	17.0
Port Adel. Enfield (C) - Port	15.9
West Torrens (C) - East	14.6
Charles Sturt (C) - North-East	14.1
Norw. P'ham St Ptrs (C) - West	13.8
Norw. P'ham St Ptrs (C) - East	12.9
Campbelltown (C) - West	12.1
Charles Sturt (C) - Inner East	11.7
Charles Sturt (C) - Inner West	11.0
West Torrens (C) - West	10.9
CAHML	**10.8**
Greater Metropolitan Adelaide	**9.6**
Australia	**8.6**

ACCESS TO HEALTH CARE

CAHML has a relatively low rate of bulk billing at 74.2% in 2011-12 which increased slightly to 75% in 2012-13. In the Metro 2 ML peer group, the average rate of bulk billing is 79.4%.

3.3.6

Experiences of Health Services, Including Waiting Times

Data relating to experiences of health services is available at ML level. According to the Australian Bureau of Statistics (ABS) Patient Experience Survey 2011–12, 23% of adults in the CAHML region felt they waited longer than acceptable to get an appointment with a GP, comparable to the national average of 22.6%. MLs with similar demographic characteristics to CAHML are classed as 'Metro 2', which has an average of 25%, slightly higher than the CAHML rate.[199] The percentage of adults who waited longer than four hours between making an appointment and seeing a GP for their most recent urgent consultation in the preceding 12 months was 38%, which is the same as the national average. The percentage of CAHML adults who could not access their preferred GP in the preceding 12 months was 39%.[200] This matches with the qualitative data collected by CAHML which indicates that not being able to see the preferred GP was a considerable barrier to accessing services. Those who did have to wait to access their preferred GP also reflected that the wait time while at the clinic was a major quality and access issue.

3.3.7

Bulk Billing Prevalence

The term 'bulk billing' means that when a person sees a GP, they do not have to pay any out of pockets costs, and the consultation is entirely covered by Medicare Australia. With regard to Medicare non-referred (GP) attendances (excluding practice nurse items), CAHML has a relatively low rate of bulk billing at 74.2% in 2011- 12 which increased slightly to 75% in 2012-13. In the Metro 2 ML peer group, the average rate of bulk billing is 79.4%. Table 40 shows the percentage of GP attendances bulk-billed by SA3 in CAHML in 2012–13.[201] The highest rates of bulk billing are in the western suburbs, which have the highest rates of socioeconomic disadvantage.

Table 40: Percentage of GP attendances that are bulk billed in CAHML (2012-13)[202]

Statistical Area Level 3 (SA3)	% of GP attendances bulk billed
Burnside	59.4
Unley	64.8
Adelaide Hills (including Mount Barker)	66.5
Norwood - Payneham - St Peters	67.7
Adelaide City	67.9
Prospect - Walkerville	69.7
Campbelltown	71.6
West Torrens	79.4
Charles Sturt	81.8
Port Adelaide - East	83.2
Port Adelaide - West	89.3
CAHML	**75.0**

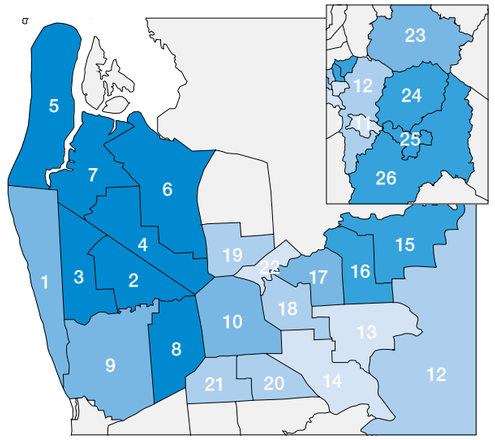
3.3.8

Private Health Insurance

Private insurance is defined as all or part of the cost of hospital and/or ancillary services being covered by a private health organisation. Having private health insurance can increase a person's access to health care. A person with private health insurance may be able to access elective surgery at a private hospital sooner than a person who only has access to publicly funded services. Similarly, allied health services such as physiotherapy, dental care, optometry and podiatry may be accessed more frequently and at lower cost to someone with private health insurance. A person with private health insurance is also eligible to access public health services, so it cannot be assumed that all people with private health insurance exclusively use private services. There are also a small proportion of the population who elect to use private health services but are 'self-insured' so they do not appear in the private health insurance statistics, but may use private or public health services.

A relatively high proportion of the CAHML population has private health insurance cover. With an age standardised rate of 53.7%, CAHML is ranked 12th when compared to all MLs nationally. The CAHML region also has a higher proportion of private insurance holders than the GMA rate of 51.2% and the Australian rate of 46.9%. Figure 66 shows the geographic distribution of private health insurance across the CAHML region, with the darker regions having a lower proportion of the population covered.[203] Table 41 overleaf lists the SLAs within CAHML with the lowest rates of private health insurance cover.

Figure 66: Proportion of population with private health insurance, within the CAHML region (2007-08)[204]



Legend

31.0 - 42.1	53.5 - 58.1	71.7 - 75.1
42.2 - 53.4	58.2 - 71.6	SA SLA Region

ASR per 100

SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

ACCESS TO HEALTH CARE

Table 41: CAHML SLAs with the Lowest Rates of Private Health Insurance Cover (2007-08)[205]

SLA	People aged over 15 with private health insurance (ASR per 100)
Port Adel.Enfield (C) – Park	31.0
Port Adel. Enfield (C) – Port	34.7
Charles Sturt (C) – North-East	37.7
Charles Sturt (C) – Inner East	40.6
Charles Sturt (C) – Inner West	41.4
Port Adel.Enfield (C) – Coast	42.1
West Torrens (C) – East	42.1
Mount Barker (DC) – Central	42.7
Mount Barker (DC) Bal	44.8
Adelaide Hills (DC) Bal	44.9
Campbelltown (C) – West	47.3
Campbelltown (C) – East	53.4
CAHML	**53.7**
Greater Metropolitan Adelaide	**51.2**
Australia	**46.9**

3.3.9

Qualitative Data Perspectives

Information from survey and focus group data collection (consumer, health provider and stakeholder engagement) specific to issues of access highlights the following emerging issues within the CAHML community:

Lack of Knowledge about Services

Lack of knowledge about services and how to access them was the main priority issue regarding access. Across all respondents, a lack of knowledge about how to navigate the system was a key barrier to accessing services, including limited awareness from health care providers about the services that are available and how to access them i.e. referral pathways and eligibility criteria. More coordinated and localised information for people to understand their health choices was important.

Access to Health Care Services

Long wait times to see a regular GP was a common response, as well as long in-clinic wait times when attending appointments. It was extremely important to be able to see their regular GP and there is a reluctance to see another GP within the same clinic or to go to another GP. Lack of knowledge of after-hours services and how to access them was an important issue. Accessible and timely access to home care to enable people to live well and independently was also seen as inadequate. It was reported that it was more difficult for those members of the community who may be socially isolated or lack the social supports from family and friends to access appropriate and timely health care services.

Long wait times for specialist services once a referral is generated was also seen as a barrier as well as being cost prohibitive.

Access to Transport

For those without private transport, the public transport corridors do not facilitate non-metropolitan based health service access i.e. public transport radiates out from Adelaide. If an individual has access to private transport then it was perceived that it was possible to access services based in metro regions fairly easily. Respondents from the Adelaide Hills and Mount Barker regions reported insufficient recognition of the additional costs and difficulties in providing as well as accessing services outside of the metro region.

Affordability

It was accepted that people require a broader range of services as they age (including allied health services) and that the cost of seeing multiple providers was an issue, especially when needing to access private services. Ability to access bulk billing was an important consideration when accessing health care and making a decision whether 'they could afford to go to the doctor'. Being aware of upfront costs prior to attending medical appointments was important for people who were on fixed incomes. The cost of medications was also a factor, especially for those with multiple health conditions.

4

HEALTH CHARACTERISTICS

RISK FACTORS AND HEALTH STATUS

The health characteristics of a population are used to identify where health needs are most apparent and allow the analysis of potential gaps and inequalities.

The health characteristics of a population are used to identify where health needs are most apparent and allow the analysis of potential gaps and inequalities.[206] In this chapter, health characteristics of the population within CAHML will be explored. These characteristics include: risk factors for chronic disease, self-assessed status and chronic disease prevalence.

4.1.1

Risk Factors

Health and wellbeing are affected by many factors, and those that are associated with ill health, disability, disease or death are known as risk factors. Risk factors often do not occur in isolation and tend to coexist and interact with one another, as well as with other factors including socioeconomic status.[207]

Risk factors can also be split into those inherent to an individual: age, gender, ethnicity and family history, and those introduced by lifestyle choices and environmental factors. Introduced risk factors include: poor nutrition, low levels of physical activity, risky levels of alcohol consumption and smoking. For specific information regarding healthy weight, see section 4.3.

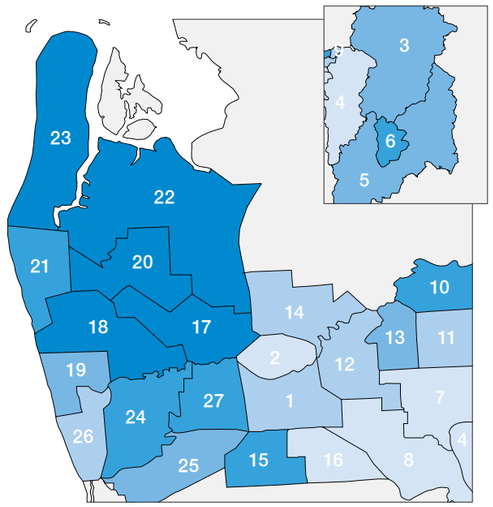
Smoking

CAHML has a lower prevalence of current smokers (17.3 ASR per 100 people) than the Australian rate of 18.9 ASR per 100 people and the Greater Metropolitan Adelaide (GMA) rate of 20.3 ASR per 100 people (see Table 42) which ranks it 53rd compared to all MLs nationally. Within the CAHML region, higher smoking prevalence is found in the western suburbs and Mount Barker (See Figure 67).

Table 42: Estimated Population, aged 18 Years and Over, who were Current Smokers (2011-13)[208]

Population Health Area (PHA) with highest prevalence	Number	ASR per 100
Dry Creek - South/ Port Adelaide/ The Parks	5,013	21.9
Largs Bay - Semaphore/ North Haven	4,826	21.0
Charles Sturt - North West	3,243	19.6
Beverley/ Hindmarsh - Brompton	3,822	19.2
Flinders Park/ Seaton - Grange	4,125	18.0
Richmond (SA)	2,455	17.6
Mount Barker	1,970	17.3
Paradise - Newton	2,441	17.2
Adelaide Airport/ Lockleys	1,711	16.8
West Lakes	1,818	16.7
CAHML	**62,087**	**15.7**
Greater Metropolitan Adelaide	**171,665**	**17.7**
Australia	**3,059,237**	**18.0**

Figure 67: Current smokers, persons 18 and over (2011-13)[209]



Legend

17.7 - 21.9	14.6 - 16.6	10.2 - 11.6
16.7 - 17.6	11.7 - 14.5	SA PHA Region

ASR per 100

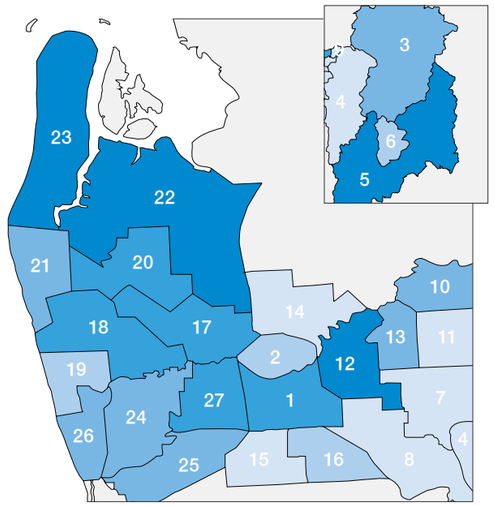
Alcohol Consumption

The harmful effects of short and long-term risky alcohol consumption are widely documented. Compared to the Australian rate of harmful use of alcohol of 4.7 ASR per 100 people, CAHML rates are lower at 3.8 ASR per 100 people and ranks 55th out of 61 MLs. In all Population Health Areas (PHA) within the CAHML region the rates are lower than the Australian rate except in Largs Bay - Semaphore/ North Haven where the rate is the same at 4.7 ASR per 100 people.

Table 43: Estimated population, aged 18 years and over, consuming alcohol at levels considered to be a high risk to health (2011-12)[210]

Population Health Area (PHA) with highest prevalence	Number	ASR per 100
Largs Bay - Semaphore/ North Haven	1,090	4.7
Dry Creek - South/ Port Adelaide/ The Parks	1,016	4.5
Norwood (SA)/ St Peters - Marden	841	4.4
Hahndorf - Echunga/ Mount Barker Region/ Nairne	474	4.2
Beverley/ Hindmarsh - Brompton	810	4.2
Charles Sturt - North West	663	4.0
Richmond (SA)	534	3.9
Flinders Park/ Seaton - Grange	910	3.9
Adelaide	472	3.9
CAHML	**15,290**	**3.8**
Greater Metropolitan Adelaide	**38,729**	**4.0**
Australia	**792,499**	**4.7**

Figure 68: Estimated population, aged 18 years and over, consuming alcohol at levels considered to be a high risk to health (2011-13)[211]



Legend

4.3 - 4.7	3.8	3.2 - 3.5
3.9 - 4.2	3.6 - 3.7	SA PHA Region

ASR per 100

PHA	Index
Adelaide	1
North Adelaide	2
Adelaide Hills/ Lobethal - Woodside	3
Aldgate - Stirling/ Uraidla - Summertown	4
Hahndorf - Echunga/ Mount Barker Region/ Nairne	5
Mount Barker	6
Burnside - Wattle Park	7
Glenside - Beaumont/ Toorak Gardens	8
Athelstone	9
Paradise - Newton	10
Rostrevor - Magill	11
Norwood (SA)/ St Peters - Marden	12
Payneham - Felixstow	13
Nailsworth - Broadview/ Prospect/ Walkerville	14
Goodwood - Millswood	15
Unley - Parkside	16
Beverley/ Hindmarsh - Brompton	17
Flinders Park/ Seaton - Grange	18
Henley Beach	19
Charles Sturt - North West	20
West Lakes	21
Dry Creek - South/ Port Adelaide/ The Parks	22
Largs Bay - Semaphore/ North Haven	23
Adelaide Airport/ Lockleys	24
Fulham/ West Beach	25
Plympton	26
Richmond (SA)	27

RISK FACTORS AND HEALTH STATUS

Within the CAHML region the rate of usual daily intake of two or more serves of fruit ranges between 48.3 and 55.0 ASR per 100 people.

Poor Nutrition

Eating healthy foods, especially more fruit and vegetables helps to reduce the risk of obesity and chronic disease.[212] Within the CAHML region the rate of usual daily intake of two or more serves of fruit ranges between 48.3 and 55.0 ASR per 100 people. CAHML has a comparatively high rate of daily fruit intake compared to Greater Metropolitan Adelaide (GMA) and Australian rates. In all but five CAHML areas, the daily intake is higher than the GMA and Australian rates. The inner eastern LGAs of Burnside and Walkerville have highest daily intakes within the CAHML region.

The five areas that had lower daily intakes than the national levels are in the western regions of Port Adelaide, Mount Barker and parts of the Adelaide Hills LGAs.

Usual daily intake of two or more serves of fruit (modelled estimate), persons aged 18 years and over (ASR per 100) (2007-2008)[213]

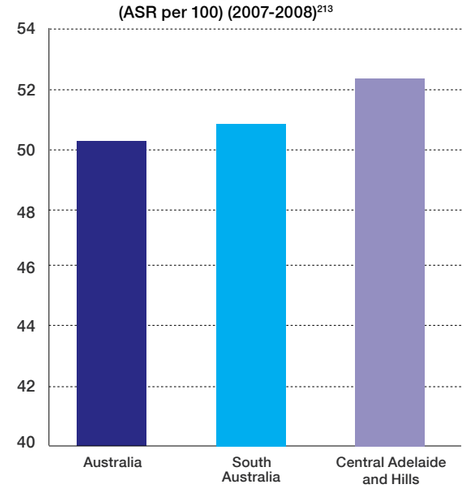
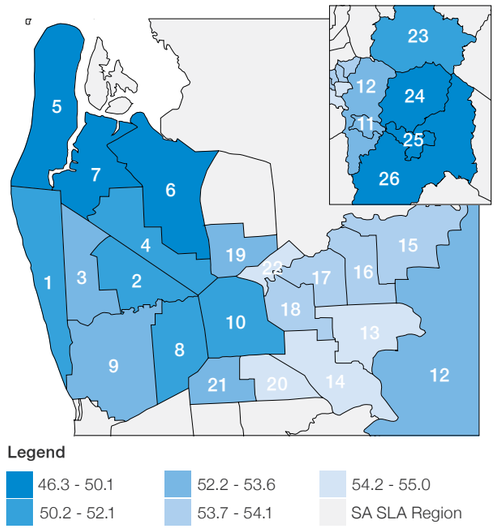


Figure 69: Usual daily intake of two or more serves of fruit within the CAHML region for persons aged 18 years and older (ASR per 100) (2007-2008)[213]



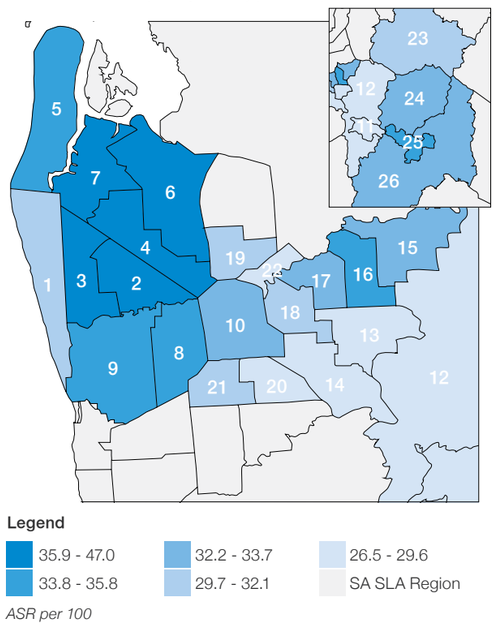
SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

Physical Inactivity

There are a range of factors that are believed to influence the level of physical activity undertaken by individuals. These include age, social disadvantage, perception of personal physical health, BMI, smoking status, and time taken participating in sedentary activities related to technology such as the use of computers and watching television.

The physical inactivity rates reported below are PHIDU modelled estimates based on self-reported data collected during the 2007-08 National Health Survey. Physical inactivity is defined as those who did not exercise in the two weeks prior to interview through sport, recreation or fitness (including walking).

Figure 70: Level of Physical Inactivity within the CAHML Region, persons aged 15 years and older (ASR per 100) (2007-08)[215]



Physical inactivity in people aged 15 years and above varies considerably across the CAHML region. The western region generally recorded the highest levels of inactivity. Port Adelaide and Enfield - Park and Port SLAs recorded the highest levels of inactivity at 47.0 and 42.5 ASR per 100 people respectively. Charles Sturt LGA recorded high levels of inactivity approximately 40 ASR per 100 people excluding the coastal zone (See Table 44 and Figure 70).

Interestingly the coastal SLAs of both Charles Sturt and Port Adelaide and Enfield LGAs had markedly lower inactivity rates with 31.7 ASR per 100 people and 34.8 ASR per 100 people respectively than the inland SLAs in those council areas. Gill (2010) identifies the level of access to quality parks and recreational facilities as being a key predictor of level of physical activity, which given the high level of green open spaces and access to the beach in these LGAs might explain the disparity.

Table 44: Level of physical inactivity within the CAHML region, persons aged 15 years and older (2007-08)[214]

Statistical Local Area (SLA) with highest prevalence	Number	ASR per 100
Port Adel. Enfield (C) - Park	6,168	47.0
Port Adel. Enfield (C) - Port	3,891	42.5
Charles Sturt (C) - North-East	9,255	41.3
Charles Sturt (C) - Inner East	7,661	40.0
Charles Sturt (C) - Inner West	8,610	39.5
West Torrens (C) - East	7,811	35.8
Campbelltown (C) - West	6,166	34.9
Port Adel. Enfield (C) - Coast	8,437	34.8
West Torrens (C) - West	8,869	33.9
Mount Barker (DC) - Central	5,208	33.9
CAHML	**143,930**	**33.9**
Greater Metropolitan Adelaide	**340,677**	**35.1**
Australia	**5844002**	**34.31**

RISK FACTORS AND HEALTH STATUS

At Least One of Four Health Risk Factors

Figure 71 highlights that the western suburbs within the CAHML region have a higher rate of the population who have at least one health risk factor: smoking, harmful use of alcohol, physical inactivity or obesity. When compared to GMA and Australian rates, CAHML is lower than both for people with at least one of the four risk factors shown in Figure 72.

Figure 71: People with at least one of four of the following health risk factors - smoking, harmful use of alcohol, physical inactivity, obesity (modelled estimate) - 18 years and over (2007-08)[216]

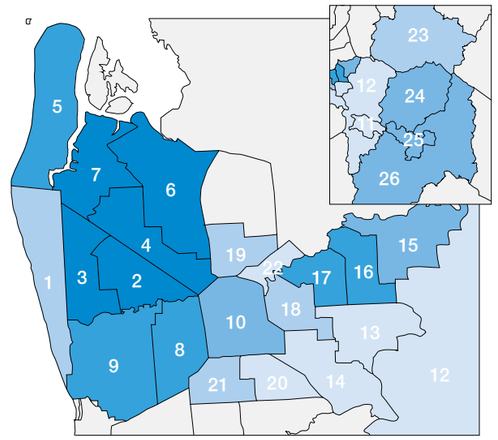
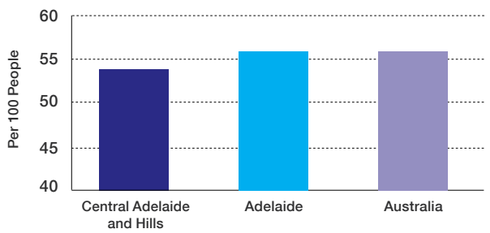


Figure 72: CAHML, GMA and Australian Rates: People with at least one of four of the following health risk factors - smoking, harmful use of alcohol, physical inactivity, obesity (modelled estimate) - 18 years and over (2007-08)[217]



4.1.2

Health Status (2011-2013)

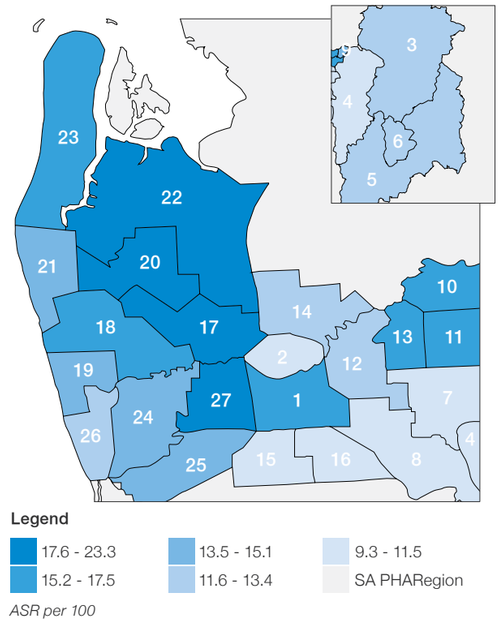
Self-assessed health status has been validated as a useful indicator of health for a variety of populations. It allows for broad comparisons across different conditions and populations and is rated as excellent, very good, good, fair, or poor.[218] In the CAHML region, 14.8 ASR per 100 people, self-assessed their health as 'poor' or 'fair'. This is marginally higher than the Australian rate of 14.6 ASR per 100 people and slightly lower than the GMA score of 15.3 ASR per 100 people. When compared to MLs nationally, CAHML ranks 34th of 61. People living in the western and pockets of the north eastern suburbs within the CAHML region reported poor or fair health at a higher rate than other areas (see Figure 73 and Table 45).

Table 45: Fair or poor self-assessed health within CAHML (modelled estimate), persons aged 15 years and over (2011-13)[219]

Population Health Area (PHA)	Number	ASR per 100
Dry Creek - South/ Port Adelaide/ The Parks	5,517	23.3
Charles Sturt - North West	3,624	20.2
Richmond (SA)	2,536	18.7
Beverley/ Hindmarsh - Brompton	3,653	18.3
Flinders Park/ Seaton - Grange	4,904	17.5
Paradise - Newton	3,003	17.5
Adelaide	1,667	17.2
Payneham - Felixstow	1,890	16.8
Largs Bay - Semaphore/ North Haven	3,900	15.4
Rostrevor - Magill	2,910	15.2
CAHML	**64,646**	**14.8**
Greater Metropolitan Adelaide	**161,650**	**15.3**
Australia	**2,620,662**	**14.6**

People living in the western and pockets of the north eastern suburbs within the CAHML region reported poor or fair health at a higher rate than other areas.

Figure 73: Fair or poor self-assessed health within CAHML (modelled estimate), persons aged 15 years and over (2011-13)[220 221]



PHA	Index
Adelaide	1
North Adelaide	2
Adelaide Hills/ Lobethal - Woodside	3
Aldgate - Stirling/ Uraidla - Summertown	4
Hahndorf - Echunga/ Mount Barker Region/ Nairne	5
Mount Barker	6
Burnside - Wattle Park	7
Glenside - Beaumont/ Toorak Gardens	8
Athelstone	9
Paradise - Newton	10
Rostrevor - Magill	11
Norwood (SA)/ St Peters - Marden	12
Payneham - Felixstow	13
Nailsworth - Broadview/ Prospect/ Walkerville	14
Goodwood - Millswood	15
Unley - Parkside	16
Beverley/ Hindmarsh - Brompton	17
Flinders Park/ Seaton - Grange	18
Henley Beach	19
Charles Sturt - North West	20
West Lakes	21
Dry Creek - South/ Port Adelaide/ The Parks	22
Largs Bay - Semaphore/ North Haven	23
Adelaide Airport/ Lockleys	24
Fulham/ West Beach	25
Plympton	26
Richmond (SA)	27

HEALTH CHARACTERISTICS

Within the CAHML region there is an estimated 7.0 ASR per 100 people (29398 people) with diabetes mellitus, this is higher than Australian and GMA rates.

4.2.1

Chronic Conditions

Prevalence of Diabetes Mellitus

There are three main types of diabetes mellitus: type 1, type 2 and gestational diabetes.

'Diabetes can lead to … health complications such as blindness, kidney disease, poor circulation, ulcers and amputation. It is estimated that amputation occurs 15 times more with people who have diabetes than with people who do not.'[222]

Within the CAHML region there is an estimated 7.0 ASR per 100 people (29,398 people) with diabetes mellitus, this is higher than Australian and GMA rates (5.4 ASR per 100 people and 6.7 ASR per 100 people respectively).

The western suburbs have the highest rates of diabetes mellitus in the CAHML region, with Dry Creek – South / Port Adelaide/ The Parks being nearly double the CAHML average at 13.6 ASR per 100 people (see Table 46).

Figure 74: Estimated population within the CAHML region, aged 18 years and over, with diabetes mellitus (2011-13)[224]

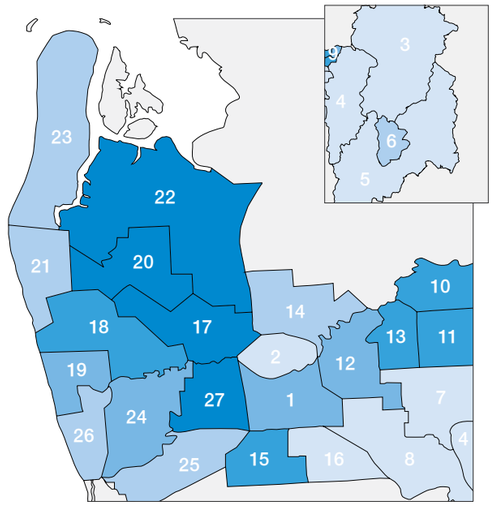


Table 46: Estimated population within the CAHML region, aged 18 years and over, with diabetes mellitus (2011-13)[223]

Population Health Area (PHA)	Number	ASR per 100
Dry Creek - South/ Port Adelaide/ The Parks	2,985	13.6
Charles Sturt - North West	1,849	11.1
Beverley/ Hindmarsh - Brompton	1,769	9.9
Richmond (SA)	1,126	9.4
Payneham - Felixstow	1,004	9.3
Paradise - Newton	1,511	8.8
Flinders Park/ Seaton - Grange	2,113	7.5
Goodwood - Millswood	951	6.9
Rostrevor - Magill	1,313	6.9
CAHML	**29,398**	**7.0**
Greater Metropolitan Adelaide	**67,458**	**6.7**
Australia	**917,838**	**5.4**

Prevalence of High Cholesterol Levels

Evidence strongly indicates that high cholesterol can increase the risk of: narrowing of the arteries (atherosclerosis), heart attack, stroke and mini-stroke. Cholesterol can build up on the artery walls which restricts the flow of blood to the body and major organs.

CAHML ranks as having the 12th highest rates of high cholesterol levels in the nation and has the same rate as GMA (34.5 ASR per 100 people) and a higher rate than Australia (32.8 ASR per 100 people) (Table 47). North Adelaide (41.7 ASR per 100 people), Fulham/ West Beach (37.4 ASR per 100 people) and Glenside - Beaumont/ Toorak Gardens (37.1 ASR per 100 people) have the highest rates of high cholesterol in CAHML and as can be seen in Figure 75, the distribution of high prevalence is scattered in the metropolitan areas and covers the hills consistently.

Figure 75: Estimated population within CAHML, aged 18 years and over, with high blood cholesterol (2011-13)[226]

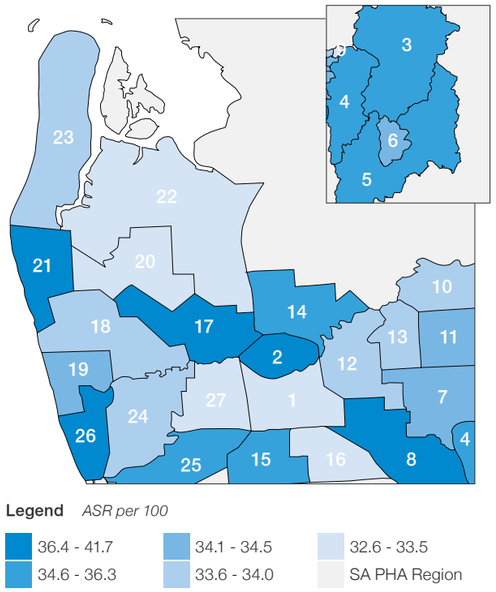


Table 47: Estimated population within CAHML, aged 18 years and over, with high blood cholesterol (2011-13)[225]

Population Health Area (PHA)	Number	ASR per 100
North Adelaide	1,978	41.7
Fulham/ West Beach	2,203	37.4
Glenside - Beaumont/ Toorak Gardens	7,480	37.1
West Lakes	4,741	36.9
Aldgate - Stirling/ Uraidla - Summertown	7,083	36.3
Adelaide Hills/ Lobethal - Woodside	4,632	36.3
Hahndorf - Echunga/ Mount Barker Region/ Nairne	4,153	35.3
Goodwood - Millswood	4,905	34.8
Plympton	6,202	34.6
Nailsworth - Broadview/ Prospect/ Walkerville	7,532	34.6
CAHML	**138,669**	**34.5**
Greater Metropolitan Adelaide	**339,118**	**34.5**
Australia	**5,592,380**	**32.8**

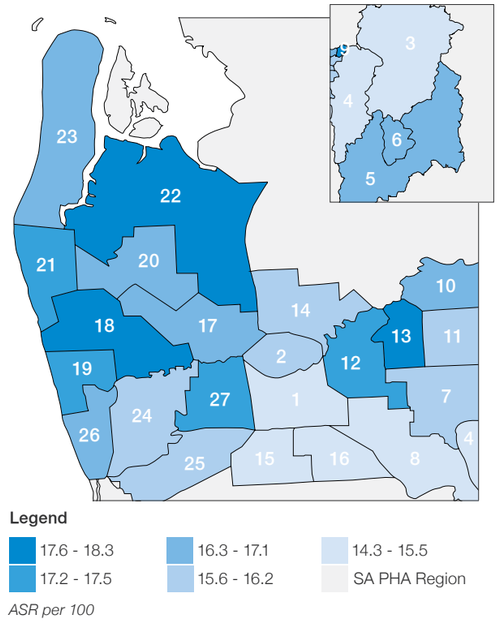
Prevalence of Circulatory Disease (2011-2013)

Circulatory diseases include atherosclerosis, hypertension, and peripheral vascular disease. Circulatory disease prevalence in the CAHML region is highest in the western and pockets of the inner eastern suburbs (Figure 76). The CAHML rate of 16.5 ASR per 100 people is marginally lower than GMA (16.7 ASR per 100 people) and Australia (17.3 ASR per 100 people) (Table 48).

Table 48: Estimated population within the CAHML region, aged 2 years and over, with circulatory system diseases (2011-13)[227]

Population Health Area (PHA)	Number	ASR per 100
Athelstone	1,819	18.3
Dry Creek - South/Port Adelaide/ The Parks	5,086	18.0
Flinders Park/ Seaton - Grange	6,344	17.6
Payneham - Felixstow	2,504	17.6
Henley Beach	2,878	17.5
Richmond (SA)	2,724	17.4
Norwood (SA)/St Peters - Marden	4,215	17.4
West Lakes	3,449	17.2
CAHML	**89,030**	**16.5**
Greater Metropolitan Adelaide	**214,599**	**16.7**
Australia	**3,721,333**	**17.3**

Figure 76: Estimated population within the CAHML region, aged 2 years and over, with circulatory system diseases(2011-13)[228]



HEALTH CHARACTERISTICS

Prevalence of Hypertensive Disease (a Subset of Circulatory Disease)

Hypertensive disease refers to heart problems that occur because of high blood pressure. Factors including sodium intake, physical activity, diet, overweight and obesity increase the risk of developing hypertensive disease. CAHML ranks as the 33rd highest ML region for hypertensive disease rates. The PHAs of Athelstone and North Adelaide have the highest hypertensive disease rates in the CAHML region. CAHML rates are comparable to GMA and Australian rates (see Table 49 and Figure 77).

Figure 77: Estimated population within the CAHML region, with hypertensive disease (2011-13)[230]

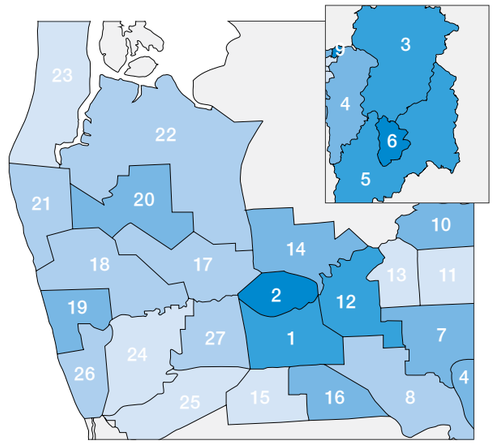


Table 49: Estimated population within the CAHML region with hypertensive disease (2011-13)[229]

Population Health Area (PHA)	Number	ASR per 100
Athelstone	1,197	11.6
North Adelaide	720	11.1
Mount Barker	1,565	10.8
Norwood (SA)/ St Peters - Marden	2,669	10.7
Adelaide	927	10.7
Adelaide Hills/ Lobethal - Woodside	1,831	10.7
Hahndorf - Echunga/ Mount Barker Region/ Nairne	1,555	10.6
CAHML	**56,673**	**10.1**
Greater Metropolitan Adelaide	**137,656**	**10.4**
Australia	**2,262,029**	**10.2**

Prevalence of Respiratory System Disease

Respiratory system diseases include illnesses such as asthma, bronchitis, pneumonia, chronic obstructive pulmonary disease (COPD) and emphysema. CAHML ranks 42nd of 61 MLs nationally, with a rate of 27.9 ASR people per 100, which is lower than the Australian rate of 28.7 ASR per 100 people. The highest prevalence is found in Fulham/ West Beach, Mount Barker and Adelaide Hills – Woodside with rates of 30.2 ASR per 100 people (see Table 50 and Figure 78).

Figure 78: Estimated population with respiratory system diseases (2011-13)[232]

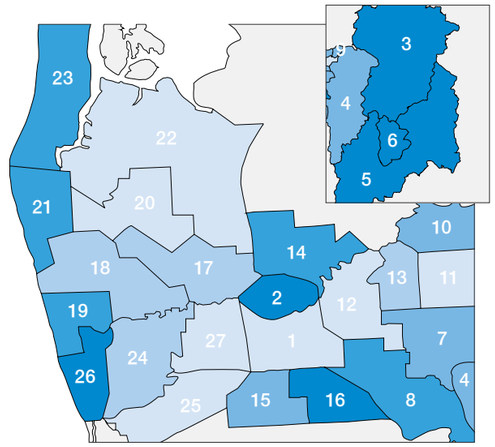


Table 50: Estimated population with respiratory system diseases (2011-13)[231]

Population Health Area (PHA)	Number	ASR per 100
Fulham/ West Beach	2,202	30.2
Mount Barker	4,590	30.2
Adelaide Hills/ Lobethal - Woodside	4,793	30.2
Hahndorf - Echunga/ Mount Barker Region/ Naime	4,426	29.7
Unley - Parkside	5,801	29.7
Henley Beach	4,377	29.6
Glenside - Beaumont/ Toorak Gardens	7,336	29.5
West Lakes	4,342	29.5
Largs Bay - Semaphore/ North Haven	8,633	29.3
Nailsworth - Broadview/ Prospect/ Walkerville	8,082	29.0
CAHML	**141,894**	**27.9**
Greater Metropolitan Adelaide	**386,689**	**30.7**
Australia	**6,336,155**	**28.7**

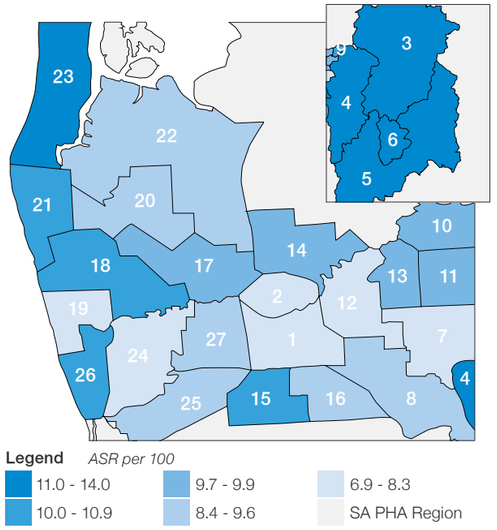
Prevalence of Asthma (a Subset of Respiratory System Disease)

Asthma makes up nearly one third of all respiratory disease. CAHML has a rate of 9.4 ASR per 100 people which is marginally lower than the GMA rate of 9.6 ASR per 100 people and the Australian rate of 9.7 ASR per 100 people (see Table 51). The highest rates of asthma in the CAHML region are found throughout the Adelaide Hills and Largs Bay – Semaphore / North Haven (Figure 79).

Table 51: Estimated population within the CAHML region with asthma (2011-13)[233]

Population Health Area (PHA)	Number	ASR per 100
Mount Barker	2,134	14.0
Hahndorf - Echunga/ Mount Barker Region/ Nairne	1,844	12.4
Adelaide Hills/ Lobethal - Woodside	1,885	11.9
Aldgate - Stirling/ Uraidla - Summertown	2,721	11.6
Largs Bay - Semaphore/ North Haven	3,313	11.4
West Lakes	1,589	10.9
Goodwood - Millswood	1,888	10.8
Fulham/ West Beach	774	10.7
Athelstone	986	10.1
Flinders Park/ Seaton - Grange	3,059	10.1
CAHML	**49,766**	**9.9**
Greater Metropolitan Adelaide	**129,275**	**10.3**
Australia	**2,254,643**	**10.2**

Figure 79: Estimated population within the CAHML region with asthma[234]



PHA	Index
Adelaide	1
North Adelaide	2
Adelaide Hills/ Lobethal - Woodside	3
Aldgate - Stirling/ Uraidla - Summertown	4
Hahndorf - Echunga/ Mount Barker Region/ Nairne	5
Mount Barker	6
Burnside - Wattle Park	7
Glenside - Beaumont/ Toorak Gardens	8
Athelstone	9
Paradise - Newton	10
Rostrevor - Magill	11
Norwood (SA)/ St Peters - Marden	12
Payneham - Felixstow	13
Nailsworth - Broadview/ Prospect/ Walkerville	14
Goodwood - Millswood	15
Unley - Parkside	16
Beverley/ Hindmarsh - Brompton	17
Flinders Park/ Seaton - Grange	18
Henley Beach	19
Charles Sturt - North West	20
West Lakes	21
Dry Creek - South/ Port Adelaide/ The Parks	22
Largs Bay - Semaphore/ North Haven	23
Adelaide Airport/ Lockleys	24
Fulham/ West Beach	25
Plympton	26
Richmond (SA)	27

HEALTH CHARACTERISTICS

CAHML has marginally higher rates of musculoskeletal system disease (31.8 ASR per 100 people) than Australian rates. This equates to 169,389 people within CAHML with a musculoskeletal condition.

Prevalence of Chronic Obstructive Pulmonary Disease (COPD) (a Subset of Respiratory Disease)

COPD is a progressively debilitating disease which has a significant impact on an individual's quality of life. In the latter stages of the disease, individuals often rely heavily on the support of spouses and family to act as carers and this can in turn compromise the health of the carer. Disease management is difficult and hospitalisation for episodes of acute illness is common and increases as the disease progresses.

Increasing the rate of smoking cessation and decreasing the rate of new smokers through education campaigns are the two most important strategies to reduce both the incidence and prevalence of COPD.

COPD rates in the CAHML region are marginally lower than GMA and Australian rates (see Table 52). Figure 80 shows the distribution of COPD prevalence in the CAHML region, with highest prevalence primarily in the western region as well as a pocket in the Norwood, St Peters and Marden PHA.

Table 52: Estimated population within the CAHML region with chronic obstructive pulmonary disease (2011-13)[235]

Population Health Area (PHA)	Number	ASR per 100
Beverley/ Hindmarsh - Brompton	590	2.5
Dry Creek - South/ Port Adelaide/ The Parks	677	2.4
Norwood (SA)/ St Peters - Marden	559	2.3
Flinders Park/ Seaton - Grange	773	2.2
Mount Barker	327	2.2
Largs Bay - Semaphore/ North Haven	690	2.2
Charles Sturt - North West	475	2.2
West Lakes	412	2.2
CAHML	**11,132**	**2.1**
Greater Metropolitan Adelaide	**28,472**	**2.2**
Australia	**529,075**	**2.4**

Prevalence of Musculoskeletal System Disease

Some of the most commonly occurring musculoskeletal conditions are osteoarthritis, rheumatoid arthritis and osteoporosis. These conditions can reduce an individual's mobility and can be the source of pain and discomfort. CAHML has marginally higher rates of musculoskeletal system disease (31.8 ASR per 100 people) than Australian rates, 30.1 ASR per 100 people. This equates to 169,389 people within CAHML with a musculoskeletal condition (see Table 53 and Figure 81).

Figure 80: Estimated population within the CAHML region with chronic obstructive pulmonary disease (2011-13)[236]

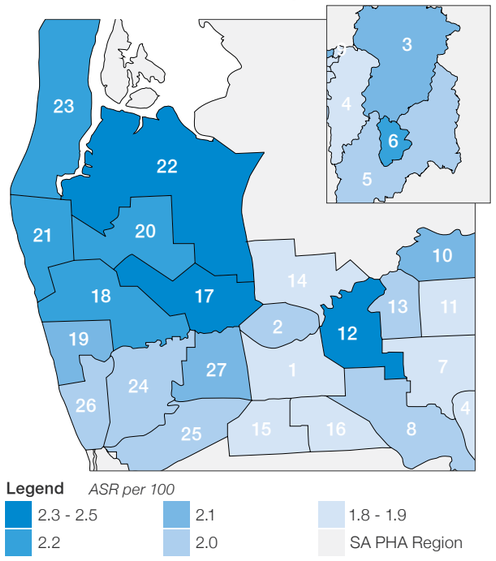


Figure 81: Estimated population within the CAHML region with musculoskeletal system disease (2011-13)[238]

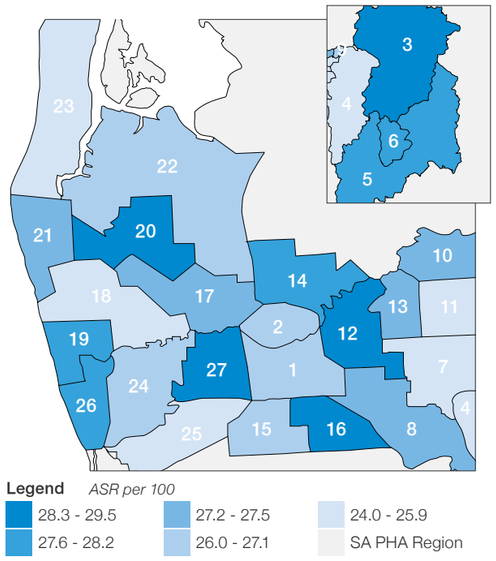


Table 53: Estimated population within the CAHML region with musculoskeletal system diseases (2011-13)[237]

Population Health Area (PHA)	Number	ASR per 100
Norwood (SA)/ St Peters - Marden	7,275	29.5
Unley - Parkside	6,035	28.8
Charles Sturt - North West	6,233	28.5
Adelaide Hills/ Lobethal - Woodside	4,708	28.4
Richmond (SA)	4,653	28.3
Fulham/ West Beach	2,364	28.2
Nailsworth - Broadview/ Prospect/ Walkerville	8,019	28.1
Mount Barker	4,106	27.9
Hahndorf - Echunga/ Mount Barker Region/ Nairne	4,121	27.8
Henley Beach	4,468	27.6
CAHML	**145,043**	**27.0**
Greater Metropolitan Adelaide	**360,953**	**27.8**
Australia	**6,118,605**	**27.7**

Prevalence of Arthritis (a Subset of Musculoskeletal System Disease)

Arthritis is an inflammatory condition that affects the joints. Arthritis conditions are part of a broader group of conditions of the muscles and bones called musculoskeletal conditions.

Arthritis and osteoporosis are among the world's leading causes of long term pain and disability.[239] In Australia, arthritis and musculoskeletal conditions became a national health priority in 2002 in recognition of the major health and economic burden these conditions place on our community. It is estimated that long-term arthritis and musculoskeletal conditions affect 6.3 million Australians.[240]

CAHML has rates of arthritis (14.7 ASR per 100 people) which are very close to the Australian rate (14.9 ASR per 100 people) and are lower than the GMA rate of 15.2 ASR per 100 people. In CAHML, 81,001 people have arthritis (Table 54 and Figure 82).

Figure 82: Estimated population within the CAHML region with arthritis (2011-13)[241]

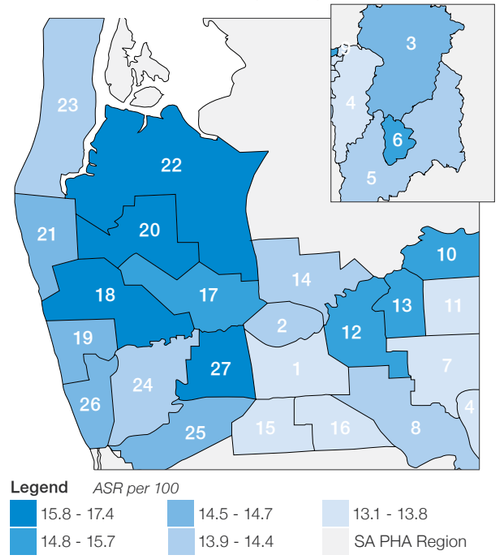


Table 54: Estimated population within the CAHML region with arthritis (2011-13)[242]

Population Health Area (PHA)	Number	ASR per 100
Richmond (SA)	2,745	17.4
Charles Sturt - North West	3,761	17.1
Dry Creek - South/ Port Adelaide/ The Parks	4,663	16.3
Flinders Park/ Seaton - Grange	5,844	16.0
Beverley/ Hindmarsh - Brompton	3,714	15.7
Mount Barker	2,196	15.1
Payneham - Felixstow	2,131	14.9
Paradise - Newton	3,290	14.8
Norwood (SA)/ St Peters - Marden	3,653	14.8
CAHML	**81,001**	**14.7**
Greater Metropolitan Adelaide	**200,813**	**15.2**
Australia	**3,265,367**	**14.8**

HEALTH CHARACTERISTICS

Sexually Transmitted Infections (STIs) - Notification in South Australia in 2013

A total of 7,385 new notifications of sexually transmitted infections (STIs) and blood borne viruses (BBVs) were collected in South Australia in 2013. This represents a 41% increase in notifications received by the Communicable Disease Control Branch (CDCB) in the five year period since 2009.'[243]

Table 55 provides a breakdown of the number of new notifications received according to each disease in the previous five-year period within South Australia.

Table 55: Number of notifications of STIs and BBVs in South Australia, (2009-13)[244]

Disease	2009	2010	2011	2012	2013
Chlamydia	3851	4398	5267	5061	5550
Gonorrhoea	369	468	440	542	806
Donovanosis	0	0	0	0	0
Infectious Syphilis	37	22	18	43	41
Non-infectious Syphilis	74	80	52	77	98
HIV	54	48	68	43	69
Hepatitis B Acute	10	21	9	17	7
Hepatitis B Unspecified	295	259	301	325	279
Hepatitis D	15	9	8	11	12
Hepatitis C Acute	34	26	32	78	61
Hepatitis C Unspecified	510	498	481	430	462
Total Notifications	**5249**	**5829**	**6676**	**6627**	**7385**

Prevalence of Chronic Hepatitis B (2011) within the CAHML Region

With an estimated 5,400 (1.09% of population) people with Chronic Hepatitis B (CHB), CAHML has the highest proportion of CHB of all of the South Australian Medicare Locals (see Table 56). The population groups at higher risk of contracting CHB are the migrant and ATSI populations. In South Australia, 65% of CHB cases are individuals born overseas (China, Vietnam, Italy, Afghanistan, Philippines and Greece) and 8% are of Aboriginal or Torres Strait Island (ATSI) descent. Figure 83 clearly highlights the LGAs of Port Adelaide and Enfield, Adelaide, West Torrens and Campbelltown as having the highest prevalence of CHB in the CAHML region. These LGAs have a higher proportion of people born overseas and ATSI populations. [245]

Figure 83: Estimates of hepatitis B prevalence by LGA within the CAHML region (2011)[146]

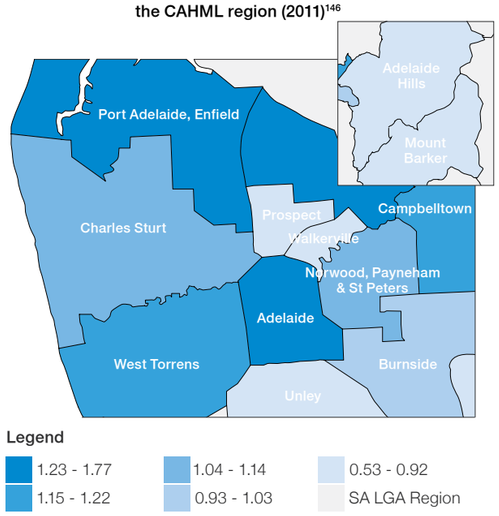


Table 56: Number of people living with CHB and prevalence (%) in the South Australian Medicare Locals

Medicare Local	Population	Number of people living with CHB, prevalence (%)	
Country North SA	189,509	1,294	0.68%
Country South SA	130,720	882	0.67%
Northern Adelaide	388,894	4,036	1.04%
Southern Adelaide-Fleurieu	386,422	2,753	0.71%
CAHML	**493,517**	**5,388**	**1.09%**
South Australia	**1,596,570**	**14,442**	**0.90%**

Table 57: Estimates of hepatitis B prevalence by LGA within the CAHML region (2011)[247]

Local Government Area	Population	Number of people living with CHB	CHB prevalence (%)
Adelaide	19639	348	1.77%
Adelaide Hills	38628	224	0.58%
Burnside	42193	420	1.00%
Campbelltown	48163	563	1.17%
Charles Sturt	104985	1197	1.14%
Mount Barker	29766	159	0.53%
Norwood Payneham St Peters	34886	382	1.09%
Port Adelaide Enfield	56500	812	1.44%
Prospect	19955	205	1.03%
Unley	36839	339	0.92%
Walkerville	7001	68	0.98%
West Torrens	54962	670	1.22%

HEALTHY WEIGHT

With 62% of the Central Adelaide and Hills Medicare Local (CAHML) population classified as overweight or obese, unhealthy weight has been identified as a priority health area. This profile provides an overview of the health needs of the CAHML population, as it relates to overweight and obesity.

The effects of overweight and obesity are widely recognised as one of Australia's leading health concerns. Being overweight or obese is strongly associated with several chronic diseases including type 2 diabetes, cardiovascular disease, certain cancers, and may have negative implications on mental health including eating disorders.[248]

A healthy weight range for an adult 18 years and over is defined by the World Health Organisation (WHO) guidelines as a body mass Index (BMI) of 18.5 to 24.9 kg/m². A BMI of 25.0 to 29.9 is defined as overweight and 30.0 or greater obese. Less than 18.5 BMI is considered underweight.

Although overweight and obesity occurs across all age groups and in both genders, differences in prevalence exist among population groups. Obesity is particularly prevalent among those in the most disadvantaged socioeconomic groups, some Aboriginal and Torres Strait Islander populations and some culturally and linguistically diverse (CALD) communities. Prevalence is also higher in rural and remote areas compared to urban areas.[249]

4.3.1

National Overview

According to the National Health Survey (NHS) conducted by the Australian Bureau of Statistics (ABS) in 2011-12, 62.8% of Australian adults were overweight or obese (35.3% overweight and 27.5% obese).[250] While obesity rates for men and women were found to be the same (27.5%), a larger percentage of men were overweight than women.

Of Australians aged 18 years and over, 35.5% were within a healthy weight range and 1.7% were underweight.

4.3.2

South Australian Overview

Depending on the national data source, prevalence of overweight and obesity in South Australia is between 65% and 67% (ABS, Heart Foundation, Public Health Information Development Unit (PHIDU) and National Health Performance Authority (NHPA)). The Heart Foundation ranks South Australia (66.6%) as the state with the highest prevalence in Australia.[251]

According to the South Australian Monitoring and Surveillance System (SAMSS)[252] 'Trends at a Glance' series, between July 2002 and June 2013 the prevalence of unhealthy weight[253] amongst South Australian adults (aged 18 years and over) increased from 54.5% in 2002 to 58.7% in 2013. This was a statistically significant increase, however there is a lower overall prevalence rate than national figures (based on 600 participants).

State data reveals statistically significant increases in unhealthy weight prevalence amongst both males and females. Between 2002 and 2013 prevalence amongst males has increased 1.9% from 62.7 to 64.6% and amongst females from 46.3 to 52.2%, an increase of 5.9%.[255]

HEALTHY WEIGHT

With 62% of the Central Adelaide and Hills Medicare Local (CAHML) population classified as overweight or obese, unhealthy weight has been identified as a priority health area.

4.3.3

Social Determinants of Health and Healthy Weight

While genetics may play a role in an individual's likelihood to become overweight or obese, the fundamental cause is an imbalance between energy consumed and energy expended.[256]

There are a number of individual, social and environmental determinants that are believed to influence behaviours associated with healthy weight, these are:

1. Household income
2. Employment
3. Behaviours learnt in childhood around nutrition and physical activity
4. Education level and health literacy
5. Personal attitudes & perceptions about weight
6. Access and availability of programs to support healthy lifestyles
7. The built environment and access to open space, transport, healthy food and safety
8. Access and availability of junk food including soft drink
9. Socio economic status
10. Food security/insecurity, that is poor food access, poor food supply and lack of food preparation skills[257]

Many of the determinants above are related to factors of disadvantage. Observing the Socio-Economic Index for Areas (SEIFA), which measures relative disadvantage based on a series of attributes including income, education, employment and occupation, provides a view of where conditions associated with disadvantage such as unhealthy weight are expected to be seen.

Figure 84 shows the SEIFA map for the CAHML region. The most disadvantaged areas are found mostly in the western suburbs (excluding Grange and Henley Beach) and also pockets in the eastern and Hills areas.

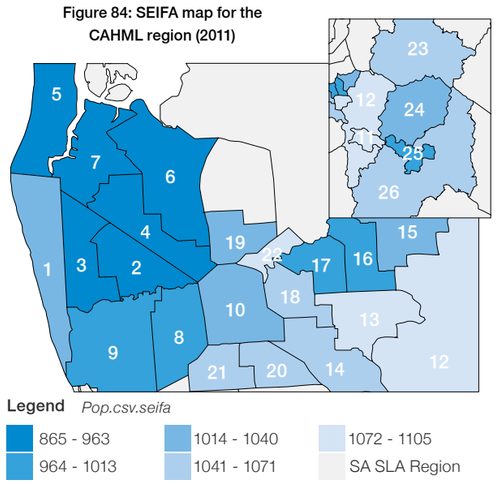
4.3.4

Pregnancy and Weight

Being overweight or obese during pregnancy increases health risks for both mother and baby. The mother is at a higher risk of miscarriage, gestational diabetes, pre-eclampsia and there is an increased risk of stillbirth, birth defects and health problems later in life. From the Pregnancy Outcomes in South Australia 2011 report, BMI statistics were available for 75% of women who gave birth in South Australia in 2011. These show that 38.4% were overweight and 18.3% were obese, including 7.9% who were severely or morbidly obese.

The risk of developing type 2 diabetes increases in women who have had gestational diabetes; 40% of women diagnosed with gestational diabetes developed type 2 diabetes within 10 years. This increases to 50% in women where obesity is present.[259]

Figure 84: SEIFA map for the CAHML region (2011)



4.3.5

Childhood and Weight

Healthy habits formed early in life can continue throughout childhood, adolescence and into adulthood. Conversely, poor health habits established in childhood may continue into adulthood. This increases the associated health risks including cardiovascular disease, high blood pressure and type 2 diabetes.

Trends in weight of South Australian children between 2004 and 2013 show a slight decrease in the prevalence of unhealthy weight from 29.6% to 26.4% (not statistically significant). In South Australia, between 2004 and 2013, the prevalence of unhealthy weight amongst male children reduced slightly from 31.6% to 28.1% and similarly amongst female children 27.2% to 24.6%. However neither of these changes were statistically significant.[260]

A statistically significant increase was noted in the proportion of children in the healthy weight range in the Central Adelaide Local Health Network (within the CAHML region) over the same time period.[261]

4.3.6

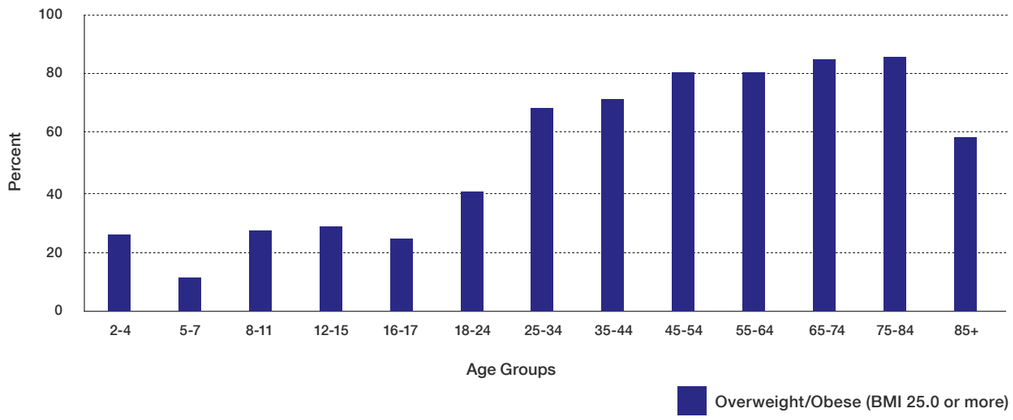
Ageing and Weight

In 2013, 14% of Australia's population (3.3 million people) were aged 65 years and over, with 1.9% (439,600 people) aged 85 and over. By 2053, based on the ABS medium level growth assumptions, 21% of the population will be 65 years and over (8.3 million people) and 4.2% will be 85 years and over (1.6 million people).[262]

Overweight and obesity is now an issue across the ageing population. Overweight and obesity varies with age, with 74.9% of Australians aged 65-74 years classified as overweight or obese, this is compared with 36.4% of people aged 18-24 years.[263] Figure 85 shows that similar to Australian trends, the proportion of South Australians who are overweight or obese varies considerably with age.

South Australian trending data reveals that between 2002 and 2013, there have been statistically significant increases in unhealthy weight prevalence among the people in age ranges of '40 -59 years' and '60 years and over' but not amongst the '18-39 years' age group.[265]

Figure 85: Proportion (%) of South Australians who are overweight or obese by age group (2011-12)[264]



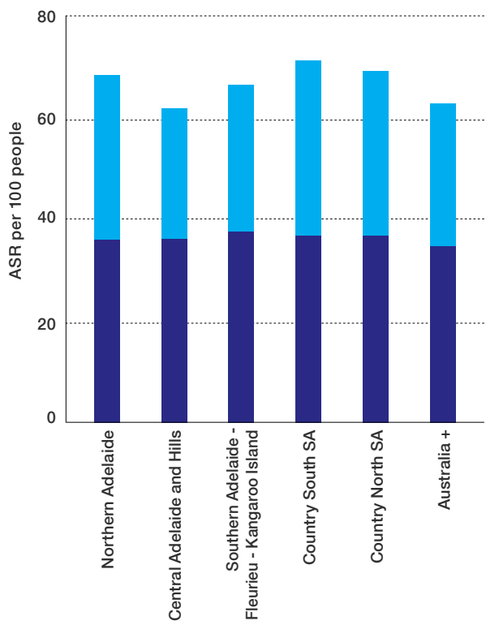
HEALTHY WEIGHT

4.3.7

A Comparison between SA MLs (2011-2013)

CAHML has the lowest rates of overweight and obesity when compared to other SA MLs. Across the SA MLs, obesity rates range from 25.8 ASR per 100 people in CAHML to 33.9 in Country North SA, while overweight rates are similar (see Figure 86).

Figure 86: Overweight and Obese rates by South Australian Medicare Locals[267]



Estimated population, aged 18 years and over, who were obese - ASR per 100

Estimated population, aged 18 years and over, who were overweight (but not obese) - ASR per 100

4.3.8

Overweight and Obesity Rates within the CAHML Region[268] (2011-2013)

Overweight Rates in CAHML[269]

The prevalence of overweight (36.2 ASR per 100 people) in the CAHML region is lower than GMA and higher than the Australian comparative rates. CAHML ranks 15th highest (of 61) when compared to MLs nationally (Figure 87).

Figure 87: Estimated population, aged 18 years and over, who were overweight (but not obese) (ASR per 100)

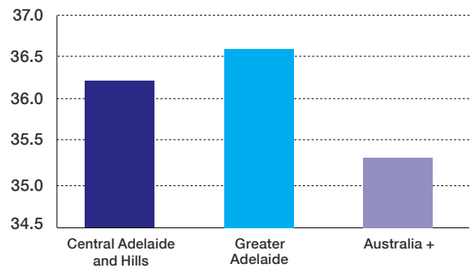
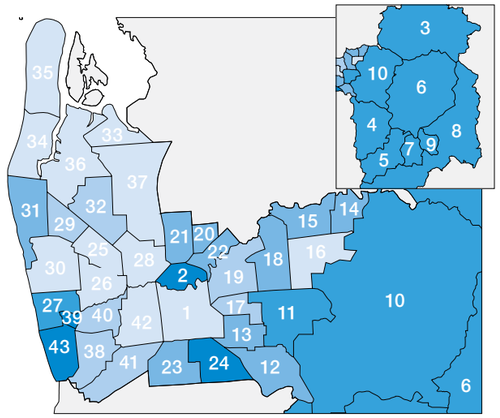


Figure 88 shows areas within CAHML with the highest rates of overweight to be Fulham, West Beach, Unley-Parkside and North Adelaide followed by the Adelaide Hills, Lobethal, Woodside, Nairne and Mount Barker. Adelaide, Dry Creek – South and Port Adelaide -The Parks have the lowest rates of overweight at between 32.5 ASR per 100 people and 34.2 ASR per 100 people, the latter however has the highest obesity rate in the CAHML region.

Figure 88: Rates of overweight within the CAHML Region (2013)[271]



Legend

38.4 - 39.5
37.2 - 38.3
35.8 - 37.1
35.0 - 35.7
32.5 - 34.9
SA SA2 Region

ASR per 100

SA2	Index
Adelaide	1
North Adelaide	2
Adelaide Hills	3
Aldgate - Stirling	4
Hahndorf - Echunga	5
Lobethal - Woodside	6
Mount Barker	7
Mount Barker Region	8
Nairne	9
Uraidla - Summertown	10
Burnside - Wattle Park	11
Glenside - Beaumont	12
Toorak Gardens	13
Athelstone	14
Paradise - Newton	15
Rostrevor - Magill	16
Norwood (SA)	17
Payneham - Felixstow	18
St Peters - Marden	19
Nailsworth - Broadview	20
Prospect	21
Walkerville	22
Goodwood - Millswood	23
Unley - Parkside	24
Beverley	25
Flinders Park	26
Henley Beach	27
Hindmarsh - Brompton	28
Royal Park - Hendon - Albert Park	29
Seaton - Grange	30
West Lakes	31
Woodville - Cheltenham	32
Dry Creek - South	33
Largs Bay - Semaphore	34
North Haven	35
Port Adelaide	36
The Parks	37
Adelaide Airport	38
Fulham	39
Lockleys	40
Plympton	41
Richmond (SA)	42
West Beach	43

HEALTHY WEIGHT

Overweight - Gender Distribution

As with national trends, there are more men who are overweight (42.0 ASR per 100) than women (30.3 ASR per 100) within the CAHML region. However the geographical distributions of overweight men and women are quite different. Less affluent western areas and parts of the hills have a high prevalence of overweight women (see Figure 89), whereas one of the most affluent areas, Unley-Parkside (48.6 ASR per 100) records the highest prevalence of overweight men (see Figure 90) followed by Fulham-West Beach and the Adelaide Hills.

Figure 89: Rates of overweight within CAHML Region - Female (2011)[272]

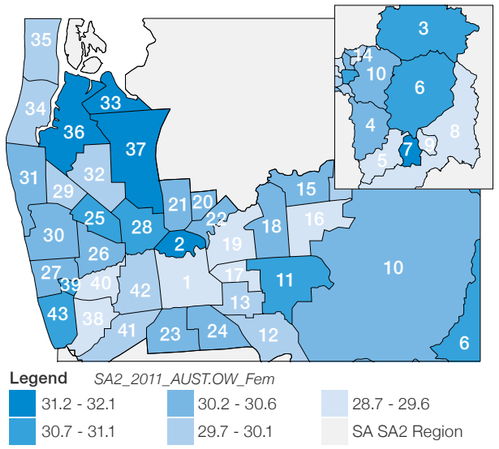
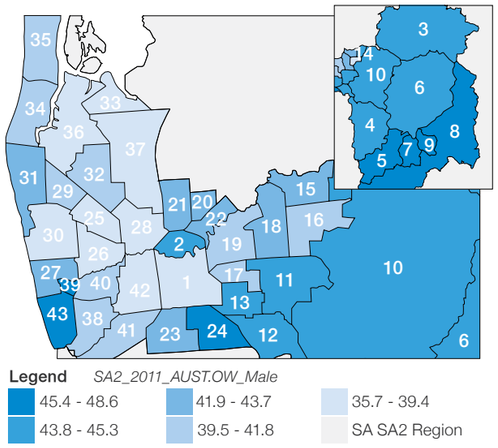


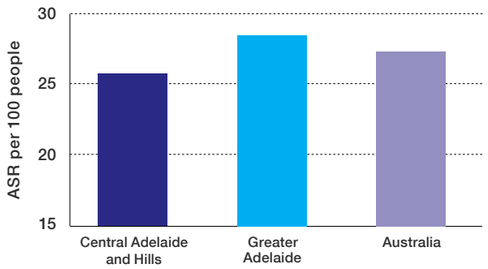
Figure 90: Rates of overweight within CAHML Region - Male (2011)[273]



Obesity Rates in CAHML[274]

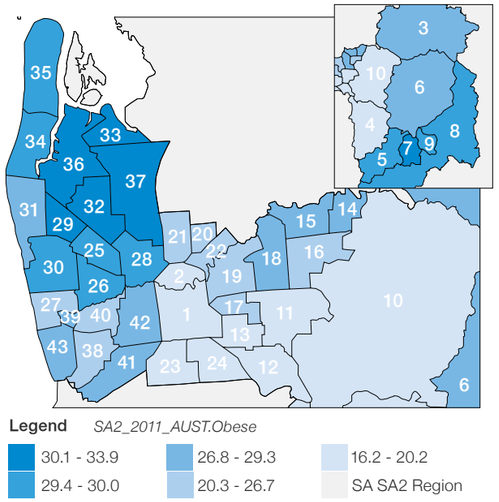
Figure 91 shows the comparative obesity rates of CAHML, GMA and Australia. CAHML ranks 48th of 61 when compared to other MLs.

Figure 91: Obesity rates within CAHML compared with GMA and national rates (2011)[275]



The highest obesity rates are found in the western suburbs and pockets of the Adelaide Hills; Lobethal, Woodside, Nairne and Mount Barker (see Figure 92).

Figure 92: Obesity rates within the CAHML Region (2011)[276]



Contrary to the data relating to overweight populations where gender distributions reveal quite different geographical patterns of prevalence, obesity prevalence have a similar pattern for both men and women (see Figures 93 and 94). It is important to note that areas of high obesity prevalence run a similar geographic pattern to the most disadvantaged areas (SEIFA distribution pattern). This pattern is consistent with research identifying correlations between disadvantage and high rates of obesity.[277] Correlations have also been found between higher obesity rates and living in regional areas, the distribution in Figure 92 is suggestive of this pattern in the Adelaide Hills.

4.3.9

Summary

As with national trends there is an increasing trend of unhealthy weight prevalence in South Australia and within the CAHML region. Areas of highest obesity prevalence are found in more disadvantaged regions such as the western suburbs and regional areas such as Mount Barker, but for the first time, high prevalence of overweight is evident in the more affluent suburbs of North Adelaide, Burnside, Unley and Parkside. With nearly two thirds of the adult CAHML population either overweight or obese, the potential for increased rates of associated health issues such as type 2 diabetes, arthritis, mobility, and cancer will need to be considered in any future regional health program and service planning.

Figure 93: Obesity rates within the CAHML Region - Female (2011)

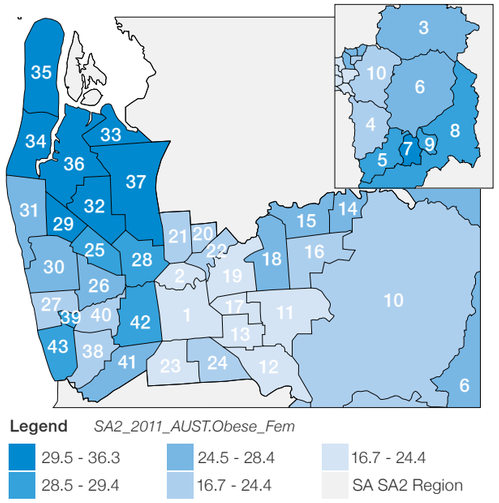
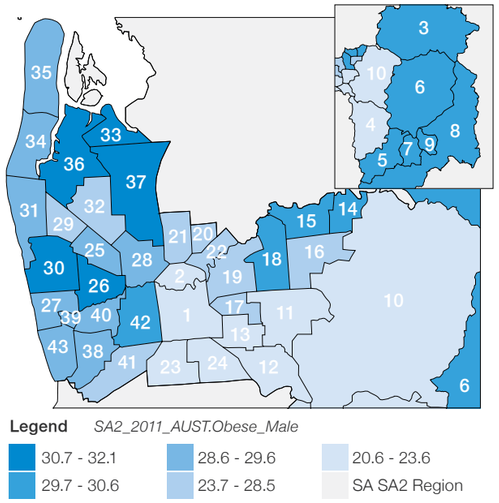


Figure 94: Obesity rates within the CAHML Region - Male (2011)



ORAL HEALTH

Within the CAHML region, 52% of adults saw a dentist, hygienist or dental specialist in the preceding 12 months (2011-2012).

Dental problems are very common in the Australian population with 26% of adults having untreated dental decay, 23% have moderate to severe gum disease and 15% experience toothache often or very often.[278] This section contains mostly South Australian level oral health data as CAHML level data is not available for individual public or private service use.

4.4.1

Access to Services

With the exception of children (who are eligible for the School Dental Service), 75% of South Australians receive dental care through private dental services, with or without access to private health insurance. Middle to low income earners are those most likely to acknowledge cost as a barrier to receiving dental care. Within the CAHML region, 52% of adults saw a dentist, hygienist or dental specialist in the preceding 12 months (2011-2012). This is slightly higher than the Metro 2 (group of comparable MLs defined by NHPA)[279] average of 51%. CAHML ranks lower than average for percentage of adults who did not see, or delayed seeing a dentist, hygienist or dental specialist due to cost in the preceding 12 months; 12% compared to 20% of adults across Metro 2 regions.[280]

In South Australia, 28% of adults have a health care card and are eligible for dental care from public dental services. Cost is often cited as a barrier to care by people who are not eligible for public dental services, with private fees having increased nationally by 50.5% in the past ten years. In South Australia, 46% of adults have dental insurance.[281]

The South Australian Oral Health Plan 2010 – 2017 identifies groups which may have additional oral health care needs that increase the risk of oral health problems or the complexity of care required. These groups are comprised of people with an intellectual or physical disability, medical or mental health or substance abuse problems. Those with chronic medical conditions are also more at risk of having dental care problems e.g. people with diabetes, cancer and blood related diseases such as HIV-AIDS and hepatitis C.[282]

Aboriginal and Torres Strait Islander people, especially young children, are at risk of developing tooth decay in to adulthood. Nationally, 72% of six year old Aboriginal and Torres Strait Islander children have some tooth decay, compared with 38% of other Australian children. In South Australia, Aboriginal and Torres Strait Islander children experience 70% more dental cavities than non-Aboriginal children and more untreated dental decay. There is also a higher prevalence amongst Aboriginal and Torres Strait Islander adults of severe periodontal disease compared to children. Periodontal disease is therefore a contributing factor to the higher number of missing teeth in Aboriginal and Torres Strait Islander people, around 30% of tooth loss.[283]

Of particular importance to CAHML due to the large CALD community within the region, is that children from non-English speaking backgrounds experience 80% more decay in their 'baby' teeth and 30% more decay in adult teeth than other children. No comparable data is available on the oral health of migrant adults, yet it is likely the inequality among adults is wider than that for children.[284]

4.4.2

SA Dental Services

Private Dental Services

There are 186 private dental practices across the CAHML region. Of the 642 dentists practising in the CAHML region, 317 work in a group private practice and 121 in solo private practice. For dental hygienists, 86% of the workforce work in private practice (55% in a group practice and 31% in solo practice).

Public Dental Services

Public dental care is provided through the SA Dental Service and provides a range of dental services for all children and eligible adults at clinics throughout South Australia. Services include:

- Dental care for children: The School Dental Service funded by SA Health offers professional oral health care to eligible children. This care is provided by teams of dentists, dental therapists, and dental assistants. All preschool, primary school and secondary school students, aged under 18 years, are eligible for oral health care with the School Dental Service. Within 2011-12, 2,249 preschool children were referred to the oral health program, an increase from 1,542 in the previous year, with referrals from 444 allied health providers, an increase of 69. Of the 2,249 pre-schoolers referred, 51% of children were 4 years and under, a 3% increase from the previous year, and Aboriginal and Torres Strait Islander children make up 15% of all children referred. Since its commencement, 6,440 preschool children have been supported by the program. More statistics on the School Dental Service are in Table 58.

- Dental care for adults; the Community Dental Service provides a range of dental services to eligible adults at clinics throughout South Australia. Eligible adults (or their adult dependents) with a current Pensioner Concession Card (Centrelink or Veterans' Affairs) or a health care card, receive a range of general and emergency dental care services through a community dental clinic.

- Adelaide Dental Hospital; provides general dental services (including teaching clinics for undergraduate and postgraduate students) and specialist dental services.

Within the CAHML region, a dental clinic operates at The Queen Elizabeth Hospital (mainly servicing hospital patients). There is also a specialist paediatric dentistry unit at the Women's and Children's Hospital.

An Aboriginal and Torres Strait Islander specific dental program is also provided at various locations across the state and at Nunkuwarrin Yunti within the CAHML region.

Table 58: The treatment statistics by the SA Dental Service (by service type)

Service Type	Statistical Year	Patient number	Patient number
School Dental Service[286]	2011/12	84, 380	173, 208
Community Dental Service[287]	2011/12	45, 997	107, 543
Adelaide Dental Hospital[288]	2011/12	21,527	75, 531

Challenges exist in terms of waiting times for public dental services, as reported for the 2011-2012 period. The median waiting time for routine care reduced from 12 months (June 2011) to 9 months (June 2012). For denture wait lists, the median length of wait is 14 months (June 2012) down 3% from June 2011.[289]

4.4.3

Hospital Admissions for Dental

In 2003-04, dental extractions and restorations were the most common reason for children under 15 years of age to undergo general anaesthesia in an Australian hospital. Dental conditions ranked the highest out of all acute categories for potentially avoidable hospitalisations across the whole population within the CAHML region (2011-2012); 368 hospitalisations per 100,000 persons (age standardised). This ranking is 20% higher than other comparable MLs within the peer comparison group (NHPA Metro 2).[290]

MENTAL HEALTH

Mental illness is estimated to directly affect around 45% of Australians (aged 18-85) at some point in their life.

Mental illness covers a range of conditions that vary in severity and duration. At one end of the spectrum, people may experience mild depression or anxiety that can be resolved in a relatively short time, particularly if treated promptly. At the other end of the spectrum, a smaller proportion of people experience severe and debilitating mental illness including psychotic disorders such as schizophrenia, or bipolar disorder, which are life-long conditions. Mental illness is estimated to directly affect around 45% of Australians (aged 18-85) at some point in their life.[291] Mental and behavioural disorders account for a significant proportion of disability in the community, affecting around 25% of individuals.[292]

4.5.1

Risk Factors for Mental Health Problems

Social Determinants of Mental Health

There is a complex interrelationship between social disadvantage and mental illness. At a societal level this can be viewed as self-perpetuating – mental illness causes social disadvantage and vice versa. The social determinants of health discussed in more detail in Section 2 contribute significantly to mental health problems in the community. A growing body of evidence indicates that unfavourable social conditions in disadvantaged communities exposes residents to chronic stress, which increases the risk of mental illness.[293] The correlation between socioeconomic disadvantage, low social cohesion and mental ill health in the CAHML region supports this evidence. Social disadvantage can also be a consequence of mental ill health, when individuals whose mental illness is not well managed are unable to participate in the workforce, have limited social networks and relationships, and low income. Substance abuse is also a significant factor in the interrelationship between social disadvantage and mental illness.

Alcohol Consumptions

Excessive alcohol consumption is a major risk factor for morbidity and mortality, including both physical and mental health problems. The harmful use of alcohol is the world's third largest risk factor for disease burden. Alcohol is associated with many serious social and developmental issues, and causes harm far beyond the physical and psychological health of the drinker. It also harms the wellbeing and health of people around the drinker.[294]

In the CAHML region, high rates of 'risky' alcohol consumption are most prevalent in the north western suburbs around Port Adelaide, which correlates with high prevalence of psychological distress and suicide in that region. The Norwood - St Peters - Marden area of the inner eastern suburbs has relatively high levels of risky alcohol consumption, yet the prevalence of mental and behavioural problems and psychological distress is relatively normal, although the incidence of suicide is slightly elevated. The rural area surrounding Mount Barker has relatively high rates of risky alcohol consumption. Although the data shows that mental and behavioural disorder prevalence is relatively normal in this area, Mount Barker has the highest incidence of suicide in CAHML. The overall rate of risky alcohol consumption in CAHML is relatively low at 3.8%, compared with the Australian rate of 4.7%. In CAHML, all PHAs fall below the Australian rate, except for Largs Bay – Semaphore, North Haven which equals it. (see Table 59)[295]

Figure 95: Alcohol consumption at levels considered to be high risk to health, 18+ years, in CAHML (2011-13)[296]

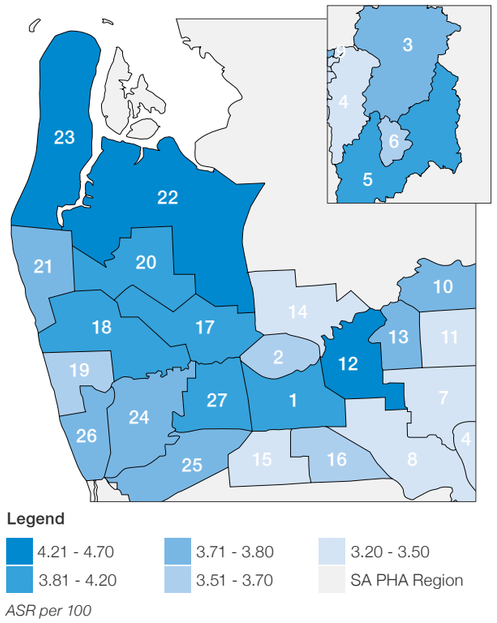


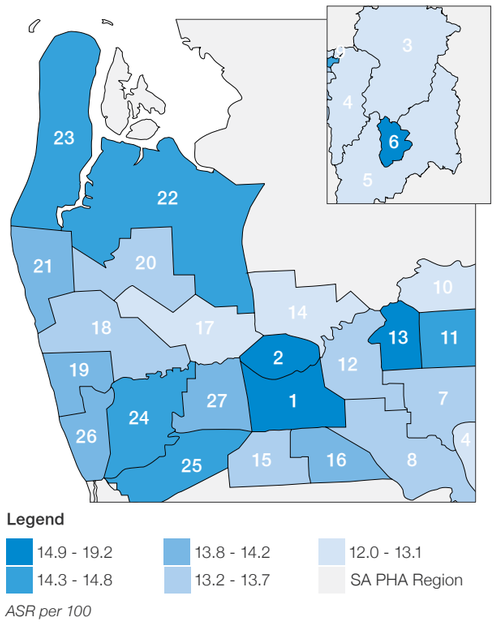
Table 59: CAHML PHAs with highest rates of alcohol consumption at levels considered high risk to health, age 18 years+ (2011-13)[297]

PHA	(ASR per 100)
Largs Bay - Semaphore/ North Haven	4.7
Dry Creek - South/ Port Adelaide/ The Parks	4.5
Norwood (SA)/ St Peters - Marden	4.4
Hahndorf - Echunga/ Mount Barker Region/ Nairne	4.2
Beverley/ Hindmarsh - Brompton	4.2
Charles Sturt - North West	4.0
Richmond (SA)	3.9
Flinders Park/ Seaton - Grange	3.9
Adelaide	3.9
Paradise - Newton	3.8
Adelaide Hills/ Lobethal - Woodside	3.8
CAHML	**3.8**
Greater Metropolitan Adelaide	**4.0**
Australia	**4.7**

Prevalence of Mental and Behavioural Problems in CAHML

Mental and behavioural problems show a somewhat scattered pattern of distribution across the CAHML region, with the highest prevalence occurring in the PHAs of Adelaide city, North Adelaide, and Mount Barker. Overall CAHML has a similar prevalence of mental and behavioural problems (13.9%) compared to Australia overall (13.6%), and slightly lower than that of Greater Metropolitan Adelaide (14.5%) (see Table 60 overleaf)[298]

Figure 96: Population with mental and behavioural problems in CAHML (2011-13)[299]



MENTAL HEALTH

Major mental health promotion initiatives like Beyondblue may have led to males becoming more likely to acknowledge that they have a mental or behavioural problem since 2007-08.

Table 60: Population with mental and behavioural problems in CAHML (2011-13)[300]

PHA	ASR per 100
Adelaide	19.2
North Adelaide	15.5
Mount Barker	15.1
Payneham - Felixstow	15.0
Dry Creek - South / Port Adelaide / The Parks	14.8
Largs Bay - Semaphore / North Haven	14.6
Adelaide Airport / Lockleys	14.6
Rostrevor - Magill	14.4
Plympton	14.3
Unley - Parkside	14.2
Richmond (SA)	14.0
Henley Beach	13.9
CAHML	**13.9**
Greater Metropolitan Adelaide	**14.5**
Australia	**13.6**

Among males, mental and behavioural problems are most prevalent in central Adelaide. As with the population overall, the distribution pattern of mental and behavioural problems in males is scattered in various PHAs across the CAHML region. The proportion of males in CAHML with mental and behavioural problems is 13.3 per 100, which is the same as for Greater Metropolitan Adelaide, but slightly higher than the Australian prevalence of 12.0 per 100. A number of PHAs in the CAHML region have significantly higher prevalence as shown in Table 61.

Of particular interest is the fact that the prevalence of mental and behavioural problems in males has increased in CAHML, Greater Metropolitan Adelaide and Australia since 2007-08. Certain sub-regions within CAHML have also seen a considerable increase, while others have seen prevalence rates remain fairly static. Many of those which have remained static are those which had the higher prevalence in 2007-08.[301]

This data is based on self-reporting of mental health problems by community members and this should be considered when drawing conclusions from this data. Survey respondents may not disclose that they have had a mental health problem, due to the sensitivity of the information, or they may not have sought help for a mental health problem (it may have gone undiagnosed and untreated), which may partly explain why the prevalence is lower in males than females. The variation over time may be partly explained by variation in data collection methods and the way in which questions were phrased. Major mental health promotion initiatives like Beyondblue, which aim to reduce the stigma associated with mental health, may have led to males becoming more likely to acknowledge that they have a mental or behavioural problem since 2007-08.

Figure 97: Prevalence of mental and behavioural problems in males (2011-13)[302]

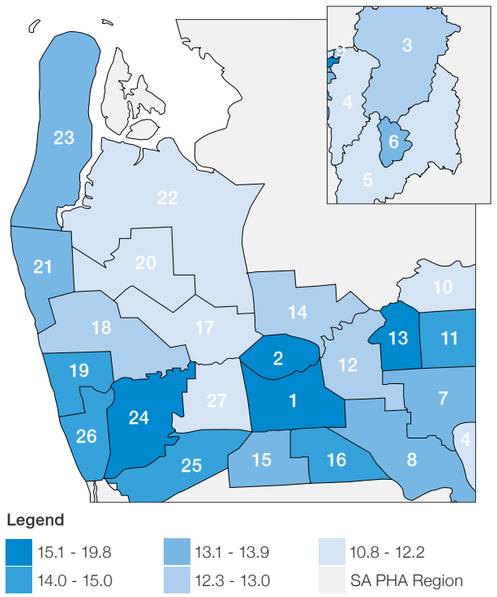


Table 61: Males with mental and behavioural problems in CAHML (2011-13)[303]

PHA with highest 2011-13 prevalence	Males with mental and behavioural problems (2007-08, ASR per 100)*	(ASR per 100)
Adelaide	(Adelaide) 11.8	19.8
North Adelaide	(Adelaide) 11.8	16.1
Payneham - Felixstow	(Campbelltown - West) 10.4 (Norw. P'ham St Peters – East) 10.3	15.4
Adelaide Airport / Lockleys	(West Torrens - West) 10.3	15.2
Unley - Parkside	(Unley - East) 9.3	15.0
Rostrevor - Magill	(Campbelltown - West) 10.4	14.7
Plympton	(West Torrens - West) 10.3 (West Torrens - East) 11.3	14.5
Henley Beach	(Charles Sturt - Inner West) 10.8 (Charles Sturt - Coastal) 10.0	14.3
Fulham / West Beach	(West Torrens - West) 10.3	14.3
West Lakes	(Charles Sturt - Coastal) 10.0	13.9
Burnside - Wattle Park	(Burnside - North-East) 8.4	13.9
SLAs with highest prevalence in 2007-08		
Dry Creek - South / Port Adelaide / The Parks	(Port Adelaide, Enfield - Port) 12.7 (Port Adelaide, Enfield - Park) 12.3	12.2
Charles Sturt - North West, Beverley / Hindmarsh - Brompton	(Charles Sturt - North-East) 11.7	10.8 11.0
Largs Bay - Semaphore / North Haven	(Port Adelaide, Enfield - Coast) 11.5	13.8
Berveley / Hindmarsh - Brompton Flinders Park / Seaton - Grange	(Charles Sturt - Inner East) 11.0	11.0 12.6
CAHML	**10.3**	**13.3**
Greater Metropolitan Adelaide	**10.7**	**13.3**
Australia	**10.1**	**12.0**

**This is only an approximate comparator as the corresponding SLAs used as the area of measurement in 2007-08 may not directly align with the PHA used as the area of measurement in 2011-13.*

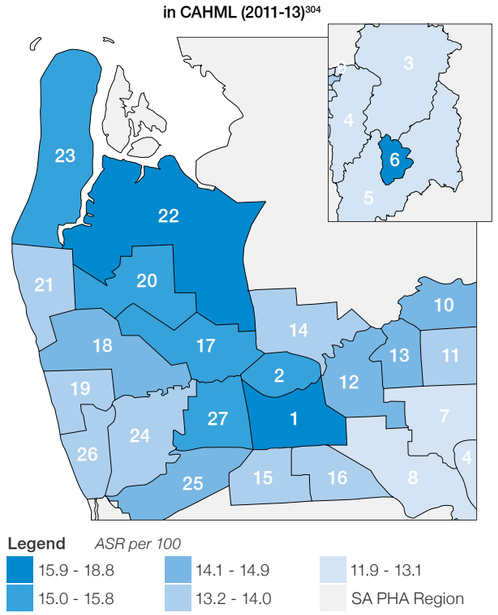
The prevalence of mental and behavioural problems for females shows a somewhat different geographic distribution. While central Adelaide has high prevalence for both males and females, females have higher prevalence rates in the north western suburbs of CAHML, and Mount Barker, which was not seen for males. The overall prevalence of mental and behavioural problems is slightly higher in females than males. The female prevalence in CAHML overall is slightly lower than that for Greater Metropolitan Adelaide and Australia. Prevalence rates increased from the 2007-08 period to the 2011-13 period, but the sub-regions with the highest prevalence remained approximately the same for females. The prevalence in central Adelaide SLA/PHA increased markedly from 12.0% to 18.8%.

MENTAL HEALTH

Table 62: Numbers and proportions of females with mental and behavioural problems[305]

PHA with highest 2011-13 prevalence	Females with mental and behavioural problems (2007-08, ASR per 100)*	Females with mental and behavioural problems (2011-13, ASR per 100)
Adelaide	(Adelaide) 12.0	18.8
Dry Creek - Wouth / Port Adelaide / The Parks	(Port Adelaide, Enfield - Port) 13.8 (Port Adelaide, Enfield - Park) 13.7	17.4
Mount Barker	(Mount Barker) 12.0	16.9
Charles Sturt - North West	(Charles Sturt - North-East) 13.0 (Charles Sturt - Inner West) 12.6	15.8
Richmond (SA)	(West Torrens - East) 12.4	15.8
Largs Bay - Semaphore / North Haven	(Port Adelaide, Enfield - Coast) 12.9	15.3
North Adelaide	(Adelaide) 12.0	15.1
Beverley / Hindmarsh - Brompton	(Charles Sturt - North-East) 13.0	15.0
Paradise - Newton	(Campbelltown - West) 12.0 (Campbelltown - East) 11.0	14.9
Payneham - Felixstow	(Campbelltown - West) 12.0 (Norwood, Payneham, St Peters - East) 11.9	14.8
Flinders Park / Seaton - Grange	(Charles Sturt - Inner East) 12.7	14.8
CAHML	**11.8**	**14.4**
Greater Metropolitan Adelaide	**12.1**	**15.7**
Australia	**11.8**	**15.1**

Figure 98: Females with mental and behavioural problems in CAHML (2011-13)[304]



High Psychological Distress

The distribution patterns of high or very high psychological distress in CAHML are similar to those for mental and behavioural problems with a high prevalence in central Adelaide, the north western and inner western suburbs (see Figure 99). Overall, the prevalence in CAHML is 10.9% which is comparable to that for Australia (10.8%) and slightly lower than for Greater Metropolitan Adelaide (11.3%). Prevalence rates have decreased slightly between 2007-08 and 2011-13, at all geographical levels. (see Table 63)[306]

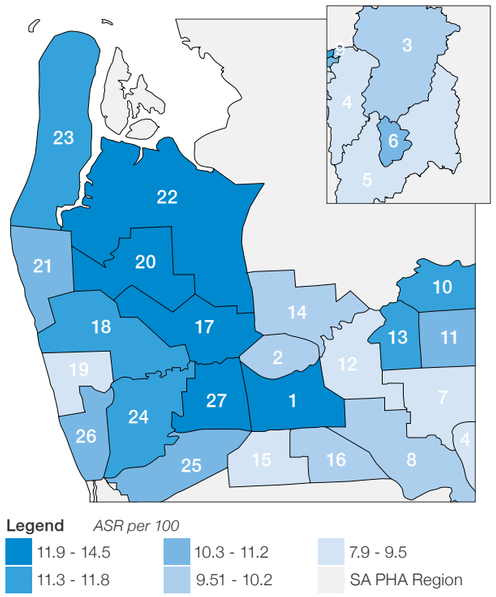
**This is only an approximate comparator as the corresponding SLAs used as the area of measurement in 2007-08 may not directly align with the PHA used as the area of measurement in 2011-13*

The rural region surrounding Mount Barker and the north western suburbs around Port Adelaide have suicide rates significantly greater than the overall CAHML rate.

Table 63: High or very high psychological distress levels, persons aged over 18 years in CAHML[308]

PHA with highest 2011-13 prevalence	Adults with high or very high psychological distress (2007-08, ASR per 100)*	Adults with high or very high psychological distress (ASR per 100)
Dry Creek - South / Port Adelaide / The Parks	(Port Adelaide, Enfield - Port) 15.7 (Port Adelaide, Enfield - Park) 17.2	14.5
Adelaide	(Adelaide) 13.5	14.1
Charles Sturt - North West	(Charles Sturt - North-East) 15.0 (Charles Sturt - Inner West) 13.8	13.8
Richmond (SA)	(West Torrens - East) 13.8	12.5
Beverley / Hindmarsh - Brompton	(Charles Sturt - North-East) 15.0	12.2
Payneham - Felixstow	(Campbelltown - West) 12.7 (Norwood, Payneham, St Peters - East) 12.5	11.8
Largs Bay - Semaphore / North Haven	(Port Adelaide, Enfield - Coast) 13.1	11.8
Paradise - Newton	(Campbelltown - West) 12.7 (Campbelltown - East) 11.3	11.6
Adelaide Airport / Lockleys	(West Torrens - West) 12.1	11.6
Flinders Park / Seaton - Grange	(Charles Sturt - Inner East)	13.7
West Lakes	(Charles Sturt - Coastal) 11.0	11.2
CAHML	**11.9**	**10.9**
Greater Metropolitan Adelaide	**12.3**	**11.3**
Australia	**11.7**	**10.8**

Figure 99: People aged over 18 years with high or very high psychological distress, in CAHML (2011-13)[307]



Suicide

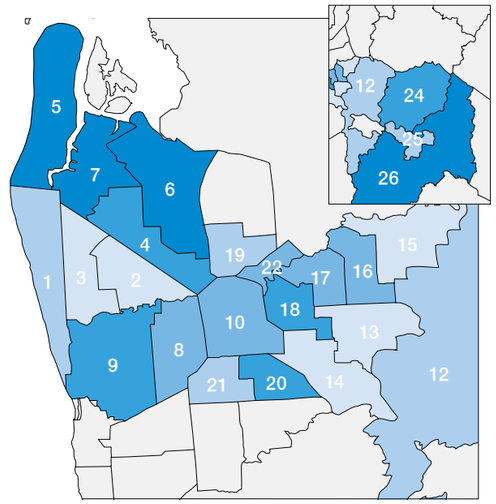
Suicide is a major public health issue. Although death by suicide is relatively uncommon, the human costs are substantial and can impact broadly across communities. As such, suicide prevention is a key focus for both government agencies and non-government organisations. In 2012 in Australia approximately 1.7% of all deaths were due to suicide (2.5% of males, 0.9% of females).[309]

The suicide rate in CAHML (13.5 ASR per 100, 000 people) is comparable to that for Greater Metropolitan Adelaide (13.2 ASR per 100,000 people) and slightly higher than that of Australia (12.4 ASR per 100,000 people). There are a number of areas within CAHML that show suicide rates of significant concern however. The rural region surrounding Mount Barker and the north western suburbs around Port Adelaide have suicide rates significantly greater than the overall CAHML rate. The CAHML and GMA suicide rates have increased slightly since the 2006-2010 period, however some SLAs within CAHML have seen significant increases, as shown in Table 64 overleaf.[310]

MENTAL HEALTH

Medicare data indicates that GPs within the CAHML region deliver a relatively high number of mental health services, when compared with selected other Medicare Locals in the 'Metro 2 Peer Group'

Figure 100: Suicide and self-inflicted injuries, 0 - 74 years in CAHML (2008-12, ASR per 100,000)[311]



SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

Legend

- 18.7 - 24.5
- 15.2 - 18.6
- 12.6 - 15.1
- 10.6 - 12.5
- 8.0 - 10.5
- SA SLA Region

ASR per 100,000

Table 64: CAHML SLAs with highest rates of death from suicide and self inflicted injuries, 0-74 years[312]

SLAs with highest 2008-12 incidence	(2006-10) ASR per 100,000*	(2008-12) ASR per 100,000
Mount Barker (DC) Bal	11.8	24.5
Port Adel. Enfield (C) - Coast	18.9	19.3
Port Adel. Enfield (C) - Park	13.5	18.9
Port Adel. Enfield (C) - Port	23.0	18.7
Adelaide Hills (DC) Bal	11.7	18.6
Unley (C) - East	15.0	18.0
Charles Sturt (C) - North-East	14.9	16.4
West Torrens (C) - West	14.0	16.1
Norw. P'ham St Ptrs (C) - West	17.2	15.9
Walkerville (M)	(data supressed due to very low number)	15.1
Adelaide (C)	11.5	14.5
CAHML	**12.2**	**13.5**
Greater Metropolitan Adelaide	**12.9**	**13.2**
Australia	**12.3**	**12.4**

4.5.2

Mental Health Service Availability

There are a range of mental health services available across CAHML from private, government and non-government agencies. Some require referral from a general practitioner and others accept self-referral. Some have eligibility criteria such as age, financial hardship, and/or residing in a 'rural' location etc. Some services offer a limited number of consultations covered by Medicare or private health insurance, while other (generally private) services are available as long as the patient is able to pay. Services span the spectrum of mental health disorder complexity, from short term therapies for mild to moderate anxiety and depression (eg. the Access to Allied Psychological Services (ATAPS) program), to longer term therapy and care coordination for complex chronic mental health problems (eg. the Partners in Recovery Program).

4.5.3

Mental Health Service Utilisation

According to 2013 CAHML ATAPS data, there were similar numbers of ATAPS services provided in the eastern and western metropolitan areas of Adelaide, (slightly less in the west). Given the significantly higher prevalence of mental and behavioural problems in the western suburbs as discussed earlier in this chapter, one might expect the delivery of services to be correspondingly higher in the western suburbs. This potentially indicates an access gap in the west, and there are likely many barriers limiting access to mental health services in the western suburbs.

The number of ATAPS services in the Adelaide Hills/ Mount Barker region is approximately half that delivered in the eastern and western metropolitan regions. Given that the population of this sub-region (approx. 70,000) is considerably less than half that of the two metropolitan sub regions (220,000 eastern, 227,000 western), and the prevalence of mental and behavioural problems is average, the volume of ATAPS services in the Adelaide Hills is comparably favourable within the CAHML region.

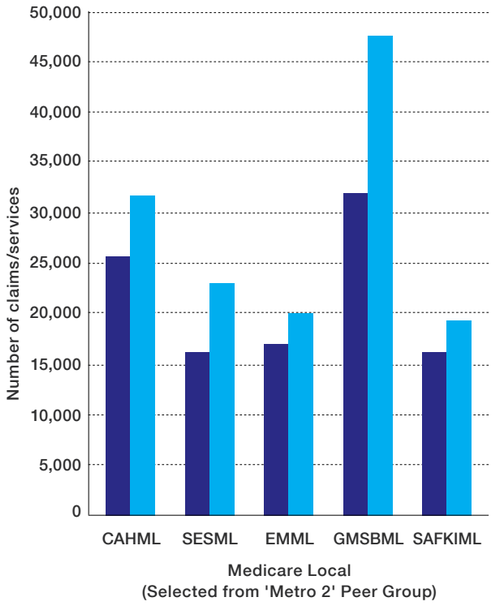
More detailed analysis of patient numbers at SLA level would enable more accurate assessment of whether ATAPS service delivery aligned with identified geographic distribution of need. This data also needs to be interpreted with caution, due to the lack of standardisation between providers as to what constitutes a 'service'. These services only represent one of a large number of options across the region so it is very difficult to determine whether service capacity aligns with community need, based on quantitative data alone.

Medicare data indicates that GPs within the CAHML region deliver a relatively high number of mental health services, when compared with selected other Medicare Locals in the 'Metro 2 Peer Group' (which have been determined by the National Health Performance Authority as having similar populations and demographic characteristics). Of the Medicare Locals examined, only Greater Metro South Brisbane ML showed higher numbers of mental health treatment plans and treatment service occasions (see figures 101 and 102). The high volume of existing service delivery indicates 'expressed need' for mental health services. The ability to analyse MBS data at a sub-regional level would allow more detailed analysis of whether mental health services are being delivered in the areas of CAHML of greatest need, but at this point in time, MBS data is only aggregated at the Medicare Local level.

MENTAL HEALTH

The high volume of existing service delivery indicates 'expressed need' for mental health services.

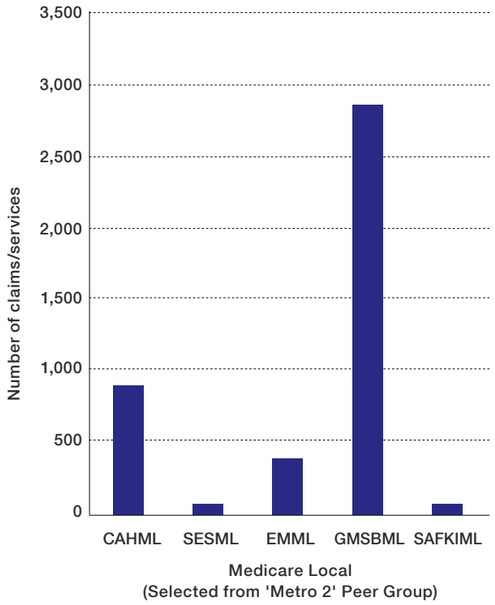
Figure 101: Mental Health MBS Item Claims in selected Medicare Locals (July 2012 - July 2013)[313]



Attendance for GP Mental Health Treatment (Item 2713)

Total MH treatment plans (Items 2700, 2701, 2715, 2717)

Figure 102: Focused Psychological Strategies delivered by GPs in selected Medicare Locals (July 2012 - Sept 2013)[314]



Focussed Psychological Strategies delivered by a GP (Item 2721, 2715, 2727)

4.5.4

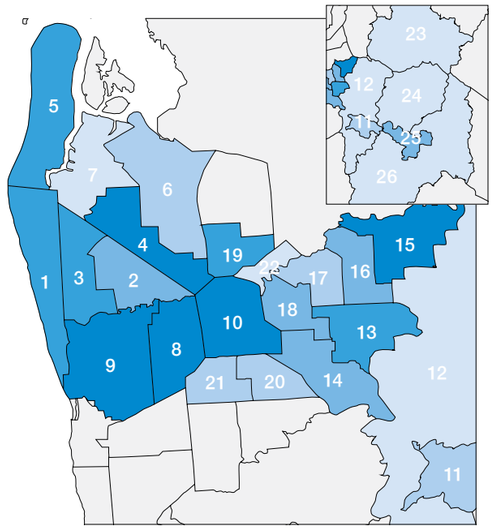
Young People and Mental Health

People aged 15 to 24 years constitute 14.2% of the CAHML population. This is slightly higher than the Australian proportion of 13.7%, and the GMA proportion of 14.1%. However, within CAHML there are regions with relatively high and low numbers of people aged 15 to 24 years as indicated in Figure 103.[315]

Table 65 shows the CAHML SLAs with the highest proportions of population aged 15-24 years.

The significantly high proportion in the central Adelaide SLA is most likely explained by the presence of two major universities and other tertiary education facilities, and the residential colleges/ boarding facilities associated with these institutions.

Figure 103: Total population aged 15 - 24 years in CAHML (2012)[316]



Legend

3922 - 5880
3075 - 3921
2691 - 3074
1425 - 2690
915 - 1424
SA SLA Region

Total population aged 15 - 24

Table 65: CAHML SLAs with highest proportion of population aged 15-24[317]

Statistical Local Area (SLA)	Number of people aged 15-24 years	% of the population who are aged 15-24 years
Adelaide (C)	5,880	28.1
West Torrens (C) - East	4,292	16.1
Norw. P'ham St Ptrs (C) - West	2,897	15.3
Prospect (C)	3,101	14.9
Burnside (C) - North-East	3,276	14.8
Port Adel. Enfield (C) - Park	2,592	14.6
Campbelltown (C) - East	4,015	14.2
Charles Sturt (C) - North-East	4,035	14.1
Burnside (C) - South-West	3,074	14.1
Unley (C) - West	2,533	14.1
Walkerville (M)	1,014	14
CAHML	**72,664**	**14.2**
Greater Metropolitan Adelaide		**14.1**
Australia		**13.7**

MENTAL HEALTH

Across Australia, CAHML ranks 9th of 61 MLs with a relatively high proportion of 15 to 19 year olds engaged in school, work or further education/training (84.6%).

Youth Mental Health Mortality and Morbidity

Among people aged 15 to 24 years in South Australia, intentional self-harm is the leading cause of death, with 22 deaths occurring in 2010 (the most recent year for which data has been published). Males are significantly most at risk, with 19 of these deaths being males. The age specific death rate for intentional self-harm in South Australia is 9.8 per 100,000 (16.5 for males). This compares to the Australian rate of 9.4 (13.3 for males).[318]

According to a 2007 ABS survey, 26.4 percent of people aged 16 to 24 years, experience a mental health disorder.[319]

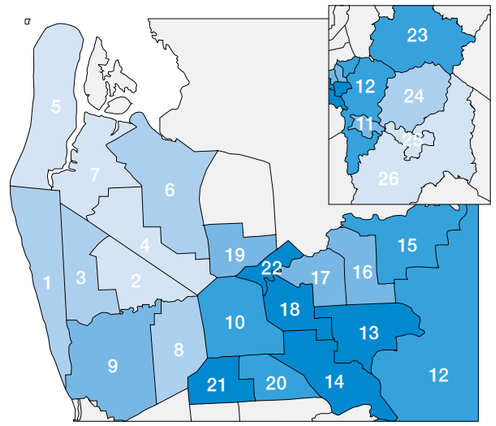
Learning or Earning - Aged 15-19

Social and educational disadvantage has been shown to be a risk factor for suicidal behaviour in young people.[320] Across Australia, CAHML ranks 9th of 61 MLs with a relatively high proportion of 15 to 19 year olds engaged in school, work or further education/training (84.6%). The Australian and GMA rates are 80.1% and 80.9% respectively. However, within CAHML there is considerable variation between SLAs, as indicated in Figure 104 and Table 66. The light shaded areas show the lowest rate of 'learning or earning', and are the areas of concern. The coastal and port regions of the Port Adelaide Enfield Council in the north western suburbs have low rates of youth 'learning or earning', which reflects the social disadvantage of the region (see the 'Social Determinants of Health' section for SEIFA indices). The Mount Barker region also has low level of youth 'learning or earning' which is concerning, particularly in light of the rapid growth of a relatively young population in this region.[321]

Table 66: CAHML SLAs with the lowest proportion of people aged 15-19 who are "learning and earning"[323]

SLA	Learning or Earning at ages 15 to 19	People aged 15 to 19	% Learning or Earning at ages 15 to 19
Port Adel. Enfield (C) - Port	489	656	74.5
Port Adel. Enfield (C) - Coast	1,371	1,745	78.6
Mount Barker (DC) Bal	521	646	80.7
Mount Barker (DC) - Central	1,158	1,428	81.1
Charles Sturt (C) - Inner East	1,036	1,275	81.3
Charles Sturt (C) - North-East	1,415	1,740	81.3
Port Adel. Enfield (C) - Park	918	1,128	81.4
Charles Sturt (C) - Inner West	1,231	1,498	82.2
Adelaide Hills (DC) Bal	523	633	82.6
Charles Sturt (C) - Coastal	1,439	1,733	83
West Torrens - East	1062	1273	83.4
CAHML	**25,959**	**30,701**	**84.6**
Greater Metropolitan Adelaide			**80.9**
Australia			**80.1**

Figure 104: Percentage of people aged 15 - 19 who are 'learning or earning' in CAHML (2011)[322]



Legend

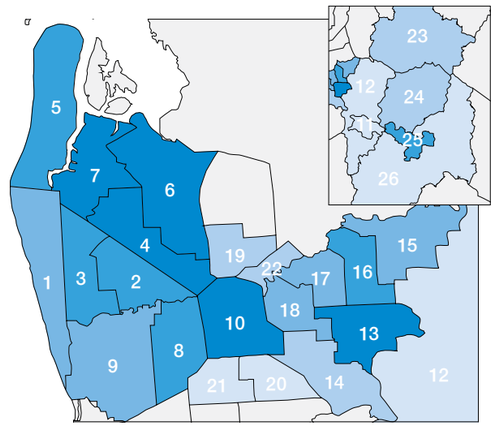
87.4 - 90.8	83.5 - 86.7	74.5 - 81.3
86.8 - 87.3	81.4 - 83.4	SA SLA Region

% Learning or earning at ages 15 - 19

Children Under 15 Years in Jobless Families

Figure 105 shows the proportion of children aged below 15 years who are in jobless families. Overall CAHML compares relatively favourably with other MLs, ranking 49th in Australia, however as indicated in Table 67, there are areas of CAHML where the proportion is relatively high. Unsurprisingly, the socioeconomically disadvantaged suburbs in Adelaide's north-west have high proportions of young people living in jobless families. Central Adelaide also has a relatively high proportion, as do the inner north eastern suburbs around Campbelltown and Payneham, and Mount Barker in the Adelaide Hills region. (Table 67 overleaf)

Figure 105: Proportion of children under 15 in jobless families in CAHML (2011)[324]



Legend

17.1 - 28.0	6.9 - 9.2	3.0 - 5.1
9.3 - 17.0	5.2 - 6.8	SA SLA Region

% of children under 15 years in jobless families

SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

MENTAL HEALTH

It was felt that people with severe and enduring mental illness often only receive services when they are in crisis.

Table 67:CAHML SLAs with the highest population of children under 15 in jobless families (2011)[325]

Statistical Local Area (SLA)	Children under 15 years in jobless families	% children in jobless families
Port Adel. Enfield (C) - Park	821	28.0
Port Adel. Enfield (C) - Port	404	24.6
Charles Sturt (C) - North-East	947	21.2
Adelaide (C)	181	19.0
Charles Sturt (C) - Inner East	615	17.0
Charles Sturt (C) - Inner West	596	16.1
Port Adel. Enfield (C) - Coast	693	15.7
Campbelltown (C) - West	423	13.1
West Torrens (C) - East	447	12.8
Norwood, Payneham, St Peters (C) - East	220	9.2
Mount Barker (DC) - Central	404	9.2
West Torrens (C) - West	388	9.1
CAHML		**11.1**
Greater Metropolitan Adelaide		**15.2**
Australia		**13.9**

Youth Mental Health Services

Mental health services available to the general population, including young people, are included in the Service Availability section. Mental health services specifically for young people include the State government funded Child and Adolescent Mental Health Services (CAMHS), which has two clinic sites in the CAHML region, one at Port Adelaide in the west, and one in the north eastern suburb of Paradise. Central Adelaide and Hills Medicare Local opened a headspace youth mental health clinic at Woodville in early 2014, and a headspace service is being proposed to be located either in Norwood in the inner eastern suburbs or Adelaide City. Residents of the 'rural' section of the Adelaide Hills (areas such as Mount Barker, Woodside, Gumeracha) who are aged over 12 years, and have low income, are eligible to use the 'Rural Primary Health Service' mental health treatment, on referral from a GP. Services are also available across the region to people aged over 18 years, on referral from a GP, under the 'Access to Allied Psychological Services' (ATAPS) program.

Qualitative Data Perspectives

Information from survey and focus group data collection (consumer, health provider and stakeholder engagement) specific to mental health highlights the following emerging issues within the CAHML community:

Health priorities

Mental health as a health priority rated highly consistently across consumer, stakeholder and health provider groups, particularly anxiety and depression and youth related mental health issues. Mental health services were seen as 'stretched' to capacity leaving consumers isolated in the community. Prevention and screening for psychological issues relating to chronic disease were seen as important.

Access to services

Long waiting periods for some services, such as community mental health services were reported as a barrier, with the requirement of a GP referral for most mental health services seen as a time consuming process. Eligibility criteria for services was also seen as a barrier and easier, more flexible referral processes were reported as a priority need. Access to psychiatrists was also seen as an issue as accessing a psychiatrist other than for a one off assessment was reported as difficult.

Mental health services were seen as fragmented across the CAHML region and were perceived to be difficult to access. A lack of coordinated care is reported with more effective collaboration around complex cases and between agencies being needed. Decreases in funding for mental health services was noted as being a contributing factor to fragmentation and lack of continuity of services.

The cost of mental health services was a common theme and increasing Medicare funding for services for people with chronic mental health problems was reported as important. The need for more trained support workers in medication and lifestyle compliance was also reported.

Youth Mental Health

Flexible assistance programs for young adults with complex mental health issues (like headspace services) was seen as a priority, especially for people in the Adelaide Hills, as was more youth friendly GP services. Better transport options to enable Hills youth to access existing services in eastern Adelaide or Murray Bridge was seen as an enabler. It was identified that homeless youths (or those in unstable accommodation) who need access to mental health services, and teenagers with depression and minimal supports were those most at risk.

People with severe and enduring mental illness

Appropriately supported accommodation for people with severe and enduring mental illness and psychosocial disabilities who are unable to live independently was reported as a key need. It was felt that people with severe and enduring mental illness often only receive services when they are in crisis. The Partners in Recovery Program was seen an effective way of ensuring people have someone who is accountable and is coordinating all of the different services and supports that may be needed.

Service capacity

Mental health services were reported as crisis driven with more emphasis on hospital beds, rather than community support and quality supported accommodation. Gaps in service capacity to support lesbian, gay, bisexual, transgender and intersex people (LGBTI) were also raised as a need. Lack of homelessness services in the region was also reported to impact on other health services i.e. alcohol & other drug services and social services.

Education and training

Training for GPs to be able to better treat mental health issues as reported as GPs are often not well networked to link people effectively with current services and programs.

MATERNAL AND CHILD HEALTH

CAHML has a low fertility rate (1.57%) when compared with GMA and Australian fertility figures. Compared with all MLs nationally it is ranked 57th of 61 with one of the lowest birth rates in Australia.

4.6.1

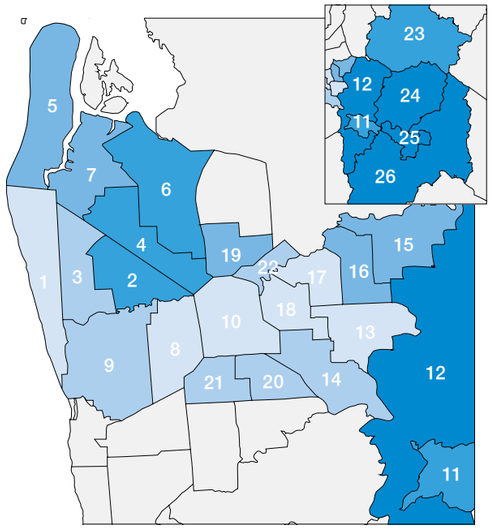
Fertility Rate

The fertility rate is the number of live births per female aged 15 to 49 years, and is an important indicator of population change. Low fertility rates have implications for the sustainability of a population, with the 'replacement' population fertility level being 2.1 children per woman. CAHML has a low fertility rate (1.57%) when compared with GMA and Australian fertility figures. Compared with all MLs nationally it is ranked 57th of 61 with one of the lowest birth rates in Australia. The areas of high fertility in the region are concentrated in the Mount Barker and Adelaide Hills areas (see Figure 106). This is a direct result of the South Australian 30 year plan and the creation of residential dwellings in these areas attracting young families.

Table 68: SLAs with the highest fertility rates in CAHML (2005-07)[326]

Statistical Local Area (SLA)	Total fertility rate %
Mount Barker (DC) – Central	2.05
Mount Barker (DC) Bal	2.04
Adelaide Hills (DC) – Ranges	2.01
Adelaide Hills (DC) Bal	2.01
Port Adel. Enfield (C) - Park	1.95
Charles Sturt (C) – Inner East	1.87
Adelaide Hills (DC) – Central	1.87
Adelaide Hills (DC) – North	1.81
CAHML	**1.57**
Greater Metropolitan Adelaide	**1.72**
Australia	**1.83**

Figure 106: Fertility rate in the CAHML region (2005-07)[326]



Legend *% Total fertility rate*

- 1.96 - 2.05
- 1.73 - 1.95
- 1.61 - 1.72
- 1.5 - 1.6
- 0.82 - 1.49
- SA SLA Region

SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

According to 2011 data, the majority of women give birth between the ages of 25 and 34. This is not true for Aboriginal and Torres Strait Islander women, who are more likely to give birth between the ages of 20 and 30. Approximately 18% of Aboriginal women gave birth before the age of 20, as compared to 4% of Caucasian women and less than 1% of Asian women. Caucasian women were more likely to give birth over the age of 40.

Table 69: Age and race of women who gave birth, South Australia, 2011
(Pregnancy Outcome in South Australia, Pregnancy Outcomes Unit, SA Health, September 2013)

	Caucasian		Aboriginal		Asian		Other		Total	
Age	Number	%	Number	%	Number	%	Number	%	Number	%
<15	4	0.0	2	0.3	0	0.0	1	0.1	7	0.0
15-19	639	4.0	121	17.5	18	0.8	24	2.5	802	4.0
20-24	2,239	13.9	244	35.2	201	9.0	239	24.7	2,923	14.6
25-29	4,710	29.2	174	25.1	784	35.2	291	30.1	5,959	29.7
30-34	5,082	31.5	99	14.3	802	36.0	246	25.4	6,229	31.1
35-39	2,775	17.2	40	5.8	355	15.9	136	14.0	3,306	16.5
40-44	673	4.2	13	1.9	66	3.0	30	3.1	782	3.9
45+	31	0.2	0	0.0	3	0.1	1	0.1	35	0.2
Total	**16,153**	**(80.6)**	**693**	**(3.5)**	**2,229**	**(11.1)**	**968**	**(4.8)**	**20,043**	**(100.0)**

MATERNAL AND CHILD HEALTH

The highest rate of perinatal depression was recorded in South Australia at 12.8%.

4.6.2

Low Birth Weight Incidence

Low birth weight is an important health indicator, as it is closely associated with higher risk of poor infant health and childhood mortality, as well as inhibited growth and cognitive development, and chronic diseases later in life. Ranked 16th of 61 MLs, the CAHML region has a relatively high percentage of low weight births. Across the region, there are a number of SLAs with high proportions of low birth weight babies, in the west, central and hills areas. Compared to the Australian average, CAHML has a slightly higher rate of low weight births.[327]

Figure 107: Proportion of babies that are low weight in the CAHML region (2008-10)[326]

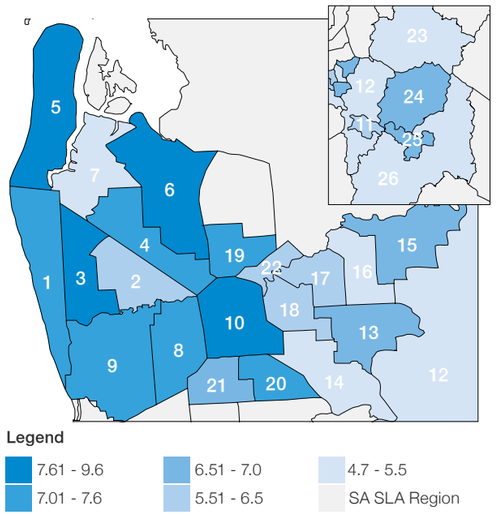


Table 70: SLAs with the highest proportions of low birth weight babies in CAHML (2008-10)[326]

Statistical Local Area (SLA)	Low birth weight babies	Births	% low birth weight babies
Adelaide (C)	46	478	9.6
Charles Sturt (C) - Inner West	74	834	8.9
Port Adel. Enfield (C) - Park	62	740	8.4
Port Adel. Enfield (C) - Coast	77	978	7.9
Prospect (C)	53	697	7.6
West Torrens (C) - East	62	820	7.6
West Torrens (C) - West	78	1,036	7.5
Charles Sturt (C) - North-East	78	1,059	7.4
Unley (C) - East	49	680	7.2
Charles Sturt (C) - Coastal	66	932	7.1
Mount Barker (DC) - Central	67	963	7.0
Adelaide Hills (DC) Bal	22	319	6.9
Unley (C) - West	42	618	6.8
Burnside (C) - North-East	30	450	6.7
CAHML	**1,153**	**16,580**	**7.0**
Greater Metropolitan Adelaide	**3,091**	**43,787**	**7.1**
Australia	**57,394**	**879,186**	**6.5**

4.6.3

Smoking During Pregnancy

Smoking during pregnancy is a known cause of low birth weight, with its associated health risks. It also increases the risk of ectopic pregnancy, miscarriage, premature labour, and sudden infant death syndrome (cot death) in infants. The CAHML average rate of smoking during pregnancy is considerably lower than the Australian average of 13.7% and the Greater Metropolitan Adelaide figure of 13.0%. Ranked 51 when compared to all Medicare Locals nationally it has a relatively low rate of smoking during pregnancy. Some areas within CAHML have higher rates of smoking during pregnancy, notably around the Port Adelaide – Enfield Coast and Port SLAs and Charles Sturt Inner West SLA. (Figure 108 and Table 71)

Figure 108: Proportion of mothers who smoked during pregnancy in the CAHML region (2008-10)[326]

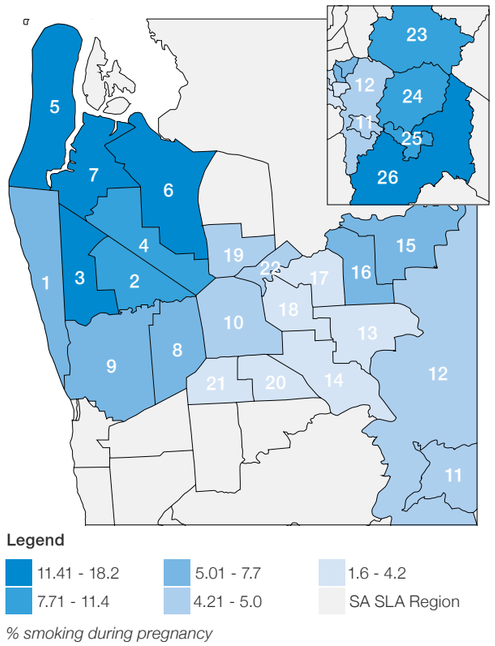


Table 71: CAHML SLAs with the highest proportions of mothers who smoked during pregnancy (2008-10)[326]

Statistical Local Area (SLA)	% smoking during pregnancy
Port Adel. Enfield (C) – Port	18.2
Port Adel. Enfield (C) – Coast	17.9
Charles Sturt (C) – Inner West	15.6
Port Adel. Enfield (C) – Park	13.7
Mount Barker (DC) Bal	12.0
Charles Sturt (C) North-East	11.4
Mount Barker (DC) – Central	11.3
Charles Sturt (DC) – Inner East	9.4
Adelaide Hills (DC) – North	9.2
Adelaide Hills (DC) – Bal	8.5
West Torrens (C) - West	7.7
CAHML	**8.4**
Greater Metropolitan Adelaide	**13.0**
Australia	**13.7**

4.6.4

Women and Perinatal Depression

Prevalence of Perinatal Depression

Perinatal mental health data is not available at the Medicare Local (ML) or Statistical Local Area (SLA) level. Australian research suggests that up to 10% of women experience antenatal anxiety and/or depression, increasing to 16% of women experiencing postnatal anxiety and/or depression. One in five mothers of children aged 24 months or less had been diagnosed with depression.[328] Post-traumatic stress disorder is reported to occur in 2-3% of women after childbirth.[329]

Screening for postnatal depression involves administering the Edinburgh Postnatal Depression Scale (EPDS) and a psychosocial assessment. An EPDS score of 12 or more indicates high risk of postnatal depression. The highest percentage of women scoring over 12 were in Queensland and South Australia (both 10.2%) while Western Australia had the lowest prevalence (5.6%).[330] The highest rate of perinatal depression was recorded in South Australia at 12.8 %.[331]

MATERNAL AND CHILD HEALTH

More than 8 in 10 mothers suffering from perinatal depression sought or received treatment or assistance.

Factors Associated with Perinatal Depression

Prevalence of perinatal depression is higher among mothers who:

- are younger (aged under 25)
- are smokers
- are from low-income households
- were born in Australia
- are from households where English is the main language
- are overweight or obese
- had an infant that regularly used a dummy (pacifier/comforter)
- had delivered their baby by emergency caesarean section
- did not take leave for the birth or care of the child
- are not working.

Perinatal depression is less prevalent among mothers who are highly educated (bachelor degree or higher). Mothers from major cities and remote or very remote areas reported slightly lower rates of perinatal depression than those from other geographic areas.[333]

Perinatal depression is more prevalent in disadvantaged areas.[332] In the 1st and 2nd highest quintile by SEIFA score (i.e. the most and second most disadvantaged sections of the population) the prevalence of perinatal depression is 11.2% and 11.7% respectively.

Sources of Treatment

More than 8 in 10 mothers suffering from perinatal depression sought or received treatment or assistance. The majority of mothers sought treatment from their GP and support from family and friends. The most frequently cited source was a GP (69.7%), followed by a psychologist (28.2%). Some mothers sought treatment or assistance from a GP also sought treatment or assistance from a psychologist, psychiatrist or a midwife or other nurse.[333]

Why is Identification and Treatment Important?[333]

Of women identified with antenatal or postnatal depression, 50-70% of those untreated remain depressed 6 months later. Twenty five percent of women will develop a chronic illness and 25% of women will develop recurrent depression. Perinatal anxiety and depression has adverse consequences for mothers, fathers and children, especially in respect to the critical parent-infant attachment that potentially influences the mental health of the next generation.

Routine screening should lead to identification, referral and treatment. There is evidence that early intervention produces the best outcomes for mothers and their families.[334] Perinatal mental health should be culturally responsive and family-centred. Maternal anxiety and depression can have detrimental effects on foetal and infant development and on mother infant attachment.

Perinatal Depression Service Availability

- Helen Mayo House
  - Inpatient and day patient perinatal mental health services (multidisciplinary)
  - Telephone helpline
  - Community information/education
  - Advice about other available services e.g. postnatal depression groups in the community
  - GP liaison and shared care
- Access to Allied Psychological Service (ATAPS) - primarily individual sessions but, group session have been relatively common in the perinatal depression (8%) initiative. Positive outcomes have been demonstrated.
- Parent Helpline - a 24-hour line run by the Child and Family Health Service.
- Women's Counselling, Information and Referral Line
- PANDA – Post and Antenatal Depression Association - Support line
- Beyond Blue
  - Telephone counselling
  - Online chat line
  - Email support service
  - Perinatal mental health – beyond babyblues: community awareness for women and their families, training and information for health professionals.
- National Perinatal Depression Initiative - this initiative ceased as of June 2014, however the four MBS item numbers for non-directive Pregnancy Support Counselling Services are still available under Medicare for services provided by GPs, psychologists, social workers or mental health nurses.

Service Capacity Issues

Specific state-related issues, such as availability of specialist perinatal mental health services and liaison between treating health professionals, also need to be considered.[336] Maternity Services, particularly those serving women with these risk factors, need to consider how they identify and manage the emotional health needs of women in their care.

4.6.5

Early Childhood Development Indicators

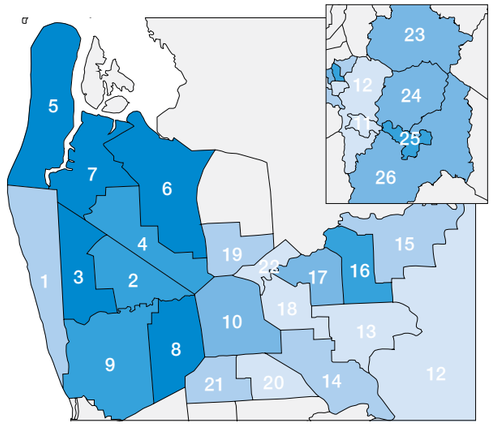
The Australian Early Development Index (AEDI) assesses child development on five domains:

- Physical health and wellbeing
- Social competence
- Emotional maturity
- Language and cognitive skills
- Communication skills and general knowledge

According to the 2009 AEDI data collection,[337] CAHML is ranked 52nd of 61 MLs in proportion of children who are developmentally vulnerable on two or more domains. Compared against the Australian average and the GMA averages (11.9% and 11.3% respectively), CAHML is lower at 8.9%. Within CAHML there are a number of SLAs in the western region and Mount Barker with significantly higher rates of developmentally vulnerable children, in particular the Port Adelaide Enfield - Park area (16%). (see Table 72)

MATERNAL AND CHILD HEALTH

Figure 109: Proportion of children who are developmentally vulnerable on two or more domains (2009)[326]



Legend

13.71 - 16.0	7.21 - 10.3	0.7 - 4.6
10.31 - 13.7	4.61 - 7.2	SA SLA Region

% Children

Table 72: SLAs in CAHML with the highest proportions of children who are developmentally vulnerable on two or more domains[326]

Statistical Local Area (SLA)	%
Port Adel. Enfield (C) – Park	16.0
Charles Sturt (C) – Inner West	14.6
Port Adel. Enfield (C) – Coast	14.4
West Torrens (C) – East	13.9
Port Adel. Enfield (C) – Port	13.9
West Torrens (C) – West	13.7
Charles Sturt (C) – North-East	12.8
Mount Barker (DC) – Central	12.4
Campbelltown (C) – West	11.1
Charles Sturt (C) – Inner East	10.4
Adelaide Hills (DC) – North	10.3
CAHML	**8.9**
Greater Metropolitan Adelaide	**11.3**
Australia	**11.9**

4.6.6

Child Mortality

The rate of deaths of children aged 1-4 years in CAHML is 19.1 deaths per 100,000, ranking it 36th of 61 MLs. (Table 73) At SLA level, the number of early childhood deaths in CAHML is so small as to be indistinguishable between SLAs.

Table 73: Child mortality (1-4 years) (2006-10)[326]

Region	Deaths of children aged 1 to 4 years	Children aged 1 to 4 years	Average annual rate per 100,000
CAHML	20	20,942	19.1
Greater Metropolitan Adelaide	50	53,755	18.6
Australia	1,109	1,100,786	20.1

HEALTH OUTCOMES IN THE CAHML REGION

In this chapter, gender and geographical distribution of health outcome indicators are explored. Studying the health outcomes of a population, such as the most common causes of premature mortality helps to identify demographic patterns, disparities and provide valuable insights to shape program and service design.

4.7.1

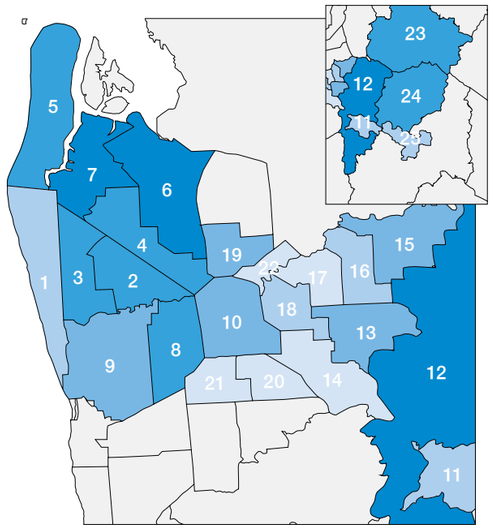
Median Death Age

With an average median age of death of 81 years, the CAHML region is ranked 5th of 61 MLs and is higher than the Australian average of 79 years old. The areas of lower median death age can be seen in Figure 110 in the Adelaide Hills, Port Adelaide Enfield and Charles SLAs. Mount Barker has the lowest median age rate of 74.5 years old (Table 74).

Table 74: Median Death Age in the CAHML SLAs[338]

Statistical Local Area (SLA) with highest prevalence	Median age at death
Mount Barker (DC) Bal	74.5
Adelaide Hills (DC) – Ranges	76.0
Port Adel. Enfield (C) – Park	79.0
Port Adel. Enfield (C) – Port	79.0
Charles Sturt (C) - Inner East	80.0
Charles Sturt (C) - Inner West	80.0
Charles Sturt (C) – North-East	80.0
Port Adel. Enfield (C) – Coast	80.0
West Torrens (C) – East	80.0
Adelaide Hills (DC) – North	80.0
Adelaide Hills (DC) Bal	80.0
CAHML	**81.0**
Greater Metropolitan Adelaide	**81.0**
Australia	**79.0**

Figure 110: Median Death Age in the CAHML Region (2007)[339]



Legend *Median age at death of persons*

76 - 79	81	83 - 85
80	82	SA SLA Region

SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

HEALTH OUTCOMES IN THE CAHML REGION

In the CAHML region, there were 2,209 female and 3,565 male premature deaths between 2006 and 2010.

4.7.2

Premature Death Ages 0-74 Years

'Premature mortality refers to deaths that occur at a younger age than expected'.[340] CAHML has a lower rate of premature deaths (0-74 years) when compared to GMA and Australia, as seen in Figure 111. However, within CAHML there are a number of areas that have significantly higher rates than the national rate. As can be seen in Figure 112 and 113 all of the Port Adelaide and Enfield SLAs have rates of premature deaths over 30% higher than the Australian rate, Charles Sturt – Inner East SLA is in a similar position (these are highlighted in orange).

Figure 112: Total premature deaths within CAHML, 0 - 74 years (2006-10)[342]

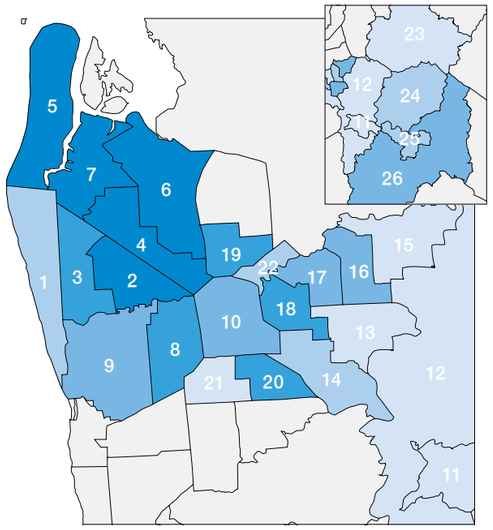
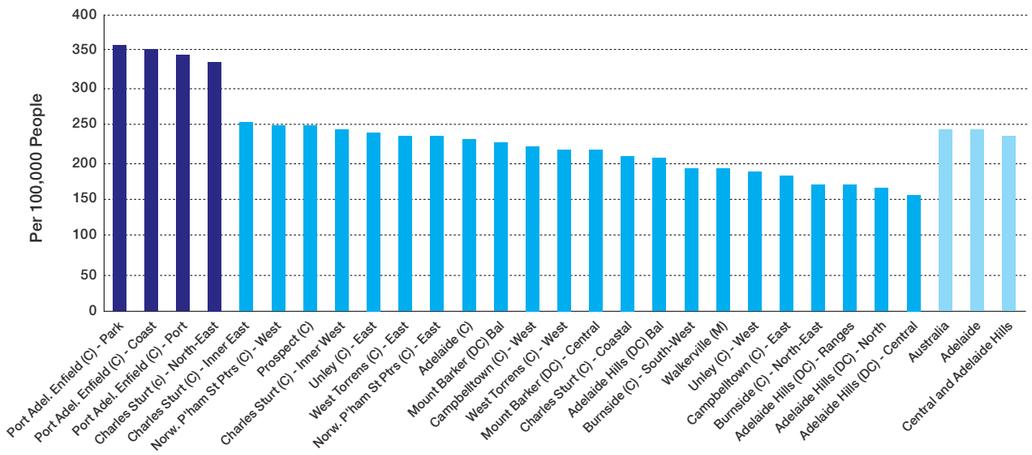


Figure 111: Total Premature Deaths within CAHML, 0-74 years (2006-10)[341]



4.7.3

Gender Distribution of Premature Death Aged 0-74 Years

According to the Australian Bureau of Statistics (ABS),[343] except for ischaemic heart disease, 'the leading causes of death vary between the sexes, in part due to the incidence of gender-specific diseases, such as prostate or ovarian cancer. In Australia, other causes which are less obviously gender specific also showed variance between the sexes. Nationally, in 2009, trachea and lung cancer deaths for males were 4,758 compared to 3,028 deaths for females (sex ratio of 157 male deaths for every 100 female deaths). Strokes were the second leading cause for female deaths and third leading cause for male deaths with 6,706 and 4,514 deaths respectively (sex ratio of 67 male deaths for every 100 female deaths). In 2009, male deaths accounted for 77% of deaths as a result of suicide and 57% of blood and lymph cancer deaths. Female deaths accounted for 66% of all deaths from dementia and Alzheimer's disease, and 59% of all deaths from heart failure.'

In the CAHML region, there were 2,209 female and 3,565 male premature deaths between 2006 and 2010. Tables 75 and 76 show the CAHML geographical areas with the highest rates of premature deaths by gender. Both sexes had the highest rates of premature deaths in the following four SLAs within CAHML: Port Adelaide and Enfield – Park, Port and Coast and the North East SLA of Charles Sturt. Except for Port Adelaide – Coast, the abovementioned SLAs have the lowest SEIFA ratings in the region indicating they are the most disadvantaged in the CAHML region. This is consistent with national findings reported by the AIHW in 2010 that 'Premature mortality from chronic disease among the most socioeconomically disadvantaged males was nearly twice as high as among the least disadvantaged males; among the most socioeconomically disadvantaged females it was 60% higher than the least disadvantaged females.'[344]

Figure 113: Female premature deaths within CAHML (2006-10)[346]

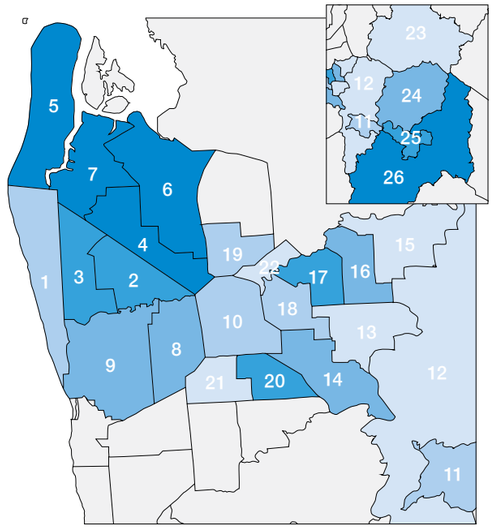


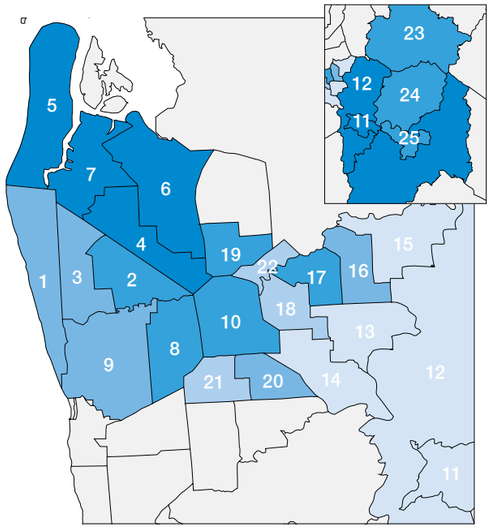
Table 75: Female premature deaths within CAHML (2006-10)[345]

SLAs with highest prevalence	Number	Average annual ASR per 100,000
Port Adel. Enfield (C) - Park	99	266.5
Port Adel. Enfield (C) - Port	65	249.4
Charles Sturt (C) - North-East	149	241.9
Port Adel. Enfield (C) - Coast	178	240.2
Mount Barker (DC) Bal	42	215.9
Charles Sturt (C) - Inner West	153	208.0
Unley (C) - East	94	194.4
Mount Barker (DC) - Central	83	184.6
Norw. P'ham St Ptrs (C) - East	85	183.9
Charles Sturt (C) - Inner East	95	171.6
CAHML	**2,209**	**174.9**
Greater Metropolitan Adelaide	**5,403**	**186.4**
Australia	**91,954**	**184.4**

HEALTH OUTCOMES IN THE CAHML REGION

The five most common causes of death from cancer in 2010 were lung (8,099 deaths), bowel (colorectal) (3,982 deaths), prostate (3,235 deaths), breast (2,864 deaths) and pancreas (2,434 deaths)'

Figure 114: Male premature deaths within CAHML (2006-10)[347]



Legend

343.0 - 473.0	259.0 - 293.1	170.7 - 232.2
293.2 - 342.9	232.3 - 258.9	SA SLA Region

Deaths of males, 0 - 74 years (ASR per 100,000)

Table 76: Male premature deaths within CAHML (2006-10)

SLAs with highest prevalence	Number	Average annual ASR per 100,000
Port Adel. Enfield (C) - Coast	331	473.0
Port Adel. Enfield (C) - Park	157	451.9
Port Adel. Enfield (C) - Port	113	444.9
Charles Sturt (C) - North-East	254	434.7
Norw. P'ham St Ptrs (C) - West	145	353.0
Charles Sturt (C) - Inner East	177	342.9
Prospect (C)	143	337.4
West Torrens (C) - East	169	315.3
Norw. P'ham St Ptrs (C) - East	115	294.5
Adelaide (C)	124	294.0
CAHML	**3,565**	**297.9**
Greater Metropolitan Adelaide	**8,431**	**305.3**
Australia	**153,272**	**303.9**

4.7.4

Leading Causes of Premature Death

As mentioned previously, the CAHML region has lower premature death rates than the GMA and Australian rates. However, premature death rates in the western region of CAHML are considerably higher than these comparative rates, and when looking at specific causes of premature death a similar pattern occurs with CAHML's most disadvantaged western suburbs having highest rates of premature death. An exception to this pattern is premature death – Breast cancer where Adelaide Hills records the highest rate of premature death.

On the following pages premature death has been grouped by these three main causes:

1. Circulatory System Disease
2. Cancer - including the subset categories - lung cancer, breast cancer and colorectal cancer
3. Respiratory System Disease

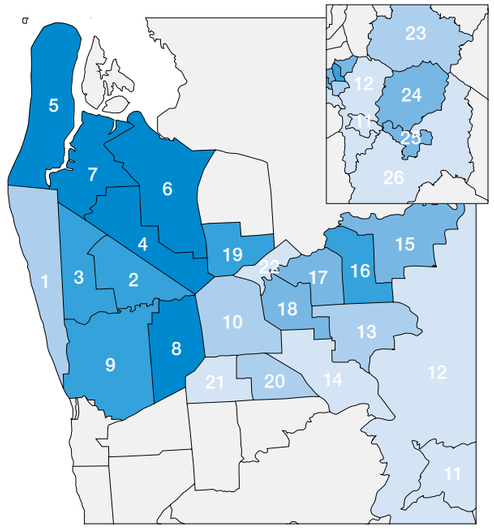
Note: data was not collected in some of the SLAs within CAHML and requires further data collection and research to determine prevalence (indicated with # in the following tables).

Circulatory System Disease

There are two common circulatory system diseases; ischaemic heart disease and cerebrovascular disease. Ischaemic heart disease, also known as coronary heart disease and coronary artery disease is caused by a build-up of deposits in the arteries.[348] Cerebrovascular disease most commonly presents as stroke, transient ischaemic attack, subarachnoid haemorrhage and vascular dementia, and all are related to the blood and oxygen supply to the brain being affected.

In the CAHML region premature death caused by circulatory system disease (ischaemic and cerebrovascular combined) is 43.8 ASR per 100 people and is lower than GMA (45.2) and Australian rates (48.1) (see Table 77). There are however, a number of SLAs, particularly in the western region of CAHML that have significantly higher rates when compared to the Australian rate. The Port Adelaide – Park rate of 83.8 ASR per 100 000 people is nearly double that of the CAHML rate (see Figure 115).

Figure 115: Deaths from circulatory system diseases within CAHML, 0 - 74 years (2008-12)[349]



Legend

54.2 - 83.8	34.8 - 44.5	15.9 - 28.2
44.6 - 54.1	28.3 - 34.7	SA SLA Region

(ASR per 100,000)

Table 77: Deaths from circulator system diseases within CAHML, 0-74 years (2008-12)[350]

SLAs with highest prevalence	Number	Average annual ASR per 100,000
Port Adel. Enfield (C) - Park	61	83.8
Charles Sturt (C) - North-East	87	72.4
Port Adel. Enfield (C) - Port	33	62.9
West Torrens (C) - East	67	61.3
Port Adel. Enfield (C) - Coast	90	61.0
West Torrens (C) - West	84	54.1
Campbelltown (C) - West	60	53.9
Charles Sturt (C) - Inner East	53	49.9
Prospect (C)	41	48.5
Charles Sturt (C) - Inner West	65	45.1
CAHML	**1,106**	**43.8**
Greater Metropolitan Adelaide	**2,621**	**45.2**
Australia	**49,741**	**48.1**

HEALTH OUTCOMES IN THE CAHML REGION

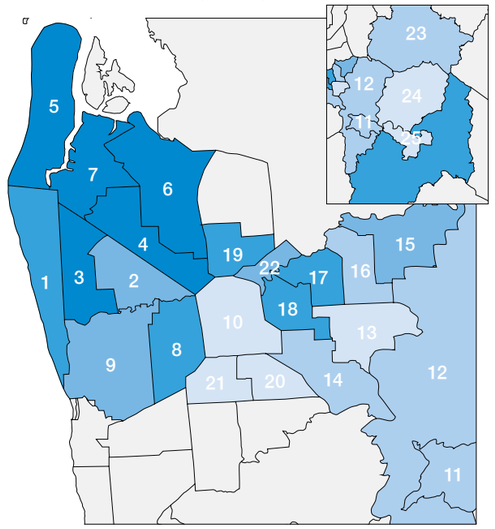
The highest rates of premature death by cancer within CAHML are concentrated in the Port Adelaide Enfield and Charles Sturt SLA's.

Cancer

According to the AIHW,[351] 'The five most common causes of death from cancer in 2010 were lung (8,099 deaths), bowel (colorectal) (3,982 deaths), prostate (3,235 deaths), breast (2,864 deaths) and pancreas (2,434 deaths)'.

When looking at premature death from cancer the CAHML region is ranked 43rd of 61 MLs with a rate of 97.9 ASR deaths per 100,000 people. This places CAHML below the GMA rate of 103.5 ASR per 100,000 people and the Australian rate of 102.0 ASR per 100,000 people (see Table 78). The highest rates of premature death by cancer within CAHML are concentrated in the Port Adelaide Enfield and Charles Sturt SLA's (see Figure 116). The highest rate is found in Port Adelaide and Enfield – Park SLA at 131.5 ASR per 100 000 people. This rate is approximately 25% higher than the CAHML rate.

Figure 116: Deaths from cancer within CAHML, 0 - 74 years (2008-12)[352]



Legend

108.1 - 131.5	88.2 - 100.9	74.9 - 84.4
101.0 - 108.0	84.5 - 88.1	SA SLA Region

(ASR per 100,000)

Table 78: Deaths from cancer within CAHML, 0-74 years (2008-12)

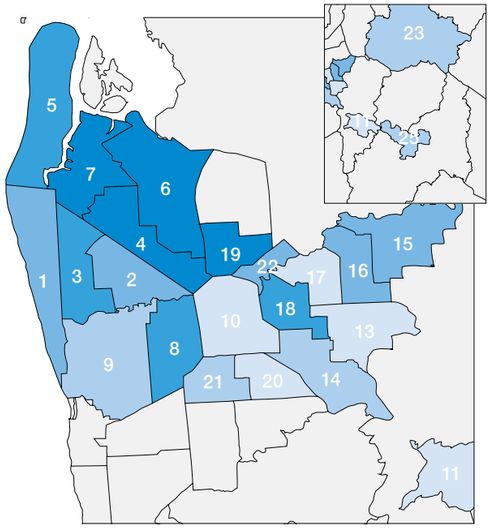
SLAs with highest prevalence	Number	Average annual ASR per 100,000
Port Adel. Enfield (C) - Coast	195	131.5
Port Adel. Enfield (C) - Port	67	127.5
Charles Sturt (C) - North-East	146	123.0
Port Adel. Enfield (C) - Park	88	122.3
Charles Sturt (C) - Inner West	162	114.2
Prospect (C)	91	108.0
Norw. P'ham St Ptrs (C) - East	90	107.4
West Torrens (C) - East	112	104.2
Charles Sturt (C) - Coastal	197	103.2
Norw. P'ham St Ptrs (C) - West	90	102.0
CAHML	**2,466**	**97.9**
Greater Metropolitan Adelaide	**6,004**	**103.5**
Australia	**105,475**	**102.0**

Lung Cancer

According to the AIHW,[353] lung cancer is the leading cause of cancer death in Australia and represents the fourth most commonly diagnosed cancer.

CAHML has a lung cancer rate of 17.6 ASR deaths per 100,000 people. This places CAHML below the GMA rate of 20.9 ASR and the Australian rate of 21.2 ASR per 100000 people ranking it 53rd of 61 MLs nationally (see Table 79). The highest rates of premature death by cancer within the region are concentrated in the western region, with the highest at 35.0 ASR per 100000 people in Port Adelaide and Enfield – Park SLA (seeFigure 117)

Figure 117: Deaths from lung cancer, 0 - 74 years (2008-12)[355]



Legend

25.7 - 35.0	16.1 - 19.3	7.4 - 11.6
19.4 - 25.6	11.7 - 16.0	SA SLA Region

(ASR per 100,000)

SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

Table 79: Deaths from lung cancer, 0-74 years (2008-2012)[354]

SLAs with highest prevalence	Number	Average annual ASR per 100,000
Adelaide Hills (DC) - Ranges	#	..
Adelaide Hills (DC) Bal	#	..
Mount Barker (DC) Bal	#	..
Port Adel. Enfield (C) - Park	25	35.0
Charles Sturt (C) - North-East	36	30.6
Port Adel. Enfield (C) - Port	14	26.7
Prospect (C)	22	26.7
Port Adel. Enfield (C) - Coast	38	25.6
Charles Sturt (C) - Inner West	36	24.5
West Torrens (C) - East	21	20.0
Norw. P'ham St Ptrs (C) - West	17	19.5
CAHML	**445**	**17.6**
Greater Metropolitan Adelaide	**1,219**	**20.9**
Australia	**21,951**	**21.2**

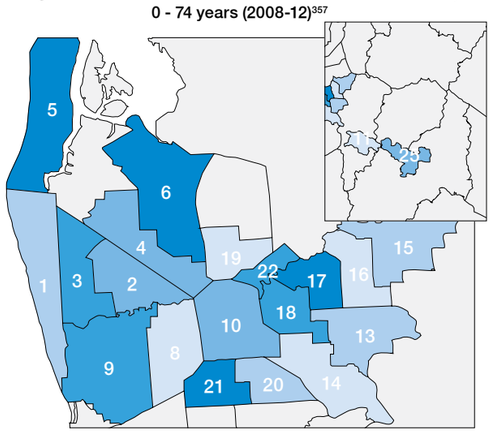
HEALTH OUTCOMES IN THE CAHML REGION

The CAHML premature death rate of 18.7 ASR per 100,000 people by breast cancer is the same as the national rate

Colorectal Cancer

The CAHML premature death rate of 9.6 ASR per 100,000 people by colorectal cancer is the same as the Australian rate 9.6 ASR per 100000 people with the highest rate, 18.1 ASR per 100000 in the SLA of Port Adel. Enfield (C) – Port. This is nearly double the CAHML and Australian rates and ranks CAHML 31st of 61 MLs (see Table 80 and Figure 118).

Figure 118: Deaths from colorectal cancer within CAHML, 0 - 74 years (2008-12)[357]



Legend *(ASR per 100,000)*

- 11.9 - 18.1
- 11.3 - 11.8
- 9.6 - 11.2
- 8.4 - 9.5
- 0.0 - 8.3
- SA SLA Region

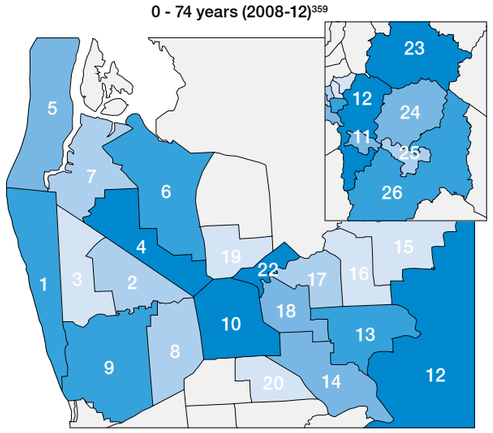
Table 80: Deaths from colorectal cancer within CAHML, 0-74 year (2008-12)[356]

SLAs with highest prevalence	Number	Average annual ASR per 100,000
Port Adel. Enfield (C) - Port	#	..
Adelaide Hills (DC) - Ranges	#	..
Adelaide Hills (DC) - North	#	..
Adelaide Hills (DC) Bal	#	..
Mount Barker (DC) Bal	#	..
Port Adel. Enfield (C) - Park	13	18.1
Norw. P'ham St Ptrs (C) - East	12	14.3
Port Adel. Enfield (C) - Coast	21	14.1
Unley (C) - West	11	13.3
Charles Sturt (C) - Inner West	17	11.8
Walkerville (M)	5	11.7
West Torrens (C) - West	18	11.4
Norw. P'ham St Ptrs (C) - West	10	11.3
CAHML	**243**	**9.6**
Greater Metropolitan Adelaide	**586**	**10.1**
Australia	**9,944**	**9.6**

Breast Cancer

The CAHML premature death rate of 18.7 ASR per 100,000 people by breast cancer is the same as the national rate (16.9 ASR per 100,000) with the highest rate (37.3 ASR per 100,000) in the SLA of Adelaide Hills - North, nearly double the CAHML and national rates. CAHML ranks 9th of 61 MLs nationally (see Table 81 and Figure 119).

Figure 119: Deaths from breast cancer within CAHML, 0 - 74 years (2008-12)[359]



Legend *(ASR per 100,000)*

- 23.3 - 37.3
- 21.4 - 23.2
- 18.7 - 21.3
- 13.0 - 18.6
- 9.8 - 12.9
- SA SLA Region

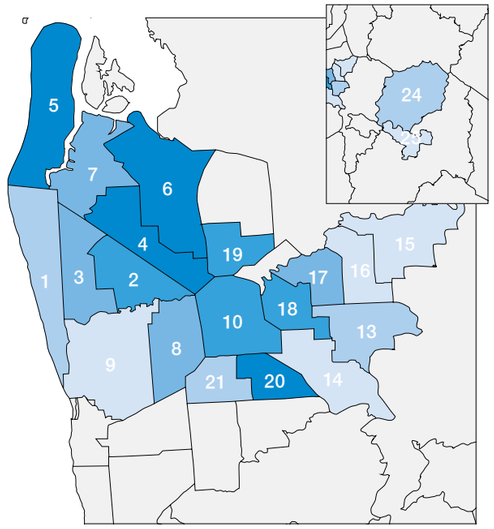
Table 81: Deaths from breast cancer (females) within CAHML, 0-74 years (2008-12)[358]

SLAs with highest prevalence	Number	Average annual ASR per 100,000
Unley (C) - West	#	..
Adelaide Hills (DC) - North	7	37.3
Charles Sturt (C) - North-East	20	32.3
Walkerville (M)	6	28.8
Adelaide Hills (DC) - Ranges	7	24.3
Adelaide (C)	9	23.9
Charles Sturt (C) - Coastal	22	23.2
Burnside (C) - North-East	15	22.8
Mount Barker (DC) Bal	5	22.4
Port Adel. Enfield (C) - Park	8	22.0
West Torrens (C) - West	16	21.6
CAHML	**239**	**18.7**
Greater Metropolitan Adelaide	**540**	**18.4**
Australia	**8,736**	**16.9**

Respiratory System Disease

Chronic respiratory conditions include asthma, allergy, hayfever (allergic rhinitis) and chronic obstructive pulmonary disease (COPD). It can be difficult to distinguish COPD from asthma because the symptoms of both conditions can be similar.[360] While CAHML as a region has comparatively low rates (13.0 ASR deaths per 100,000 people) of respiratory system disease when measured against GMA (14.6 ASR deaths per 100000 people) and national rates (14.2 ASR deaths per 100000 people), there are SLAs in the western region of CAHML that have significantly higher rates (Table 82 and Figure 120). The highest rate being Port Adelaide – Coast, where the rate is over double that of CAHML at 28.9 deaths per 100, 000 people.

Figure 120: Deaths from respiratory system diseases, 0 - 74 years (2008-12)[362]



Legend

- 18.3 - 28.9
- 15.5 - 18.2
- 11.7 - 15.4
- 9.2 - 11.6
- 4.5 - 9.1
- SA SLA Region

(ASR per 100,000)

Table 82: Deaths from respiratory system diseases, 0-74 years (2008-12)[361]

SLAs with highest prevalence	Number	Average annual ASR per 100,000
Adelaide Hills (DC) - Central	#	..
Adelaide Hills (DC) - Ranges	#	..
Walkerville (M)	#	..
Adelaide Hills (DC) - North	#	..
Mount Barker (DC) Bal	#	..
Port Adel. Enfield (C) - Coast	42	28.9
Charles Sturt (C) - North-East	25	21.4
Unley (C) - East	19	20.3
Port Adel. Enfield (C) - Park	14	19.2
Charles Sturt (C) - Inner East	20	18.2
Adelaide (C)	14	17.4
Prospect (C)	13	15.8
Norw. P'ham St Ptrs (C) - West	14	15.5
CAHML	**330**	**13.0**
Greater Metropolitan Adelaide	**852**	**14.6**
Australia	**14,717**	**14.2**

Life Expectancy

The indicator 'life expectancy at birth' is a reliable measure of the health of a population as it is the estimate of the average number of years a newborn baby is expected to live. Data from the National Health Performance Authority (Avoidable deaths and life expectancies in 2009–2011) indicates that life expectancy at birth within the CAHML region, is 79.6 years for males and 84.3 years for females. These rates are essentially the same as the Australian rates (79.7 years for males and 84.2 years for females respectively).

5

This chapter collates and summarises the availability of health services within the CAHML region as well as the capacity of the health workforce to provide timely and appropriate care. Availability of health services can impact on the health status of the community and information on the supply and quality of health services is necessary for health systems planning, management, monitoring, and evaluation.

The workforce data concentrates on the primary healthcare workforce alone, without reference to other sectors. CAHML recognises that the secondary and tertiary health care sectors both impact upon, and are impacted by, primary healthcare. Understanding these sectors is an important part of our strategic intent of streamlining services and integrating the healthcare system.

SERVICE AVAILABILITY

HEALTH SERVICE AVAILABILITY WITHIN THE CAHML REGION

There are a large number and range of services available in the CAHML region. Table 83 gives a snapshot of the main services currently available within the region.

Table 83: Snapshot of service availability within the CAHML region

Service Type	Number of services in region[363]	Service Type	Number of services in region
Public Hospital Service	8	Allied health services - Audiology	52
Private Hospital Services	12	Allied health services - General Counselling	61
Emergency Hospital Services	9	Allied health services - Nutrition/Dietetics	29
GP Plus Clinics	1	Allied health services - Physiotherapy	197
Primary Health Care Centres – public (SA Health)	9	Allied health services - Psychology	294
GP practices	218[364]	Allied health services - Exercise physiology	19
Solo practices	80[365]	Allied health services - Podiatry	109
Estimated number of practicing GPs	830[366]	Allied health services - Occupational Therapy	58
Number of female GPs	364[367]	Allied health services - Speech Pathology	28
FWE GPs: population	564	Allied health services - Optometry	5
Practices Nurses	222[368]	Allied health services - Social Work	23
Percentage of practices with Practice Nurse	43%	Allied health services - Chiropractors	67
Indigenous Health Incentive (IHI) Registered Practices	21	Child and adolescent health – Public Mental Health Services	3
Pharmacies	198	Adult mental health – Public Mental Health Services	11
Pharmacies - after hours	89 (open Sundays)	Older people's mental health– Public Mental Health Services	2
Number Private Dental Practices	186	Women's Health Service - public	2
Number Public Dental Clinic sites	10	CAHML Mental Health Program - ATAPS Services available	Yes
Aboriginal Medical Services	1	CAHML Mental Health Program - Partners in Recovery initiatives	Yes
Aboriginal Health Services (Government and NGO)	16	CAHML Mental Health Program - New Access	Yes
Residential Aged Care Facilities	98	CAHML Mental Health Program - headspace Woodville	Yes
SA Ambulance Services	10	CAHML Mental Health Program – Partners in Recovery	Yes
Palliative Care Services – Public Hospital	4	Alcohol and Drug Services – public	4
Palliative Care Services – Private	2	Pathology Services - public	13
Palliative Care Services – community care	2	Pathology Services - private	101
Child and Family Health Services (Government and NGO)	10		

HEALTHCARE WORKFORCE AND TRENDS

Since 2010, discipline specific health provider board memberships has been collated into the one register by the Australian Health Practitioner Regulation Agency (AHPRA).[369] This allows the use of a nationally consistent data-set for the following fifteen disciplines:

- Aboriginal and Torres Strait Island health workers/ practitioners
- Chinese medicine practitioners
- Chiropractors
- Dental and oral health practitioners
- Medical practitioners
- Medical radiation practitioners
- Midwives
- Nurses
- Occupational therapists
- Optometrists
- Osteopaths
- Pharmacists
- Physiotherapists
- Podiatrists
- Psychologists

Table 84 gives an overview of the national healthcare workforce composition and demographics.

Table 84: AHPRA-registered health professionals in Australia (2011-12)[370]

Occupation	AHPRA Registrants (2011-12)	Employed	Avereage Age	Woman %
Nurses	328,817	271,996	44.4	89.5
Medical practitioners	87,790	78,833	45.5	37.6
Midwives	41,432	14,710	45.7	99.2
Psychologists	25,650	22,404	45.6	76.7
Pharmacists	25,080	21,331	39.7	58.2
Physiotherapists	23,934	20,081	38.6	68.8
Oral health practitioners (includes therapists, hygienists and prosthetists)	18,803	16,925	Dentists 43.5 Dental hygienists 37.4	Dentists 35.6 Dental hygienists 96.1
Medical radiation practitioners	8438	7806	39.1	66.7
Occupational therapists	7825	7231	36.8	91.5
Optometrists	4564	4066	41.2	48.2
Chiropractors	4533	4029	41.2	34.8
Chinese medicine practitioners	3885	3580	47.0	52.3
Podiatrists	3783	3491	37.6	Not pub.
Osteopaths	1729	1729	38.8	Not pub.
Aboriginal and Torres Strait Islander health practitioners	265	233	44.4	71.9
Australia (synthetic 2011-12 figure)	**586,528**	**478,445**		

HEALTHCARE WORKFORCE AND TRENDS

In South Australia, there were approximately 6,000 registered medical practitioners employed in clinical roles in 2011, of which 2045 were GPs.

5.2.1

Primary Healthcare Workforce by Discipline: General Practitioners (GPs)

Nationally, there were 87,790 medical practitioners registered with AHPRA in 2011, of which approximately one third were specialists and one third GPs. In South Australia, there were approximately 6,000 registered medical practitioners employed in clinical roles in 2011, of which 2045 were GPs. In South Australia, the full time workload equivalent (FWE) was 1,628 and the FWE GP to 100,000 population was 98.3, which is higher than the 93.0 per 100,000 nationally. Table 85 provides general practitioner workforce statistics for the CAHML region.

Table 85: Characteristics of GP workforce in CAHML region[371]

CAHML region GPs	2009-10	2010-11	2011-12
GP Head Count	812	807	830
Females (%)	346 (42.6)	347 (43.0)	364 (43.9)
FTE	459	461	472
FTE male	306	308	313
FWE	548	546	561
FWE male	387	387	397
VRGP not incl. registrars (%)	690 (88.1)	679 (88.4)	697 (88.8)
Aus. Qualified (%)	679 (83.6)	666 (82.5)	684 (82.4)
GP Registrars	29	39	45
Under 35 years (%)	47 (5.8)	66 (8.2)	77 (9.3)
Aged 35-44 (%)	188 (23.2)	168 (20.8)	167 (20.1)
Aged 45-54 (%)	262 (32.3)	251 (31.1)	247(29.8)
Over 55 y.o. (%)	315 (38.8)	322 (39.9)	339 (40.8)
GP HC per 100,000 population	161.1	158.7	162.3
GP FWE per 100,000 population	**108.7**	**107.4**	**109.7**

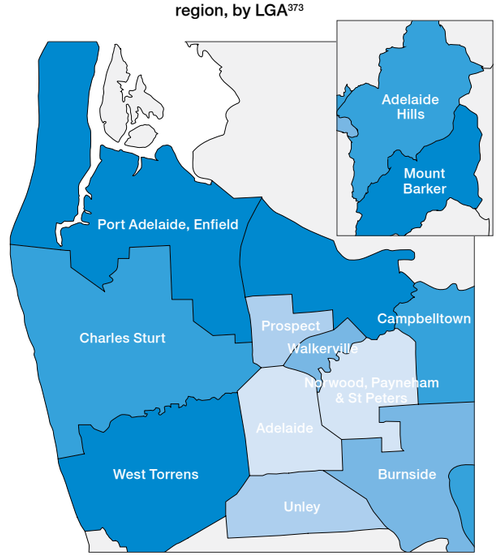
The GP FWE per 100,000 population in the CAHML region is well above the national figure (109.7 versus 93.0 nationally) and suggests any access issues are not related to GP shortages, but rather geographic distribution, combined with other barriers such as costs, opening hours, or cultural safety.

Geographic distribution of general practitioners within the CAHML region is shown in Table 86, in conjunction with the number of GPs intending to work fewer than ten years in general practice. The western suburbs within the CAHML region (Port Adelaide, Enfield, and West Torrens Local Government Areas (LGAs)) appear to have strikingly lower GP to population ratios than elsewhere, which is concerning given the population health needs.

Table 86: Geographic distribution of GPs in CAHML region, by LGA[372]

LGA	GP Head Count 2012	2012 ERP	GP HC per 100,000 pop.	GPs intending to work ≤10 yrs (%)	GPs intending to work ≤5 yrs (%)
Adelaide	117	21,590	541.9	51 (43.6)	21 (17.9)
Adelaide Hills	51	39,798	128.1	23 (45.1)	6 (11.8)
Burnside	69	44,263	155.9	30 (43.5)	14 (20.3)
Campbelltown	52	50,393	103.2	20 (38.5)	10 (19.2)
Charles Sturt	109	109,956	99.1	50 (45.9)	18 (16.5)
Mount Barker	22	30,933	71.1	5 (22.7)	0 (0)
Norwood, Payneham, St Peters	106	36,594	289.7	55 (51.9)	31 (29.2)
Port Adelaide Enfield	80	118,330	67.6	38 (47.5)	22 (27.5)
Prospect	39	20,904	186.6	19 (48.7)	16 (41.0)
Unley	91	38,620	235.6	42 (46.2)	16 (17.6)
Walkerville	11	7,392	148.8	6 (54.5)	3 (27.3)
West Torrens	44	57,525	76.5	19 (43.2)	7 (15.9)

Figure 121: Geographic distribution of GPs in CAHML region, by LGA[373]



Legend

67.6 - 76.5
76.6 - 128.1
128.2 - 155.9
155.0 - 235.6
235.7 - 541.9
SA LGA Region

GP head count per 100,000 pop by LGA

5.2

HEALTHCARE WORKFORCE AND TRENDS

Previously reported data from the former Divisions of General Practice included additional detail on practices in the region, as shown in Table 87.

Table 87: Divisions of GP data on CAHML region general practices[374]

	Western Adelaide Region (AWGPN)	Central and Eastern Adelaide (GPPA)	Adelaide Hills Region (AHDGP)
Total GPs	215	525	108
Total practices	95	98	25
Solo practices (%)	43 (45.3)	32 (32.7)	5 (20.0)
Practices with 2-5 GPs (%)	45 (47.4)	42 (42.9)	5 (20.0)
Practices with 6 or more GPs (%)	7 (7.4)	24 (24.5)	15 (60.0)
Corporate-owned practices	2	1	0
Practices with practice nurse (%)	33 (34.7)	55 (56.1)	20 (80.0)
International medical graduates	Unknown	0	5
No. female GPs (%)	62 (28.8)	260 (49.5)	39 (36.1)
GPs >55 y.o.	Unknown	Unknown	Unknown
Registrars	7	10	22
Aboriginal Medical Services	0	2	Unknown
Other primary medical care practitioners (eg. RFDS)	Unknown	6	Unknown
Total no. practice nurses	100	127	38

5.2.2

Primary Healthcare Workforce by Discipline: Nursing

Table 88 provides a snapshot of the demographics of the primary health care (PHC) nurse workforce in the CAHML region. The intention-to-retire statistics are noteworthy as over half of PHC nurses in the region intend to leave nursing or retire within the next ten years, and approximately a quarter in the next five years. The continued supply of PHC nurses is therefore a concern in the face of a national predicted nurse shortage.[375]

Approximately 35% of practices in the western sub-region had a PHC nurse, compared to 80% of practices in the Adelaide Hills.

Table 88: PHC Nurses working in general practice setting in CAHML region (2011-12)[376]

General Practice setting nurses		2011	2012
Total		194	222
RN (%)		143 (73.7)	170 (76.6)
Female (%)		188 (96.9)	217 (97.7)
Years intending to work as a nurse	≤ 10 (%)	109 (56.2)	128 (57.7)
	≤ 5 (%)	47 (24.2)	58 (26.1)
Age	16-34 (%)	19 (10.1)	20 (9.3)
	35-44 (%)	40 (21.3)	46 (21.3)
	45-54 (%)	78 (41.4)	85 (39.4)
	55-64 (%)	48 (25.5)	57(26.4)
	65-74 (%)	3 (1.6)	8 (3.7)
	75-99 (%)	0 (0)	0 (0)

The proportion of general practices with a PHC nurse varies considerably within the CAHML region. Previous Division of General Practice data outlined in Table 89, shows figures slightly less than AHPRA figures in terms of PHC nurse numbers, yet provides the most current GP to PHC nurse ratios and headcount per 100,000 population. Approximately 35% of practices in the western sub-region had a PHC nurse, compared to 80% of practices in the Adelaide Hills[377]. There are a significant number of non-accredited and solo general practices in the western Adelaide suburbs. Practices must be accredited to receive Practice Nurse Incentive Program (PNIP) incentive payments[378] and it is therefore reasonable to expect that the rates in western suburb LGAs would be lower.

Distribution of GP and PHC Nurses including ratios, are given in Table 89. At an LGA level, the full time workload equivalent of both PHC nurses and GPs is currently unavailable. Care is therefore needed in interpretation given the average working hours of PHC nurses and GPs.

Table 89: GP and PHC nurse to population ratios in CAHML region by LGA (2012)[379]

LGA	2012 practice nurse no.	GP Head count 2012	2012 Est. resident pop.	GP HC per 100,000 pop.	GP: Practice Nurse ratio	Nurse HC per 100,000 pop.
Adelaide	24	117	21,590	541.9	4.9:1	111.2
Adelaide Hills	16	51	39,798	128.1	3.2:1	40.2
Burnside	14	69	44,263	155.9	4.9:1	31.6
Campbelltown	24	52	50,393	103.2	2.2:1	47.6
Charles Sturt	33	109	109,956	99.1	3.3:1	30.0
Mount Barker	0	22	30,933	71.1	na	0
Norwood, Payneham, St Peters	25	106	36,594	289.7	4.2:1	68.3
Port Adelaide Enfield	11	80	118,330	67.6	7.3:1	9.3
Prospect	7	39	20,904	186.6	5.6:1	33.5
Unley	28	91	38,620	235.6	3.3:1	72.5
Walkerville	3	11	7,392	148.8	3.7:1	40.6
West Torrens	25	44	57,525	76.5	1.8:1	43.5
CAHML (synthetic figure, using above)	**210**	**791**	**576,298**	**137.1**	**3.8:1**	**36.4**
South Australia	**832**	**1809**	**1,656,299**	**109.2**	**2.2:1**	**50.2**
Australia	**9446**	**22,384**	**22,710,352**	**98.6**	**2.4:1**	**41.6**

HEALTHCARE WORKFORCE AND TRENDS

5.2.3

Primary Healthcare Workforce by Discipline: Oral Health

The oral health workforce comprises dentists (both general and specialised such as orthodontists and endodontists), dental hygienists, dental therapists, dental prosthetists, and oral health therapists. Nationally, this workforce totals approximately 20,000 practitioners, of which three quarters are dentists. Close to two thirds of dentists are male, whereas the dental and oral health therapist and hygienist workforce is predominantly female.

South Australia's supply of registered dental practitioners compares favourably to national figures, with 66.9 registered dentists per 100,000 people, the second highest nationally. Oral health therapist, dental hygienist and dental therapist to population ratios are all higher in SA than most other states and territories, although dental prosthetist numbers are lower. Table 90 uses workforce surveying data to give a picture of the dental labour force at national and local levels, but not dental services or facilities.

Table 90: CAHML region dental workforce statistics[380]

CAHML region 2012 AHPRA registrants	Dentists	Oral health therapists	Dental hygienists	Dental therapists	Dental prosthetists
Total CAHML region	642	24	153	43	17
Solo private practice	121	9	47	0	10
Group private practice	317	9	85	3	3
Locum private practice	3	0	0	0	3
Hospital	59	0	3	0	0
School, tertiary or other educational facility	38	3	4	28	0
Other setting	30	0	0	0	0
Not applicable or unknown setting	72	3	12	6	0
Female (%)	218 (34.0)	22 (88)	146 (94.2)	41 (93.2)	0 (0)
Aust. Initial qual.	85.4%	100%	95.5%	100%	100%
Age 55+	34.6%	0%	11%	32.6%	35.3%
Intending to work ten or less years	38.0%	25%	28.1%	39.5%	23.5%
Intending to work five or less years	20.7%	12.5%	9.2%	9.3%	0%

Distribution within the CAHML region is shown in Table 91. Note that the per capita figure is head count to population, rather than full time equivalent (FTE). FTE to population ratios are available at state and national levels but not at LGA or Medicare Local levels.

Table 91: Distribution of oral health workforce in CAHML region by LGA (2012)[381]

CAHML region 2012 AHPRA registrants	Dentists	Oral health therapists	Dental hygienists	Dental therapists	Dental prosthetists
Adelaide	284	5	60	9	3
Adelaide Hills	12	0	4	0	0
Burnside	47	3	12	3	0
Campbelltown	32	0	8	3	0
Charles Sturt	68	3	16	4	4
Mount Barker	19	0	3	7	3
Norwood, Payneham, St Peters	57	5	18	3	3
Port Adelaide Enfield	29	3	5	5	0
Prospect	16	0	3	4	0
Unley	46	4	21	0	0
Walkerville	7	0	0	0	0
West Torrens	24	0	5	0	0
CAHML total	**642**	**25**	**155**	**43**	**16**
CAHML per 100,000 pop.	**111.4**	**4.3**	**26.9**	**7.5**	**2.8**
SA total	**1108**	**83**	**278**	**115**	**52**
SA per 100,000 pop.	**66.9**	**5.0**	**16.8**	**6.9**	**3.1**
Australia total	**14,688**	**736**	**1600**	**1274**	**1161**
Aus. per 100,000 pop.	**64.7**	**3.2**	**7.0**	**5.6**	**5.1**

5.2.4

Primary Healthcare Workforce by Discipline: Allied Health

National data for the allied health workforce has significant limitations. This is because not all allied health professionals are registered with AHPRA, nor is there universal agreement on which professions make up the allied health workforce.[382] Only AHPRA registrant data is used in this sub-section.

Table 92 provides an overview of the AHPRA-registered allied health workforce composition at Australian, South Australian and CAHML level.

Table 92: Allied health workforce to population ratios (2012)[386]

AHPRA-registered health professions 2012	Australia (a)		SA (a)		CAHML (b)	
	Total	Per 100,000 population	Total	Per 100,000 population	Total	Per 100,000 population (c)
Chinese medicine	3952	17.1	152	9.4	100	17.4
Chiropractic	4610	20.0	360	21.7	168	29.2
Medical radiation	13,508	58.9	991	60.0	623	108.1
Physiotherapy	24,304	119.0	1937	118.5	1045	181.3
Podiatry	3825	16.8 (c)	375	22.6 (c)	178	30.9
Psychology	29,984	129.4	1472	87.3	813	141.1
Occupational therapy	14,255	63.0	1164	71.3	NA	NA
Optometry	4586	20.1	234	15.2	114	19.8
Osteopathy	1761	7.6	35	2.0	28	4.9

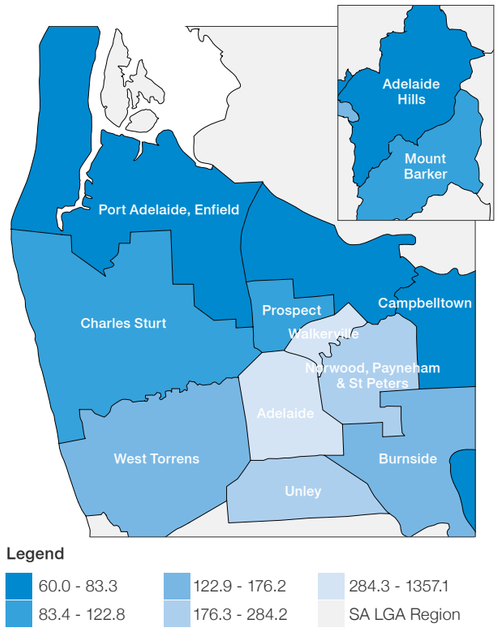
HEALTHCARE WORKFORCE AND TRENDS

As can be seen in Table 92, the numbers of allied health practitioners in the CAHML region are generally high compared to the national average. Workforce demographics and practitioner distribution is provided in tables 93, 94 and 95 for physiotherapists, podiatrists and psychologists. Please note that across the allied health professions, practitioner to population ratios may be inflated as many practitioners work at multiple sites and crossover Medicare Local boundaries.

Table 93: Physiotherapists in CAHML region[384]

Physiotherapists		2012 AHPRA registrants in allied health workforce
Female (%)		NA
Aust. Initial qual. (%)		874 (89.2)
Age 55+ (%)		153 (15.6)
Years intending to work	≤ 10 (%)	347 (35.4)
	≤ 5 (%)	155 (15.8)
Age	16-34 (%)	408 (41.6)
	35-44 (%)	250 (25.5)
	45-54 (%)	169 (17.2)
	55-64 (%)	124 (12.7)
	65-74 (%)	26 (2.7)
	75-99 (%)	3 (0.3)
Practice/ employment setting	Solo private practice	119
	Group private practice	290
	Locum private practice	4
	Hospital	149
	Outpatient service	50
	Residential aged care facility	68
	Sport clinic/centre	20
	Rehab. or Phys. Dev. service	48
	Domiciliary service	18
	Educational facility	43
	Other, n/a or unknown	165
Total CAHML region		**979**

Figure 122: Physiotherapist distribution by LGA[384]

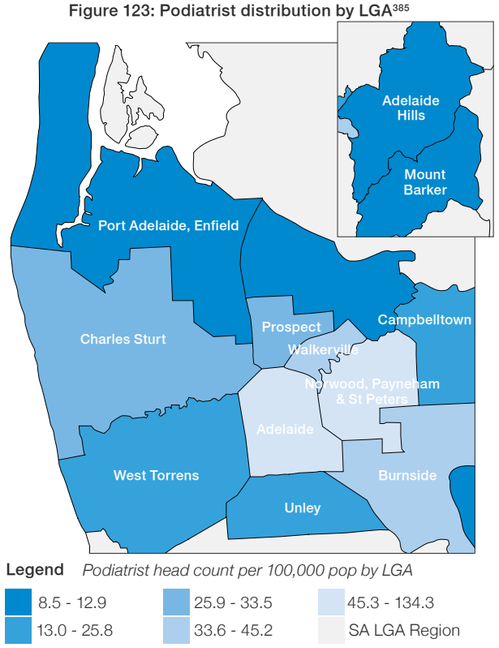


Physiotherapist head count per 100,000 pop by LGA

Table 94: Podiatrists in CAHML region[385]

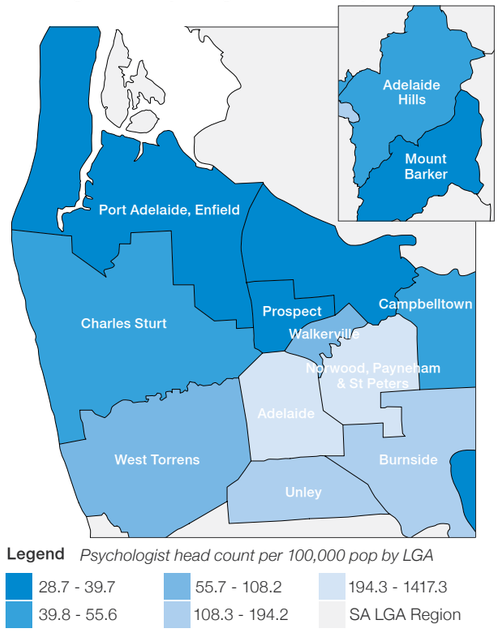
Podiatrists		2012 AHPRA registrants in allied health workforce
Female (%)		93 (56.4)
Aust. Initial qual. (%)		157 (94.6)
Age 55+ (%)		15 (9.2)
Years intending to work	≤ 10 (%)	38 (22.9)
	≤ 5 (%)	13 (7.8)
Age	16-34 (%)	67 (41.1)
	35-44 (%)	44 (27.0)
	45-54 (%)	37 (22.7)
	55-64 (%)	15 (9.2)
	65-74 (%)	0 (0)
	75-99 (%)	0 (0)
Practice/ employment setting	Solo private practice	55
	Group private practice	53
	Locum private practice	3
	Hospital	3
	Outpatient services	8
	Educational facility	8
	Residential aged care facility	13
	Other, n/a or unknown	19
Total CAHML region		**166**

Figure 123: Podiatrist distribution by LGA[385]



Podiatrist head count per 100,000 pop by LGA

Figure 124: Psychologist distribution by LGA[386]



Psychologist head count per 100,000 pop by LGA

Table 95: Psychologists in CAHML region[386]

Psychologists		2012 AHPRA registrants in allied health workforce
Female (%)		545 (72.8)
Aust. Initial qual. (%)		692 (92.3)
Age 55+ (%)		227 (30.3)
Years intending to work	≤ 10 (%)	249 (33.2)
	≤ 5 (%)	111 (14.8)
Age	16-34 (%)	164 (21.9)
	35-44 (%)	193 (25.7)
	45-54 (%)	166 (22.1)
	55-64 (%)	172 (22.9)
	65-74 (%)	49 (6.5)
	75-99 (%)	6 (0.8)
Practice/ employment setting	Solo private practice	180
	Group private practice	122
	General practitioner practice	22
	Community mental health service	38
	Hospital	46
	Educational facility	70
	Aboriginal health service	3
	Drug and alcohol service	3
	Correctional service	12
	Other, n/a or unknown	254
Total CAHML region		**749**

HEALTHCARE WORKFORCE AND TRENDS

5.2.5

Primary Healthcare Workforce by Discipline: Pharmacy

Nationally, there were just over 27,000 pharmacists registered with AHPRA in 2012, of which 15-20% were not actively employed in pharmacy in Australia and/or not considered part of the pharmacist workforce.

Table 96: Pharmacists in CAHML region[388]

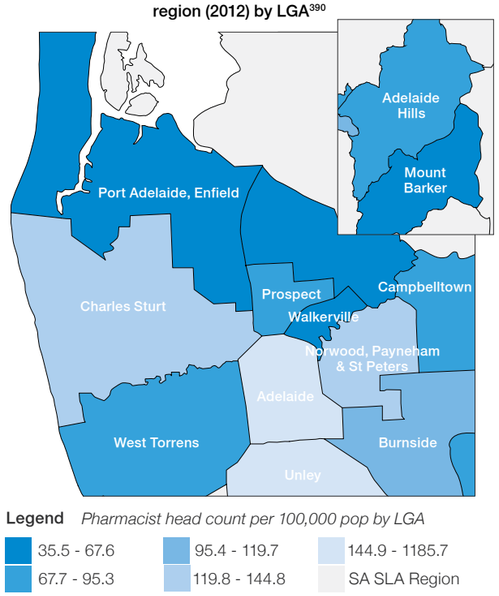
Pharmacists		2012 AHPRA registrants in allied health workforce
Female (%)		502 (62.3)
Aust. Initial qual. (%)		734 (91.1)
Age 55+ (%)		106 (13.1)
Years intending to work	≤ 10 (%)	263 (32.6)
	≤ 5 (%)	129 (16.0)
Age	16-34 (%)	417 (51.7)
	35-44 (%)	166 (20.6)
	45-54 (%)	118 (14.6)
	55-64 (%)	75 (9.3)
	65-74 (%)	28 (3.5)
	75-99 (%)	3 (0.4)
Practice/ employment setting	Community pharmacy	396
	Hospital	193
	Medical centre or other private practice	30
	Residential care facility	6
	Pharm. Manufacturing	17
	Educational facility	36
	Community health care service	22
	Other, not applicable, or unknown setting	105
Total CAHML region		**807**

Characteristics of the national pharmacy workforce include:

- average age was 38.9
- 16.4% are aged 55 years and over
- a slim majority are women (almost 6 out of 10)
- average working hours per week are 35.9 (FTE rate 88.7),
- approximately one third worked part-time,
- 83.3% received their initial qualification in Australia, and
- the ratio of private to public sector pharmacists was approximately three to one.[387]

South Australia's pharmacy workforce is very similar to the Australian picture. A snapshot of pharmacists in the CAHML region is provided in Table 96.

Figure 125: Geographic distribution of pharmacists in CAHML region (2012) by LGA[390]



The distribution of pharmacists in the CAHML region is shown in Table 97. As with other health professions, the overall supply in our region compares favourably to the national figure, but the distribution is uneven.

The ratio of pharmacists to population in the Port Adelaide Enfield area and in the Adelaide Hills (including Mount Barker) is particularly concerning.

Table 97: Geographic distribution of pharmacists in CAHML region by LGA (2012)[389]

LGA	Pharmacist head count	2012 Est. resident population	Pharmacist head count per 100,000 population
Adelaide	256	21,590	1185.7
Adelaide Hills	28	39,798	70.4
Burnside	53	44,263	119.7
Campbelltown	48	50,393	95.3
Charles Sturt	159	109,956	144.6
Mount Barker	18	30,933	58.2
Norwood, Payneham, St Peters	53	36,594	144.8
Pt Adelaide Enfield	42	118,330	35.5
Prospect	22	20,904	105.2
Unley	68	38,620	176.1
Walkerville	5	7,392	67.6
West Torrens	54	57,525	93.9
CAHML	**807**	**576,298**	**140.0**
South Australia	**1717**	**1,656,299**	**103.7**
Australia	**22,675**	**22,710,352**	**99.8**

5.2.6

Data Limitations

Health Workforce Australia's "Health Workforce Data Tool," which uses workforce survey data of AHPRA registrants, is the main source of statistics for this section. It is important to note limitations inherent in this data. Not all health professionals are registered with AHPRA (see allied health sub-sections in particular), not all registered professionals complete the workforce surveys at the time of registration, and some professions have significantly changed their workforce surveying in the move to national registration. This makes historical comparisons challenging. Further, using this data in isolation does not give a reliable indication of supply, against which demand can be compared, and other markers are needed.

Readers will note that data contained within this section may not always reconcile, such as where numbers in tables do not appear to sum to 100% or the relevant total, or where two different figures are given for a region, professional group or sub-group.

There are several reasons for this:

- Rounding of percentages,
- HWA adjustment for non-response, as this process produces estimates that are not whole numbers and require rounding,
- Similar but not exactly same data sub-sets (e.g. total registered, versus employed sub-set, versus actively-employed sub-set).

These issues have minor impact on the findings.

6

HEALTH SERVICE UTILISATION

Demand for healthcare services is an expression of healthcare need. Understanding the main determinants of demand for and utilisation of healthcare services is essential to understanding the population needs within the CAHML region.

Service use or utilisation can be determined by individual characteristics (pre-disposing factors) such as age, sex, marital status, education, occupation etc. There are also enabling factors such as income, health insurance, and cost of health services, geographic location and availability of healthcare facilities. Service use may also be conditioned by characteristics of the provider and health system (see health service availability in section 5).

In addition, race, ethnicity, gender, economic status, geography and environment are other important factors to consider. Research indicates that more broadly, non-financial barriers are distributed unequally across the population and are felt in greater extent and depth in the low socio-economic, minority and other vulnerable populations. This may be due to not only the amount of care they receive but also the content, quality, and continuity of the care they do receive.

HEALTH SERVICE UTILISATION

Within the CAHML region the data shows that the use of services associated with a GP attendance and allied health practitioner interaction across all measures have increased over a four year period.

Primary care encompasses health care provided by general practitioners (GPs), allied health professionals, pharmacists and other practitioners and is the first point of contact with the health system for most patients.

The Medicare Benefits Schedule (MBS) primary care items support primary care services including: general attendances, after-hours attendances, health assessments, nurse practitioners, midwives and chronic disease management. Some of these services provide particular target groups with preventative health care or improve coordination of multidisciplinary care for people with chronic (or terminal) conditions and complex care needs.[391]

6.1.1

GP Services

Almost all of the services provided by private GPs are partly funded by the Commonwealth Government through Medicare and the Department of Veterans' Affairs (DVA). People with a chronic disease form a significant proportion of the patients visiting general practitioners. GPs manage health conditions by providing diagnoses, treatment, management advice, drug prescriptions, and referrals to specialists. They also help with prevention of chronic diseases by monitoring the biomedical risk factors and giving advice on lifestyle changes reduce behavioural risk factors.

Table 98 presents primary health care data billed under the Australian Government Medicare Benefits Schedule (MBS). Within the CAHML region the data shows that the use of services associated with a GP attendance and allied health practitioner interaction across all measures have increased over a four year period. The greatest increases have occurred across health assessments, particularly Aboriginal and Torres Strait Islander health assessments (327% increase), and chronic disease related services (74% increase). Interestingly, the general practitioner services have remained fairly stable.

Table 98: MBS utilisation in CAHML - Primary care services billed under MBS[392]

Measures		2009/10	2010/11	2011/12	2012/13
General practitioner and other non-referred attendances	Number of services	2,336,264	2,310,985	2,329,883	2,363,081
	Benefit paid	89,732,519	91,355,210	94,649,084	98,459,542
	Fee charged	103,858,381	106,808,599	110,393,806	115,125,755
Health Assessments: Non Indigenous	Number of services	13,283	12,947	14,441	16,298
	Benefit paid	2,654,951	2,548,935	2,848,759	3,306,824
	Fee charged	2,661,951	2,554,435	2,853,659	3,312,411
Health Assessments: Indigenous	Number of services	163	323	437	533
	Benefit paid	32,137	64,369	88,776	110,395
	Fee charged	32,157	64,444	88,799	110,415
After Hours Services: Total non urgent (Consulting, RACF) & urgent	Number of services	187,380	184,901	202,386	220,743
	Benefit paid	13,560,684	13,938,147	15,320,525	17,007,224
	Fee charged	15,046,152	15,440,255	16,660,600	18,406,724
PIP Incentives related services: Asthma	Number of services	458	430	448	556
	Benefit paid	19,575	20,322	20,574	26,524
	Fee charged	21,311	22,279	22,260	29,540
PIP Incentives related services: Diabetes	Number of services	4,533	4,903	5,033	5,221
	Benefit paid ($'000)	208,934	239,086	252,868	267,174
	Fee charged	221,531	252,243	265,437	282,074
PIP Incentives: Cervical Screening	Number of services	1,144	1,375	1,394	1,524
	Benefit paid	61,391	74,017	76,073	85,102
	Fee charged	73,754	87,348	89,383	102,099
PIP Incentives: Total	Number of services	6,135	6,709	6,875	7,301
	Benefit paid	289,900	333,425	349,515	378,800
	Fee charged	316,597	361,869	377,080	413,712
Chronic Disease Related Services	Number of services	72,375	82,965	96,397	97,932
	Benefit paid	7,206,129	8,424,067	9,750,517	9,876,165
	Fee charged	7,233,840	8,455,439	9,789,053	9,908,991
Mental Health	Number of services	36,269	42,689	43,767	45,230
	Benefit paid	3,927,245	4,630,704	3,983,338	3,717,780
	Fee charged	4,043,039	4,778,836	4,165,139	3,927,208
Other	Number of services	16,106	15,708	15,951	15,792
	Benefit paid	1,095,305	975,929	873,073	849,426
	Fee charged	1,268,983	1,134,929	1,021,129	1,001,275

HEALTH SERVICE UTILISATION

The percentage of adults who saw a GP in the preceding 12 months, in CAHML (2011–12) was 78%, slightly lower than the Australian average of 80.6%.

Figure 126: Total GP services (MBS and DVA) for CAHML region (2009-10) (ASR per 100,000)[393]

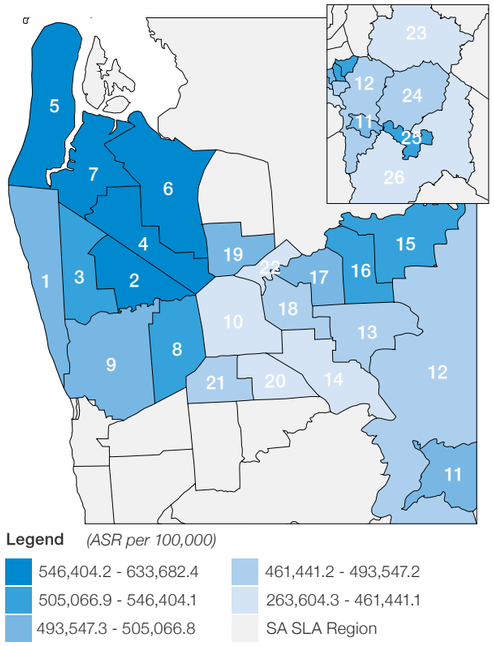


Table 99: Top two quintile SLAs for GP services use (2009-10) (ASR per 100,000)[394]

SLAs with highest prevalence	ASR per 100,000	SLA Rank within CAHML
Port Adel. Enfield (C) - Port	633,682.4	1
Port Adel. Enfield (C) - Park	598,520.7	2
Port Adel. Enfield (C) - Coast	590,873.3	3
Charles Sturt (C) - North-East	589,824.1	4
Charles Sturt (C) - Inner East	580,310.8	5
West Torrens (C) - East	546,404.1	6
Charles Sturt (C) - Inner West	541,882.4	7
Mount Barker (DC) - Central	541,882.4	7
Campbelltown (C) - East	534,699.5	9
Campbelltown (C) - West	510,393.1	10
Australia	**545,012.2**	**...**
Greater Metropolitan Adelaide	**552,869.9**	**...**
Central Adelaide and Hills	**510,245.1**	**...**

Figure 126 and Table 99 detail the prevalence of GP service utilisation based on the top two quintiles across Statistical Local Areas (SLAs) within the CAHML region. Within CAHML, all three Port Adelaide Enfield SLAs, and Charles Sturt – North East and Inner West SLA have the highest rate of GP service usage with Walkerville, Unley East, Adelaide, Burnside South West, Adelaide Hills North and Mount Barker - Bal have the lowest rate of usage.

According to data from the first report of the NHPA Healthy Communities: Australians' experiences with primary healthcare in 2010-11, the average number of GP attendances per person per annum for the CAHML catchment was 5.0, below the Australian ML average of 5.2. The percentage of adults who saw a GP in the preceding 12 months, in CAHML (2011–12) was 78%, slightly lower than the Australian average of 80.6%. The average expenditure on MBS for GP attendances within CAHML in the past twelve months (2011 – 2012)[395] was $232.19, higher than the Australian rate of $230.96.

In relation to high use of GP services (percentage of adults who saw a GP more than 12 times in the preceding 12 months), CAHML rates slightly above the national average and ranks 3rd of 12 with the comparable ML peer group (Metro 2).

Qualitative data collected from the CAHML consumer, stakeholder and health provider surveys and local focus groups, overwhelmingly shows that the GP and use of general practice services is the main source of healthcare provision among respondents.

6.1.2

Practice Nurse Items

There are a range of practice nurse items available within the MBS (MBS items 10983, 10984, 10986, 10987, 10997 and 16400) which are for claiming services provided by a practice nurse on behalf of a GP and include:

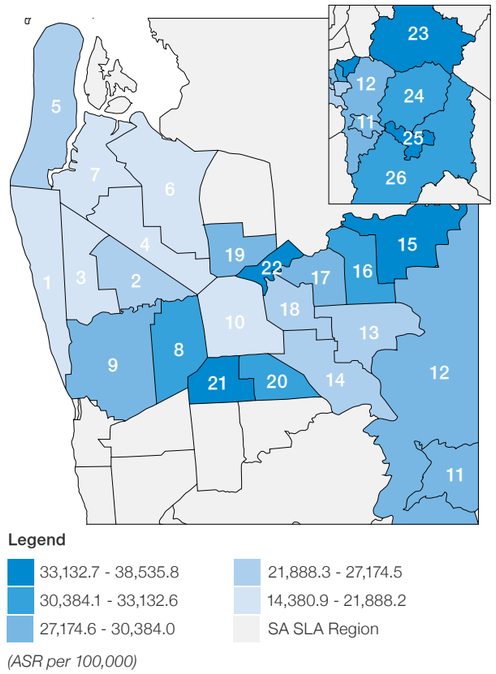
- Healthy Kids Check
- Follow up service for an Indigenous patient who has received a health check (assessment)
- Monitoring and support for a person with chronic disease
- Antenatal service
- Telehealth—patient-end clinical support service by a practice nurse
- Telehealth—patient-end clinical support service by a practice nurse at a residential aged care facility

Table 100: Top two quintiles (highest use) for total practice nurse services within CAHML region[397]

SLAs with highest prevalence	ASR per 100,000	SLA Rank within CAHML
Unley (C) - West	38,535.8	1
Campbelltown (C) - East	36,910.1	2
Adelaide Hills (DC) - North	36,732.7	3
Mount Barker (DC) - Central	35,342.2	4
Walkerville (M)	33,994.9	5
Adelaide Hills (DC) Bal	33,132.6	6
Unley (C) - East	33,090.8	7
Campbelltown (C) - West	32,425.8	8
Mount Barker (DC) Bal	31,892.5	9
West Torrens (C) - East	31,181.6	10
Australia	**34,639.1**	**..**
Greater Metropolitan Adelaide	**32,842.4**	**..**
Central Adelaide and Hills	**27,494.5**	**46**

Table 100 details the prevalence of practice nurse service provision based on the top two quintiles (highest utilisation) across SLAs within the CAHML region. While there is no obvious pattern of practice nurse service provision across groupings of SLAs evident from the data (and may be specific to the composition of practices within each SLA) it would be worthwhile to further investigate any correlation between the number of practice nurses (workforce) within each SLA and this level of usage and the number of solo GP practices or practices with no practice nurse in the lower quintile SLAs.

Figure 127: Total Practice Nurse MBS Services provided within CAHML (ASR 100,000)[396]



HEALTH SERVICE UTILISATION

Of the 200 practices within the CAHML area, 107 (53.5%) have received a PIP payment within the last year.

6.1.3

Chronic Disease Management (CDM) Items[398]

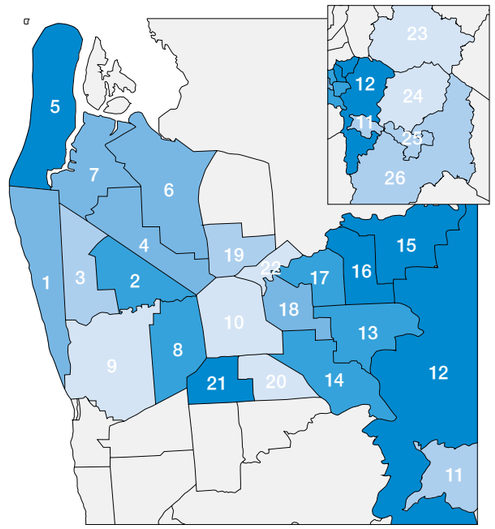
The Chronic Disease Management (CDM) Medicare items are provided to enable GPs to 'plan and coordinate the health care of consumers with chronic or terminal medical conditions, including patients with these conditions who require multidisciplinary, team-based care from a GP and at least two other health or care providers.'

CDM services cover five categories of General Practitioner (GP) activity:

- Preparing a GP Management Plan (GPMP) for a patient who has a chronic or terminal medical condition with or without multidisciplinary care needs (item 721)
- Coordinating the preparation of Team Care Arrangements (TCA) for a patient who has a chronic or terminal medical condition and requires ongoing care from a multidisciplinary team of at least three heath or care providers (item 723)
- Reviewing a GPMP (item 732)
- Contributing to a Multidisciplinary Care Plan being prepared by another health or care provider, or to a review of such a plan (item 729)
- Contributing to a Multidisciplinary Care Plan being prepared for a resident of an aged care facility, or to a review of such a plan (item 731).[399]

Figure 128 and Table 101 outline the top two quintiles (highest use) of chronic disease management items provided through general practice.

Figure 128: Total services provided by GPs for Chronic Disease Management (formerly EPC) items (2009-10) (ASR per 100,000)[400]



Legend

- 2,368.4 - 2,853.5
- 2,205.0 - 2,368.3
- 2,117.7 - 2,204.9
- 1,902.2 - 2,117.6
- 1,126.1 - 1,902.1
- SA SLA Region

ASR per 100,000

Table 101: Top two CAHML quintiles for total services for CDM (EPC) items (2009-10)[401]

SLAs with highest prevalence	ASR per 100,000	SLA Rank within CAHML (or CAHML rank within other MLs
Port Adel. Enfield (C) - Coast	2,853.5	1
Adelaide Hills (DC) - Ranges	2,529.7	2
Campbelltown (C) - West	2,445.7	3
Unley (C) - West	2,373.4	4
Campbelltown (C) - East	2,372.1	5
Burnside (C) - South-West	2,368.3	6
Burnside (C) - North-East	2,346.7	7
Norw. P'ham St Ptrs (C) - East	2,346.5	8
West Torrens (C) - East	2,328.0	9
Charles Sturt (C) - Inner East	2,307.6	10
Australia	**2,597.2**	**..**
Greater Metropolitan Adelaide	**2,321.9**	**..**
Central Adelaide and Hills	**2,169.9**	**47**

6.1.4

Practice Incentive Payments

The Practice Incentives Program (PIP) is aimed at supporting general practice activities that encourage continuing improvements, quality care, enhance capacity, and improve access and health outcomes for patients. The PIP is administered by Medicare Australia on behalf of the Department of Human Services. Currently PIP is made up of 10 individual incentives and practices can apply for any incentives provided they meet the eligibility criteria. Along with the data provided in Table 102 outlining PIP related services, of the 200 practices within the CAHML area, 107 (53.5%) have received a PIP payment within the last year (one year previous to Aug 2014).

Table 102: Percentage of participation in practice incentive payments (PIP) for CAHML region practices[402]

Percentage of Participation in PIP within CAHML	Aug-13	Nov-13	Feb-14	May-14	Aug-14
Number of PIP Practices receiving a payment for the quarter	114	106	109	106	107
Number of PIP practices receiving a tier 1 After Hours Incentive payment for the quarter (%)	96.5	*	*	*	*
Number of PIP practices receiving a tier 2 After Hours Incentive payment for the quarter (%)	45.6	*	*	*	*
Number of PIP practices receiving a tier 3 After Hours Incentive payment for the quarter (%)	11.4	*	*	*	*
Number of PIP practices receiving a Teaching Incentive payment for the quarter (%)	25.4	18.9	22.0	16.0	26.2
Number of PIP practices receiving a Quality Prescribing Incentive payment for the quarter (%)	*	*	*	11.3	*
Number of PIP practices receiving an Asthma Incentive sign on payment for the quarter (%)	*	*	*	*	*
Number of PIP practices receiving a Cervical Screening Incentive outcomes payment for the quarter (%)	34.2	23.6	22.9	22.6	19.6
Number of PIP practices receiving a Cervical Screening Incentive sign on payment for the quarter (%)	*	*	*	*	*
Number of PIP practices receiving a Diabetes Incentive outcomes payment for the quarter (%)	*	*	*	*	*
Number of PIP practices receiving a Diabetes Incentive sign on payment for the quarter (%)	*	*	*	*	*
Number of PIP practices receiving an Indigenous Health Incentive Tier 1 payment for the quarter (%)	7.0	9.4	4.6	6.6	7.5
Number of PIP practices receiving an Indigenous Health Incentive Tier 2 payment for the quarter (%)	*	*	37.6	*	*
Number of PIP practices receiving at least one Indigenous Health Incentive patient registration payment for the quarter (%)	12.3	17.9	16.5	21.7	22.4
Number of PIP practices receiving an Indigenous Health Incentive sign on payment for the quarter (%)	3.5	*	*	*	*
Number of PIP practices receiving an eHealth Incentive payment for the quarter (%)	79.8	87.7	88.1	89.6	91.6

HEALTH SERVICE UTILISATION

6.1.5

Allied Health Services

In regards to MBS allied health data, most MBS item numbers show an increase in the number of services across service types with the greatest increases occurring for diabetes education and dietetics services (70%), podiatry services (57%) and allied health services for Aboriginal and Torres Strait Islander Australians who have had a health check.

Table 103: MBS utilisation in CAHML - Allied Health Services billed under MBS (Groups M3)[403]

Measures		2009/10	2010/11	2011/12	2012/13
Physiotherapy Services	Number of services	16,839	18,226	21,731	24,150
	Benefit paid	836,122	924,483	1,123,685	1,293,705
	Fee charged	859,112	953,429	1,158,379	1,344,000
Diabetes Education & Dietetics Services	Number of services	4,612	5,002	6,160	6,583
	Benefit paid	229,743	254,093	318,979	347,478
	Fee charged	236,404	263,728	340,702	372,034
Podiatry Services	Number of services	41,520	53,057	62,990	73,209
	Benefit paid	2,062,243	2,687,979	3,251,247	3,851,505
	Fee charged	2,083,935	2,709,022	3,284,509	3,903,928
Exercise Physiology, Occupational Therapy, Chiropractic, & Osteopathy Services	Number of services	6,592	6,493	7,778	8,262
	Benefit paid	329,375	329,965	405,362	436,327
	Fee charged	345,399	346,489	426,705	466,481
Mental Health, Psychology, Audiology, Speech Pathology & Indigenous Health Services	Number of services	1,558	1,731	1,997	1,851
	Benefit paid	86,071	97,062	113,216	107,821
	Fee charged	133,658	154,090	181,084	180,278

Table 104: MBS utilisation in CAHML - Allied Health Services billed under MBS (groups M6-M11)[404]

Measures		2009/10	2010/11	2011/12	2012/13
Psychological Therapy Services	Number of services	38,008	43,800	46,407	50,924
	Benefit paid	4,493,995	5,298,239	5,717,870	6,418,397
	Fee charged	5,209,281	6,280,240	6,839,804	7,761,822
Focused Psychological Strategies Services – Services by Allied Health providers	Number of services	26,811	28,313	31,383	34,388
	Benefit paid	2,145,048	2,333,482	2,635,522	2,945,383
	Fee charged	2,769,628	3,047,176	3,343,564	3,713,822
Pregnancy Support, Allied Health Group Services, and Pervasive Development Disorder	Number of services	N/A	N/A	3,828	4,044
	Benefit paid	N/A	N/A	131,428	154,118
	Fee charged	N/A	N/A	151,473	179,305
Allied Health Services for Indigenous Australians who have had a health check	Number of services	N/A	N/A	22	45
	Benefit paid	N/A	N/A	1,141	2,377
	Fee charged	N/A	N/A	1,197	2,391

6.1.6

After Hours Services

Within the CAHML region, after hours services are provided through an accredited general practice or an accredited Medical Deputising Service (MDS). The CAHML After Hours Program receives Australian Government funding to administer the after hours primary health funding within the CAHML region and replaced the General Practice After Hours Program and the Practice Incentive Program (PIP) After Hours Incentive from June 2013. After hours primary care is accessible and effective care for people whose health condition is urgent and cannot wait for treatment until regular services are next available.

CAHML administers funding for after-hours (AH) primary health services to further improve access to AH care so that communities across the region have suitable after-hours services in place. After hours care is offered through extended clinic hours, on call availability, and locum services. Of the 201 general practices within the CAHML region, 41.8% are receiving incentive or grant funding from CAHML for after-hours care. Outside of this funding, after-hours provision is funded through the MBS for urgent and non-urgent after hours attendances that incorporate in clinic, residential aged care facility or home visits. Table 105 represents MBS remunerated attendances provided in the after-hours period for providers in the CAHML region.

Table 105: MBS A22: Non urgent After Hours Attendances Group 1 - Central Adelaide and Hills Medicare Local data[405]

Non-urgent After Hours Attendances	Item Number	Attendances 2013 -214	% increase from 2012 - 2013	No of Providers
In clinic (consulting rooms)	5000	957	14.61%	63
	5020	118,286	5.86%	288
	5040	9,289	12.27%	216
	5060	967	49.22%	77
RACF attendance	5010	642	-9.32%	21
	5028	26,386	28.50%	165
	5049	1,037	4.43%	63
	5067	218	46.31%	23
Other (including home visits)	5003	168	-33.00%	9
	5023	28,388	21.64%	166
	5043	1,054	22.70%	69
	5063	80	-5.80%	17

Table 106: MBS A11: Urgent After Hours Attendances Group A1 and A2 - Central Adelaide and Hills Medicare Local data[406]

Non-urgent After Hours Attendances	A11 Group	Item Number	Attendances 2013 -214	% increase from 2012 - 2103	No of Providers
Social Hours	A1	597	137,842	21.70%	213
Unsociable Hours	A1	599	41,056	27.10%	95
Social Hours	A2	598	1,424	71.98%	37
Unsociable Hours	A2	600	472	97.49%	33

HEALTH SERVICE UTILISATION

The After Hours Program aims to integrate with the National Health Service Directory and the GP Helpline through federal funding provided to Healthdirect Australia. The After Hours GP Helpline is a national telephone based After Hours GP Medical Advice Service which commenced operation on the 1st July 2011 and aims to support people who require after hours medical advice. This service is also an enhancement to the telephone-based nurse triage, advice and referral service.

Table 107 shows the following outcomes to June 2014.

Table 107: Nurse Triage and After Hours GP Helpline - GP Outcomes (June 2012 - June 2014)[407]

Outcome	Number	Percent
Activate 000 or ED Immediately	1906	10.3
GP Immediately (NO GP Available - go to ED)	1397	7.6
GP Out of Hours - Not Urgent	24	0.1
Mental Health Referral (AH)	24	0.1
See Doctor Immediately: Urgently	3098	16.8
Self Care Advice + See GP in Hours	9559	51.7
Self Care Advice + See Health Care Provider	642	3.5
Self Care Advice only	1826	9.9

6.1.7

Community Health Services

Public primary health care services within the CAHML boundary are managed by the Central Adelaide Local Health Network (CAHLN) to ensure ongoing access to care for the most vulnerable populations in our community. The range of services including their service and client profiles are listed in Table 108:

Table 108: Primary Health Care Services within the CAHLN region (2012-13)[408]

CAHLN Primary Health Care Service	Total clients receiving service		New clients registered		Total Services: 1:1 and Group attendances	
	June 2012	June 2013	June 2012	June 2013	June 2012	June 2013
Children and Families Primary Health Care	344	342	159	117	2497	4575
Migrant Health Service	1657	1605	771	753	11,461	11,898
Parks Primary Health Care Service	1369	1076	792	549	5182	4832
Port Adelaide Primary Health Care Services	721	636	283	378	3829	3482
Supported Residential Facilities (SRF)	164	256	43	100	1267	1961
Street to Home	366	309	279	204	10,921	10,715

IMMUNISATION AND SCREENING

6.2.1

National Immunisation Program

The aim of immunisation is to reduce the impact of vaccine preventable disease by increasing vaccine coverage rates in the community. The National Immunisation Program is funded by the Australian Government who also administer the Australian Childhood Immunisation Register (ACIR) and provide immunisation information to the general public and health professionals. The vaccines offered through the National Immunisation Program are free (for children, adolescents and adults who hold a Medicare card), however, in some cases a service delivery fee may be applied by the immunisation provider.

6.2.2

Childhood Immunisation Program

As outlined in Table 109, childhood immunisation rates for CAHML, for each age cohort, are all lower than the Adelaide metropolitan and Australian levels. As the age cohort increases, the percentage of children fully vaccinated within CAHML decreases; for children at one year of age 91.1% are immunised, children at two years 90.5 % and children at five years 86.3%.

The National Immunisation Program consists of the following:[409]

- **Childhood Immunisation Program:** provides free vaccines to protect against many different diseases for children aged up to four years of age.
- School Based Immunisation Program: provides recommended vaccines for South Australian students in Year 8 and Year 9.
- **Annual Influenza Program:** provides free vaccines to specific groups who are considered at greatest risk from complications of influenza.
- **High Risk Hepatitis B Immunisation Program:** provides free hepatitis B vaccines to groups who are at an increased risk of developing hepatitis B infection. It is a requirement that pre-vaccination screening is used to determine the hepatitis B status of any individual considered to be high risk prior to commencing the course of hepatitis B immunisation. A blood test will be required before commencing any vaccination course for persons over the age of 15 years.
- **New Arrival Refugee Immunisation (NARI) Program:** offers specific vaccines to newly arrived refugees as part of the Australian Government Humanitarian Scheme. The program recognises that newly arrived refugees may not be fully immunised in line with the Australian schedule, which places the individual and the community at risk of vaccine preventable diseases.

Please note, South Australian or Medicare Local level data is not available for all of the above programs.

Table 109: Percentage of children fully immunised at age cohorts of 1,2 and 5 years of age (2011-12)[410]

	% children fully immunised at 1 year of age	% children fully immunised at 2 years of age	% children fully immunised at 5 years of age
CAHML	91.1	90.5	86.3
Greater Metropolitan Adelaide	92.2	92.1	87.0
Australia	91.8	92.6	90.0

IMMUNISATION AND SCREENING

Childhood immunisation rates for CAHML, for each age cohort, are all lower than the Adelaide metropolitan and Australian levels.

6.2.3

Age Profile and Immunisation Status

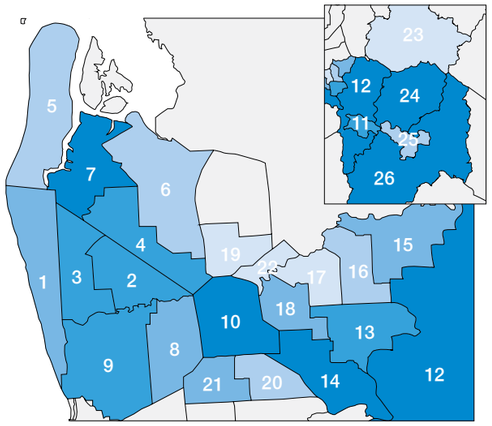
Table 110 and Figure 129 show the SLAs within CAHML with the lowest percentage of immunised children at one year of age, as compared to Greater Metropolitan Adelaide (GMA) and Australian rates. The lowest percentages are in Adelaide City at 85.7%, and a significant majority of SLAs in the Adelaide Hills and western suburbs, all below 90% of children fully immunised at this age.

Table 110: SLAs with the lowest % of children fully immunised at age 1 (2011-12)[411]

Statistical Local Government Area	Difference between children registered and children fully immunised at 1 year of age	% children fully immunised at 1 year of age
Adelaide (C)	20	85.7
Mount Barker (DC) Bal	14	85.9
Adelaide Hills (DC) - Ranges	14	87.5
Adelaide Hills (DC) Bal	12	87.5
Burnside (C) - South-West	18	88.3
Port Adel. Enfield (C) - Port	15	88.5
Adelaide Hills (DC) - Central	15	89.0
West Torrens (C) - West	32	90.4
Burnside (C) - North-East	17	90.7
Charles Sturt (C) - Inner West	25	90.8
Charles Sturt (C) - North-East	36	90.8
Charles Sturt (C) - Inner East	25	90.8
Charles Sturt (C) - Coastal	29	90.9
CAHML (48th)	**478**	**91.1**
Greater Metropolitan Adelaide	**1133**	**92.2**
Australia	**24360**	**91.8**

Table 111 and Figure 130 show the SLAs within CAHML with the lowest proportions of immunised children at two years of age, as compared to GMA and national percentages. As indicated, Adelaide City has the lowest proportion of children fully immunised at age two (85.7%), and Burnside, Unley and the Adelaide Hills SLAs are below 90%. This is lower than the Australian rate of 92.6% and GMA rate of 92.1%.

Figure 129: Percentage of children fully immunised across SLAs at age 1 (2011-12) [412]

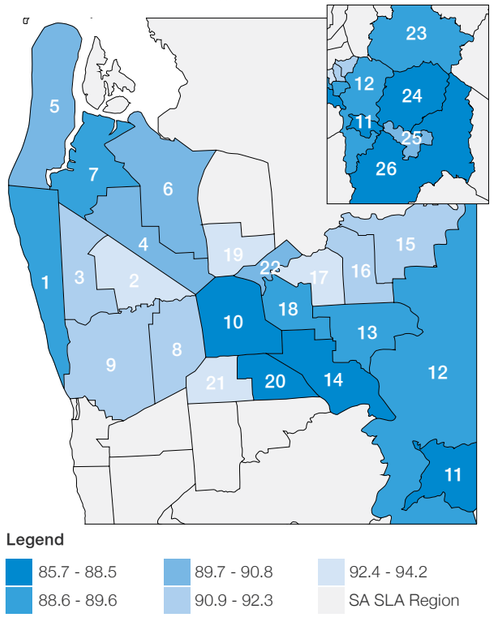


% Children fully immunised at 1 year of age

Table 111: SLAs with the lowest % of children fully immunised at age 2[413]

Statistical Local Government Area	Difference between children registered and children fully immunised at 1 year of age	% children fully immunised at 1 year of age
Adelaide (C)	20	85.7
Mount Barker (DC) Bal	14	85.9
Adelaide Hills (DC) - Ranges	14	87.5
Adelaide Hills (DC) Bal	12	87.5
Burnside (C) - South-West	18	88.3
Port Adel. Enfield (C) - Port	15	88.5
Adelaide Hills (DC) - Central	15	89.0
West Torrens (C) - West	32	90.4
Burnside (C) - North-East	17	90.7
Charles Sturt (C) - Inner West	25	90.8
Charles Sturt (C) - North-East	36	90.8
Charles Sturt (C) - Inner East	25	90.8
Charles Sturt (C) - Coastal	29	90.9
CAHML (48th)	**478**	**91.1**
Greater Metropolitan Adelaide	**1133**	**92.2**
Australia	**24360**	**91.8**

Figure 130: Percentage of children fully immunised across SLAs at age 2 (2011-12)[414]



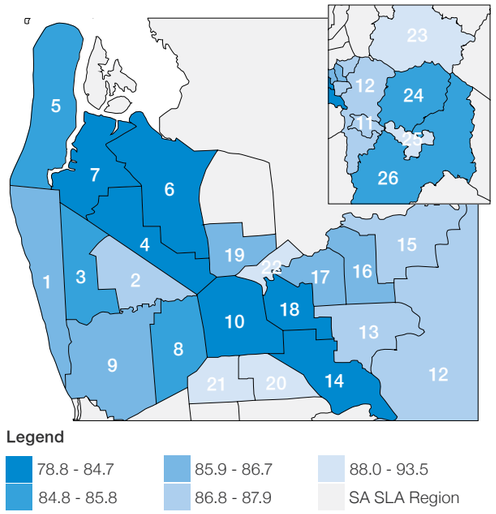
% Children fully immunised at 2 years of age

Interestingly, the age profile of immunisation status across the CAHML SLAs dramatically worsens for children fully immunised at age 5. Table 112 and Figure 131 show that 20 of the 26 CAHML SLAs fall below the GMA average, again with Adelaide City the lowest at 78.8%, and the western suburbs accounting for the majority of SLAs in the top two quintiles with the lowest percentage of children fully immunised at age 5.

Table 112: SLAs with the lowest % of children fully immunised at age 5 (2011-12) [415]

Statistical Local Government Area	Difference between children registered and children fully immunised at 5 years of age	% children fully immunised at 5 years of age
Adelaide (C)	22	78.8
Norw. P'ham St Ptrs (C) - West	29	83.4
Port Adel. Enfield (C) - Port	20	83.6
Burnside (C) - South-West	34	84.4
Charles Sturt (C) - North-East	55	84.5
Port Adel. Enfield (C) - Park	36	84.7
Port Adel. Enfield (C) - Coast	45	84.9
Charles Sturt (C) - Inner West	38	85.4
Adelaide Hills (DC) Bal	18	85.4
West Torrens (C) - East	39	85.7
Mount Barker (DC) Bal	15	85.8
CAHML (56th)	**755**	**86.3**
Greater Metropolitan Adelaide	**11007**	**87.0**
Australia	**30075**	**90.0**

Figure 131: Percentage of children fully immunised at age 5 (2011-12)[416]



% Children fully immunised at 5 years of age

IMMUNISATION AND SCREENING

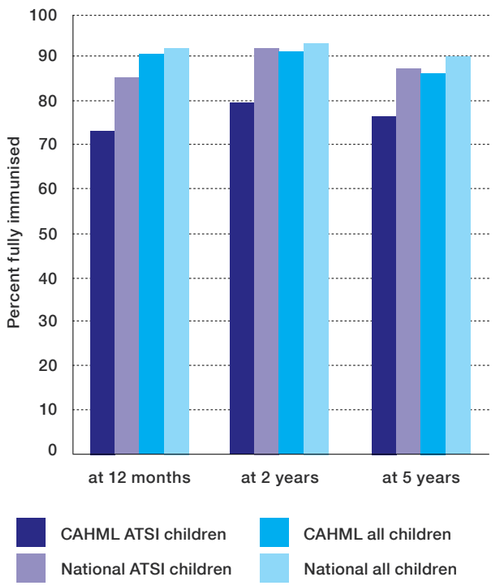
Compared to Australian rates, CAHML immunisation rates are low for Aboriginal and Torres Strait Islander children at ages one, two and five years.

6.2.4

Aboriginal and Torres Strait Islander Childhood Immunisation

Compared to Australian rates, CAHML immunisation rates are low for Aboriginal and Torres Strait Islander children at ages one, two and five years. Figure 132 shows the significantly lower rates of childhood immunisation for Aboriginal and Torres Strait Islander children in CAHML, as compared to immunisation rates for the overall CAHML population, and Australian immunisation rates.

Figure 132: Comparison of Aboriginal and Torres Strait Islander, National and CAHML Childhood Immunisation Rates (2011-12)[417]



According to SA Health data, the rate of immunisation of Aboriginal children was 74% in metropolitan Adelaide,[418] which correlates with the most recent data available for CAHML. The Aboriginal childhood immunisation rate is most concerning in the Charles Sturt LGA, where the rate is only 55% of Aboriginal children fully immunised.

The rate is comparable with that of metropolitan Adelaide in the following regions:

- Port Adelaide Enfield (71%)
- Adelaide /Woodville/Prospect (75%)
- West Adelaide (82%)

The rate was similar to or higher than the national rate for all children in the following regions:

- Unley/Burnside/Mitcham (100%)
- Adelaide Hills/ Mount Barker (100%)
- Campbelltown/Norwood, Payneham, St Peters (92%)

6.2.5

Annual Influenza Immunisation Program

While data is not available at the Medicare Local level, South Australian data indicates a higher vaccination coverage than the Australian rate for persons aged 65 years or older.

Table 113: Estimated seasonal influenza vaccination coverage, persons aged 65 years or older, Australia and South Australia (2009)[419]

	SA	Australia
Number ('000)		
Target population	250	2,900
Vaccinated	200	2,200
With program vaccine	190	2,100
Not with program vaccine	10	120
Not vaccinated	47	740
Per cent		
Total coverage	81.3	74.6
Program coverage	77.4	70.6
Proportion of total coverage using program-funded vaccine	95.1	94.7

6.2.6

Newly Arrived Refugees Immunisation Program

There is no cost for vaccines or their administration if given to an individual as part of the Australia Government Humanitarian Scheme or to those who attend a specific Newly Arrived Refugee Immunisation (NARI) clinic.

Refugees can access the free vaccines through the Newly Arrived Refugee Immunisation Program at the following local councils and health services in the CAHML region:

- City of Charles Sturt
- City of Port Adelaide-Enfield
- City of West Torrens
- Migrant Health Service
- South East Regional Community Health Services

IMMUNISATION AND SCREENING

The majority of immunisations occur within a GP setting (64.42%) or a council (18.35%).

6.2.7

Availability of Services

Vaccines recommended for children, adolescents and adults on the National Immunisation Program are available at no cost, although there may be fees associated with the medical consultation. There are multiple service providers where the community can access the immunisation program. These are outlined in Table 114 which identifies the number of valid vaccinations supplied across SA to immunisation providers (4,912,847). Figure 133 highlights that the majority of immunisations occur within a GP setting (64.42%) or a council (18.35%).

Table 114: Number and % of valid vaccinations supplied across SA to immunisation providers (2012-13)[420]

Type of Provider	Number	%
Medicare GP	3,165,039	64.42%
Council (LGA)	901,398	18.35%
Community Health Centre	414,579	8.44%
General Practice	293,287	5.97%
Public Hospital	103,464	2.11%
Aboriginal Health Service	25,373	0.52%
Royal Flying Doctor Service	4,624	0.09%
SA Health	3,196	0.07%
Aboriginal Health Worker	1,594	0.03%
Division Of General Practice	293	0.01%
Total	**4,912,847**	**100%**

Figure 134 indicates the National Health Service Directory (NHSD) immunisation service delivery points in the CAHML region. According to the NHSD, there are 21 services available for immunisations which includes both councils and community health centres but is not indicative of general practice locations. The limitation of this map is that there are multiple services listed more than once depending on their opening hours.

Figure 133: Percentage of Immunisations by setting[421]

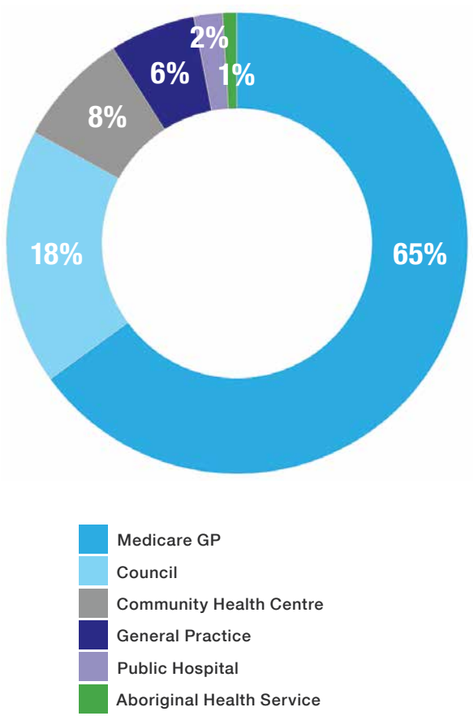
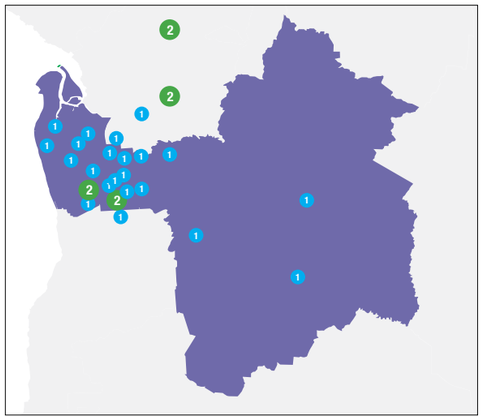


Figure 134: CAHML Immunisation service delivery points (National Health Service Directory)[422]



6.2.8

Vaccine Preventable Avoidable Hospital Presentations

Table 115 compares the number of potentially avoidable hospitalisations per 100,000 people for vaccine preventable conditions including influenza and pneumonia and contrasts that with the number of avoidable hospitalisations in peer group (Metro 2) MLs. As indicated, CAHML is 31% higher for influenza and pneumonia hospitalisations although the South Australian influenza vaccination rates were above the Australian average for those aged 65 years and over.

Table 115: Number of potentially avoidable hospitalisations per 100,000 people - CAHML and Metro 2 comparison[423]

Condition	Hospitalisations per 100,000 people (crude)	Hospitalisations per 100,000 people (age-standardised) Central Adelaide & Hills	Hospitalisations per 100,000 people (age-standardised) Metro 2	Central Adelaide & Hills relative to Metro 2(b)
Influenza and pneumonia	89	80	61	31% higher
Other vaccine-preventable	9	9	16	45% lower
Total Vaccine-preventable hospitalisations	98	88	76	16% higher

The Australian Government has developed a population screening framework, based on the World Health Organisation (WHO) principles of screening. The aim of the screening framework is to provide guidance for decision makers when considering potential population based screening programs in Australia. Screening programs can save lives, reduce morbidity, provide reassurance to individuals about their health and encourage a focus on prevention and early detection.

There are three national population based screening programs in Australia:

1. BreastScreen Australia; aims to achieve significant reductions in mortality and morbidity from breast cancer by actively recruiting and screening women aged 50-74 years for early detection of the disease,
2. National Cervical Cancer Screening Program, and
3. National Bowel Cancer Screening Program.

Table 116 summarises information for the three national programs, indicating that overall screening participation rates are on par or better than the Australian rates. However, there are certain SLAs within CAHML where comparatively, participation in screening programs is significantly lower than the Australian rate.

6.3

NATIONAL SCREENING PROGRAMS

54.3% of eligible women within the CAHML region participate in the national breast cancer screening program.

Table 116: National Screening Programs Summary of CAHML specific data (collated)[424]

	Breast	Cervical	Bowel
Incidence rate/10 000	57.4	33.7	66.4
5 year survival	87.7%	68%	61.8%
Death rate /10 000	13	0.7	21.9
National screening participation rates	54.9%	57.4%	34.8%
CAHML screening participation	**54.3%**	**62.1%**	**39.3%**
Demographic for screening	Women aged 50 – 69; although accept 50 – 74 years	18 to 20 years old or a year or two after first having sex, whichever is the later and to continue throughout their life until age 70 years	Turning 50, 55, 60 or 65 years of age
Number of persons in eligibility criteria	61,719 (age 50 – 69 years)	169,665 (age 20 – 69 years)	N/A
Local Government Areas with low participation	Port Adelaide Enfield Adelaide Hills	Port Adelaide Enfield Adelaide City Charles Sturt West Torrens Prospect	Port Adelaide Enfield Adelaide City Charles Sturt

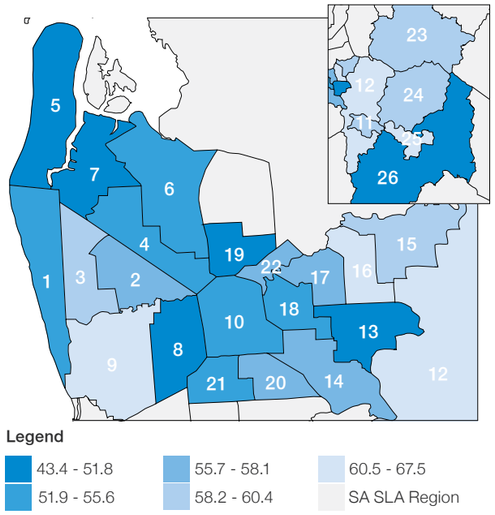
6.3.1

Breast Cancer Screening Program

The national breast screening program aims to achieve a participation rate of 70% among women aged 50-69 years. The Australian program screens 54.9% of women in this age group nationally, 54.9% in SA and a slightly lower rate in CAHML at 54.3%. While screening rates for breast cancer are marginally lower than the Australian and SA rate, there are distinct variations across sub-regions within CAHML, which have significantly lower rates of screening participation.

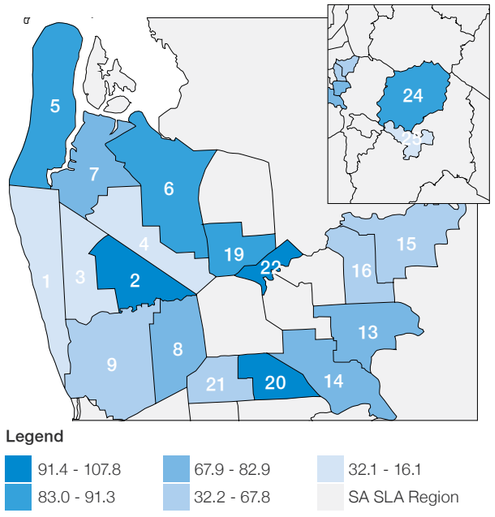
BreastScreen SA and ABS Estimated Residential Population (ERP) data (2011) is collected at the postcode level, which demonstrates the lowest percentage screening rates within CAHML are in the Adelaide Hills -Norton Summit, Balhannah and Oakbank (81.7%). The postcodes with the highest number of women eligible but not being screened are from the western suburbs of Grange, Henley Beach, Henley Beach South, Kirkcaldy and Tennyson (postcode 5022 - 760 eligible but not participating) and (postcode 5073 - 762 eligible but not participating). Figure 135 outlines the participation rates for breast cancer screening at the SLA level within the CAHML region with Port Adelaide Enfield – Coast (51.8%) and Port (50.9%), Burnside – North East (51.1%), Prospect (49.7%), Mount Barker – Bal (44.2%) and West Torrens – East (43.4%), having the lowest percentage of participation, compared to the GMA percentage of 57.6%

Figure 135: Breast cancer screening participation rates (2009-10)[425]



% Breast screening participation, females aged 50-59

Figure 136: Breast cancer screening outcomes: Cancer[426]



Breast screening outcomes: cancer, females aged 50-69 (ASR per 10,000)

While breast screening outcomes data is not available for all SLAs within the CAHML region (as indicated by the white areas in Figure 136), the available data indicates that the SLAs of Charles Sturt - Inner West (97.4 ASR per 10,000), Walkerville (107.0 ASR per 10,000), Unley – East (96.8 ASR per 10,000) and Port Adelaide Enfield – Park (91.3 ASR per 10,000) have the highest proportion of cancer outcomes (diagnosis) from breast screening, all above the GMA ratio of 61.7 (ASR per 10,000). CAHML is also ranked 2nd of 5 overall for cancer outcomes from breast screening compared with other MLs within the state.

SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

NATIONAL SCREENING PROGRAMS

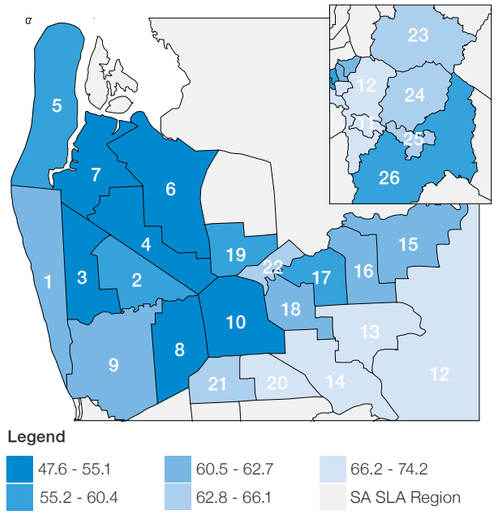
Cervical cancer screening rates in the CAHML region in the 2008/2009 period indicate a 62.1% participation rate, slightly higher than the SA average for the same year at 60.7%.

6.3.2

National Cervical Screening Program (NCSP)

This is a national program which encourages sexually active women to have regular pap smears every two years. The bi-annual participation rate in 2009-2010 for women in the target age group (20 - 69 years) was 57.4%. Cervical cancer screening rates in the CAHML region in the 2008/2009 period indicate a 62.1% participation rate, slightly higher than the SA average for the same year at 60.7%. However, this data does not reveal the low level of uptake in certain SLAs as there are some which are considerably lower than the state average. As indicated in Figure 137, Adelaide City has the lowest percentage participation rate at 47.5% whilst the highest percentage participation rate is in the Adelaide Hills – Central SLA, with 76.3% of eligible women being screened. The SLAs of Port Adelaide-Enfield Port, Park and Coast; Charles Sturt - North East and Inner West; and West Torrens - East, comprise the two highest quintiles for low participation in cervical screening, (below the SA average).

Figure 137 National Cervical Screening Program participation rates in CAHML region (2008-09)[427]



Cervical screening participation, females aged 20-69 (%)

6.3.3

National Bowel Cancer Screening Program (NBCSP)

Bowel cancer is one of Australia's most common cancers, especially for people aged over 50 years. About one in 19 men and one in 28 women will develop bowel cancer before the age of 75 years. This is one of the highest rates in the world.[428]

Since 2013, men and women turning, 50, 55, 60 and 65 years of age who hold a Medicare or Department of Veterans Affairs card are eligible for the NBCS program. Since the commencement of the program in 2006, 3.9 million Australians have been invited to participate and around 40% have chosen to do so. CAHML level data for the 2011 calendar year indicates a participation rate of 39% which is comparable to the SA participation rate of 39.3%, but higher than the national average of 34.8%. Males participated at a lower rate than females across all age groups. Table 117 shows the screening participation rates and outcome by gender and age within CAHML. The two LGAs with the lowest participation rates by percentage of population, especially for males, are Port Adelaide Enfield and Adelaide City.

Table 117: Bowel Cancer Screening Participation and Outcomes by Gender and Age in CAHML[429]

Region	Gender	Participation rate	Positivity rate	Polyps detected	Adenomas detected	Cancers suspected & detected
CAHML	Females (50-65 years)	41.4%	6.0%	78	15	4
	Males (50-65 years)	36.4%	7.8%	115	37	10
	TOTAL	39.0%	6.8%	193	52	14
South Australia	Females (50-65 years)	41.9%	6.7%	265	60	15
	Males (50-65 years)	36.6%	8.4%	408	117	23
	TOTAL	39.3%	7.5%	673	177	38
Australia	TOTAL	34.8%	7.0%	7225	1392	420

Data notes for Table 117 include the following:

There are some notes to consider with the data above;

1. The data provided in this report has been extracted from the Department of Health and Ageing's copy of National Bowel Cancer Screening Program Register data only and does not include any data from State and Territory Cancer Registers.
2. The positivity rate is calculated by dividing the number of positive FOBTs by the returned FOBTs and displayed as a percentage.
3. The number of polyps, adenomas and cancers detected understates the true position due to the very low rate of return of data to the program register by histopathologists.
4. National and State data for this period is approximate only.

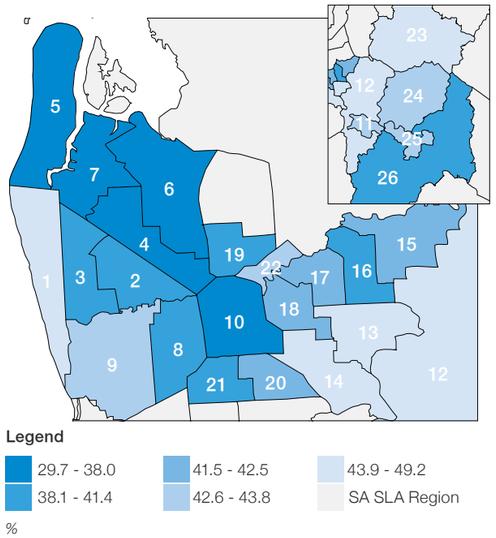
6.3

NATIONAL SCREENING PROGRAMS

About one in 19 men and one in 28 women will develop bowel cancer before the age of 75 years. This is one of the highest rates in the world.

Figure 138 shows NBCSP participation rates at the SLA level within the CAHML region, with Charles Sturt – Inner West, Port Adelaide Enfield – Coast, Park and Port, West Torrens – East and Adelaide City, all showing lower rates than the GMA rates.

Figure 138: NBCSP participation rates (persons) for CAHML region



SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

Table 118 shows the barriers to and facilitators for access and utilisation of colorectal cancer (CRC) screening. This information is derived from a study identifying the inequities in CRC screening in South Australia and system-related barriers and enablers from the perspective of participants who were identified as having inequitable participation.[420]

Table 118: National Screening Programs Summary of CAHML specific data (collated)[424]

Patient Barrier	No*	Patient Barrier	No*	System Barrier	No*	Facilitator	No*
Lack of knowledge	12	Not being at risk	6	Lack of doctors recommendation	14	Family history of cancer	9
Fear of cancer	9	Cost implications	5	Lack of FOBT kit availability	5	Peace of mind	6
Inconvenience of FOBT	8	Lack of trust in doctors	5	Lack of patient-provider communication	5	Self-efficacy	4
Lack of symptoms	8	Doubt about test accuracy	4	Distance of provider	3	Social support	3
Embarrassment	7	Lack of time	3	Providers gender and ethnicity	1		
Inability to follow instructions	6	Language barriers	3				
		Low priority of screening	2				
		Lack of social support	2				
		Perceived CRC as male disease	1				
		Old age	1				

HOSPITALISATIONS

Of the 28,498 chronic conditions selected, congestive cardiac failure (36%), COPD (26%) and diabetes complications (20%) have the highest proportion of bed days.

6.4.1

Overall Hospitalisation Rate

In the period 2011-2012, 11% of adults in the CAHML region went to a hospital emergency department for their own health in the preceding 12 months.[432]

6.4.2

Rates of Potentially Avoidable Hospitalisations

Many studies show that access to primary health care is strongly associated with the rates of hospitalisation for avoidable conditions. Evidence supporting the link between accessibility to primary health care and rates of potentially avoidable hospitalisations (PAHs) come from a number of different sources, including higher rates of avoidable hospitalisation when there is:

- Poorer self-reported access to medical care
- Higher costs for the consumer
- Lower ratios of GPs to population
- Increasing socioeconomic disadvantage
- Lower numbers of GP consultations
- Greater remoteness.

When analysing potentially avoidable hospitalisations for the CAHML region in the period 2011-2012, there were 2,345 hospitalisations per 100,000 (ASR 100,000). Table 119 shows the comparison between CAHML and other Metro 2 peer group MLs.

Table 119: Selected potentially avoidable hospitalisations (a), Central Adelaide and Hills compared with its peer group (Metro 2) (2011-12)[433]

Condition	Hospitalisations per 100,000 people (age-standardised rate) CAHML	Hospitalisations per 100,000 people (age-standardised rate) Metro 2	Central Adelaide & Hills relative to Metro 2(b)
Total	2,345	2,552	8% lower
Chronic	892	1,032	14% lower
Angina	86	115	25% lower
Asthma	159	157	1% higher
Congestive cardiac failure	167	186	11% lower
Chronic obstructive pulmonary disease (COPD)	180	236	23% lower
Diabetes complications	166	149	11% higher
Hypertension	22	31	29% lower
Iron deficiency anaemia and nutritional deficiencies	102	147	30% lower
Rheumatic heart disease	10	11	9% lower
Acute	1,377	1,454	5% lower
Dehydration and gastroenteritis	244	275	11% lower
Pyelonephritis	228	278	18% lower
Perforated bleeding ulcer	22	21	5% higher
Cellulitis	122	170	28% lower
Pelvic inflammatory disease	20	23	13% lower
Ear nose and throat infections	194	176	10% higher
Dental conditions	368	306	20% higher
Appendicitis with peritonitis	31	36	15% lower
Convulsions and epilepsy	132	141	6% lower
Gangrene	16	28	42% lower
Vaccine-preventable	88	76	16% higher
Influenza and pneumonia	80	61	31% higher
Other vaccine-preventable	9	16	45% lower
Acute & vaccine-preventable	1,464	1,529	4% lower

Of the 28,498 chronic conditions selected (part of the Australian Health Performance Framework[434]), congestive cardiac failure (36%), COPD (26%) and diabetes complications (20%) have the highest proportion of bed days. Of the 23,148 bed days for acute conditions, pyelonephritis (31%) and cellulitis (17%) were the most common followed by dehydration and gastroenteritis (14%). Influenza and pneumonia totalled 16% of all acute and vaccine preventable avoidable admissions and 93% of all vaccine preventable avoidable hospitalisations.

HOSPITALISATIONS

Table 120: Total bed days by condition for potentially preventable hospitalisations (2007-08)

Condition	Bed days for Central Adelaide & Hills - total bed days
Total	**55,640**
Chronic	28,498
Angina	1,484
Asthma	1,574
Congestive cardiac failure	10,222
Chronic obstructive pulmonary disease (COPD)	7,410
Diabetes complications	5,567
Hypertension	427
Iron deficiency anaemia and nutritional deficiencies	1,287
Rheumatic heart disease	527
Acute	23,148
Dehydration and gastroenteritis	3,310
Pyelonephritis	7,260
Perforated bleeding ulcer	1,054
Cellulitis	4,003
Pelvic inflammatory disease	214
Ear nose and throat infections	1,292
Dental conditions	2,015
Appendicitis with peritonitis	751
Convulsions and epilepsy	1,843
Gangrene	1,421
Vaccine-preventable	4,724
Influenza and pneumonia	4,405
Other vaccine-preventable	319
Acute & vaccine-preventable	27,633

It is well-accepted that Aboriginal and Torres Strait Islander people and individuals from low socioeconomic backgrounds often have difficulty accessing primary health care, have poorer overall health, and higher rates of hospital admissions, particularly PAHs.

The age group with the highest number of presentations to emergency departments was the 15-44 age category

6.4.3

Emergency Department (ED) Presentations by Category[435]

In the CAHML region for the period 2012-2013, the age group with the highest number of presentations to emergency departments was the 15-44 age category (36%), followed by the 45-69 year olds (22%) and 0-14 year olds (21%). This is consistent across all triage levels (1-5) and remarkably, while the total number of presenting patients is different, the percentage breakdown by age is the same as the figures for the two years previous (2010-2011).

Of the total 115,661 ED presentations for 2012-2013, the top categories of presenting problems were:

- Abdominal/gastrointestinal (13%)
- Cardiovascular/chest (12%)
- Respiratory (8%)
- Head – neurology/neurological (6%) and
- Psychosocial (6%)

6.4.4

Hospitalisation by Subgroup Category

For service utilisation data of hospitalisation rates for ATSI, CALD, older persons and persons with a disability, please refer to these individual focus area chapters.

DRUG AND ALCOHOL SERVICES

There are a range of services available to the general public who experience difficulties with alcohol and other drugs. Services provided within the public sector are funded through SA Health as part of Drug and Alcohol Services South Australia (DASSA). DASSA is a free, confidential service available to any person experiencing alcohol or other drug problems and can also provide support to family and friends of a person with an alcohol or other drug problem.

Counselling and medical support are available at the following DASSA service locations (community treatment services) within the CAHML region:

- DASSA Eastern Service – Norwood
- DASSA Western Service – Angle Park
- Statewide Gambling Therapy Service – Port Adelaide
- Woodville GP Plus Health Care Centre - Woodville

Table 121 outlines the state level data for DASSA quality, safety, activity and state population data as at May 2014.

Other related services include:

- Drug and Alcohol Clinical Advisory Service (DACAS) – a 24-hour service for doctors, nurses and other health professionals seeking medical advice in managing people experiencing alcohol or other drug-related problems.
- Aboriginal Services and Programs
- Clean Needle Program
- Community Pharmacy Program
- DASSA Library and Resource Centre
- General Practitioner Program
- Adelaide Drug Information Service (ADIS) - A confidential telephone counselling, information and referral service for the general public, concerned family and friends, students and health professionals.
- Police Drug Diversion Program
- Medication Assisted Treatment for Opioid Avoidance
- DASSA Obstetric Unit
- Withdrawal Management Services

Table 121: DASSA quality, safety, activity and state population data as at May 2014[436]

Activity Indicator	Year	2011-2012	2012-2013
Inpatient separations	Withdrawal services	1,186	1106
	Rehabilitation services	77	93
Outpatient attendances	DASSA attendances	33,228	35,647
	City Watch House attendances	4,547	3,646
Alcohol & drug Information service calls	Alcohol & drug information service calls	22,148	20,590
	Other support service calls	8,834	9,386
Indigenous clients	Proportion of Indigenous clients(%)	11.3%	11.2%
	Total number of DASSA clients	6,889	6,526

SERVICES USED BY THOSE AFFECTED BY HOMELESSNESS

In South Australia, 5,985 people experience homelessness at a rate of 37.5 per 10,000 population, below the Australian average of 48.9 per 10,000 population and 5.7% of the total population (105, 237 nationally). The highest proportion of homeless people are in the 35-44 age group, followed by the 19-24 years old and the 45.54 year olds respectively. In total population numbers, more males (3,376 or 56%) compared to females (2505 or 44%) are homeless.[437]

In terms of where people stay, the majority of homeless people live in overcrowded dwellings (29%), followed by supported accommodation which is 7% above the national average. Further breakdowns are highlighted in Table 122:

Table 122: Accommodation utilised by homeless people - South Australian and national comparison[438]

Accommodation type	SA average (%)	National average (%)
Rough sleeping	4%	6%
Supported accommodation for the homeless	27%	20%
Boarding houses	16%	17%
Overcrowded dwellings	29%	39%
Staying with other households	23%	17%
Other temporary accommodation	1%	1%

The use of boarding house accommodation is far greater for males (78.7%) as opposed to females (21.3%) and conversely more females (55.1%) stay in specialist homelessness services compared to males (43.9%).[439] This trend in specialist homelessness services accommodation was also observed in the national data. Of all service users of the South Australian Supported Accommodation Assistance Program (SAAP), 36% of users were under 25 years of age and 86% were under 45 years with 67,800 children 'visiting' these services.

In Australia, 25% (or 26,744) of homeless people are of Aboriginal or Torres Strait Islander origin. In South Australia, Aboriginal and Torres Strait Islander people make up 16% of all those who use SAAP services, although they represent only 1.6% of the population (or 58.9 per 10,000 people). In 2009/2010, Aboriginal people represented 20.6% of clients accessing Specialist Homelessness Services[440] (AIHW 2011). Domestic and Aboriginal family violence is the single biggest risk factor for homelessness in Australia, with women escaping domestic or Aboriginal family violence representing 30% of all SAAP clients in South Australia.

In Australia, 30% of all people who are homeless were people born overseas. In South Australia, people from non-English speaking backgrounds constituted 11% of the people who used SAAP services, compared to their 16% of the Australian population.[441]

6.7

HOME AND COMMUNITY CARE SERVICES (HACC)

The total number of HACC clients in CAHML in 2012-13 was 31,937 people. This equates to an age standardised rate of 49.9 HACC clients per 1000 population which is relatively high.

The Home and Community Care (HACC) Program is a joint Commonwealth, State and Territory initiative which provides support services to older people, younger people with a disability, and carers, to enable people to live independently in the community.

HACC services may be offered in the home or local community by a HACC agency, community health centre or local council. Services include:

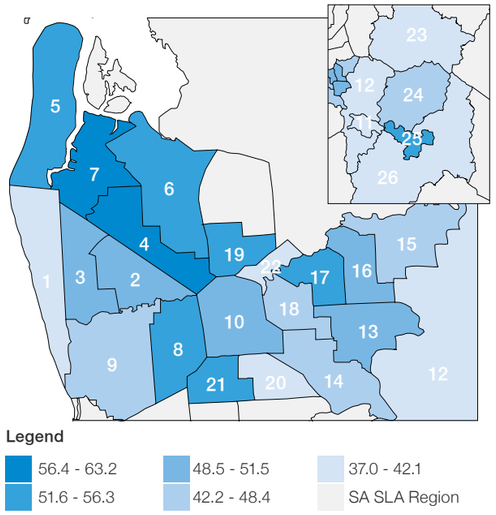
- centre-based and other respite;
- social support and counselling;
- personal care;
- home modification and maintenance;
- transport; meals and other food services;
- information, advocacy and assessment;
- support for carers;
- allied health services;
- domestic assistance;
- and community nursing[442]

6.7.1

HACC Clients

The total number of HACC clients in CAHML in 2012-13 was 31,937 people. This equates to an age standardised rate of 49.9 HACC clients per 1000 population which is relatively high, ranking CAHML 16th of 61 MLs. This is also higher than the Australian ASR of 42.6/1000, but lower than the Adelaide ASR at 52.5/1000 as outlined in Table 123. Figure 139 shows the geographic distribution of HACC clients in CAHML Statistical Local Areas (SLAs), where there are pockets of high proportions in the western suburbs, Prospect, Unley (west) and Mount Barker.[443]

Figure 139: HACC Total clients in CAHML SLAs (2012-13) (ASR per 1000)



HACC Total clients (ASR per 1000)

Table 123: SLAs within CAHML with the highest rates of HACC clients (2012-13) [444]

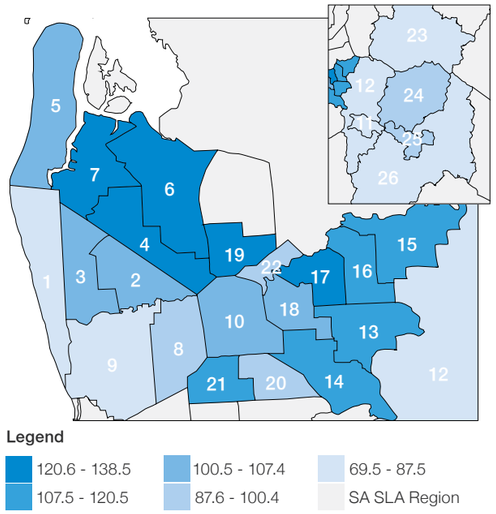
SLA	HACC Total clients	ASR per 1,000
Port Adel. Enfield (C) - Port	773	63.2
Prospect (C)	1,299	61.8
Charles Sturt (C) - North-East	1,923	60.8
Port Adel. Enfield (C) - Park	1,139	56.3
Unley (C) - West	1,108	56.3
Norw. P'ham St Ptrs (C) - East	1,546	56.2
Port Adel. Enfield (C) - Coast	1,889	56.0
Mount Barker (DC) - Central	1,031	53.3
West Torrens (C) - East	1,723	51.8
Charles Sturt (C) - Inner West	1,941	51.5
CAHML	**31,937**	**49.9**
Greater Metropolitan Adelaide	**73,258**	**52.5**
Australia	**967,092**	**42.6**

In 2012-13 there were 68,363 'instances of assistance' to HACC clients in the CAHML region, giving an ASR of 105.3 per 1000 population, ranking CAHML 16th of 61 MLs. The volume of HACC services in CAHML was proportionally higher than the Australian ASR of 80.9 per 1000 people, but slightly lower than the Adelaide ASR of 107.0 per 1000. Many of the areas with high rates of HACC clients also have high rates of HACC 'instances of assistance'. However, several areas such as Mount Barker and West Torrens (east) do not, indicating the HACC clients in these areas only receive a small number of services

Table 124: SLAs in CAHML with the highest rates of HACC service delivery (2012-13) (ASR per 1000)

SLA	Number of HACC services	ASR per 1,000
Prospect (C)	2,941	138.5
Port Adel. Enfield (C) - Port	1,607	130.3
Charles Sturt (C) - North-East	4,051	126.5
Norw. P'ham St Ptrs (C) - East	3,504	123.8
Port Adel. Enfield (C) - Park	2,504	122.0
Campbelltown (C) - West	3,899	120.5
Unley (C) - West	2,375	119.2
Burnside (C) - North-East	3,696	115.9
Burnside (C) - South-West	3,900	111.7
Campbelltown (C) - East	4,046	108.6
CAHML	**68,363**	**105.3**
Greater Metropolitan Adelaide	**150,755**	**107.0**
Australia	**1,837,413**	**80.9**

Figure 140: Total instances of HACC services in CAHML (2012-13) (ASR per 1000)[445]



HACC Total clients (ASR per 1000)

SLA	Index
Charles Sturt (C) - Coastal	1
Charles Sturt (C) - Inner East	2
Charles Sturt (C) - Inner West	3
Charles Sturt (C) - North-East	4
Port Adel. Enfield (C) - Coast	5
Port Adel. Enfield (C) - Park	6
Port Adel. Enfield (C) - Port	7
West Torrens (C) - East	8
West Torrens (C) - West	9
Adelaide (C)	10
Adelaide Hills (DC) - Central	11
Adelaide Hills (DC) - Ranges	12
Burnside (C) North-East	13
Burnside (C) - South-West	14
Campbelltown (C) - East	15
Campbelltown (C) - West	16
Norw. P'ham St Ptrs (C) - East	17
Norw. P'ham St Ptrs (C) - West	18
Prospect (C)	19
Unley (C) - East	20
Unley (C) - West	21
Walkerville (M)	22
Adelaide Hills (DC) - North	23
Adelaide Hills (DC) - Bal	24
Mount Barker (DC) - Central	25
Mount Barker (DC) -Bal	26

HOME AND COMMUNITY CARE SERVICES (HACC)

Table 125 shows the characteristics of HACC clients in CAHML in 2012-13.

Table 125: Demographic characteristics of HACC clients in the CAHML region (2012-13)

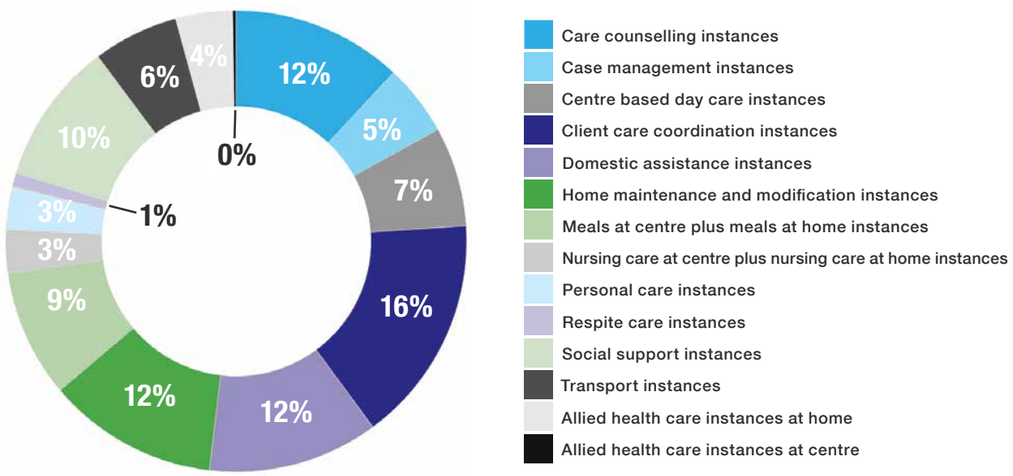
	Number	% of HACC clients
Living alone	12,695	39.7
Clients with carer	8,344	26.1
Indigenous clients	448	1.4
Non English speaking clients	6,683	20.9

6.7.2

Types of HACC Services used in CAHML

Figure 141 shows the number and proportion of the various types of HACC services provided in the CAHML region. Client care coordination was the most common service, with 10,976 instances of service, followed by domestic assistance (8,268), home modification and maintenance (8,080) and care counselling (8,000).[446]

Figure 141: Number and types of services used by HACC clients in CAHML



PALLIATIVE CARE AND END OF LIFE CARE

End of life care (EOLC) can be narrowly defined around the services provided at the immediate time of death or broadly, the approach adopted once it is clear a health condition is likely to lead to death in the near future.[447] As defined by Palliative Care Australia, End of life care 'combines the broad set of health and community services that care for the population at the end of their life'.[448]

The World Health Organisation (WHO) defines palliative care as, 'an approach that improves the quality of life of patients and their families facing the problems associated with life threating illness, through prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.'[449] Palliative care is therefore, specialist care provided for all people living with, and dying from, an eventually fatal condition and for whom the primary goal is quality of life.

6.8.1

National Trends - Changing Patterns of Death in Australia

It is estimated that between 69 - 82% of people who die in high-income countries need palliative care. Palliative Care Australia has estimated that 90% of cancer patients or half of non-cancer patients could benefit from palliative care services.[450]

Ageing Population

Over the next 25 years the number of Australians who die each year will double[451] i.e. the proportion of older people in the population will increase faster than overall population growth and therefore, so will the pressure to improve the quality of dying.[452] In South Australia over the next 15 years, those over 65 years are expected to almost double from the current figure of one in six, as the baby boomer generation moves in to older age. In the next 10 years it is also expected that the percentage of the population living beyond the age of 65 will rise from the current figure of 15% to 22%.[453] South Australia has the highest proportion of older people in the nation and CAHML ranks highest out of all Medicare Locals for people aged 85 years and over.[454]

Table 126: Percentage of people in the CAHML region aged 85 years and over (2011)[455]

	Ageing population (% of persons aged 85 years and over)
CAHML	2.8% (rank 1)
Greater Metropolitan Adelaide	**2.4%**
Australia	1.8%

Causes of Death

Over the last 100 years, the annual death rate has halved, with people less likely to die young and more likely to die in old age of chronic or degenerative disease.[456] Death is more predictable (70% of deaths are expected) and often occurs over a long period of time. In 2011, <1% died before the age of 5 years and nearly 40% died after the age of 85, largely of chronic diseases and disability. This life expectancy increase is due to prevention, immunisation and improved treatment. About two thirds of Australians now die between the ages of 75 and 95.[458]

Some trends are evident in the changing prevalence of diseases that cause death. The major causes of death by disease currently seen across Australia are listed in Table 127 and account for 53.2% of all deaths registered in 2006. Circulatory system disease, cancer and respiratory system disease remains the three leading cause of death in South Australia.[459]

6.8

PALLIATIVE CARE AND END OF LIFE CARE

Table 127: Major causes of death in Australia by disease (2008)[460]

Rank	Cause of death and ICD code	Number	%
1	Ischaemic heart diseases - (120-125)	22,983	17.2
2	Strokes (160-169)	11,465	8.6
3	Trachea and lung cancer (C33-C34)	7,348	5.5
4	Dementia and Alzheimer's disease (F01-F03, G30)	6,542	4.9
5	Chronic lower respiratory diseases (J40-J47)	5,443	4.1
6	Colon and rectum cancer (C18-C21)	3,858	2.8
7	Blood and lymph cancer (including leukaemia) (C81-C96)	3,693	2.7
8	Diabetes (E10-E14)	3,662	2.7
9	Diseases of the kidney and uraniry system (N00-N39)	3,192	2.4
10	Prostate cancer (C61)	2,952	2.2

Taking in to account the current age/sex patterns of cancer and projected population growth over the next few years, nationally, the overall cancer patterns show a gradual, but not significant decline in incidence and mortality rates in both males and females.

However, the effect of ageing will see a rise in the overall number of both new cases of cancer and number of cancer deaths in SA in the years ahead. The projected number is outlined in Table 128.

Table 128: Summary of projected number of new cases of cancer and mortality in SA

Year	2008	2011	2016
Projected number of new cancer cases	8,816	9,326	10,265
Projected cancer deaths	3,609	3,759	4,062

Leading Cause of Death

Statistically, the last eight years of a person's life is burdened by chronic disease. It is estimated that around 100,000 Australians die from chronic diseases each year.[461]

In South Australia more than 12 000 people die every year, with more than half of deaths at age 80 years or after. The leading causes of death are cancer and diseases of the circulatory system followed by respiratory disease.[462]

Table 129: Deaths in CAHML region from circulatory and respiratory system disease[463]

	Deaths from circulatory system diseases, 0 to 74 years (2008-12 Average annual ASR per 100,000)	Deaths from respiratory system diseases, 0 to 74 years (2008-12 Average annual ASR per 100,000)
CAHML	47.3 (rank 41)	13.5 (rank 37)
Greater Metropolitan Adelaide	49.4	14.5
Australia	50.1	14.1

As a proportion of the national health budget, $5 billion a year (5%) is spent on the last year of life for older people (public hospital, residential aged care and community based aged care).

Anticipated Death Rates

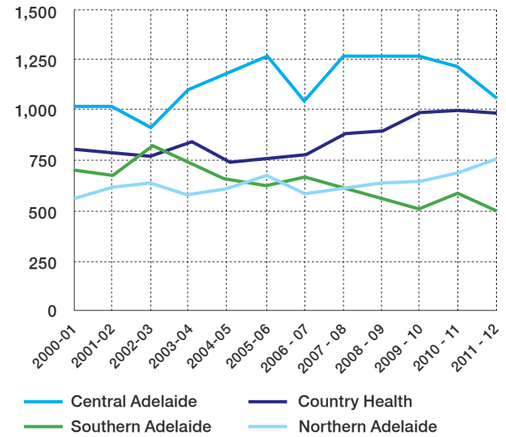
In Australia, of the 144,000 people who die annually, the proportion whose death is anticipated is variously reported between 25 – 50%. That suggests there are between 36,000 and 72,000 people with potential palliative care needs.[465]

Inpatient Palliative Care Rates / Intensive Care Unit (ICU) Usage

It is common to withdraw treatment for people with a terminal or incurable disease. Up to 80% of patients who die in ICU have treatment withheld or withdrawn when further interventions are not able to provide any further positive health outcomes and death is imminent. [465]

In-patient palliative care separations, average length of stay in South Australia is similar to Australian statistics; 22.4 palliative separations per 10, 000 in SA and 23.2 palliative separations per 10, 000 for Australia. This accounts for 0.6% of all hospital separations of 3,333 in public hospitals and 742 at private hospitals.[466] The Central Adelaide Local Hospital Network (CALHN) has the highest number of total separations in South Australia; however there is a downward trend as per Figure 142. It is important to recognise that the vast majority of South Australians who die do not receive in-patient palliation. Of the palliative care separations, 81.6% were for someone whose principal diagnosis was cancer.

Figure 142: South Australian Hospital Separations by Local Health Network[467]



6.8.2

Cost of Dying

As a proportion of the national health budget, $5 billion a year (5%) is spent on the last year of life for older people (public hospital, residential aged care and community based aged care). Comparatively, only $100 million (0.1%) is spent on helping people to die at home.[468] Although the cost per person of dying is high, less than one percent of the Australian population dies each year. Most of the cost is for older people, although the cost per person is higher for younger people. An Australian estimate suggests that hospital care for the last year of life for those aged 65 years and over is about 9% of all inpatient costs.[469]

Table 130: Place and cost of death for older people (2012) (Australia)[470]

Places of death	No. deaths	% deaths	Costs ($M)	% costs
Acute inpatient	51,759	35%	2,440	48%
Sub-acute	21,470	15%	221	4%
Residential care	50,866	35%	2,330	46%
Community care	4,655	3%	77	2%
Other	18,182	12%	-	-
Total	**146,932**	**100%**	**5,066**	**100%**

PALLIATIVE CARE AND END OF LIFE CARE

Most budget spending in the last year of life is in hospital and residential care. Nationally, over $2 billion is spent on older people who die in hospital with the highest cost for those who die as acute in-patients. More than 90% of permanent residents of aged care facilities died at an estimated cost in the last year of life at $2.3 billion.[471]

Comparatively, much less is spent on community aged care for people who are dying. In 2010-11, 4,655 people died while receiving an aged care package (3% of all deaths and 2% of identified costs). The overall cost to the Australian health system for community care packages for those that die at home is $77 million.

6.8.3

Disease Trajectories and Pathways

In 60% of cases, physicians are accurate in predicting death to within a month. In 50 to 70% of deaths, death is predicted and expected. Despite this, two thirds of people who die an expected death will not be seen by a palliative care service.[472] There are three typical end of life trajectories described and summarised in the adjacent box:[473]

Trajectory A: Short period of evident decline – most commonly seen in advanced cancer and is characterised by:

- Relative good function to a point
- Relatively short period of rapidly declining function and high symptom burden
- A short terminal phase

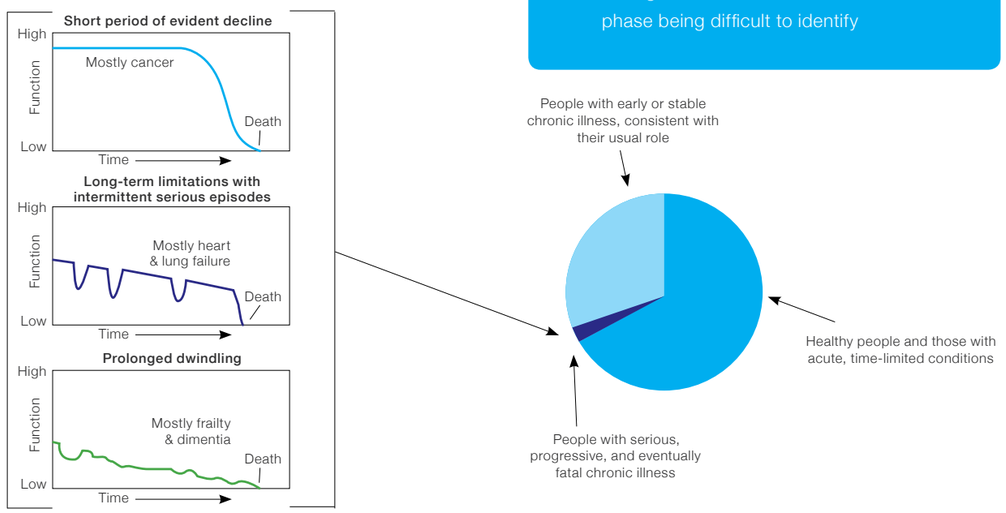
Trajectory B: Long term limitations with intermittent serious episodes – often seen in end stage organ failure (heart, liver and lung diseases) and is characterised by:

- Progressive decline in overall functional state over time
- Periods of acute illness often necessitating hospitalisations
- Sudden decline
- High levels of prognostic uncertainty

Trajectory C: Prolonged decline – typically seen in the frail elderly and those with established dementia, characterised by:

- Slow incremental decline from an already very low functional base
- Minor or subtle clinical changes
- Continuing high level care needs throughout with the transition to terminal phase being difficult to identify

Table 143: Typical end of life trajectories[474]



Seventy percent of people want to die at home, yet only around 14% do so.

6.8.4

Place of Death

Seventy percent of people want to die at home, yet only around 14% do so. Fifty four percent of all Australians die in hospital and 32% in residential care.[475] When compared internationally, people in New Zealand, the United States, Ireland and France are twice as likely to die at home than the average Australian,[476] about 30% of people 65 and over. Hospitals and residential care facilities are the least preferred places to die, yet over the last 100 years, home deaths have decreased and hospital and residential care deaths have increased.[477] In a South Australian population survey,[478] 70% of the population over the age of 15 said they would prefer to die at home, 19% in a hospital, and 10% in a hospice. Less than 1% of people wanted to die in a nursing home.

Deaths in Residential Aged Care Facilities (RACFs)

The percentage of separations by death in residential aged care facilities in Australia has increased steadily from 70% in 1993 to 87.8% in 2008. Of these residents, 16.5% had stayed for less than three months, and 18.6% for between three months and one year.[479] Those who stay longer in RACFs often had dementia. Older people express a preference to live and die at home but this can be difficult to coordinate across aged care and specialist palliative care services. While cancer is the leading health condition treated by specialist palliative care services it is not the leading cause of death for older people. For those 65 and older in Australia, the leading cause of death is ischemic heart disease, cerebrovascular disease, lung cancer, chronic obstructive pulmonary disease, other heart disease and dementia.

Rates of Hospitalisation and Deaths in Hospital Settings

In Australia, hospitalisations have increased significantly for older aged groups. In the decade to 2011-2012 the hospitalisation rate for those aged 85 and over increased by 35% for women and 48% for men. Interestingly, in South Australia the number of people being referred to specialist palliative care has steadily increased from 3663 to 4958, but the total number of contacts made with palliative care patients has gone down by 12.2%.

Nationally, in 2010-11, nearly 20,000 people died in hospital while receiving palliative care. At least half of the 143,900 people who died in 2008 were suffering from conditions from which their deaths were clinically expected and where a palliative care approach was warranted.[480]

Deaths at Home

When good end of life services are available, people are much more likely to have the choice to die in their own home.[481] The supports needed to maintain a patient at home are normally provided through formal (community care) or informal care (spouses, children, parents and friends). In 2010, 1.3 billion hours of home care were provide by informal carers, estimated to be worth $40.9 billion dollars if provided by paid carers.

Data for the Central Adelaide Palliative Care Service states that as the number of people receiving support at home increases, the number of deaths at home is projected to increase as per Table 131.

Table 131: Projected numbers of people supported at home by a palliative care service and deaths at home (2009-17)[482]

	2008-09	2011-12	2016-17
Northern Adelaide Palliative Service	900 (135)	940 (330)	970 (480)
Central Adelaide Palliative Service	1200 (180)	1220 (425)	1240 (620)
Southern Adelaide Palliative Service	925 (140)	955 (335)	980 (490)
Total	**3025 (455)**	**3115 (1090)**	**3190 (1590)**

7

STAKEHOLDER, PROVIDER AND CONSUMER PERSPECTIVES

7.1

QUALITATIVE DATA COLLECTION - OVERVIEW

It is important to 'ensure that the community has tools which help them make informed choices for living an active and healthy lifestyle'.

This chapter collates and analyses primary qualitative data collected through stakeholder, health provider and consumer surveys and targeted focus groups of consumers representing CAHMLs key focus areas; healthy ageing/older persons, persons with mental health conditions, CALD and Aboriginal and Torres Strait Islander communities. Secondary qualitative data was also gathered through an environmental scan process.

Informed by the CNA stakeholder engagement strategy, qualitative data was captured in a systematic way to ensure that community, stakeholders and health professionals provided an indicative sample. The following data collection methods were implemented across a three month period.

7.1.1

Primary Qualitative Data Sources

- Online surveys utilising the UEngage system – a survey link was sent via email:
  - Community (Community Consultation Survey) – N= 45
  - Health service providers (Health Provider Survey) – N= 90
  - Key stakeholder organisations (Stakeholder Survey) – N= 34
- Face to face surveys administered at CAHML events:
  - National Australia Bank (NAB) cup football match – staff administered surveys – N= 35
  - Partners in Recovery (Mental Health Program) stakeholder meeting (provider responses) – N= 24
  - Partners in Recovery (Mental Health Program) stakeholder meeting (consumer responses) – N= 17
  - Multicultural Aged Care (SA) Network meeting – N= 3
  - Western CALD network meeting – N= 8
- Face to face focus groups - to explore service users' views. Participants were selected to meet the sampling criteria i.e. CAHML region service access. Open ended questions were asked to seek a broad range of perspectives. Participants were recruited by membership-based organisations in the community who recruited participants on CAHML's behalf:
  - Older persons; Council of the Ageing (COTA) – N= 8
  - People from CALD communities;
  - Multicultural Aged Care SA (MAC SA) – 3 groups – N= 28
  - Multicultural Communities Council (SA) - 2 groups - N= 22
  - Carers of people with mental health conditions; Carers SA – N= 8
  - Aboriginal and Torres Strait Islander people – N= 10
- Key stakeholder interviews:
  - Migrant Health Service - N= 1
  - SA Dental service – N= 2
- Participation/attendance at community/stakeholder events served to identify issues that led to deeper investigation and data analysis by the CNA team.

It is important to note that statistical representativeness was not the aim of the qualitative data collection and it is recognised that the groups that responded do not represent all people in the population. We therefore do not make claims across the whole community through the data, but identify patterns of need. While the sample sizes are small, in the analysis, a degree of saturation has occurred whereby no new information has come from the data gathered.

7.1.2

Secondary Data Sources

Secondary qualitative data was also gathered through an environmental scan process. The purpose of the review was to identify stakeholder, community and provider healthcare needs and/or gaps in services which had been captured through existing external consultations and published by secondary sources. For the full list of sourced documents reviewed please see appendix 1.

STAKEHOLDER PERSPECTIVES

Stakeholder perspectives are important to the CNA process as they are the individuals or organisations that are involved in the health system through service provision or support to the community.

Health needs surveys were provided to key stakeholder and stakeholder organisations within the CAHML region and focused on determining the following:

- Top health priorities within the CAHML region,
- Priority solutions for health needs within the CAHML region,
- What makes it difficult to access health services,
- Ease of access to health care services,
- Perceived quality of health services within the CAHML region,
- Perception of sub-groups within the community whose needs are not being met.

The stakeholder organisations who responded to the online survey are categorised below in Table 132:

Table 132: Composition of responses by stakeholder group

Stakeholder Group	Number of respondents
Local Councils	5
Health Service Organisation	24
Community Health Service	5
Total	**34**

The completed surveys were analysed for common patterns and a thematic analysis was undertaken.

7.2.1

Health Priorities

The top health priorities amongst stakeholders in ranked order of response were (Table 133):

Table 133: Top health priorities - stakeholder responses

Ranking	Top health priority	Main sub groups
1	Mental Health (25)	Youth Mental Health (6)
2	Chronic Disease (25)	Diabetes (4) Heart disease/cardiovascular disease (4) Obesity (2)
3	Preventative health (11)	Health checks/assessments (5)
4	Healthy Ageing (8)	
5	Dementia (4)	
6	Youth health; drug use, physical safety (4)	
7	CALD/Migrant Health (3)	
8	Hospital avoidance (3)	
9	Sexual health (2)	
10	Coordinated care (2)	
11	Access to information (2)	
12	Alcohol and drug services (2)	

We need... 'more coordinated and localised information for people to understand their health choices'.

7.2.2

Health Service Access and Difficulties

Respondents were asked about their; experience of accessing health services, what made it difficult to access services and the degree to which services were easily accessed.

The main access issues identified were:

- Navigating the health system; lack of awareness about health services and how to access them
- Affordability; lack of bulk billing and ability to pay a gap payment for services
- Access to transport; affordability of transport, distance to care, lack of appropriate transport corridors, and access for the aged/immobile
- Lack of appropriate systems or processes; too hospital centric with a limited focus on prevention, inappropriate referral pathways and eligibility criteria
- Long wait times; access to GP and specialist services and general health services
- Quality of care; lack of confidentiality, trust in providers, lack of quality of care and approach to service provision
- Lack of access for vulnerable populations; Aboriginal and Torres Strait Islander People, CALD communities, those with limited English proficiency, those with limited health knowledge or services specific to youth.

In terms of ease of access, of the stakeholders who responded, 73% indicated that services were not easy to access. Specific access issues included:

- Lack of knowledge/information about health services and how to access them,
- Limited access to home visits,
- Long wait times for services, particularly specialist services,
- Lack of access for vulnerable populations, specifically Aboriginal and Torres Strait Islander communities, older persons, and people with mental health conditions,
- Lack of transport to health services, including isolation from main transport corridors,
- Affordability, particularly access to bulk billing clinics and for those without private health insurance,
- Lack of integration and communication between providers about referral pathways/services available.

Of the 27% who believed services were easy to access, particular reference was made to ease of access to GP services.

STAKEHOLDER PERSPECTIVES

7.2.3

Quality of Care Received

The majority of respondents (62%) believed that the quality of health services within the CAHML region were of excellent, good or adequate quality, 26% believed they were 'not good' or inadequate, and 12% were unsure. Reasons documented for 'not good' or inadequate quality of care centred on the lack of early intervention services, lack of mental health service integration, the lack of funding generally and long wait times in emergency departments.

7.2.4

Subgroups whose Needs are Not Being Met

Stakeholders were asked whether there were any sub-groups or populations whose health care needs were not being met.

Consistently across respondents, the top responses were:

- Children and youth; particularly young families and youth with mental health issues,
- People with mental health issues,
- CALD communities; including refugees and new arrivals,
- Older persons; particularly those who were living alone or were socially isolated,
- Low socio-economic groups/unemployed; those with low or limited incomes, and
- Aboriginal and Torres Strait Islander people.

Solutions proposed to support the groups identified above included:

- Increased access to services; provision of affordable/low cost services and services that are culturally appropriate,
- Increased funding for specific services that support vulnerable populations,
- Increased number of services and programs, and provide more flexible options; increased home services, flexible service delivery (groups sessions, online and outreach services), and increased targeted services i.e. youth specific mental health programs,
- Care coordination; provision of support services to link people with appropriate services and increased collaboration between services.

HEALTH PROVIDER PERSPECTIVES

The perspectives of health care providers are valuable as they are at the frontline of service delivery within the health care system.

The qualitative survey provided to all health providers within the CAHML region focused on determining the following:

- Top health priorities within the CAHML region,
- Priority solutions for health needs within the CAHML region,
- Are health needs being met within the CAHML region,
- What are the barriers to quality care,
- Current service capacity of providers within the CAHML region,
- Perception of sub-groups within the community whose needs are not being met.

In total there were 90 respondents who were then categorised in to 12 provider types as indicated in Table 134.

Table 134: Composition of responses by provider type

Provider Type	% Total	Count
General Practitioner	13.33%	12
Nurse (General Practice)	12.22%	11
Nurse (Hospital)	2.22%	2
Nurse (Other)	7.78%	7
Physiotherapist	6.67%	6
Psychologist	12.22%	11
Exercise Physiologist	3.33%	3
Dietitian	3.33%	3
Pharmacist	2.22%	2
Podiatrist	3.33%	3
Occupational Therapist	2.22%	2
Other (Specify below)	31.11%	28
Total	**100.00%**	**90**

The highest proportion of respondents came from the 'other' group; broken down in to the following provider types:

- Speech Pathologist (5)
- Mental health social worker/practitioner (4)
- Social worker (2)
- Diabetes Educator (1)
- Family (& Individual) Counsellor (1)
- Chiropractor (3)
- Women's Health worker (1)
- Dentist (2)
- Practice Manager (1)
- Anaesthetist/Pain specialist (1)
- Youth Health community worker (2)
- Aged care worker – community based (1)
- Geriatrician (1)
- Services manager (1)
- Aboriginal Health Worker (1)
- Community worker – NGO (1)

The next top three respondents were GPs (13.3%), Nurses (General Practice) (11%) and Psychologists (11%). The nurse (other) categories included:

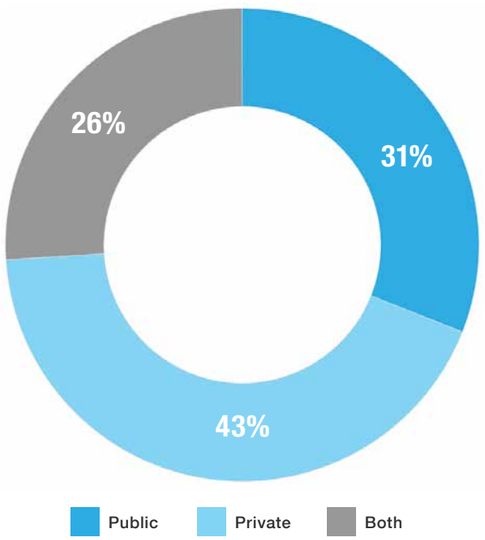
- Community health nurse,
- Mental health counselling,
- Immunisation,
- Care coordinator.

7.3

HEALTH PROVIDER PERSPECTIVES

As detailed in Figure 144, the majority of respondents were from the private sector (43.33%), followed by the public sector (31.11%), with 25.56% providing care within both public and private sectors.

Figure 144: Sector provision of survey respondents within the CAHML region



We have a wide catchment area and finding services for dental, mental health, and physiotherapy is difficult to access and coordinate.

Table 135: Location of survey respondents within the CAHML region

Local Government Area	Percentage	Number
Adelaide	27.78%	25
Adelaide Hills	13.33%	12
Burnside	6.67%	6
Campbelltown	3.33%	3
Charles Sturt	4.44%	4
Mount Barker	6.67%	6
Norwood, Payneham and St Peters	8.89%	8
Port Adelaide Enfield	7.78%	7
Prospect	4.44%	4
Unley	2.22%	2
Walkerville	1.11%	1
West Torrens	6.67%	6
Unsure	6.67%	6
[No Response]	0.00%	0
Total	**100.00%**	**90**

Completed surveys were analysed for common patterns and a thematic analysis was undertaken.

Chronic disease funding and CDM visits under Medicare are limited.

7.3.1

Health Priorities

The top health priorities specified by health providers are in ranked order of response and detailed in Table 136:

Table 136: Top health priorities as determined by health providers within the CAHML region

Ranking	Top health priority	Main sub groups
1	Chronic Disease (107)	Diabetes (28) Heart disease/cardiovascular disease (17) Respiratory/COPD/Asthma (15) Obesity (9) Renal/CKD (5) Hypertension (5) Cancer (4)
2	Mental Health (62)	Anxiety and depression (18) General mental health (14) Relationship issues (5) Stress (4)
3	Older Persons (19)	General ageing (8) Functional decline (frailty, mobility issues, falls) (6)
4	Immunisation (9)	
5	Dementia (4)	

7.3.2

Are Health Needs Being Met

Over half of respondents (54.5%) believed that the health care needs of the CAHML community were being met. Of those who did not believe health needs were being met, the reasons provided included:

- Waiting times are too long and compound problems for patients,
- Lack of connected and coordinated services for older persons, especially those with dementia,
- Lack of appropriate transport to access needed services, especially in the Adelaide Hills,
- Need to decrease number of hospital admissions for preventable conditions,
- Fragmentation of mental health services and appropriate funding for mental health services
- Lack of access to home care or rehabilitation services within the community and difficulty navigating what is available.

HEALTH PROVIDER PERSPECTIVES

7.3.3

Barriers to Quality Health Care Provision

Respondents were asked to rank in order of preference, a predetermined list of issues relating to barriers to achieving quality health care provision within the CAHML region. Of the seven preferences outlined below, the majority of providers saw limited workforce within their discipline as the greatest barrier, followed by low levels of linkages or collaboration between health services providers and inappropriate service delivery models.

Table 137: Barriers to achieving quality health care provision

Preference scoring:	% Answer	Score
Not enough workforce in your discipline	15.67%	395
Low level of collaboration/linkage between health service providers	14.21%	358
Inappropriate service delivery models	14.05%	354
Administrative burden	13.85%	349
Inappropriate workforce skill/capability (in your discipline)	13.73%	346
Not enough workforce in other disciplines (please specify)	13.69%	345
Inappropriate funding models	13.65%	344
Other, please specify	1.15%	29
Total	100.00%	2,520

The majority of solutions identified by health providers related to funding or incentivising of health services. Specific responses included:

- Increased government funding and a broader range of services funded through Medicare, particularly for allied health providers,
- Increased recognition of practice nurse and allied health contribution to chronic disease management, reflected in appropriate MBS item numbers,
- Review of Medicare item numbers to reflect the time taken to provide quality care and chronic disease items that reflect appropriate patient need for people with chronic and complex conditions i.e. more than five allied health visits per year,
- Increased funding for preventative health and early intervention,
- Increased funding for mental health services, to acknowledge the time and depth of treatment required,
- Review of workforce issues and capacity within mental health services,
- Streamlining of access to care, understanding of referral pathways and eligibility criteria,
- Reduction in administration burden/paperwork especially for chronic disease management,
- Cross collaboration of health care providers (including private and public services) and knowledge of services and capacity to see patients, and
- Improved integration and communication between health care providers

7.3.4

Current Service Capacity

Respondents were asked if they were seeking to increase, decrease or not change their current service capacity. The majority of respondents were seeking to increase their current capacity of service provision (57.11%), with only 7.7% looking to decrease capacity. Predominately those seeking an increase in capacity were allied health providers, with general practitioners making up the majority of providers who would like to decrease their current service capacity.

Table 138: Intention to change current service capacity within the CAHML region

Number of Responses	% Total	% Answer	Count
Increase	51.11%	51.11%	46
Decrease	7.78%	7.78%	7
No Change	41.11%	41.11%	37
[No Response]	0.00%	-	0
Total	**100.00%**	**100.00%**	**90**

7.3.5

Subgroups whose Needs are Not Being Met

Respondents were asked whether there were any sub-groups or populations whose health care needs were not being met.

Solutions proposed to support the groups identified above included:

- Health system navigation; knowledge of services that are available and how to access them,
- Access to services; affordable/low cost services and services that were culturally appropriate,
- Care coordination; support services to link people with appropriate services and increased collaboration between services,
- Increased funding to services that support vulnerable populations,
- Better resourcing of after-hours services, home services and community care services,
- Increased funding and more flexible funding models.

Consistently across respondents, and similar to stakeholder respondents, the top responses were:

- Children and youth; particularly young families and youth with mental health issues,
- People with mental health issues; particularly substance abuse problems, youth mental health issues and those on waiting lists for mental health services,
- CALD communities; including refugees and new arrivals,
- Older persons; particularly those who were living alone or were socially isolated,
- Low socio-economic groups/unemployed; those with low or limited incomes,
- Aboriginal and Torres Strait Islander people,
- People within the community who need but are ineligible for community care,
- People without access to transport.

CONSUMER PERSPECTIVES

Consumer input to the CNA allowed CAHML to explore consumers' experiences of health care within the region, their involvement in that care and the services that they access.

In total, 173 consumer consultation responses were received:

- 45 online surveys
- 35 administered at NAB cup event
- 17 completed at program event
- 76 respondents at focus groups.

The questions provided to both survey and focus group respondents within the CAHML region focused on determining the following:

- Top health priorities within the CAHML region,
- Who do consumers usually see for health care,
- What makes it difficult to access health services,
- What makes it easier to access health services,
- Perceived quality of health services within the CAHML region,
- What gets in the way of leading a healthy lifestyle,
- What would help you to be healthier,
- Perception of sub-groups within the community whose needs are not being met.

The completed surveys were analysed for common patterns and a thematic analysis was undertaken.

People don't know what services are around and how to access them.

7.4.1

Health Priorities

The top health priorities specified by consumers are in ranked order of response and detailed in Table 139:

Table 139: Top health priorities for consumers within the CAHML region

Rank	Top health priority	Main Sub-category
1	Access issues	• Access to GPs • Access to health services • Access to hospitals • Access to specialist care • Access to allied health providers • Access to dental care • Access to transport
2	Mental Health	• Anxiety & depression • Stress management • Relationship/family issues • Life balance/wellbeing
3	Affordability issues	• Cost of medications • GP services • Specialist services • AHP services (non-private cover) gap payments • Limited access to bulk billing
4	Chronic disease	• Diabetes • Cancer • Asthma • Heart health, cardiovascular disease • Muskuloskeletal health, including arthritis
5	Older persons	• Physical mobility • Healthy ageing • Dementia
6	Dental	
7	Obesity/overweight	• Exercise / Physical activity • Diet / Nutrition
8	Carers	• Carers exhaustion and fatigue, isolation

7.4.2

Provision of Health Care

Overwhelmingly for all respondents (99%), their GP or family physician was the primary person that they saw for their health care. The majority of respondents also had a regular GP who they saw the majority of the time.

If their regular GP was not available they would see another GP within the same clinic, or attend an after-hours service. Other health care providers mentioned were physiotherapists, dentists, chiropractors and specialists (non-specified discipline).

CONSUMER PERSPECTIVES

7.4.3

Difficulty Accessing Services

The majority of responses related to accessing their provider and issues of affordability. The themed responses are below:

- Continuity of care; access to their regular GP in a timely manner (at the point when care is needed),
- System issues; knowledge of services and understanding of how to navigate the system,
- Access to after-hours care; ability to access appointments outside of working hours,
- Wait times for services; getting an appointment in a timely way when unwell and also the in-clinic wait once accessed and follow-up times for specialist care,
- Transport; access to transports particularly for older people and the CALD community, as well as inadequate transport corridors and distance between services,
- Affordability; Affordability of GP and specialist care as well as allied health services (without private health or with, ability to pay gap payment) and the cost of medications/prescriptions,
- Own availability; time/work commitments and fitting in to a busy lifestyle.

7.4.4

Ease of Accessing Services

The majority of respondents believed it was relatively easy to access health care providers but the difficulty expressed was in being able to access their regular GP at an appropriate appointment time when care was needed.

Things identified that would make it easier to access services included;

- Knowledge of services and how to access them,
- Shorter wait times; for appointments and in-clinic wait times,
- Integrated/co-located services,
- Extended opening hours/after-hours access; greater availability of appointment times,
- Reduced cost, increased access to bulk billing and knowledge of costs upfront
- Access to reliable transport,
- eHealth/telehealth opportunities.

7.4.5

Perception of Quality Care Provided

The majority of respondents (96%) rated the care they received as excellent, very good or good. Of the 4% who negatively rated the quality of care, it was specifically due to feeling ignored or rushed when at the appointment or not being able to see their regular GP which impacted on their continuity of care.

7.4.6

Elements of Healthy Living

Respondents were asked what gets in the way of being healthy and the top responses included:

- Time; work & family commitments,
- Self –motivation,
- Poor nutrition/ease of access to junk food
- Lack of exercise/time to exercise,
- Cost of being healthy; healthy food and health memberships are cost prohibitive
- Chronic pain or other physical health issues

In response to the barriers to good health, respondents outlined what would make them healthier, the common themes are listed below:

- Incentives or subsidies for healthy eating,
- Increased sleep,
- Increased exercise and physical activity,
- Easily accessible information on health/ healthy lifestyles,
- Weight reduction,
- Stress reduction,
- Reducing hours of work,
- Being self-motivated to improve health,
- More time for themselves or relaxation time.

7.4.7

Quantitative and Qualitative Data Gap Analysis

A process of triangulation was undertaken to understand the primary health service needs and service gaps for the CAHML region. Compared the quantitative needs identified with the qualitative or 'felt' needs. The outcome of triangulation was a list of prioritised needs. To align the two data sources, the highest ranked responses from the engagement process are summarised within the chapters of this document.

7.4.8

Qualitative Data Limitations

Selection bias limited the validity of the qualitative data e.g. by leveraging CNA data collection into pre-arranged events being conducted for a different purpose (opportunistic, ad hoc data collection at program- specific events). Targeted data collection through specific focus groups had the benefit of providing deeper investigation and understanding of the needs affecting some population groups, but cannot be considered representative of the wider CAHML population. The sampling method carried the risk of omitting 'hard- to-reach' groups of the population and identifying their health needs. This is a well-recognised, and difficult to overcome challenge of sociological research, particularly that which is conducted in a short time frame.

8

KEY PRIORITIES AND RECOMMENDATIONS

8.1

KEY PRIORITIES AND RECOMMENDATIONS

Summary

The Comprehensive Needs Assessment (CNA) identified a vast range of population health and primary health care needs in the CAHML region. There is a wealth of good work already being conducted by a number of organisations to address many of these needs, and CAHML undertook a process to prioritise needs based on our scope of influence, capacity and the degree of need.

In considering strategies to address needs and the frequent overlap of issues, a pragmatic approach was adopted in grouping together needs, which helped form our key focus areas and priorities for Central Adelaide and Hills Medicare Local (CAHML):

1. Increasing capacity and integrating care for mental health, with a focus on youth mental health;
2. Integrating care for complex conditions and complex co-morbidities;
3. Integrating care and implementing strategies for older adults to assist with positive and healthy ageing;
4. Increasing health promotion and prevention activities, including health literacy, immunisation, screening and healthy weight.

This chapter summarises the key quantitative and qualitative data for the CAHML region and makes recommendations about future work that needs to occur to address these key health needs based on the data and CAHML's work to date.

Mental Health

There is a high prevalence of mental health issues and psychological distress across the region but particularly in Adelaide City, Payneham-Felixstow and Mount Barker and several western suburbs. Input from a range of stakeholders and the community indicate mental health is particularly prevalent in older adults, youth and early childhood. Interestingly, there has been a slight increase in prevalence of mental health conditions for males throughout the region. This might be reflective of less stigma attached to males seeking support for management of mental health conditions. Adelaide City and the inner and north western suburbs have high rates of psychological distress. There are high rates of suicide in the north western suburbs and the inner north eastern suburbs. Earlier qualitative data indicated high incidence of suicide in the rural areas surrounding Mount Barker and the Adelaide Hills region, and this is now supported by the quantitative data.

Mental health services are available across CAHML, however these tend to be available more in the central and eastern regions. Given the high prevalence of mental health conditions and psychological distress apparent in the western region it is a concern that there are not more services available in this area.

Mental health was rated as a high health priority consistently across consumer, stakeholder and health provider groups, particularly anxiety and depression and youth related mental health services. Availability of services and long waiting times were seen as barriers to mental health care, with the requirement of a GP referral often seen as time consuming. Mental health services were seen as being fragmented across the CAHML region, with a lack of coordinated care being reported, particularly for complex cases.

There is a high need for accessible and affordable mental health services for specific population groups, including Aboriginal and Torres Strait Islander people, newly arrived migrants, youth, rural communities and people in the criminal justice system. There is a reported need for supported transition from hospital to primary care and assistance with navigating the mental health system.

Recommendations

It is recommended that there is a focus on integrating care for mental health and increasing capacity across the sector to better manage child and youth mental health and address issues for specific population groups.

Recommended strategies include:

- Working with key stakeholders, community and health providers to identify current issues, current service provision, gaps in service delivery and accessibility particularly for the Adelaide Hills/Mount Barker, Norwood, Unley and Port Adelaide regions;
- Supporting and expanding current youth mental health service provision throughout the region;
- Improving the capacity of the primary care sector to manage mental health through education, information sharing and support;
- Establishing a mental health advisory group to address issues identified in service capacity, service access, systems integration, communication between key stakeholders and referral pathways;
- Promoting the availability of mental health services within the region to children, youth, families and the community.

Aboriginal and Torres Strait Islander Health

Health needs for Aboriginal and Torres Strait Islander people within the CAHML region include immunisation, particularly for young children, maternal and child health, diabetes, renal health, cardiovascular health, respiratory disease and mental health.

There is a preference for culturally appropriate specific Aboriginal and Torres Strait Islander health services by approximately 50% of Aboriginal and Torres Strait Islander people and an expressed inability to access health services at the preferred time by 72%, according to South Australian data. Affordability of medications and health services is a barrier, as well as health services not being easily accessed or considered culturally appropriate. It is recommended that Aboriginal and Torres Strait Islander people are involved in the development and delivery of services and programs.

There is a need to improve integration of care for Aboriginal and Torres Strait Islander people with complex conditions and co-morbidities in the CAHML region to assist in improving health and reducing hospital admissions. It is recommended that risk factors for chronic disease are also addressed to reduce prevalence of chronic disease.

8.1

KEY PRIORITIES AND RECOMMENDATIONS

Recommendations

The following strategies are recommended for future work in primary care:

- Continue to support the Closing the Gap (CTG) Care Coordination and Supplementary Services program;
- Through the CTG program, support the employment of a CTG Project Officer that focuses on improving referral pathways to CTG services;
- Maintain an accurate and up to date population health map for Aboriginal and Torres Strait Islander people within the CAHML region, to closely monitor population health trends;
- Coordinate and facilitate partnerships to improve the knowledge of existing services and appropriate referral pathways for Aboriginal and Torres Strait Islander people;
- Investigate holistic/family centred models of care to deliver appropriate health and support services for Aboriginal and Torres Strait Islander people;
- Engage with the community to host ongoing CTG events including the promotion of CTG day;
- Maintain wellness through health and wellness programs including continuation of the Nunga Wellness Clinics at Port Adelaide Community Health Centre, Nunga Women's Fitness and Men's Health groups and the development of other groups as appropriate;
- Promote and assist with cultural competency and appropriateness of primary health care services for Aboriginal and Torres Strait Islander people;
- Support multi-disciplinary team based care to provide patient education and support interventions for chronic disease management;
- Increase capacity of primary health care to promote annual cycles of care to increase regular monitoring of indicators and risk factors for chronic disease management;
- Support and promote access to chronic disease management and lifestyle change programs and services;
- Continue to work with established partnerships and identify future partnerships in order to advocate for and promote healthy lifestyles;
- Conduct health promotion/ awareness raising activities, specifically immunisation, healthy weight, chronic disease management, physical activity and youth mental health;
- Improve health literacy for Aboriginal and Torres Strait Islander people through appropriate information and resources.

Culturally and Linguistically Diverse Populations

A large number of residents within the CAHML region (26.9% of total residents) were born overseas, and 19.3% of this total were born in predominantly non-English speaking countries. Within the CAHML region there are three main groups of residents born overseas: established migrants such as the Greek, Italian and Vietnamese communities; newly arrived migrants, such as Indian and African communities and recent refugees which includes Middle Eastern and African communities.

These is no data available for specific health indicators for specific culturally and linguistically diverse (CALD) communities at or below the CAHML level. However at an Australian level, CALD communities demonstrate higher rates of cancer, type 2 diabetes, obesity, hepatitis B and C and mental health issues. The recent refugee population has a range of needs, including unknown current immunisation status, blood borne viruses such as hepatitis B and psychological trauma. More established CALD communities demonstrate other health needs such as dementia, including reverting back to original language and the barrier this creates to accessing services, and high rates of chronic disease.

Within the CAHML region, CALD communities reported difficulty navigating the health system as well as timely access to affordable GP and specialist services that are culturally appropriate. Limited English language proficiency is a barrier to accessing services. Affordable medications and difficulty accessing allied health services, drug and alcohol services and mental health services were also reported as issues. For new and emerging communities other barriers to health care include lack of established family networks, support systems, community structures and resources.

Recommendations

To assist CALD communities to access health services within the CAHML region, recommended strategies include:

- Mapping of current service provision and pathways for primary health care and acute care for CALD communities to increase understanding of available services and how to access them;
- Continuing to work with key stakeholders including local government and CALD community groups to identify accessibility issues and barriers to service access;
- Assisting with cultural competency and appropriateness of primary health care services that deliver services to CALD communities.

Older Adults

A relatively high proportion of the CAHML population are aged 65 years or older (17%), including 3% of the population within CAHML who are aged 85 years or older. The health issues for older adults within the CAHML region are wide-ranging and complex, and include complex multi-morbidity, high prevalence of chronic disease and associated risk factors, mental health issues and psychological distress, dementia, palliative care and falls risk. There is also a significant proportion of older adults from a CALD background or with a profound and severe disability across the region.

There are issues for older adults regarding access to transport, social isolation, coordination of health and social services, capacity to navigate the health system and coordination of end of life and palliative care.

Recommendations

Based on the evidence outlined in this section, CAHML recommends the following strategies to address primary health care needs of older people in the region.

- Build capacity in primary care to identify and support those at risk of falls;
- Provide advocacy and promote falls prevention education to health providers and the community;
- Improve capacity in primary health care to undertake health assessments, and link with complementary programs such as Home Medicines Reviews;
- Increase capacity of primary care to better coordinate and manage care;
- Identify and communicate appropriate referral pathways to support the patient journey for populations in need i.e. CALD, complex health and social situation and those at risk of hospitalisation;

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- Support the transition of care in and out of hospital, including timely discharge and communication strategies;
- Develop networks to support collaboration between providers in the primary health care, aged care and community care sectors;
- Continuing professional development for GPs, nurses, allied health providers and pharmacy, supporting the use of systematic processes including eHealth, tools to support assessments and linkage to appropriate referrals;
- Improve health literacy of consumers and provide more appropriate methods of accessing information;
- Support the broader uptake of the e-health record in the ageing and complex health needs groups;
- Support general practice to provide tele-health support to older persons including formal linkages with aged care facilities;
- Improve the integration of services for older persons within and between private and public health systems;
- Build capacity of primary care providers to identify and manage dementia through provision of education and resources;
- Support links between general practice, allied health providers and the aged care sector to better coordinate and manage dementia care.

Immunisation and Communicable Disease

Immunisation rates across the CAHML region are very low for children aged 1 to 5 years. The lowest childhood immunisation rates are in Adelaide City, the Adelaide Hills and the rural areas surrounding Mt Barker. The Aboriginal and Torres Strait Islander community also have particularly low rates of childhood immunisation. Within the CALD and Aboriginal and Torres Strait Islander population groups in the western region, there is a high prevalence of Hepatitis B.

Recommendations

Suggested activities to improve immunisation rates for children aged 1, 2 and 5 years include:

- Working with practices to establish and maintain robust recall/reminder systems and data;
- Continue to educate practice nurses, general practitioners and immunisation providers regarding immunisation schedules;
- Work in partnership with local government and Central Adelaide Local Health Network (CALHN) to increase the uptake of immunisation in children across the region;
- Identify opportunities to collaborate with child care centres in the western region, particularly within the Port Adelaide area;
- Work with key stakeholders to improve immunisation rates for Aboriginal and Torres Strait Islander children and improve recording of immunisation information on child records.

Chronic Conditions

High prevalence of chronic disease is most marked and of particular concern in the western suburbs of CAHML, and there are also pockets of high prevalence for specific conditions in several eastern and hills suburbs. Chronic disease prevalences analysed include type 2 diabetes, cardiovascular disease, chronic obstructive pulmonary disease (COPD), osteoarthritis and musculoskeletal disorders. The prevalence of associated risk factors such as overweight, obesity, smoking, hypertension, high cholesterol, physical inactivity and poor nutrition show a similar pattern of distribution across the region.

Within the CAHML region, COPD prevalence is greatest in the north-western suburbs, Norwood/St Peters/Marden and Mount Barker. There is high prevalence of asthma in the Mount Barker and Adelaide Hills regions, and also in several western suburbs, however the asthma related 'potentially preventable admissions' to hospitals within the region seem to be coming from outside of the region. This might indicate that although the prevalence is high in certain regions, the condition is well managed.

Recommendations

There are a number of strategies recommended to help address chronic disease within the CAHML region.

The overarching strategies include improving the integration of care and access to chronic disease management programs for consumers with chronic conditions and complex co-morbidities, and improved practice level systems for chronic disease management, including data quality and reporting.

Specific strategies include:

- Working with stakeholders to improve primary care capacity in management of chronic conditions;
- Identifying evidence based primary care management options and models of care;
- Supporting Practice Managers and practice staff through a provider liaison role to support accreditation and other quality improvement strategies in general practice;
- Participating in Australian Primary Care Collaboratives quality improvement programs and connecting strategies with community, general practice and pharmacy for other chronic diseases.

Healthy Lifestyle, including Healthy Weight

Within the CAHML region the western suburbs have a higher proportion of people with at least one health risk factor of either smoking, harmful use of alcohol, physical inactivity or obesity. The Adelaide Hills and Mount Barker regions are also starting to demonstrate a high prevalence of risk factors for chronic disease.

As with Australian trends, there is an increasing prevalence of unhealthy weight in South Australia and within the CAHML region. Areas of highest obesity prevalence are found in the more disadvantaged regions such as the western suburbs and regional areas such as Mount Barker. The high prevalence of overweight is emerging as an issue in the more affluent suburbs such as North Adelaide and Unley/Parkside.

Recommendations

Recommendations to address healthy weight across the region include:

- Improve health and wellness across the region through healthy lifestyle promotion:
- Identify existing models of care and develop pathways of care;
- Promote existing programs (HEAL, Strength for Life, Community Foodies) as well as CAHML programs (New Access – Cognitive Behaviour Therapy training for obesity management);
- Support primary health care capacity to provide education and resources regarding healthy weight management;
- Increase capacity of primary care to manage patients waiting for bariatric services:
- Work with primary health care and hospital services to support coordinated care for complex patients;

KEY PRIORITIES AND RECOMMENDATIONS

- Explore bariatric pathways between primary and acute care with CALHN, TQEH and RAH through the LHN Bariatric Care Working Party to address waiting lists;
- Support behavioural change in the workplace to address risk factors leading to chronic disease progression;
- Continue to provide a healthy weight week forum and associated resources;
- Increase communication and increase capacity of primary providers through education and resources.

Palliative/End of Life Care

There is a lack of data regarding palliative care service utilisation and need specific to the CAHML region. In-patient palliative care separations and average length of stay in SA is similar to the Australian statistics. CALHN has the highest number of separations in South Australia. Data for Central Adelaide Palliative Care Service demonstrates that the number of people receiving support to die at home is increasing, and is projected to continue to rise.

There are a range of population groups within CAHML that also demonstrate distinct health needs.

Recommendations

Recommended strategies to improve access to coordinated palliative/ end of life care within the community include:

- Working with a range of stakeholders to develop shared care models and improve access to primary care options, including increasing capacity to manage palliative and end of life care for individuals at home;
- Establishing a general practice palliative care network to support general practice in building capacity to provide palliative and end of life care for their patients within a home environment.

Primary Health Care Capacity

When considering primary health care capacity across the region, it appears CAHML has sufficient primary health care workforce across the region. However, when analysing geographic spread against prevalence of chronic disease and disadvantage, this capacity is unequally distributed and was identified as an issue from the qualitative data collected. The highest ratios of GPs per capita tend to be in the areas where disease prevalence and poor health status is lowest. The same can be said for primary health care nursing and the allied health professions. It is also difficult to measure true capacity, as total numbers or 'full workforce equivalents' does not necessarily reflect true capacity, which can change dramatically over time.

When considering GP numbers across the region, there are very low ratios of GPs per population in Port Adelaide Enfield, Mt Barker and West Torrens council areas. There is a somewhat high proportion of GPs intending to work less than 5 years in the inner north eastern areas of CAHML, and the Port Adelaide Enfield and Prospect areas.

The Port Adelaide Enfield council area has a very low count of primary health care nurses per population. The Prospect, Burnside and Charles Sturt LGAs also have somewhat low ratios. There is an impending workforce shortage of primary health care nurses in the region, with 26% intending to work less than 5 years longer, and 58% intending to work less than 10 years longer.

In terms of allied health, there are low ratios of psychologists, podiatrists and physiotherapist per population in Port Adelaide Enfield, Mount Barker, Adelaide Hills (physiotherapists), Prospect (psychologists) and Campbelltown (physiotherapists). There are very low ratios of pharmacists per population in the Port Adelaide Enfield and Mount Barker areas.

Recommendations

It is recommended that primary health care providers be supported to build capacity and provide best practice care within the CAHML region. This includes:

- Developing a comprehensive data base of general practice information and work with key stakeholder organisations to enable effective workforce planning and GP support;
- Continue to support GPs to provide needs based opportunities for communicating, capacity building, linking and connecting services;
- Coordinate a continuing professional development program that supports GP needs and local priority areas;
- Collaborate with other GP organisations and key stakeholders to support and advocate on behalf of GPs;
- Continue to support primary health care nurses including a mentoring and leadership program;
- Build the capacity of primary health care nurses to build skills in priority areas of ageing, COPD, immunisation, palliative care and management/ coordination of patients with chronic and complex conditions;
- Collaborate with local providers and key stakeholders to develop an education program focussed on leadership, care coordination, and chronic disease management;
- Collaborate with local and national primary health care nursing groups to provide advice and input to progress nurse leadership and mentoring;
- Identify and promote opportunities for training and education for allied health professionals (AHPs) to build capacity across the sector and improve links between services;
- Work with AHPs to improve integration, across chronic disease management, pre- and post-acute care (including hospital avoidance) and care coordination;
- Promote initiatives such as eHealth, data management, quality initiatives and business development opportunities to AHPs;
- Collaborate with Local Health Network and the allied health sector to support access to allied health for specific populations within CAHML, such as Aboriginal and Torres Strait Islander people, people who are homeless or sleeping rough, older persons, or people with a disability;
- Continue to engage with the pharmacy network across the CAHML region to address the key priority areas of COPD, healthy weight, healthy and positive ageing, eHealth uptake and Aboriginal health;
- Continue a Pharmacy Reference Group to identify referral pathways and education opportunities and provide linkages to general practice;
- Continue to promote quality use of medicines, falls prevention and community engagement in older adults through Council of The Ageing peer education;
- Continue to work with the Local Health Network and community groups to support transition back to care activities after hospitalisation;
- Continue to improve access to medication and culturally appropriate pharmacy support and care through the Closing the Gap program.

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KEY PRIORITIES AND RECOMMENDATIONS

System Integration

Integration of care both within primary care and between the acute and primary care sectors rated highly as a concern with both primary health care providers and the community. Concerns raised include:

- Health professional knowledge gap regarding the pathways between acute and primary care (public and private);
- Issues with timeliness of information to primary care at time of discharge from the acute sector;
- A large range of services with differing criteria and referral processes, and a lack of understanding among primary health care professionals of options and eligibility;
- A lack of coordination and communication between services;
- A lack of awareness among health providers and the community about the availability of services and how to access them

GPs in particular reported that the referral process to mental health services was too long and complicated.

It was suggested that there is a need for better supported transition from hospital to primary care.

Community members felt that their primary care providers did not often involve them in planning for access to services or programs, and this was particularly so for clients with mental health issues.

There is a high prevalence of adults in the Adelaide Hills and Mount Barker areas that reported difficulty accessing services.

Across the region, it is reported there are long wait times to see GPs and specialists, and a need for extended or flexible opening hours. There is a high prevalence of dwellings with no motor vehicle across the region, which hinders access to services, and difficulty accessing transport in the north western suburbs.

Recommendations

It is recommended that the integration between primary and acute care and also between the public and private health systems continue to be addressed. This includes:

- Collaborating with key stakeholders, including the Local Health Network, to understand and improve access, address gaps and understand opportunities for integration in primary health care;
- Continue to collaborate with CALHN, the primary health care sector and SA Ambulance Service on the Hospital Avoidance Working Group to improve integration of services, specifically targeting older people, complex care and disability;
- Communicate with the primary health care sector around identified opportunities for improved referrals and pathway solutions for the key priority areas for CAHML;
- Continue to engage with general practice regarding the issues of communication and barriers to referral;
- Identify opportunities with private primary health care providers to promote privately funded option and programs;
- Work with discharge planners in the acute sector to ensure greater communication and connection at point of discharge;
- Develop and raise awareness of eHealth strategies to connect better with primary health care;
- Work in partnership with a range of stakeholders to further identify regionally specific access and service gaps across the continuum of care;
- Improve the coordination of services at system level in high need areas;
- Continue to consult with and support primary health care providers and the community with access to after-hours care across the CAHML region, particularly for vulnerable groups;
- Promote the National GP Helpline, and National Health Services Diretory to the community to increase access to care;
- Support primary care services to maximise communication linkages including summaries between primary care providers to optimise continuity of care.

Conclusion

There are significant challenges in both the primary health care and acute care sectors to address the key priorities within the CAHML region. Many of these recommendations will involve sustained, collaborative work over a period of time. It is hoped that this summary and recommendations chapter will assist the Primary Health Network and other key stakeholders across the region to determine future activity to address these key priority areas.

9

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APPENDIX 1: ENVIRONMENTAL SCAN SOURCES

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HEALTH CHARACTERISTICS AND OUTCOMES

^ More recent data has been reported in the CNA commentary, however 2006-2008 PHIDU data used in this matrix for purposes of comparison by SLA

3	The least favourable (or highest prevalence) quintile in CAHML AND equal to or less favourable than Greater Metropolitan Adelaide (GMA) AND Australian rates
2.5	2nd least favourable (or highest prevalence) quintile in CAHML AND equal to or less favourable than GMA AND Australian rates
2.25	3rd, 4th or 5th quintile in CAHML AND equal to or less favourable than GMA AND Australian rates
2	The least favourable (or highest prevalence) quintile in CAHML AND equal to or less favourable than GMA OR Australian rates but not both
1.5	2nd least favourable (or highest prevalence) quintile in CAHML only AND equal to or less favourable than GMA OR Australian rates but not both
1.25	3rd, 4th or 5th quintile in CAHML only AND equal to or less favourable than GMA OR Australian rates but not both
1	The least favourable (or highest prevalence) quintile in CAHML BUT more favourable than GMA Adelaide AND Australian rates
0.5	2nd least favourable (or highest prevalence) quintile in CAHML only AND equal to or more favourable than GMA Adelaide AND Australian rates

	Charles Sturt- Coastal	Charles Sturt- Inner East	Charles Sturt- Inner West	Charles Sturt- North East	Port Adel Enfield- Coastal	Port Adel Enfield- Port	Port Adel Enfield- Park	West Torrens- East	West Torrens- West	Adelaide	Prospect	Walkerville	Unley- East	Unley- West	Campbelltown- East	Campbelltown- West	Norw. P'ham- East	Norw. P'ham- West	Burnside- North East	Burnside- South West	Adelaide Hills- Central	Adelaide Hills- Ranges	Adelaide Hills- North	Adelaide Hills- East	Mount Barker- Central	Mount Barker	(scale) CAHML Pop
Diabetes																											
Type 2 diabetes^		2.5	2.5	3	2.5	3	3	3	2.25	2.25	2.25				1.25	2.5	2.25								1.25		19,050
Type 2 diabetes AND overweight/obese^		2.5	2.5	3	2.5	3	3	3		3	2.25					2.5	2.25										13,218
Cardiovascular																											
Hypertensive disease (subset circulatory disease)^	2.25	2.25	1.25	2.25	2.5	3	2.5	2.5	1.25	3	3	1.25	1.25	1.25	1.25	2.25	2.25	3	1.25		1.25	1.25	1.25	3	2.5	2.5	60,151
Circulatory system disease^	1.25	2.5	2.5	3	2.5	3	3	3	2.25	2.5	1.25	1.25	1.25	1.25	2.25	2.5	2.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	2.5	1.25	101,300
High cholesterol ^	1.25	2.5	2.25	2.5	2.25	3	2.5	3	2.25	2.5	2.5	1.25	1.25	1.25	1.25	2.25	2.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	2.25	1.25	40,170
Prem deaths - cerebrovascular^		2.5		3	3	3			2.5	2.25	2.25		2.25	3			2.5			2.25			2.5				229
Prem deaths - ischemic heart disease^			1.25	3	3	3	2.5	2.5	2.5				1.25			1.5	3	2.5							2.5		632
Prem deaths - circulatory^				3	3	3	3	3	2.5		0.5					2.5	2.5								2.5		1,182
Weight																											
Obese - males^		2	2	3	2		0.5	1.5								1.5							0.5				30,513
Obese - females^	1.25	3	3	2.5	3	2.5	3	3	2.5						2.5	1.25	1.25								2.5		32,794
Overweight - females^	2.5	2.5	2.5		2.5				2.5						2.5	2.5						3	3	3	3	3	46,661
Overweight - males^	2.5		2.25		2.25				2.25		2.25	2.5	2.5	2.5	2.5	2.25	2.25	2.25	3	3	3	3	2.5	2.25	2.25	2.25	70,085
Respiratory																											
Chronic disease - respiratory system diseases^	1.5	3	2.5	2.5	3	1.5	3	3																			145,859
Respiratory system disease premature mortality^		2.5		3	3	3	3			2.25			2.5					2.5								2.25	339
COPD prevalence^	1.25	2.5	2.5	2.5	3	3	3	2.5								1.25	1.25								2.5	1.25	12,292
COPD premature mortality^				3	2.5	2.5				2.5								3						3			141
Chronic disease - asthma^	3		0.5		3		3		0.5												0.5		0.5	2	3	3	46,292
Lung cancer premature death^	2.5		2.5	3	3	3	3	0.5	0.5		3					0.5											468
Musculoskeletal																											
Chronic disease - osteoarthritis^	1.25	2.25	1.25	2.25	2.5	2.5	2.5	2.25	2.25	2.25	2.25	1.25	1.25	1.25		1.25	1.25	1.25	1.25	1.25	1.25	1.25	2.5	3	3	3	48,558
Chronic disease - musculoskeletal system disease^	1.25	3	2.5	2.5	3	3	3	3	2.5	1.25	1.25	1.25	1.25	1.25	1.25	2.5	1.5	1.25	1.25	1.25	1.25						169,389
Chronic disease - rheumatoid arthritis^		3	2.5	3	2.5	3	3	3		3		2.25			2.25								2.25	2.25	2.25		10,224
Chronic disease - females with osteoporosis^	1.25	1.25	1.25		1.25			3	1.25	3	1.25	1.25	2.5	1.25	1.25	1.25	2.5	2.5	1.25	1.25				1.25	1.25		15,322
Chronic disease - arthritis^		3	2.5	3	2.5	3	3	1.5																			81,077
Mental Health																											
Mental health - males		2.5	2.5	3	3	3	3	2.5	1.25	3						1.5	1.25	1.25							1.25		25,102
Mental health - females	1.25	3	2.5	3	3	3	3	2.5	1.25	1.5						1.5	1.25								1.5		30,544
Psychological distress		2.5	3	3	2.5	3	3	3	1.25	2.5						2.5	2.5										47,087
Suicide				2.5	3	2.5	3		2.5				2.5			2.5	3	3									286
Cancer and Cancer Screening																											
Prem deaths - cancer^	0.5	3	3	3	3	3	3	0.5	0.5		3						0.5	0.5								3	2489
Percentage of participation in the NBCSP, persons		1		1		1	1			1																	10,444
NBCSP: positive test result, persons (ASR:100)		2.5	2.5	3		3	3	3			3				0.5	0.5	3	0.5				2.5					815
Prem deaths - colorectal cancer^				2.5	2.5	3			3	3	2.5					2.5											261
Breast screening outcomes: cancer, females aged 50–69 years		1			0.5		0.5				0.5	1	1											0.5			203
Immunisation																											
Children fully immunised by 5 years	2.25	2.25	2.5	3	2.5	2.5	3	2.5	2.25	3	2.25			1.25	1.25	2.25	2.25	3	1.25	3	2.25	2.25	1.25	2.5	1.25	2.25	4,733
Children fully immunised at 2 years	2.5			2	2	2	2.5	2	2	3		2	3		2	2		2.5	2	3	3	2.5	2	3	2	2.5	4,920
Children fully immunised at 1 year	2	2.5	2.5	2.5			2.5	2	2.5	3				2	2			2	2.5	3	2.5	3		3		3	4,869
Low birthweight babies	2.5		3	2.5	3	3		2.5	2.5	3	2.5	1.25	2.5						1.25					1.25	1.25		1,153
General Health Indicators																											
Self report of health 'fair' / 'poor'		2.5	2.5	2.5	2.5	3	3	2.5	2.25	1.25						2.25	2.25										64,400
Prem deaths - males		2.5		3	3	3	3	2.5	0.5		2.5						0.5	3									3,565
Prem deaths - female		0.5	2.5	3		3	3						2.5				0.5								1.5	3	2,209
Risk Factors																											
Physical inactivity		3	3	3	2.5	3	3	2.5	2.5							2.5									2.5		143,930
Daily intake of 2 or more serves of fruit	0.5	0.5		2	3	3	3	0.5		2													2	2	3	3	210,226
Smoking^		2.5	1.5	3	3	3	3	1.5																0.5	1.5	0.5	66,689
High levels of alcohol consumption^	2				2		2	0.5	1.5														2	1.5	1.5	2	16,175
Smoking during pregnancy		0.5	3	0.5	3	3	3																0.5	0.5	1	0.5	1,400
Demographic and Socio-economic Indicators																											
Aboriginal and Torres Strait Islander population		0.5	0.5	2	3	2	3	0.5		0.5															0.5		4,828
Persons 15 - 19 years as proportion of total population (%)						2.5						3			2.5				3	3	3	3	3	2.5	2.5	3	31,406
Persons 0-4 years as proportion of total population (%)		0.5		2		3	0.5	0.5			0.5			0.5								0.5		2	3	2	27,549
Persons 0-14 years as proportion of total population (%)				0.5		1.5					0.5				0.5						3	3	1		3	3	82,206
Youth (proportion of population aged 15-24)				2.5		2.5		3		3	3	1.5		2.5	2.5			3	3	2.5							72,314
% of persons +65 years old	2.5	2.5	3						2.5			3	2.5		2.5	3	3		2.5	2.5							87,313
85 years + population as proportion of total population (%)	2.5	2.5	3						3			3	3			2.5	3		2.5	3							14,965
People born in predominantly NES countries living in Aust less than 5 years		2.5		2.5		3	1.25	3	2.25	3	2.5	2.25	2.25	2.25	2.25	3	2.5	3	2.25	2.25							26,407
People born in predominantly NES countries living in Aust 5 years or more		2.5	2.5	2.5		3	2.25	2.5	2.25	1.25	2.25	2.25			3	3	2.5	1.25	2.25								64,578
Poor English proficiency		2.5	2.5	3		3	3	3	2.25	2.5	2.25				2.5	3	2.5	2.25									16,257
NES HACC clients	1.25	2.5	2.5	3	1.25	3	2.5	2.5	2.25	1.25	2.25		2.25	2.25	3	3	2.5	2.5	1.25			1.25					5,903
SEIFA		3	3	3	3	3	3	2.5	0.5							2.5	0.5								0.5		1012 (score)
Participation rate		2.5	3	3	2.25	3	2.5	1.25	2.5	3		2.5			1.25	3	3	2.25	1.25	1.5					1.5	1.25	274,902
Percentage of people receiving unemployment benefits		3	3	3	3	3	3	1.5	0.5	0.5	0.5														0.5		13,673
Unemployment rate		0.5		3	0.5	3	3			3	3				1.5		1.5										13,324
Percentage of pensioner concession card holders	1.5	3	3	3	3	3	3	1.5	1.5						1.5	2.5	2.5										91,463
Percentage of age pensioners		3	3	3	3	3		2.5			2.5				2.5		2.5								2.5		60,850
Percentage of total concession card holders		3	3	3	2.5	3	3	2.5	1.5						1.5	1.5	1.5										122,039
Percentage of health care card holders		3	1.5	3	1.5	3	3	3		2																	30,576
Private health insurance, persons aged 15 years and over		3	3	3	2.5	3	3	2.5																2.5	2.5	2.5	223,164
Mortgage / rental stress						2.5	0.5	3		3	2.5			3				3		3				0.5	3		19,857
Access to crisis support outside home (community strength)		2.5	2.5	3	2.5	3	3	3		3	0.5				0.5											0.5	377,001
Early child development: developmentally vulnerable on 1 or more domains		0.5	3	2.5	3	3	3	3	2.5	2.5						0.5											821
% single parent families with children 15 yrs or less	0.5		3	3	3	3	3	0.5		2.5						0.5									1.5		9,032
Children in jobless families		3	2.5	3	2.5	3	3	0.5		3						0.5	0.5								0.5		8,373
Youth receiving unemployment benefits	0.5	3	2.5	3	3	3	3	1.5	0.5																0.5		3,240
Youth 'learning or earning'	0.5	0.5	0.5	0.5	3	0.5	3	0.5																0.5	1	2	25,959
Youth (proportion of population aged 15-24)				2.5		2.5		3		3	3	1.5		2.5	2.5			3	3	2.5							72,314
Percentage of children in low income, welfare-dependent families		3	3	3	3	3	3																				16,168
Percentage of low income, welfare-dependent families (with children)		3	0.5	3	3	3	3																				9,373
Unpaid assistance to persons with a disability	2.5	2.25	2.5	2.25	1.25	1.25	2.25		1.25		2.25	2.25	1.25	2.25	2.5	2.25	2.25	1.25	2.5	2.5	3	3	2.5	2.25	2.25	2.5	49,128
Persons with a profound diasability 65 years and over		2.5	2.5	3	2.25	3	2.25	3	1.25	1.25	2.5	2.25	3	2.5		2.5	3	2.25							2.25		16,961
% of people with a profound or severe disability	1.25	2.5	3	3	2.5	3	2.5	2.5				2.5	2.5			3	3										26,411
Persons with a profound diasability 0 - 64 years old		2.5	3	3	3	3	3									2.5									2.5		9,450
Persons aged 18 years and over with severe/profound / moderate or mild core activity restriction		1.5	1.5	3	3	3	3	1.5	1.5																		46,516
Access and Equity																											
Percentage of dwellings with no motor vehicle		2.5	2.5	3		3	3	3	2.5	3						2.5	2.5	2.5									21,192
Persons aged 18 years and over who accessed the internet in the last 12 months		3	3	3	2.5	3	3	3	1.5	1.5						2.5	2.5										297,547
Adults who delayed filling a prescription in the last 12 months due to affordability	0.5	2.5	2.5	3	3	3	3	3		0.5						2.5											39,107
People who delayed medical consultation due to affordability	1.5	2	1.5	2	1.5	2	2	1.5			1.5				1.5	1.5								1.5	1.5		42,808
Persons aged 18 years and over who had difficulty accessing services										1.5								0.5				1.5	1.5	3	3	3	107,704
Persons aged 18 years and over who often has a difficulty or can't get to places needed with transport		1.5		2		3	2										1.5										12,892
Total GP services (MBS and DVA)		3	0.5	3	3	3	3	1.5							0.5	0.5									0.5		2,714,681
Practice nurse services under the MBS								0.5				2	1.5	3	3	0.5							3	1.5	3	0.5	147,392
Total services by GPs for chronic disease management items					3									2	2	2						2					13,562