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NACCHO
National Aboriginal Community
Controlled Health Organisation

Healthy Futures

Aboriginal Community Controlled Health Services

Report Card 2016

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Aboriginal Community Controlled Health Services

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Australian Institute of Health and Welfare
Canberra
Cat. no. IHW 171



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This publication is part of the Australian Institute of Health and Welfare's Health Services Series. A complete list of the Institute's publications is available from the Institute's website <www.aihw.gov.au>.

ISBN 978-1-76054-042-5 (PDF)

ISBN 978-1-76054-043-2 (Print)

Suggested citation

Australian Institute of Health and Welfare 2016. Healthy Futures—Aboriginal Community Controlled Health Services: Report Card 2016. Cat. no. IHW 171. Canberra: AIHW.

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Published by the Australian Institute of Health and Welfare

Please note that there is the potential for minor revisions of data in this report. Please check the online version at <www.aihw.gov.au> for any amendments.

Table of contents

Abbreviations	v
Summary	vi
Introduction	1
1 Aboriginal and Torres Strait Islander Australians	2
Population.....	2
2 Indigenous-specific primary health care services	6
Characteristics of Aboriginal Community Controlled Health Services.....	7
Clients.....	8
Location.....	10
Size of Aboriginal Community Controlled Health Services.....	11
Governance.....	12
Accreditation.....	12
Workforce.....	13
Continuity of care and access to services.....	14
Health service gaps.....	18
3 The national Key Performance Indicators	19
Process-of-care measures.....	21
Improved measures.....	22
Areas for further improvement in processes of care.....	29
Other areas for improvement.....	31
Health outcomes.....	33
Improved health outcome measures.....	33
Health outcome measures that need improvement.....	35
New outcome measures.....	36
4 Health need and health burden	41
Self-assessed health status.....	41
Burden of disease.....	48
5 Social determinants of health and health expenditure	59
Social determinants of health.....	59
Health expenditure.....	69



6 Geographic variation	71
Distribution of ACCHSs and the Indigenous population.....	71
Geographic variation in access to ACCHSs	74
Appendix	78
Glossary	79
References	82



Abbreviations

ABS	Australian Bureau of Statistics
ACCHS	Aboriginal Community Controlled Health Services
ACT	Australian Capital Territory
AIHW	Australian Institute of Health and Welfare
ASGS	Australian Statistical Geography Standard
BMI	body mass index
COAG	Council of Australian Governments
COPD	chronic obstructive pulmonary disease
DALY	disability-adjusted life year
eGFR	estimated glomerular filtration rate
FTE	full-time equivalent
GPMP	General Practitioner Management Plan
HbA1c	glycosylated haemoglobin
ISPHCS	Indigenous-specific primary health care service
ISO	International Organization for Standardization
MBS	Medicare Benefits Schedule
m ²	metre squared
min	minute
ml	millilitre
mmHg	millimetre of mercury
NACCHO	National Aboriginal Community Controlled Health Organisation
NAPLAN	National Assessment Program—Literacy and Numeracy
nKPIs	national Key Performance Indicators
NSW	New South Wales
NT	Northern Territory
OSR	Online Services Report
Qld	Queensland
RACGP	Royal Australian College of General Practitioners
SA	South Australia
SA2	statistical area level 2
Tas	Tasmania
TCA	Team Care Arrangement
Vic	Victoria
WA	Western Australia
YLD	years lived with ill health or disability
YLL	years of life lost due to premature death

Summary

This report provides an update on the health services provided by Aboriginal Community Controlled Health Services (ACCHS), using data from the Australian Institute of Health and Welfare's Online Services Report (OSR) data collection and the national Key Performance Indicators (nKPIs) for Aboriginal and Torres Strait Islander primary health care.

The findings show some encouraging improvements.

- Between 2012–13 and 2014–15, ACCHSs increased their primary health care services, with:
 - the total number of clients rising by 8%—from 316,269 to 340,299
 - the number of Indigenous clients rising by 9%—from 252,038 to 274,848
 - the number of episodes of care provided rising by 19%—from 2,425,568 to 2,893,050
 - the number of episodes of care provided to Indigenous clients rising by 23%—from 2,053,992 to 2,519,078.
- Between December 2012 (or the first period data were collected) and December 2014, the proportion of ACCHS clients rose for 10 of the 16 relevant nKPI process-of-care indicators. These were:
 - antenatal visits before 13 weeks of pregnancy
 - birthweight recorded
 - health assessments for those aged 0–4 and 25 and over
 - smoking status or alcohol consumption recorded
 - clients with type 2 diabetes or aged 50 and over who were immunised against influenza
 - clients with type 2 diabetes who received a General Practice Management Plan or Team Care Arrangement.
- ACCHS clients also showed improvements for 3 out of the 5 nKPI outcome indicators with trend data. These were:
 - the proportion of clients with type 2 diabetes whose glycosylated haemoglobin (HbA1c) result was less than or equal to 7%
 - the proportion of clients with type 2 diabetes who had a blood pressure result in the previous 6 months of less than or equal to 130/80 millimetres of mercury (mmHg)
 - the proportion of clients aged 15 and over who were recorded as current smokers.
- The distribution of ACCHSs generally closely follows the distribution of Indigenous Australians.
- While areas close to *Major cities* and in *Inner regional* areas have the highest density of ACCHSs, *Remote* and *Very remote* areas have the highest number of ACCHSs per Indigenous person in the population.
- The spatial distribution of the number of clients reflects the distribution of the Indigenous population (there are higher numbers of clients where there is also a larger population). However, in a small number of statistical areas level 2 in the Kimberley, Arnhem Land, north eastern Northern Territory and Cape York, there are large Indigenous populations but relatively small numbers of clients.

Introduction

The Healthy Futures Aboriginal Community Controlled Health Services Report Card 2016 is the second report card prepared by the Australian Institute of Health and Welfare (AIHW), and commissioned by the National Aboriginal Community Controlled Health Organisation (NACCHO).

The report card presents information in 6 areas:

- Section 1 provides information on the Aboriginal and Torres Strait Islander population.
- Section 2 includes information on ACCHSs, and access to the primary health care services these services deliver to Indigenous Australians.
- Section 3 shows the performance of ACCHSs against a set of key performance indicators.
- Section 4 discusses areas of health need and health burden for Aboriginal and Torres Strait Islander people.
- Section 5 looks at social and health indicators for Aboriginal and Torres Strait Islander people and, where possible, non-Indigenous Australians.
- Section 6 shows where ACCHSs and the Indigenous population are located, as well as the geographic variation in access to ACCHSs.

The performance measures presented in the report are directly relevant to current Indigenous policy and program initiatives. For example, the OSR collection is the only national source on Indigenous-specific comprehensive primary health care activities, and the nKPIs represent the only national data source that enables monitoring of an agreed set of health care process indicators and health outcome indicators for clients of Indigenous primary health organisations.

Together they provide valuable information that can be used to monitor progress against the Council of Australian Governments' (COAG) commitment to close the gap in health outcomes between Indigenous and non-Indigenous Australians. The nKPI information will highlight how much government-funded Indigenous specific primary health care organisations collect, record and review data to support Closing the Gap targets, and show changes in health risks or outcomes that might be driven by the quality of care they provide to their clients.

The information presented in the report card also supports the vision of the National Aboriginal and Torres Strait Islander Health Plan 2013–2023, which provides a long-term, evidence-based policy framework as part of the overarching COAG approach to Closing the Gap in Indigenous disadvantage (Australian Government 2013). The Health Plan builds on other governments' plans and strategies that support better health outcomes for Aboriginal and Torres Strait Islander people, including the COAG National Indigenous Reform Agreement and the previous National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003–13. The Health Plan required the development of an Implementation Plan that included goals to measure progress in achieving the Health Plan's priorities. To complement the existing COAG Closing the Gap targets, 20 new goals were developed. These goals focus on prevention and early intervention across people's lifetime, and have a strong link to the key performance indicators in the primary health sector and the ACCHSs.

The findings in the report card will assist ACCHSs in their continuous quality improvement activities, in identifying areas where service delivery and accessibility issues need to be addressed, and in supporting the goals in the Implementation Plan for the National Aboriginal and Torres Strait Islander Health Plan 2013–2023. The 20 goals in the Implementation Plan are expected to provide the infrastructure for a strong accountability mechanism, and will be the precursor towards realising the 2013–2023 Health Plan's goal of health equality by 2031.

Findings from this report card will provide the evidence needed to realise this vision. Governments and other stakeholders can draw on this information to identify priorities and inform program development to address the agreed national goals in the Implementation Plan and the COAG Closing the Gap health targets.

1 Aboriginal and Torres Strait Islander Australians

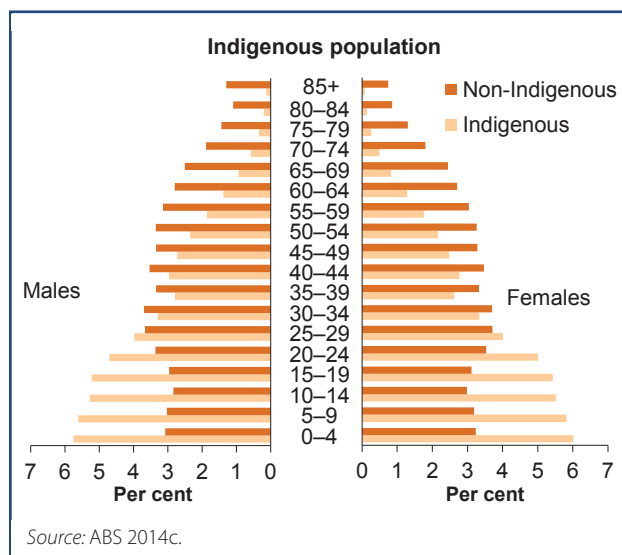
This section provides background information on Aboriginal and Torres Strait Islander Australians, as context for the primary health care data. It includes data from several sources, including the 2011 Census of Population and Housing (ABS 2012a; ABS 2014c) and the AIHW *Aboriginal and Torres Strait Islander Health Performance Framework 2014 report: detailed analyses* (AIHW 2015a).

Population

Indigenous population

An estimated 729,048 Australians identified as being Aboriginal and/or Torres Strait Islander in June 2015 (ABS 2014c), representing 3% of the total population of Australia.

The Indigenous population is younger than the non-Indigenous population—in 2015, 34% of Indigenous Australians were aged under 15, compared with 18% in the non-Indigenous population. People aged 65 and over comprised 4% of the Indigenous population, compared with 15% of the non-Indigenous population.



Projected Indigenous population

There are signs of an ageing Indigenous population, according to Australian Bureau of Statistics (ABS) projected population data. By 2026, the proportion of the Indigenous population aged 65 and over is predicted to more than double from 2.8% in 1996 (13,000 Indigenous Australians out of 468,000 people aged 65 and over) to 6.4% (59,000 out of 925,000).

In contrast, the proportion of the Indigenous population aged under 15 is expected to fall from 40% (186,000 out of 468,000) in 1996 to 32% (300,000 out of 925,000) in 2026 (Table 1).

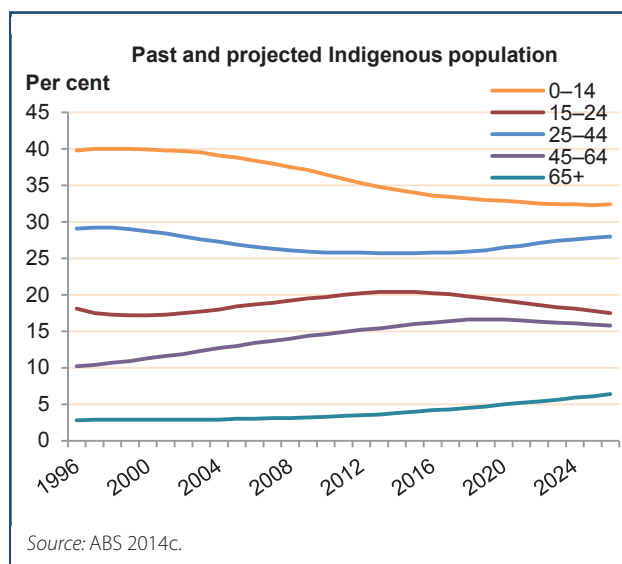


Table 1: Historical and projected Indigenous population numbers, by age, 1996–2026

Year	0–14	15–24	25–44	45–64	65+	Total
1996	186,127	84,619	136,386	47,815	13,236	468,183
1997	192,520	84,455	140,660	50,184	13,733	481,552
1998	198,148	85,408	144,311	52,779	14,184	494,830
1999	203,369	87,327	147,249	55,573	14,553	508,071
2000	208,208	89,883	149,656	58,704	14,918	521,369
2001	213,042	92,545	151,831	61,931	15,369	534,718
2002	217,495	95,801	153,489	65,284	15,871	547,940
2003	221,392	99,313	155,101	68,833	16,334	560,973
2004	224,716	103,183	156,581	72,654	16,857	573,991
2005	227,697	107,820	158,107	76,436	17,426	587,486
2006	230,846	112,311	159,768	80,418	18,107	601,450
2007	233,901	116,590	161,565	84,363	18,884	615,303
2008	236,247	120,928	163,995	88,258	19,739	629,167
2009	238,457	125,112	166,548	92,344	20,588	643,049
2010	239,857	129,498	169,710	96,144	21,526	656,735
2011	240,620	133,948	172,878	99,753	22,682	669,881
2012	241,657	138,424	176,173	103,704	24,059	684,017
2013	243,162	142,522	179,534	107,877	25,488	698,583
2014	245,221	145,873	183,290	112,152	27,053	713,589
2015	247,720	148,378	187,630	116,486	28,834	729,048
2016	250,457	150,644	191,924	120,936	30,995	744,956
2017	253,951	152,811	196,225	125,230	33,083	761,300
2018	258,044	154,085	201,583	129,024	35,328	778,064
2019	262,617	155,043	207,873	132,025	37,663	795,221
2020	267,021	155,849	215,082	134,523	40,282	812,757
2021	271,279	157,222	222,192	136,934	43,041	830,668
2022	276,159	158,170	229,962	138,720	45,926	848,937
2023	281,469	159,100	237,527	140,510	48,926	867,532
2024	286,933	160,322	244,714	142,287	52,161	886,417
2025	292,813	161,413	251,874	144,135	55,329	905,564
2026	299,572	161,693	258,586	146,133	58,969	924,953

Note: Estimates and projections are for 30 June of each year, and are based on 2011 Census data. Projected population data are shown from 2012 onwards, and are based on ABS medium-level growth assumptions (Series B).

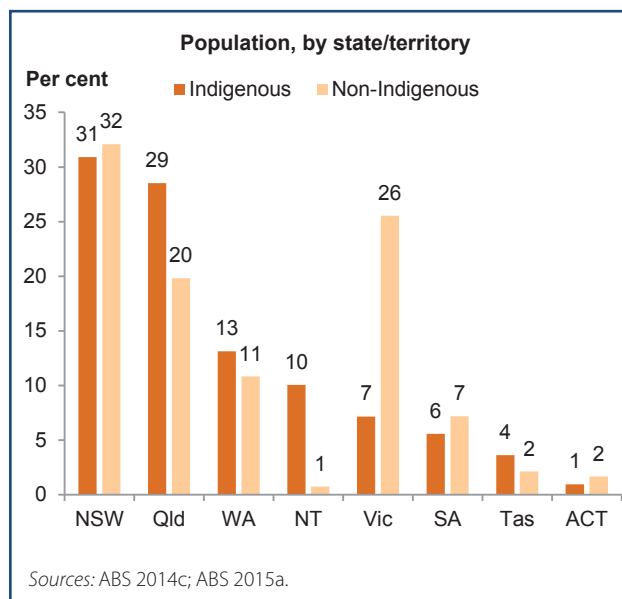
Source: ABS 2014c.

Population by state/territory

In 2015, the largest proportion of Indigenous Australians lived in New South Wales (31%), followed by Queensland (29%), Western Australia (13%), the Northern Territory (10%), and Victoria (7%).

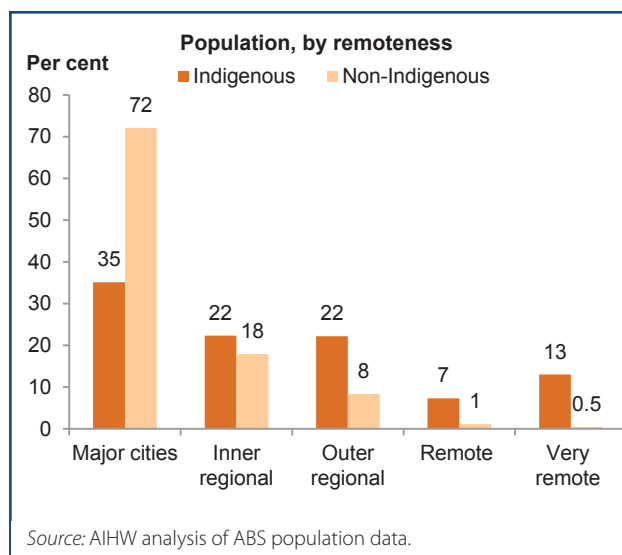
Less than 6% of Indigenous Australians lived in South Australia in 2015, less than 4% in Tasmania, and less than 1% in the Australian Capital Territory (ABS 2014c).

In 2014, about 30% of the Northern Territory population was Indigenous, but less than 5% of the population of each of the other states and territories was Indigenous (AIHW 2015d).



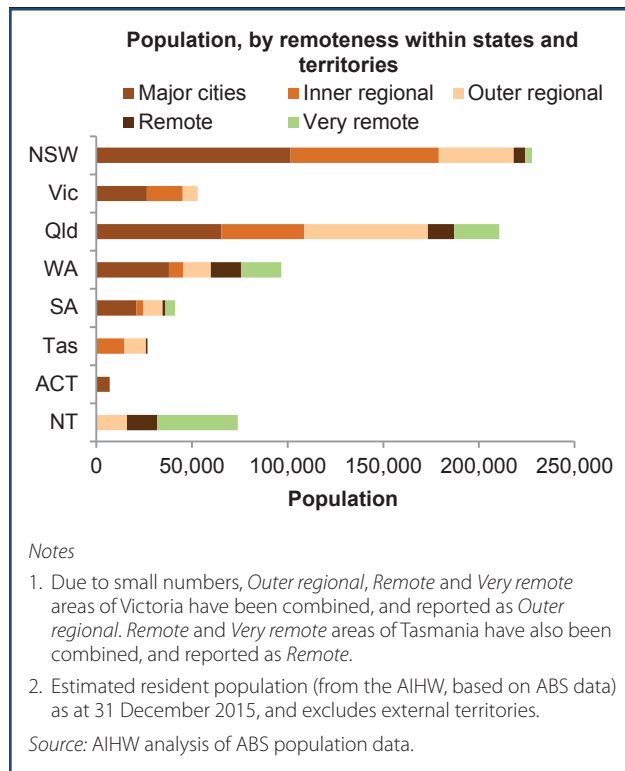
Population by remoteness

In June 2015, the largest proportion of Indigenous Australians lived in *Major cities* (35%), followed by *Inner regional* (22%) and *Outer regional* areas (22%). The majority (72%) of non-Indigenous Australians lived in *Major cities*.



Population by remoteness within states and territories

In 2015, of the 227,651 Indigenous Australians who lived in New South Wales, about 179,000 (79%) lived in *Major cities* and *Inner regional* areas. Almost 58,000 (80%) of the 73,969 Indigenous Australians in the Northern Territory lived in *Remote* or *Very remote* areas.



2 Indigenous-specific primary health care services

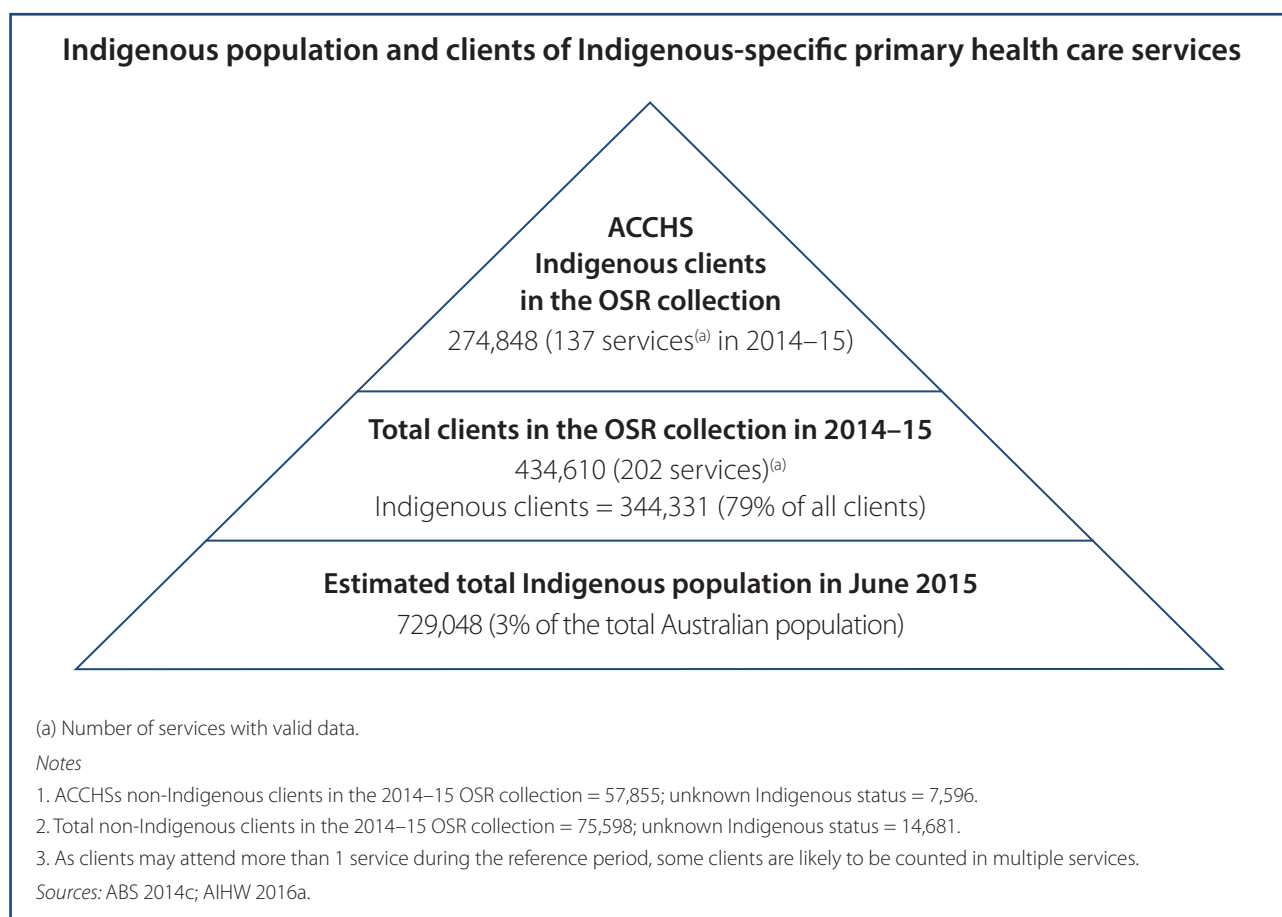
It is particularly important that Aboriginal and Torres Strait Islander people have good access to primary health care services because of their poorer health. The Australian Government funds organisations to provide various primary health care services to Indigenous Australians in a single location, including prevention, diagnosis, treatment, and referral.

The Indigenous-specific primary health care services contribute data to 2 key AIHW data collections—the Online Services Report (OSR) and the national Key Performance Indicators (nKPIs) (see Section 3). Services that report in the OSR collection receive funding from the Australian Government Department of Health and/or the Department of the Prime Minister and Cabinet to provide: primary health care; mothers and babies services; social and emotional wellbeing services; and/or substance use services.

More than two-thirds (68%) of the OSR organisations providing primary health care services are Aboriginal Community Controlled Health Services (ACCHSs)—non-government organisations operated by local Aboriginal and Torres Strait Islander communities, to deliver health care to the communities that control them through an elected board of management. The other organisations funded to provide primary health care services to Indigenous Australians include services run by government and non-government organisations. This section provides data on Indigenous-specific primary health care services, comparing ACCHSs with non-ACCHSs.

The OSR collection collects and reports information on staffing, clients, episodes of care provided, governance, accreditation status, and use of technology for health services funded to provide care to Indigenous Australians from 2008–09 to 2014–15.

There were 203 organisations funded to provide primary health care services that contributed to the OSR in 2014–15, including 138 ACCHSs.



Characteristics of Aboriginal Community Controlled Health Services

In 2014–15, 203 primary health care services provided OSR data (AIHW 2016a), with 138 of them being ACCHS:

- In total, 340,299 clients attended the 137 ACCHSs that provided valid client data in 2014–15. Of those, 274,848 (or 81%) were Aboriginal or Torres Strait Islander clients, 57,855 were non-Indigenous, and 7,596 did not state their Indigenous status.
- ACCHSs provided 2,893,050 episodes of care to clients. Of those, 2,519,078 were for Indigenous clients, 352,202 for non-Indigenous clients, and 21,770 for clients who did not state their Indigenous status.
- Between 2012–13 and 2014–15, the number of ACCHS clients rose by 8%—from 316,269 to 340,299, and the number of Indigenous clients rose by 9%—from 252,038 to 274,848.
- Over the same period, the total number of episodes of care provided rose by 19%—from 2,425,568 to 2,893,050, while the number of episodes of care provided to Indigenous clients rose by 23%—from 2,053,992 to 2,519,078.

As well as client numbers and episodes of care, the OSR collection also includes data on:

- clinical and non-clinical staff, both paid by the service and visiting
- primary health care services delivered, including health prevention
- client contacts.

Contextual information, such as governance, accreditation and access to technology are also from the OSR (see Box 1 for data quality issues).

In the following section, data are presented for ACCHSs that submitted OSR data in 2014–15.

- Most ACCHSs were in *Outer regional* (26%) and *Inner regional* (25%) areas, followed by *Very remote* areas (22%).
- ACCHSs were largest in *Major cities* (4,301 clients per ACCHS) and smallest in *Very remote* areas (1,480).
- Most ACCHSs with a governing committee or board (86%) had governing bodies that were 100% Indigenous.
- Most ACCHSs (79%) had fixed line broadband that was functional, while 15% had satellite internet access.
- The number of clients attending ACCHS was highest in *Outer regional* areas and *Inner regional* areas (both around 81,000 clients each), followed by *Major cities* (around 69,000 clients) and *Remote* areas (around 63,000 clients). ACCHSs in *Very remote* areas had the fewest total clients (around 46,000).
- Although client numbers were lowest in *Very remote* areas, these ACCHSs had the highest number of both clinical and non-clinical full-time equivalent (FTE) staff per 1,000 clients.

Box 1: Online Services Report data collection quality issues

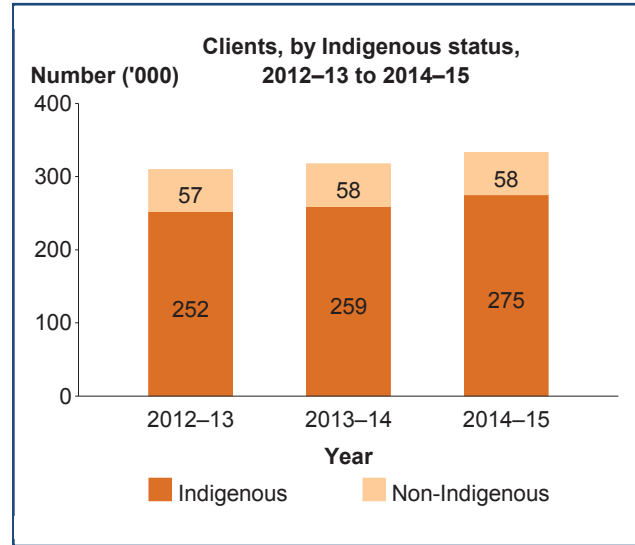
- In 2014–15, 203 primary health care services provided data for OSR, with 138 of these being ACCHSs and 65 being non-ACCHSs. Valid data were available from all ACCHSs for most indicators, except client numbers (for which 137 provided valid data) and episodes of care (for which 135 provided valid data). A smaller number of ACCHSs had mental health related staff (114), medical specialists (99), and allied health/dental staff (125).
- In some ACCHSs, data on the number of clients and episodes of care were based on estimates. This might lead to an over- or under-estimation of the actual numbers.
- As ACCHSs participating in the OSR collection are a subset of total services, they might not be representative of all services participating in the OSR collection.
- Time series analyses are based on the organisations that provided valid data in each of the relevant years.

Clients

Number of ACCHS clients

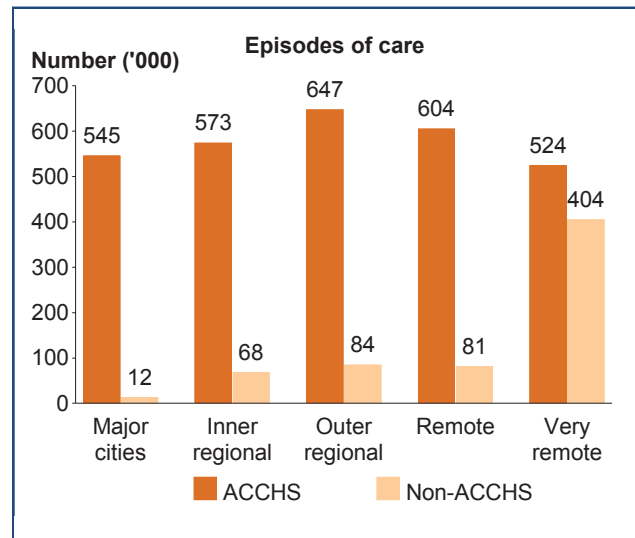
The number of Indigenous clients increased from 252,038 in 2012–13 to 274,848 in 2014–15—an increase of 9%.

The number of non-Indigenous clients also increased slightly over the same period.



Episodes of care

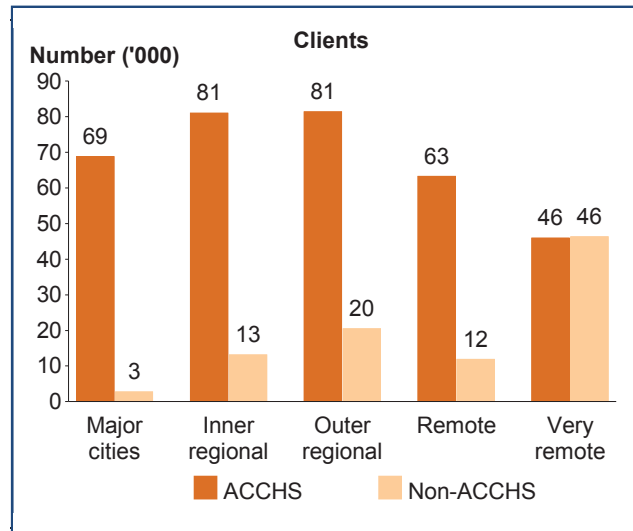
About 2,893,000 episodes of care were reported by ACCHSs in 2014–15, an average of 8.6 per client. These episodes were distributed fairly evenly across all remoteness areas, although a slightly higher proportion was provided in *Outer regional* areas (22%).



Client numbers

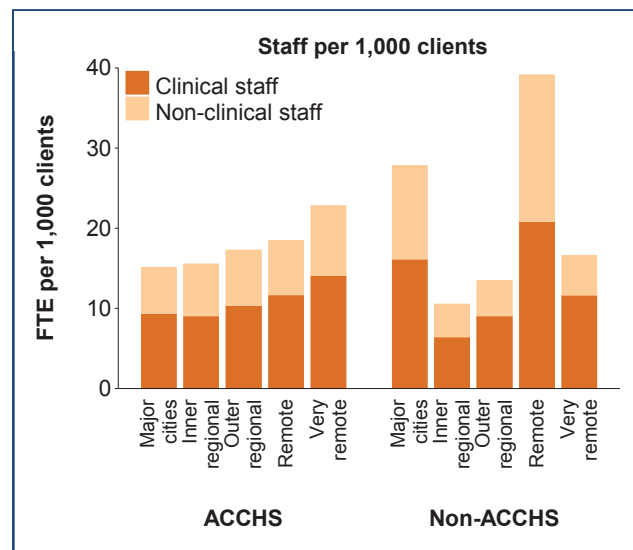
Of the 138 ACCHSs that provided data, 137 (99%) provided valid data on client numbers in 2014–15.

Across Australia, they saw 340,299 clients. ACCHSs in *Outer regional* areas provided services to the most clients (81,365), closely followed by *Inner regional* areas (80,992). *Very remote* ACCHSs provided services to 45,890 clients, fewer than any other remoteness area.

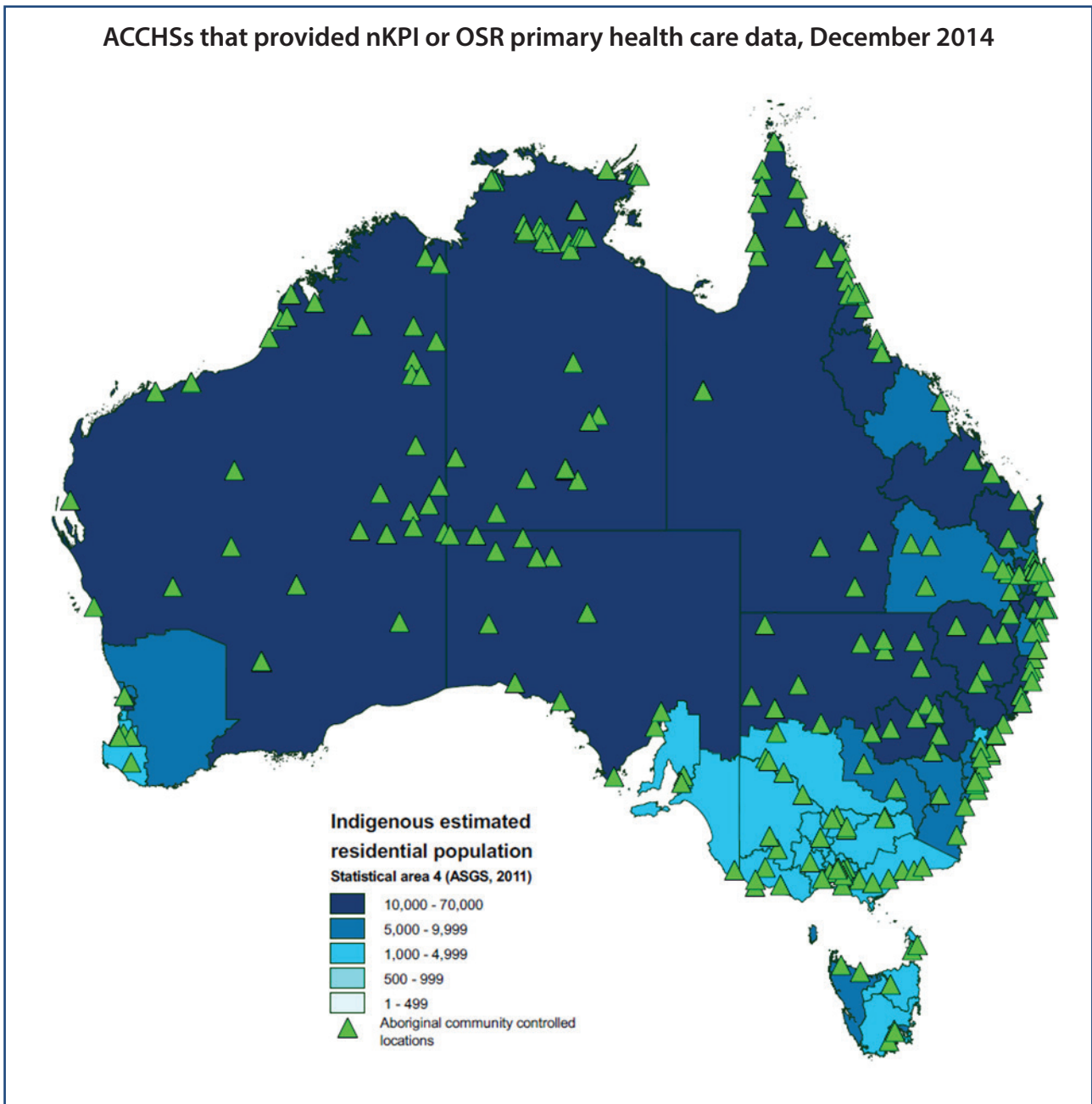


Staff per 1,000 clients

For ACCHSs, the total number of FTE staff per 1,000 clients increased with remoteness, from 15 in *Major cities* to 23 in *Very remote* areas. ACCHSs in *Very remote* areas had the most clinical FTE staff (14) and non-clinical FTE staff (9) per 1,000 clients in 2014–15.



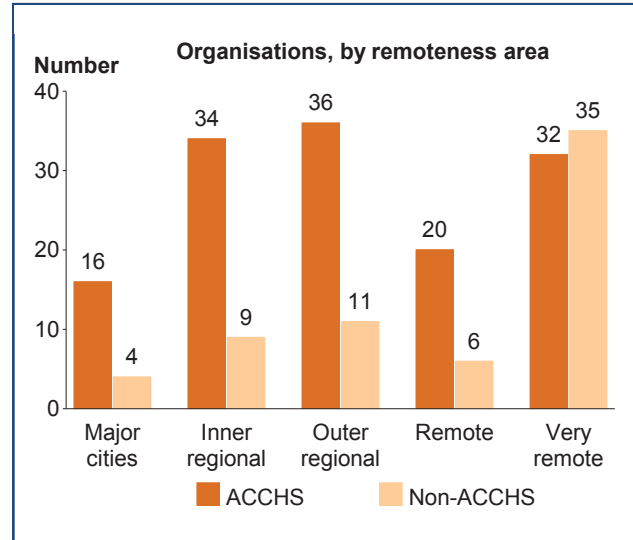
Location



Remoteness area

Of the 138 ACCHSs that reported OSR data in 2014–15, the majority were in *Outer regional*, *Inner regional* and *Very remote* areas (36, 34 and 32 services, respectively). There were 20 ACCHSs in *Remote* areas, and 16 in *Major cities*.

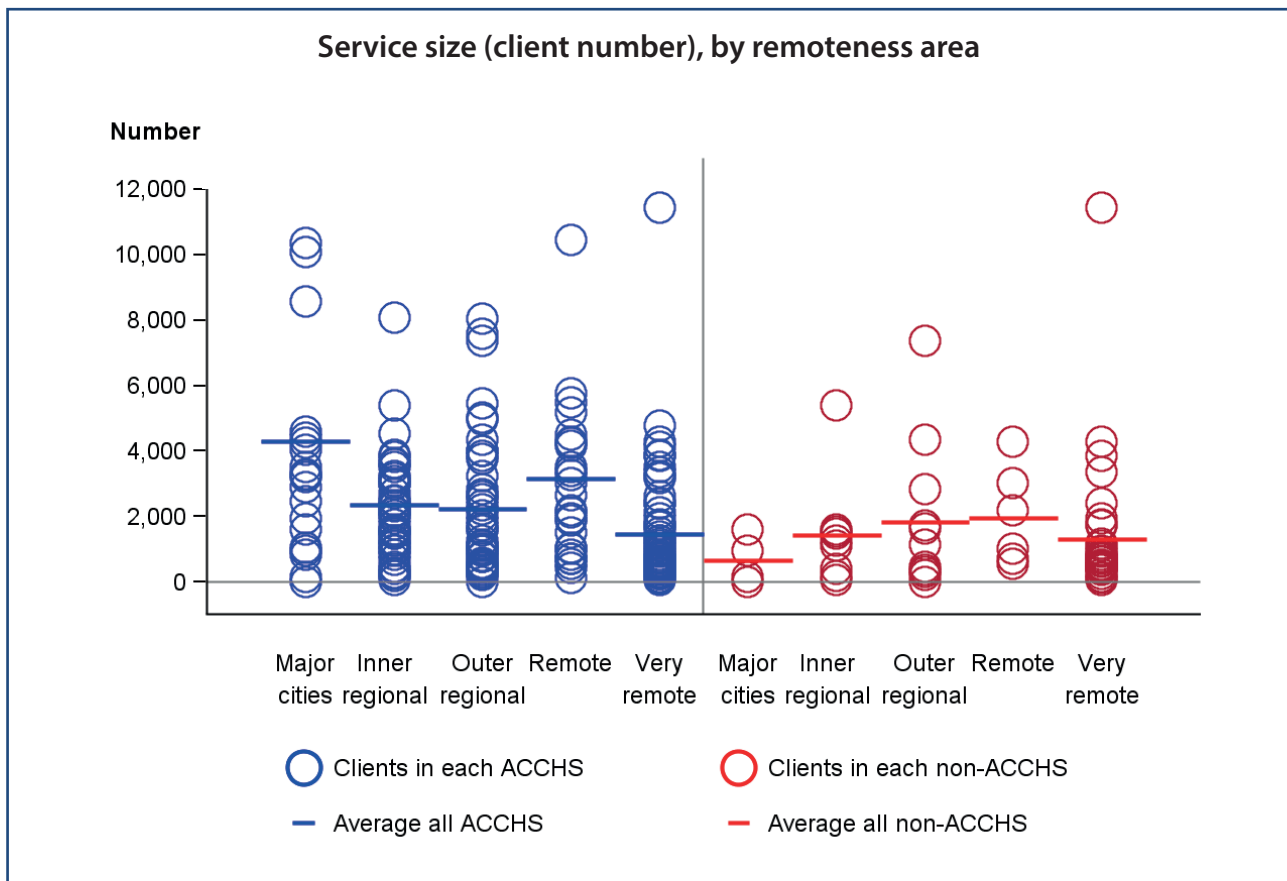
Regions are defined using the ABS's remoteness classifications. For example, in Queensland, services in Brisbane are classified as being in a *Major city*, those in Dalby as *Inner regional*, in Chinchilla as *Outer regional*, in Roma as *Remote*, and in Longreach as *Very remote*.



Size of Aboriginal Community Controlled Health Services

On average, ACCHSs are larger than non-ACCHSs. In 2014–15, the average number of clients for an ACCHS was 2,484, compared with 1,451 for a non-ACCHS.

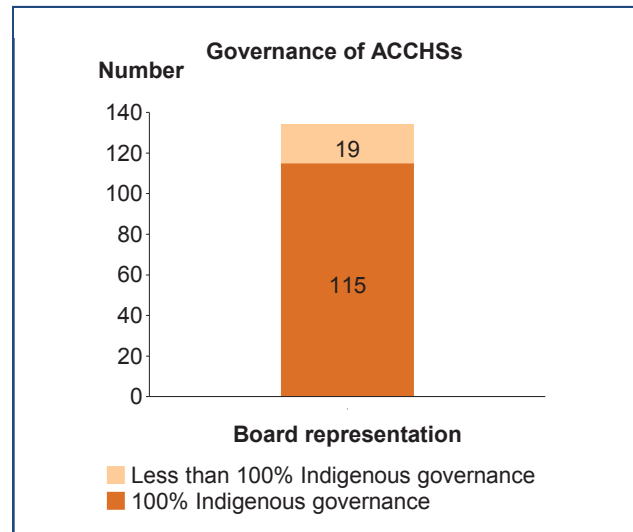
The size of services also varies by remoteness. In 2014–15, the average number of clients at each ACCHS was highest in *Major cities* (4,301), followed by *Remote* areas (3,162), and it was lowest in *Very remote* areas (1,480). For non-ACCHSs, the average number of clients was highest in *Remote* areas (1,969), followed by *Outer regional* areas (1,861), and it was lowest in *Major cities* (681).



Governance

ACCHS Indigenous governance

Of the 134 (97%) ACCHSs that had a board, most (86%) reported governance structures entirely controlled by Aboriginal or Torres Strait Islander people. Only 19 services had some non-Indigenous Australians on their boards.

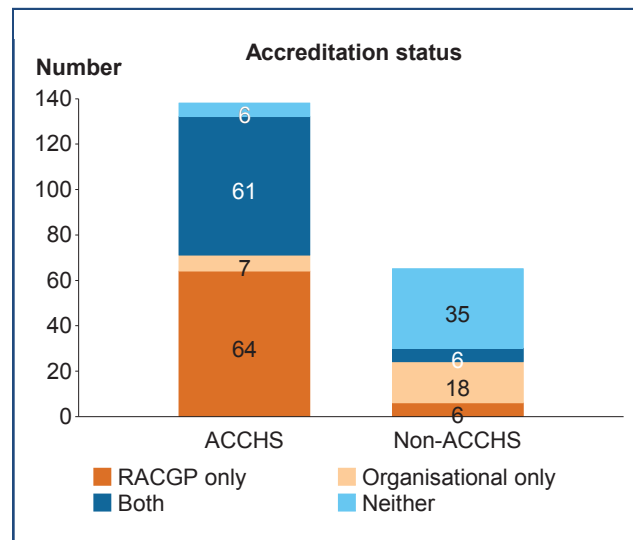


Accreditation

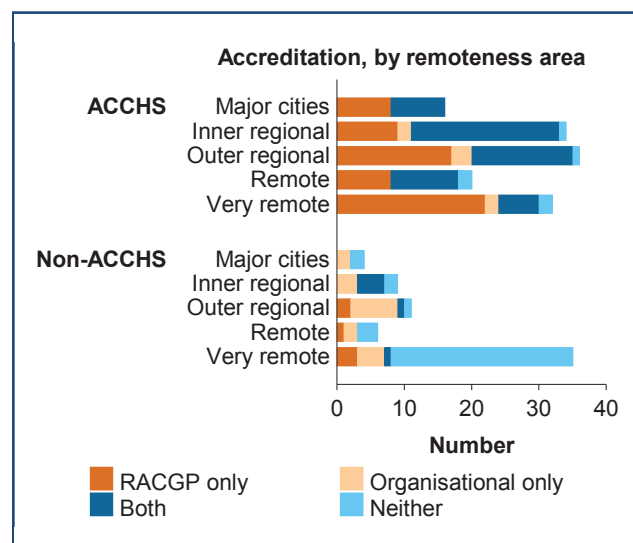
ACCHS accreditation

In 2014–15, most ACCHSs (132 or 96%) were accredited against the Royal Australian College of General Practitioners' (RACGP) standards for general practice and/or organisational standards, such as the Quality Improvement Council, the International Organization for Standardization (ISO) or the Australian Council on Healthcare Standards.

A total of 46% (64 ACCHSs) were accredited with the RACGP only, and 44% (61 ACCHSs) were accredited against both RACGP and organisational standards. Smaller proportions of ACCHSs had organisational accreditation only (5%) or neither form of accreditation (4%).



The number of ACCHSs with RACGP only accreditation was highest in *Very remote* areas (22 or 69%), while the number accredited against both RACGP and organisational standards was highest in *Inner regional* areas (22 or 65%).

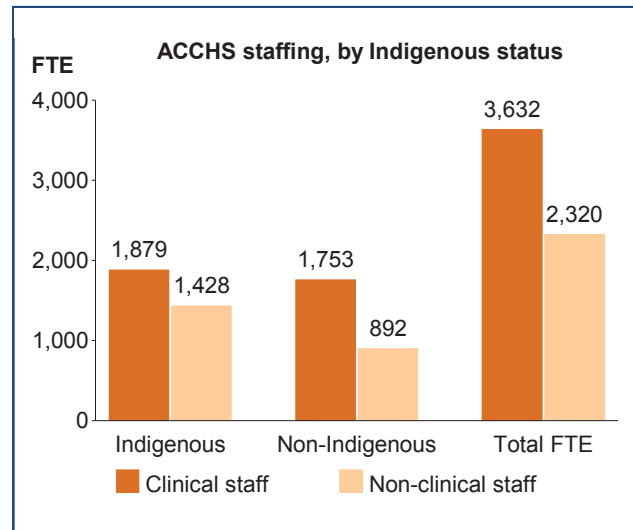


Workforce

Indigenous staffing

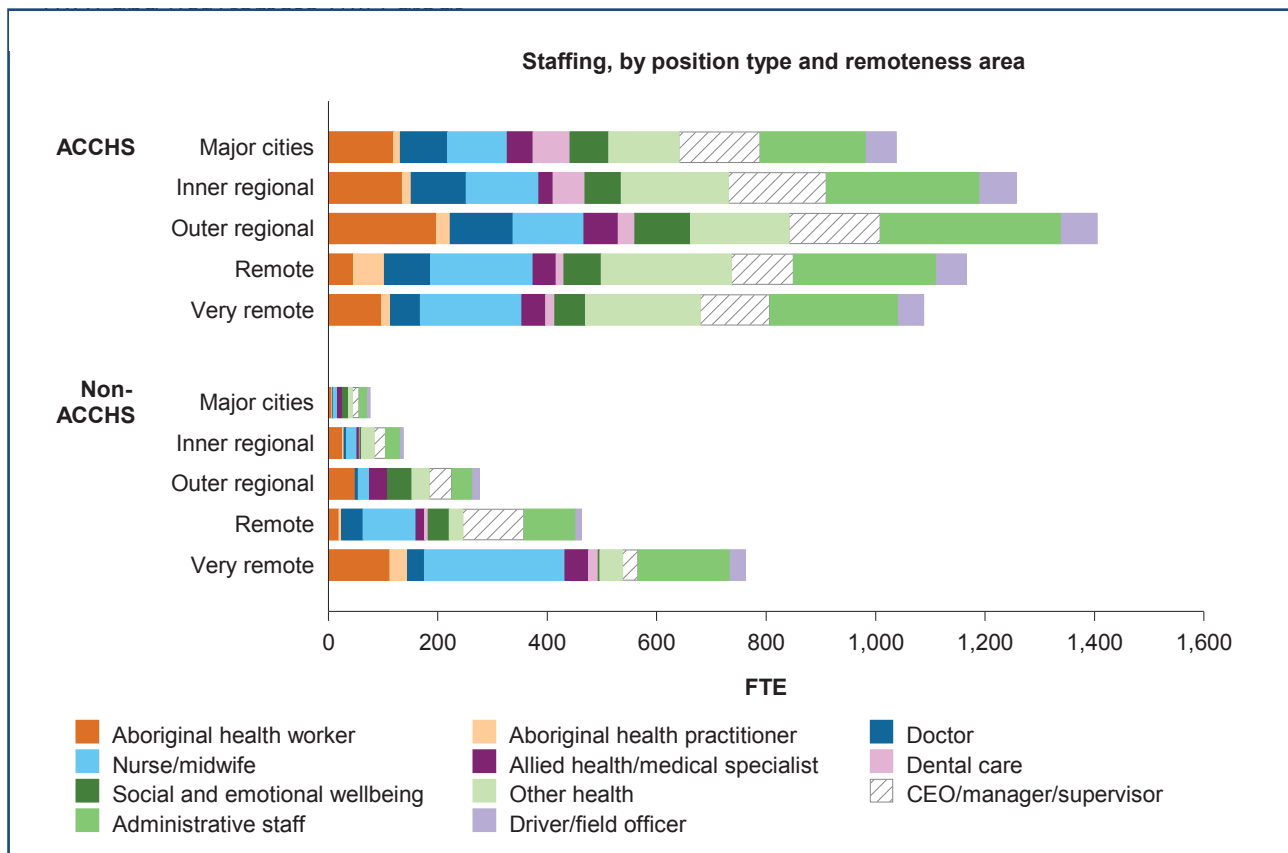
More than half the FTE staff at ACCHSs (including both those paid for and not paid for by the service), were Aboriginal or Torres Strait Islander.

ACCHSs had 3,307 FTE Indigenous staff and 2,645 FTE non-Indigenous staff. The majority of both Indigenous and non-Indigenous staff were in clinical rather than non-clinical roles. In clinical roles, the proportion of Indigenous staff (57%) was lower than that of non-Indigenous staff (66%).



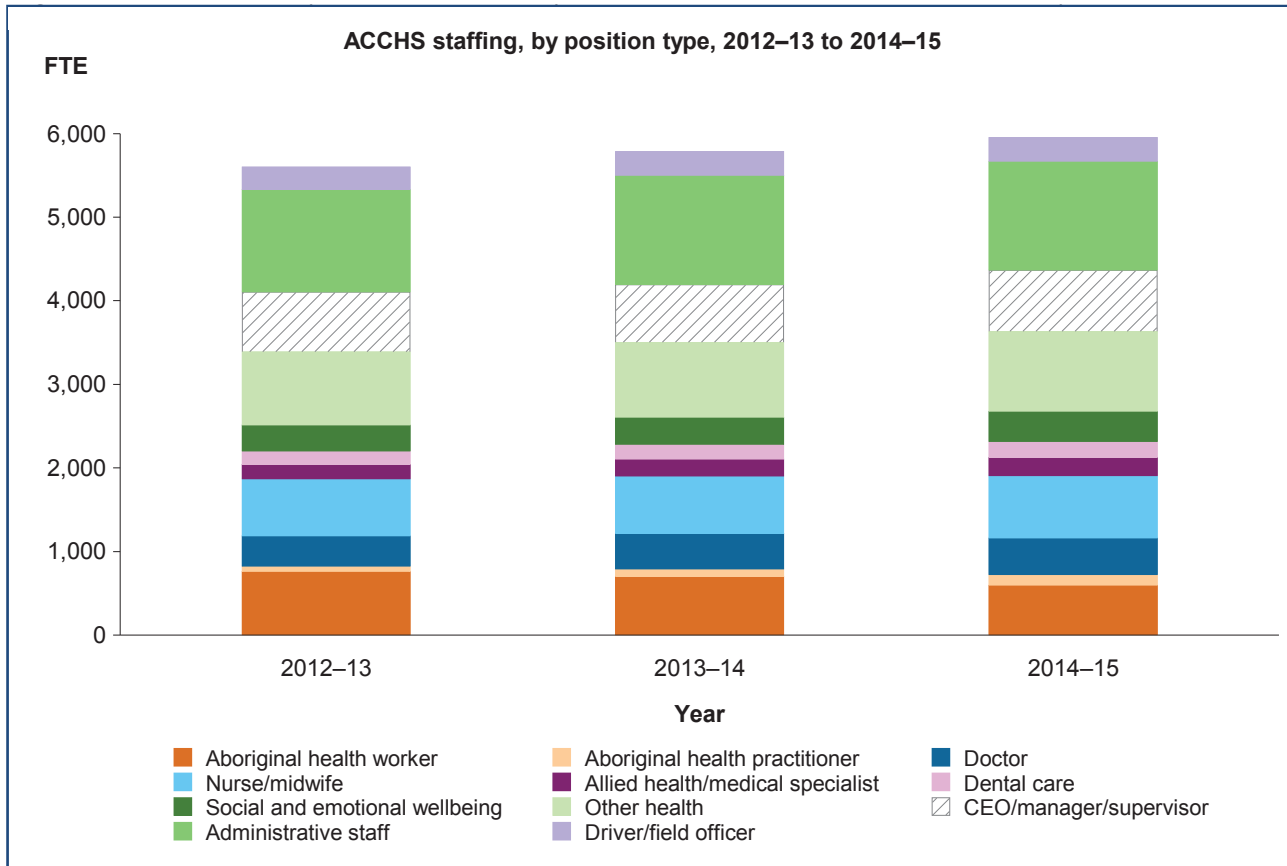
Type of staff

The type of staff at ACCHSs varied by remoteness. In 2014–15, more FTE staff worked in *Outer regional* areas (1,404) than in other areas. *Outer regional* areas also had the highest number of FTE Aboriginal and Torres Strait Islander health workers (197) and doctors (general practitioners) (115). The number of FTE nurses and midwives was highest in *Remote* (187) and *Very remote* (185) areas.



Number of staff

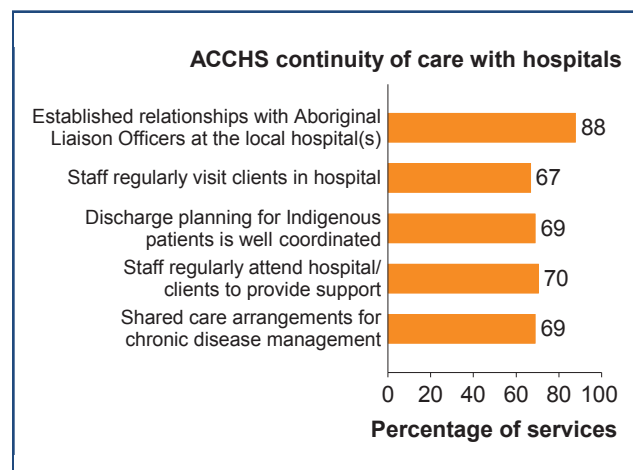
The overall number of FTE staff in ACCHSs rose by 355 FTE (6%) in 2 years—from 5,597 FTE in 2012–13 to 5,952 in 2014–15. All position types saw increases, except Aboriginal and Torres Strait Islander health workers. The biggest increases were for Aboriginal and Torres Strait Islander health practitioners (from 64 to 126 FTE), doctors (general practitioners) (from 362 to 441 FTE), and allied health/medical specialists (from 173 to 221 FTE).



Continuity of care and access to services

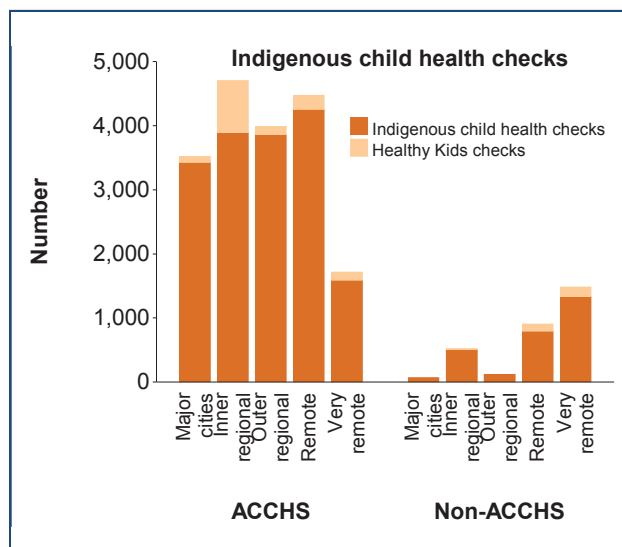
Continuity of care with hospitals

Most ACCHSs had mechanisms to ensure continuity of care for patients in hospitals. For example, 121 (88%) ACCHSs had established relationships with Aboriginal Liaison Officers at the local hospital(s). Staff at 92 (67%) ACCHSs regularly visited clients in hospital, and 95 (69%) ACCHSs reported their discharge planning for Indigenous patients was well coordinated.



Indigenous child health checks

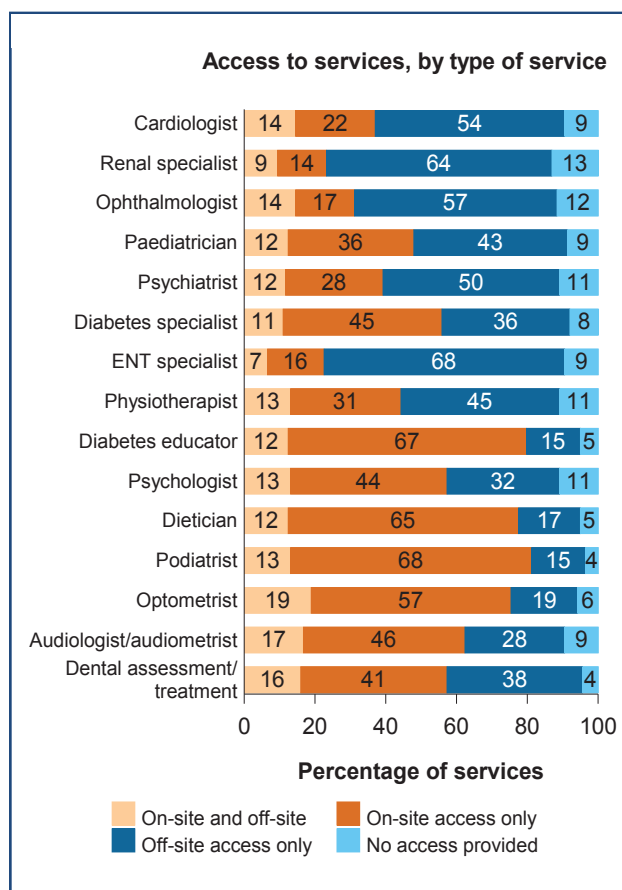
In 2014–15, 92% (127 ACCHSs) conducted child health checks for children aged 0–4, and 56% (77) did Healthy Kids checks. ACCHSs conducted about 17,000 child health checks for children aged 0–4 (including item 715 under the Medicare Benefits Schedule and alternative child health checks), and 1,400 Healthy Kids checks.



Access to services

Most ACCHSs provided access to various specialist services (including cardiologists, renal specialists, ophthalmologists, paediatricians, psychiatrists, diabetes specialists, and ENT specialists), allied health services (including physiotherapists, psychologists, dieticians, podiatrists, optometrists, and audiologists), and dental services, either on- or off-site. This ranged from 120 ACCHSs (87%) providing access to renal specialists (mainly off-site access) to 132 (96%) ACCHSs providing access to dental services and podiatrists.

Many ACCHSs facilitated access to on-site specialist services, ranging from 23% for renal specialists and ear, nose and throat specialists to 81% for podiatrists. ACCHSs also facilitated access to off-site services, ranging from 15% for access to a diabetes educator or podiatrist to 68% for access to an ear, nose and throat specialist.

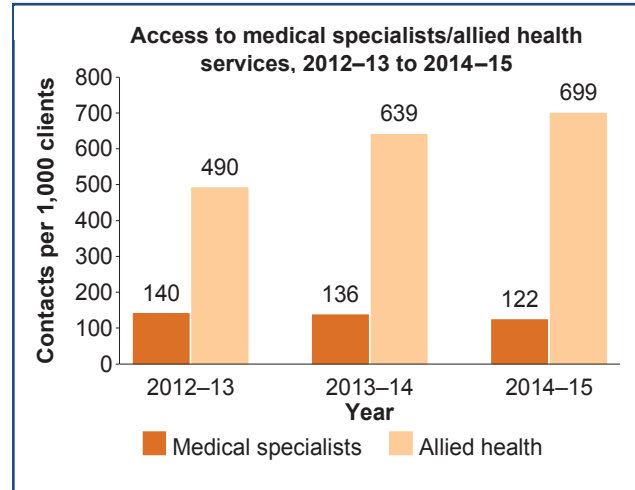


Access to medical specialists and allied health services over time

The number of client contacts with medical specialists per 1,000 clients fell slightly from 140 in 2012–13 to 122 in 2014–15.

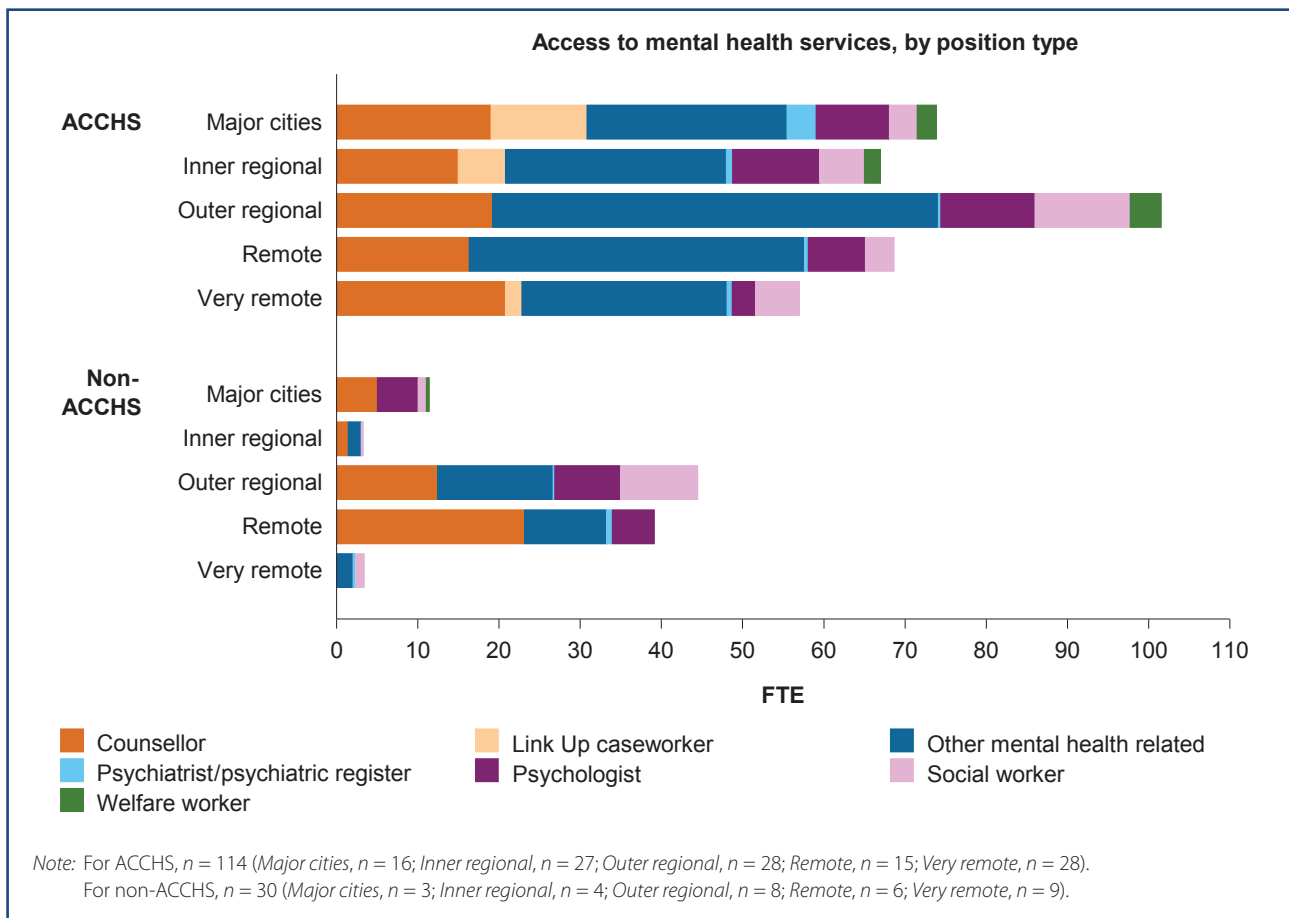
For allied health services, the number of client contacts per 1,000 clients rose from 490 in 2012–13 to 699 in 2014–15.

The number of organisations with valid client contact data was 135 in 2012–13, 139 in 2013–14, and 137 in 2014–15.



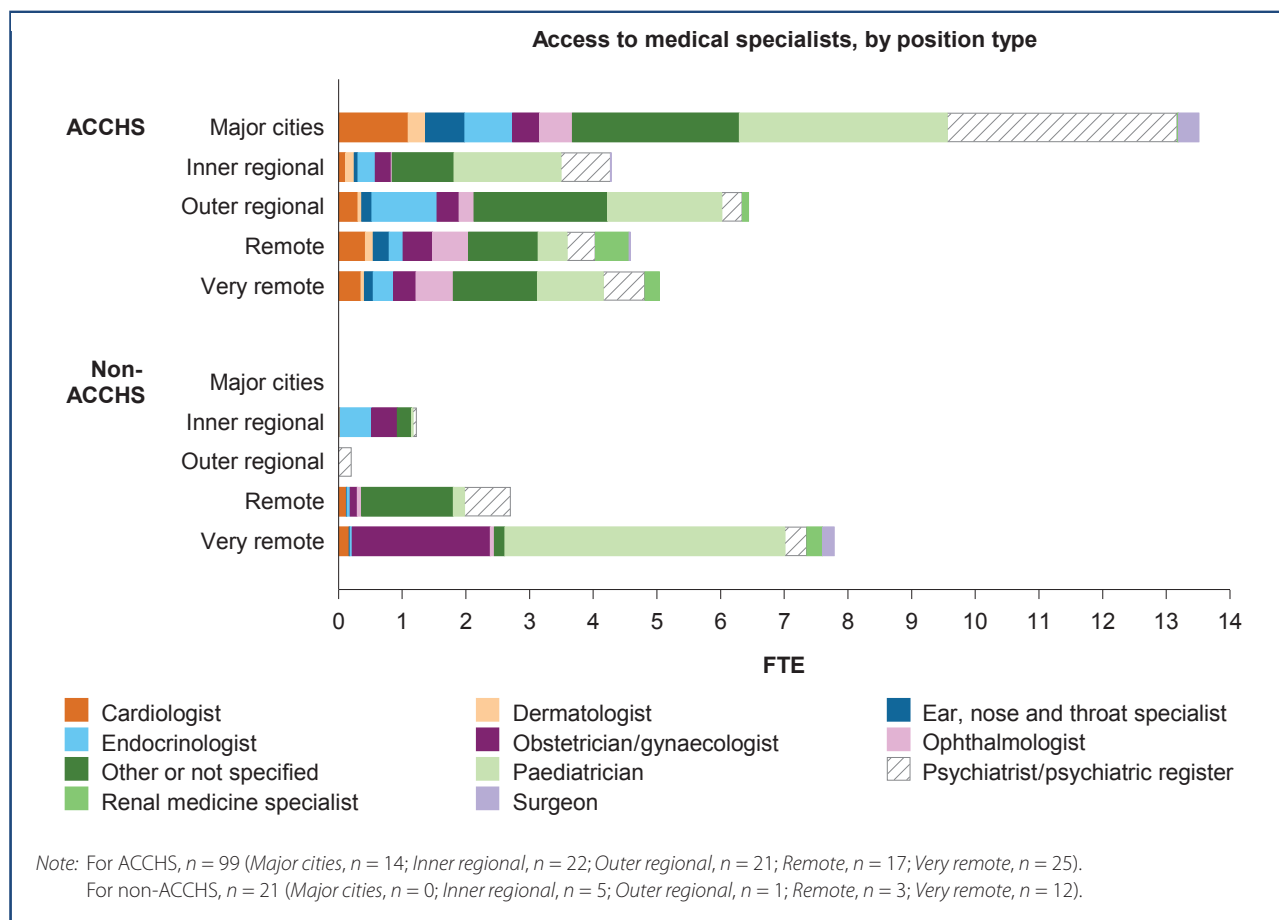
Access to mental health services

In 2014–15, 114 (83%) ACCHSs had about 368 FTE mental health related staff (including psychiatrists). About 28% of these were working in *Outer regional* areas (102 FTE), 20% in *Major cities* (74 FTE), and 19% in *Remote* areas (69 FTE). *Outer regional* areas had the highest number of psychologists (12 FTE) and social workers (12 FTE), and *Very remote* areas had the highest number of counsellors (21 FTE).



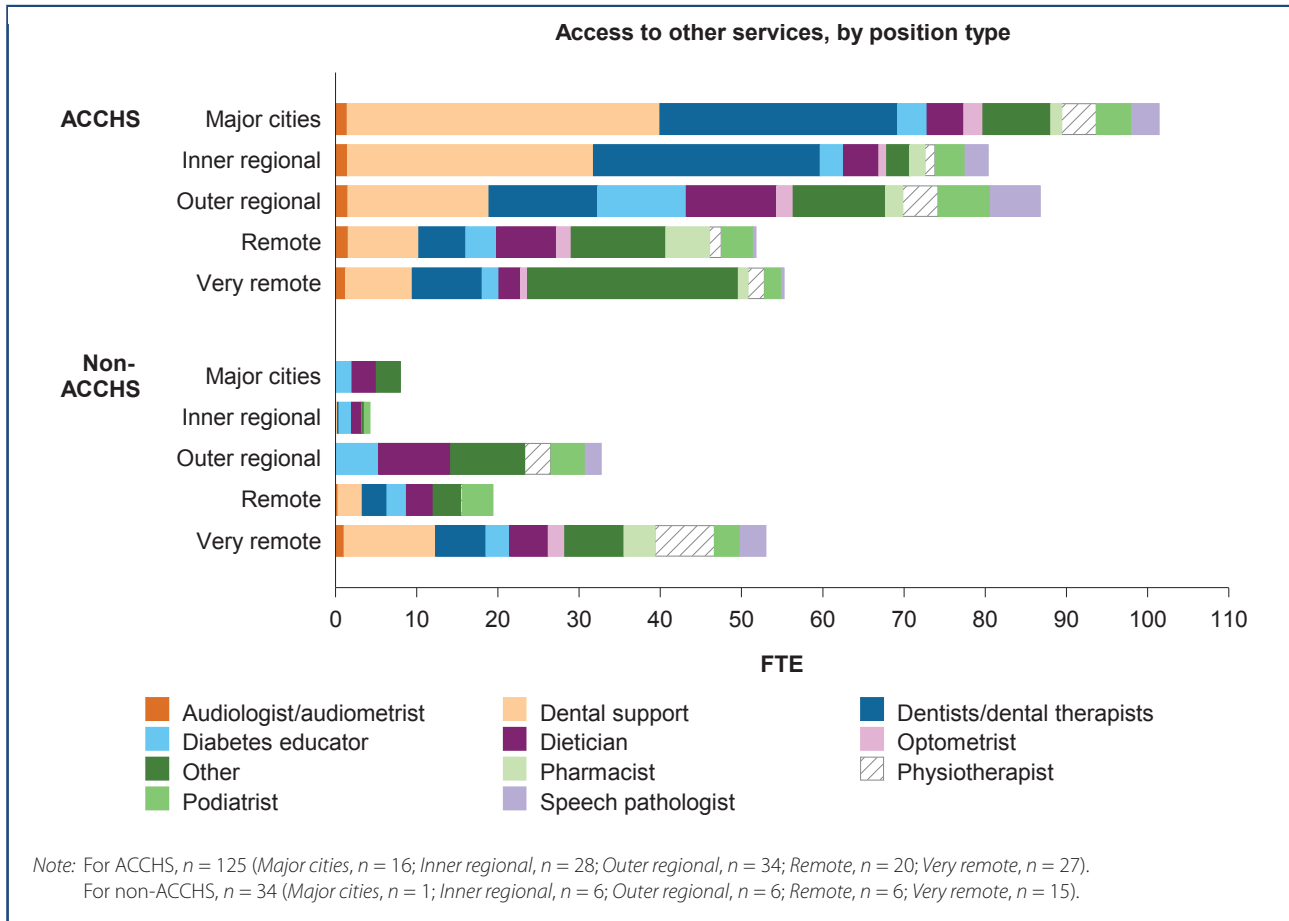
Access to medical specialists

In 2014–15, 99 (72%) ACCHSs had about 34 FTE medical specialists. Just under one-quarter (24%) of these were paediatricians (8 FTE), and 17% were psychiatrists (6 FTE). About 41% (14 FTE) were in *Major cities*, followed by 19% (6 FTE) in *Outer regional* areas.



Access to other services

In 2014–15, 125 (91%) ACCHSs had about 375 FTE allied health and dental staff. Of those, about 27% (101 FTE) were in *Major cities*, and two-thirds of these were either dentists/dental therapists (29 FTE) or dental support staff (39 FTE). Dentists/dental therapists and dental support staff represented about 72% of allied health and dental staff in *Inner regional* areas (58 FTE), and 36% in *Outer regional* areas (31 FTE). They represented smaller proportions of allied health and dental staff in *Remote* (28%) and *Very remote* areas (30%).

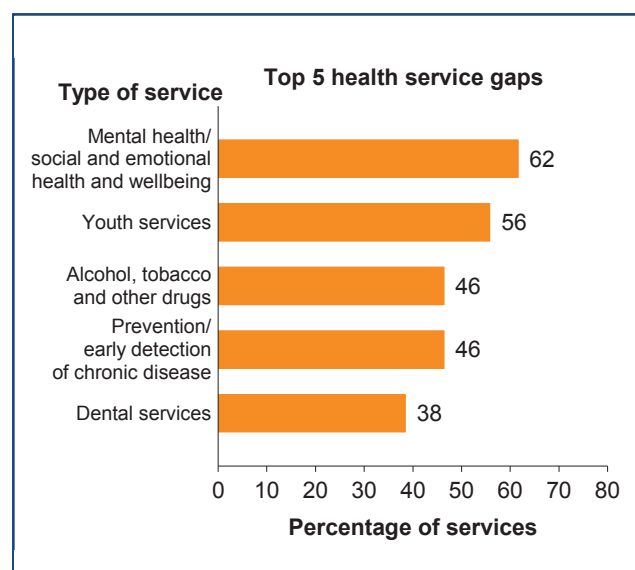


Health service gaps

Health service gaps

ACCHSs reported on gaps in service provision to Indigenous clients, with the option to list up to 5 gaps.

The most common gap reported in 2014–15 was lack of mental health/social and emotional wellbeing services, which was reported by 85 (62%) organisations. Youth services were also reported as a gap by 77 (56%) ACCHSs.



3 The national Key Performance Indicators

The nKPIs for Aboriginal and Torres Strait Islander primary health care collection collects and reports indicator-related information to support the COAG Closing the Gap targets. The nKPIs are aimed at improving the delivery of primary health care services to Indigenous Australians by supporting continuous quality improvement activity among service providers.

The Australian Health Ministers' Advisory Council approved 24 nKPIs, covering maternal and child health, preventative health risk factors, and chronic disease. These are some of the key focus areas to close the gap in life expectancy between Indigenous and non-Indigenous Australians, and to halve the gap in child mortality by 2018.

As at December 2014, data had been collected for 21 indicators. Data collection for 11 of these indicators began on 1 July 2012, with data for 8 indicators collected from 1 January 2013, data for an additional 2 indicators collected from December 2014, and data for 1 indicator collected from December 2015. The remaining 2 indicators are expected to be collected in June 2017.

In December 2014, 233 primary health care services provided nKPI data (AIHW 2015b), with 134 (58%) of them being ACCHSs. A total of 228,747 clients attended the 134 ACCHSs.

In the following section, nKPI ACCHS data are presented for services that submitted valid data for each indicator in every 6-monthly reporting period between December 2012 and December 2014. A total of 118 ACCHSs provided valid data on the number of Indigenous regular clients in those collection periods. At these ACCHSs, the number of clients rose by 12% over the period—from 175,172 in December 2012 to 196,715 in December 2014. The data for ACCHSs in this section are compared with national data, as ACCHS nKPI data are not comparable with non-ACCHSs (see Box 2 for more details).

Throughout this chapter, the term 'Indigenous regular client' has been shortened to client. For more information on the definition of an 'Indigenous regular client', see Box 2.

Box 2: National Key Performance Indicators data quality

The number of ACCHSs that submitted valid nKPI data for each indicator in all 6-monthly reporting periods between December 2012 and December 2014 ranged from 107 to 120 services, depending on the indicator. This might have resulted in a selection bias for this subset of services, relative to those ACCHSs that were not included in this analysis.

Organisations that were unable to report valid data might be more likely to use paper than electronic records, or more likely to have a non-standard service delivery model. They might also have greater difficulty performing well against the nKPIs.

Double-counting of clients

Clients might attend more than 1 nKPI health service during a reference period. As a result, some clients are likely to be counted in multiple services. More information on double-counting in the nKPIs can be found in Appendix 2 of *National key performance indicators for Aboriginal and Torres Strait Islander primary health care: results from December 2014* (AIHW 2015b).

Comparability of the data

The data for ACCHSs in this section are not compared with data for non-ACCHSs for 2 major reasons:

- a) All organisations reporting nKPI data are required to use the nKPI definition of a regular client—that is, clients who have attended the primary health care organisation at least 3 times in the past 2 years. However, the definition used by Northern Territory Government organisations has an additional dimension to the nKPI definition—regular clients are those who have attended the organisation as their usual health centre, and have attended at least 3 times in the past 2 years. This is intended to prevent possible double-counting of clients who attend multiple organisations. As the vast majority of Northern Territory Government services use the Primary Care Information System, which is designed to only contain 1 health record per person, Northern Territory Government organisations are able to track clients who attend organisations other than their usual health centre. For nKPI reporting purposes, however, Northern Territory Government organisations only count services provided to a client at their usual health centre, regardless of whether they had visited another organisation 3 times in the past 2 years.
- b) The vast majority of non-ACCHSs are in the Northern Territory, and are Northern Territory Government organisations. Exclusion of Northern Territory Government services results in having too few services for any reliable analysis to compare data by ACCHSs and non-ACCHSs.

Because of these reasons, the AIHW, Aboriginal and Torres Strait Islander Health Services Data Advisory Group, and Department of Health decided that analyses comparing ACCHSs and non-ACCHSs will not be done until these issues are resolved.

Northern Territory Government organisations started reporting data using the nKPI regular client definition in December 2015. This will enable future reporting by sector, following an assessment of the data quality at the completion of the June 2016 reporting cycle.

Process-of-care measures

Box 3: Interpreting trends in numbers and proportions in process-of-care indicators

The nKPI data are collected twice a year at the end of June and December. Over the 5 reporting periods from December 2012 to December 2014, both the number of processes (numerator) and the population (denominator, Indigenous regular clients) for which the events were counted have either increased or decreased. Depending on the relative changes in processes of care and population, the proportions for each indicator may also either increase or decrease.

Numbers of clients were only interpreted as having changed if they changed by 1% or more. For process-of-care measures, proportions were only interpreted as having changed if they changed by 1 percentage point or more.

These caveats aside, there are 4 possible types of results:

- **Both the number and proportion increased**—the number of clients with type 2 diabetes who had a General Practice Management Plan (numerator) increased from 8,034 in December 2012 to 11,972 in December 2014. Over the same period, the number of clients with type 2 diabetes at these services (denominator) increased from 19,339 to 23,841. Since the numerator increased to a greater extent than the denominator, the proportion increased from 42% to 50% over this period. For indicators with this pattern, it is considered that ACCHSs showed improvement over time.
- **The number increased and the proportion decreased**—the number of clients with type 2 diabetes who had their blood pressure recorded in the previous 6 months (numerator) increased from 13,003 in December 2012 to 15,735 in December 2014; however, the number of clients with type 2 diabetes at these services (denominator) increased to a greater extent over time, from 19,320 to 23,906. Although both the numerator and denominator increased over the period, the resulting proportion decreased from 67% to 66%. For indicators with this pattern, ACCHSs increased the volume of processes of care, but due to a greater rise in the number of clients for whom this process was relevant, the proportion of relevant clients who had the process decreased.
- **The number decreased and the proportion increased**—there were no process-of-care indicators where the number of events decreased and the proportion increased. However, this could occur where the number of events decreased and the number of regular clients decreased by more than the number of events.
- **Both the number and proportion decreased**—there were no process-of-care indicators where both the number of events and the proportion decreased. However, this could occur where the number of events decreased and the number of regular clients increased, stayed the same, or decreased less than the numerator did.

Interpreting improvement

For indicators where both the number of processes of care done and the proportion of relevant clients who had the care increased, performance improved. ACCHSs achieved this for 10 of the 16 process-of-care indicators. These indicators are discussed in the next section of this report.

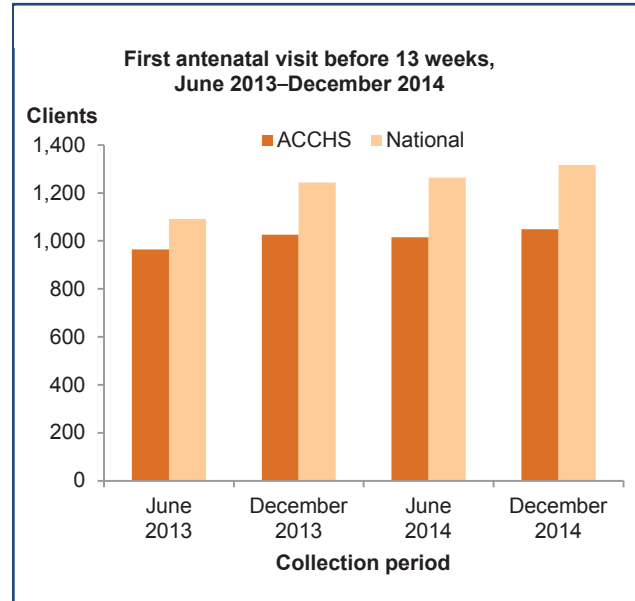
For indicators where the number of processes of care done increased, but the proportion of relevant clients who had the care decreased or remained the same, interpretation must be more nuanced. For process-of-care measures, if the focus of interpretation is client-centred then ACCHSs can be considered to have improved if the proportion of clients receiving processes of care increased. However, if the focus of interpretation is on the total volume of work done by ACCHSs as a group, then ACCHSs can also be considered to have improved if the number of clients receiving processes of care increased. Of the 16 process-of-care indicators, 6 exhibited this pattern. Depending on the focus, they may be areas where further improvement is warranted.

Improved measures

First antenatal visit before 13 weeks

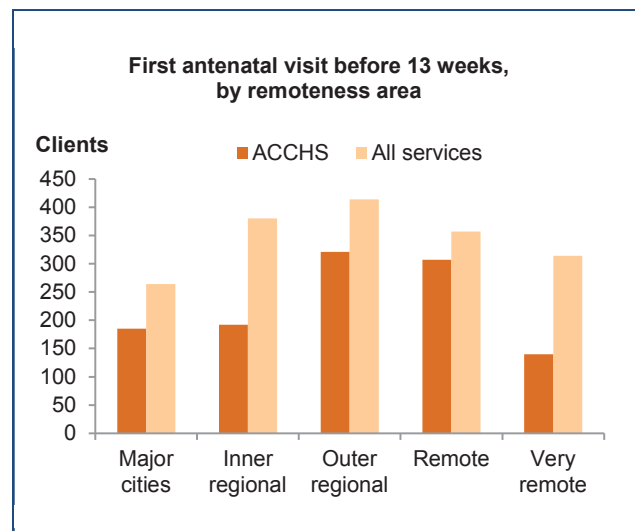
In ACCHSs, the number of women who had their first antenatal visit before 13 weeks rose from 964 in June 2013 to 1,049 in December 2014. Over the same period, the proportion rose from 35% to 37%.

Nationally, the number rose from 1,091 in June 2013 to 1,317 in December 2014, while the proportion rose from 34% to 38%.



In December 2014, the number of women who had their first antenatal visit at ACCHSs before 13 weeks was highest in *Outer regional* (321) and *Remote* (307) areas, and lowest in *Very remote* (140) areas. The proportion was highest for ACCHSs in *Remote* areas (44%), and lowest in *Very remote* areas (32%).

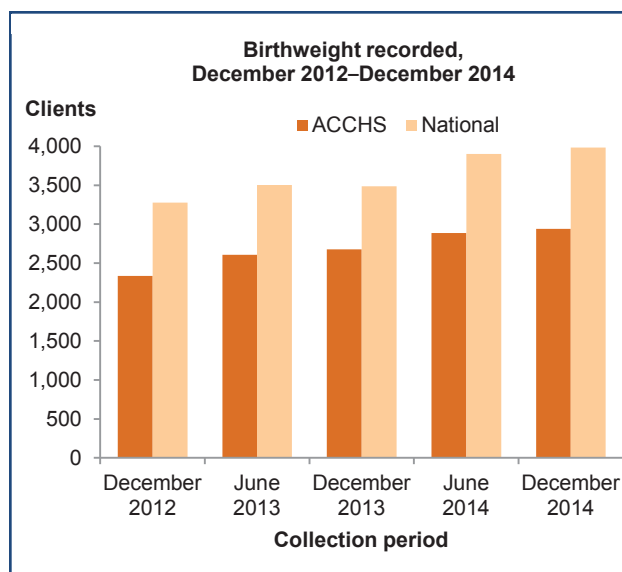
Across all services, the number was highest in *Outer regional* (414) areas, and lowest in *Major cities* (264).



Birthweight recorded

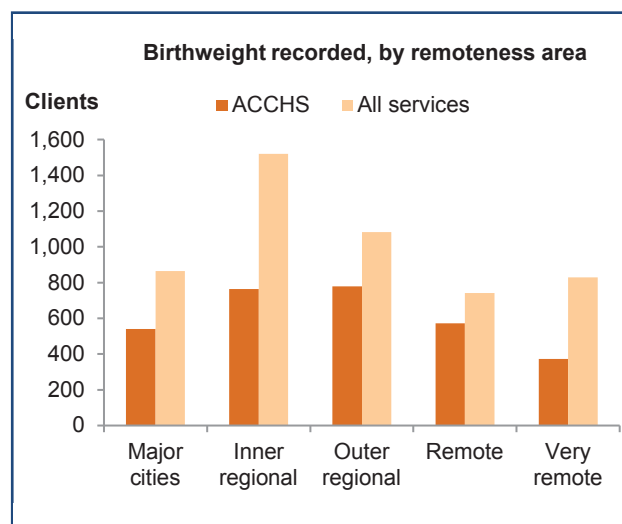
In ACCHSs, the number of babies whose birthweight was recorded rose from 2,334 in December 2012 to 2,939 in December 2014. Over the same period, the proportion rose from 48% to 63%.

Nationally, the number rose from 3,278 in December 2012 to 3,983 in December 2014, while the proportion rose from 55% to 67%.



In December 2014, ACCHSs in *Outer regional* areas recorded the birthweight of most babies (779), representing 60% of babies born within the previous 12 months. *Inner regional* area ACCHSs recorded the birthweight of 763 babies, or 66% of babies born within the previous 12 months. The lowest number of babies whose birthweight was recorded was in *Very remote* areas (372), but this constituted 64% of babies born in that period.

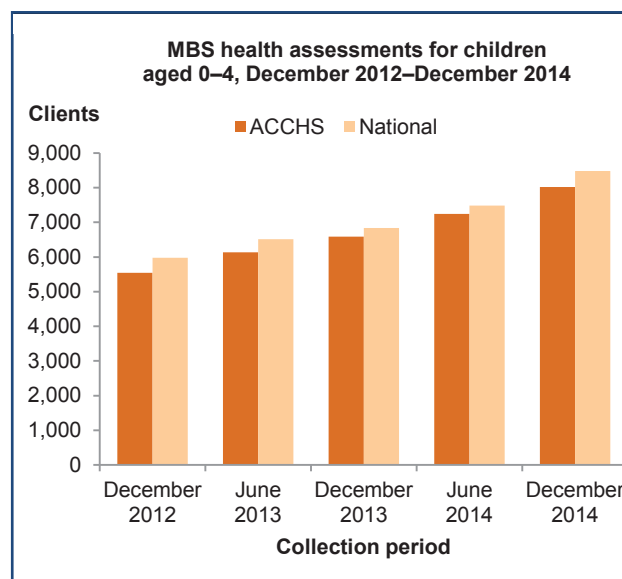
Across all services, the number was highest in *Inner regional* areas (1,520 or 78%), and lowest in *Remote* areas (742 or 67%).



Medicare Benefits Schedule health assessments for children

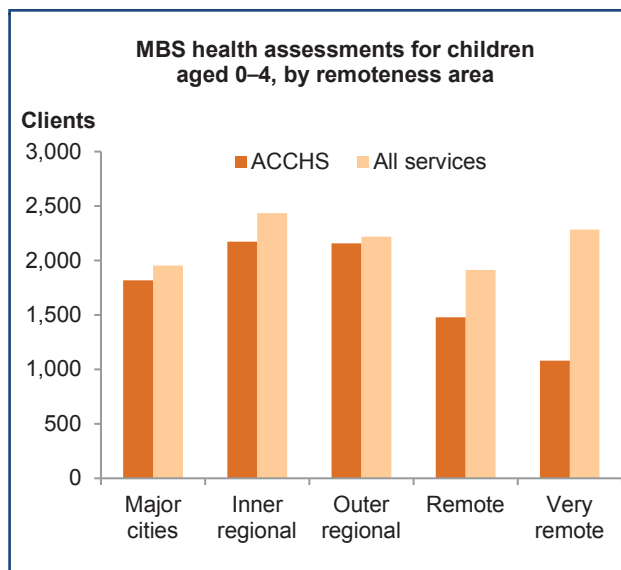
In ACCHSs, the number of children aged 0–4 who had a Medicare Benefits Schedule (MBS) health assessment (item 715) claimed for them in the previous year rose from 5,544 in December 2012 to 8,020 in December 2014. Over the same period, the proportion rose from 26% to 33%.

Nationally, the number rose from 5,973 in December 2012 to 8,485 in December 2014, while the proportion rose from 25% to 31%.



In December 2014, the number of children aged 0–4 who had an MBS health assessment (item 715) claimed for them in the previous year was highest in ACCHSs in *Inner regional* areas (2,172), followed by *Outer regional* areas (2,158). But the proportion was low in ACCHSs in all remoteness areas (35% in *Outer regional* areas, 34% in *Inner regional* areas, 32% in *Major cities*, 32% in *Remote* areas, and 31% in *Very remote* areas).

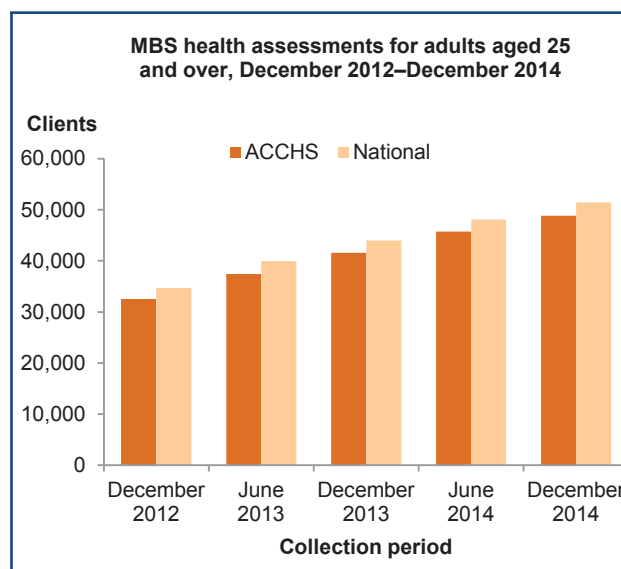
Across all services, the number was highest in *Inner regional* areas (2,436 or 30%), and lowest in *Remote* areas (1,915 or 36%).



Medicare Benefits Schedule health assessments for adults

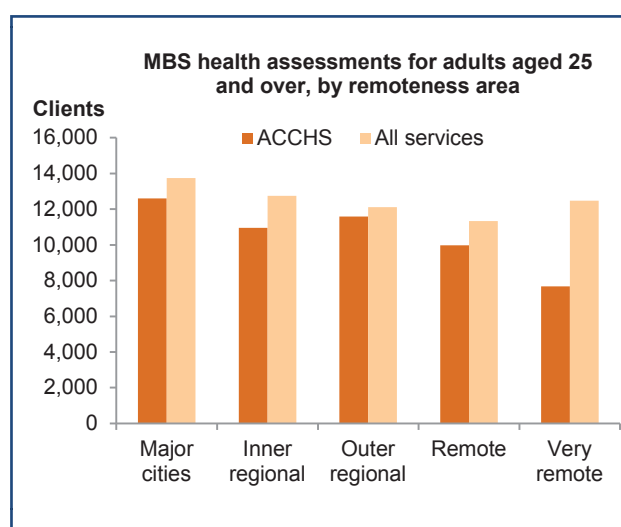
In ACCHS, the number of adults aged 25 and over who had an MBS health assessment (item 715) claimed for them in the previous 2 years rose from 32,514 in December 2012 to 48,840 in December 2014. Over the same period, the proportion rose from 37% to 47%.

Nationally, the number rose from 34,674 in December 2012 to 51,426 in December 2014, while the proportion rose from 37% to 46%.



In December 2014, the number of adults aged 25 and over who had an MBS health assessment (item 715) claimed for them in the previous 2 years was highest in ACCHSs in *Major cities* (12,599), followed by *Outer regional* areas (11,584). About half the eligible clients in ACCHSs in all remoteness areas had a health assessment claimed for them (50% in *Inner regional* areas, 47% in *Outer regional* areas, 46% in *Major cities*, 46% in *Remote* areas, and 45% in *Very remote* areas).

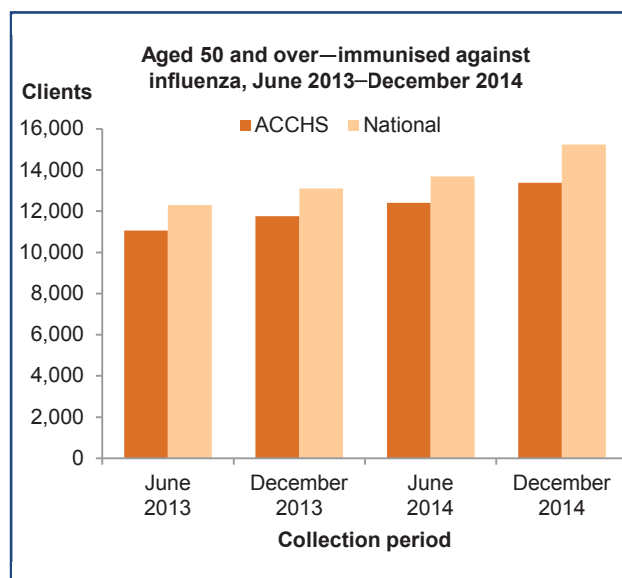
Across all services, the number was highest in *Major cities* (13,738), and lowest in *Remote* areas (11,342).



Aged 50 and over—immunised against influenza

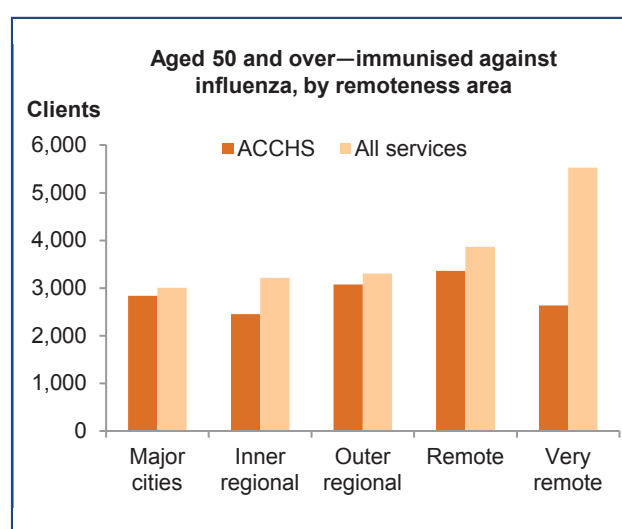
In ACCHSs, the number of clients aged 50 and over who were immunised against influenza rose from 11,060 in June 2013 to 13,391 in December 2014. Over the same period, the proportion rose from 35% to 37%.

Nationally, the number rose from 12,302 in June 2013 to 15,237 in December 2014, while the proportion rose from 34% to 37%.



In December 2014, ACCHSs in *Remote* areas had the highest number of clients aged 50 and over who were immunised against influenza (3,361), followed by *Outer regional* areas (3,073). ACCHSs in *Inner regional* areas (2,449) had the lowest number of these clients.

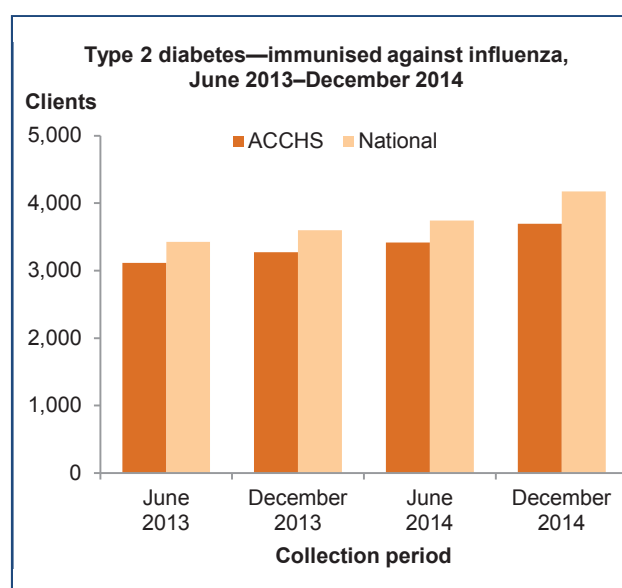
Across all services, the number was highest in *Very remote* areas (5,530), and lowest in *Major cities* (3,008).



Type 2 diabetes—immunised against influenza

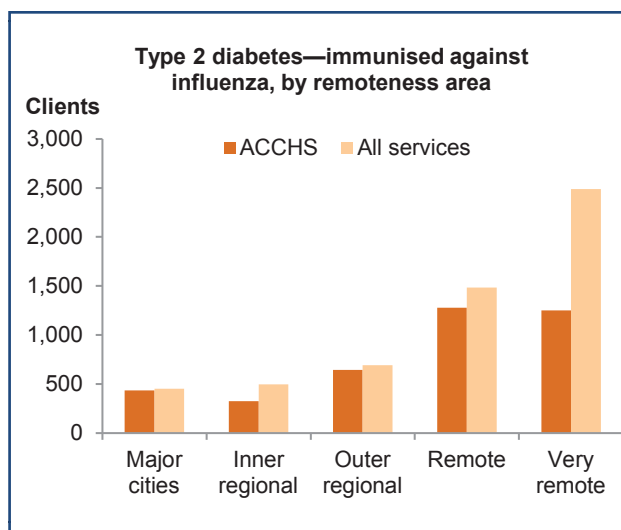
In ACCHSs, the number of clients with type 2 diabetes who were immunised against influenza rose from 3,117 in June 2013 to 3,695 in December 2014. Over the same period, the proportion rose from 35% to 37%.

Nationally, the number rose from 3,428 in June 2013 to 4,172 in December 2014, while the proportion rose from 35% to 37%.



In December 2014, the number of clients with type 2 diabetes who were immunised against influenza was highest in ACCHSs in *Remote* areas (1,277), and lowest in *Inner regional* areas (323).

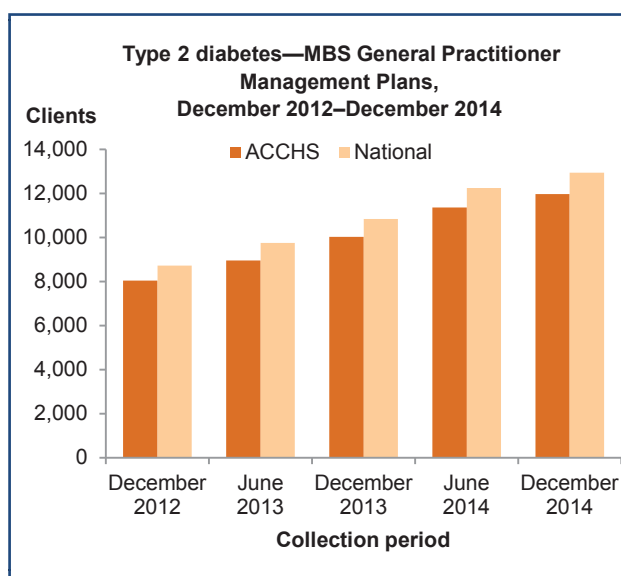
Across all services, the number was highest in *Very remote* areas (2,490 or 55%), and lowest in *Major cities* (453 or 26%).



Type 2 diabetes—Medicare Benefits Schedule General Practitioner Management Plans

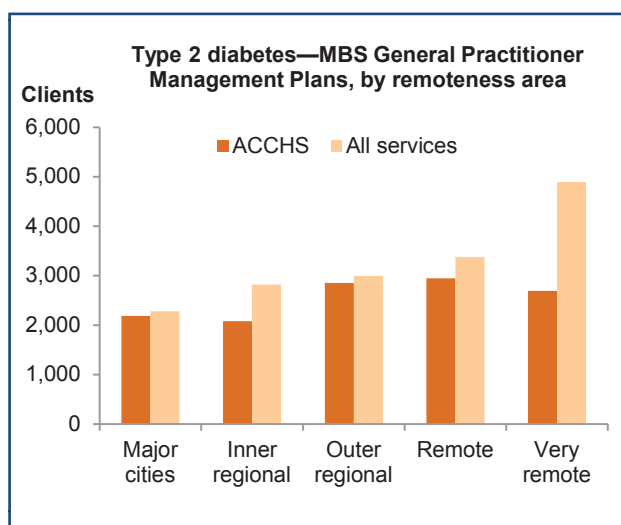
In ACCHSs, the number of clients with type 2 diabetes for whom an MBS General Practitioner Management Plan (GPMP) (item 721) was claimed in the previous 2 years rose from 8,034 in December 2012 to 11,972 in December 2014. Over the same period, the proportion rose from 42% to 50%.

Nationally, the number rose from 8,712 in December 2012 to 12,941 in December 2014, while the proportion rose from 42% to 50%.



In December 2014, the number of clients with type 2 diabetes who had an MBS GPMP claimed for them was highest in ACCHSs in *Remote* areas (2,943), followed by *Outer regional* areas (2,855), and was lowest in *Inner regional* areas (2,080).

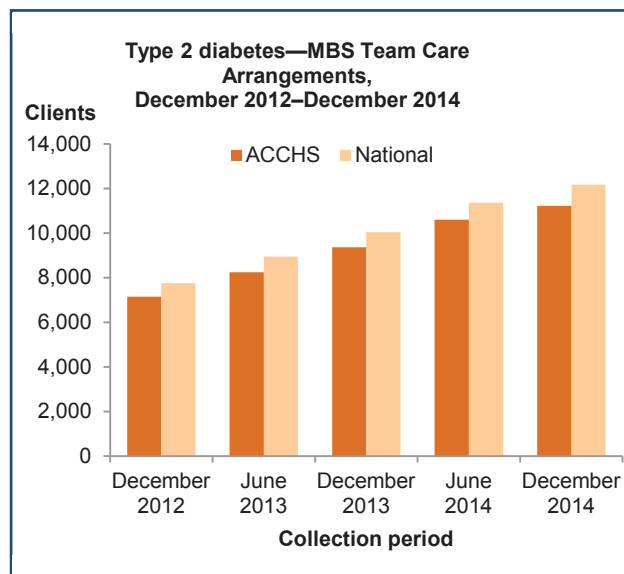
Across all services, the number was highest in *Very remote* areas (4,895 or 52%), and lowest in *Major cities* (2,277 or 46%).



Type 2 diabetes—Medicare Benefits Schedule Team Care Arrangements

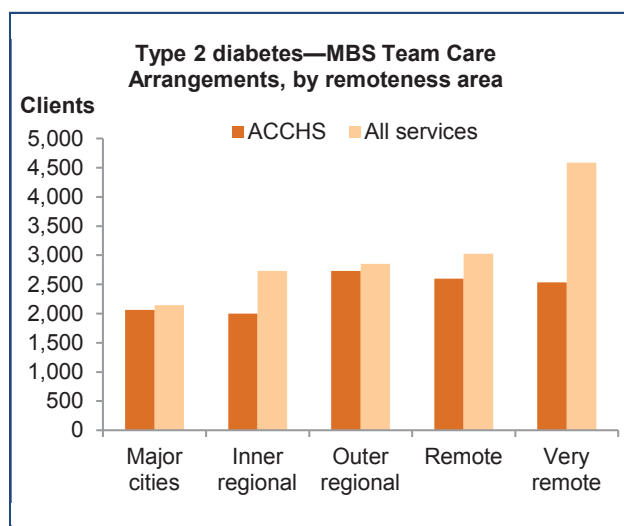
In ACCHSs, the number of clients with type 2 diabetes for whom an MBS Team Care Arrangement (TCA) (item 723) was claimed in the previous 2 years rose from 7,152 in December 2012 to 11,225 in December 2014. Over the same period, the proportion rose from 37% to 47%.

Nationally, the number rose from 7,755 in December 2012 to 12,165 in December 2014, while the proportion rose from 38% to 47%.



In December 2014, the number of clients with type 2 diabetes who had an MBS TCA claimed for them was highest in ACCHSs in *Outer regional areas* (2,730), followed by *Remote areas* (2,599), and was lowest in *Inner regional* (1,998) areas and *Major cities* (2,061).

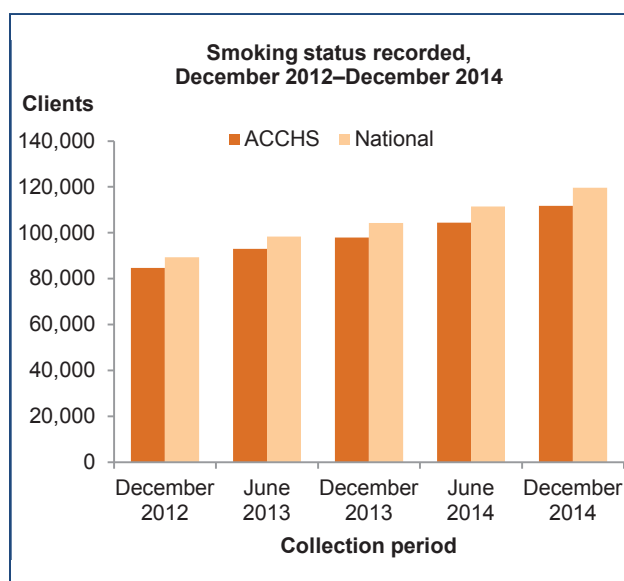
Across all services, the number was highest in *Very remote areas* (4,588), and lowest in *Major cities* (2,145).



Smoking status recorded

In ACCHSs, the number of clients aged 15 and over whose smoking status was recorded rose from 84,645 in December 2012 to 111,793 in December 2014. Over the same period, the proportion rose from 72% to 81%.

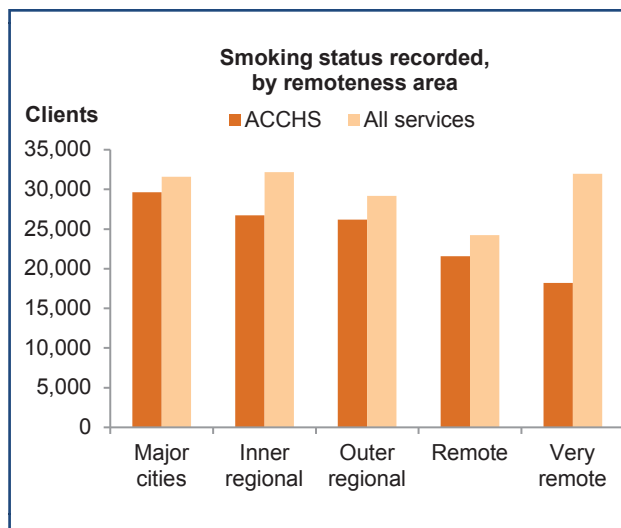
Nationally, the number rose from 89,315 in December 2012 to 119,675 in December 2014, while the proportion rose from 72% to 80%.





In December 2014, the number of clients aged 15 and over whose smoking status was recorded was highest in ACCHSs in *Major cities* (29,624), followed by *Inner regional areas* (26,716). At least 76% of eligible clients in ACCHSs in all remoteness areas had smoking status recorded (88% in *Inner regional areas*, 82% in *Major cities*, 79% in *Outer regional areas*, 79% in *Very remote areas*, and 76% in *Remote areas*).

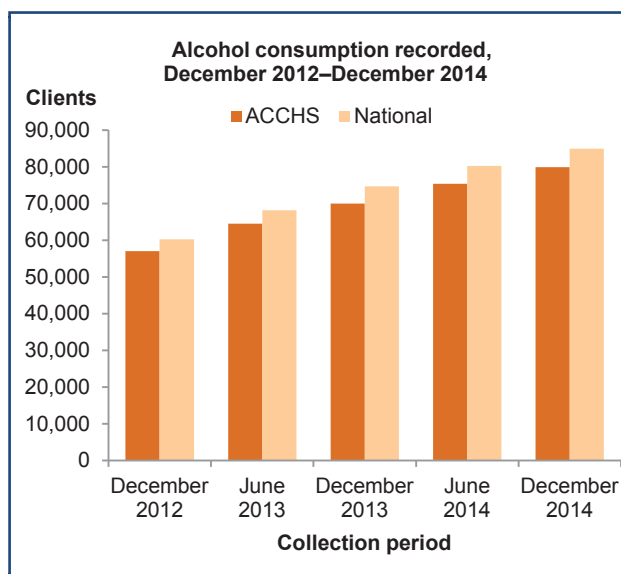
Across all services, the number was highest in *Inner regional areas* (32,178), and lowest in *Remote areas* (24,243).



Alcohol consumption recorded

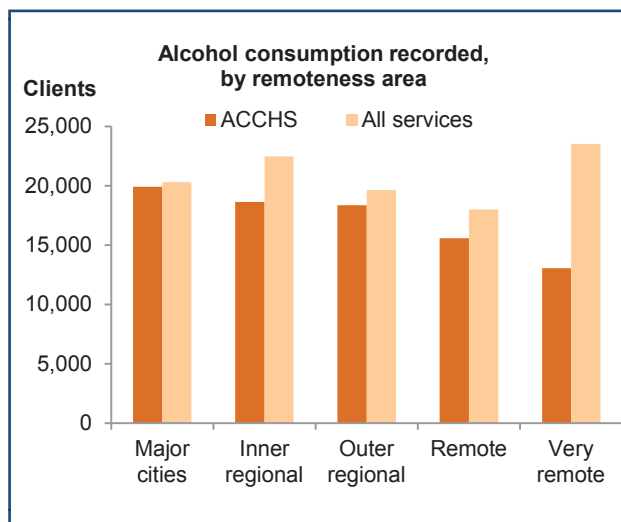
In ACCHS, the number of clients aged 15 and over whose alcohol consumption was recorded in the previous 2 years rose from 57,022 in December 2012 to 79,963 in December 2014. Over the same period, the proportion rose from 47% to 56%.

Nationally, the number rose from 60,263 in December 2012 to 84,979 in December 2014, while the proportion rose from 47% to 55%.



In December 2014, the number of clients aged 15 and over whose alcohol consumption was recorded in the previous 2 years was highest in ACCHSs in *Major cities* (19,902), followed by *Inner regional areas* (18,620), and was lowest in *Very remote areas* (13,062).

Across all services, the number was highest in *Very remote areas* (23,535), and lowest in *Remote areas* (17,984).



Areas for further improvement in processes of care

Testing clients with a chronic disease

Type 2 diabetes—HbA1c test

In ACCHSs, the number of clients with type 2 diabetes who had an HbA1c test (to monitor their diabetes) recorded in the previous 6 months rose from 9,125 in December 2012 to 11,042 in December 2014. Over the same period, the proportion changed by less than 1 percentage point (49.48% to 48.49%).

Nationally, the numbers rose from 9,788 in December 2012 to 11,979 in December 2014, while the proportion fell from 50% to 48%.

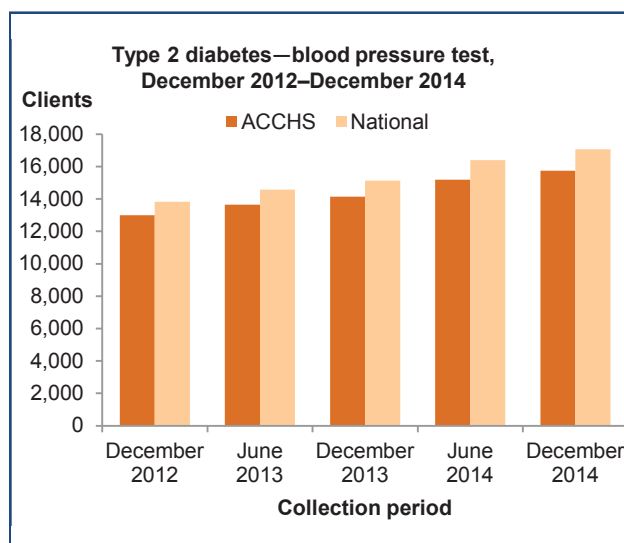
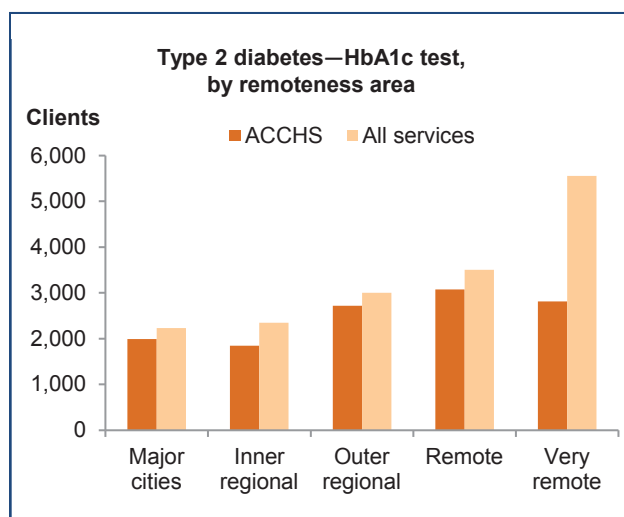
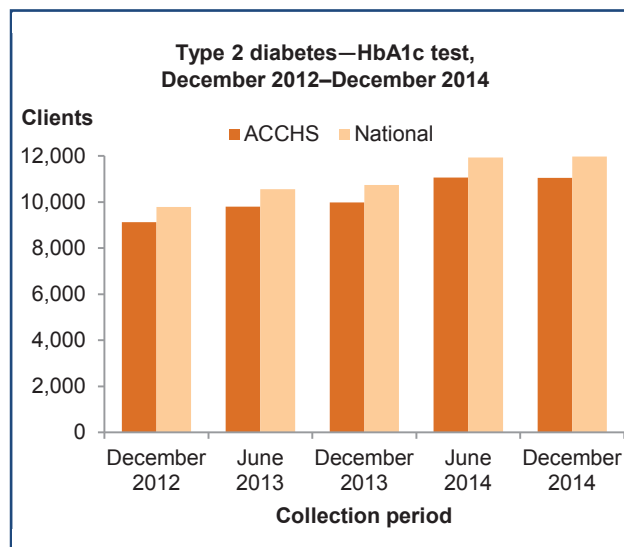
In December 2014, the number of clients with type 2 diabetes who had an HbA1c test recorded in the previous 6 months was highest in ACCHSs in *Remote* areas (3,073), followed by *Very remote* areas (2,816), and was lowest in *Inner regional* areas (1,849). About half the eligible clients in ACCHSs in all remoteness areas had an HbA1c recorded (53% in *Very remote* areas, 52% in *Inner regional* areas, 49% in *Outer regional* areas, 48% in *Remote* areas, and 43% in *Major cities*).

Across all services, the number was highest in *Very remote* areas (5,558), and lowest in *Major cities* (2,234).

Type 2 diabetes—blood pressure test

In ACCHSs, the number of clients with type 2 diabetes who had a blood pressure test recorded in the previous 6 months rose from 13,003 in December 2012 to 15,735 in December 2014. Over the same period, the proportion fell from 67% to 66%.

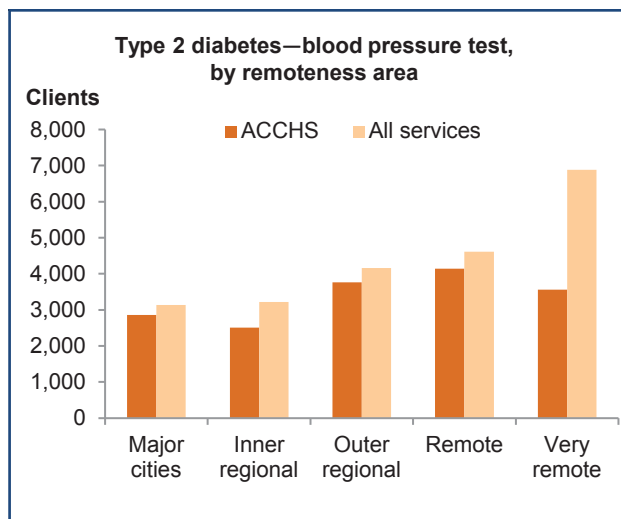
Nationally, the number rose from 13,822 in December 2012 to 17,067 in December 2014, while the proportion fell from 67% to 66%.





In December 2014, the number of clients with type 2 diabetes who had a blood pressure test recorded in the previous 6 months was highest in ACCHSs in *Remote areas* (4,141), followed by *Outer regional areas* (3,762), and was lowest in *Inner regional areas* (2,506). Close to two-thirds of all eligible clients in ACCHSs in all remoteness areas had a blood pressure test recorded (70% in *Inner regional areas*, 68% in *Outer regional areas*, 67% in *Very remote areas*, 65% in *Remote areas*, and 62% in *Major cities*).

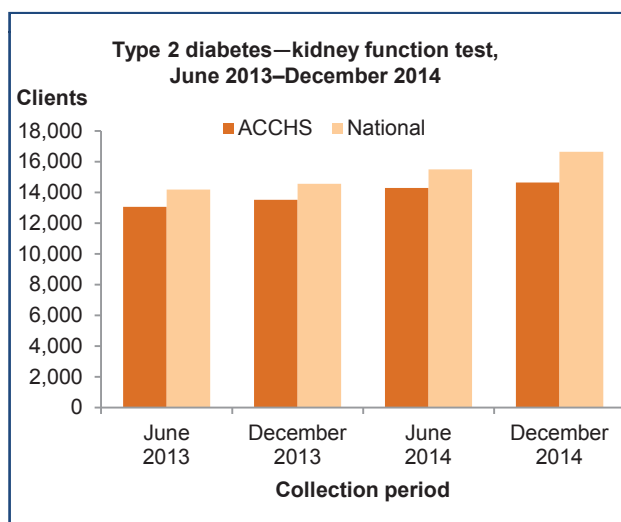
Across all services, the number was highest in *Very remote areas* (6,885), and lowest in *Major cities* (3,139).



Type 2 diabetes—kidney function test

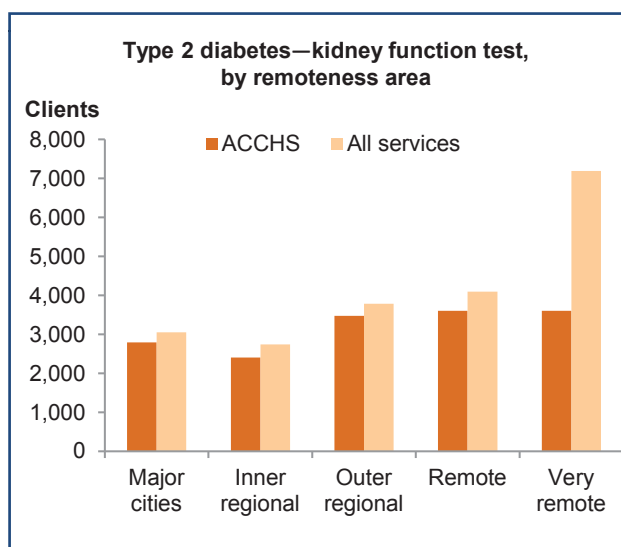
In ACCHSs, the number of clients with type 2 diabetes who had a kidney function test recorded in the previous 12 months rose from 13,066 in June 2013 to 14,648 in December 2014. Over the same period, the proportion fell from 65% to 64%.

Nationally, the number rose from 14,188 in June 2013 to 16,647 in December 2014, while the proportion changed less than 1 percentage point (63.4% to 63.9%).



In December 2014, the number of clients with type 2 diabetes who had a kidney function test recorded in the previous 12 months was highest in ACCHSs in *Very Remote areas* (3,607), followed by *Remote areas* (3,605), and was lowest in *Inner regional areas* (2,405). Close to two-thirds of all eligible clients in ACCHSs in all remoteness areas had a kidney function test recorded (69% in *Inner regional areas*, 68% in *Very remote areas*, 63% in *Remote areas*, 63% in *Outer regional areas*, and 61% in *Major cities*).

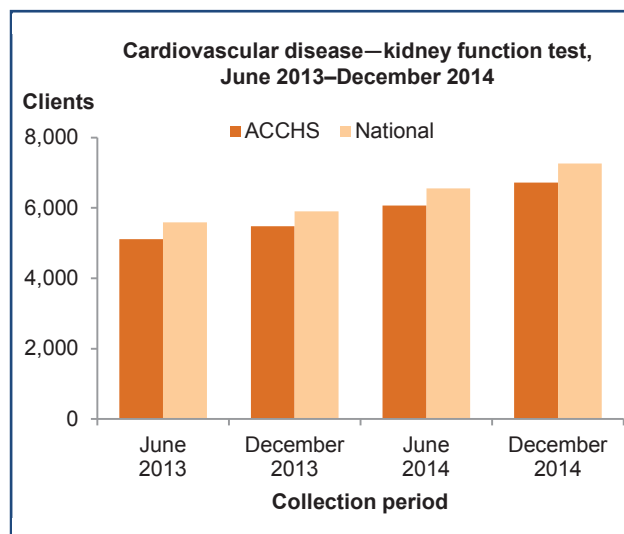
Across all services, the number was highest in *Very remote areas* (7,188), and lowest in *Inner regional areas* (2,743).



Cardiovascular disease—kidney function test

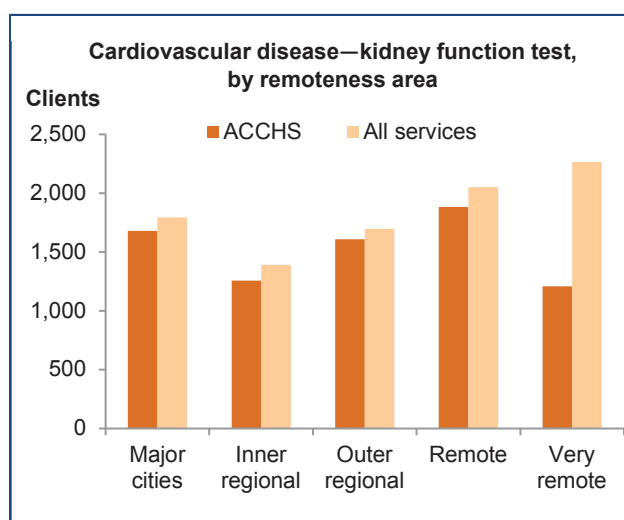
In ACCHSs, the number of clients with cardiovascular disease who had a kidney function test recorded in the previous 12 months rose from 5,115 in June 2013 to 6,724 in December 2014. Over the same period, the proportion changed less than 1 percentage point (60.60% to 61.58%).

Nationally, the number rose from 5,593 in June 2013 to 7,259 in December 2014, while the proportion rose from 56% to 61%.



In December 2014, the number of clients with cardiovascular disease who had a kidney function test recorded in the previous 12 months was highest in ACCHSs in *Remote areas* (1,882), followed by *Major cities* (1,679), and was lowest in *Very remote areas* (1,207). Close to two-thirds of all eligible clients in ACCHSs in all remoteness areas had a kidney function test recorded (68% in *Remote areas*, 67% in *Inner regional areas*, 64% in *Very Remote areas*, 62% in *Outer regional areas*, and 56% in *Major cities*).

Across all services, the number was highest in *Very remote areas* (2,266), and lowest in *Inner regional areas* (1,390).

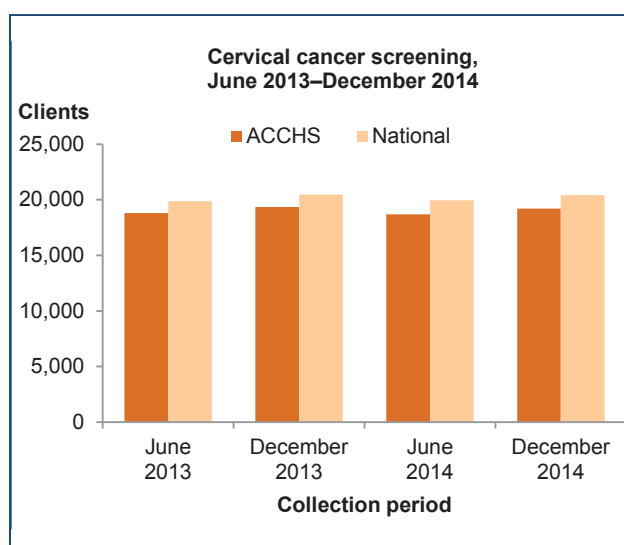


Other areas for improvement

Cervical cancer screening

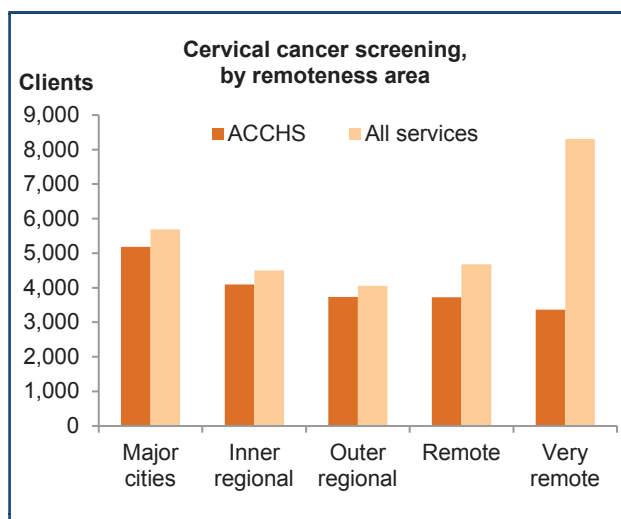
In ACCHSs, the number of women who received a cervical screening test in the previous 2 years rose from 18,789 in June 2013 to 19,194 in December 2014. Over the same period, the proportion fell from 31% to 29%.

Nationally, the number rose from 19,878 in June 2013 to 20,411 in December 2014, while the proportion fell from 31% to 29%.



In December 2014, the number of women who received a cervical screening test in the previous 2 years was highest in ACCHSs in *Major cities* (5,182), followed by *Inner regional* areas (4,097) and lowest in *Very remote* areas (3,360). Between one-quarter and one-third of women in ACCHSs in all remoteness areas received a cervical screening test in the previous 2 years (31% in *Very remote* areas, 30% in *Inner regional* areas, 29% in *Major cities*, 27% in *Remote* areas, and 24% in *Outer regional* areas).

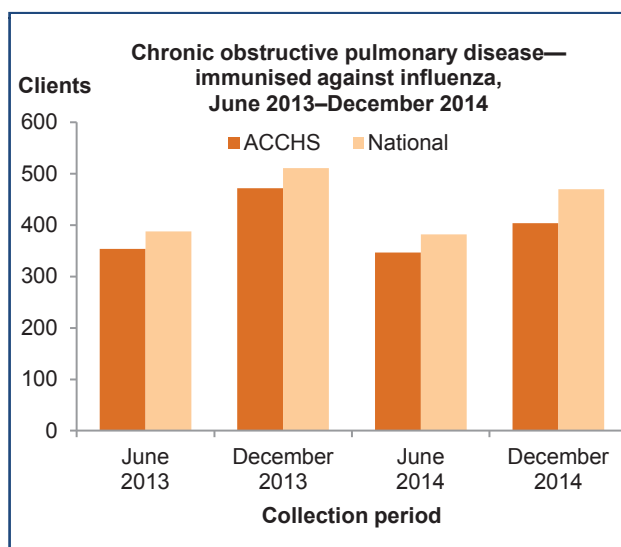
Across all services, the number was highest in *Very remote* areas (8,305), and lowest in *Outer regional* areas (4,059).



Chronic obstructive pulmonary disease—immunised against influenza

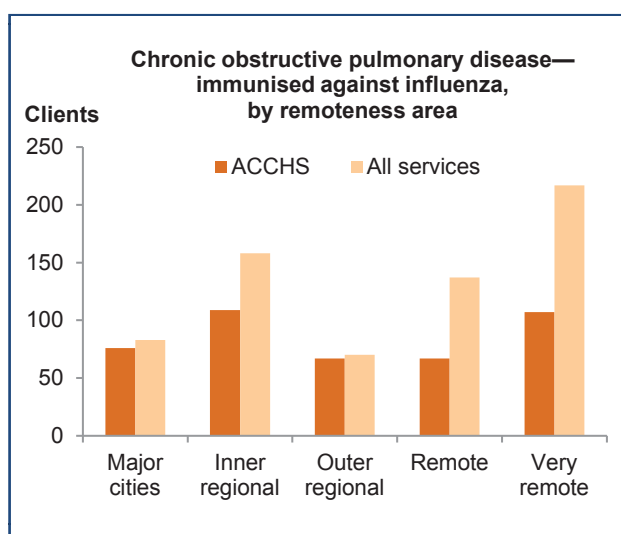
In ACCHSs, the number of clients with chronic obstructive pulmonary disease (COPD) who were immunised against influenza rose from 354 in June 2013 to 404 in December 2014. Over the same period, the proportion changed less than 1 percentage point (32.9% to 33.6%).

Nationally, the number rose from 388 in June 2013 to 470 in December 2014, while the proportion rose from 34% to 35%.



In December 2014, the number of clients with COPD who were immunised against influenza was highest in ACCHSs in *Inner regional* areas (109), followed by *Very remote* areas (107), and was lowest in *Outer regional* areas (67) and *Remote* areas (67). Between one-quarter and half of all eligible clients in ACCHSs in all remoteness areas were immunised against influenza (49% in *Very remote* areas, 33% in *Major cities* areas, 33% in *Inner regional* areas, 30% in *Remote* areas, and 26% in *Outer regional* areas).

Across all services, the number was highest in *Very remote* areas (217), and lowest in *Outer regional* areas (70).



Health outcomes

Box 4: Interpreting trends in health outcome indicators

There are 5 nKPI health outcome measures for which trend data are available.

While health services can help improve health outcomes, a wide range of factors that are beyond the control of health services also have an impact on health outcomes.

For health outcome measures, it is important to note that the number of clients who had a positive health outcome is likely to be determined by changes in the number who had any outcome recorded. As a result, the proportion of clients with health outcomes might be a better metric of improvement.

Improved health outcome measures

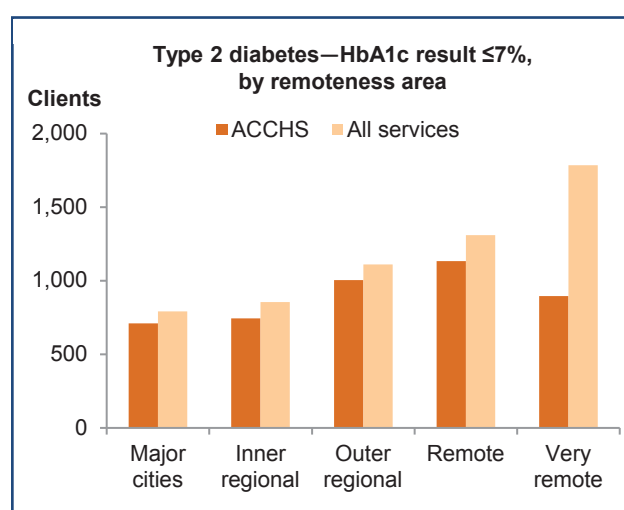
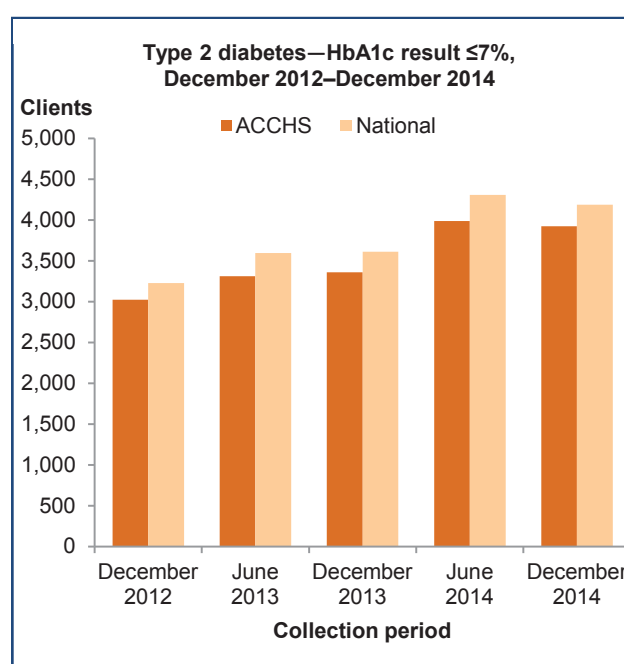
Type 2 diabetes—HbA1c result less than or equal to 7%

The general HbA1c target in people with type 2 diabetes is less than or equal to 7%. The number of type 2 diabetes clients at ACCHSs who had such an HbA1c test result in the previous 6 months rose from 3,021 in December 2012 to 3,922 in December 2014. Over the same period, the proportion rose from 33% to 36%.

At the national level, the number rose from 3,226 in December 2012 to 4,187 in December 2014, while the proportion rose from 33% to 35%.

In December 2014, the number of clients with type 2 diabetes who had an HbA1c test result in the previous 6 months of less than or equal to 7% was highest in ACCHSs in *Remote* areas (1,134), followed by *Outer regional* areas (1,005), and was lowest in *Major cities* (711). Close to one-third of all eligible clients in ACCHSs in all remoteness areas had such an HbA1c test result (40% in *Inner regional* areas, 37% in *Outer regional* areas, 37% in *Remote* areas, 36% in *Major cities*, and 32% in *Very remote* areas).

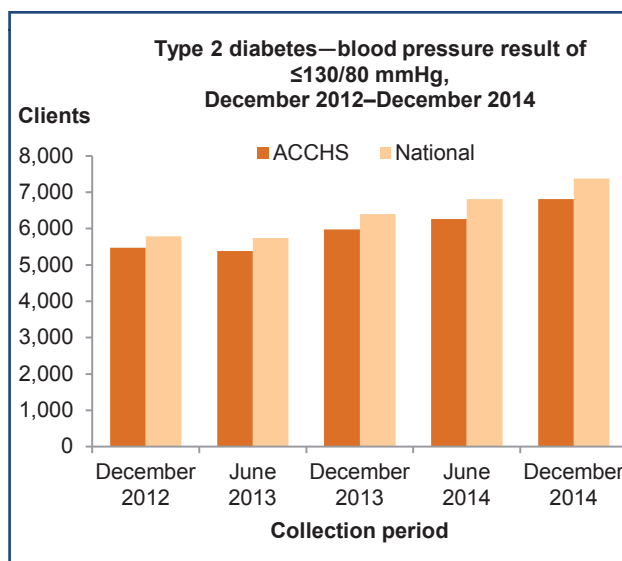
Across all services, the number was highest in *Very remote* areas (1,785 or 32%), and lowest in *Major cities* (791 or 35%).



Type 2 diabetes—blood pressure result less than or equal to 130/80 mmHg

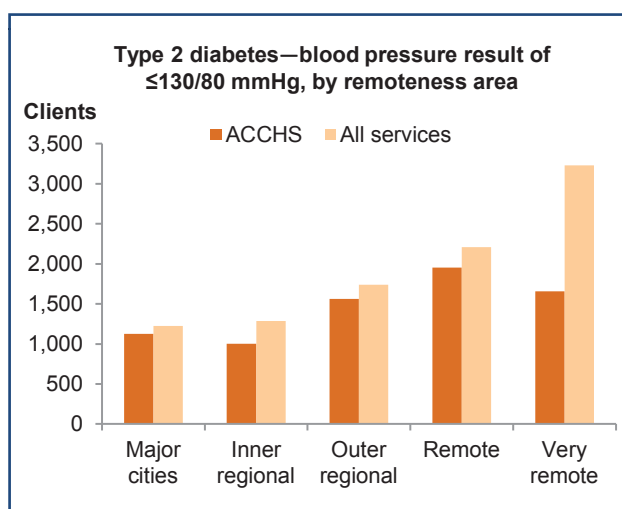
In ACCHSs, the number of clients with type 2 diabetes who had a blood pressure result in the previous 6 months of less than or equal to 130/80 mmHg rose from 5,476 in December 2012 to 6,811 in December 2014. Over the same period, the proportion rose from 42% to 43%.

Nationally, the number rose from 5,790 in December 2012 to 7,381 in December 2014, while the proportion rose from 42% to 43%.



In December 2014, the number of clients with type 2 diabetes who had a blood pressure result in the previous 6 months of less than or equal to 130/80 mmHg was highest in ACCHSs in *Remote* areas (1,955), followed by *Very remote* areas (1,655), and was lowest in *Inner regional* areas (1,002). More than one-third of all eligible clients in ACCHSs in all remoteness areas had a blood pressure result in the previous 6 months of less than or equal to 130/80 mmHg (47% in *Remote* areas, 47% in *Very remote* areas, 42% in *Outer regional* areas, 40% in *Inner regional* areas, and 39% in *Major cities*).

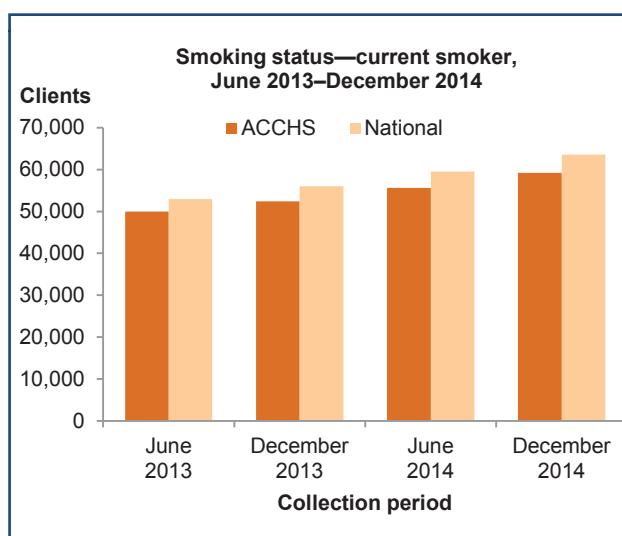
Across all services, the number was highest in *Very remote* areas (3,230), and lowest in *Major cities* (1,225).



Smoking status—current smoker

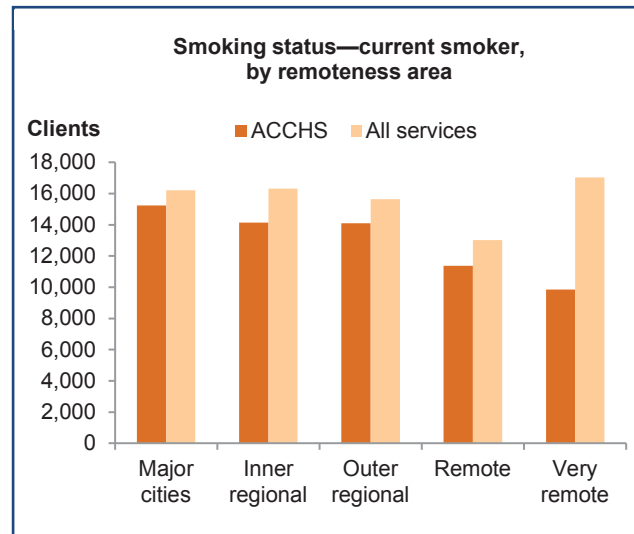
In ACCHSs, the number of clients aged 15 and over who were recorded as current smokers rose from 49,955 in June 2013 to 59,193 in December 2014. Over the same period, the proportion fell from 54% to 53%.

Nationally, the number rose from 52,937 in June 2013 to 63,551 in December 2014, while the proportion fell from 53% to 52%.



In December 2014, the number of clients aged 15 and over who were recorded as current smokers was lowest in ACCHSs in *Very remote* areas (9,844), followed by *Remote* areas (11,369), and was highest in *Major cities* (15,242). More than half of the eligible clients in ACCHSs in all remoteness areas were recorded as current smokers (52% in *Major cities*, 53% in *Remote* areas, 53% in *Inner regional* areas, 54% in *Outer regional* areas, and 54% in *Very remote* areas).

Across all services, the number was lowest in *Remote* areas (13,014), and highest in *Very remote* areas (17,036).

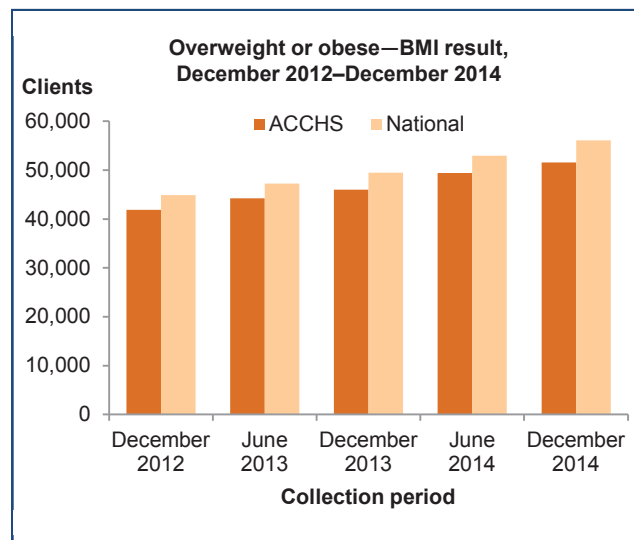


Health outcome measures that need improvement

Overweight or obese—body mass index result

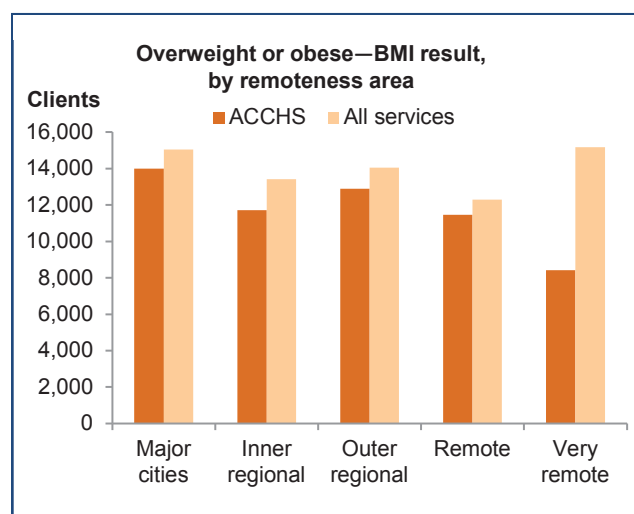
In ACCHSs, the number of clients aged 15 and over who were overweight or obese rose from 41,884 in December 2012 to 51,546 in December 2014. Over the same period, the proportion rose by almost 1% (71.6% to 72.5%).

Nationally, the number rose from 44,868 in December 2012 to 56,081 in December 2014, while the proportion rose from 67% to 72%.



In December 2014, the number of clients aged 15 and over who were overweight or obese was lowest in ACCHSs in *Very remote* areas (8,427), followed by *Remote* areas (11,466), and was highest in *Major cities* (14,007). Almost three-quarters of all eligible clients in ACCHSs in all remoteness areas were overweight or obese (68% in *Very remote* areas, 71% in *Remote* areas, 73% in *Outer regional* areas, 74% in *Major cities*, and 74% in *Inner regional* areas).

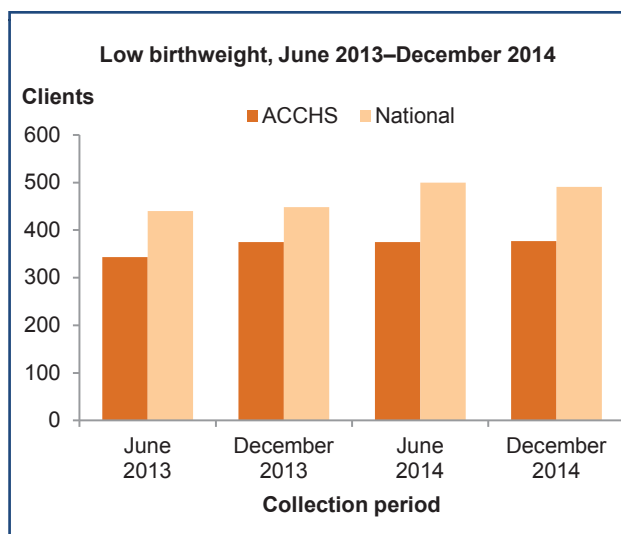
Across all services, the number was lowest in *Remote* areas (12,291), and highest in *Very remote* areas (15,172).



Low birthweight

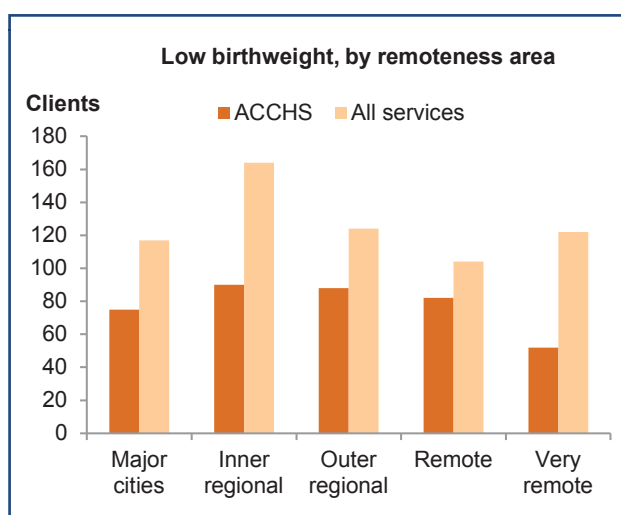
In ACCHSs, the number of babies born in the previous 12 months who had a low birthweight rose from 343 in June 2013 to 377 in December 2014. Over the same period, the proportion did not change.

Nationally, the number rose from 440 in June 2013 to 491 December 2014, while the proportion did not change.



In December 2014, the number of babies born in the previous 12 months who had a low birthweight was highest in ACCHSs in *Inner regional* areas (90), followed by *Outer regional* areas (88), and was lowest in *Very remote* areas (52). Just over 1 in 10 babies born in the previous 12 months in ACCHSs in all remoteness areas had a low birthweight (11% in *Outer regional* areas, 12% in *Inner regional* areas, 14% in *Major cities*, 14% in *Very remote* areas, and 14% in *Remote* areas).

Across all services, the number was lowest in *Remote* areas (104), and highest in *Inner regional* areas (164).



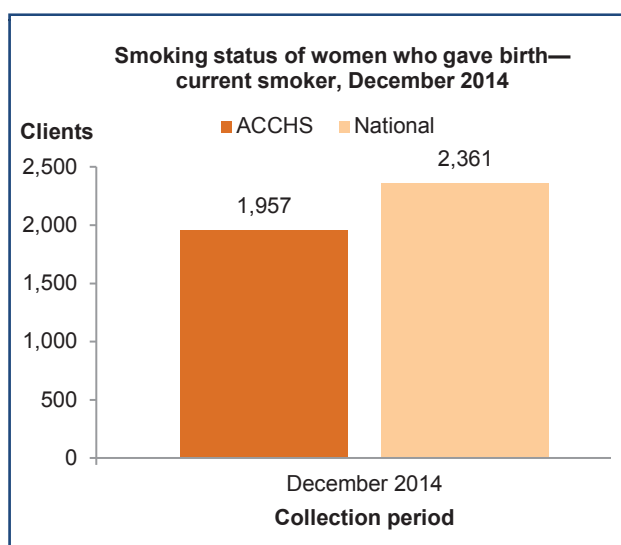
New outcome measures

Data for the following 3 measures were collected for the first time in December 2014.

Women who gave birth—current smoker

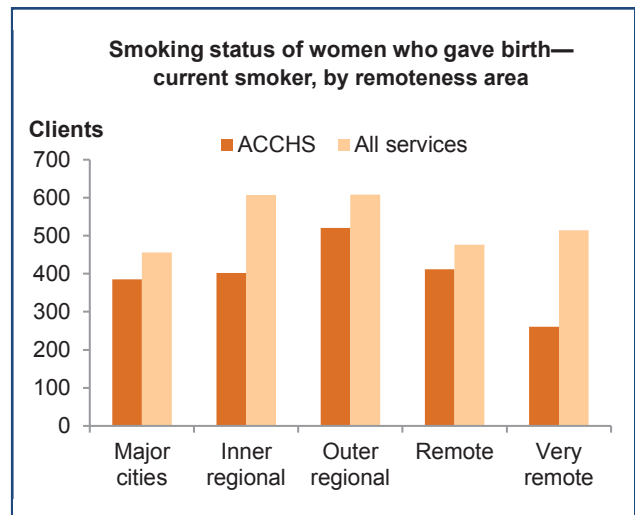
In ACCHSs, 1,957 (50%) women aged 15 and over who gave birth in the previous 12 months were recorded as current smokers in December 2014.

Nationally, 2,361 (49%) women aged 15 and over who gave birth in the previous 12 months were recorded as current smokers in December 2014.



In December 2014, the number of women aged 15 and over who gave birth in the previous 12 months and were recorded as current smokers was lowest in ACCHSs in *Very remote* areas (261), followed by *Major cities* (385), and was highest in *Outer Regional* areas (521). About half of all eligible clients in ACCHSs in all remoteness areas were recorded as current smokers (48% in *Major cities*, 48% in *Remote* areas, 51% in *Inner regional* areas, 51% in *Very remote* areas, and 54% in *Outer regional* areas).

Across all services, the number was lowest in *Major cities* (456), and highest in *Outer regional* areas (608).

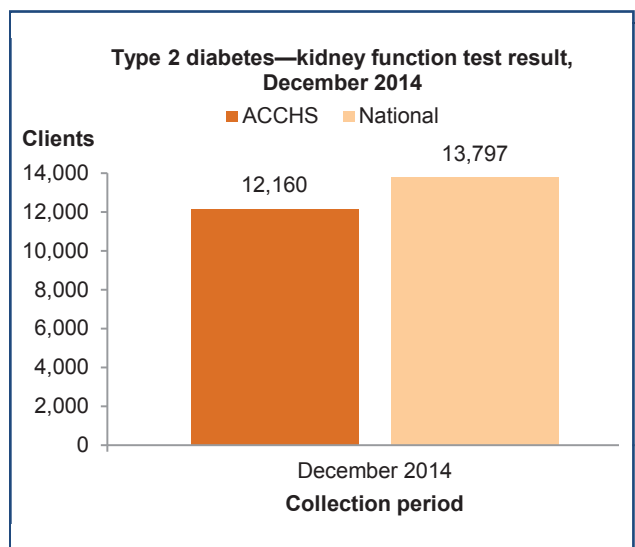


Type 2 diabetes—kidney function test result

An estimated glomerular filtration rate (eGFR) in the range of greater than or equal to 60 ml/min/1.73m² indicates chronic kidney disease is not yet present in the client.

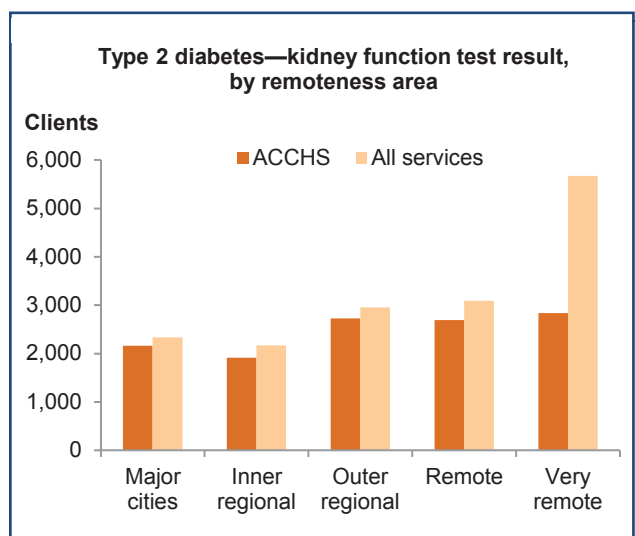
In ACCHSs, in December 2014, 12,160 clients with type 2 diabetes aged 15 and over had an eGFR result in the previous 12 months of greater than or equal to 60 ml/min/1.73m². This represented 81% of clients.

Nationally, in December 2014, 13,797 clients had an eGFR result in the previous 12 months of greater than or equal to 60 ml/min/1.73m². This also represented 81% of clients.



In December 2014, the number of clients aged 15 and over with type 2 diabetes who had an eGFR result in the previous 12 months of greater than or equal to 60 ml/min/1.73m² was highest in ACCHSs in *Very remote* areas (2,836), followed by *Outer regional* areas (2,727), and was lowest in *Inner regional* areas (1,915). More than three-quarters of clients with type 2 diabetes in ACCHSs in all remoteness areas who had an eGFR in the previous 12 months had a result greater than or equal to 60 ml/min/1.73m² (83% in *Major cities*, 82% in *Inner regional* areas, 81% in *Very remote* areas, 80% in *Outer regional* areas, and 80% in *Remote* areas).

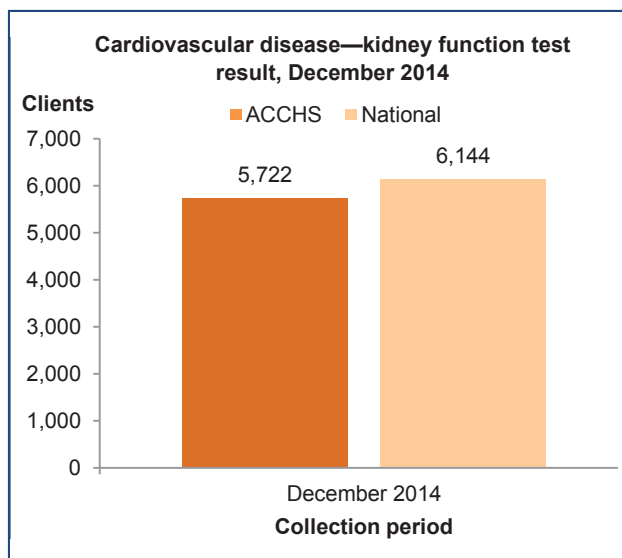
Across all services, the number was highest in *Very remote* areas (5,672), and lowest in *Inner regional* areas (2,169).



Cardiovascular disease—kidney function test result

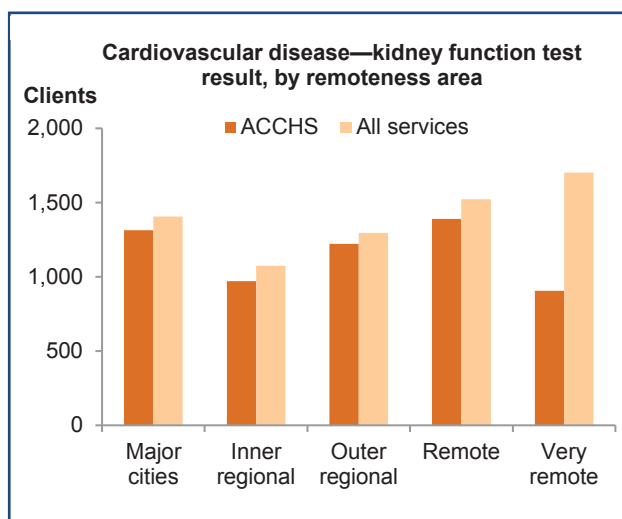
In ACCHSs, in December 2014, 5,722 clients aged 15 and over with cardiovascular disease had an eGFR in the previous 12 months with a result greater than or equal to 60 ml/min/1.73m². This represented 76% of all clients with cardiovascular disease who had an eGFR.

Nationally, in December 2014, 6,144 clients had an eGFR result greater than or equal to 60 ml/min/1.73m² in the previous 12 months. This also represented 76% of clients.



In December 2014, the number of clients aged 15 and over with cardiovascular disease who had an eGFR result in the previous 12 months of greater than or equal to 60 ml/min/1.73m² was highest in ACCHSs in *Remote* areas (1,391), followed by *Major cities* (1,313), and was lowest in *Very remote* areas (906). About three-quarters of clients with cardiovascular disease in ACCHSs in all remoteness areas had an eGFR result in the previous 12 months of greater than or equal to 60 ml/min/1.73m² (78% in *Major cities*, 77% in *Inner regional* areas, 76% in *Outer regional* areas, 75% in *Very remote* areas, and 74% in *Remote* areas).

Across all services, the number of clients who had an eGFR result in the previous 12 months of greater than or equal to 60 ml/min/1.73m² was highest in *Very remote* areas (1,701), and lowest in *Inner regional* areas (1,073).



The following table (Summary of nKPI results for ACCHSs) provides trend data for the nKPI indicators.

Summary of nKPI results for ACCHSs

Measure	December 2012			December 2014			Change in proportion	Trend
	Numerator	Denominator	Proportion	Numerator	Denominator	Proportion		
Process-of-care measures								
First antenatal visit before 13 weeks ^(a)	964	2,722	35.4	1,049	2,870	36.6	↑	✓
Birthweight recorded	2,334	4,861	48.0	2,939	4,651	63.2	↑	✓
MBS health assessments								
Aged 0–4	5,544	21,562	25.7	8,020	24,105	33.3	↑	✓
Aged 25 and over	32,514	88,494	36.7	48,840	103,099	47.4	↑	✓
Cervical screening—previous 2 years ^(a)	18,789	60,831	30.9	19,194	66,162	29.0	↓	×
Aged 50 and over—immunised against influenza ^(a)	11,060	31,724	34.9	13,391	36,153	37.0	↑	✓
Type 2 diabetes—immunised against influenza ^(a)	3,117	8,970	34.7	3,695	9,873	37.4	↑	✓
COPD—immunised against influenza ^(a)	354	1,077	32.9	404	1,203	33.6	↑	~
Type 2 diabetes—MBS GPMP in previous 2 years	8,034	19,339	41.5	11,972	23,841	50.2	↑	✓
Type 2 diabetes—MBS TCA in previous 2 years	7,152	19,338	37.0	11,225	23,840	47.1	↑	✓
Type 2 diabetes—HbA1c test recorded in previous 6 months	9,125	18,443	49.5	11,042	22,770	48.5	↑	~
Type 2 diabetes—kidney function test recorded in previous 12 months ^(a)	13,066	19,981	65.4	14,648	22,907	63.9	↓	×
Cardiovascular disease—kidney function test recorded in previous 12 months ^(a)	5,115	8,440	60.6	6,724	10,919	61.6	↑	~
Type 2 diabetes—blood pressure test recorded in previous 6 months	13,003	19,320	67.3	15,735	23,906	65.8	↓	×
Smoking status recorded	84,645	116,924	72.4	111,793	137,576	81.3	↑	✓
Alcohol consumption recorded in previous 2 years	57,022	121,033	47.1	79,963	142,125	56.3	↑	✓

(continued)

Summary of nKPI results for ACCHSs (continued)

Measure	December 2012			December 2014			Change in proportion	Trend
	Numerator	Denominator	Proportion	Numerator	Denominator	Proportion		
Health outcome measures								
Low birthweight ^(a)	343	2,623	13.1	377	2,939	12.8	↑	~
HbA1c result ≤7% in previous 6 months	3,021	9,125	33.1	3,922	11,042	35.5	↑	↑
Type 2 diabetes—blood pressure ≤130/80 mmHg	5,476	13,003	42.1	6,811	15,735	43.3	↑	↑
Smoking status result—current smoker ^(a)	49,955	93,172	53.6	59,193	112,097	52.8	↑	↓
Women who gave birth—current smoker ^(b)	..	..	..	1,957	3,885	50.4	..	..
Overweight or obese (body mass index result)	41,884	58,528	71.6	51,546	71,127	72.5	↑	↓
Kidney function test result of ≥60 ml/min/1.73m ²	..	..	..	12,160	15,004	81.0	..	..
Type 2 diabetes ^(b)	..	..	..	5,722	7,530	76.0	..	..
Cardiovascular disease ^(b)	..	..	..	..	..	..	..	..

↑ increase in proportion/count.

↓ decrease in proportion/count.

✓ favourable trend (proportion).

✗ unfavourable trend (proportion).

~ no change (for proportions: less than 1 percentage point change for process-of-care measures, and less than 0.5 percentage point change for outcome measures; for counts: less than 1% change).

.. not applicable.

(a) indicator only has data from June 2013.

(b) indicator only has data from December 2014.

Note: For low birthweight, current smokers (all clients and women who gave birth), and overweight or obese (body mass index results), decreases are favourable and increases are unfavourable.

4 Health need and health burden

Self-assessed health status

In the following section, data are presented from the 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey and a small number of other sources, including the *Aboriginal and Torres Strait Islander Health Performance Framework 2014 report* (AIHW 2015a).

Self-assessed health status

Self-assessed health status provides an overall measure of a population's health based on an individual's own perceptions of his or her health. This assessment may or may not align with the assessment from a health professional. In 2012–13, among Aboriginal and Torres Strait Islander people aged 15 and over:

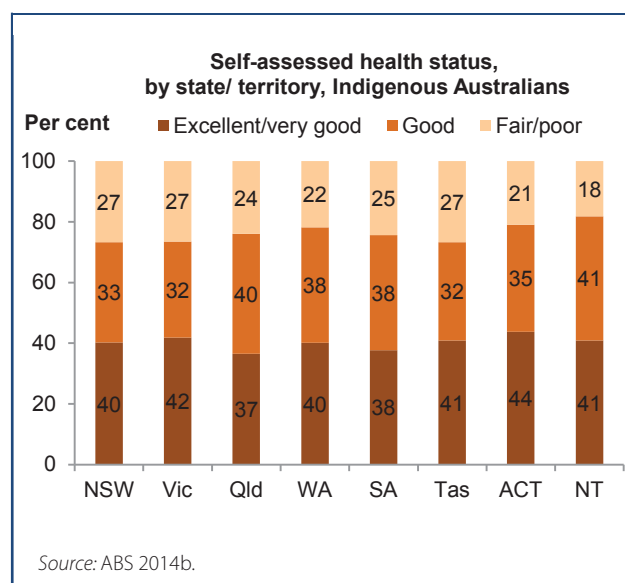
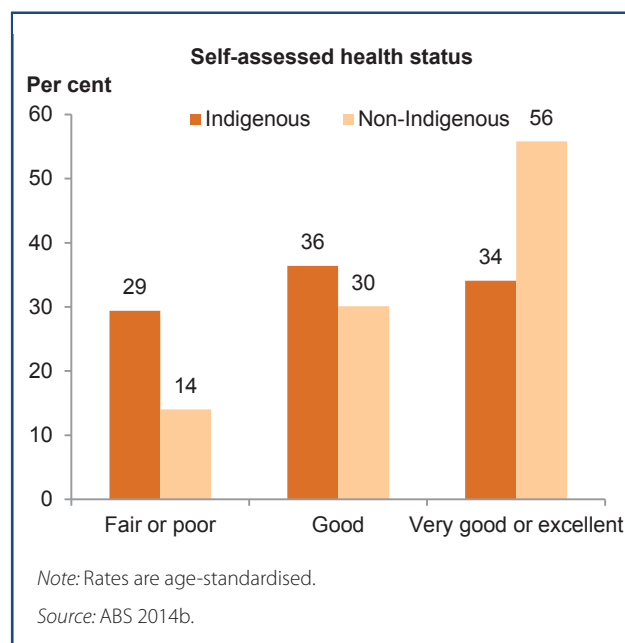
- more than one-third (39%) reported their health as excellent or very good
- more than one-third (36%) reported their health as good
- one-quarter (24%) reported their health as fair or poor (ABS 2014b).

Based on age-standardised data, in 2012–13, Indigenous Australians aged 15 and over were:

- significantly more likely than non-Indigenous Australians to report their health as fair or poor (29% and 14%, respectively)
- about half as likely to report their health as excellent or very good as non-Indigenous Australians (34% and 56%, respectively) (ABS 2014b).

More than one-third (39%) of Indigenous Australians assessed their health as excellent or very good. The proportion was highest in the Australian Capital Territory (44%) and Victoria (42%), and lowest in Queensland (37%).

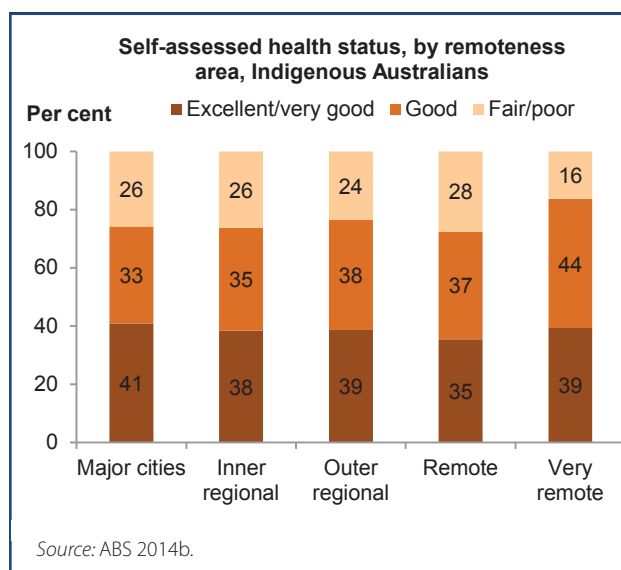
However, one-quarter (24%) of Indigenous Australians assessed their health as fair or poor. The proportion was lowest in the Northern Territory (18%), and highest in New South Wales, Victoria and Tasmania (all 27%) (ABS 2014b).





Of Indigenous Australians living in *Major cities*, 41% assessed their health as excellent or very good. Just over one-third (35%) of Indigenous Australians living in *Remote* areas assessed their health in this way.

The lowest proportion of Indigenous Australians who assessed their health as poor lived in *Very remote* (16%) areas, while the highest (28%) lived in *Remote* areas.

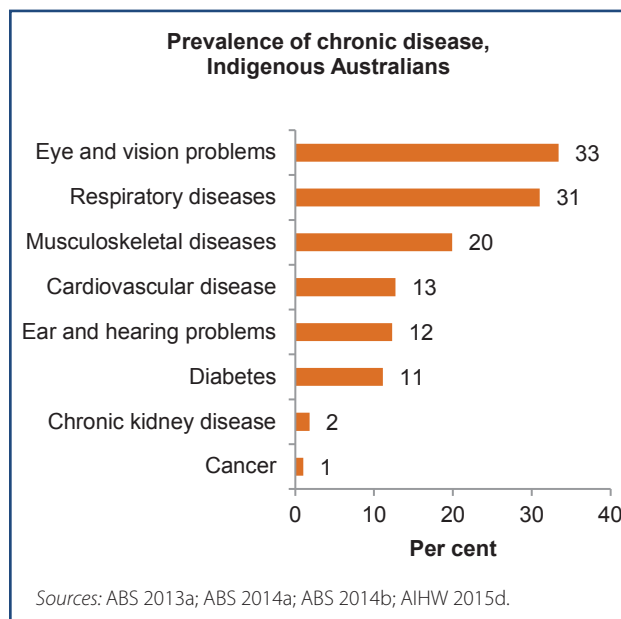


Prevalence of chronic disease

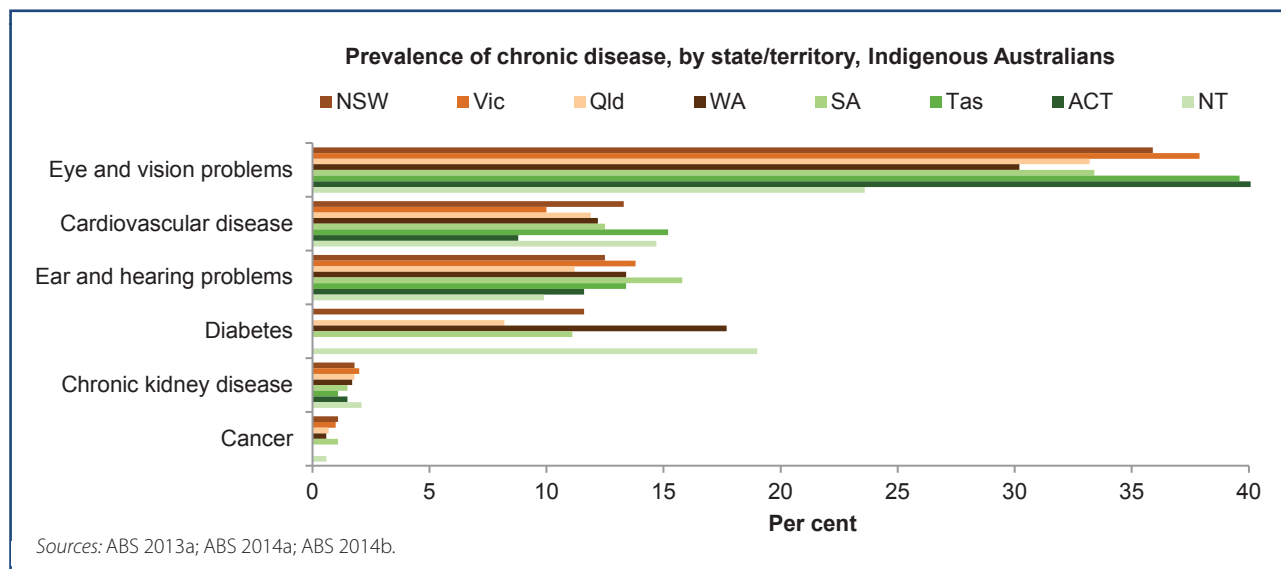
The most common long-term health conditions reported by Indigenous Australians included eye and vision problems, respiratory diseases, and musculoskeletal diseases (ABS 2014a).

Self-reported data from the Australian Aboriginal and Torres Strait Islander Health Survey showed 13% of Indigenous Australians had cardiovascular disease, and 1% had cancer. Biomedical and self-reported data from the same survey showed that 11% of Indigenous adults had diabetes, making them more than 3 times as likely as non-Indigenous Australians to have diabetes.

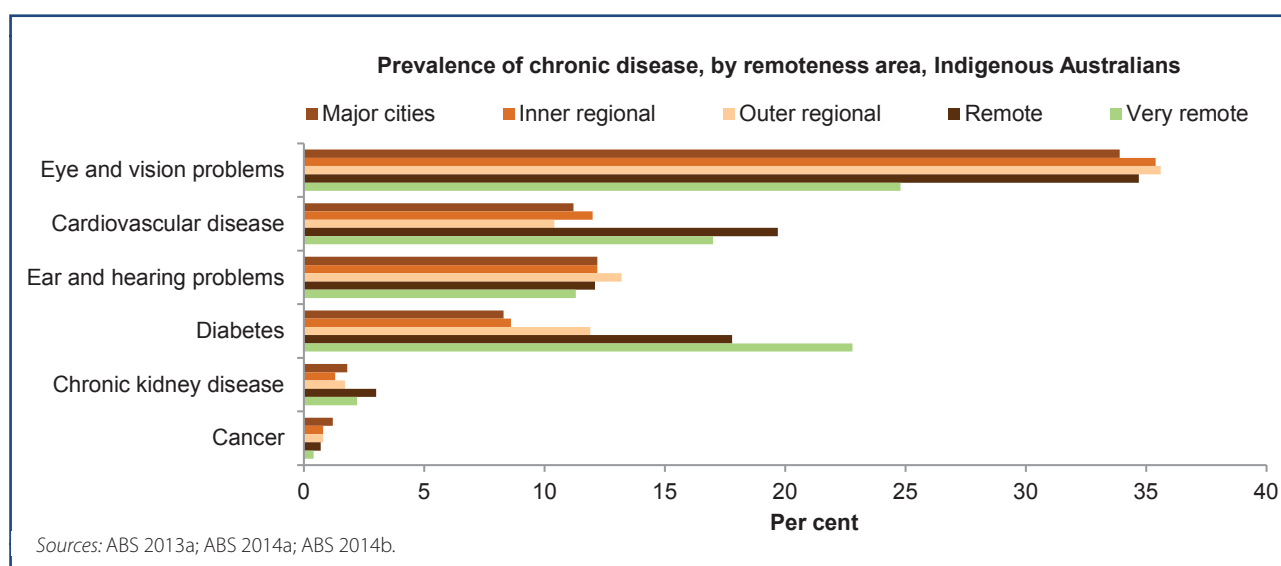
These conditions contribute significantly to high levels of mortality among Indigenous Australians (AIHW 2015a).



Almost half (43%) of Indigenous Australians in the Australian Capital Territory reported eye and vision problems, compared with less than one-quarter (24%) in the Northern Territory. Cardiovascular disease was more common in Tasmania and the Northern Territory (15% in both) than in Victoria (10%) and the Australian Capital Territory (9%). In Queensland, 8% of Indigenous Australians had diabetes, compared with 19% in the Northern Territory (data were not available for Victoria, Tasmania and the Australian Capital Territory).



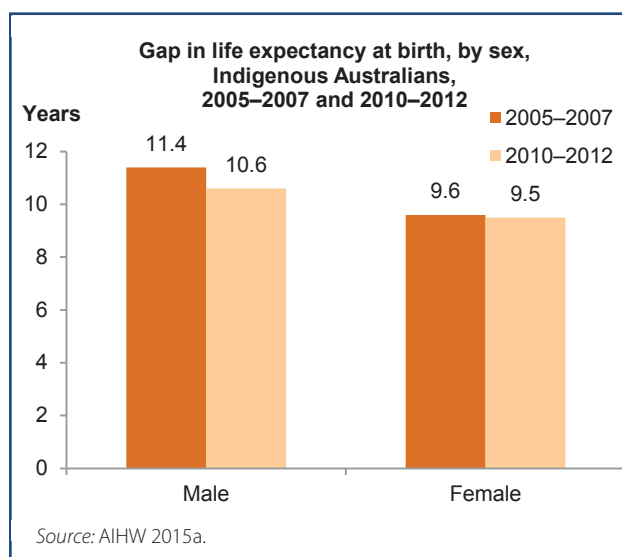
Indigenous Australians living in *Outer regional* areas (37%) were more likely to have eye and vision problems than those living in *Very remote* areas (25%). There was very little difference in the proportion of Indigenous Australians with ear and hearing problems across remoteness areas, from 11% of those living in *Very remote* areas to 13% in *Outer regional* areas. Almost one-quarter (23%) of Indigenous Australians in *Very remote* areas had diabetes, compared with 8% in *Major cities*.



Life expectancy at birth

It is a COAG Closing the Gap target to close the gap in life expectancy between Indigenous and non-Indigenous Australians within a generation (by 2031).

Between 2005–2007 and 2010–2012, estimated life expectancy at birth for Indigenous males and females rose by 1.6 and 0.6 years, respectively. As a result, the gap in life expectancy between Indigenous and non-Indigenous males narrowed from 11.4 years in 2005–07 to 10.6 years in 2010–12. Over the same period, the gap for females narrowed from 9.6 years to 9.5 years.



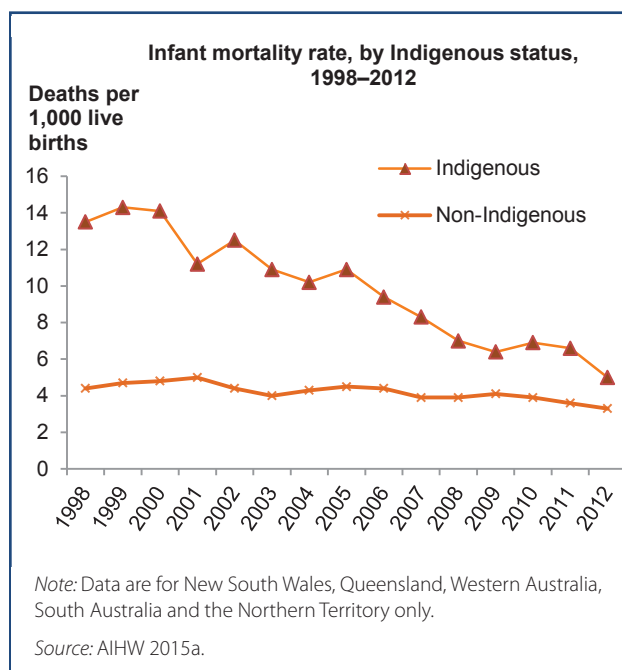
Infant mortality

Reliable data on mortality for Aboriginal and Torres Strait Islander infants are available for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory.

Indigenous infants died at 1.5 times the rate of non-Indigenous infants (5.0 per 1,000 live births compared with 3.3, respectively) in the 5 jurisdictions combined.

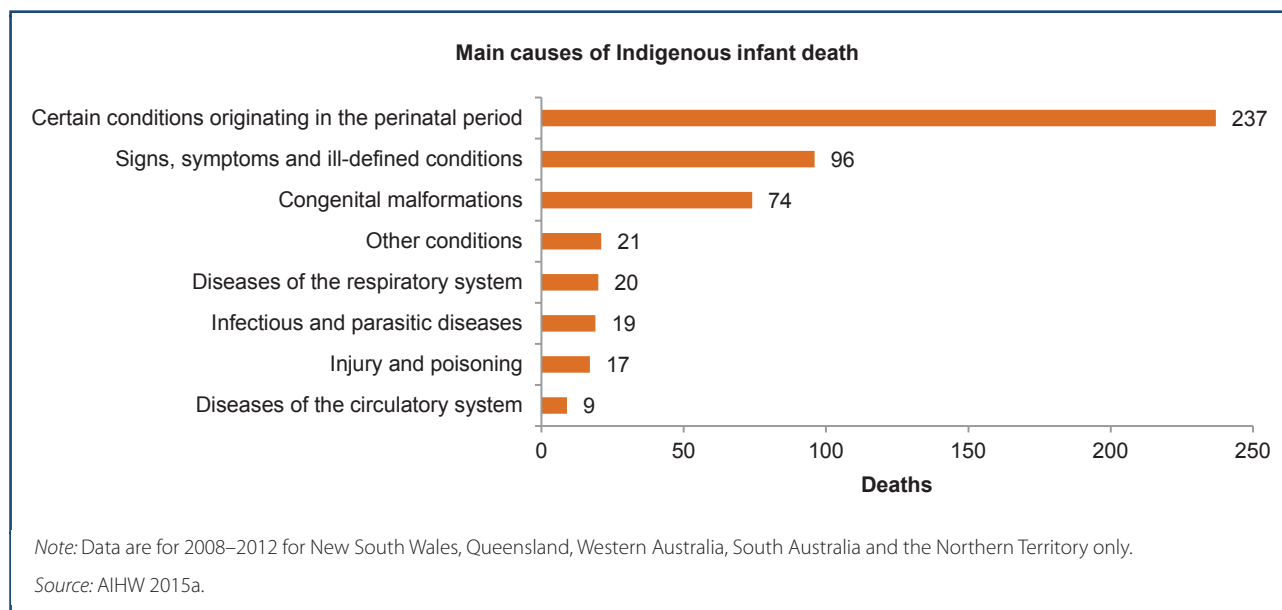
Between 1998 and 2012, the Indigenous infant mortality rate declined by 64%, from 13.5 to 5.0 infant deaths per 1,000 live births. This compares with a 25% decline in the non-Indigenous rate from 4.4 to 3.3 per 1,000 births.

As a result the gap in mortality between Indigenous and non-Indigenous infants closed significantly.



The 3 main causes of infant deaths in 2008–2012 for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined were:

- ‘certain conditions originating in the perinatal period’, such as birth trauma, fetal growth disorders, and complications of pregnancy, labour and delivery (237 infants or 48%)
- ‘signs, symptoms and ill-defined conditions’, which mainly includes deaths due to sudden infant death syndrome (96 infants or 15%)
- congenital malformations, such as malformations of the circulatory or nervous system (74 infants or 15%).



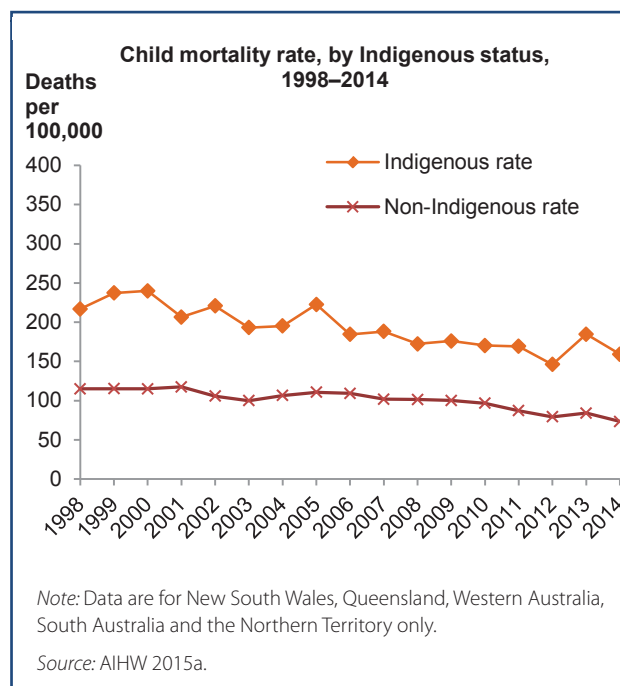
Child mortality

It is a COAG Closing the Gap target to halve the gap in mortality rates for Indigenous children under 5 within a decade (by 2018).

Over 2010–2014, 611 Indigenous children aged 0–4 died in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined. Most of these (505 or 83%) were infants.

Indigenous children died at twice the rate of non-Indigenous children in 2014 (159.1 and 73.4 per 100,000 children, respectively).

The Indigenous child mortality rate declined by 33% between 1998 and 2014. Due to the small number of Indigenous child deaths each year, annual rates fluctuate, so it is important to look at the trend over several years.



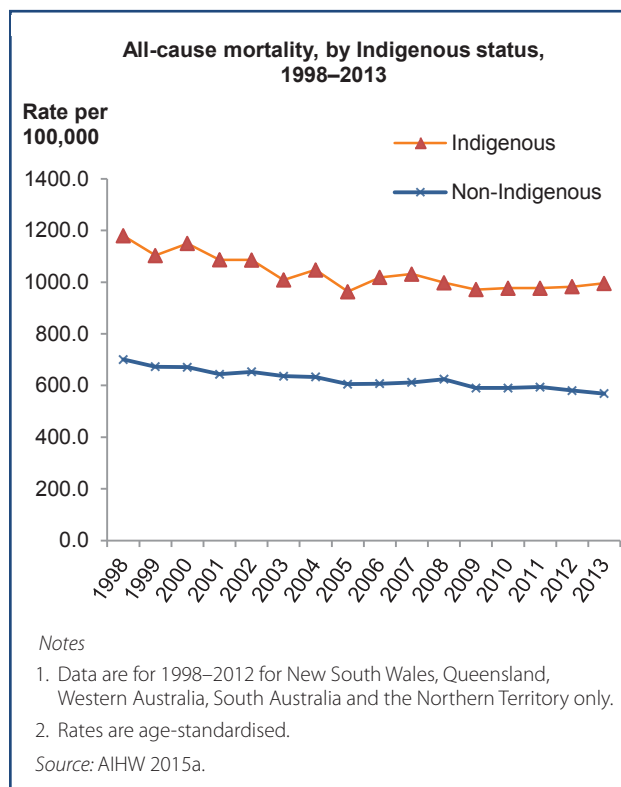
All-cause mortality

All-cause mortality is the number of deaths in a population, in all age groups, regardless of the cause.

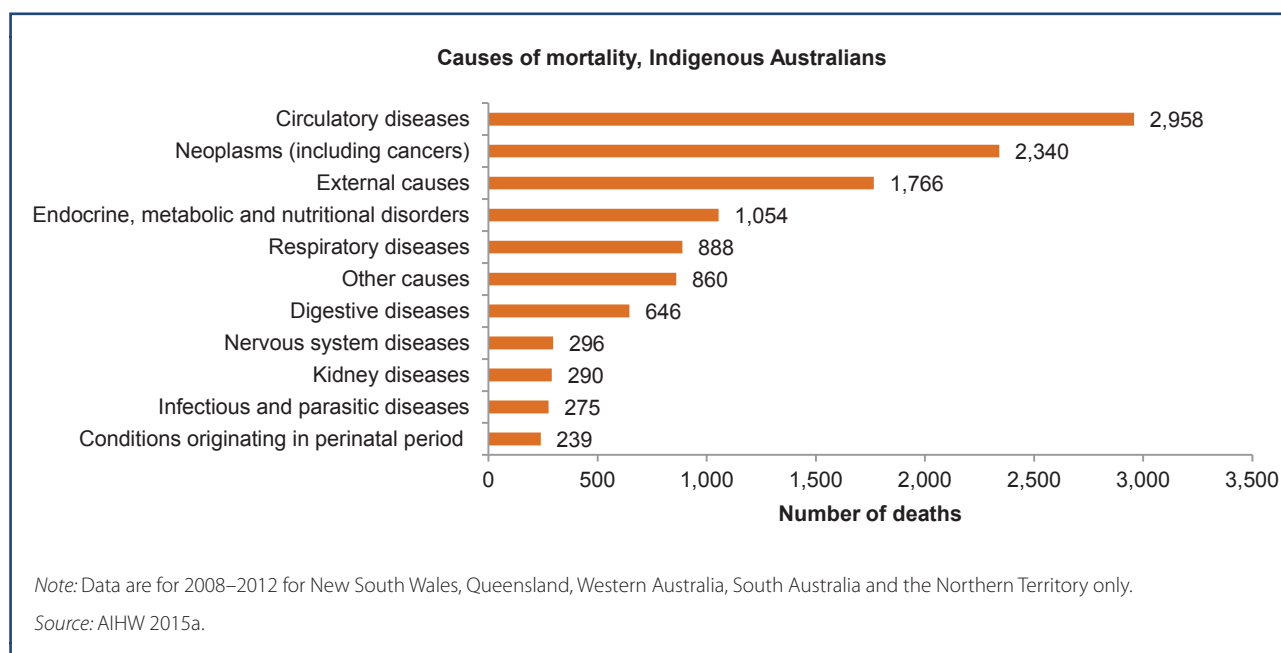
From 1998 to 2013 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined, the Indigenous age-standardised rate for deaths, from any cause, fell by 16% (from 1,180 to 996 per 100,000).

This was the same proportion as the non-Indigenous age-standardised rate, which also fell by 16% (from 700 to 569 per 100,000) over the same period.

As a result, the gap between Indigenous and non-Indigenous Australians remained similar.



In 2008–2012, in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory combined, the 3 most common causes of death among Indigenous Australians were: circulatory diseases (2,958 deaths or 25% of all deaths), neoplasms (including cancer) (2,340 deaths or 20% of all deaths), and external causes (injury and poisoning) (1,766 deaths or 15% of all deaths).



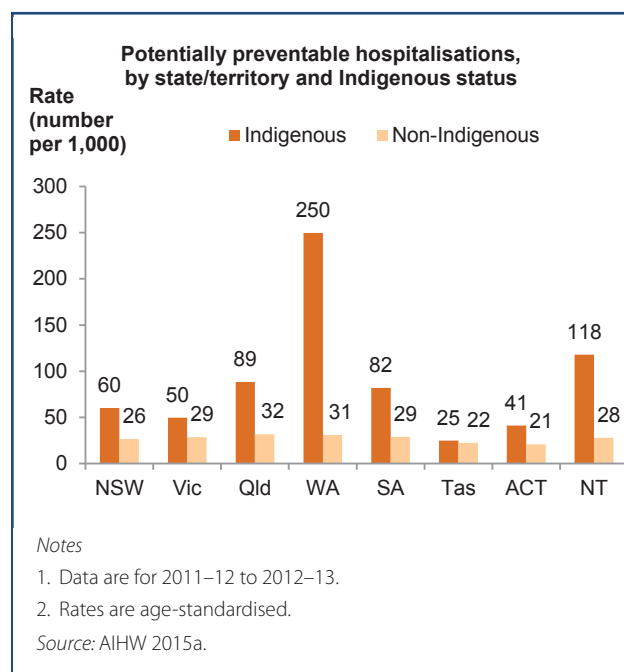
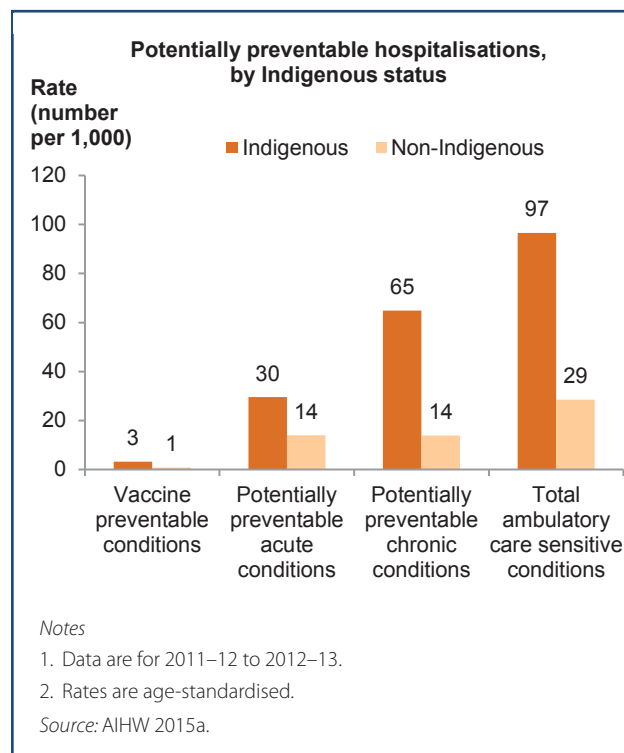
Potentially preventable hospitalisations

Potentially preventable conditions are illnesses or diseases that can be treated in a non-hospital setting. Hospitalisations for these types of conditions are called potentially preventable, as hospitalisation could have been avoided through preventative measures or early treatment in a primary health care setting (Page et al. 2007).

In 2011–12 to 2012–13, after adjusting for age, national hospitalisation rates for Indigenous Australians for potentially preventable conditions were more than 3 times as high as for non-Indigenous Australians, at 97 per 1,000 and 29 per 1,000, respectively.

Most of these hospitalisations for Indigenous Australians were for potentially preventable chronic conditions (65 per 1,000), including diabetes, chronic obstructive pulmonary disease, and hypertension. The rate for non-Indigenous Australians was almost 5 times lower (14 per 1,000) (AIHW 2015a).

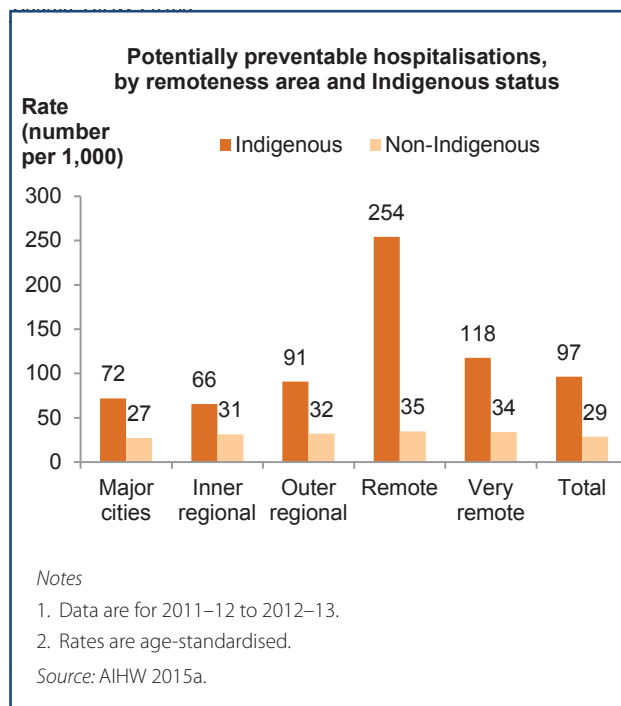
The rate of hospitalisation for Indigenous Australians was markedly higher in Western Australia (250 per 1,000) than in any other state or territory. In the Northern Territory—the next highest rate—it was less than half that of Western Australia, at 118 per 1,000. The rate was lowest in Tasmania (25 per 1,000).



Potentially preventable hospitalisations were higher for Indigenous Australians than for non-Indigenous Australians across all remoteness areas, after adjusting for age.

In 2011–12 to 2012–13, in *Remote* areas, the hospitalisation rate for Indigenous Australians was more than 7 times as high as that for non-Indigenous Australians (254 per 1,000 and 35 per 1,000, respectively).

The rate of hospitalisation for non-Indigenous Australians was fairly consistent across all remoteness areas.



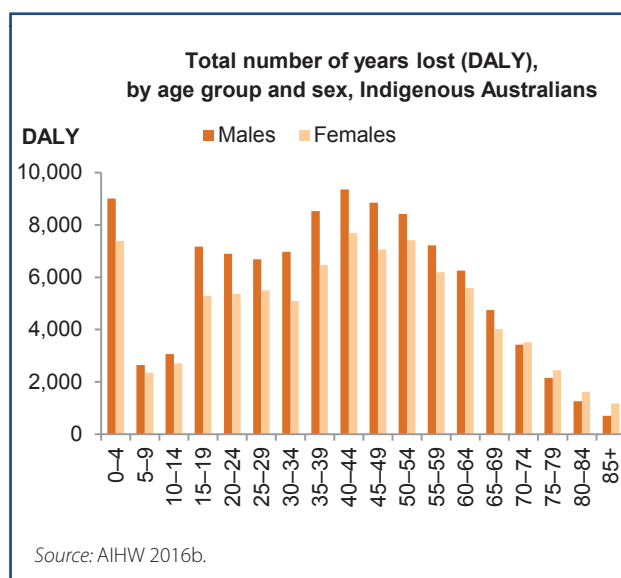
Burden of disease

Burden of disease is the consistent measure of the effects of fatal and non-fatal diseases, and the combination of these into an overall representation of health called a disability-adjusted life year (DALY). The impact of fatal diseases are measured in years of life lost due to premature death (YLL), while for non-fatal diseases, the impact is measured in years lived with ill health or disability (YLD). A DALY combines the estimates of YLL and YLD to provide a count of the total number of years lost due to illness and injury (AIHW 2016b).

Total burden of disease

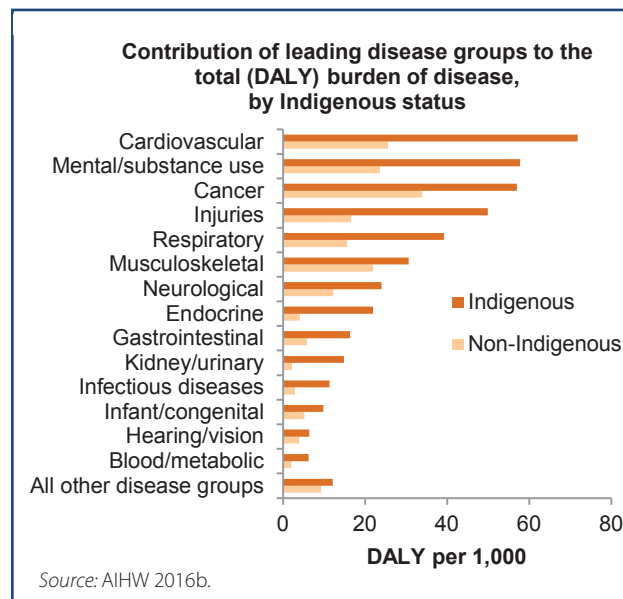
In 2011, Indigenous males had a higher total number of years lost due to premature death or to ill health or disability than Indigenous females across all age groups up to age 70–74, when this pattern reversed.

The DALY was highest for Indigenous males and females aged 40–44 (9,355 DALY and 7,692 DALY, respectively) (AIHW 2016b).

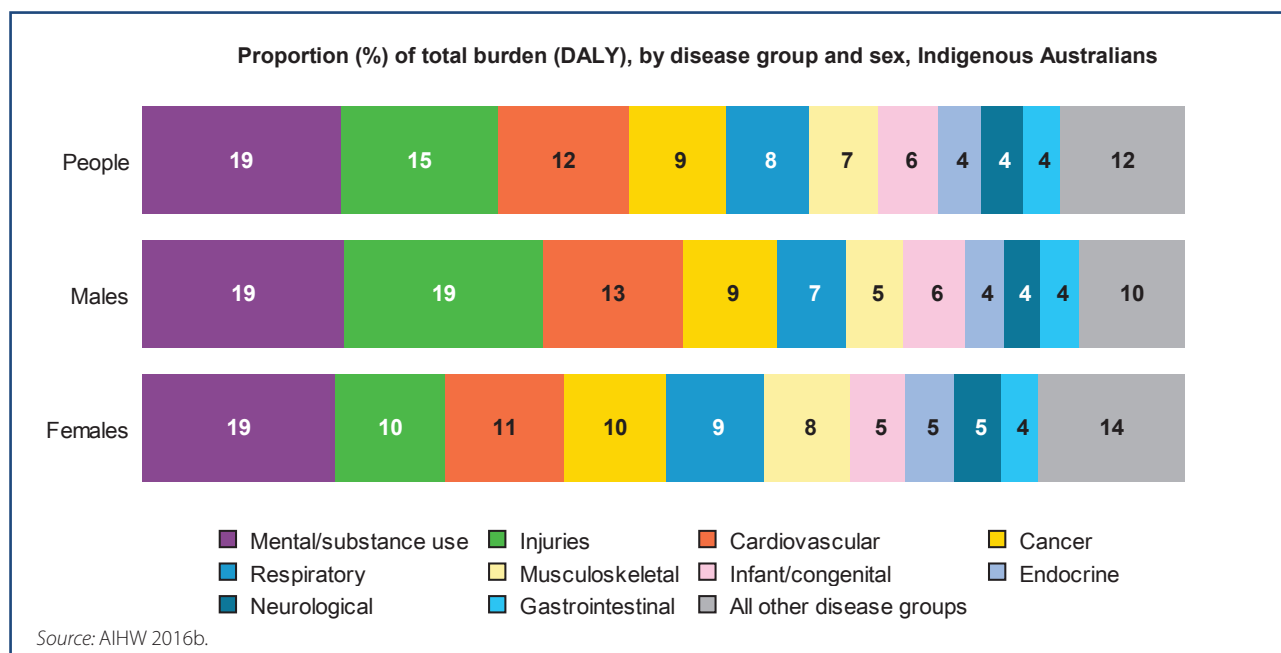


In 2011, after adjusting for age, the DALY rates for Indigenous Australians were 2.3 times as high as for non-Indigenous Australians (429 and 185 years for every 1,000 people, respectively). Rates were higher for Indigenous Australians than non-Indigenous Australians across all disease groups.

Cardiovascular disease was the largest contributor to years lost for Indigenous Australians (72 DALY for every 1,000 people). For non-Indigenous Australians, cancer was the largest contributor (34 DALY for every 1,000 people) (AIHW 2016b).



In 2011, the leading causes of total burden for Indigenous Australians were mental and substance use disorders (19% of total DALY), injuries, which includes suicide (15%), cardiovascular diseases (12%), cancer (9%) and respiratory diseases (8%) (AIHW 2016b).



In 2011, suicide and self-inflicted injuries were the leading contributors to the total burden of disease for Indigenous Australians aged 15–24, and alcohol use disorders were the leading contributors for those aged 25–44. Coronary heart disease was the leading contributor to the total burden for Indigenous Australians aged 45 and over (AIHW 2016b).

Top 10 specific diseases contributing to total burden (DALY '000; proportion of total %) for Indigenous Australians

Rank	Age group (years)						
	Under 5	5–14	15–24	25–44	45–64	65–74	75+
1st	Pre-term/lbw complications (2.9; 18%)	Conduct disorder (1.2; 1.1%)	Suicide/self-inflicted injuries (3.5; 14%)	Alcohol use disorders (4.3; 7.6%)	Coronary heart disease (7.0; 12%)	Coronary heart disease (2.0; 12%)	Coronary heart disease (1.2; 12%)
2nd	SIDS (1.7; 10%)	Asthma (1.1; 10%)	Alcohol use disorders (2.2; 8.8%)	Suicide/self-inflicted injuries (3.7; 6.6%)	Diabetes (3.4; 6.0%)	COPD (1.6; 10%)	Dementia (1.0; 11%)
3rd	Other disorders of infancy (1.3; 7.8%)	Anxiety disorders (1.1; 10%)	Anxiety disorders (1.9; 7.6%)	Anxiety disorders (3.7; 6.5%)	COPD (2.9; 5.2%)	Lung cancer (1.1; 7.0%)	COPD (0.8; 8.4%)
4th	Birth trauma/asphyxia (1.2; 7.5%)	Depressive disorders (0.6; 5.7%)	RTI/motor vehicle occupant (1.8; 7.1%)	Coronary heart disease (3.5; 6.3%)	Other musculoskeletal (2.9; 5.0%)	Diabetes (1.1; 6.9%)	Stroke (0.6; 6.3%)
5th	Other gastro-intestinal infections (0.8; 4.7%)	Dental caries (0.5; 5.1%)	Depressive disorders (1.5; 6.3%)	Depressive disorders (3.2; 5.8%)	Lung cancer (2.4; 4.2%)	Other musculoskeletal (0.7; 4.4%)	Diabetes (0.5; 5.8%)
6th	Protein-energy deficiency (0.7; 4.3%)	Suicide/self-inflicted injuries (0.4; 3.9%)	Asthma (1.0; 3.9%)	Other musculoskeletal (2.4; 4.2%)	Chronic liver disease (2.3; 4.0%)	Chronic kidney disease (0.6; 4.1%)	Lung cancer (0.5; 4.9%)
7th	Other unintentional injuries (0.5; 3.2%)	ADHD (0.3; 3.2%)	Other musculoskeletal (0.7; 2.9%)	Poisoning (2.0; 3.6%)	Chronic kidney disease (2.0; 3.4%)	Dementia (0.6; 3.7%)	Falls (0.4; 3.9%)
8th	Other congenital conditions (0.5; 2.9%)	RTI/motor vehicle occupant (0.3; 3.0%)	Homicide/violence (0.7; 2.9%)	Diabetes (2.0; 3.5%)	Anxiety disorders (1.6; 2.9%)	Stroke (0.5; 3.2%)	Chronic kidney disease (0.3; 3.4%)
9th	Asthma (0.5; 2.8%)	Autism spectrum disorders (0.3; 3.0%)	Bipolar affective disorder (0.6; 2.6%)	Asthma (1.8; 3.3%)	Stroke (1.5; 2.7%)	Falls (0.4; 2.7%)	Other musculoskeletal (0.2; 2.0%)
10th	Cardiovascular defects (0.4; 2.6%)	Cerebral palsy (0.3; 2.6%)	Diabetes (0.6; 2.5%)	Chronic liver disease (1.7; 3.0%)	Alcohol use disorders (1.5; 2.5%)	Bowel cancer (0.3; 2.1%)	Lower respiratory infections (0.2; 1.9%)
	Top 10 (64.1%)	Top 10 (57.8%)	Top 10 (58.9%)	Top 10 (50.3%)	Top 10 (48.2%)	Top 10 (56.9%)	Top 10 (59.7%)

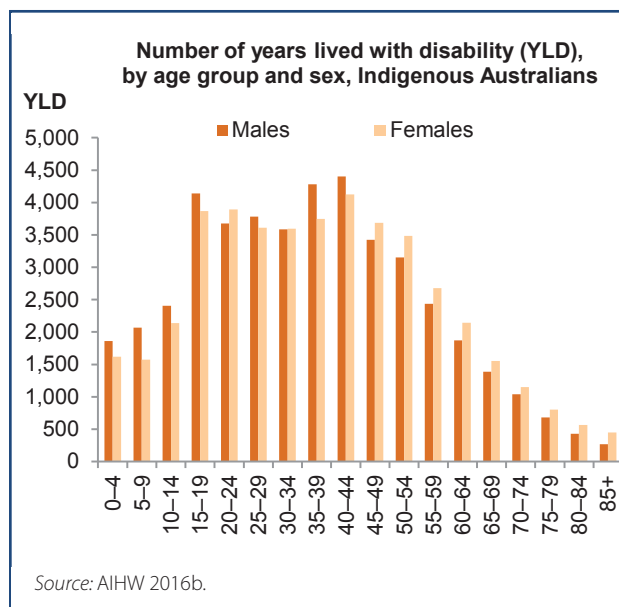
Note: lbw = low birthweight; RTI = road traffic injuries.

Source: AIHW analysis of AIHW 2016b.

Non-fatal burden of disease

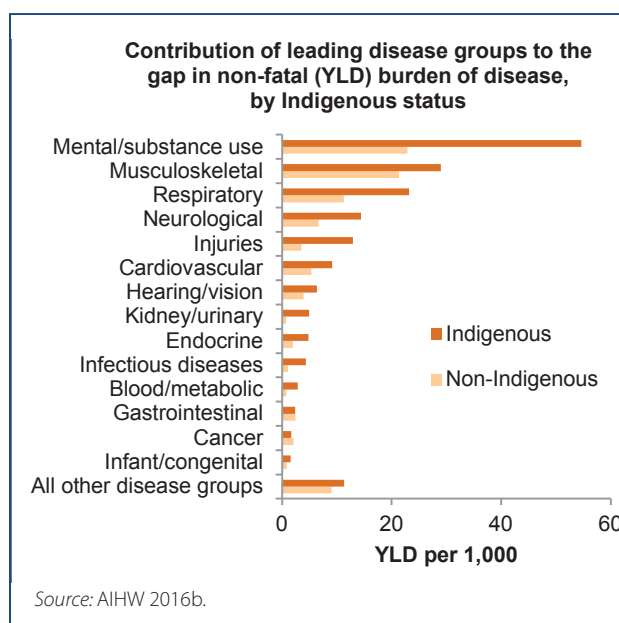
In 2011, Indigenous males had a higher proportion of years lived with disability than Indigenous females across most age groups up to age 40–44. From age 45–49, this pattern was reversed, with Indigenous females having a higher proportion of YLD than Indigenous males in the later years of life.

The YLD was highest for Indigenous males and females aged 40–44 (4,404 YLD and 4,124 YLD, respectively) (AIHW 2016b).

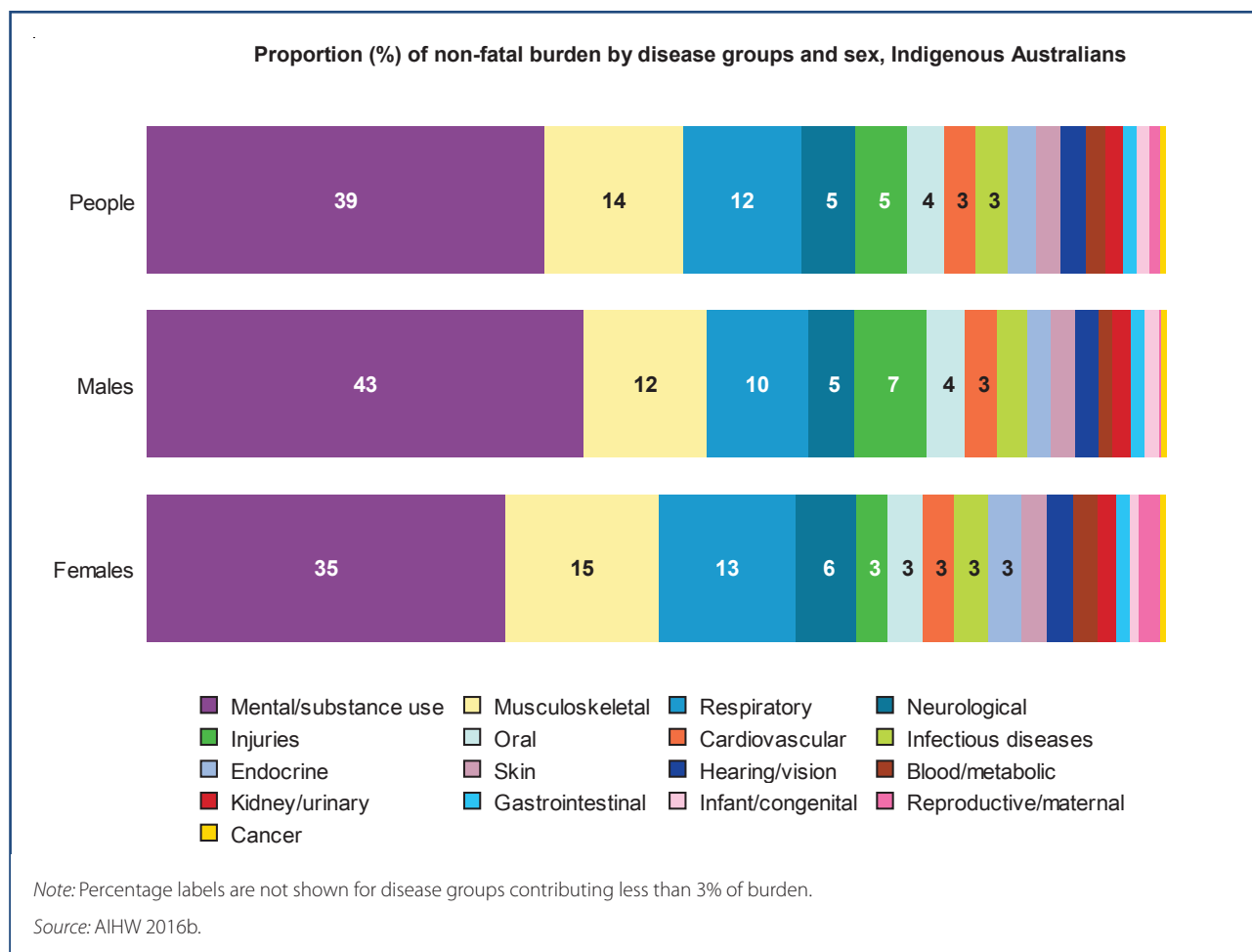


In 2011, after adjusting for age, the rate of non-fatal burden was almost twice as high for Indigenous Australians as for non-Indigenous Australians (184 and 94 YLD per 1,000, respectively), and was higher across almost all disease groups, except for cancer.

The largest contributor to the non-fatal burden among Indigenous Australians was mental and substance use disorders (55 YLD per 1,000), followed by musculoskeletal conditions (29 YLD per 1,000), and respiratory conditions (23 YLD per 1,000) (AIHW 2016b).



In 2011, 3 disease groups accounted for about two-thirds (65%) of the non-fatal burden for Indigenous Australians: mental and substance use disorders (39%); musculoskeletal conditions (14%); and respiratory diseases (12%) (AIHW 2016b).



In 2011, alcohol use disorders were the leading contributors to the non-fatal burden of disease for Indigenous Australians aged 15–44. Chronic obstructive pulmonary disease (COPD) was the leading contributor for those aged 65–74, and dementia was the leading contributor for Indigenous Australians aged 75 and over (AIHW 2016b).

Top 10 specific diseases contributing to non-fatal burden (YLD '000; proportion of total %) for Indigenous Australians

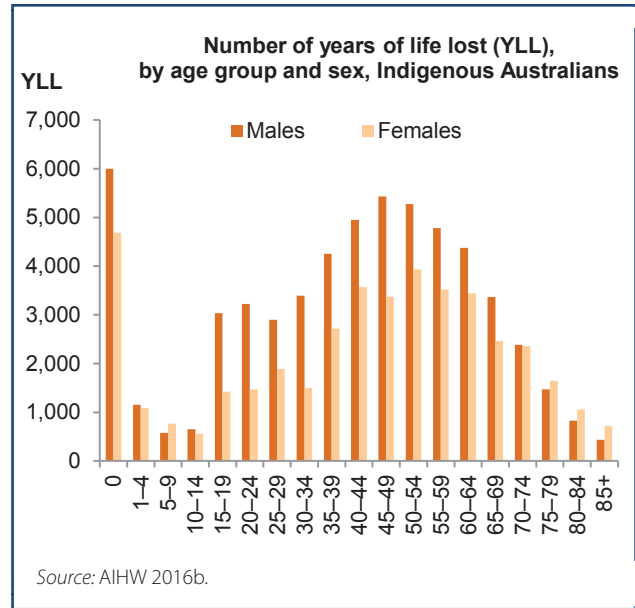
Age group (years)

	Under 5	5–14	15–24	25–44	45–64	65–74	75+
1st	Other gastro-intestinal infections (0.8; 22%)	Conduct disorder (1.2; 14%)	Alcohol use disorders (2.2; 14%)	Alcohol use disorders (3.9; 13%)	Other musculoskeletal (2.6; 12%)	COPD (0.7; 13%)	Dementia (0.5; 17%)
2nd	Protein-energy deficiency (0.7; 20%)	Anxiety disorders (1.1; 13%)	Anxiety disorders (1.9; 12%)	Anxiety disorders (3.7; 12%)	Anxiety disorders (1.6; 7.2%)	Other musculoskeletal (0.7; 13%)	COPD (0.3; 10%)
3rd	Asthma (0.4; 12%)	Asthma (1.1; 13%)	Depressive disorders (1.5; 9.9%)	Depressive disorders (3.2; 10%)	Depressive disorders (1.4; 6.2%)	Dementia (0.4; 8.1%)	Falls (0.3; 9.8%)
4th	Other infectious diseases (0.1; 4.0%)	Depressive disorders (0.6; 7.5%)	Asthma (0.9; 6.0%)	Other musculoskeletal (2.2; 6.9%)	COPD (1.4; 6.2%)	Falls (0.4; 6.9%)	Vision loss (0.2; 5.3%)
5th	Conduct disorder (0.1; 3.4%)	Dental caries (0.5; 6.7%)	Other musculoskeletal (0.7; 4.5%)	Asthma (1.7; 5.5%)	Asthma (1.3; 5.9%)	Asthma (0.2; 4.8%)	Other musculoskeletal (0.2; 5.1%)
6th	Anxiety disorders (0.1; 3.2%)	ADHD (0.3; 4.2%)	Bipolar affective disorder (0.6; 4.1%)	Schizophrenia (1.5; 4.7%)	Alcohol use disorders (1.0; 4.2%)	Coronary heart disease (0.2; 4.7%)	Coronary heart disease (0.2; 4.7%)
7th	Dermatitis and eczema (0.1; 2.9%)	Autism spectrum disorders (0.3; 3.9%)	Drug use disorders (0.6; 3.9%)	Drug use disorders (1.1; 3.6%)	Rheumatoid arthritis (0.8; 3.5%)	Osteoarthritis (0.2; 3.6%)	Rheumatoid arthritis (0.1; 4.2%)
8th	Upper respiratory conditions (0.1; 2.8%)	Upper respiratory conditions (0.3; 3.3%)	Schizophrenia (0.6; 3.8%)	Back pain and problems (1.1; 3.4%)	Back pain and problems (0.8; 3.5%)	Chronic kidney disease (0.2; 3.2%)	Asthma (0.1; 3.0%)
9th	Other neurological conditions (0.1; 2.7%)	Acne (0.2; 3.0%)	Diabetes (0.6; 3.6%)	Diabetes (1.1; 3.4%)	Coronary heart disease (0.8; 3.4%)	Rheumatoid arthritis (0.1; 2.9%)	Atrial fibrillation (0.1; 2.5%)
10th	Intellectual disability (0.1; 2.7%)	Other mental disorders (0.2; 2.9%)	Dental caries (0.5; 3.2%)	Bipolar affective disorder (0.9; 2.8%)	Osteoarthritis (0.7; 3.0%)	Atrial fibrillation (0.1; 2.3%)	Other kidney and urinary diseases (0.1; 2.4%)
	Top 10 (75.6%)	Top 10 (72.2%)	Top 10 (65.0%)	Top 10 (65.3%)	Top 10 (54.7%)	Top 10 (62.1%)	Top 10 (64.0%)

Source: AIHW analysis of AIHW 2016b.

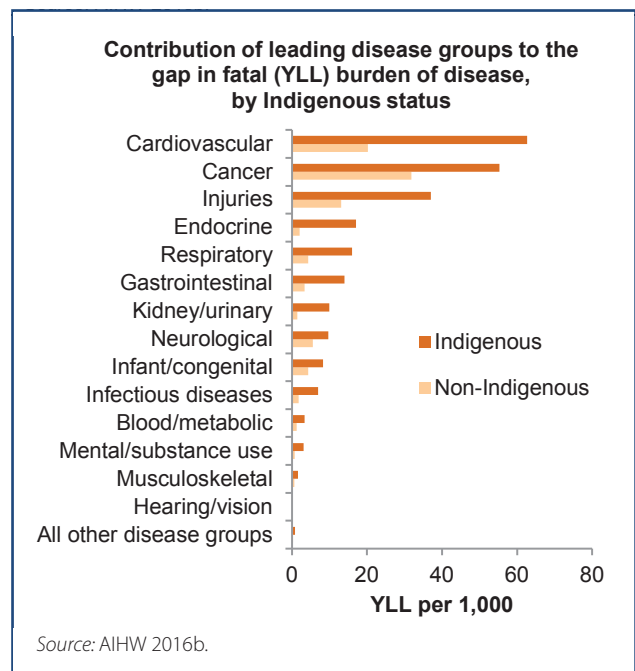
Fatal burden of disease

In 2011, Indigenous males had a higher proportion of years of life lost than Indigenous females across most age groups, including for infants (aged less than 1). YLL was highest in this age group for both Indigenous males and females (6,002 YLL and 4,684 YLL, respectively) (AIHW 2016b).

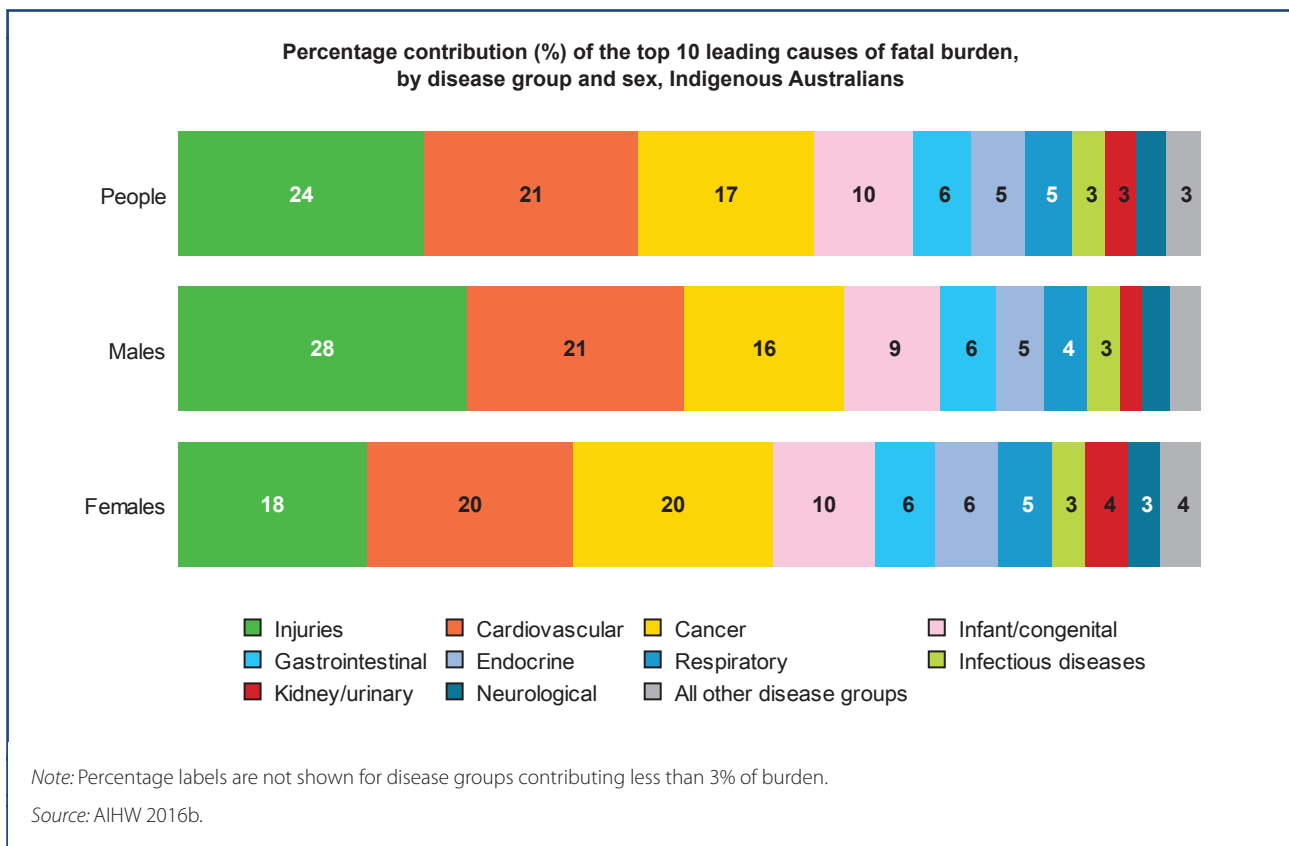


In 2011, after adjusting for age, the rate of fatal burden was higher for Indigenous Australians than for non-Indigenous Australians across all disease groups. The rate for endocrine disease was more than 8 times as high for Indigenous Australians as for non-Indigenous Australians (17 YLL per 1,000 and 2 YLL per 1,000, respectively).

The largest contributor to the fatal burden among Indigenous Australians was cardiovascular disease (63 YLL per 1,000), followed by cancer (55 YLL per 1,000), and injuries (37 YLL per 1,000) (AIHW 2016b).



In 2011, 4 disease groups accounted for almost three-quarters of YLL for Indigenous Australians: injuries (24%); cardiovascular diseases (21%); cancer (17%); and infant and congenital conditions (10%) (AIHW 2016b).



In 2011, suicide and self-inflicted injuries were the leading contributors to the fatal burden of disease for Indigenous Australians aged 15–44, and coronary heart disease was the leading contributor for those aged 45 and over (AIHW 2016b).

Leading specific diseases contributing to fatal burden (YLL '000; proportion of total %) by age, Indigenous Australians

		Age group (years)						
		Under 1	1-14	15-24	25-44	45-64	65-74	75+
1st	Pre-term/lbw complications (2.9; 27%)	RTI/motor vehicle occupant* (0.6; 14%)	Suicide/self-inflicted injuries (3.5; 38%)	Suicide/self-inflicted injuries (3.7; 15%)	Coronary heart disease (6.2; 18%)	Coronary heart disease (1.7; 16%)	Coronary heart disease (1.0; 16%)	
2nd	SIDS (1.7; 15%)	Suicide/self-inflicted injuries* (0.4; 8.7%)	RTI/motor vehicle occupant (1.7; 19%)	Coronary heart disease (3.3; 13%)	Diabetes (2.8; 8.3%)	Lung cancer (1.1; 10%)	Stroke (0.5; 8.9%)	
3rd	Other disorders of infancy* (1.2; 12%)	Drowning* (0.4; 8.7%)	Homicide/violence* (0.7; 7.6%)	Poisoning (2.0; 7.9%)	Lung cancer (2.4; 6.9%)	Diabetes (1.0; 9.2%)	Diabetes (0.5; 8.0%)	
4th	Birth trauma/asphyxia* (1.2; 12%)	Other unintentional injuries* (0.4; 7.7%)	Poisoning* (0.4; 4.4%)	Chronic liver disease (1.7; 6.7%)	Chronic liver disease (2.3; 6.6%)	COPD (0.9; 9.0%)	Dementia (0.5; 7.7%)	
5th	Other congenital conditions* (0.4; 3.8%)	Other land transport injuries* (0.3; 6.5%)	Other road traffic injuries (0.2; 2.5%)	RTI/motor vehicle occupant (1.5; 5.8%)	COPD (1.5; 4.5%)	Chronic kidney disease (0.5; 4.6%)	COPD (0.5; 7.6%)	
	Top 5 (69.6%)	Top 5 (45.1%)	Top 5 (71.8%)	Top 5 (48.1%)	Top 5 (44.4%)	Top 5 (49.1%)	Top 5 (48.4%)	

* Number of Indigenous deaths used in YLL calculations is less than 10.

Note: lbw = low birthweight; RTI = road traffic injuries.

Source: AIHW analysis of AIHW 2016b.



Risk factors

A risk factor causes or increases the likelihood of a health disorder or other condition, and contributes to the burden of disease as an attributable burden. The attributable burden is the reduction in burden that would have occurred if exposure to the risk factor had been avoided or reduced to the lowest possible level of exposure, or that would have the lowest associated population risk (AIHW 2016b).

In 2011, alcohol was the leading risk factor contributing to the disease burden in Indigenous Australians aged 15–44, and tobacco was the leading contributor in those aged 45 and over (AIHW 2016b).

Leading risk factor contribution to total burden (DALY '000; proportion of DALY %), by age, Indigenous Australians

Rank	Age group (years)						
	0-14	15-24	25-34	35-44	45-54	55-64	65+
1st	Iron deficiency (0.1; 0.5%)	Alcohol (3.9; 15.9%)	Alcohol (3.7; 15.1%)	Alcohol (3.9; 12.3%)	Tobacco (6.3; 19.9%)	Tobacco (6.1; 24.2%)	Tobacco (6.3; 25.2%)
2nd	Tobacco (0.0; 0.1%)	Drug use (1.5; 5.9%)	Drug use (1.7; 7.1%)	Tobacco (3.7; 11.5%)	High body mass (4.2; 13.1%)	High body mass (3.9; 15.5%)	High body mass (3.1; 12.2%)
3rd	Alcohol (0.0; 0.1%)	Sex abuse (1.0; 3.9%)	High body mass (1.3; 5.4%)	High body mass (3.2; 10.0%)	Physical inactivity (3.0; 9.4%)	Physical inactivity (2.4; 9.4%)	Blood pressure (2.3; 9.3%)
4th		Partner violence (0.5; 2.0%)	Physical inactivity (1.0; 4.1%)	Physical inactivity (2.2; 7.0%)	Alcohol (2.6; 8.3%)	Blood pressure (2.3; 9.1%)	Blood glucose (2.1; 8.4%)
5th		Occupational (0.3; 1.4%)	Sex abuse (1.0; 4.0%)	Blood pressure (1.7; 5.2%)	Blood pressure (2.6; 8.1%)	Blood glucose (2.3; 9.1%)	Physical inactivity (1.9; 7.6%)
6th		Tobacco (0.0; 0.0%)	Tobacco (0.9; 3.6%)	Drug use (1.7; 5.2%)	Blood glucose (2.1; 6.5%)	Fruit (1.2; 4.7%)	Fruit (0.9; 3.6%)
7th			Blood glucose (0.8; 3.3%)	Blood glucose (1.4; 4.5%)	Cholesterol (1.7; 5.4%)	Processed meat (1.1; 4.4%)	Whole grains (0.7; 2.7%)
8th			Partner violence (0.8; 3.3%)	Processed meat (1.4; 4.3%)	Processed meat (1.5; 4.7%)	Alcohol (1.1; 4.3%)	Nuts and seeds (0.7; 2.7%)
9th			Processed meat (0.7; 2.8%)	Cholesterol (1.3; 4.1%)	Fruit (1.5; 4.6%)	Cholesterol (1.0; 3.8%)	Vegetables (0.6; 2.6%)
10th			Whole grains (0.5; 2.0%)	Sex abuse (1.1; 3.5%)	Whole grains (1.3; 4.0%)	Nuts and seeds (0.9; 3.5%)	Processed meat (0.6; 2.4%)

Note: Processed meat = diet high in processed meat; fruit = diet low in fruit; whole grains = diet low in whole grains; nuts and seeds = diet low in nuts and seeds; vegetables = diet low in vegetables.
 Source: AIHW analysis of AIHW 2016b.

5 Social determinants of health and health expenditure

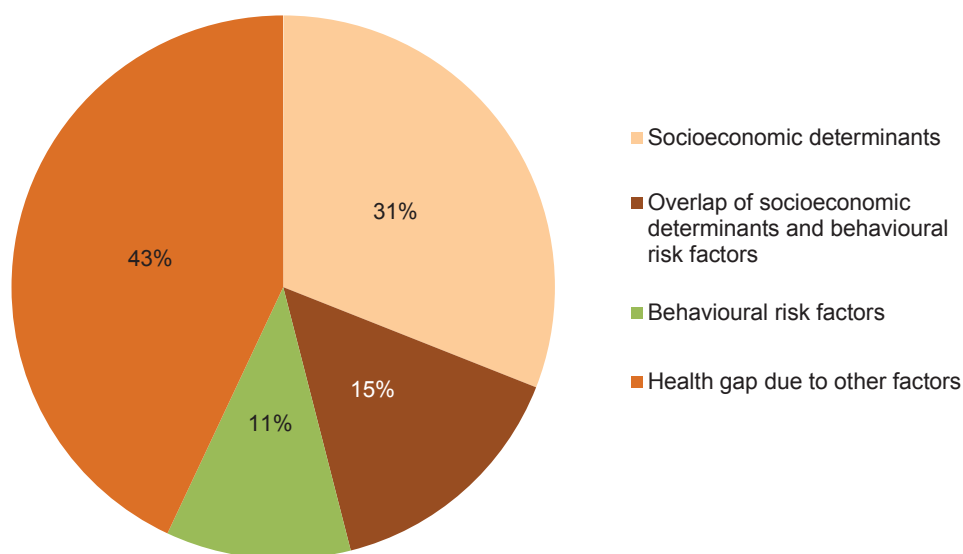
Social determinants of health

An estimation of the impact of demographic factors, social determinants and behavioural risk factors on the health gap between Indigenous and non-Indigenous Australians shows that social determinants—including school and non-school education, employment status, overcrowding, and household income—explained a larger proportion of the health gap than did behavioural risk factors.

Social determinants are responsible for nearly one-third (31%) of the health gap. Behavioural risk factors—including smoking, alcohol use, fruit and vegetable consumption—explained an estimated 11% of the gap. The combination of social determinants and behavioural risk factors explained a further 15% of the gap. Factors other than socioeconomic and health behaviour were responsible for the remaining 43% of the gap (AIHW 2014b).

These estimates are based on 2004–05 data, and various socioeconomic differences between Indigenous and non-Indigenous Australians are presented for the most recent available periods.

Proportion of the health gap between Indigenous and non-Indigenous Australians aged 15–64, by selected risk factors

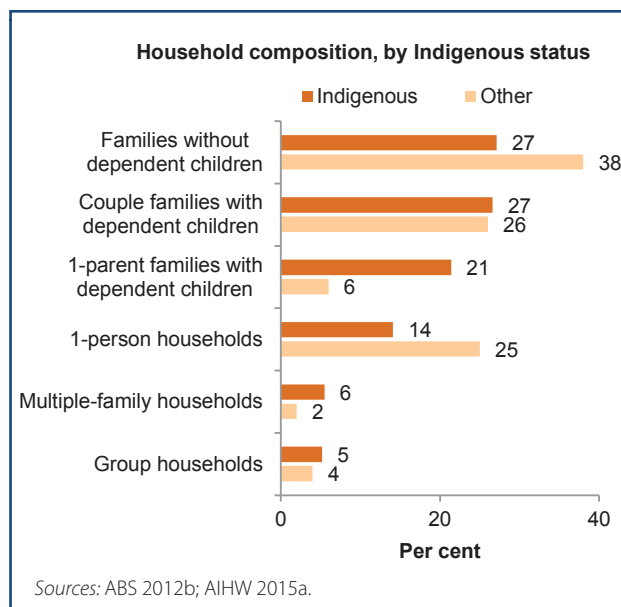


Note: Based on AIHW analyses of the ABS 2004–05 National Aboriginal and Torres Strait Islander Health Survey and the ABS 2004–05 National Health Survey.

Indigenous households

An estimated 209,000 households in 2011 were Indigenous households, with three-quarters (75%) being 1-family households—just over one-quarter (27%) were couple families with dependent children, another 27% were families without dependent children, 21% were 1-parent families with dependent children, and 14% were lone-person households.

The average size of Indigenous households was 3.3 persons, compared with 2.6 in other households (ABS 2012b).

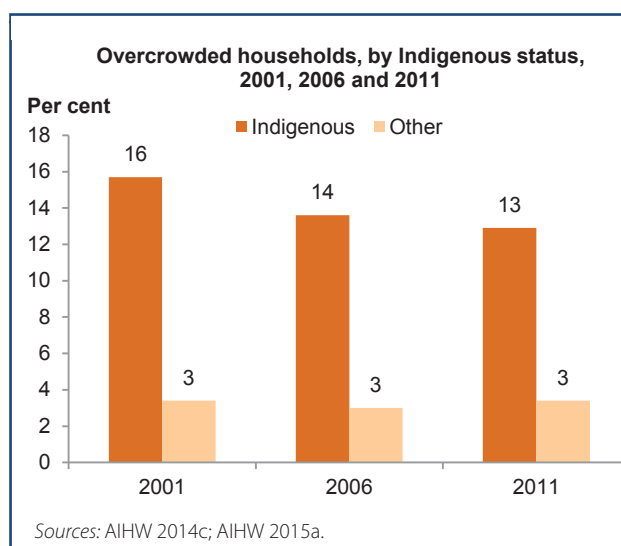


Overcrowded households

On Census night in 2011, almost 24,700 Indigenous households were considered to be overcrowded, as defined by the Canadian National Occupancy Standard (see Glossary).

Indigenous households were more than 3 times as likely as other households to be overcrowded (13% compared with 3%) (AIHW 2014c).

The proportion of Indigenous households considered to be overcrowded fell from 16% in 2001 to 13% in 2011, an overall fall of 3 percentage points over the decade (AIHW 2014c).

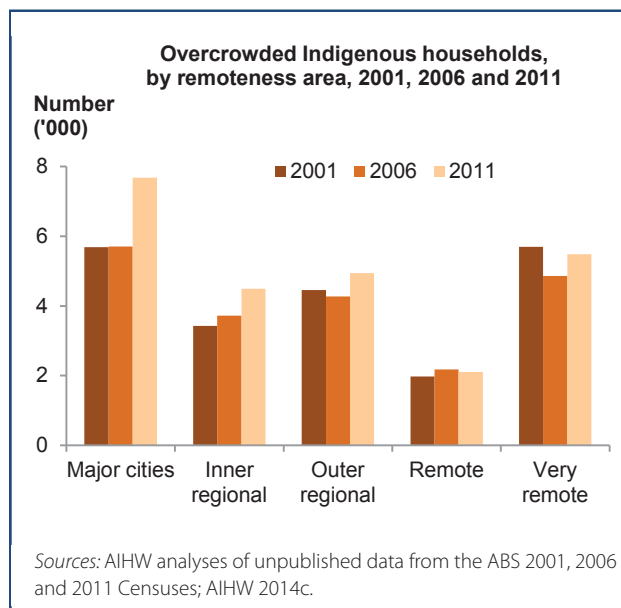


On Census night in 2001, *Major cities* and *Very remote* areas had the largest number of Indigenous households considered to be overcrowded (about 5,700 each).

On Census night in 2006, the number of overcrowded Indigenous households in *Major cities* was unchanged, but the number in *Very remote* areas fell to about 4,900 households.

On Census night in 2011, the number of Indigenous households considered overcrowded in *Major cities* rose by about 2,000, to almost 7,700 households, and in *Very remote* areas by about 600 to almost 5,500 households.

Remote areas had the lowest number of overcrowded Indigenous households on each Census night (AIHW 2014c).



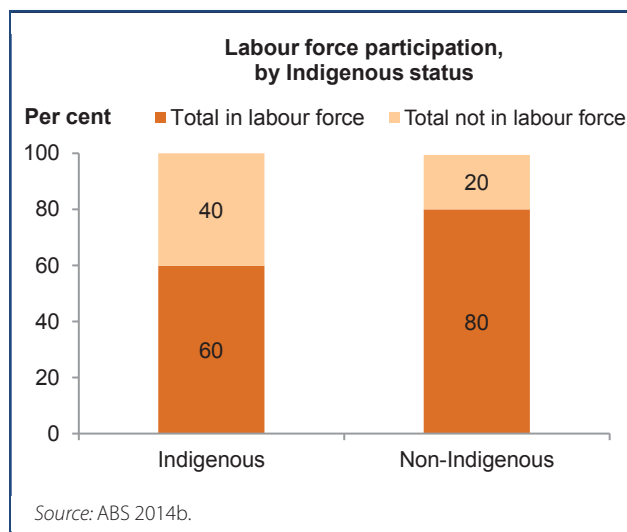
Queensland had the highest number of Indigenous households considered to be overcrowded on Census night in 2001 (6,100), 2006 (6,200) and 2011 (7,300), followed by New South Wales (5,300, 5,200 and 6,700, respectively).

The lowest number of overcrowded Indigenous households on each of the Census nights was in the Australian Capital Territory (110, 97 and 160, respectively) (AIHW 2014c).

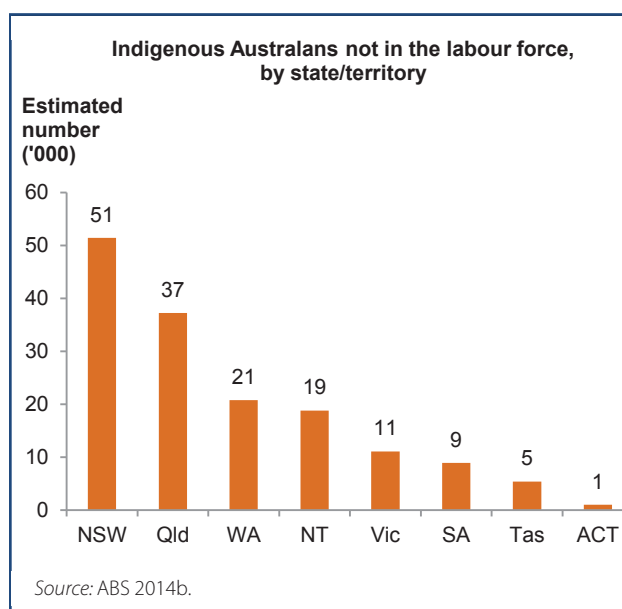


Economic participation

In 2012–13, twice as many Indigenous Australians as non-Indigenous Australians aged 15–64 were not in the labour force (40% and 20%, respectively), a rate ratio of 2.1 (AIHW 2015d).



According to the 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey, New South Wales had the largest estimated number of Indigenous Australians aged 15–64 not in the labour force (51,400), followed by Queensland (37,200), Western Australia (20,800), and the Northern Territory (18,800) (ABS 2014b).



The estimated number of Indigenous Australians aged 15–64 not in the labour force was largest in *Major cities* (50,100), *Outer regional areas* (35,100), and *Inner regional areas* (31,200). An estimated 38,100 Indigenous Australians aged 15–64 were not in the labour force in *Remote* (11,900) and *Very remote* (26,200) areas combined (ABS 2014b).



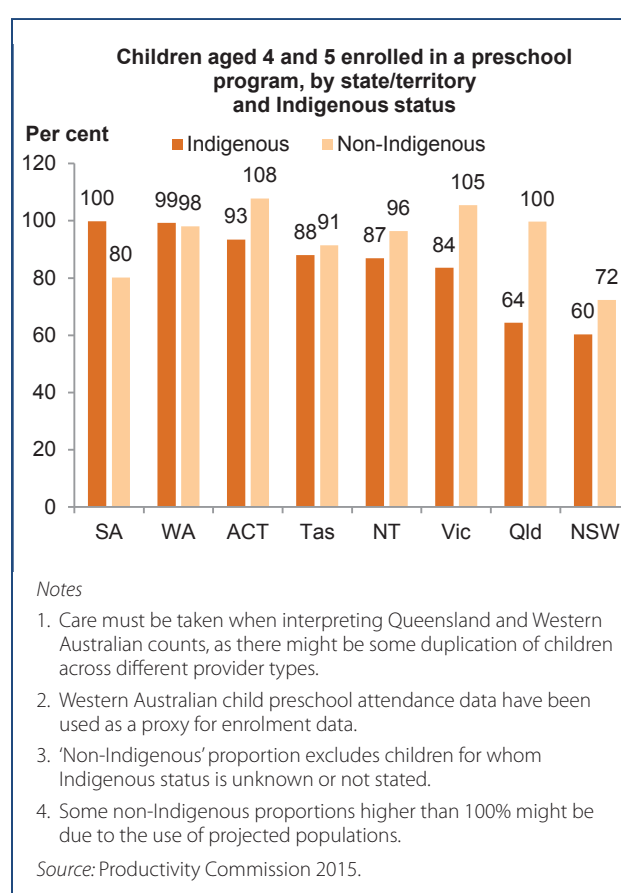
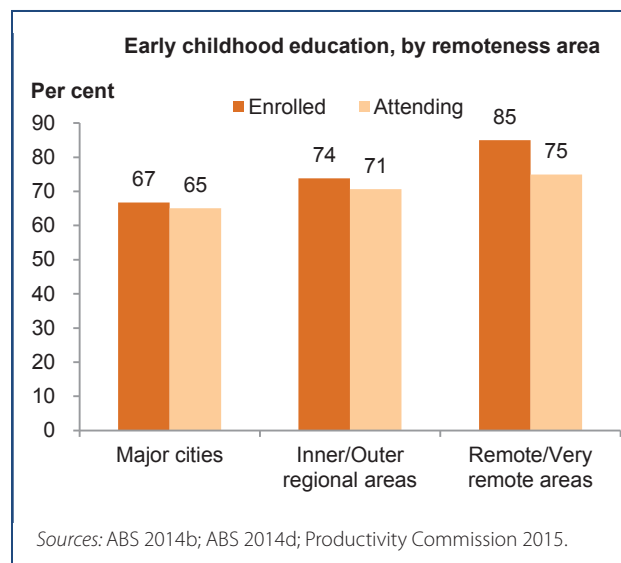
Early childhood education

It is a COAG Closing the Gap target for 95% of all Indigenous children aged 4 to be enrolled in early childhood education (by 2025). The original target to ensure access for all Indigenous children aged 4 in remote communities to early childhood education expired unmet in 2013. The new target focuses on lifting participation rates of all Indigenous children regardless of where they live (Commonwealth of Australia 2016).

In 2013, the proportion of enrolled Indigenous children was higher in *Remote/Very remote* areas (85%) than in *Inner/Outer regional* areas (74%), and *Major cities* (67%). Attendance was also highest in *Remote/Very remote* areas (75%).

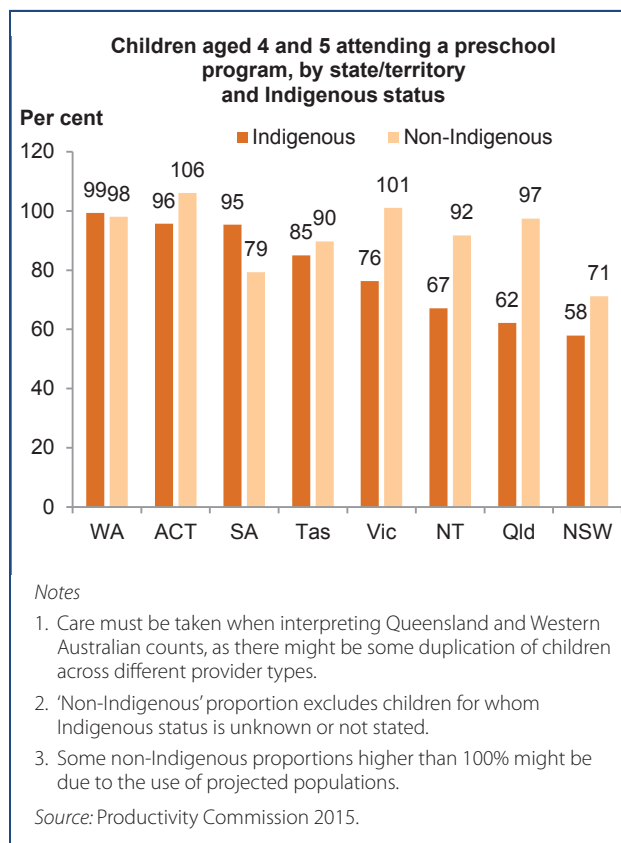
In 2013, Queensland had the highest number of Indigenous children aged 4 and 5 enrolled in a preschool program in the year before full-time schooling (3,300), followed by New South Wales (3,100), and Western Australia (2,100). The Australian Capital Territory had the lowest number (129).

In 2013, South Australia had the highest proportion of Indigenous children aged 4 and 5 enrolled in a preschool program in the year before full-time schooling (100%), followed by Western Australia (99%), and the Australian Capital Territory (93%). New South Wales had the lowest proportion (60%) (Productivity Commission 2015).



In 2013, Queensland had the highest number of Indigenous children aged 4 and 5 attending a preschool program in the year before full-time schooling (3,200), followed by New South Wales (3,000), and Western Australia (2,100). The Australian Capital Territory had the lowest number (132).

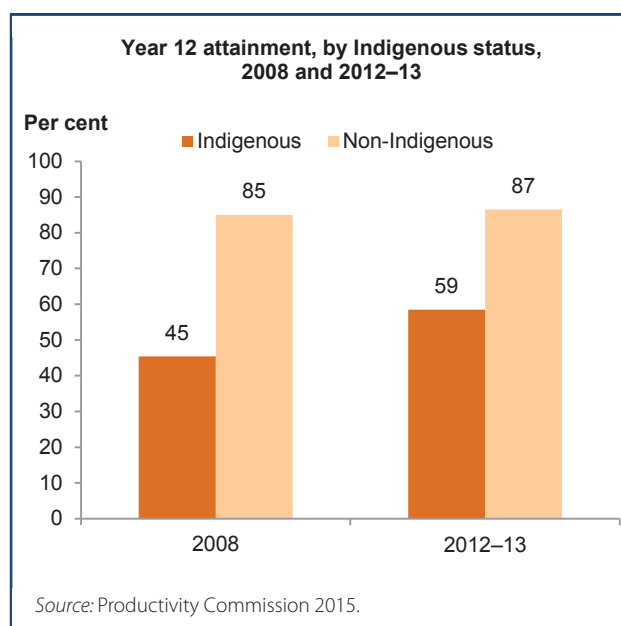
In 2013, Western Australia had the highest proportion of Indigenous children aged 4 and 5 attending a preschool program in the year before full-time schooling (99%), followed by the Australian Capital Territory (96%), and South Australia (95%). New South Wales had the lowest proportion (58%) (Productivity Commission 2015).



Year 12 attainment

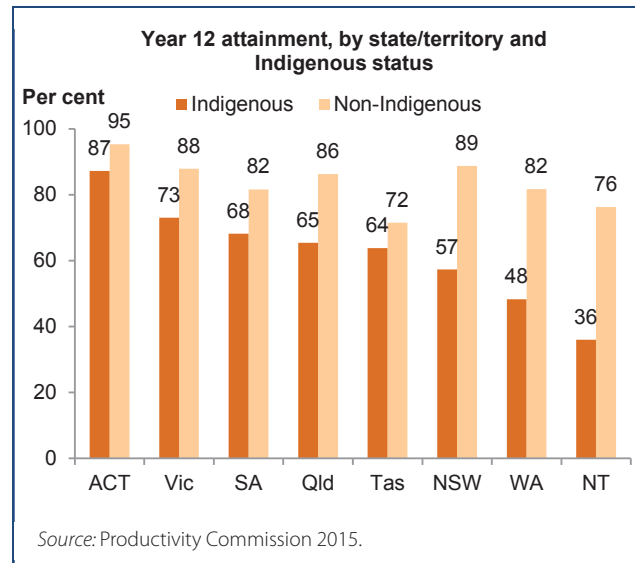
It is a COAG Closing the Gap target to halve the gap in Year 12 attainment or equivalent attainment rates for Indigenous Australians aged 20–24 (by 2020).

Between 2008 and 2012–13, the rate for Indigenous Australians aged 20–24 who had attained at least Year 12 or equivalent rose from 45% to 59%. The gap in attainment rates narrowed from 40 percentage points in 2008 (45% for Indigenous Australians and 85% for non-Indigenous Australians) to 28 percentage points in 2012–13 (59% for Indigenous Australians and 87% for non-Indigenous Australians) (Productivity Commission 2015).



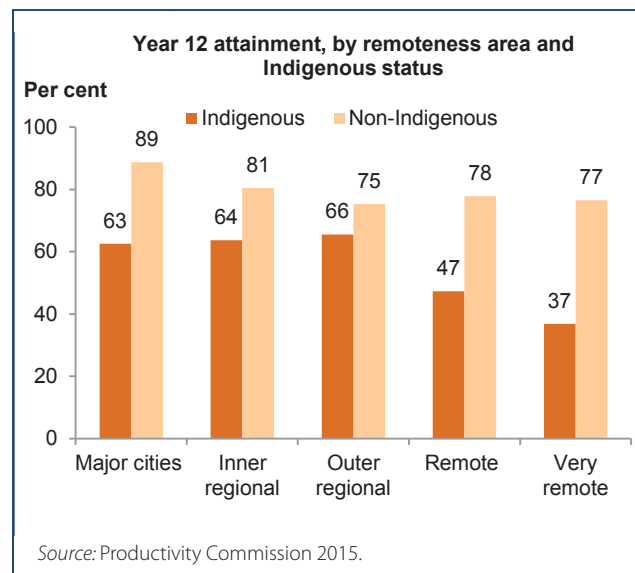
In 2012–13, Queensland had the highest number of Indigenous Australians aged 20–24 having attained at least Year 12 or equivalent, or Australian Qualification Framework Certificate II or higher (10,400). This was followed by New South Wales (10,000), and Western Australia (3,700), with the Australian Capital Territory having the lowest number (697) (Productivity Commission 2015).

In 2012–13, the Australian Capital Territory (87%) had the highest proportion of Indigenous Australians aged 20–24 having attained at least Year 12 or equivalent, or Australian Qualifications Framework Certificate II or higher. This was followed by Victoria (73%), and South Australia (68%), with the Northern Territory having the lowest proportion (36%).



In 2012–13, the proportion of Indigenous Australians aged 20–24 having attained at least Year 12 or equivalent, or Australian Qualification Framework Certificate II or higher was lower than for non-Indigenous Australians for all remoteness areas. The gap was smallest in *Outer regional* areas (a 9 percentage point difference—66% for Indigenous Australians and 75% for non-Indigenous Australians). It was largest in *Very remote* areas (a 40 percentage point difference—37% of Indigenous Australians and 77% for non-Indigenous Australians).

Outer regional areas, *Inner regional* areas and *Major cities* had similar proportions of Indigenous Australians aged 20–24 having attained at least Year 12 or equivalent, or Australian Qualification Framework Certificate II or higher (66%, 64% and 63%, respectively). Just over one-third (37%) of Indigenous Australians aged 20–24 in *Very remote* areas had attained this level of qualification (Productivity Commission 2015).



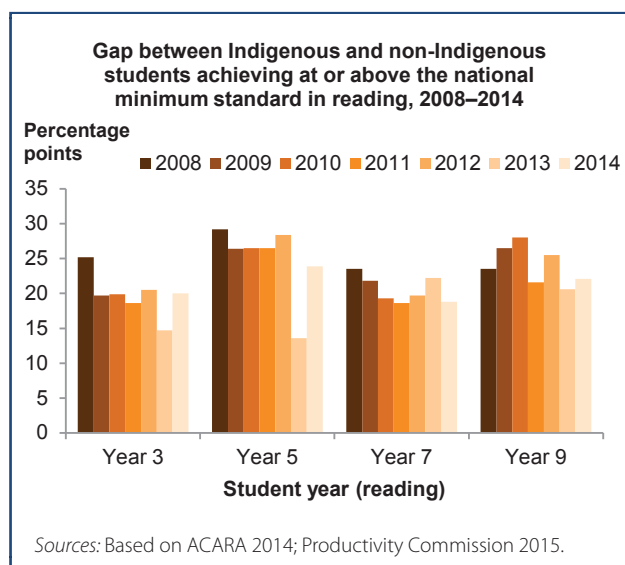
Literacy and numeracy

It is a COAG Closing the Gap target to halve the gap for Indigenous children in reading, writing and numeracy achievements within a decade (by 2018).

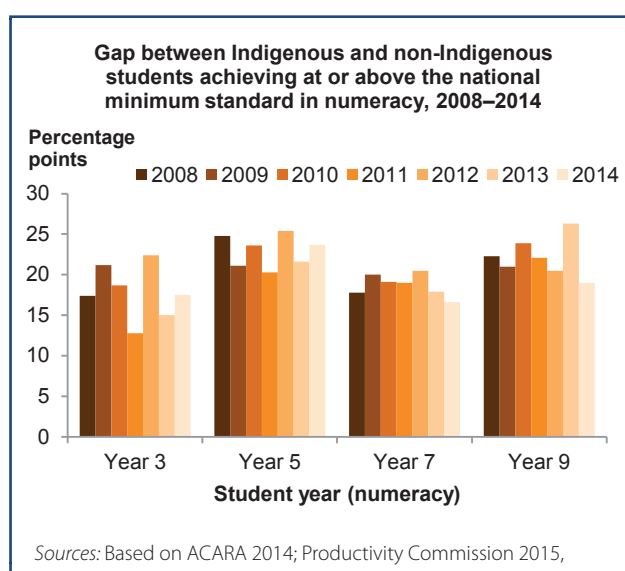
Overall trend data from 2008 to 2014 are not available for writing, due to a change in the type of test used from 2011, but data for 2011 to 2014 can be compared.

The gap between the proportion of Indigenous and non-Indigenous students achieving at or higher than the national minimum standard for writing widened for all student years between 2011 and 2014. For Year 3 and Year 9, the gap widened by about 3 percentage points; for Year 5 it widened by about 4 percentage points; and for Year 7 it widened by about 5 percentage points (Productivity Commission 2015).

For reading, the gap between the proportion of Indigenous and non-Indigenous students achieving at or higher than the national minimum standard narrowed for all student years between 2008 and 2014. For Year 3, Year 5 and Year 7, the gap narrowed by about 5 percentage points for Year 3 (from 25% to 20%) Year 5 (from around 29% to 24%) and Year 7 (from around 24% to 19%); for Year 9, it narrowed by about 1.5 percentage points (from around 24% to around 22%).



For numeracy, the gap between the proportion of Indigenous and non-Indigenous students achieving at or higher than the national minimum standard narrowed for all student years between 2008 and 2014. For Year 3 (from about 17% to about 18%), Year 5 (from about 25% to about 24%) and Year 7 (from about 18% to about 17%), the gap narrowed by just over 1 percentage point; for Year 9, it narrowed by about 3 percentage points (from about 22% to about 19%).



The National Assessment Program—Literacy and Numeracy (NAPLAN) tests are done nationally each year for all students in Years 3, 5, 7 and 9. Results are reported using 5 national achievement scales—one for each of the assessment areas of reading; writing; spelling; grammar and punctuation; and numeracy—which show the range for each of the years tested, from 0–100. Each scale consists of 10 bands, which signify the increasing difficulty of the knowledge and skills assessed. Of these bands, 6 are used for reporting student performance in each year level, with the second lowest band representing the national minimum standard expected of students at the year level. Students’ raw NAPLAN scores are converted to a ‘scale score’ so they can be located on the national scale for each assessment area (ACARA 2015).

The 6 bands used for reporting student performance and the band representing the national minimum standard in each year level are:

- Year 3: Bands 1–6, with Band 2 representing the national minimum standard for students in this year level
- Year 5: Bands 3–8, with Band 4 representing the national minimum standard for students in this year level
- Year 7: Bands 4–9, with Band 5 representing the national minimum standard for students in this year level
- Year 9: Bands 5–10, with Band 6 representing the national minimum standard for students in this year level.

Reading

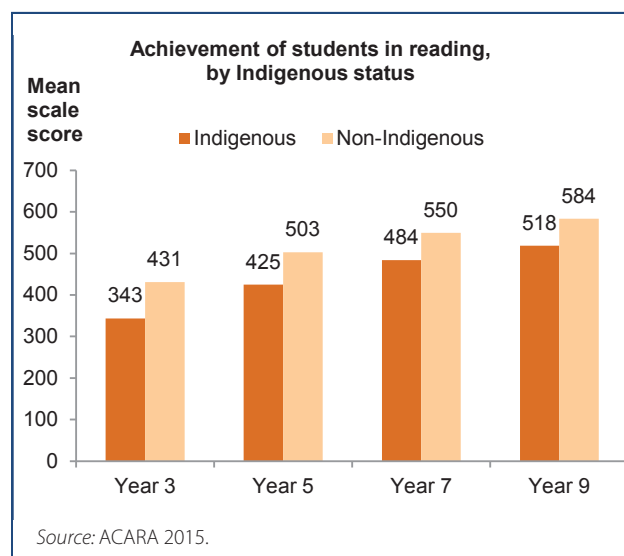
Nationally in 2015, Indigenous students across all years tested achieved mean scale scores that placed them either at or higher than the national minimum standard for reading.

Indigenous Year 3 students achieved a mean scale score of 343.4 (Band 3). However, the mean scale score for non-Indigenous Year 3 students was 430.7 (Band 5).

Indigenous Year 5 students achieved a mean scale score of 425.1 (Band 4). This score was lower than the mean scale score for non-Indigenous students (502.9, Band 6).

Indigenous students in Year 7 attained a mean scale score of 484.0 (Band 6). However, the mean scale score for non-Indigenous students in Year 5 was 549.6 (Band 7).

Indigenous Year 9 students attained a mean scale score of 518.3 (Band 6) This score was lower than the mean scale score for non-Indigenous Year 9 students (583.8, Band 8) (ACARA 2015).



Numeracy

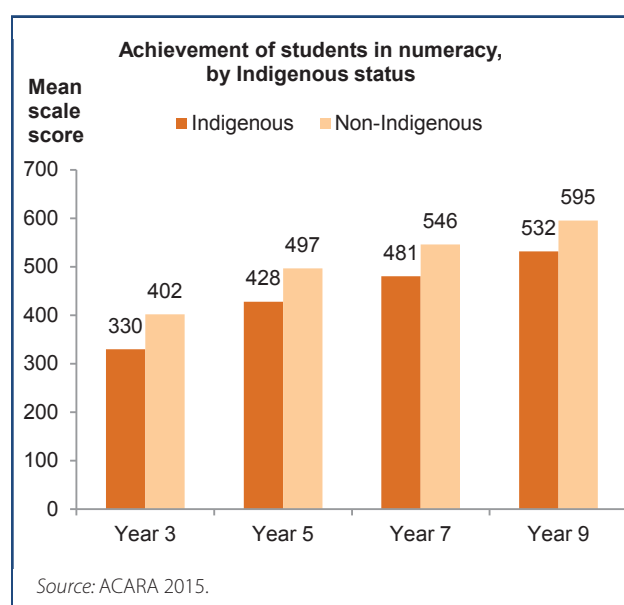
Nationally in 2015, Indigenous students across all years tested achieved mean scale scores that placed them higher than the national minimum standard for numeracy.

Indigenous Year 3 students achieved a mean scale score of 330.0 for numeracy (Band 3), but the mean scale score for all non-Indigenous Year 3 students was 402.0 (Band 4).

Indigenous Year 5 students achieved a mean scale score of 428.0 (Band 5), lower than the mean scale score for non-Indigenous Year 5 students of 496.5 (Band 6).

Indigenous students in Year 7 attained a mean scale score of 480.5 (Band 6), but the mean scale score for non-Indigenous students was 546.2 (Band 7).

Indigenous Year 9 students attained a mean scale score of 531.9 (Band 7), lower than the mean scale score for non-Indigenous students of 595.2 (Band 8) (ACARA 2015).



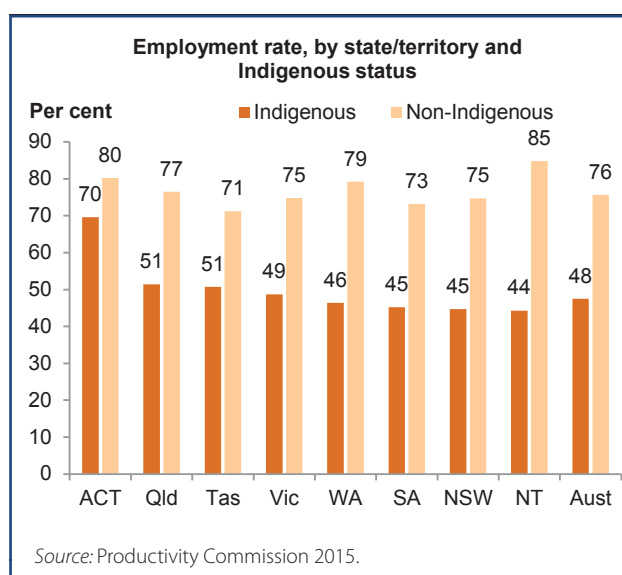
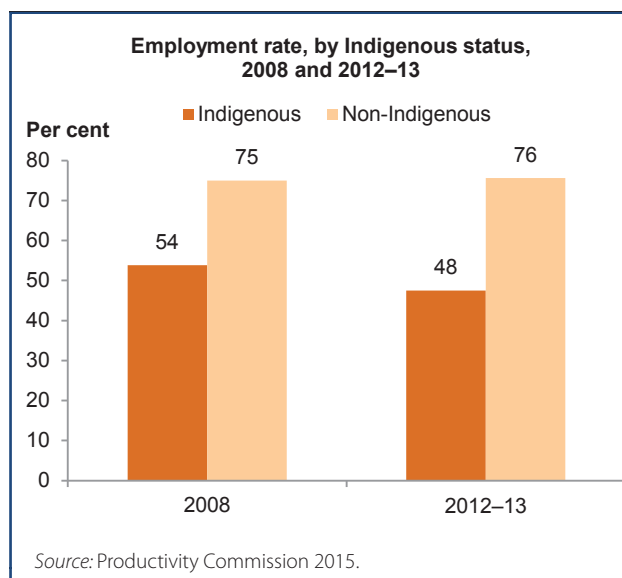
Employment

It is a COAG Closing the Gap target to halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade (by 2018).

Between 2008 and 2012–13, the employment rate for Indigenous Australians fell from 54% to 48%, while the employment rate for non-Indigenous Australians remained fairly steady. As a result, the gap in the employment rate between Indigenous and non-Indigenous Australians widened by 7 percentage points.

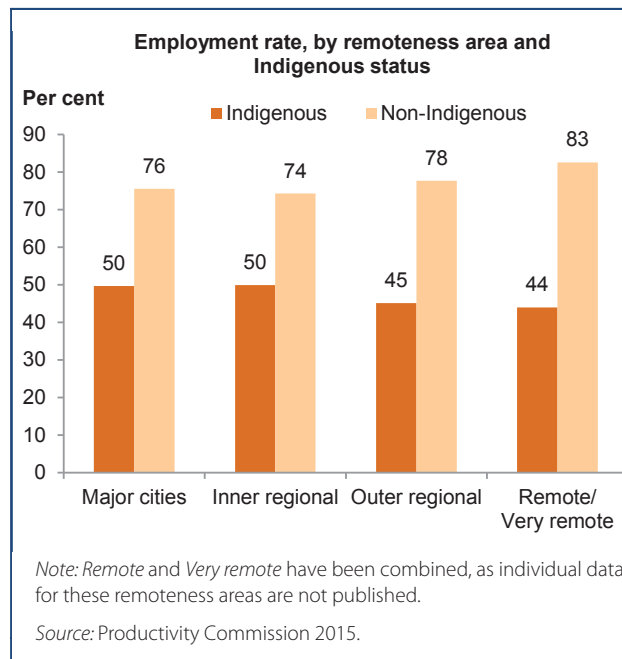
In 2012–13, the Australian Capital Territory had the highest proportion of Indigenous Australians of working age (aged 15–64) who were employed (70%). This was 22 percentage points higher than the overall Indigenous Australian proportion (48%). At 44%, the Northern Territory was about 3 percentage points lower than the overall Australian proportion, and had the lowest proportion of Indigenous Australians of working age who were employed (Productivity Commission 2015).

The proportion of non-Indigenous Australians of working age who were employed was highest in the Northern Territory (85%)—9 percentage points higher than the overall Australian proportion (76%). Tasmania (71%) had the lowest proportion employed (about 4 percentage points lower than the overall Australian proportion). Note, due to rounding numbers in text and figures may differ.



In 2012–13, the proportion of the working age Indigenous population (aged 15–64) who were employed was highest in *Major cities* (50%) and *Inner regional* areas (50%), and lowest in *Remote* and *Very remote* areas combined (44%).

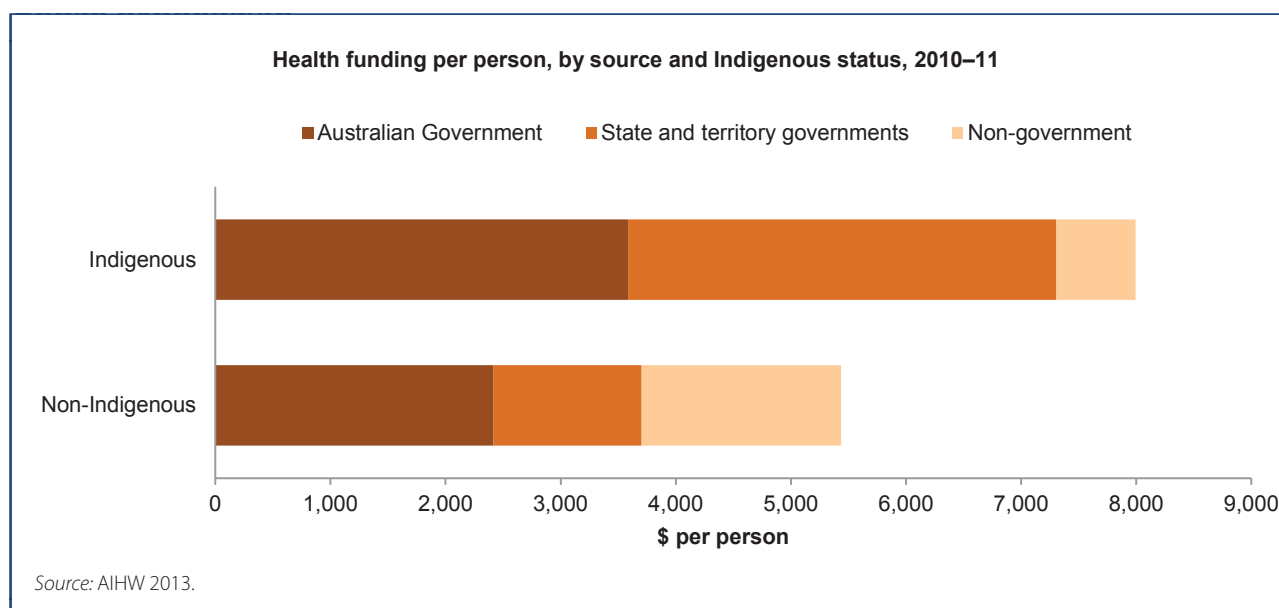
By comparison, the proportion of the non-Indigenous working age population who were employed was highest in *Remote* and *Very remote* areas combined (83%), and lowest in *Inner regional* areas (74%) (Productivity Commission 2015).



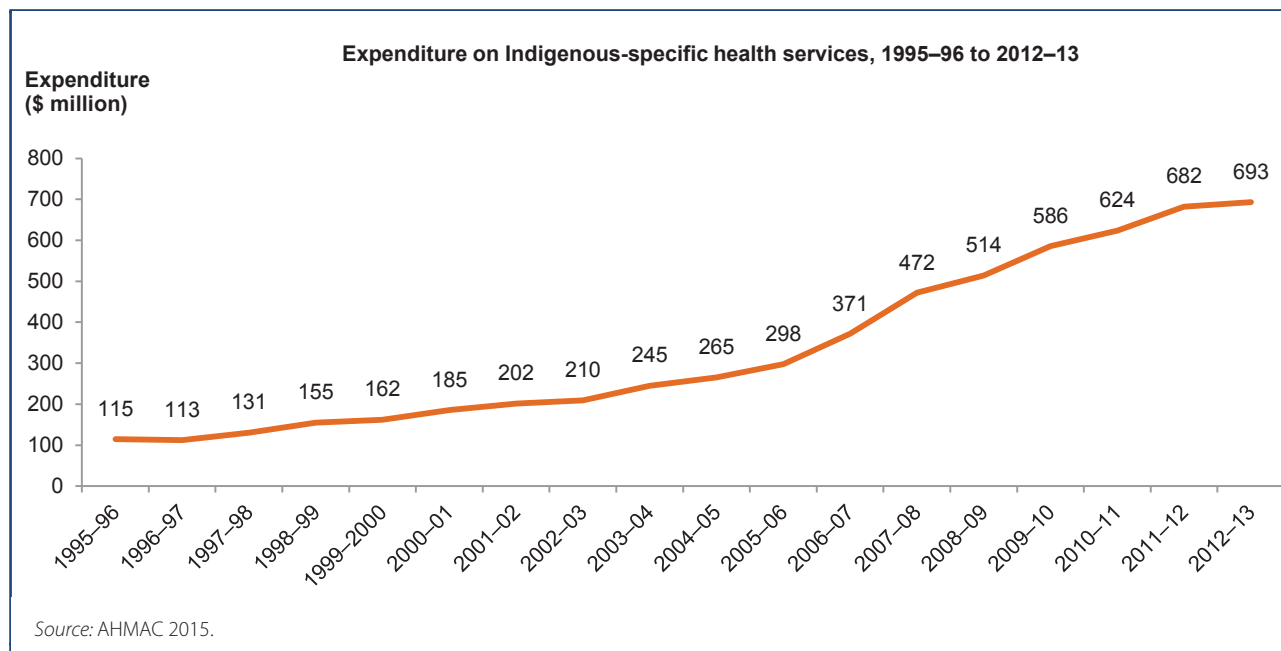
Health expenditure

An estimated \$4.55 billion was spent on Indigenous health in 2010–11. This was 3.7% of total Australian health spending. In terms of average health funding per person:

- Australian Government funding for Indigenous Australians, per person, was 1.5 times that of non-Indigenous Australians (\$3,584 compared with \$2,418 per person)
- state and territory government funding for Indigenous Australians was nearly 3 times as high as for non-Indigenous Australians (\$3,722 compared with \$1,286 per person)
- non-government health funding (including out-of-pocket payments by individuals and contributions by third party insurers) for Indigenous Australians was less than half the funding for non-Indigenous Australians (\$689 compared with \$1,733 per person).



Total Australian Government spending on Indigenous-specific health programs rose significantly between 1995–96 and 2012–13. In 2012–13, the Australian Government spent \$693 million, a 292% increase since 1995–96 when taking inflation into account (AHMAC 2015).



6 Geographic variation

This section presents 2 geographic analyses: the spatial distribution of ACCHSs and the Indigenous population, and the geographic variation in access to ACCHSs.

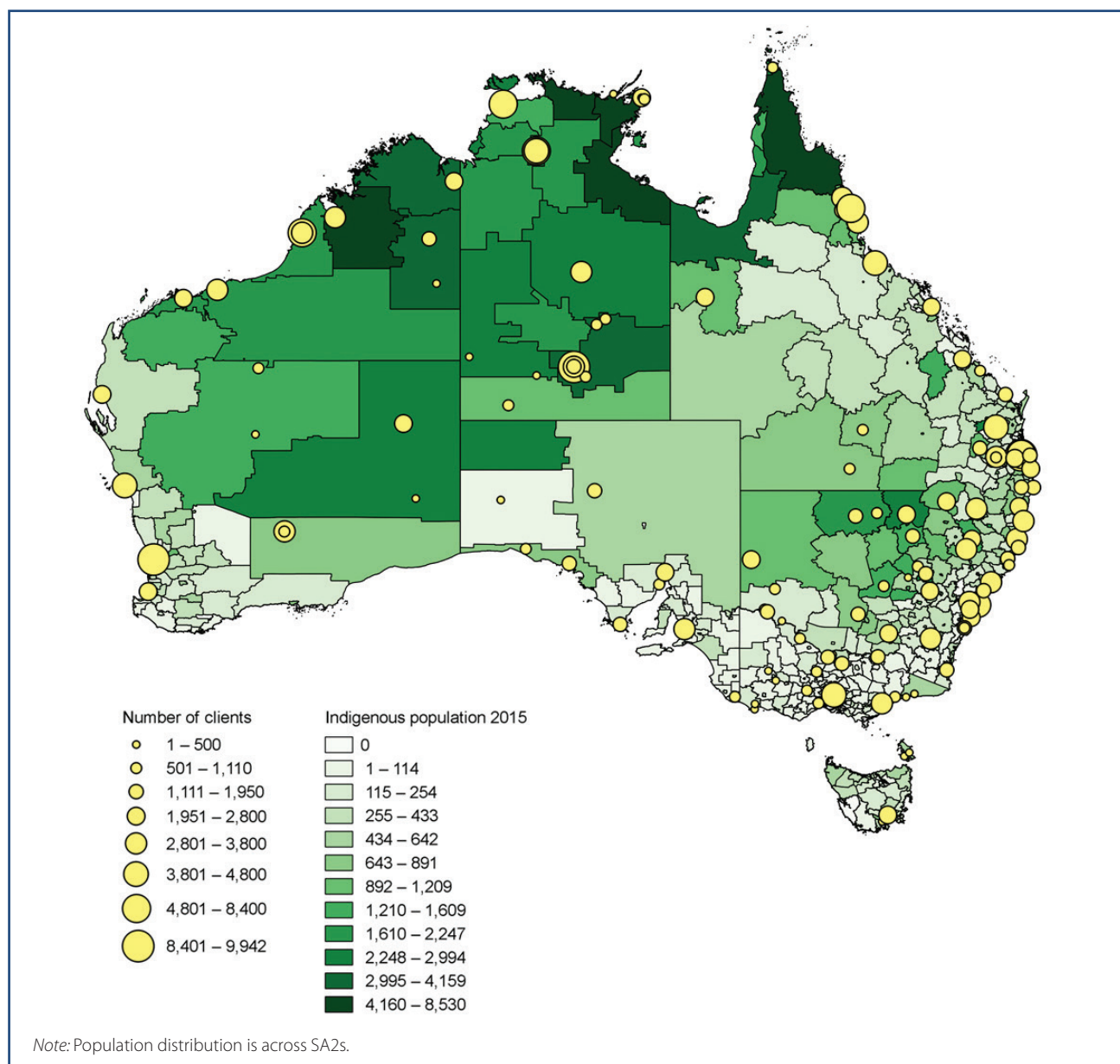
Distribution of ACCHSs and the Indigenous population

The maps show the geographic distribution of ACCHSs and the number of clients of each service. They also show the Indigenous population distribution across the 2,200 or so statistical areas level 2 (SA2s) of the ABS's Australian Statistical Geography Standard. The SA2s were constructed in such a way that they contain population ranges of between a few thousand and about 25,000 residents. As a result, they are small in densely populated areas and large in sparsely populated areas. Because the target population of SA2s was based on the total population, SA2s in areas where the proportion of Indigenous Australians is high tend to have the largest Indigenous populations.

The highest density (number of locations in a given spatial area) of ACCHS locations is found in areas that are close to *Major cities* and in the *Inner regional* areas around cities.

However, the majority (just over 50%) of ACCHS locations are found in *Remote* and *Very remote* areas, which also have the highest number of Indigenous-specific primary health care locations per 1,000 Aboriginal and Torres Strait Islander people (AIHW 2015c). Additionally, despite the relatively large number of ACCHS locations per capita, many Aboriginal and Torres Strait Islander people in *Remote* and *Very remote* areas live far from their nearest service location. These areas also generally have the worst access to other primary health care services (AIHW 2014a).

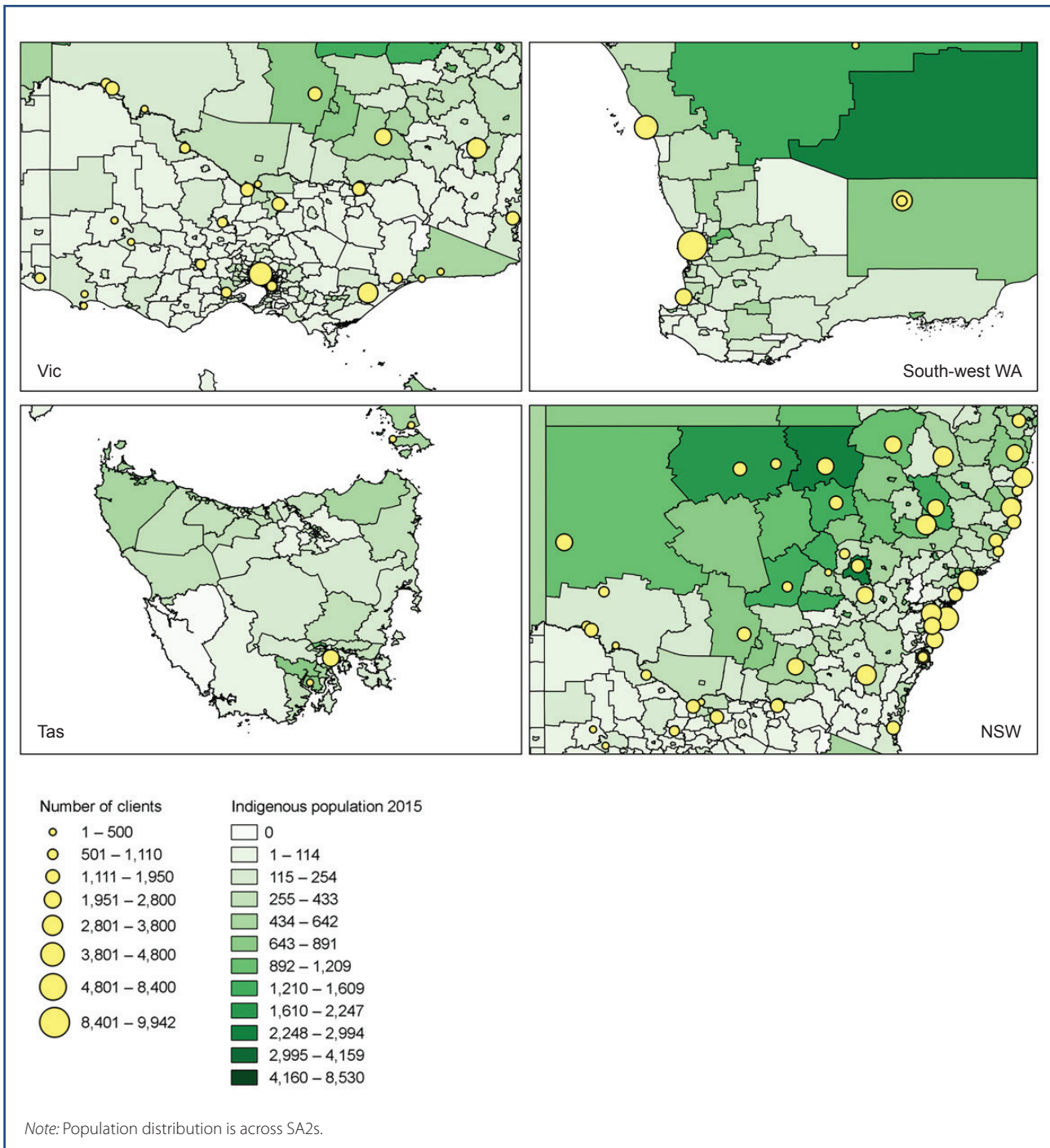
Number of Indigenous clients for ACCHS and Indigenous population distribution, 2011



This map shows the number of Indigenous clients by the location of the ACCHS parent organisation (client data are not available for individual service sites for organisations that operate more than 1 site), compared with the distribution of the Indigenous population at the SA2 level (2015 estimates by Prometheus Information):

- The population is shown as Indigenous Australians per SA2, not as population density. *Major cities* tend to have relatively large Indigenous populations spread out across many small SA2s, with a small Indigenous population in each SA2 (see inset map).
- As the number of clients is only available as total numbers for each organisation, only 1 location with 1 set of client numbers is shown for organisations that operate multiple service sites.
- The map shows that, in general, the spatial distribution of the number of clients reflects the distribution of the Indigenous population (there are higher numbers of clients where there is also a larger population). However, a small number of SA2s in the Kimberley, Arnhem Land, the north-eastern Northern Territory, and Cape York have large Indigenous populations, but relatively small numbers of clients.

Number of Indigenous clients for ACCHS and Indigenous population distribution: inset map, 2011



Geographic variation in access to ACCHSs

Access to ACCHSs varies geographically. Much of this variation occurs at a finer scale than the levels of geography traditionally used to report data on populations, services and health outcomes. For example, access to services varies substantially within remoteness areas and within states and territories.

The maps in this section show how Aboriginal and Torres Strait Islander peoples' access to ACCHSs varies between the 2,200 or so SA2s.

Only access to service sites operated by the 203 primary health care service organisations providing OSR data (138 of them being ACCHSs) was considered in the analyses presented in this section. The number of organisations who provided OSR data differs slightly from the number of organisations who provided nKPI data.

Box 5: Technical note about access to services

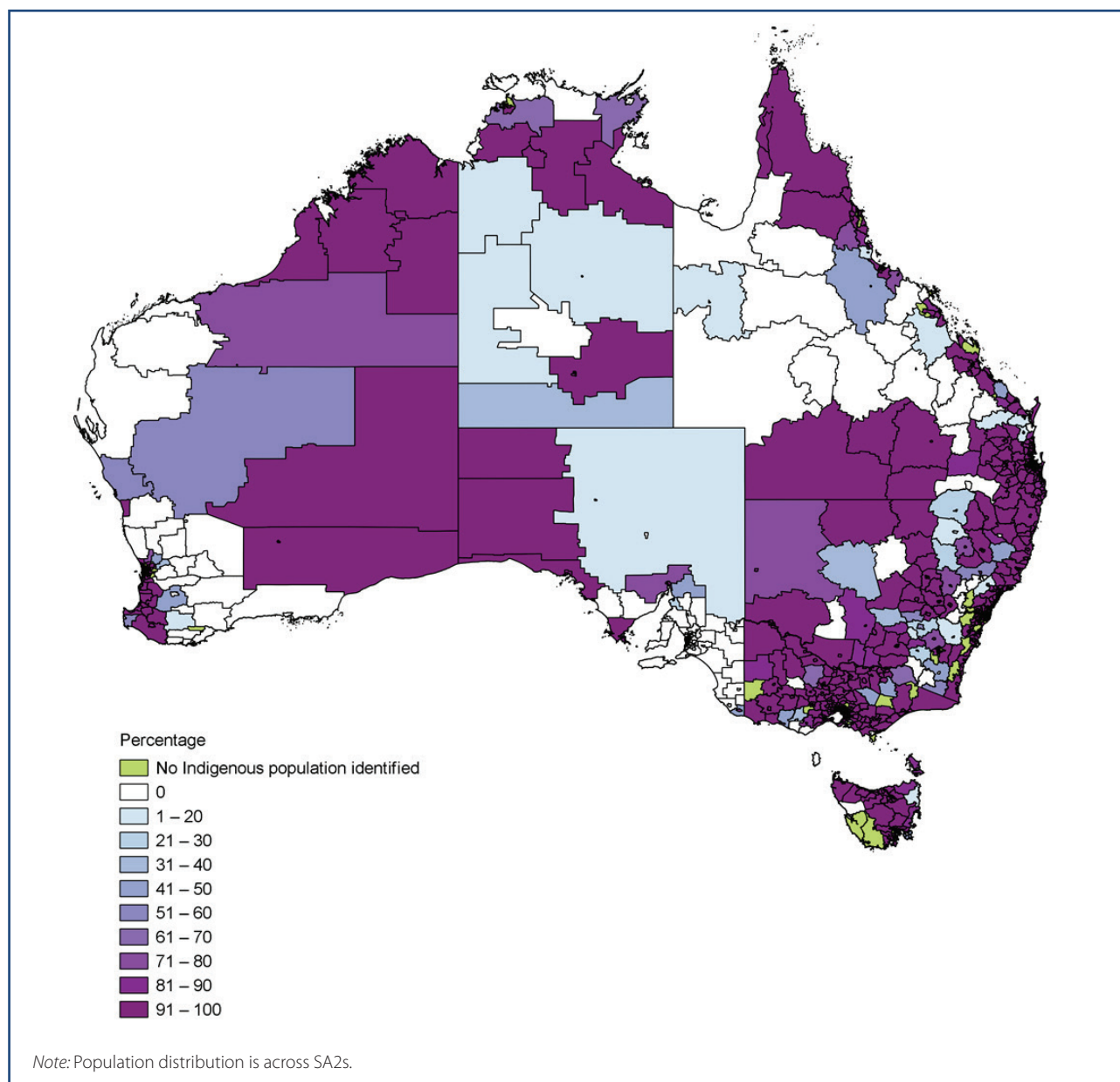
The maps in this section show spatial variation in access to service locations. Aboriginal and Torres Strait Islander people who live within 1 hour's drive time of a service were considered to have access to that service in these analyses.

Drive times between the centre of the nearly 55,000 SA1s of the Australian Statistical Geography Standard and service locations were estimated using the MapInfo's Routefinder application. This means that the whole Indigenous population of each SA1 is either considered to have access or considered not to have access to each service location. In the Australian Statistical Geography Standard, each SA1 is wholly contained within 1 SA2, so any SA1-level data can be combined to the SA2 level.

Proportions of Indigenous Australians within 1 hour of a service were calculated at the SA2 level based on SA1 Indigenous Census counts, and drive time estimates for the centre of each SA1. The centres of SA1s were either the geographic midpoint of SA1s, or, for some large SA1s, were determined manually based on the locations of population centres within each SA1.

Many areas with poor access to ACCHSs also have relatively small Indigenous populations (see maps in previous section). Earlier work by the AIHW (AIHW 2015c) identified 37 SA2s with very poor access to both Indigenous-specific primary health care and to general practitioners in general. However, of these SA2s, 27 have an Indigenous population of less than 600 (AIHW 2015c). As such, the distribution of the Indigenous population should always be taken into account when considering geographic variation in access to ACCHS locations.

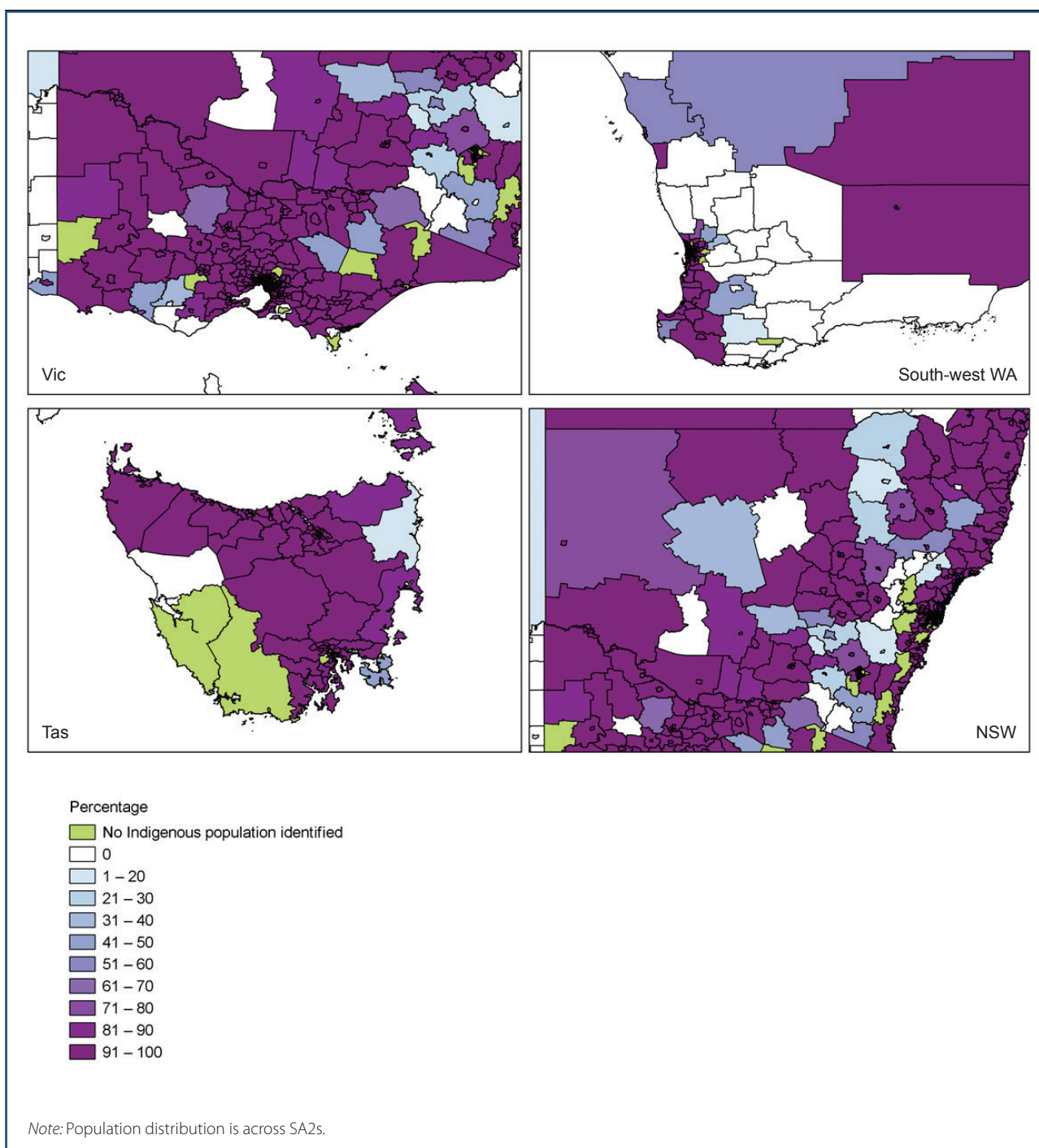
Proportion of Indigenous Australians within 1 hour's drive of an ACCHS, 2011



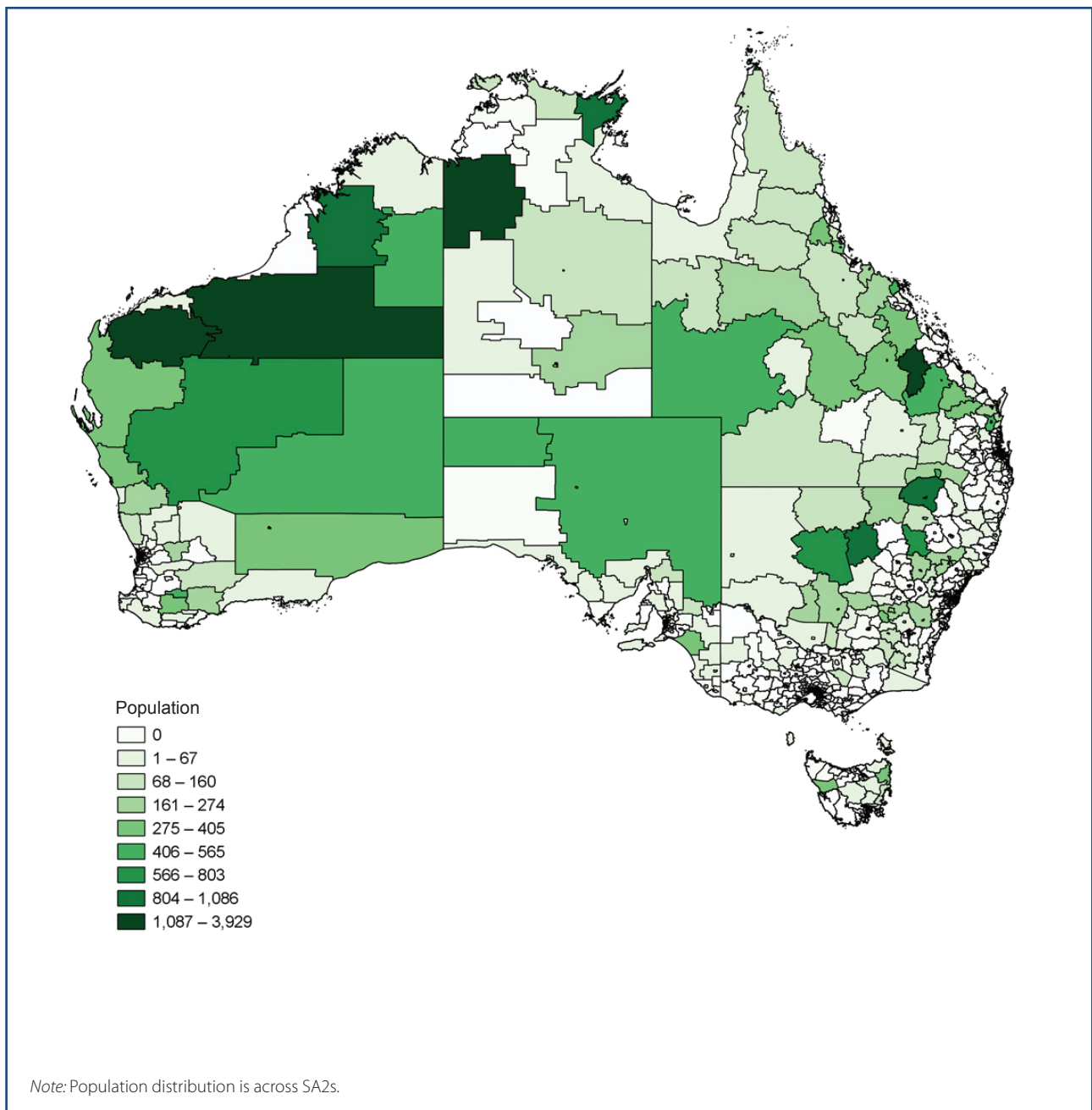
ACCHS locations are widespread across Australia, but access to these services is poor in several key areas, including:

- the central parts of the Northern Territory, where a relatively large number of Indigenous Australians live, with only a small proportion living within 1 hour of an ACCHS
- the western part of Western Australia, in the area surrounding Carnarvon, where a relatively small number of Indigenous Australians live, but only a small proportion living within 1 hour of an ACCHS (the people in Carnarvon itself have access to an ACCHS)
- the areas surrounding Perth and Adelaide, which have many small SA2s with relatively large combined Indigenous populations
- central and western Queensland (predominantly rural and outback areas), where a relatively small number of Indigenous Australians live, with a very small proportion living within 1 hour of an ACCHS.

Proportion of Indigenous Australians within 1 hour's drive of an ACCHS: inset map, 2011



Number of Indigenous Australians not within 1 hour's drive of an Indigenous-specific primary health care service (ACCHS and non-ACCHS), 2011



Appendix

Geographical distribution based on remoteness

Australia can be divided into several regions based on distribution from urban centres, where the population size of the urban centre determines the range and types of services available.

In the ABS Australian Statistical Geography Standard, populated localities are classified in each Census year into 1 of 5 remoteness areas: *Major cities*, *Inner regional*, *Outer regional*, *Remote* or *Very remote* (ABS 2013b).

Examples of localities in each remoteness area are:

- *Major cities:* Sydney, Geelong, Gold Coast
- *Inner regional:* Hobart, Ballarat, Coffs Harbour
- *Outer regional:* Darwin, Cairns, Coonabarabran
- *Remote:* Alice Springs, Broome, Katherine
- *Very remote:* Coober Pedy, Longreach, Exmouth.

Unless otherwise indicated, the Australian Statistical Geography Standard remoteness areas are used in this report.

Glossary

Aboriginal and/or Torres Strait Islander: A person of Aboriginal and/or Torres Strait Islander descent, who identifies as an Aboriginal and/or Torres Strait Islander and is accepted as such by the community in which he or she lives.

Aboriginal and Torres Strait Islander health worker (AHW): An Aboriginal and/or Torres Strait Islander person with a minimum qualification in the field of primary health-care work or clinical practice. This includes Aboriginal and Torres Strait Islander health practitioners (AHP) who are one speciality stream of health worker. AHWs liaise with patients, clients and visitors to hospitals and health clinics, and work as a team member to arrange, coordinate and provide health-care delivery in community health clinics.

Aboriginal and Torres Strait Islander health practitioner: An AHP has completed a Certificate IV in Aboriginal and/or Torres Strait Islander Primary Health Care (Practice) and is registered with the Aboriginal and Torres Strait Islander Health Practice Board of Australia. An AHP may undertake higher levels of clinical assessment and care within their agreed scope of practice. This role became nationally registered from 1 July 2013 under the National Registration and Accreditation Scheme for health professions.

Aboriginal Community Controlled Health Service (ACCHS): Health-care service operated by local Indigenous communities to deliver comprehensive, holistic and culturally appropriate health care to the communities, and controlled through a locally elected board of management. They range from large services with several medical practitioners who provide a variety of services, to small services that rely on nurses and/or AHWs to provide most service (for more information see <www.naccho.org.au>).

Australian Qualifications Framework: The quality standards for Australian qualifications, incorporating the quality assured qualifications from each education and training sector into a single comprehensive national qualifications framework.

Australian Statistical Geography Standard (ASGS): The ASGS is the ABS's geographical framework. The ASGS brings all the regions used by the ABS to output data under the one umbrella. They are divided into two broad categories; ABS Structures (those regions which are defined and maintained by the ABS) and non-ABS Structures. The ABS Structures are a hierarchy of regions developed for the release of ABS statistical information and include Statistical Areas Level 1 (SA1s) and Statistical Areas Level 2 (SA2s).

age-standardisation: A method of removing the influence of age when comparing populations with different age-structures. This is usually necessary because the rates of many diseases vary strongly (usually increasing) with age. The age structures of the different populations are converted to the same 'standard' structure, and then the disease rates that would have occurred with that structure are calculated and compared.

birth: Birth of a viable fetus, which is defined as a birth occurring after 20 weeks of pregnancy or the fetus weighing greater than 400 grams at birth (live, still, singleton, multiple).

birthweight: Birthweight is defined as low (less than 2,500 grams), normal (2,500–4,499 grams) or high (4,500 grams and over).

body mass index (BMI): A measure of an adult's weight (body mass) relative to height, used to assess the extent of weight deficit or excess where height and weight have been measured. Body mass index is the weight in kilograms divided by the square of the height in metres.

Canadian National Occupancy Standard: A standard used to assess overcrowding in households, based on the number, sex, age, and relationships of household members.

cardiovascular disease: Any disease of the circulatory system, namely the heart (cardio) or blood vessels (vascular).

cervical screening: A procedure involving a Pap test, which is used to detect cancer and pre-cancerous abnormalities of the cervix.

chronic obstructive pulmonary disease (COPD): Serious, progressive and disabling long-term lung disease, where damage to the lungs—usually because of both emphysema and chronic bronchitis—obstructs oxygen intake and causes increasing shortness of breath.

dwelling: A structure or a discrete space within a structure intended for people to live in, or where a person or group of people live. A structure that people live in is a dwelling regardless of its intended purpose, but a vacant structure is only a dwelling if intended for human residence.

estimated glomerular filtration rate (eGFR): A measure of how well the kidneys filter waste from the blood. The eGFR is the best measure of kidney function.

episode of care: Client contact between an individual and a service by 1 or more staff to provide health care.

first antenatal visit: The contact at which the initial antenatal check-ups are done; for example, to confirm pregnancy, establish history and do blood tests.

full-time equivalent (FTE): An equivalent ratio that represents the number of hours a staff member works; for example, a service having 2 nurses, 1 working full-time and 1 working half-days would indicate 1.5 FTE for both nursing positions combined.

General Practitioner Management Plan (GPMP): Chronic disease management plan carried out according to the Medicare Benefits Schedule (item 721).

haemoglobin A1c (HbA1c or glycated haemoglobin): A measurement that acts as an indicator of time-averaged blood glucose levels (over the previous 2–3 months). It is used as the best marker of long-term diabetes control (Jones et al. 2011).

household: A group of 2 or more related or unrelated people who usually reside in the same **dwelling**.

Indigenous: See Aboriginal and/or Torres Strait Islander.

Indigenous baby: A baby with at least 1 parent who identifies as being Aboriginal or Torres Strait Islander (born both to mothers who are Indigenous and mothers who are non-Indigenous).

Indigenous household: A household in which at least 1 resident of any age identified as being of **Aboriginal and/or Torres Strait Islander** origin.

Indigenous-specific primary health care service: A health-care service that is funded to provide services to Aboriginal and Torres Strait Islander people. It is generally the first level of contact for treatment or advice for Indigenous persons, families and communities.

influenza: An acute contagious viral respiratory infection marked by fever, muscle aches, headache, cough and sore throat.

Medicare Benefits Schedule health assessment: Health assessment for those aged 0–4 and 25 and over carried out according to the Medicare Benefits Schedule (item 715).

national Key Performance Indicators (nKPIs): A set of indicators that monitors the major health issues of the regular client population of Indigenous-specific primary health care services.

national Key Performance Indicator measure (nKPI measure): An nKPI or a part of an nKPI which was analysed and described separately from the other parts of the nKPI.

overcrowding: Where a dwelling requires 1 or more additional bedrooms to adequately house its inhabitants, according to the **Canadian National Occupancy Standard**.

rate ratio: A rate ratio shows the relative difference between two rates and may be calculated as the rate for population A divided by the rate for population B. Rate ratios are commonly used to compare rates between (i) two points in time for the same population or (ii) between different populations at the same point in time. A rate ratio of: 1 indicates no difference between the rates; less than 1 indicates that rates have decreased over time (use i) or that the rate for population A is lower than that for population B (use ii); and more than 1 indicates an increase over time or that the rate for population A is higher than that for population B.

regular client: A client who has visited a particular primary health care provider 3 or more times in the last 2 years.

remoteness: A measure in the **Australian Statistical Geography Standard** used to classify areas across Australia, based on their distance from different services. The main categories are *Major cities, Inner regional, Outer regional, Remote* and *Very remote* (see Appendix).

Statistical Areas Level 1 (SA1s): One of the hierarchy of regions within the **Australian Statistical Geography Standard**. They have been designed as the smallest unit for the release of Census data. SA1s generally have a population of 200 to 800 persons, and an average population of about 400 persons. There are approximately 55,000 SA1s covering the whole of Australia.

Statistical Areas Level 2 (SA2s): One of the hierarchy of regions within the **Australian Statistical Geography Standard**. They are 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 ASGS structure for which Estimated Resident Population (ERP), Health and Vitals and other non-Census ABS data are generally available. There are 2,196 SA2s covering the whole of Australia.

smoking status: Current smoker—includes those who smoke daily, weekly or less often than weekly; ex-smoker—a person who does not smoke at all now, but has smoked at least 100 cigarettes, or a similar amount of other tobacco product, in his/her lifetime; never smoked—a person who does not smoke now and has smoked fewer than 100 cigarettes or a similar amount of other tobacco product in his/her lifetime.


Team Care Arrangement (TCA): Chronic disease management plan carried out according to the Medicare Benefits Schedule (item 723).

type 2 diabetes: The most common form of diabetes, occurring mostly in people aged 40 or over, and marked by reduced or less effective insulin.

vaccination: The process of administering a vaccine to a person to produce immunity against infection.

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This report card provides information from about 140 Aboriginal Community Controlled Health Services (ACCHS) providing care to Aboriginal and Torres Strait Islander Australians. During 2014–15, these services saw about 275,000 Indigenous clients who received almost 2.5 million episodes of care.

About 228,700 Indigenous Australians were regular clients of ACCHSs, where they received maternal and child health services, chronic disease risk factor prevention, and management services. This report card shows rises in the proportion of clients receiving appropriate processes of care for 10 of the 16 relevant indicators.