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Australian Institute of
Health and Welfare

Healthy for Life

Results for July 2007–June 2011

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*Authoritative information and statistics
to promote better health and wellbeing*

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Australian Institute of Health and Welfare
Canberra
Cat. No. IHW 84

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ISBN 978 1 74249 403 6

Suggested citation

Australian Institute of Health and Welfare 2013. Healthy for Life: results for July 2007–June 2011. Cat. no. IHW 84. Canberra: AIHW.

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Published by the Australian Institute of Health and Welfare
Cover art by Rebecca Cavanagh Ferdinandes

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.

Contents

Acknowledgments

Devin Bowles and Louise Wangerek of the Indigenous Community and Health Service Reporting Unit at the Australian Institute of Health and Welfare prepared this report with assistance from other unit staff, including Michelle Harvey, Denise Arnold, Kate Bradbury, Alex Topfer, Kathryn Sedgwick, Michelle Noble and Rajeev Verma. Norbert Zmijewski and Indrani Pieris-Caldwell successively headed the unit while this report was being produced, and provided guidance and comments throughout the process. Sarah Cleaves, who assisted with the final editing of the report, is also gratefully acknowledged. Fadwa Al-Yaman is acknowledged for her comments and guidance throughout the project.

We would like to thank the Aboriginal and Torres Strait Islander primary health-care services, which provided Healthy for Life data. The contribution of each service to this data collection is greatly appreciated.

The Office for Aboriginal and Torres Strait Islander Health in the Australian Government Department of Health and Ageing funded the Healthy for Life Program—Support, Collection, Analysis and Reporting Function Project from 2005 to 2011.

Abbreviations

ABS	Australian Bureau of Statistics
ACCHS	Aboriginal Community Controlled Health Service
ACIR	Australian Child Immunisation Register
ACHS	Australian Council on Healthcare Standards
ACT	Australian Capital Territory
AGPAL	Australian General Practice Accreditation Limited
AHW	Aboriginal health worker
AIHW	Australian Institute of Health and Welfare
BP	blood pressure
CEO	chief executive officer
CIP	continuous improvement project
COAG	Council of Australian Governments
CPG	clinical practice guideline
CQI	continuous quality improvement
D	denominator
DoHA	Department of Health and Ageing
eGFR	Estimated Glomerular Filtration Rate
EI	Essential Indicator
FTE	full-time equivalent
GP	general practitioner
GPMP	General Practitioner Management Plan
HbA1c	glycated haemoglobin
HfL	Healthy for Life
IT	information technology
MBS	Medicare Benefits Schedule
NATSISS	National Aboriginal and Torres Strait Islander Social Survey

(continued)

nKPI	national Key Performance Indicator
NSF	National Strategic Framework for Aboriginal and Torres Strait Islander Health
NSW	New South Wales
NT	Northern Territory
OATSIH	Office for Aboriginal and Torres Strait Islander Health
OSCAR	OATSIH Services Collection, Analysis and Reporting System
PDSA	Plan-Do-Study-Act
PIRS	patient information recall system
QIC	Quality Improvement Council
Qld	Queensland
RACGP	Royal Australian College of General Practitioners
SA	South Australia
SCARF	Support, Collection, Analysis and Reporting Function
Tas	Tasmania
TCA	Team Care Arrangement
Vic	Victoria
WA	Western Australia

Symbols

. .	not applicable (for example, the service was not performed, the data were not requested or the denominator was 0)
n.a.	not available (for example, the service did not provide the data or the proportion could not be calculated)
<	less than
≤	less than or equal to
>	greater than
≥	greater than or equal to
g	grams
mmHg	millimetres of mercury

Summary

Healthy for Life (HfL) Program was established with a set of key objectives to improve the health of Aboriginal and Torres Strait Islander people. It focuses on mothers, babies and children; early detection and management of chronic disease; and long-term health outcomes. About 100 primary health-care sites across Australia were funded by the Australian Government to collect data on 10 Essential Indicators and some qualitative indicators relating to organisational structure and care provision related to the key objectives. For the first time, this report provides information on both quantitative and qualitative indicators over the lifetime of the HfL program, collated at the national level.

Essential Indicators

Baseline data are from 1 July–31 December 2007 for indicators reported every 6 months, and 1 July 2007–30 June 2008 for those reported annually. When interpreting changes over time, it should be noted that the number of clients in services increased throughout the program and this likely affected the trends presented. For example, the number of clients with Type 2 diabetes who had a blood pressure test who were included in this subset of services was 3,643 in the baseline period and 5,057 in the most recent period (which ended 30 June 2011). Findings included:

- The rate of first attendance for antenatal care before 20 weeks of gestation was fairly similar in the baseline reporting period (62.3%) and the most recent period (63.6%).
- The average birthweight increased between the baseline period (3,015 grams) and the most recent period (3,131 grams). The proportion of low birthweight babies decreased slightly from 15.2% to 13.5%. The proportion with normal birthweight increased from 80.0% to 84.2%.
- In the most recent period, the proportion of expectant mothers who smoked, consumed alcohol and used illicit drugs was lower during third trimester antenatal visits (52.4% 17.9%, 17.2%, respectively) than first trimester visits (55.1%, 25.0%, 23.8%).
- The proportion of clients aged 15–54 who had health assessments increased from 11.7% in the baseline period to 15.2% in the most recent period. The proportion aged 55 and over increased from 14.7% to 20.7%. The proportion aged 0–14 decreased slightly from 15.9% to 13.8%.
- The proportion of clients with Type 2 diabetes who had a General Practitioner Management Plan (GPMP) was 24.8% in the baseline period and 31.6% in the most recent period. The proportion of clients who had a Team Care Arrangement (TCA) increased from 15.7% to 21.8%.
- The proportion of clients with coronary heart disease who had a GPMP increased from 22.9% to 33.4%, while the proportion who had a TCA increased from 13.9% to 22.2%.
- The proportion of clients with Type 2 diabetes who had a glycated haemoglobin (HbA1c) test in the previous 6 months was 45.7% in the baseline period and 55.8% in the most recent period. The proportion who had a blood pressure test in the last 6 months increased from 52.7% to 62.3%. The proportion who had a blood pressure less than or equal to 130/80mmHg was similar in the two periods (41.0% and 41.6%, respectively).
- The proportion of clients with coronary heart disease who had a blood pressure less than 140/90mmHg was 60.4% in the baseline period and 65.7% in the period ending December 2010.

1 Introduction

This is the first publicly released Healthy for Life report published since data collection and reporting began in 2007. It presents data from services receiving Healthy for Life (HfL) funding, including the number of clients and health outcomes measured by 10 Essential Indicators (EIs) covering maternal and child health and chronic disease care. The report provides comparisons over time, making it easy to see how the program has developed and its major achievements.

About 100 health services were funded as part of the program, but not all were required to provide data. Those providing data for the report represent 85% of all services funded in the 2010–11 reporting period.

The services are widely distributed in every state and territory, from *Major cities* to *Very remote* areas.

Information in this chapter relies heavily on the *Evaluation of the Healthy for Life Program* (URBIS 2009).

Background

Healthy for Life is an Australian Government program announced in the 2005–06 Budget with funding of $103 million over 4 years to improve the health of Aboriginal and Torres Strait Islander mothers, babies and children, improve the early detection and management of chronic disease and reduce the incidence of adult chronic disease. Healthy for Life focuses on primary health-care services providing care to Aboriginal and Torres Strait Islander people. Many of the pathways to poor health outcomes provide opportunities for early intervention, and evidence exists for the effectiveness of specific interventions in improving Aboriginal and Torres Strait Islander people's health outcomes. The program uses a quality improvement and population health approach to support the achievement of these objectives.

Men's health was included in the Program as an optional focus for new service development, after approval by the then Minister for Health, the Hon. Nicola Roxon, MP, in 2008. Data on men's health are not in this report.

Healthy for Life takes a population health approach to improving health outcomes. In this context population health is defined as an organised response to protect and promote health, and to improve health outcomes of the service population. Within Healthy for Life this approach emphasises the need to assess health impacts and outcomes for specific client population groups, and plan service improvements that will influence these outcomes. Evidence–based interventions, data collection and evaluation are important components of this approach. The population health approach also includes disease prevention and health promotion, and acknowledges social and environmental determinants of health.

There is an increasing focus on quality improvement in the health-care sector, from tertiary institutions to primary care. The quality improvement approach is intended to improve effectiveness, efficiency, acceptability, access, appropriateness and safety of health-care services and to ensure that health services are functioning consistently with current knowledge of best practice and achieving the desired health outcomes for individuals and populations. Many aspects of health service functioning and government funding that are aimed at improving quality include procedures and protocols consistent with best–practice clinical guidelines, accreditation, compliance with standards, audit and feedback cycles, continuing professional development, staff training, adverse incident review mechanisms and electronic patient information and recall systems.

The approach adopted by Healthy for Life for continuous quality improvement (CQI) and service development is the Plan-Do-Study-Act (PDSA) cycle, a model that allows health services to assess their present service delivery, plan changes, implement changes and then reassess their progress. This cycle allows ongoing improvements over time, with the ultimate aim of improving health outcomes for clients. The model also allows for improvements to specifically meet the needs identified by individual services and can be directed at improving the priority health outcomes for those services.

Other CQI initiatives that have informed Healthy for Life processes include:

- the National Primary Care Collaboratives
- the Office for Aboriginal and Torres Strait Islander Health Quality Improvement Initiative
- the Menzies School of Health Research Audit and Best Practice for Chronic Diseases—the ABCD Project.

Program aims and outcomes

HfL is the first Office for Aboriginal and Torres Strait Islander Health (OATSIH)–funded program with a strong focus on CQI to collect and report on health outcome data that goes beyond service activity reporting. The formal objectives are to:

- improve the availability of child and maternal health care
- improve the prevention, early detection and management of chronic disease
- improve men’s health (added in 2008)
- improve long-term health outcomes for Aboriginal and Torres Strait Islander Australians
- increase the capacity of the Aboriginal and Torres Strait Islander health workforce, including through the Puggy Hunter Memorial Scholarship Scheme.

Services are expected to demonstrate progress, or movement towards improvement against key outcomes. In the short to medium term, these outcome goals are:

- an increase in first attendance for antenatal care in the first trimester
- a 10% increase per year of adult and child health checks with associated plans for follow-up
- a 30% improvement in best–practice service delivery for people with chronic conditions.

Long-term goals are:

- an increase in mean birthweight to within 200 grams of the non-Indigenous population
- a decrease in the incidence of low birthweight by 10%
- a reduction in selected behavioural risk factors (for example, smoking, harmful alcohol intake) in pregnancy by 10%
- a 30% reduction in hospital admissions for chronic disease complications
- a 30% improvement in the numbers of patients with intermediate health outcomes within an acceptable range (OATSIH 2011a).

From 2007, the HfL services have submitted data to the Australian Institute of Health and Welfare (AIHW) annually for indicators 1–7, and every 6 months for indicators 8–10 using the web-based tool, the OATSIH Services Collection, Analysis and Reporting System (OSCAR). The AIHW provided each HfL service with regular data reports on the 10 Essential Indicators on maternal and child health, and the management of chronic disease, to assist them to monitor progress against the program objectives.

Structure of the program

The program was implemented in two phases to overcome the difficulty and complexity of assessing strengths and gaps in service delivery, and to identify priorities for action.

Phase 1—Knowing your starting point

Healthy for Life–funded organisations received initial funding to complete Phase 1 activities that involved gathering and analysing baseline data used as a reference point against which organisations could monitor their progress, including:

- mapping current activities and service systems that support child and maternal health and the prevention, early detection and management of chronic diseases both within the service and via linkages to other relevant service providers in the region
- developing a grounded understanding of the client experience when they enter, pass through and exit the service—this involves the use of quality-improvement tools (for example, process mapping)
- conducting clinical audits (that is, reviewing medical records) to determine the key child and maternal health and chronic disease issues affecting the service
- collecting measurements of the 10 HfL Essential Indicators.

The baseline information was also used as the basis of each service's Phase 2 proposal on how the quality of care could be improved, building on existing programs managed by the organisation. This proposal was submitted to OATSIH for approval and set out:

- the strategic long-term vision of the organisation in the delivery of child and maternal health and chronic disease care
- the agreed priority areas for action to bring about improvement
- proposed strategies to address these key priorities
- roles and responsibilities (who will do what)
- how the impact of the strategies will be measured
- estimated dates for milestones and completion
- a detailed budget.

Phase 2—Service delivery and periodic review

Phase 2 of HfL involved implementing the proposal described above with funding from OATSIH. The design of the program acknowledges that quality improvement and health service development is a dynamic process—priorities may change over time as an organisation responds to identified needs, makes changes and monitors and evaluates progress towards its desired objectives.

As part of the Phase 2 activities, HfL sites are required to monitor and review their baseline information and revise their program plan according to changing priorities.

Links with policy initiatives

The National Strategic Framework for Aboriginal and Torres Strait Islander Health (NSF) developed by the National Aboriginal and Torres Strait Islander Health Council set the framework for action by governments in Aboriginal and Torres Strait Islander health for 2003–13 (NATSIHC 2003). The NSF outlines nine key result areas for action, including child and maternal health and chronic disease, and HfL aligns with its principles and priorities.

The Department of Health and Ageing (DoHA) pursues a three-pronged approach to achieving sustainable gains in health status for Aboriginal and Torres Strait Islander people:

- improve the responsiveness of the mainstream health system
- provide complementary action through Indigenous-specific health programs
- work collaboratively across governments and the health sector to improve service delivery and outcomes.

A number of activities funded by DoHA provided information and examples of best practice that contributed to the development of HfL. These included the continuous improvement projects (CIPs) for the early detection and management of chronic disease, the Child and Maternal Health Exemplar Site Initiative and the development of *Improving health in Aboriginal and Torres Strait Islander mothers, babies and young children: a literature review* (OATSIH 2007). This broader policy environment and internal policy work also contributed to the development of HfL.

The Australian Government’s Outcome 8 aims to improve Indigenous Australians’ access to effective health-care services essential for improving health and life expectancy and reducing child mortality. Currently, Program 8.1 aims to contribute to closing the gap in life expectancy within a generation and halving the gap in the mortality rate for Indigenous children under 5 within a decade through: preventing and managing chronic disease, improving access to maternal and child health services, improving access to effective primary health-care and substance use services, improving social and emotional wellbeing services and improving workforce capacity. HfL will continue to provide support to Indigenous mothers and their children in making healthy lifestyle choices that will improve maternal and child health.

The objectives of HfL also align with the principles and priorities of the Council of Australian Governments (COAG) Closing the Gap initiative. In 2008, COAG set two health-specific targets with respect to Indigenous Australians:

- To close the gap in life expectancy within a generation.
- To halve the gap in mortality rates for Indigenous children under 5 within a decade (COAG 2009).

Healthy for Life services

The Healthy for Life program was available to established primary health-care providers in Aboriginal Community Controlled Health Services (ACCHSs), state and territory health services and Divisions of General Practice. ACCHSs comprise more than 70% of the participating services, and have a broad geographic spread across Australia (see Figure 3.1

showing distribution of HfL services). Health services were selected to participate in the program through three recruitment rounds in December 2005 (Round 1, 27 sites), June 2006 (Round 2, 26 sites) and March 2009 (Round 3, 12 sites).

About 100 primary health-care services are participating in the program through 57 sites and 80% are in regional and remote areas.

Participating health services implement the program in two phases. The first involves gathering and analysing baseline data to inform the development of priority areas for action. The second involves service delivery and review. Data gathering and analyses play a crucial role in both. This report allows individual services to compare their results with national averages. It also aims to inform policy makers about outcomes of the Healthy for Life Program and provide evidence for developing new programs and initiatives.

Reporting and evaluation

The Support Collection Analysis and Reporting Function (SCARF) Project is part of the Evaluation and Outcomes Framework of the Healthy for Life Program. External evaluation was conducted by Urbis in 2009 (URBIS 2009). The SCARF Project was a partnership between Menzies, the AIHW and SRA Pty Ltd (an information technology company). Menzies was directly responsible for providing the service support role, SRA (under subcontract to Menzies) was responsible for the development and maintenance of the web-based information system OSCAR, with guidance and management by Menzies, and the AIHW was responsible for data development, analysis and reporting of the Essential Indicators (or performance indicators based in clinical practice guidelines, or CPGs).

The Australian Government's investment in the Healthy for Life Program and the SCARF Project provided a significant impetus in the development of health service-level CQI programs designed to improve the quality of care and health outcomes. The Aboriginal and Torres Strait Islander primary health-care sector is now a leader in the application of CQI through these initiatives and funding.

The project provided both the Australian Government and local health services with data that could be used to inform regular cycles of decision-making to improve health service delivery (at both local and national levels), program management and policy, and support health services to build capacity to use the data.

Reporting framework

The Healthy for Life Program reporting framework (see Appendix B) is made up of a range of qualitative and quantitative indicators. These provide information on:

- service details
- service profile
- service quality indicators in terms of the organisational infrastructure
- 10 Essential Indicators (see Box 1) of clinical outcomes in three health priorities:
  - maternal health
  - child health
  - chronic disease.

Box 1: List of 10 Essential Indicators[(a)]

1. Timing of first antenatal visit
2. Average birthweight
3. Low and high birthweight babies
4. Risk factors identified during pregnancy
5. Immunisation rates
6. Conduct of adult health checks
7. Chronic Disease Management Plans, GP Management Plans and Team Care Arrangements
8. Glycosylated haemoglobin (HbA1c) blood tests for clients with Type 2 diabetes (whether done in the last 6 months, and the results)
9. Blood pressure tests for clients with Type 2 diabetes (whether done in the last 6 months, and the results)
10. Blood pressure tests for clients with coronary heart disease (whether done in the last 6 months, and the results)

(a) Essential Indicators 8, 9 and 10 are reported 6-monthly; the remainder are reported annually.

Future reporting

Two longer-term developments will affect future HfL reporting. In 2008, COAG announced that DoHA, in partnership with state and territory health departments and in cooperation with the AIHW, would develop national Key Performance Indicators (nKPIs) for Indigenous primary health-care services (COAG 2011). The Australian Government has also committed to reducing the burden of reporting on health services it funds.

To meet these commitments, nKPIs have been developed and HfL services will submit a subset of these in 2012 via a new web-based reporting tool. To reduce the burden of reporting, HfL indicators will no longer be collected by the AIHW. The period ending 30 June 2011 was the last for which HfL indicators are collected (see Chapter 10 for more information on national KPIs).

2 Methodology

Purpose of the data collection

Data collection is a key element of the HfL program. Data are collected for CQI processes and to measure progress at the national level. This will inform policy makers, researchers and the public.

Data collection plays a pivotal role in the PDSA cycle that requires results to be measured and analysed. The data collection and analyses conducted by the AIHW assist individual services to measure and plan improvements in service delivery. Individual reports that analyse current results and compare them with results in past reporting periods facilitate the PDSA cycle.

The individual reports are the basis for national reports that, in turn, give a statistical picture and analyses of the Healthy for Life Program that are useful for further planning. The national reports also allow individual services to assess their results in the context of national averages. For the first time this national report is to be made publicly available. It is hoped that this report will inform the public about achievements of the Healthy for Life Program and provide information for further studies of Aboriginal and Torres Strait Islander health and health services.

How the data were collected

Data are submitted through OSCAR. OSCAR performs basic validation checks for many of the Essential Indicators, which alert services to errors in the data as they are entered. The AIHW performs detailed data validation. Services are provided with interim reports identifying any errors or inconsistencies. Health services can recheck the data and make corrections as required.

Healthy for Life-funded services are required to submit Essential Indicator data as part of their funding agreement with OATSIH. Individual services provide qualitative and quantitative data to AIHW annually for Essential Indicators 1–7. Data are collected every 6 months for Essential Indicators 8–10 (1 July–31 December and 1 January–30 June). Data for the 6-monthly and annual indicators are presented separately with the relevant time periods identified.

The number of services that reported data has increased over time from 59 in 2006–07 to 85 in 2010–11 (Table 2.1). There was also an increase in the number of services reporting on most Essential Indicators over time (Table 2.2). Higher proportions of services reported against many Essential Indicators in 2009–10 and 2010–11 than in most previous reporting periods.

Similarly, there has been a substantial improvement in the provision of valid Essential Indicator data over time (Table A1.2). In June 2008, the highest number of services reporting valid data against an Essential Indicator was 63 (EI 9 part II). The highest number in June 2011 was 83 (EI 8 part I and EI 9 parts I and II).

Table 2.1: Number of services reporting over time

Period	Number of services reporting
2006–07	59
2007–08	67
2008–09	72[(a)]
2009–10	79
2010–11	85

(a) One additional service provided incomplete data.

Services were encouraged to submit quantitative data based on a complete count of clients, however, some services submitted data based on a sample. Across the Essential Indicators, between 90% and 99% of services submitted data based on a complete count. Data from services that reported samples were included in the analysis for this report, with the exception of time series data. Inclusions of data in the report and in time series are discussed in detail later in this chapter.

Table 2.2: Number and percentage of services that reported on quantitative indicators, by indicator, reporting periods ending 31 December 2007 to 30 June 2011

	Dec 2007		June 2008		Dec 2008		June 2009		Dec 2009		June 2010		Dec 2010		June 2011	
Indicator	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
EI 1	. .	. .	51	76.1	. .	. .	57	79.2	. .	. .	69	87.3	. .	. .	74	87.1
EI 2	. .	. .	52	77.6	. .	. .	55	76.4	. .	. .	67	84.8	. .	. .	73	85.9
EI 3	. .	. .	52	77.6	. .	. .	55	76.4	. .	. .	68	86.1	. .	. .	74	87.1
EI 4 part I	. .	. .	49	73.1	. .	. .	56	77.8	. .	. .	68	86.1	. .	. .	72	84.7
EI 4 part II	. .	. .	46	68.7	. .	. .	54	75.0	. .	. .	65	82.3	. .	. .	72	84.7
EI 5[(a)]	. .	. .	49	73.1	. .	. .	60	83.3	. .	. .	68	86.1	. .	. .	68	80.0
EI 6 part I child health checks for those aged 0–14	. .	. .	58	86.6	. .	. .	65	90.3	. .	. .	73	92.4	. .	. .	82	96.5
EI 6 part I adult health checks for those aged 15	. .	. .	60	89.6	. .	. .	66	91.7	. .	. .	75	94.9	. .	. .	82	96.5
EI 6 part II alternative child health checks for those aged 0–14	. .	. .	41	61.2	. .	. .	37	51.4	. .	. .	37	46.8	. .	. .	31	36.5
EI 6 part II alternative adult health checks for those aged 15	. .	. .	32	47.8	. .	. .	31	43.1	. .	. .	32	40.5	. .	. .	31	36.5

(continued)

Table 2.2 (continued): Number and percentage of services that reported on quantitative indicators, by indicator, reporting periods ending 31 December 2007 to 30 June 2011

	Dec 2007		June 2008		Dec 2008		June 2009		Dec 2009		June 2010		Dec 2010		June 2011	
Indicator	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
EI 7 part I	. .	. .	53	79.1	. .	. .	60	83.3	. .	. .	69	87.3	. .	. .	76	89.4
EI 7 part II	. .	. .	31	46.3	. .	. .	20	27.8	. .	. .	24	30.4	. .	. .	13	15.3
EI 7 part III	. .	. .	50	74.6	. .	. .	55	76.4	. .	. .	64	81.0	. .	. .	70	82.4
EI 7 part IV	. .	. .	30	44.8	. .	. .	22	30.6	. .	. .	21	26.6	. .	. .	11	12.9
EI 8 part I	63	100.0	64	95.5	67	100.0	70	97.2	73	100.0	77	97.5	83	98.8	83	97.6
EI 8 part II	62	98.4	63	94.0	67	100.0	70	97.2	73	100.0	77	97.5	83	98.8	83	97.6
EI 8 part III	56	88.9	62	92.5	67	100.0	70	97.2	73	100.0	76	96.2	82	97.6	83	97.6
EI 9 part I	63	100.0	63	94.0	67	100.0	70	97.2	73	100.0	77	97.5	83	98.8	83	97.6
EI 9 part II	63	100.0	63	94.0	67	100.0	70	97.2	73	100.0	77	97.5	83	98.8	83	97.6
EI 10 part I	58	92.1	62	92.5	65	97.0	70	97.2	73	100.0	77	97.5	82	97.6	82	96.5
EI 10 part II[(b)]	58	92.1	62	92.5	65	97.0	70	97.2	73	100.0	77	97.5	82	97.6	82	96.5

(a) The specifications for the child immunisation Essential Indicator changed for the reporting period ending June 2011.

(b) The specification for clients with coronary heart disease changed from those who had a blood pressure result less than 140/90mmHg to less than or equal to 130/80mmHg for the current period.

. . Not applicable.

Note: Includes services that reported valid and invalid data.

Data quality

Data quality issues were identified in 73% of initial data submissions from services in 2010–11. A total of 242 data quality issues were identified and discussed with services. Service data with identified data quality issues remaining after the final submission were excluded from analyses in this report.

As the data are aggregated, there may be errors that remain undetected. However, a number of data quality issues that can affect the interpretation of indicators were identified through AIHW data checking processes.

There were big differences in the proportion of services reporting data across indicators in 2010–11. For example, nearly all (98%) services reported data for EI 8 parts I, II and III and EI 9 parts I and II, compared with between 85% and 90% that reported against the maternal indicators (EI 1 to 4) and 13% for EI 7 part IV (Table 2.2). A common reason for not reporting against an indicator was that the particular type of health-care is not provided by the service. For example:

- some services did not provide maternal health services
- many services did not provide alternative health assessments (EI 6 part II), alternative General Practitioner Management Plans, or GPMPs, (EI 7 part II) and/or alternative Team Care Arrangements, or TCAs (EI 7 part IV), resulting in relatively low proportions for those indicators
- in general, there has been a shift away from alternative items (health assessments, GPMPs and TCAs) to MBS items over time
- almost all services provided chronic disease care, resulting in high proportions for EI 8 to 10 (96%–98%).

In general, the proportion of services reporting against the Essential Indicators collected every 6 months was higher in collection periods ending in December than those ending in June. This may be because there were fewer reporting requirements in periods ending in December, including much less qualitative reporting.

Quality of data improved noticeably between 2007–08 and 2008–09. The overall level of data quality remained similar in 2009–10, while further improvements occurred in 2010–11 (Table 2.3).

- In 2008–09 and 2010–11, zero services reported numerators that exceeded denominators, compared with 26% in 2007–08 and 1% in 2009–10.
- Services submitting data with issues related to inconsistencies between indicators decreased substantially from 59% in 2007–08 to 22% in 2008–09 and zero in 2009–10 and increased slightly to 1% in 2010–11.
- There was a decrease in the proportion of services with missing data from 35% in 2009–10 to 20% in 2010–11, and in the proportion of services with miscalculated figures from 3% in 2009–10 to 1% in 2010–11.
- A lower proportion of services reported data out of the expected range in 2010–11 (11%) compared with 2009–10 (37%) and 2008–09 (23%). Data out of the expected range were reported in both Essential Indicator 2 (average birthweight) and Essential Indicator 8 part III (average HbA1c result).

Table 2.3: Percentage of services with data quality issues in their Essential Indicator data, 2007–08 to 2010–11

Data quality issue	June 2008	June 2009	June 2010	June 2011
Inconsistencies between related indicators	58.5	21.9	0.0	1.2
Missing data	47.7	27.4	35.4	20.0
Numerators exceeding denominators for indicators measuring proportions	26.2	0.0	1.3	0.0
Miscalculated figures	20.0	1.4	2.5	1.2
Data out of the expected range	4.6	23.3	36.7	10.6

Several changes to the specifications for the Essential Indicators were introduced in 2010–11. These affected child immunisation, health assessments and blood pressure results for clients with coronary heart disease. This affected comparisons of results over time and resulted in fewer services reporting valid data for these indicators in 2010–11 (36 services reported for child immunisation and 46 for coronary heart disease blood pressure measures). Details are provided in the relevant chapters.

To reduce the variability between reporting periods (see previous section in this chapter) and to enable a more valid time series comparison, a subset of services for each Essential Indicator was analysed. This subset includes only those services that provided valid data for that Essential Indicator for every reporting period since 2007–08 for annual indicators or the period 1 July–31 December 2007 for 6-monthly indicators. Additionally, only services that provided a complete count of clients for that indicator, rather than a sample, are included. Except for the sections on programmatic trends, time trend analyses in this report are based on a subset of services. Therefore, the data in Chapter 8 are for a smaller number of services than the number that provided data in the current period.

Different services provided valid data for the various Essential Indicator parts. As a result, the subset of services differs between Essential Indicator parts. For instance, 39 services are included in the subset for clients with Type 2 diabetes who had an HbA1c test, while 42 services are in the subset for clients with Type 2 diabetes who had a blood pressure test. It cannot be assumed that the subset for clients with Type 2 diabetes who had a blood pressure test includes all of the services in the subset who had an HbA1c test. The subset of services may also be different to the subset in the *Healthy for Life 2009–10 National Report*. Not all services that reported data consistently until 2009–10 continued to do so until 2010–11 and so are excluded from time series analysis in this final report. Table 2.4 shows the number of services in the subset for each indicator part.

Table 2.4: Number of services that provided valid data in all reporting periods from December 2007 or June 2008–June 2011[(a)] by Essential Indicator

Essential Indicator	Description	Number of services in subset
EI 1	Timing of first antenatal visit	26
EI 2	Average birthweight	28
EI 3	Low and high birthweight babies	28
EI 4 part I	Risk Factors identified before 13 weeks of pregnancy	23
EI 4 part II	Risk Factors identified in third trimester of pregnancy	25
EI 5	Child immunisation	*
EI 6 part I	Health assessment for Aboriginal and Torres Strait Islander people (MBS Item 715)	
	Clients aged 0–14 years	40
	Clients aged 15–54 years	42
	Clients aged 55 years and over	37
EI 7 part I	Chronic Disease Management Plans (MBS Item 721) General Practitioner Management Plans	34
EI 7 part II	Not included in this report: Alternative General Practitioner Management Plans with all mandatory items	
EI 7 part III	Chronic Disease Management Plans (MBS Item 723) Team Care Arrangements	30
EI 7 part IV	Not included in this report: Alternative Team Care Arrangements with all mandatory items	
EI 8 part I	Regular clients with Type 2 diabetes who had an HbA1c test in the last 6 months	39
EI 8 part II	HbA1c levels in regular clients with Type 2 diabetes	32
EI 8 part III	Average HbA1c results for regular clients with Type 2 diabetes	35
EI 9 part I	Regular clients with Type 2 diabetes who had a blood pressure test in the last 6 months	42
EI 9 part II	Regular clients with Type 2 diabetes who had a blood pressure test with a result less than or equal to 130/80mmHg	41
EI 10 part I	Regular clients with coronary heart disease who had a blood pressure test in the last 6 months	42
EI 10 part II	Regular clients with coronary heart disease who had a blood pressure test with a result less than or equal to 130/90mmHg	*

* EI 5 and EI 10 part II are not provided due to changes in the specifications for these indicators.

Steps taken to improve data quality

System improvements

OSCAR was upgraded in 2007–08 and 2009–10 to include validation rules for the Essential Indicators. This feature has greatly improved the quality of the data. A new web-based reporting system, OCHREStreams, does not include most validation rules, however, data can be electronically transmitted from most services' patient information recall system (PIRS) to OCHREStreams. This prevents manual entry errors. OCHREStreams was developed to collect nKPI data from health services (see Chapter 10 for more about the evolution from Healthy for Life to the national KPIs). It replaced the OSCAR system that was introduced for the reporting period ending December 2007.

Support to services

Since July 2009, services liaised directly with the AIHW about data quality issues, streamlining the process of data review and amendment. A dedicated data quality phone line and email address was set up for this purpose. This appears to have helped improve the data quality.

How the data were analysed

Healthy for Life was an aggregate data collection, not unit records, therefore various techniques were employed to identify data quality issues. The AIHW used a matrix of connections between numerators and denominators in the Essential Indicators. For example, the numerator in one indicator would need to be the same as the denominator in another indicator. Also, the AIHW applied trend analyses for identifying any data problems. However, it was not possible to identify possible double-counting of clients in the data which is likely to occur in data received in an aggregated format.

The report commonly uses proportions that are presented as percentages and calculated using the following formula:

$$\text{Proportion} = \frac{\text{Sum of values for each Healthy for Life service numerator}}{\text{Sum of values for each Healthy for Life service denominator}} \times 100$$

At the beginning of each section, comparisons are generally made with other available data. Where possible, comparisons are made with comparable Indigenous information. However, Indigenous-specific data are frequently not available and in such cases comparisons are made with comparable information for the Australian population. Some caution should be taken in interpreting this information, as the prevalence of particular health conditions can vary widely between populations.

3 Characteristics of services

Key findings

- Services were located in all states and territories across Australia. About one-third (33%) were in *Outer regional* areas, while another third (34%) were in either *Remote* or *Very remote* areas.
- Services provided 1,189,893 episodes of care to 180,949 clients. More episodes of care were provided to female (58%) than male (42%) clients. Three-quarters (75%, or 135,579) of clients were Indigenous.
- Services employed 3,441 staff in more than 2,700 full-time equivalent positions. Aboriginal and Torres Strait Islander health workers accounted for 17% of the full-time equivalent positions.
- There were more Indigenous (1,779) than non-Indigenous (1,662) staff. Of the services reporting vacant positions, there was on average 0.6 full-time equivalent Aboriginal and Torres Strait Islander health worker positions vacant per service.

The first round of HfL funding was announced in December 2005 with 27 sites (this includes more than 27 services) obtaining funding. A further round was announced in June 2006 with 26 more sites receiving funding. A further 12 sites were funded in 2008.

For 2010–11, 100 health services across 57 sites received funding, 85 of which reported data.

Distribution of services

About one-third (33%) of services that reported data were in *Outer regional* areas (Table 3.1). Across the states and territories, 24% of services were in New South Wales/Australian Capital Territory and 20% were in Victoria/Tasmania. The distribution of services across Australia and by region (Australian Standard Geographical Classification) is shown in Figure 3.1.

Table 3.1: Services that provided data, by state and territory and region

State/territory	Major cities	Inner regional	Outer regional	Remote	Very remote	Total	%
NSW/ACT	5	8	3	3	1	20	23.5
Vic/Tas	2	5	10	. .	. .	17	20.0
Qld	2	1	5	3	. .	11	12.9
WA	1	1	3	1	4	10	11.8
SA	2	1	6	2	3	14	16.5
NT	. .	. .	1	4	8	13	15.3
Total	**12**	**16**	**28**	**13**	**16**	**85**	**100.0**
%	14.1	18.8	32.9	15.3	18.8	100.0	. .

. . Not applicable.

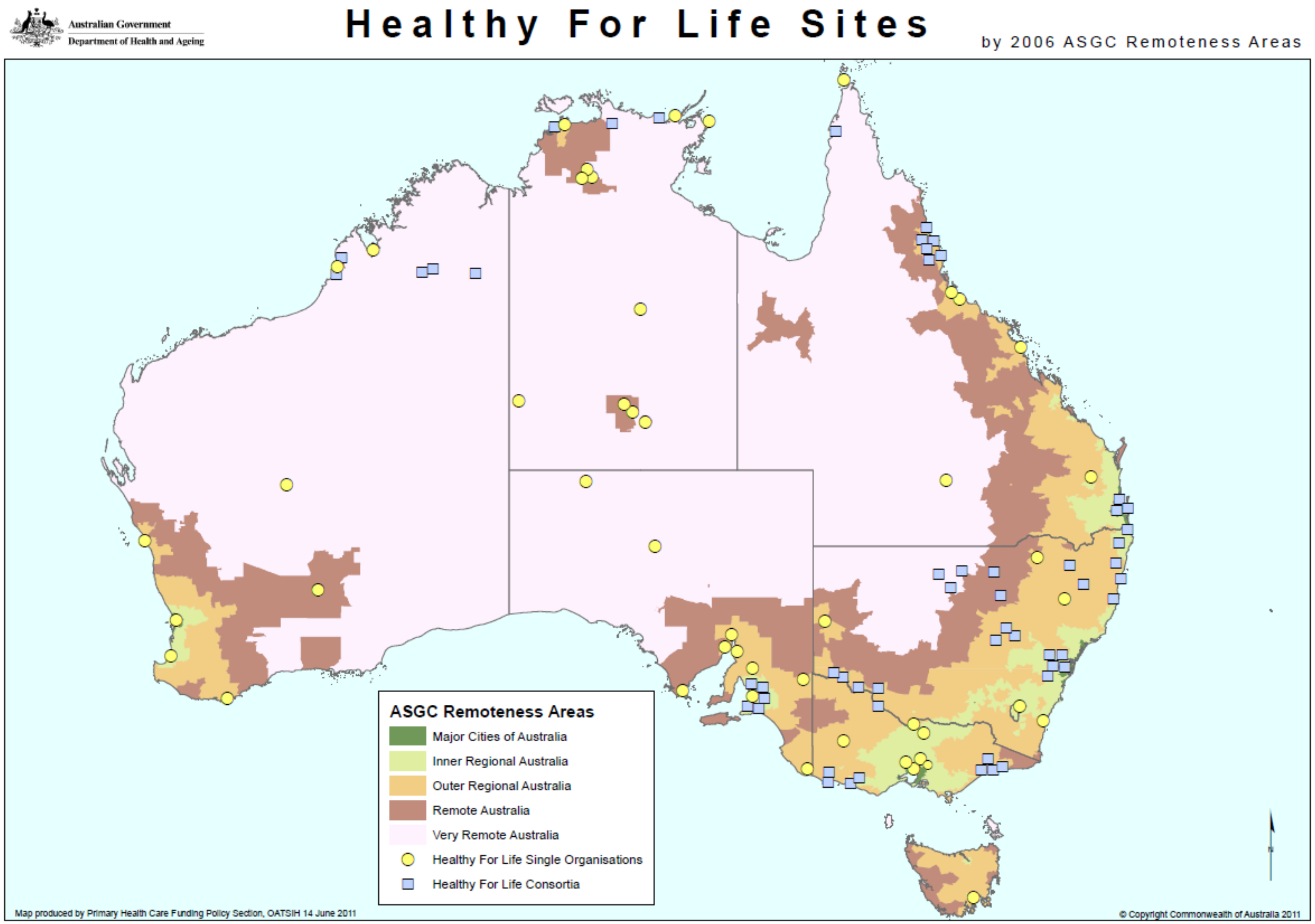


Figure 3.1: Distribution of Healthy for Life services across Australia

Consortium membership

Under half (35) of the 85 services that provided data received funding as part of a consortium, 45 were stand alone and five did not state their consortium membership status.

Accreditation

In 2009–10, an estimated 87% of registered general practices were accredited through AGPAL (Australian General Practice Accreditation Limited) and GPA+ (General Practice Australia) (AIHW 2011a).

Of the 85 HfL services that reported data in 2010–11, 57 (67%) were accredited, 14 (16%) were undergoing accreditation, 2 (2%) were provisionally accredited, 1 (1%) was conditionally accredited and 7 (8%) were neither accredited nor undergoing accreditation. AGPAL was the most commonly used accreditation provider with 53 (62%) services accredited or undergoing accreditation by AGPAL, though other services were accredited or undergoing accreditation through the ACHS (Australian Council on Healthcare Standards) or the QIC (Quality Improvement Council) (Table 3.2). In comparison, in 2009–10, 223 Aboriginal and Torres Strait Islander primary health-care services reported their accreditation status. More than half of these (60%) were accredited (AIHW 2011b).

Table 3.2: Services, by accreditation status and provider, at 30 June 2011

	Accreditation provider					
Accreditation status	**AGPAL**	**ACHS**	**QIC**	**Other**	**Provider not stated**	**Total**
	Number of services					
Accredited	42	8	2	3	2	57
Undergoing accreditation	11	1	0	2	0	14
Provisionally accredited	2	0	0	0	0	2
Conditionally accredited	1	0	0	0	0	1
None of the above	0	0	0	1	6	7
Accreditation status not stated	0	0	0	0	4	4
Total	**56**	**9**	**2**	**6**	**12**	**85**

Notes

1. Data provided by 85 services.
2. Some services were accredited by more than one provider but only the primary accreditation provider is shown.
3. APGAL is the Australian General Practice Accreditation Limited. ACHS is the Australian Council on Healthcare Standards. QIC is the Quality Improvement Council.

Clients and episodes of care

A total of 135,579 Indigenous clients attended the 69 HfL services providing valid data on client numbers (Table 3.3). The number of Indigenous Australians is estimated at 575,552 at 30 June 2011 (ABS 2009a). HfL services provided health care to about one-quarter of these individuals. This comparison is only indicative as some clients may have attended multiple HfL services and be counted more than once.

About one-quarter (23%) of HfL clients were non-Indigenous, and Indigenous status was not recorded for 2% of clients (Table 3.3).

Fifty-four per cent of clients were female. More than 4 in 5 (82%) were regular clients. The recommended definition of regular client for HfL is a person who has a record of having attended the service for any reason at least twice during the 3 years preceding the end of the reporting period. However, services could use whatever definition of regular client they felt was most appropriate to their service.

Table 3.3: Clients seen, by Indigenous status and sex

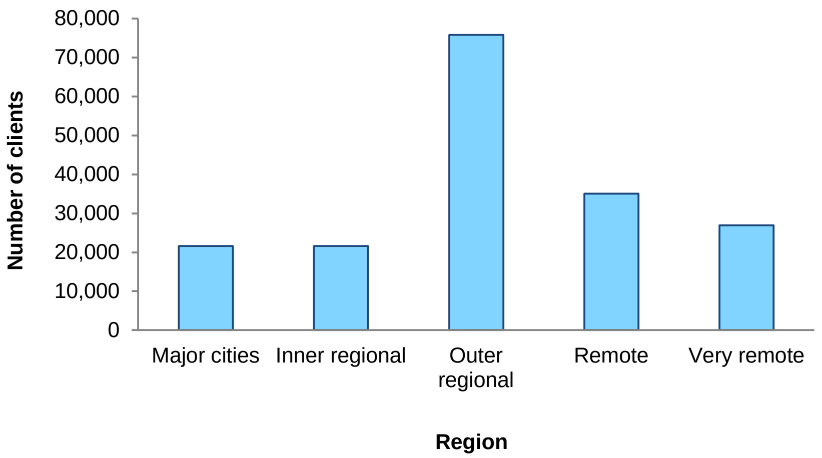
	Indigenous							
	Aboriginal	Torres Strait Islander	Aboriginal & Torres Strait Islander	Total Indigenous	Non-Indigenous	Not recorded	Total number	%
Male	57,660	1,769	2,050	61,479	20,425	1,867	83,771	46.3
Female	69,828	1,925	2,347	74,100	21,273	1,805	97,178	53.7
Total	**127,488**	**3,694**	**4,397**	**135,579**	**41,698**	**3,672**	**180,949**	**100.0**
%	70.5	2.0	2.4	74.9	23.0	2.0	100.0	. .

. . Not applicable.

Notes

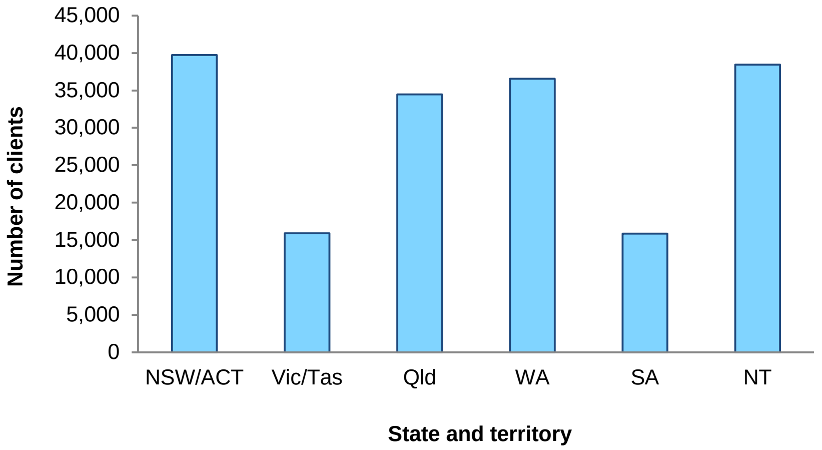
1. Includes all clients, not only HfL-funded clients.
2. Data provided by 69 services.

More than 75,000 clients (42%) attended services in *Outer regional* areas (Figure 3.2). Clients attending services in *Remote* and *Very remote* areas accounted for more than one-third (34%) of total client numbers. More than 39,000 clients (22%) attended services in New South Wales or the Australian Capital Territory and more than 38,000 clients (21%) attended services in the Northern Territory (Figure 3.3).



Note: Data presented for 69 out of 85 services.

Figure 3.2: Number of clients seen, by region



Note: Data presented for 69 out of 85 services.

Figure 3.3: Number of clients seen, by state and territory

An episode of care involves contact between an individual client and one or more staff of the service to provide health care, including care for sickness or injury, counselling, health education or screening.

There were 1,189,893 episodes of care in total provided by the 64 services that reported valid data for this item. More than 90% of these (1,105,175) were for regular clients.

There were more episodes of care provided for females (693,826, or 58%) than for males (496,067, or 42%) (Table 3.4). This may in part be explained by the larger number of female clients (97,178, or 54%) than male clients (83,771, or 46%), but also suggests that female clients may visit health services more frequently than male clients.

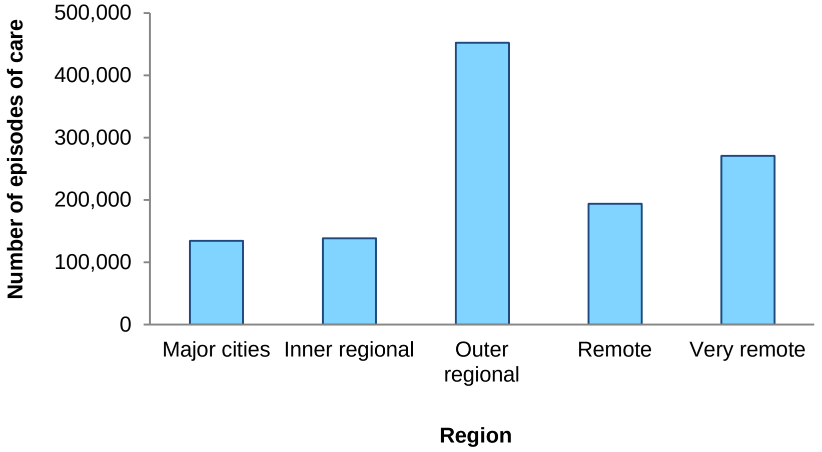
Table 3.4: Episodes of care, by Indigenous status and sex

Episodes of care for:	Male	Female	Total	%
Aboriginal and Torres Strait Islander people	401,402	590,390	991,792	83.4
Non-Indigenous people	86,676	93,670	180,346	15.2
People with Indigenous status not recorded	7,989	9,766	17,755	1.5
Total	**496,067**	**693,826**	**1,189,893**	**100.0**

Notes

1. Includes all episodes of care, not only HfL-funded.
2. Data provided by 64 services.

The largest number of episodes of care (more than 450,000) was provided at services in *Outer regional* areas (Figure 3.4). Almost two-fifths (39%) were provided at services in *Remote* and *Very remote* areas combined.



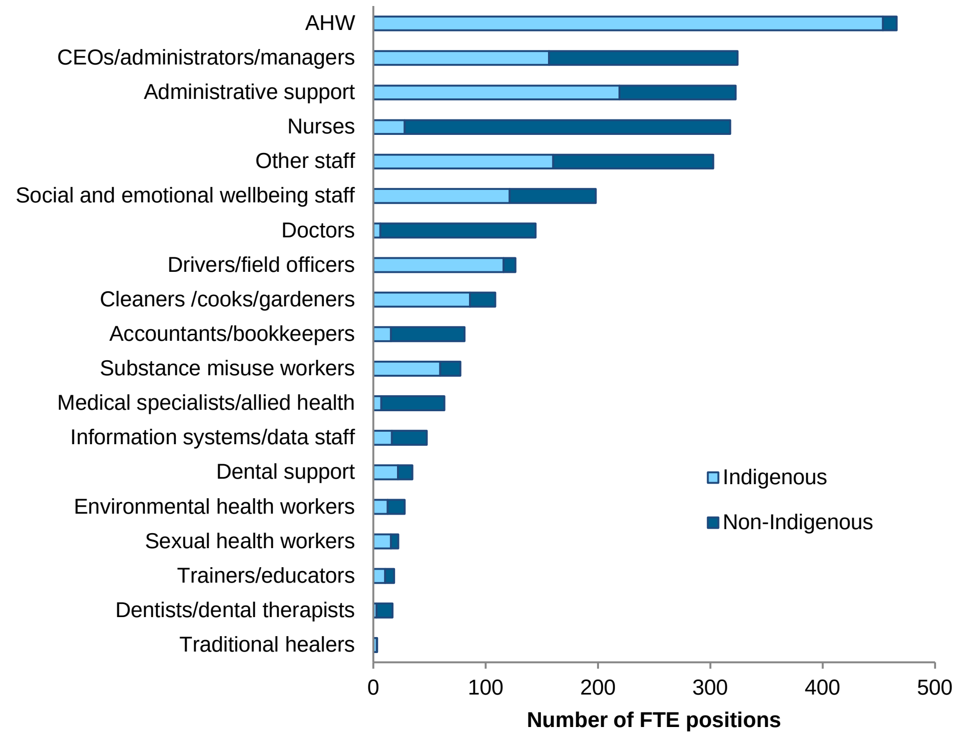
Note: Data presented for 64 out of 85 services.

Figure 3.4: Episodes of care, by region

Staffing

In the 75 services that provided data on staffing, 3,441 staff were employed in 2,703 full-time equivalent (FTE) positions. There were more Indigenous staff (1,779) than non-Indigenous (1,662).

The largest category of employees (by number of staff) was Aboriginal and Torres Strait Islander health workers (506), followed by other staff (447), nurses (378), administrative support (362) and chief executive officers/administrators/managers (340). These five categories also contained the highest number of FTE positions (Figure 3.5).



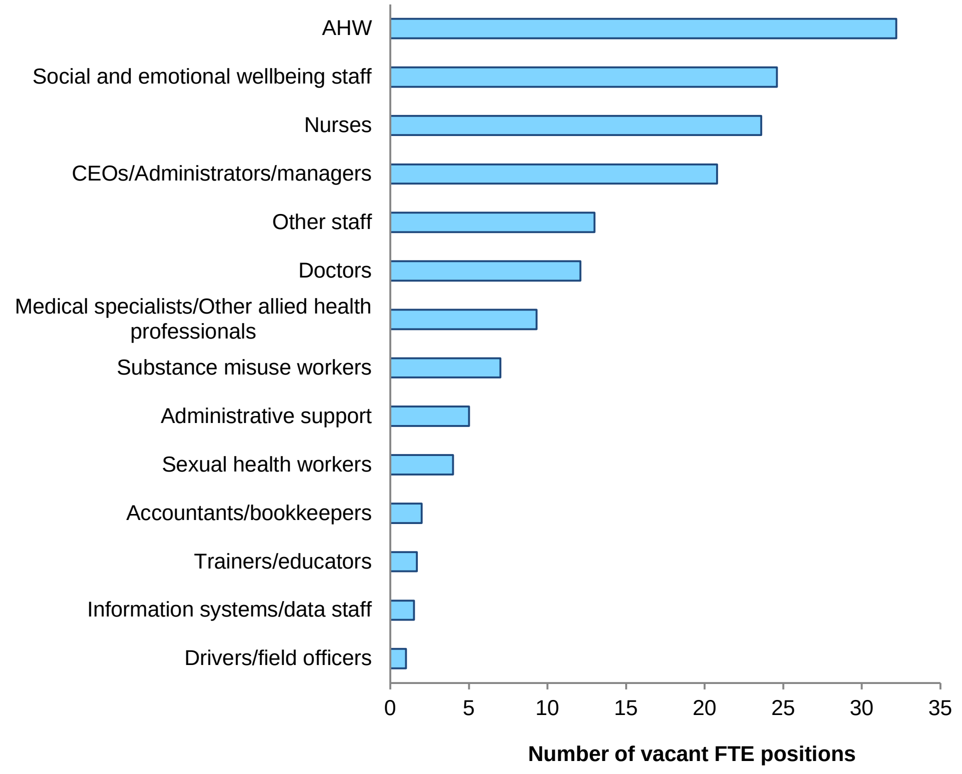
Notes

1. Data presented for 75 out of 85 services.
2. All positions, for which the service pays the wages/salary/fees through all sources of funding, are included in the number of staff and full-time equivalent positions.
3. AHW is Aboriginal Health Worker. CEO is chief executive officer.

Figure 3.5: Full-time equivalent (FTE) positions, by type and Indigenous status

Vacant positions

Across the 50 services that provided data on vacant positions, 158 FTE positions were vacant. Of these, more than 30 were Aboriginal and Torres Strait Islander health worker positions, an average of 0.6 FTE positions vacant per service that reported vacant positions (Figure 3.6). Twenty-five FTE social and emotional wellbeing positions and 24 FTE nursing positions were vacant, an average of about 0.5 FTE positions per service.



Notes

1. Data presented for 50 out of 85 services
2. AHW is Aboriginal Health Worker. CEO is chief executive officer.

Figure 3.6: Vacant full-time equivalent (FTE) positions, by type

The proportion of vacant FTE positions was lower in *Very remote* areas (4%) than in any other region (Table 3.5).

Table 3.5: Vacant full-time equivalent (FTE) positions, by region

	Major cities	Inner regional	Outer regional	Remote	Very remote	Total
Number of vacant FTE positions	32.5	24.8	57.6	25.1	17.8	157.8
Total number of filled and vacant FTE positions	393.4	342.3	654.3	352.1	473.4	2,215.6
% of FTE positions that were vacant	8.3	7.2	8.8	7.1	3.7	7.1

Note: Valid data provided by 50 services (8 in *Major cities*, 10 in *Inner regional* areas, 14 in *Outer regional* areas, 9 in *Remote* areas and 9 in *Very remote* areas).

Governance, leadership and management

Governance

Seventy-six (89%) services provided information on their governance strategies.

Some of the main strategies were to:

- provide an ongoing program of training, development and support for the board of management
- ensure community representation on the board
- ensure regular meeting of the board of directors
- establish an HfL steering committee, working group or Aboriginal advisory committee
- provide regular reports and updates on the outcomes achieved in all key areas of the service and implementing the strategic plan and action plan
- maintain working relationships with other health providers to ensure provision of quality care
- ensure that committee members and staff are competent/trained in governance
- monitor and report on financial management
- survey clients and community to ensure feedback mechanisms are in place
- ensure that accreditation is achieved or maintained
- review organisational plans, policies and procedures.

Services also reported on barriers to achieving governance strategies, including:

- an inability to develop a multidisciplinary approach to client care due to lack of success in bringing all parties together
- high staff turnover; and lack of access to local governance training.

Services were asked to provide information on strategies they used to involve their community in service planning and feedback. The most common formal mechanism for input into planning was via meetings of reference groups or other advisory committees (86%) (Table 3.6).

The most common formal mechanism for dissemination of performance information was via reports presented at other meetings (79%).

A complaints mechanism (86%) and a client satisfaction survey (79%) were the most common formal mechanisms used to assess client satisfaction.

Table 3.6: Services with strategies to involve their community in service planning and feedback

Strategies:	Yes (%)	No (%)	No response (%)
1. Formal mechanisms for input into planning			
a. Meeting(s) of reference group(s) or other advisory committee(s)	85.9	3.5	10.6
b. Input received at an Annual General Meeting	68.2	22.4	9.4
2. Formal mechanisms for dissemination of health service performance information			
a. A current formal communication strategy	68.2	20.0	11.8
b. Verbal and/or written report(s) presented at an Annual General Meeting	70.6	12.9	16.5
c. Verbal and/or written reports(s) presented at other meeting(s)	78.8	11.8	9.4
d. Health service newsletter(s)	62.4	28.2	9.4
e. ‘Column’ in the newsletter(s) of other agencies	32.9	54.1	12.9
f. Ad hoc information on health service website	48.2	40.0	11.8
3. Formal mechanisms for assessing client satisfaction			
a. Client satisfaction survey	78.8	11.8	9.4
b. Client focus group(s)	48.2	41.2	10.6
c. Suggestions box	75.3	15.3	9.4
d. Complaints mechanism	85.9	3.5	10.6

Note: Percentages based on a total of 85 services. Fewer than 85 services responded to some questions.

Leadership and management

Seventy-seven (91%) services provided information on leadership and management strategies, including:

- recruiting or employing specific staff as a result of HfL
- ensuring that new staff receive orientation
- conducting regular performance appraisals, including review of position descriptions
- maintaining and increasing staff knowledge through training
- holding regular management and employee meetings
- undertaking yearly clinical audits and systems assessments
- maintaining financial controls and registers
- ensuring the service is managed according to the strategic plan, action plan and funding arrangements
- developing links and partnerships with health providers, other organisations and Aboriginal communities.

Some services reported that leadership and management strategies were hampered due to difficulty in scheduling meetings between staff and management.

Quality improvement

About two-thirds or more services participated in formal quality improvement processes that involved repeated cycles of PDSA in maternal health (68%), child health (79%) and chronic disease (84%) (Table 3.7).

About four-fifths or more services used health service data to review quality in maternal health (79%), child health (84%) and chronic disease (87%) (Table 3.7).

Four-fifths or more services had their staff participating in the interpretation of health service data and service planning and goal setting in relation to maternal health (80%), child health (86%) and chronic disease (89%) (Table 3.7).

Table 3.7: Services that undertook quality improvement activities

Quality improvement activities:	Yes (%)	No (%)	No response (%)
1. Formal quality improvement processes that involve repeated cycles of Plan-Do-Study-Act (PDSA)			
a. Maternal health	68.2	24.7	7.1
b. Child health	78.8	14.1	7.1
c. Chronic disease	83.5	9.4	7.1
2. Quality improvement strategies included in current business plan	78.8	4.7	16.5
3. Health service data used to review quality			
a. Maternal health	78.8	12.9	8.2
b. Child health	83.5	8.2	8.2
c. Chronic disease	87.1	4.7	8.2
4. Staff participation in interpretation of health service data and service planning/goal setting			
a. Maternal health	80.0	12.9	7.1
b. Child health	85.9	7.1	7.1
c. Chronic disease	88.2	4.7	7.1

Note: Percentages based on a total of 85 services. Fewer than 85 services responded to some questions.

Community health promotion and development

The most common activities undertaken in community health promotion and development were engagement with preschools and schools (79%), women's groups (75%), men's groups (71%) and child care centres and play groups (69%) (Table 3.8).

Table 3.8: Services that undertook community health promotion and development activities

Community health promotion/development activities[a]:	Yes (%)	No (%)	No response (%)	Not applicable (%)
1. Engagement with child care centres and/or play groups	69.4	20.0	7.1	3.5
2. Engagement with preschools and/or schools	78.8	12.9	7.1	1.2
3. Engagement with community groups				
a. Community council	68.2	18.8	9.4	3.5
b. Women's group(s)	75.3	12.9	9.4	2.4
c. Men's group(s)	70.6	17.6	8.2	3.5
d. Youth group(s)	58.8	27.1	10.6	3.5
e. Sports club(s)	49.4	35.3	11.8	3.5
f. Art/cultural centre(s)	41.2	41.2	12.9	4.7

(a) Relating to maternal, child health, chronic disease prevention, and care, including risk reduction for smoking, alcohol, nutrition, physical activity and emotional wellbeing.

Note: Percentages based on a total of 85 services. Fewer than 85 services responded to some questions.

Information capability

Seventy-seven (91%) services reported on their information capability strategies, including:

- maintaining, updating or improving current levels of information technology (IT) infrastructure and developing a risk management plan for IT failure and electronic threats
- implementing, maintaining or updating electronic client information systems and providing staff training in OSCAR and PIRS, including recall functions
- using PIRS to provide information on service delivery and to monitor the quality of service delivery
- improving patient follow-up using PIRS and maintaining both electronic and paper-based files or working towards electronic records.

Strategies were hampered due to a number of issues, including inefficient systems to collect data and insufficient resources and high staff turnover impeding PIRS training.

Use of electronic client information system

At 30 June 2011, 44% of services had only an electronic client information system and 49% had both electronic and paper-based systems. Two services used paper-based only information systems and four services provided no response.

Services fully used their electronic client information systems most commonly for clinical records (74%), maintenance of the regular client list (71%), prescriptions and pathology (69%), and Medicare and other billing (66%) (Table 3.9).

More than half of the services also used electronic client information systems fully for making appointments and generating service reports (56%), receiving pathology results (55%) and recall and reminder (54%) (Table 3.9).

Table 3.9: Tasks for which services used their electronic client information system

Tasks:	Fully (%)	Partially (%)	Not at all (%)	No response (%)
1. Maintenance of our regular client list	70.6	21.2	2.4	5.9
2. Appointments	56.5	15.3	21.1[(a)]	7.1
3. Recall and reminder	54.1	35.3	3.5	7.1
4. Clinical records (notes)	74.1	15.3	3.5	7.1
5. Prescriptions	69.4	9.4	14.1	7.1
6. Pathology	69.4	12.9	9.4	8.2
7. Medicare and other billing	65.9	8.2	18.8	7.1
8. Patient education resources	28.2	54.1	10.6	7.1
9. Care plans	38.8	47.1	7.1	7.1
10. Care guidelines and protocols	36.5	41.2	12.9	9.4
11. Generation of service reports	56.5	31.8	4.7	7.1
12. Linkages to external sources				
a. Receiving pathology results	55.3	22.4	15.3	7.1
b. Receiving discharge summaries	17.6	44.7	30.6	7.1
c. Shared patient records	35.3[(b)]	. .	56.5[(c)]	8.2

(a) Includes ‘Not at all’ and ‘Appointments not used’.

(b) Responded ‘Yes’.

(c) Responded ‘No’.

. . Not applicable.

Note: Percentages based on a total of 85 services. Fewer than 85 services responded to some questions.

Information systems and training

Most services had a structured and systematic approach to recording client and other information (93%), staff training and education (92%) and electronic system support (91%), and structures and processes to support information capability strategies enabling them to report against performance indicators (89%) (Table 3.10).

Table 3.10: Structures and processes that services used to support information capability

Structures and processes:	Yes (%)	No (%)	No response (%)	Not applicable (%)
1. Structured and systematic approach to recording client and other information	92.9	1.2	5.9	. .
2. Strategies to ensure capacity to report against performance indicators	89.4	4.7	5.9	. .
3. Staff training and education	91.8	1.2	7.1	. .
4. Electronic system support	90.6	2.4	7.1	0.0

. . Not applicable.

Note: Percentages based on a total of 85 services. Fewer than 85 services responded to some questions.

4 Summary of Essential Indicators

This chapter summarises the information over time for the 10 HfL Essential Indicators. This analysis is somewhat constrained by data quality issues discussed in Chapter 2, and therefore the comparison has been restricted to data from a subset of services that provided valid data based on a complete count of clients for all reporting periods since 2007–08 for annual indicators or the period 1 July to 31 December 2007 for 6-monthly indicators.

Summary results for the 10 HfL Essential Indicators are in Tables 4.1a (indicators for which data were collected annually) and 4.1b (indicators for which data were collected every 6 months). Further information on how this data have been calculated is in Appendix A.

Results from the analyses of the subset of data show that between the first and the most recent reporting periods there have been increases in a number of areas, however, little or no change was seen against some of the Essential Indicators. It should be noted that the increase in the number of clients seen by the HfL services over time could explain why there was little or no change against some of the indicators. The HfL data clearly showed that there was an increase in the total number of clients receiving each of the health service (numerator) and at the same time, total number of regular clients attending a service (denominator) also increased. This means that the resulting proportions are likely to show little or no change over time.

- The proportion of pregnant women attending their first antenatal visit before 20 weeks of pregnancy or between 13 weeks and 20 weeks of pregnancy was greater in the most recent reporting period ending in June 2011 compared with the period ending in June 2008.
- The proportion of women who attended their first antenatal visit at or after 20 weeks of pregnancy was less in the most recent reporting period.
- There was a 1 percentage point increase in the proportion of women not attending antenatal care or for whom no visit was recorded.
- Average birthweight of babies in the reporting period ending in June 2011 was greater than that for the period ending in June 2008.
- The proportion of low birthweight babies decreased by nearly 2 percentage points while there was a 2.5 percentage point decrease in the proportion of babies born with high birthweight. Those born within the normal birthweight range increased by 4.2 percentage points.
- Although there was a 1 percentage point decline in the proportion of women smoking during the third trimester of pregnancy, more than 50% of pregnant women continued to smoke.
- Alcohol was consumed by 18% of women in the third trimester of pregnancy at the most recent reporting period, which was 3.5 percentage point decrease since the reporting period ending in June 2008.
- The proportion of women reporting the use of illicit drugs in the third trimester of pregnancy was greater in the reporting period ending in June 2011 (17.2%) compared with the reporting period ending in June 2008 (14.4%).
- While the proportion of children aged 0–14 who had health assessments was lower in the most recent reporting period, proportions of adults aged 15–54 and 55+ were greater in the recent period (respective increases were 3.5 and 6 percentage points).

- There were increases in the proportions of people with chronic diseases (diabetes and coronary heart disease) who had received Chronic Disease Management Plans (GPMP and TCA). This might be an indication that more people with chronic disease are being well managed through primary health-care services.
- There was a 10 percentage point increase in the proportion of people with diabetes who had an HbA1c test in the last 6 months. About 30% had HbA1c levels less than or equal to 7%, which is the general level recommended for most people with diabetes.
- The proportion of people with Type 2 diabetes who had a blood pressure test in the last 6 months increased by nearly 10 percentage points over time, however, the proportion of clients with coronary heart disease who had a blood pressure test in the last 6 months remained stable at about 62.7%.

Table 4.1a: Summary of Essential Indicator results for a subset of services[(a)], reporting annual data for periods ending 30 June 2008 to 30 June 2011

	June 2008		June 2009		June 2010		June 2011	
Indicators	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**
EI 1: Timing of first antenatal visit								
Before 13 weeks of pregnancy	700	43.0	785	45.2	802	47.1	961	43.0
At 13 weeks or after, but before 20 weeks of pregnancy	700	19.3	785	17.8	802	19.7	961	20.6
Total before 20 weeks	*700*	*62.3*	*785*	*63.1*	*802*	*66.8*	*961*	*63.6*
At 20 weeks of pregnancy or after	700	23.9	785	23.8	802	23.2	961	21.6
Did not attend/ Not recorded antenatal visit	700	13.9	785	13.1	802	10.0	961	14.8
Total	**700**	**100.0**	**785**	**100.0**	**802**	**100.0**	**961**	**100.0**
EI 2: Average birthweight (g)	**858**	**3,015**[(b)]	**931**	**3,101**[(b)]	**966**	**3,158**[(b)]	**1,100**	**3,131**[(b)]
EI 3: Low and high birthweight babies								
Low birthweight (<2,500g)	784	15.2	926	13.7	974	13.1	1,081	13.5
Normal birthweight (2,500–4,499g)	784	80.0	926	82.9	974	84.2	1,081	84.2
High birthweight (≥4,500g)	784	4.8	926	3.3	974	2.7	1,081	2.3
Total	**784**	**100.0**	**926**	**100.0**	**974**	**100.0**	**1,081**	**100.0**
EI 4 part I: Risk factors identified before 13 weeks of pregnancy								
Smoking								
Smoker	291	55.0	220	49.1	297	55.9	323	55.1
Other	291	45.0	220	50.9	297	44.1	323	44.9
Total	**291**	**100.0**	**220**	**100.0**	**297**	**100.0**	**323**	**100.0**
Alcohol consumption								
Alcohol consumption	276	27.5	191	23.0	267	31.5	284	25.0
No alcohol consumption	276	72.5	191	77.0	267	68.5	284	75.0
Total	**276**	**100.0**	**191**	**100.0**	**267**	**100.0**	**284**	**100.0**

(continued)

Table 4.1a (continued): Summary of Essential Indicator results for a subset of services[(a)] reporting annual data for periods ending 30 June 2008 to 30 June 2011

	June 2008		June 2009		June 2010		June 2011	
Indicators	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**
Illicit drug use								
Illicit drug user	129	21.7	141	12.8	198	20.2	210	23.8
Other	129	78.3	141	87.2	198	79.8	210	76.2
Total	**129**	**100.0**	**141**	**100.0**	**198**	**100.0**	**210**	**100.0**
EI 4 part II: Risk factors identified in third trimester of pregnancy								
Smoking								
Smoker	238	53.4	434	51.6	519	52.8	550	52.4
Other	238	46.6	434	48.4	519	47.2	550	47.6
Total	**238**	**100.0**	**434**	**100.0**	**519**	**100.0**	**550**	**100.0**
Alcohol consumption								
Alcohol consumption	215	21.4	398	15.8	490	19.6	503	17.9
No alcohol consumption	215	78.6	398	84.2	490	80.4	503	82.1
Total	**215**	**100.0**	**398**	**100.0**	**490**	**100.0**	**503**	**100.0**
Illicit drug use								
Illicit drug user	181	14.4	358	9.8	449	12.5	483	17.2
Other	181	85.6	358	90.2	449	87.5	483	82.8
Total	**181**	**100.0**	**358**	**100.0**	**449**	**100.0**	**483**	**100.0**
EI 5: Child Immunisation[(c)]								
EI 6 part I: Health assessment for Aboriginal and Torres Strait Islander people (MBS Item 715)[(d)]								
Aged 0–14	31,472	15.9	30,245	12.3	30,863	13.7	31,785	13.8
Aged 15–54	55,172	11.7	56,592	12.1	59,865	12.4	62,462	15.2
Aged 55 and over	7,887	14.7	8,125	14.6	8,882	16.2	8,624	20.7

(continued)

Table 4.1a (continued): Summary of Essential Indicator results for a subset of services[(a)] reporting annual data for periods ending 30 June 2008 to 30 June 2011

	June 2008		June 2009		June 2010		June 2011	
Indicators	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**
EI 7 part I: Chronic Disease Management Plans (MBS Item 721) GPMP								
Regular clients with Type 2 diabetes	6,167	24.8	6,352	22.5	7,079	24.2	6,937	31.6
Regular clients with coronary heart disease	1,821	22.9	1,835	20.3	1,964	25.4	2,778	33.4
EI 7 part III: Chronic Disease Management Plans (MBS Item 723) TCA								
Regular clients with Type 2 diabetes	5,209	15.7	5,589	16.7	6,241	18.7	6,000	21.8
Regular clients with coronary heart disease	1,643	13.9	1,704	14.7	1,797	19.3	2,088	22.2

(a) Data are shown for a subset of services that provided valid data based on a complete count of clients for an indicator part for all reporting periods.

(b) D (denominator).

(c) Average birthweight in grams.

(d) The specifications for child immunisation changed for 2010–11, so no time series data can be analysed.

(e) The specifications for the health assessment Essential Indicator changed for 2010–11 to reflect changes in the Medicare Benefits Schedule. Data before 2010–11 were collected for Child Health Checks (MBS Item 708) and Adult Health Checks (MBS Items 710,704 and 706). Data for these previous reporting periods are presented according to the appropriate age categories for MBS Item 715.

Notes

1. Data for maternal indicators are for all Indigenous babies.
2. Data for EI 1–7 were reported annually (1 July–30 June).

Table 4.1b: Summary of Essential Indicator results for a subset of services[(a)] reporting 6-monthly data for periods ending 31 December 2007 to 30 June 2011

Indicator	Measure[(b)]	December 2007	June 2008	December 2008	June 2009	December 2009	June 2010	December 2010	June 2011
EI 8 part I: Regular clients with Type 2 diabetes who had an HbA1c test in the last 6 months	**D**	5,482	6,053	5,526	6,068	6,095	6,352	6,317	6,779
	%	45.7	47.2	40.4	51.3	51.9	56.2	51.4	55.8
EI 8 part II: HbA1c levels in regular clients with Type 2 diabetes									
HbA1c level less than or equal to 7%	**D**	2,108	2,326	2,116	2,398	2,452	2,869	2,720	2,989
	%	34.2	32.8	31.3	30.3	30.8	31.4	27.8	29.5
HbA1c level greater than 7% but less than or equal to 8%	**D**	2,108	2,326	2,116	2,398	2,452	2,869	2,720	2,989
	%	17	18.2	17.6	19.6	19.5	19.3	21	19.4
HbA1c level greater than 8% but less than 10%	**D**	2,108	2,326	2,116	2,398	2,452	2,869	2,720	2,989
	%	23.3	23.8	23	23.9	23.2	22.6	25.8	24.8
HbA1c level greater than or equal to 10%	**D**	2,108	2,326	2,116	2,398	2,452	2,869	2,720	2,989
	%	25.4	25.2	28.1	26.1	26.5	26.6	25.4	26.4
Total	**D**	**2,108**	**2,326**	**2,116**	**2,398**	**2,452**	**2,869**	**2,720**	**2,989**
	%	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
EI 8 part III: Average HbA1c results for regular clients with Type 2 diabetes	**D**	2,507	2,814	2,215	2,931	3,001	3,461	3,275	3,664
	Average	8.6	8.5	8.5	8.5	8.6	8.7	8.6	8.6
EI 9 part I: Regular clients with Type 2 diabetes who had a BP test in the last 6 months	**D**	6,911	7,325	6,800	7,343	7,353	7,752	7,788	8,116
	%	52.7	56.8	51.9	57.7	60.7	61.3	62.6	62.3

(continued)

Table 4.1b (continued): Summary of Essential Indicator results for a subset of services(a) reporting 6-monthly data for periods ending 31 December 2007 to 30 June 2011

Indicator	Measure(b)	December 2007	June 2008	December 2008	June 2009	December 2009	June 2010	December 2010	June 2011
EI 9 part II: Regular clients with Type 2 diabetes who had a BP test with a result less than or equal to 130/80mmHg	**D**	3,474	3,977	3,319	4,103	4,252	4,479	4,601	4,897
	%	41	43.1	43.3	43.9	44.1	42.6	45.8	41.6
EI 10 part I: Regular clients with coronary heart disease who had a BP test in the last 6 months	**D**	1,896	2,124	2,178	2,093	2,101	2,255	2,419	2,487
	%	62.2	62.5	60.6	59.7	63.2	67.6	64.7	62.7
EI 10 part II: Regular clients with coronary heart disease who had a BP test with a result less than 140/90mmHg(c)	**D**	1,134	1,262	1,076	1,220	1,261	1,438	1,471	
	%	60.4	64.3	65.1	64.5	63.4	61.1	65.7	

(a) Data are shown for a subset of services that provided valid data based on a complete count of clients for an indicator part for all reporting periods.

(b) D (denominator).

(c) The specification for blood pressure measure for clients with coronary heart disease changed for 2010–11.The previous specification is shown for the periods ending 31 December 2007 to 31 December 2010. Data from the period ending 30 June 2011 are not comparable and are not shown in this table.

Notes

1. Data for EI 8–10 were reported 6-monthly (1 July–31 December and 1 January–30 June).
2. BP (blood pressure).

5 Maternal health

Key findings

- Of the clients who gave birth to an Indigenous baby, 47% attended an antenatal visit before 13 weeks of pregnancy. The proportion was lowest in *Major cities* (34%).

  Similar across all reporting periods.
- The average birthweight of Indigenous babies was 3,159 grams. Average birthweight was slightly higher (3,273 grams) in *Inner regional* areas.
- The proportion of babies with low birthweight (less than 2,500 grams) was 13%, and slightly higher (15%) in *Very remote* areas.

  Similar across all reporting periods.
- Forty-six per cent of women who gave birth to an Indigenous baby and attended an antenatal visit in the third trimester did not smoke, while 83% did not consume alcohol and 85% did not use illicit drugs.

  The proportion of women who did not smoke, consume alcohol or use illicit drugs in the third trimester of pregnancy was similar across all reporting periods.

This chapter provides information on activities, clients and some health outcomes of service delivery. It includes quantitative information on antenatal visits, birthweight and risk factors identified during pregnancy, as well as qualitative information on access to maternal health services and maternal health care.

In 2010, 16,129 births were registered with the Australian Bureau of Statistics (ABS) where at least one parent identified herself or himself as being of Aboriginal and/or Torres Strait Islander origin. This accounted for 5% of all 297,000 births and is likely to be an underestimate, as the Indigenous status of the parents is not always recorded or recorded correctly (ABS 2011).

In HfL services in 2010–11, 2,223 women gave birth to Indigenous babies (where at least one parent identified themselves as of Aboriginal and/or Torres Strait Islander origin). ABS data include only registered live births, whereas HfL data include all births to regular clients, including stillbirths. Due to these and other differences, a direct comparison cannot be made. However, the births recorded in HfL services are likely to represent more than 10% of the total number of Indigenous babies born in Australia.

This chapter addresses results against Essential Indicators 1–4.

Appendix C provides a breakdown of each of the maternal health indicators by state and territory.

5.1 Antenatal visits

Evidence suggests that women who attend antenatal sessions are less likely to have low birthweight babies than mothers who do not attend (AIHW 2011a).

Information on antenatal visits was recorded for New South Wales, Queensland, South Australia and the Northern Territory in 2007 and showed that 54% of Indigenous mothers attended their first antenatal visit before 13 weeks of pregnancy, compared with 72% of non-Indigenous mothers (AIHW 2011a).

Perinatal data showed that, in 2008, 71% of Indigenous women in New South Wales attended at least one antenatal visit in the first trimester, compared with 49% in the Northern Territory and 48% in South Australia (COAG Reform Council 2011).

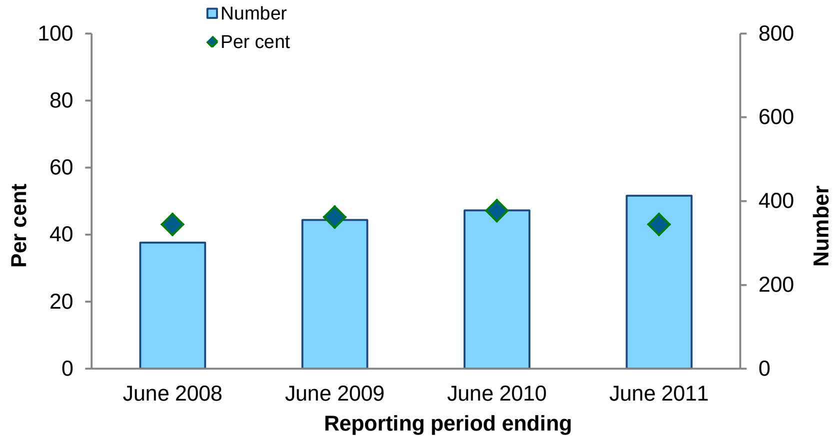
The National Aboriginal and Torres Strait Islander Social Survey (NATSISS) estimated that in 2008, 4% of mothers of Indigenous children aged 0–3 did not attend an antenatal visit (ABS 2010).

Findings from Healthy for Life

Seventy of the 85 services that reported (about 82%) provided data on timing of the first antenatal visit. At Healthy for Life-funded services, just under half (47%) of women who gave birth to an Indigenous baby had an antenatal visit before 13 weeks of pregnancy.

The proportion of women giving birth to an Indigenous baby who had an antenatal visit before 13 weeks of pregnancy was lower in *Major cities* (34%) than in any other region. Otherwise, the proportion ranged from 43% in *Inner regional* areas to 52% in *Outer regional* areas.

The proportion of women giving birth to an Indigenous baby who had an antenatal visit before 13 weeks of pregnancy was 43% in both 2007–08 and 2010–11. The number of women giving birth to an Indigenous baby who had an antenatal visit before 13 weeks of pregnancy increased from 301 in 2007–08 to 413 in 2010–11 (Figure 5.1).



Note: Data presented for 26 services.

Figure 5.1: Women who gave birth to an Indigenous baby who attended an antenatal visit before 13 weeks of pregnancy, 2007–08 to 2010–11

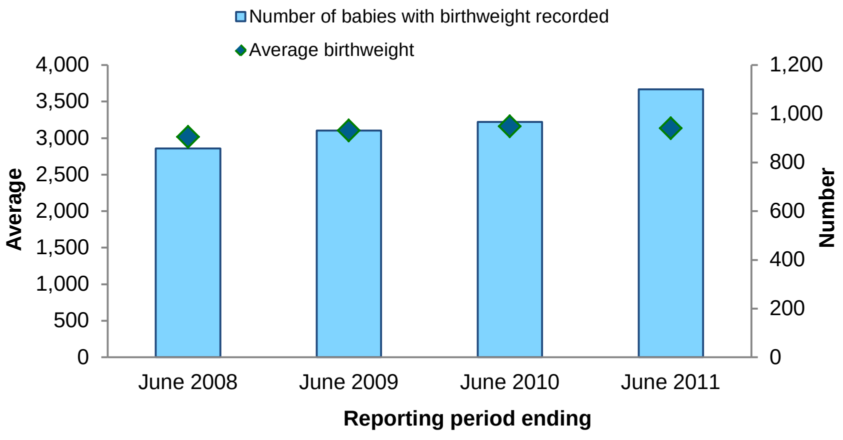
5.2 Birthweight

In 2008, the average birthweight of all live-born babies of Indigenous mothers was 3,196 grams. This was almost 200 grams less than the average of 3,385 grams for live-born babies of non-Indigenous mothers (Laws et al. 2010).

Findings from Healthy for Life

For the 73 services (86% of the 85 services that reported) which provided data in 2010–11, the average birthweight of Indigenous babies was 3,159 grams. This ranged from 3,097 grams in *Very remote* areas to 3,273 grams in *Inner regional* areas.

The average birthweight of Indigenous babies was 3,015 grams in 2007–08 and 3,131 grams in 2010–11. The number of Indigenous babies whose birthweight was recorded increased from 858 to 1,100 over the same period (Figure 5.2).



Note: Data presented for 28 services.

Figure 5.2: Average birthweight of Indigenous babies, 2007–08 to 2010–11

Low birthweight babies

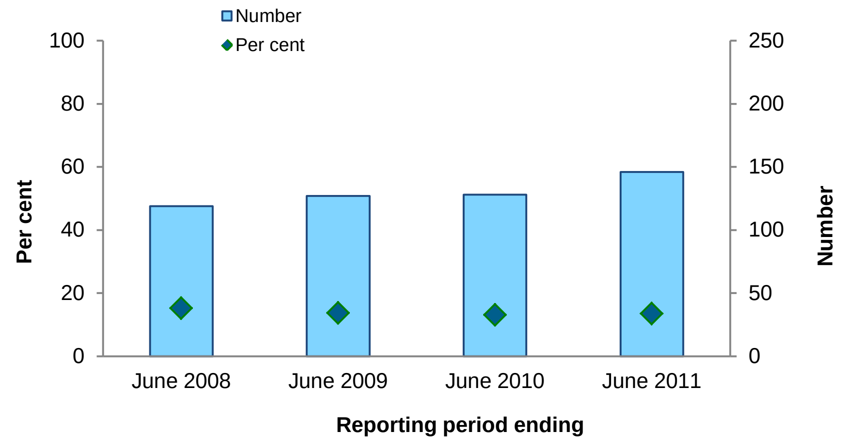
Research shows that low birthweight babies have a higher risk of developing chronic health conditions in later life (Overpeck et al. 1989). They are also more likely to suffer complications requiring a longer stay in hospital and are more likely to develop disabilities (Goldenberg & Culhane 2007). In 2008, 12% of Aboriginal and Torres Strait Islander babies were of low birthweight, twice that of babies of non-Indigenous mothers (6%) (Laws et al. 2010).

Findings from Healthy for Life

Across the 70 services (82% of the 85 services that reported) which provided data for 2010–11, 13% of Indigenous babies were low birthweight (less than 2,500 grams). Four in five services (80%) had less than 20% of Indigenous babies with a low birthweight.

The proportion of Indigenous babies with low birthweight ranged from 9% in *Inner regional* areas to 15% in *Very remote* areas.

The proportion of Indigenous babies with low birthweight was similar over the duration of the Healthy for Life Program (between 13% and 15%). The number of Indigenous babies with low birthweight increased from 119 in 2007–08 to 146 in 2010–11 (Figure 5.3). The number of Indigenous babies with normal birthweight (2,500–4,499 grams) increased from 627 to 910 over the same period.



Note: Data presented for 28 services.

Figure 5.3: Indigenous babies with low birthweight, 2007–08 to 2010–11

5.3 Risk factors during pregnancy

Behavioural risk factors, such as smoking, alcohol consumption or illicit drug use, have adverse effects on both the mother and foetus during pregnancy (Couzos & Murray 2008). Mothers who smoke during pregnancy are more likely to have a low birthweight baby (Mohsin et al. 2003).

In 2008, 51% of Indigenous women smoked during pregnancy, compared with 14% of non-Indigenous women (Laws et al. 2010). The 2008 NATSISS estimated that 42% of mothers of Indigenous children aged 0–3 reported smoking during pregnancy, 20% reported consuming alcohol and 95% reported not using illicit drugs during pregnancy (ABS 2010).

In the 12 months before the 2010 National Drug Strategy Household Survey, 7.7% of all Australian women aged 14 and over smoked after they knew they were pregnant (AIHW 2011d). According to unpublished data from the same survey, 19.9% of pregnant women aged 14 and over consumed alcohol after they knew they were pregnant and 4.2% used illicit drugs at least once during pregnancy. Due to the quality of responses provided for the alcohol consumption and illicit drug use, these data should be interpreted with caution.

Findings from Healthy for Life

In 2010–11, between 56 (66%) and 66 (78%) of the 85 services that reported provided data on risk factors during pregnancy.

Care should be taken when interpreting information in this section, as risk factor information was not recorded for all women. More women in the third trimester of pregnancy had risk factor status recorded than women in the first trimester. For women who had an antenatal visit in the third trimester, illicit drug use was not recorded for 32% of regular clients, alcohol consumption was not recorded for 30% and smoking status was not recorded for 23%.

Occurrence of risk factors 2010–11

Proportion of women who gave birth to an Indigenous baby	+	*Attended antenatal visit in 3rd trimester*	+	*Did not smoke*	*= 46%*[*]
				Did not drink	*= 83%*
				Did not take illicit drugs	*= 85%*[#]

[*] Includes ex-smokers who quit either before or during pregnancy

[#] Includes ex-users who quit either before or during pregnancy

Smoking

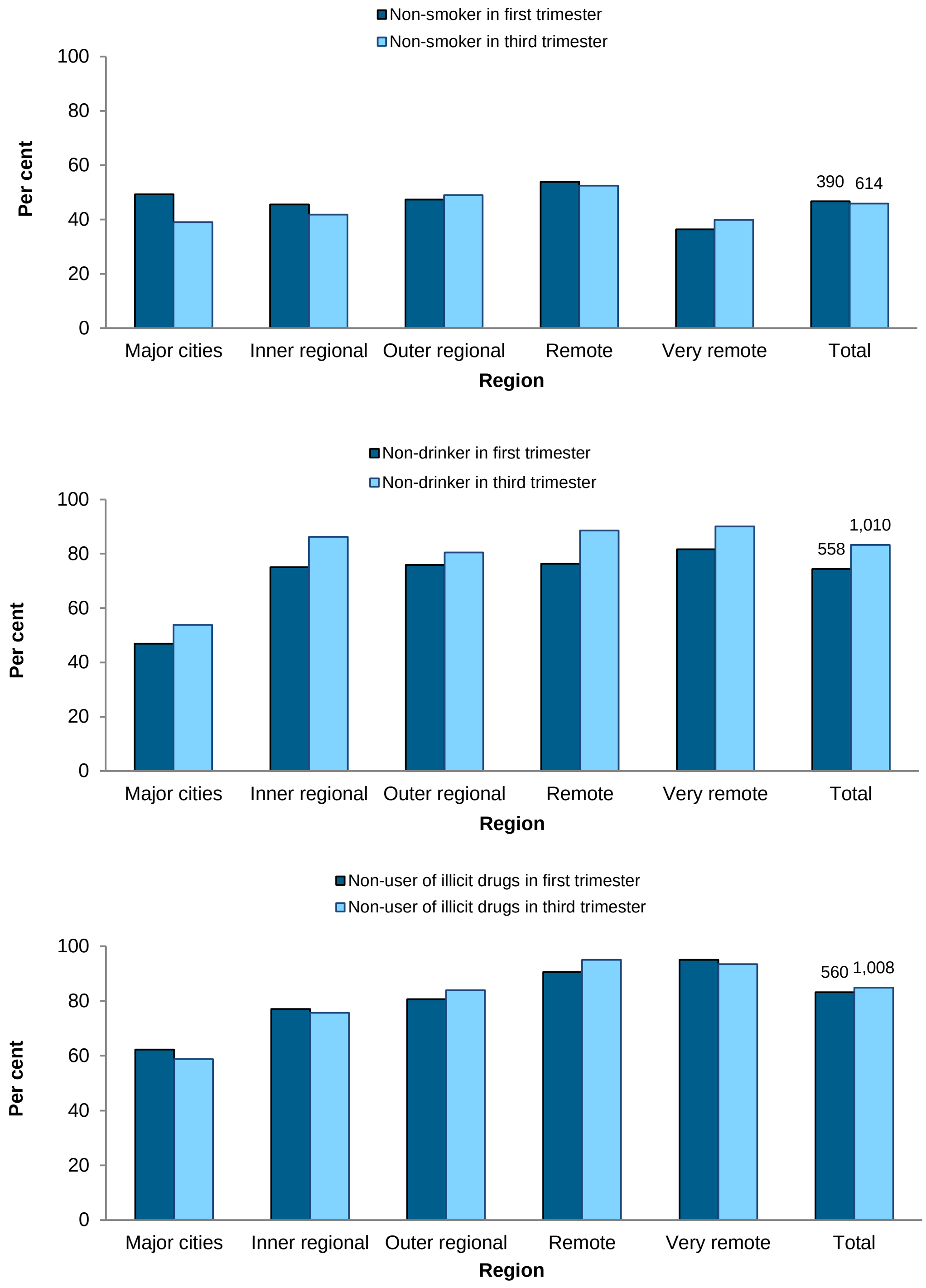
Across regions, the proportion of women who did not smoke in the third trimester was no different from the proportion of women who did not smoke in the first trimester (Figure 5.4).

Alcohol consumption

The proportion of women who did not consume alcohol in the third trimester was higher than the proportion of women who did not consume alcohol in the first trimester in *Inner regional*, *Remote*, and *Very remote* areas (Figure 5.4). Alcohol consumption during pregnancy includes low- and high-risk alcohol consumption. Low-risk alcohol consumption includes people who have less than 7 standard drinks over a week, AND have no more than 2 standard drinks (spread over at least 2 hours) on any 1 day. High-risk alcohol consumption includes people who have more than 7 standard drinks over a week, OR, more than 2 standard drinks on any 1 day.

Use of illicit drugs

Across regions, the proportion of women who did not use illicit drugs in the third trimester was no different from the proportion of women who did not use illicit drugs in the first trimester (Figure 5.4).



Notes

1. Number of women for whom this risk factor status applies is shown above the Total bars.
2. Data presented for between 56 and 66 out of 85 services.

Figure 5.4: Women who gave birth to an Indigenous baby and who did not smoke, did not consume alcohol and did not use illicit drugs, by region

Trends in risk factors during pregnancy

Smoking

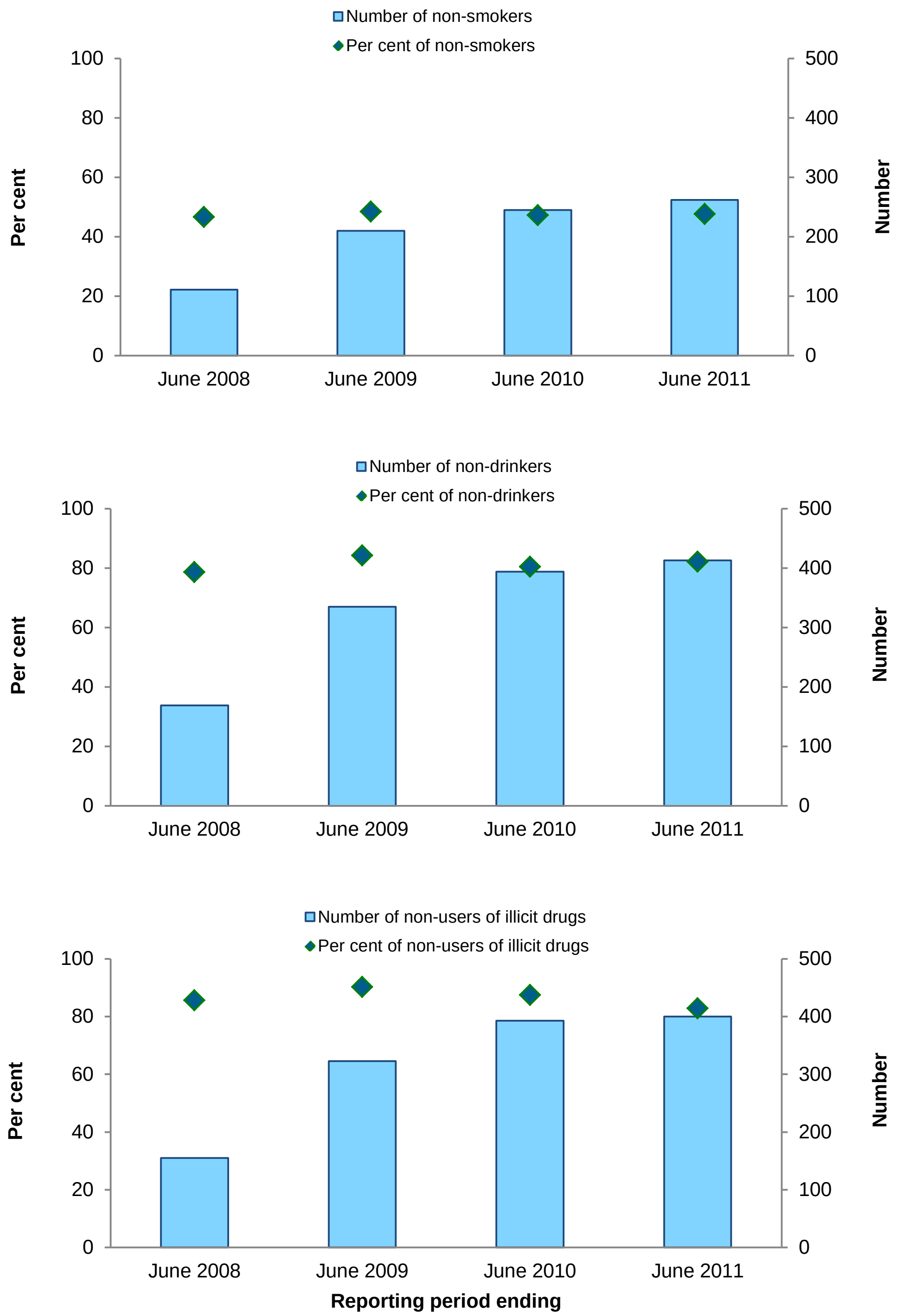
For the subset of services that reported across all four time periods, the proportion of women who gave birth to an Indigenous baby, had an antenatal visit in the third trimester and did not smoke (includes ex-smokers who quit either before or during pregnancy) was fairly stable over time (between 47% and 48%). The number of women who had an antenatal visit in the third trimester and did not smoke increased from 111 in 2007–08 to 262 in 2010–11 (Figure 5.5).

Alcohol consumption

For the subset of services that reported across all four time periods, the proportion of women who had an antenatal visit in the third trimester and did not drink alcohol was relatively stable over time (between 79% and 84%). The number of women who had an antenatal visit in the third trimester and did not drink alcohol increased from 169 in 2007–08 to 413 in 2010–11 (Figure 5.5).

Use of illicit drugs

For the subset of services that reported across all four time periods, the proportion of women who had an antenatal visit in the third trimester and did not use illicit drugs (includes ex-users who quit either before or during pregnancy) was fairly stable over time (between 83% and 90%). The number of women who had an antenatal visit in the third trimester and did not use illicit drugs increased from 155 in 2007–08 to 400 in 2010–11 (Figure 5.5).



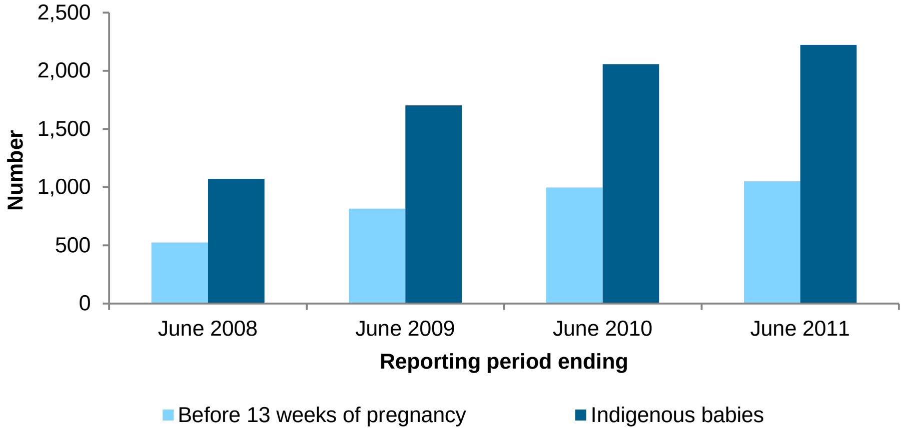
Note: Data presented for 25 services.

Figure 5.5: Women who gave birth to an Indigenous baby and who did not smoke, did not consume alcohol and did not use illicit drugs in third trimester, 2007–08 to 2010–11

5.4 Programmatic trends

The subset of services that provided valid data on an Essential Indicator is analysed to determine changes in the number or proportion of clients for each Essential Indicator through time. However, these subsets do not capture the changes in the number of services providing valid data, or changes in the total number of clients about whom valid data were provided in each reporting period.

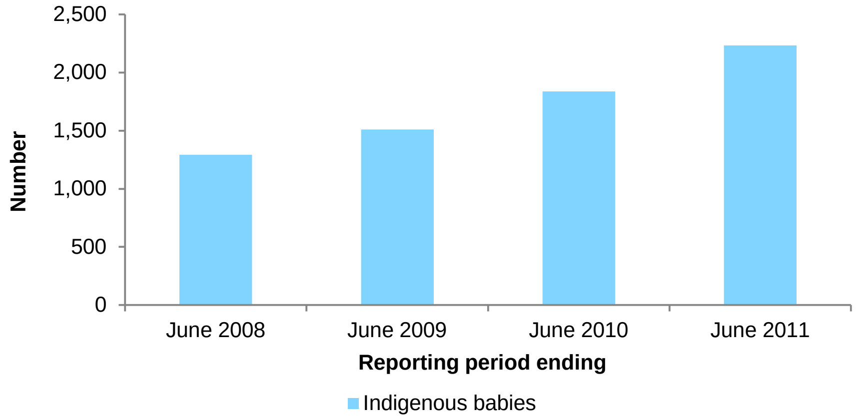
The number of services providing valid data on the women who gave birth to an Indigenous baby who attended an antenatal visit before 13 weeks of pregnancy increased from 44 in 2007–08 to 71 in 2010–11 (Figure 5.6). The number of women about whom valid data were provided increased from 1,071 to 2,223 over the same period, due in part to the increase in the number of services reporting valid data.



Note: Data presented for 44 services in 2008, 54 services in 2009, 66 services in 2010 and 74 services in 2011.

Figure 5.6: Total women who gave birth to an Indigenous baby who attended an antenatal visit before 13 weeks of pregnancy, Indigenous babies born and services providing valid data, 2007–08 to 2010–11

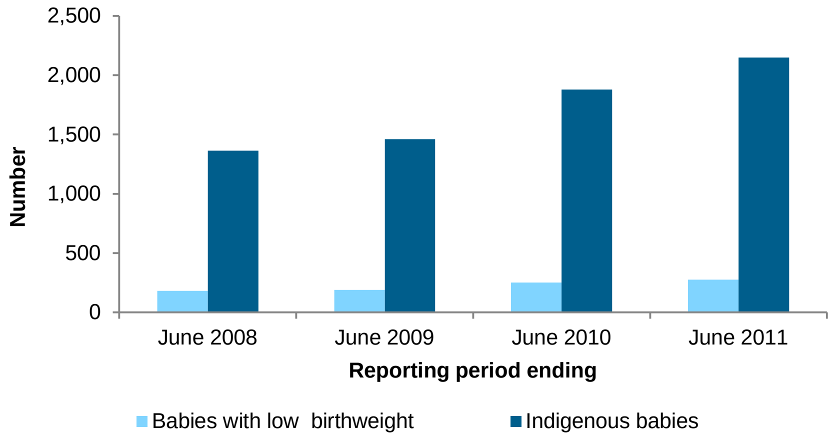
The number of services providing valid data on average birthweight increased from 48 in 2007–08 to 73 in 2010–11 (Figure 5.7). The number of babies about whom average birthweight data were collected increased from 1,294 to 2,233 over the same period, due in part to the increase in the number of services reporting valid data.



Note: Data presented for 48 services in 2008, 52 services in 2009, 63 services in 2010 and 73 services in 2011.

Figure 5.7: Total Indigenous babies about whom average birthweight was reported and services providing valid data, 2007–08 to 2010–11

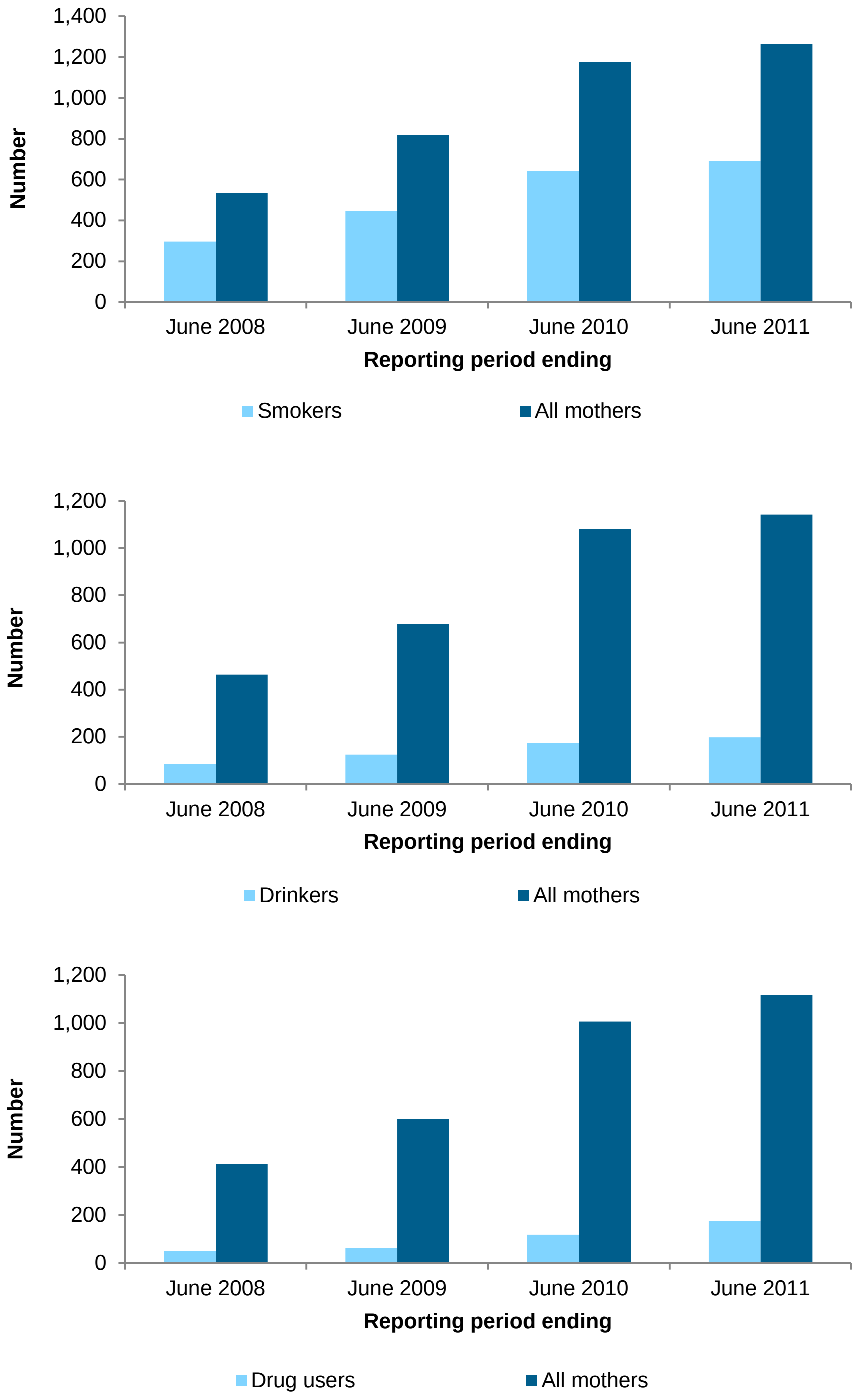
The number of services providing valid data on low, normal and high birthweight babies increased from 50 in 2007–08 to 73 in 2010–11 (Figure 5.8). The number of Indigenous babies about whom low, normal and high birthweight data was provided increased from 1,364 to 2,149 over the same period, in large part due to the increase in the number of services reporting valid data.



Note: Data presented for 50 services in 2008, 49 services in 2009, 65 services in 2010 and 73 services in 2011.

Figure 5.8: Total Indigenous babies about whom birthweight was reported, Indigenous babies with low birthweight and services providing valid data, 2007–08 to 2010–11

The number of services providing valid data on the smoking status, alcohol consumption and illicit drug use of women who gave birth to an Indigenous baby trended upward from 46 in 2007–08 to 72 in 2010–11 (Figure 5.9). The number of mothers about whom valid data on smoking status was provided increased from 533 to 1,266 over the same period. The number about whom alcohol consumption was reported increased from 464 to 1,142 and the number about whom illicit drug use was reported increased from 413 to 1,116. These increases are largely due to the increase in number of services reporting valid data.



Note: Data presented for 46 services in 2008, 51 services in 2009, 64 services in 2010 and 72 services in 2011.

Figure 5.9: Total women who gave birth to an Indigenous baby about whom smoking, alcohol consumption and illicit drug use were reported, women who did not smoke, did not consume alcohol and did not use drugs, and services providing valid data, 2007–08 to 2010–11

Service strategies

In 2010–11, 69 of the 85 services that reported (81%) provided information on the strategies they employed to improve maternal health, including antenatal and postnatal strategies and those focused on maternal health, education and health promotion.

More than three-quarters of services reported provision of transport (77%) as a strategy to ensure access to maternal health care.

Almost three-quarters of services had access to dentistry services (73%), a diabetes educator (72%) and to obstetricians and breastfeeding support (71%), while 69% had access to a psychologist or counsellor and 66% to physicians.

In relation to antenatal services, almost two-thirds of services employed one or more midwives (66%) and provided appropriate space for antenatal services (65%), while 60% minimised patient costs and more than half had designated clinic sessions (52%).

In relation to postnatal services, 62% of services employed one or more nurses with relevant postgraduate training and 42% of services employed a general practitioner (GP) with relevant postgraduate training. More than half (52%) of services provided clinic sessions specifically for postnatal services.

Common strategies for the provision of antenatal and postnatal care included using best-practice guidelines (79%), or a team-based approach (76%), and behavioural risk reduction for nutrition (80%), emotional wellbeing (79%), physical activity (75%), and brief interventions for alcohol and smoking (79%). Client information was provided by 75% of services as part of client self-management, and breastfeeding advice was provided by 74%. As part of maternal health services, services provided links and referrals to domestic violence services (72%), social services (68%) and housing services (67%).

6 Child health

Key findings

- Seventy per cent of children aged 12 months to less than 24 months and 68% of children aged 24 months to less than 36 months attending HfL services were fully immunised. A lower proportion (56%) of children aged 60 months to less than 72 months were fully immunised. The proportion of fully immunised children attending HfL services was lowest in *Major cities* for each of the three age groups.

This chapter includes quantitative information on child immunisation, as well as qualitative information on access to child health care.

This chapter addresses results against Essential Indicator 5.

Appendix D provides a breakdown of this indicator by state and territory.

6.1 Child immunisation

The vaccines required for a child to be fully immunised vary for different age-groups, but include hepatitis B, diphtheria, tetanus and pertussis, Haemophilus influenzae type b, polio, pneumococcal, measles, mumps and rubella, and meningococcal.

Data from the Australian Childhood Immunisation Register showed that 92% of Australian children were fully immunised at the age of 12 months to less than 15 months (for children whose age was calculated at 30 September 2011). For children aged 24 months to less than 27 months, the proportion was 93%, and, for children aged 60 months to less than 63 months, it was 89% (NCIRS 2011).

Nationally, about 94% of Indigenous children aged 0–6 in non-remote areas for whom immunisation records were available were fully immunised in 2001 and 93% were fully immunised in 2004–05 (AIHW 2011a). It is possible for children to receive immunisations from a variety of sources, and Healthy for Life-funded services may not have recorded these immunisations. While best practice would have services record immunisations regardless of the source, it is possible that the rates of child immunisation recorded by services may not accurately reflect the true rates. Alternative options for immunisation may be greatest in urban areas, which might explain why apparent child immunisation rates in Healthy for Life-funded services are lowest in *Major cities* for all three age groups examined here.

Findings from Healthy for Life

The data specified for this indicator changed in 2010–11, including the immunisations required and the age groups for which immunisation data are collected. As a result, it is not possible to undertake time series analysis.

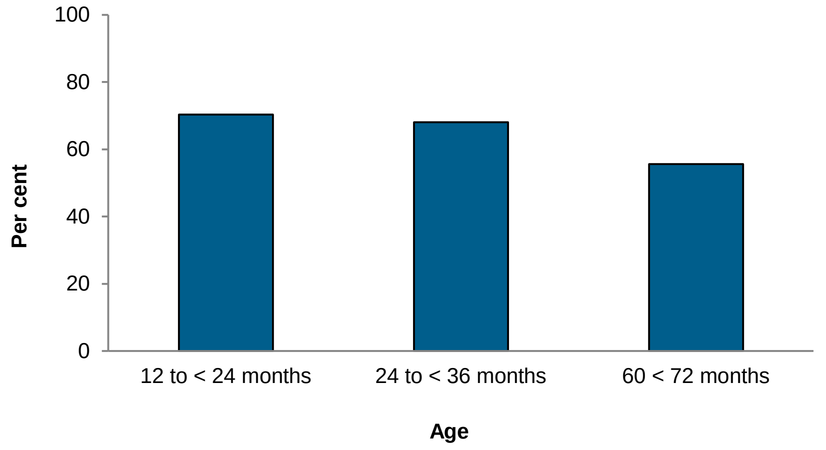
In 2010–11, 36 of the 85 services that reported (42%) provided data on this indicator. An additional 23 services provided data that were valid for the old indicator specifications but were not included in this analysis.

A similar proportion of children aged 12 months to less than 24 months (70%) and children aged 24 months to less than 36 months (68%) were fully immunised. A lower proportion (56%) of children aged 60 months to less than 72 months were fully immunised (Figure 6.1).

The proportion of children aged 12 months to less than 24 months who were fully immunised was lower in *Major cities* (42%) than in other region. In other regions, the proportion ranged from 64% in *Remote* to 91% in *Very remote* areas.

The proportion of children aged 24 months to less than 36 months who were fully immunised was higher in *Very remote* areas (97%) than in any other region and lower in *Major cities* (26%) than in any other region.

The proportion of children aged 60 months to less than 72 months who were fully immunised was lower in *Major cities* (33%) than in any other region. Otherwise, the proportion ranged from 70% in both *Outer regional* and *Remote* areas to 93% in *Very remote* areas.



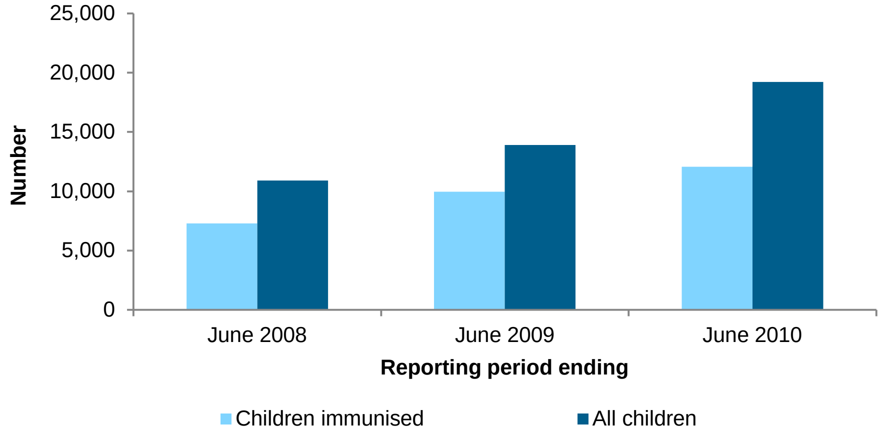
Note: Data presented for 36 out of 85 services.

Figure 6.1: Indigenous clients who were fully immunised, by age

6.2 Programmatic trends

The subset of services that provided valid data on an Essential Indicator is analysed to determine changes in the number or proportion of clients for each Essential Indicator through time. However, these subsets do not capture the changes in the number of services providing valid data, or changes in the total number of clients about whom valid data were provided in each reporting period.

The number of services providing valid data on children who were fully immunised increased from 44 in 2007–08 to 67 in 2009–10 (Figure 6.2). The number of children about whom immunisation status was reported increased from 10,916 to 19,228 over the same period, in large part due to the increase in number of services reporting valid data.



Note: Data presented for 44 services in 2008, 59 services in 2009, and 67 services in 2010.

Figure 6.2: Total children about whom immunisation status was reported, children who were fully immunised and services providing valid data, 2007–08 to 2009–10

6.3 Service strategies

In 2010–11, 74 of the 85 services that reported (87%) provided data on child health strategies, including strategies for optimising child health assessments, immunisation, human resources and other areas.

Four-fifths or more of services reported the provision of transport (80%) and use of regular service population lists to identify children aged 0–14 (82%) as methods to help ensure that child health services were appropriate, available, accessible and affordable.

About half (51%) of services employed one or more nurses with graduate training in child health.

About four-fifths had access to specialist providers and services that included audiology (85%), dentistry (81%), and a psychologist or counsellor (79%) and about three-quarters had access to an ear, nose and throat specialist (76%).

Almost three-quarters (72%) of services provided health assessments to children aged 0–4 years in other settings. About two-thirds provided health assessments in other settings to children aged 5–14 years (64%), and more than half provided immunisation in other settings to children aged 0–4 (60%) and 5–14 (58%).

More than four-fifths of services used recognised guidelines (87%), a team-based approach (85%), behavioural risk reduction for nutrition (88%) and physical activity (82%), and protocols and procedures for the identification and reporting of child abuse and neglect (88%) in the provision of child health care. More than four-fifths of services reported using social service linkages, referrals and client advocacy in relation to family violence (82%) and social services (84%).

7 Health assessments

Key findings

- Thirteen per cent of Indigenous children had a Medicare Benefits Schedule (MBS) health assessment. A higher proportion of children who were regular clients at HfL services aged 0–5 (16%) had a health assessment than children aged 6–14 (12%). The proportion of children who had a health assessment was lowest in *Major cities* (8%) areas and highest in *Remote* areas (20%).

  Decrease from 16% in 2007–08.
- Of clients aged 15–54 years, 16% received MBS health assessments. The proportion was lowest in *Outer regional* (11%) areas and highest in *Remote* areas (24%).

  Higher than in all other reporting periods.
- Of clients aged 55 and over, 21% had an MBS health assessment. The proportion was lowest in *Very remote* (17%) areas.

  Higher than in all other reporting periods.

This chapter includes quantitative information on health assessments and addresses results against Essential Indicator 6.

Appendix E provides a breakdown of this indicator by state and territory.

7.1 Health assessments

Health assessments ensure that Aboriginal and Torres Strait Islander people receive the optimum level of health care through early detection, diagnosis and intervention for common and treatable conditions that cause considerable morbidity and mortality.

On 1 May, 2010 Aboriginal and Torres Strait Islander peoples' health assessments (MBS Item 715) were introduced in the MBS to replace Child Health Checks (MBS Item 708) and Adult Health Checks (MBS Items 710, 704 and 706). As the age categories for health assessments are the same as for Child and Adult Health Checks and the items covered are comparable, data are presented in this report as continuous with previous reporting periods. However, for 2009–10, only data on Child (MBS Item 708) and Adult (MBS Items 710, 704 and 706) Health Checks were collected, so the total numbers may be under-represented.

In 2010–11, 22,415 health assessments (MBS Item 715) were claimed for Indigenous children aged 0–14, which is a rate of 112 health checks per 1,000 Indigenous children aged 0–14. For Indigenous Australians aged 15–54 there were 38,331 health assessments claimed in 2010–11, equating to a rate of 119 health checks per 1,000 Indigenous Australians in that age group. Medicare data also showed 10,623 health checks claimed for Indigenous Australians aged 55 and over, a rate of 203 health checks per 1,000 (Table 7.1).

Table 7.1: Number and rate of health assessments provided by age group, 2010–11

Health assessment (MBS 715)	0–14	15–54	55+
Number of assessments	22,415	38,331	10,623
Number per 1,000 people[(a)]	112	119	203

(a) Calculated by the AIHW using the Australian Bureau of Statistics' projected population data for Aboriginal and Torres Strait Islander people at 30 June 2011 (ABS 2009a).

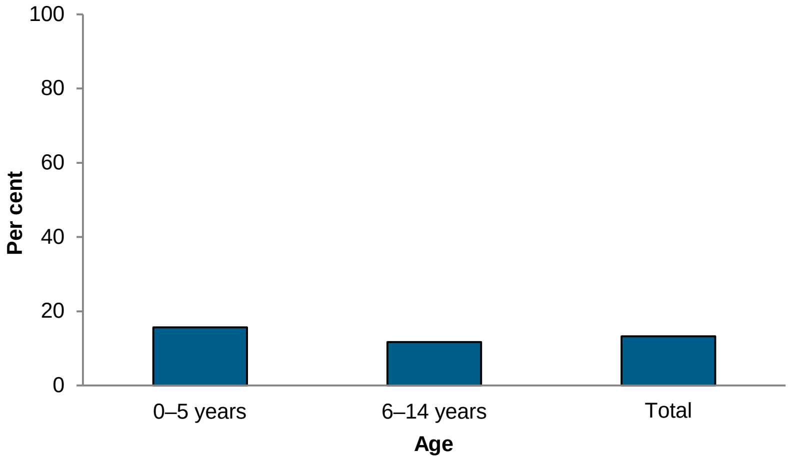
Source: Medicare Australia 2011.

Findings from Healthy for Life

In 2010–11, 77 of the 85 services that reported (91%) provided data on this indicator. HfL services provided health assessments to 13% of clients aged 0–14 in 2010–11. Of the services that provided data, 70%, or 54, provided health assessments to less than 20% of clients. Children may have received other types of health check not included in this indicator, especially children under the age of 4 who may require checks more often than annually.

The proportion of clients aged 0–14 who had a health assessment was lower in *Major cities* (8%) than in any other region and higher in *Remote* areas (20%) than in any other region.

A higher proportion of children aged 0–5 (16%) had a health assessment than children aged 6–14 years (12%) (Figure 7.1).



Note: Data presented for 77 out of 85 services.

Figure 7.1: Indigenous clients who had a health assessment, by age

Sixteen per cent of clients aged 15–54 received health assessments. The proportion of clients who had a health assessment was lower in *Outer regional* areas (11%) than in any other region and higher in *Remote* areas (24%) than in any other region.

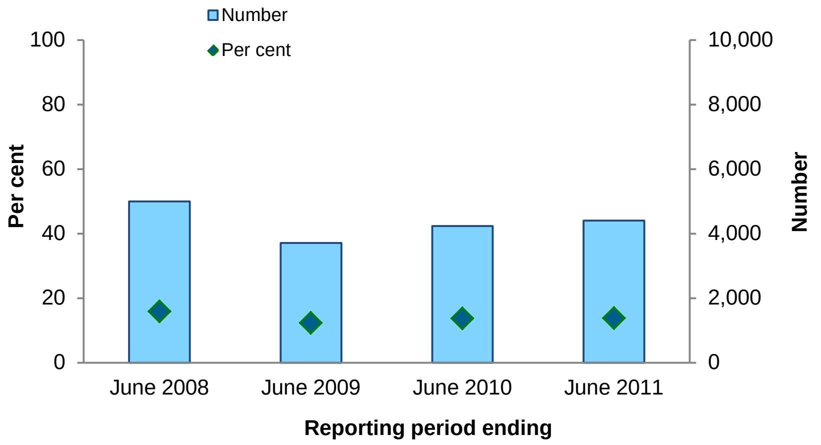
Twenty-one per cent of clients aged 55 and over had a health assessment. The proportion ranged from 17% in *Very remote* areas to 25% in *Inner regional* and *Remote* areas. The proportion was lower in *Very remote* areas than in any other region.

The proportion of clients aged 0–14 who had a health assessment decreased from 16% in 2007–08 to 12% in 2008–09 and increased to 14% in 2009–10 and 2010–11. The total number of health assessments ranged from 3,709 in 2008–09 to 4,998 in 2007–08 and was 4,399 in 2010–

11 (Figure 7.2). The number of health checks may be under-represented in 2009–10 due to changes in the MBS Item number.

The proportion of Indigenous clients aged 15–54 who had a health assessment was higher in 2010–11 (15%) than in any other period. The number of clients aged 15–54 who had a health assessment increased from 6,440 in 2007–08 to 9,466 in 2010–11 (Figure 7.3). The number of health checks may be under-represented in 2009–10, due to changes in the MBS Item number.

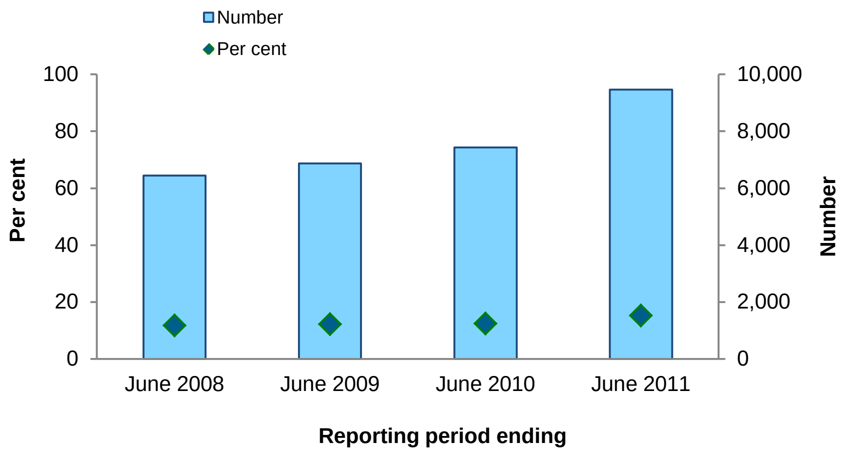
The proportion of clients aged 55 and over who had a health assessment was higher in 2010–11 (21%) than in any other period. The number of clients increased from 1,161 in 2007–08 to 1,788 in 2010–11 (Figure 7.4).



Notes

1. Data presented for 40 services.
2. The number of checks may be under-represented in 2009–10, due to changes in the MBS Item number.

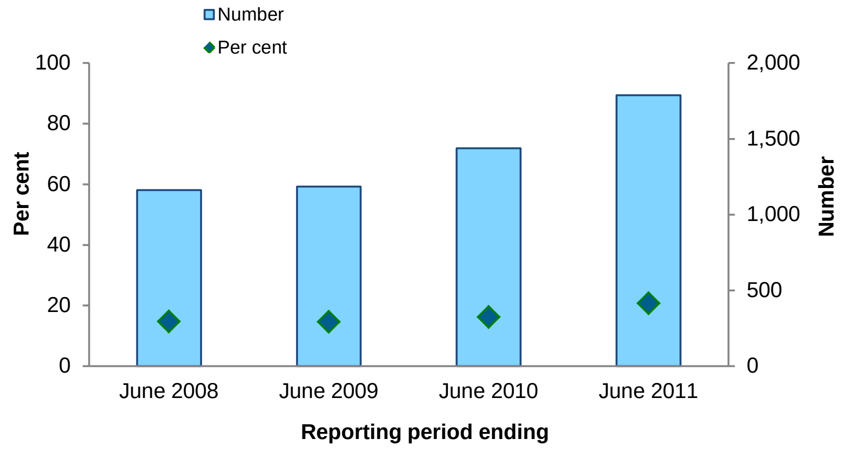
Figure 7.2: Indigenous 0–14 year olds who had a health assessment, 2007–08 to 2010–11



Notes

1. Data presented for 42 services.
2. The number of checks may be under-represented in 2009–10, due to changes in the MBS Item number.

Figure 7.3: Indigenous 15–54 year olds who had a health assessment, 2007–08 to 2010–11



Notes

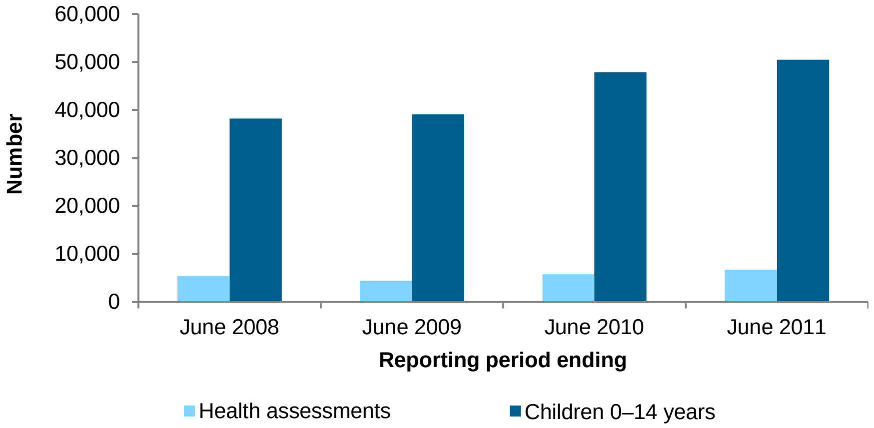
1. Data presented for 37 services.
2. The number of checks may be under-represented in 2009–10, due to changes in the MBS Item number.

Figure 7.4: Indigenous clients aged 55 and over who had a health assessment, 2007–08 to 2010–11

7.2 Programmatic trends

The subset of services that provided valid data on an Essential Indicator is analysed to determine changes in the number or proportion of clients for each Essential Indicator through time. However, these subsets do not capture the changes in the number of services providing valid data, or changes in the total number of clients about whom valid data were provided in each reporting period.

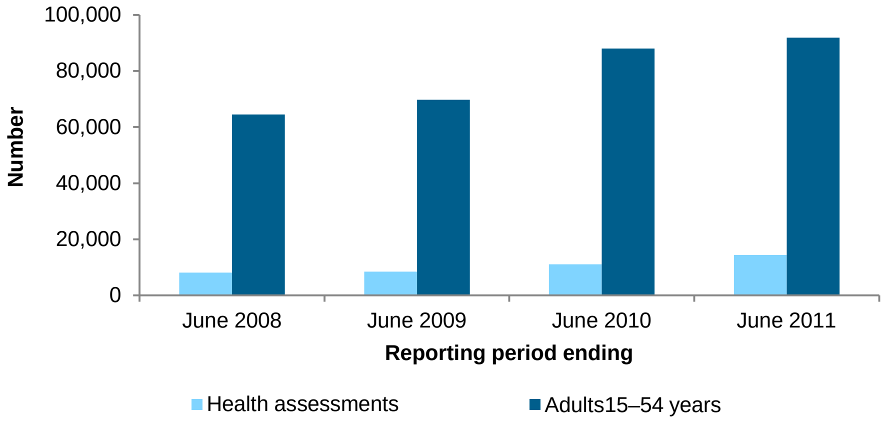
The number of services providing valid data on the number of children aged 0–14 who received a health assessment increased from 56 in 2007–08 to 77 in 2010–11 (Figure 7.5). The number of children about whom health assessment data was provided increased from 38,242 to 50,504 over the same period, in large part due to the increase in number of services reporting valid data.



Note: Data presented for 56 services in 2008, 66 services in 2009, 72 services in 2010 and 77 services in 2011.

Figure 7.5: Total clients aged 0–14 about whom valid health assessment data was provided, those who had received a health assessment and services providing valid data, 2007–08 to 2010–11

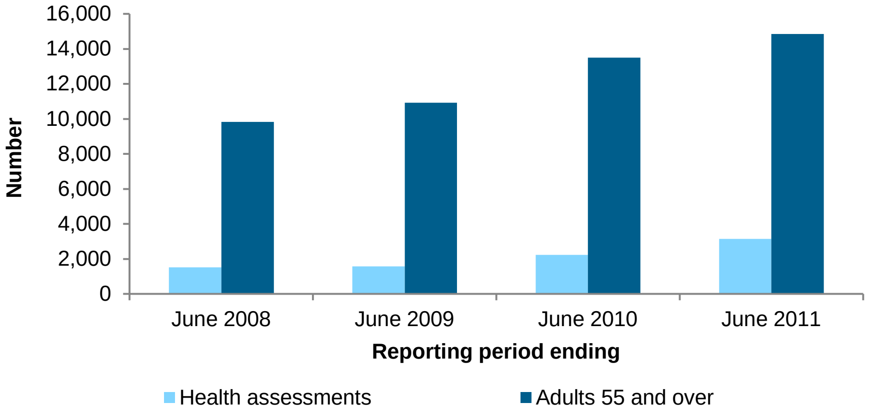
The number of services providing valid data on the number of clients aged 15–54 who received a health assessment increased from 61 in 2007–08 to 77 in 2010–11 (Figure 7.6). The number of clients about whom data on health assessments was reported increased from 64,553 to 91,841 over the same period, in large part due to the increase in the number of services reporting valid data.



Note: Data presented for 61 services in 2008, 67 services in 2009, 74 services in 2010 and 77 services in 2011.

Figure 7.6: Total clients aged 15–54 about whom valid health assessment data was provided, those who had received a health assessment and services providing valid data, 2007–08 to 2010–11

The number of services providing valid data on the number of clients aged 55 and over who received a health assessment increased from 59 in 2007–08 to 77 in 2010–11 (Figure 7.7). The number of clients about whom data on health assessments was reported increased from 9,834 to 14,851 over the same period, in large part due to the increase in the number of services reporting valid data.



Note: Data presented for 59 services in 2008, 65 services in 2009, 70 services in 2010 and 77 services in 2011.

Figure 7.7: Total clients aged 55 and over about whom valid health assessment data was provided, those who had received a health assessment and services providing valid data, 2007–08 to 2010–11

8 Chronic disease

Key findings

- Of Indigenous clients at HfL services with Type 2 diabetes, 32% had a GPMP and 27% had a TCA. The lowest proportions of clients were receiving GPMPs (25%) and TCAs (20%) in *Major cities*

  Increases from 22% (GPMP) and 17% (TCA) in 2008–09.
- Of Indigenous clients with Type 2 diabetes, 54% had an HbA1c test in the last 6 months. The proportion was lowest (39%) in *Major cities* and highest (61%) in *Very remote* areas.

  Same as 1 January–30 June 2010 and higher than in all other reporting periods.
- Of those, 31% had an HbA1c result less than or equal to 7%, with the highest proportion (42%) in *Inner regional* areas. The average HbA1c result was 8.6% and slightly lower (7.9%) at services in *Inner regional* areas.

  Similar across all reporting periods.
- The proportion of Indigenous clients of HfL services with Type 2 diabetes who had a blood pressure test in the last 6 months was 65% and was lowest (54%) in *Major cities.*

  Similar to 1 July–31 December 2010 and 1 January–30 June 2010 and higher than in all other reporting periods.
- Of those, 42% had a blood pressure result less than or equal to 130/80mmHg, with the highest proportion (49%) in *Remote* areas.

  Similar across all reporting periods.
- Of clients with coronary heart disease, 34% received a GPMP and 27% had a TCA. The proportions were lower in *Major cities,* 25% and 21% respectively.

  Increases from 20% (GPMP) and 15% (TCA) in 2008–09.
- Sixty-six per cent of Indigenous clients with coronary heart disease had a blood pressure test in the last 6 months. The proportion was lowest (56%) in *Major cities.*

  Decrease from 68% in 1 January–30 June 2010.
- Of those, 52% had a blood pressure result less than or equal to 130/80mmHg and the proportion was lowest (38%) in *Inner Regional* areas.

This chapter includes quantitative information on Chronic Disease Management Plans and blood pressure tests for clients with Type 2 diabetes and coronary heart disease and HbA1c tests for clients with Type 2 diabetes. In addition, qualitative information on access to chronic disease care, preventive care and management of chronic disease is included.

This chapter addresses results against Essential Indicators 7–10.

Appendix E provides a breakdown of each of the chronic disease indicators by state and territory.

Nationally, in 2004–05, nearly 30,000, or 6%, of Indigenous Australians reported having diabetes (ABS & AIHW 2008). Indigenous Australians in remote areas were more likely to have diabetes than those in non-remote areas (9% and 5% respectively). Prevalence of diabetes was highest among Indigenous Australians aged 55 and over (32%) (ABS & AIHW 2008).

In 2004–05, an estimated 12% of Aboriginal and Torres Strait Islander people reported suffering from heart disease and other circulatory conditions. This was higher among older people. High blood pressure was the most common type of heart or other circulatory condition reported by both Indigenous and non-Indigenous Australians (ABS & AIHW 2008).

8.1 Management plans

General Practitioner Management Plans

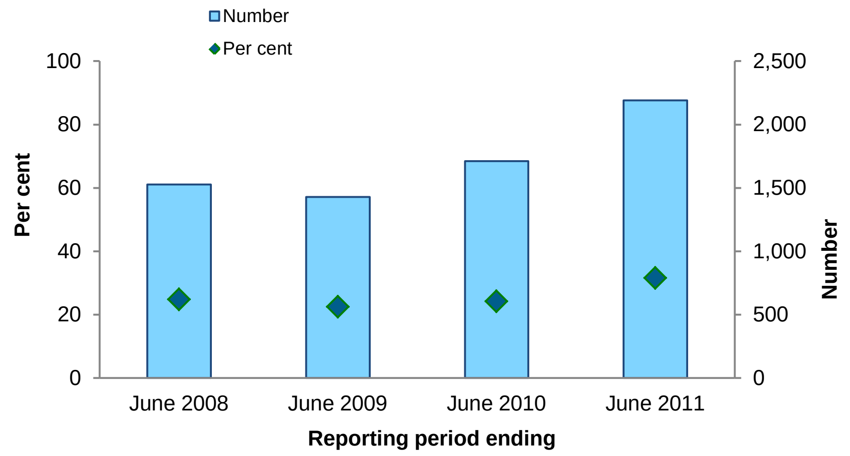
Early detection and management of chronic diseases results in better health outcomes. Outcomes are also improved when patients are able to play a greater role in managing their condition themselves. In 2005, several new items were introduced to the MBS to assist general practitioners in managing chronic diseases. These included GPMPs (MBS Item 721) designed for patients to develop a structured approach to managing their own health care (NHPAC 2006).

Type 2 diabetes—findings from Healthy for Life

In 2010–11, 76 of the 85 services that reported (89%) provided data on clients with Type 2 diabetes who had a GPMP. At these services, 32% of Indigenous clients with Type 2 diabetes had a GPMP.

The proportion of clients with Type 2 diabetes with a GPMP was lower in *Major cities* (25%) than in any other region. Otherwise, it ranged from 29% in *Outer regional* areas to 41% in *Inner regional* areas.

The proportion of clients with Type 2 diabetes with a GPMP was higher in 2010–11 (32%) than in any other period. The number of Indigenous clients with Type 2 diabetes with a GPMP increased from 1,429 in 2008–09 to 2,191 in 2010–11 (Figure 8.1).



Note: Data presented for 34 services.

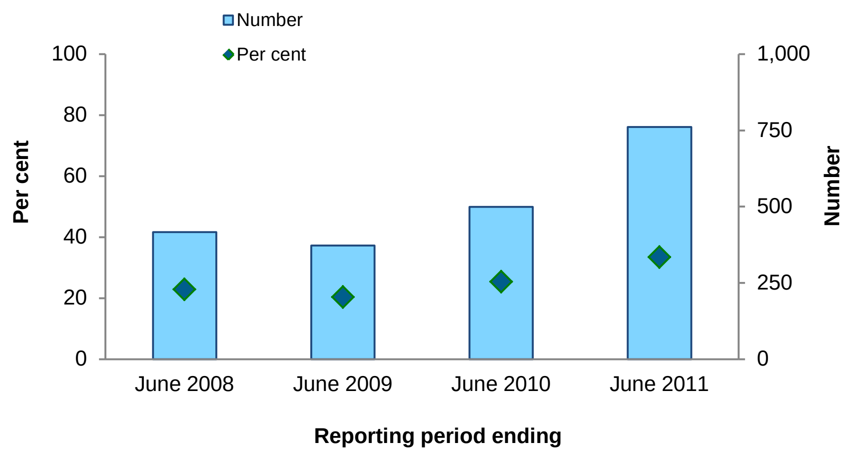
Figure 8.1: Indigenous clients aged 15 and over with Type 2 diabetes who had a GPMP, 2007–08 to 2010–11

Coronary heart disease—findings from Healthy for Life

Seventy-five of the 85 services that reported (88%) provided data on clients with coronary heart disease who had a GPMP. At these services, 34% of clients with coronary heart disease had a GPMP.

Similar to clients with Type 2 diabetes, the proportion of clients with coronary heart disease with a GPMP was lower in *Major cities* (25%) than in any other region. Otherwise, the proportion ranged from 33% in *Outer regional* areas to 41% in *Remote* areas.

The proportion of clients with coronary heart disease with a GPMP was higher in 2010–11 (33%) than in any other period. Before this, it ranged from 20% in 2008–09 to 25% in 2009–10. The number of clients who had a GPMP increased from 373 in 2008–09 to 761 in 2010–11 (Figure 8.2).



Note: Data presented for 34 services.

Figure 8.2: Indigenous clients aged 15 and over with coronary heart disease who had a GPMP, 2007–08 to 2010–11

Team Care Arrangements

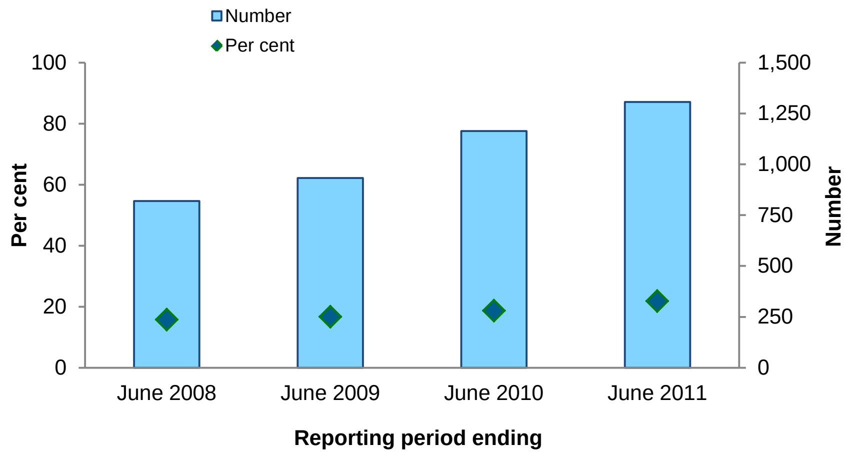
In 2005, new items were introduced to the MBS to assist general practitioners in managing chronic diseases. These include TCAs (MBS Item 723) which enable GPs to coordinate the care of chronic disease patients with other care providers.

Type 2 diabetes—findings from Healthy for Life

In 2010–11, 70 of the 85 services that reported (82%) provided data on clients with Type 2 diabetes with a TCA. At these services, 27% of Indigenous clients with Type 2 diabetes had a TCA.

The proportion of Indigenous clients with Type 2 diabetes with a TCA was lower in *Major cities* (20%) than in any other region and higher in *Inner regional* areas (35%) than in any other region.

The proportion of Indigenous clients with Type 2 diabetes with a TCA was higher in 2010–11 (22%) than in any other period. Prior to this, it ranged from 16% in 2007–08 to 19% in 2009–10. The number of clients increased from 819 in 2007–08, to 1,306 in 2010–11 (Figure 8.3).



Note: Data presented for 30 services.

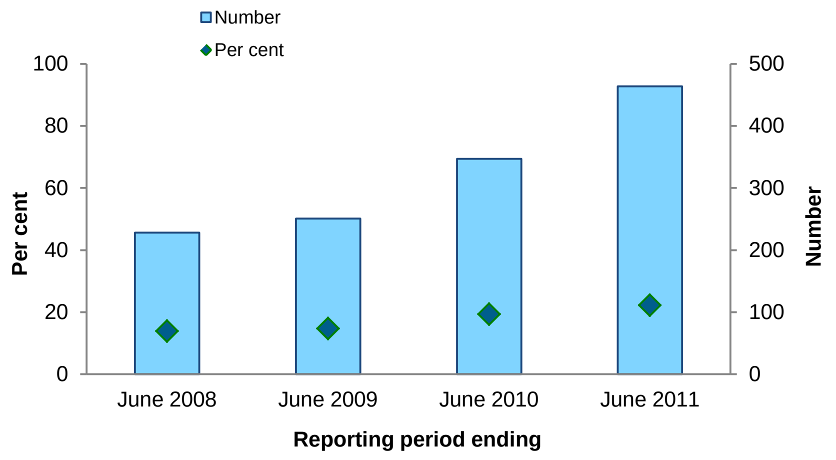
Figure 8.3: Indigenous clients aged 15 and over with Type 2 diabetes who had a TCA, 2007–08 to 2010–11

Coronary heart disease—findings from Healthy for Life

Seventy of the 85 services that reported (82%) provided data on clients with coronary heart disease with a TCA. At these services, 27% of Indigenous clients with coronary heart disease had a TCA.

The proportion of Indigenous clients with coronary heart disease with a TCA ranged from 21% in *Major cities* to 33% in *Inner regional* areas.

The proportion of Indigenous clients with coronary heart disease with a TCA was higher in 2010–11 (22%) than in any other period. Prior to this, it ranged from 14% in 2007–08 to 19% in 2009–10. The number of clients with coronary heart disease who had a TCA increased from 228 in 2007–08 to 464 in 2010–11 (Figure 8.4).



Note: Data presented for 30 services.

Figure 8.4: Indigenous clients aged 15 and over with coronary heart disease who had a TCA, 2007–08 to 2010–11

8.2 HbA1c tests

The HbA1c level reflects the mean blood glucose level over the last 2–3 months. The recommended level is less than or equal to 7% for diabetics—a higher target may be set for clients aged 65 and over and for children to avoid unacceptable hypoglycaemia (AIHW 2011c). Best-practice clinical guidelines recommend that clients with Type 2 diabetes have an HbA1c test at least every 6 months (Diabetes Australia & RACGP 2010).

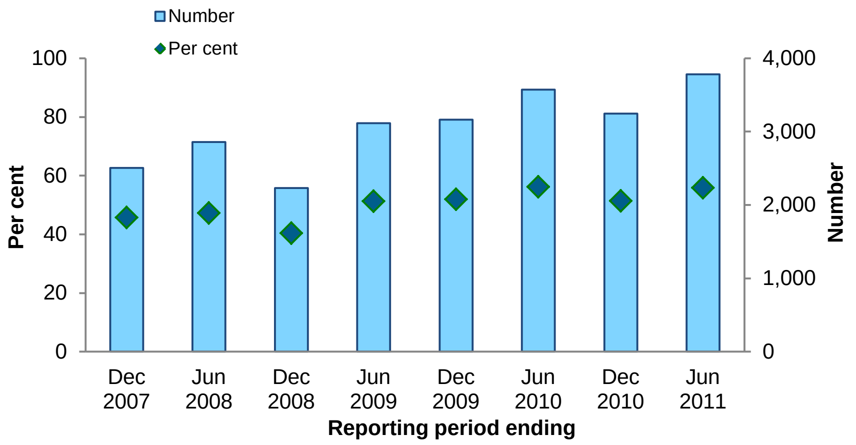
Data on this indicator are collected every 6 months, for 1 July–31 December and 1 January–30 June. Data reported here are for 1 January–30 June 2011.

Clients who had a test in the last 6 months—findings from Healthy for Life

Eighty-three of the 85 services that reported (98%) provided data on clients with Type 2 diabetes who had an HbA1c test in the last 6 months. At these services, 54% of Indigenous clients with Type 2 diabetes had an HbA1c test in the last 6 months.

The proportion of clients with Type 2 diabetes who had an HbA1c test in the last 6 months was lower in *Major cities* (39%) than in any other region and higher in *Very remote* areas (61%) than in any other region.

The proportion of Indigenous clients with Type 2 diabetes who had an HbA1c test in the last 6 months ranged from 40% in 1 July–31 December 2008 to 56% in 1 January–30 June 2010 and 1 January–30 June 2011. The number of clients who had an HbA1c test generally increased from 2,230 in 1 July–31 December 2008 to 3,782 in 1 January–30 June 2011 (Figure 8.5).



Note: Data presented for 39 services.

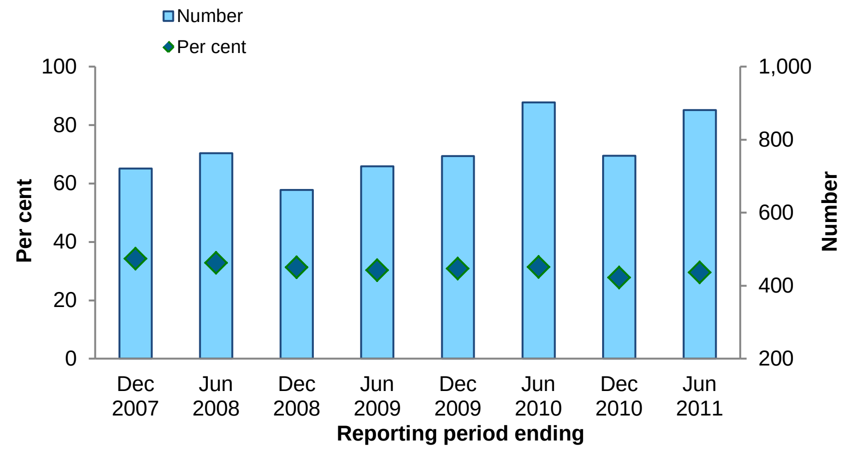
Figure 8.5: Indigenous clients aged 15 and over with Type 2 diabetes who had an HbA1c test in the last 6 months, 1 July–31 December 2007 to 1 January–30 June 2011

HbA1c levels—findings from Healthy for Life

Seventy-seven of the 85 services that reported (91%) provided data on HbA1c levels in clients with Type 2 diabetes. Of the Indigenous clients with Type 2 diabetes, 31% had an HbA1c result less than or equal to 7% in the last 6 months.

The proportion of clients with Type 2 diabetes who had an HbA1c result less than or equal to 7% was higher in *Inner regional* areas (42%) than in any other region. Otherwise, it ranged from 27% in both *Major cities* and *Very remote* areas to 31% in *Outer regional* areas.

The proportion of clients with Type 2 diabetes who had an HbA1c result less than or equal to 7% was fairly stable over time, ranging from 28% in 1 July–31 December 2010 to 34% 1 July–31 December 2007. It was 29% in 1 January–30 June 2011. The number of clients with Type 2 diabetes who had an HbA1c result less than or equal to 7% ranged from 662 in 1 July–31 December 2008 to 902 in 1 January–30 June 2010, and was 881 in 1 January–30 June 2011 (Figure 8.6).



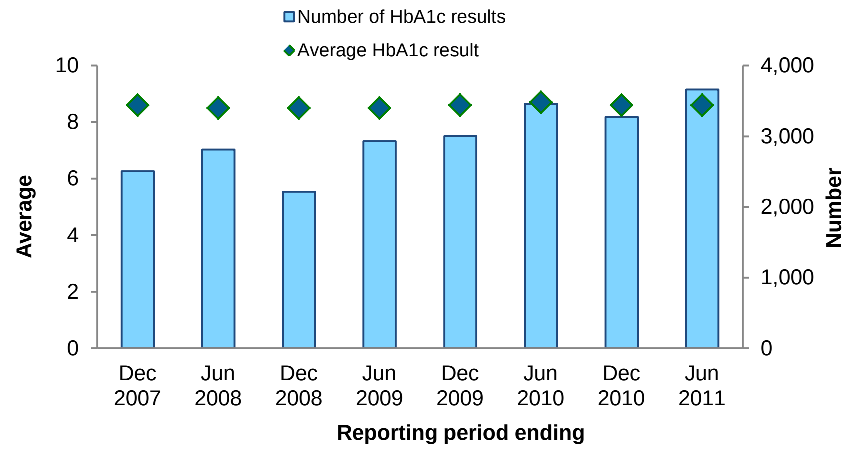
Note: Data presented for 32 services.

Figure 8.6: Indigenous clients aged 15 and over with Type 2 diabetes who had an HbA1c result less than or equal to 7% in the last 6 months, 1 July–31 December 2007 to 1 January–30 June 2011

Average HbA1c results—findings from Healthy for Life findings from Healthy for Life

Seventy seven of the 85 services that reported (91%) provided data on average HbA1c levels. The average of services' HbA1c level for Indigenous clients with Type 2 diabetes was 8.6%. The average level ranged from 7.9% in *Inner regional* areas to 9.0% in *Very remote* areas.

Over time, the services' average HbA1c level ranged from 8.5% to 8.7% and was 8.6% in 1 January–30 June 2011. The number of clients who had an HbA1c test result in the last 6 months generally increased from 2,215 in 1 July–31 December 2008 to 3,664 in 1 January–30 June 2011 (Figure 8.7).



Note: Data presented for 35 services.

Figure 8.7: Indigenous clients aged 15 and over with Type 2 diabetes, services' average HbA1c result, 1 July–31 December 2007 to 1 January–30 June 2011

8.3 Blood pressure tests

People with Type 2 diabetes have a higher rate of hypertension than the general population (Marre et al. 1993) and are at increased risk of dying from complications of cardiovascular disease (Colwell 1997). Best-practice clinical guidelines recommend that these clients have their blood pressure measured at least every 6 months (NHMRC 2004).

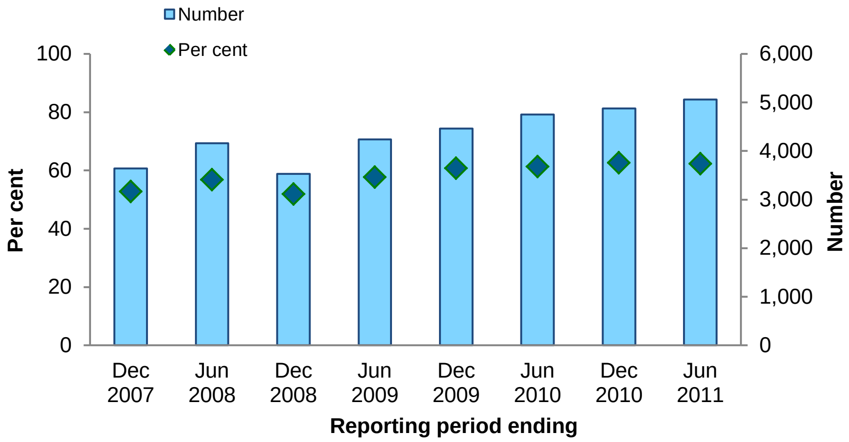
Data on this indicator are collected every 6 months, for 1 July–31 December and 1 January–30 June. Data reported here are for 1 January–30 June 2011.

Clients with Type 2 diabetes who had a blood pressure test in the last 6 months—findings from Healthy for Life

Eighty-three of the 85 services that reported (98%) provided data on this indicator. The proportion of Indigenous clients with Type 2 diabetes who had a blood pressure test in the last 6 months was 65%.

The proportion of clients with Type 2 diabetes who had a blood pressure test was lower in *Major cities* (54%) than in any other region, followed by *Outer regional* areas (62%). Otherwise, it ranged from 70% in *Inner regional* areas to 73% in *Very remote* areas.

The proportion of Indigenous clients with Type 2 diabetes who had a blood pressure test in the last 6 months was higher for 1 July–31 December 2010 (63%) than in any other period, excepting 1 January–30 June 2010 (61%) and 1 January–30 June 2011 (62%) when the proportion was similar. The number of clients who had a blood pressure test increased from 3,528 in 1 July–31 December 2008 to 5,057 in 1 January–30 June 2011 (Figure 8.8).



Note: Data presented for 42 services.

Figure 8.8: Indigenous clients aged 15 and over with Type 2 diabetes who had a blood pressure test in the last 6 months, 1 July–31 December 2007 to 1 January–30 June 2011

Diabetes clients with a result less than or equal to 130/80mmHg

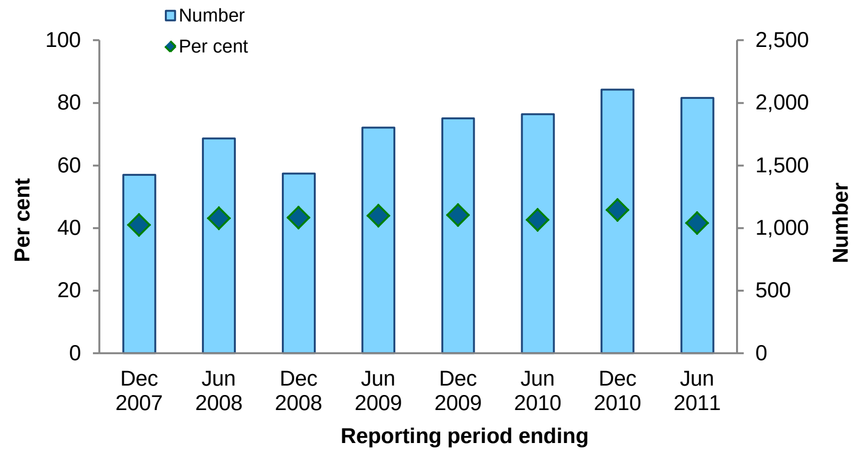
For clients with Type 2 diabetes, the recommended blood pressure is less than or equal to 130/80mmHg which has been shown to significantly decrease macrovascular (for example, stroke, heart attack and heart failure) and microvascular (for example, kidney disease, eye disease and peripheral neuropathy) complications (NHMRC 2004). Treatment to lower blood pressure can include lifestyle changes and medication.

Findings from Healthy for Life

Eighty-three of the 85 services that reported (98%) provided data on blood pressure results in clients with Type 2 diabetes. Of these clients, 42% had a blood pressure result less than or equal to 130/80mmHg.

The proportion of clients with Type 2 diabetes who had a blood pressure result less than or equal to 130/80mmHg was higher in *Remote* areas (49%) than in any other region. Otherwise, it ranged from 37% in *Major cities* and *Inner regional* areas to 44% in *Very remote* areas.

The proportion of Indigenous clients with Type 2 diabetes who had a blood pressure result less than or equal to 130/80mmHg ranged from 41% in 1 July–31 December 2007 to 46% in 1 July–31 December 2010 and was 42% in 1 January–30 June 2011. The number of clients who had a blood pressure result less than or equal to 130/80mmHg generally increased from 1,426 in 1 July–31 December 2007 to 2,107 in 1 July–31 December 2010 and was 2,039 in 1 January–30 June 2011 (Figure 8.9).



Note: Data presented for 41 services.

Figure 8.9: Indigenous clients aged 15 and over with Type 2 diabetes who had a blood pressure result less than or equal to 130/80mmHg in the last 6 months, 1 July–31 December 2007 to 1 January–30 June 2011

Clients with coronary heart disease who had a blood pressure test in the last 6 months

It is important to monitor blood pressure levels regularly as treatment of hypertension decreases mortality from coronary heart disease and stroke (Couzos & Murray 2008).

In 2007–08, 72% of patients with coronary heart disease had their blood pressure checked in the last 12 months (ABS 2009b), although no information on blood pressure levels was available.

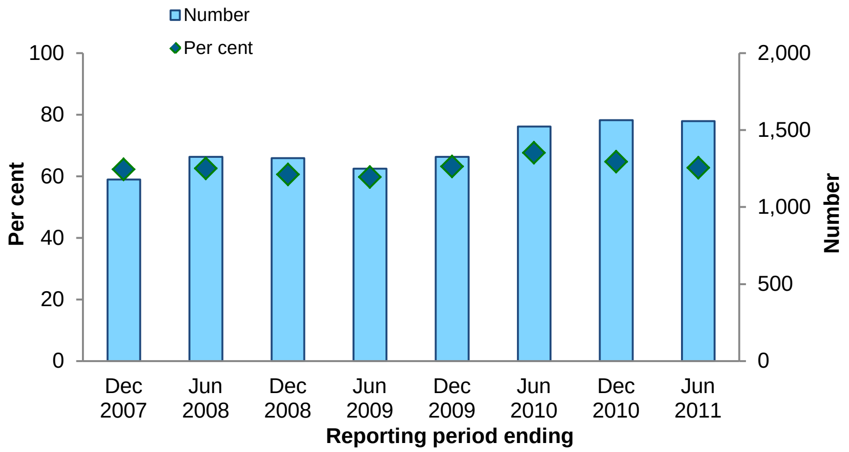
Findings from Healthy for Life

Eighty-one of the 85 services that reported (95%) provided data on this indicator. Of the Indigenous clients with coronary heart disease, 66% had a blood pressure test in the last 6 months.

The proportion of clients with coronary heart disease who had a blood pressure test in the last 6 months was lower in *Major cities* (56%) than in any other region. Otherwise, it ranged from 65% in *Remote* areas to 77% in *Very remote* areas.

The proportion of Indigenous clients with coronary heart disease who had a blood pressure test in the last 6 months was highest (68%) in 1 January–30 June 2010 and otherwise ranged from 60% in 1 January–30 June 2009 to 65% in 1 July–31 December 2010. It was 63% in 1 January–30 June 2011.

The number of clients with coronary heart disease who had a blood pressure test in the last 6 months generally increased from 1,180 in 1 July–31 December 2007 to 1,565 in 1 July–31 December 2010. It was 1,559 in 1 January–30 June 2011 (Figure 8.10).



Note: Data presented for 42 services.

Figure 8.10: Indigenous clients aged 15 and over with coronary heart disease who had a blood pressure test in the last 6 months, 1 July–31 December 2007 to 1 January–30 June 2011

Coronary heart disease clients with a result less than or equal to 130/80mmHg—findings from Healthy for Life

The data specified for this indicator changed in 2010–11 from blood pressure less than 140/90mmHg to blood pressure less than or equal to 130/80mmHg. As a result, no comparisons over time are made.

Forty-eight of the 85 services that reported (56%) provided data on the new version of this indicator. An additional 31 services provided data that were valid for the old indicator specifications. These services are not included in this analysis.

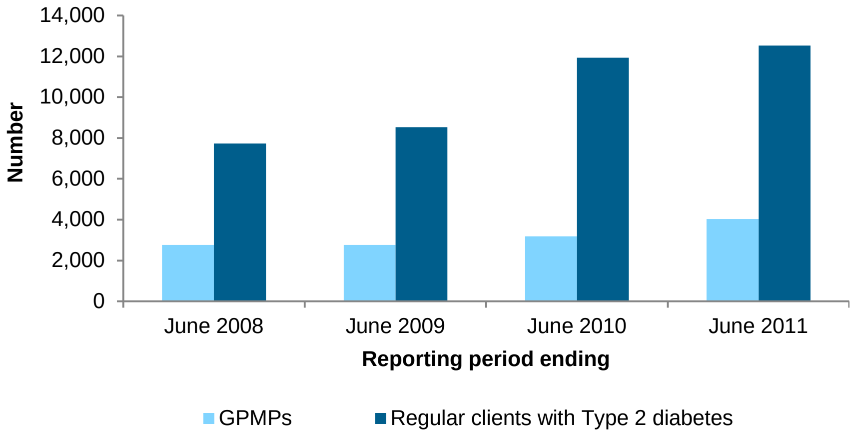
The proportion of Indigenous clients with coronary heart disease who had a blood pressure result less than or equal to 130/80mmHg was 52%.

The proportion of clients with coronary heart disease who had a blood pressure result less than or equal to 130/80mmHg was lower in *Inner regional* areas (38%) than in any other region. Otherwise, it ranged from 54% in *Remote* areas to 65% in *Very remote* areas.

8.4 Programmatic trends

The subset of services that provided valid data on an Essential Indicator is analysed to determine changes in the number or proportion of clients for each Essential Indicator through time. However, these subsets do not capture the changes in the number of services providing valid data, or changes in the total number of clients about whom valid data were provided in each reporting period.

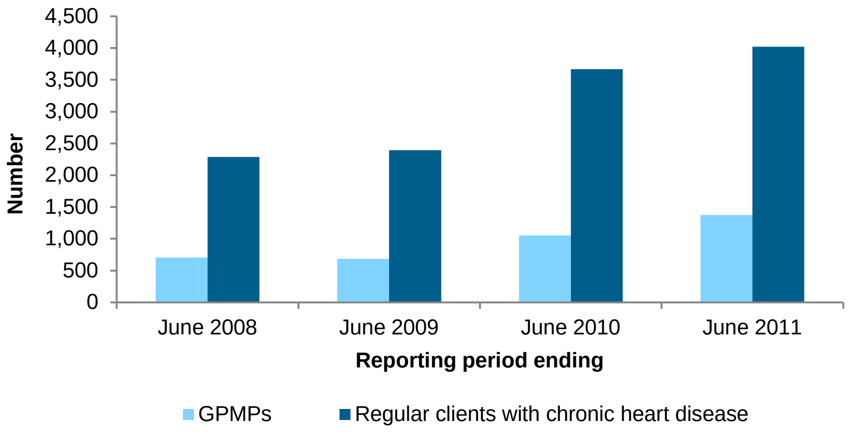
The number of services providing valid data on whether clients with Type 2 diabetes had a GPMP increased from 52 in 2007–08 to 76 in 2010–11 (Figure 8.11). The number of clients with Type 2 diabetes about whom valid data on GPMP status was provided increased from 7,725 to 12,529 over the same period, in large part due to the increase in the number of services reporting valid data.



Note: Data presented for 52 services in 2008, 59 services in 2009, 69 services in 2010 and 76 services in 2011.

Figure 8.11: Total clients with Type 2 diabetes about whom valid data on GPMPs was provided, those who received a GPMP, and services providing valid data, 2007–08 to 2010–11

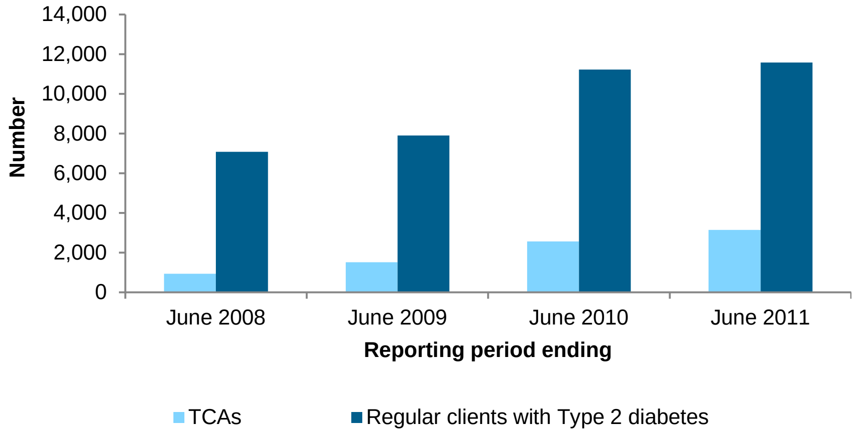
The number of services providing valid data on whether clients with coronary heart disease diabetes had a GPMP increased from 51 in 2007–08 to 75 in 2010–11 (Figure 8.12). The number of clients with coronary heart disease about whom valid data on GPMP status was provided increased from 2,289 to 4,020 over the same period, largely due to the increase in the number of services reporting valid data.



Note: Data presented for 51 services in 2008, 59 services in 2009, 69 services in 2010 and 75 services in 2011.

Figure 8.12: Total clients with coronary heart disease about whom valid data on GPMPs was provided, those who received a GPMP, and services providing valid data, 2007–08 to 2010–11

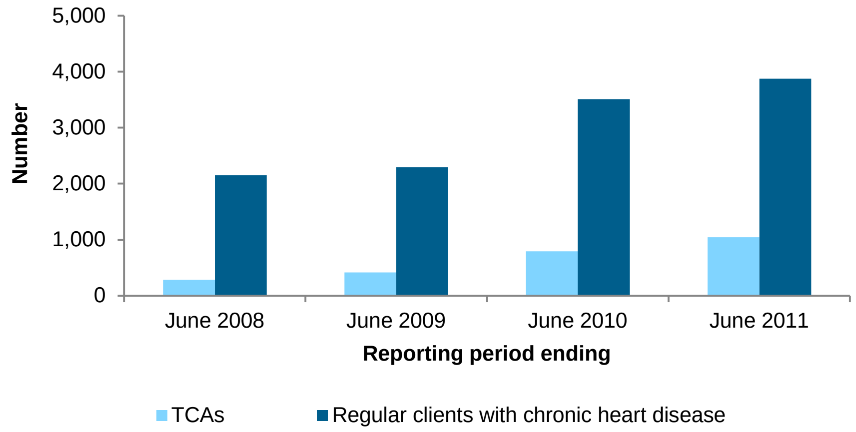
The number of services providing valid data on whether clients with Type 2 diabetes had a TCA increased from 50 in 2007–08 to 70 in 2010–11 (Figure 8.13). The number of clients with Type 2 diabetes about whom valid data on GPMP status was provided increased from 7,084 to 11,592 over the same period, in large part due to the increase in the number of services reporting valid data.



Note: Data presented for 50 services in 2008, 56 services in 2009, 65 services in 2010 and 70 services in 2011.

Figure 8.13: Total clients with Type 2 diabetes about whom valid data on GPMPs was provided, those who received a TCA, and services providing valid data, 2007–08 to 2010–11

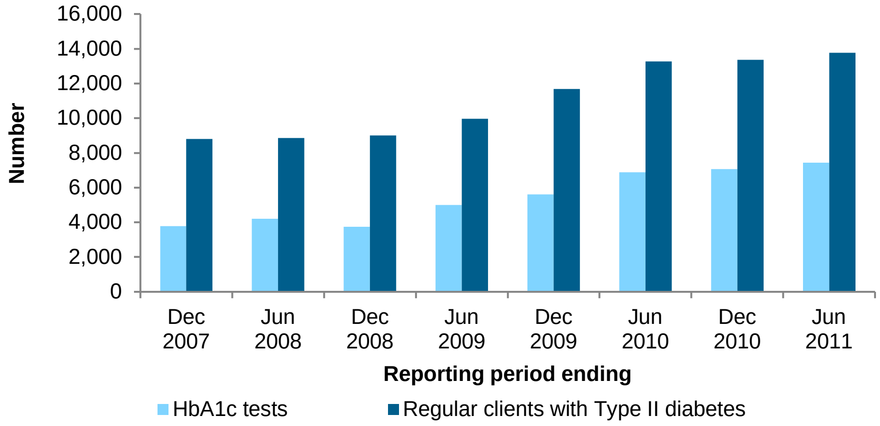
The number of services providing valid data on whether clients with coronary heart disease diabetes had a TCA increased from 49 in 2007–08 to 70 in 2010–11 (Figure 8.14). The number of clients with coronary heart disease about whom valid data on GPMP status was provided increased from 2,148 to 3,874 over the same period, due in large part to the increase in the number of services reporting valid data.



Note: Data presented for 49 services in 2008, 56 services in 2009, 65 services in 2010 and 70 services in 2011.

Figure 8.14: Total clients with coronary heart disease about whom valid data on GPMPs was provided, those who received a TCA, and services providing valid data, 2007–08 to 2010–11

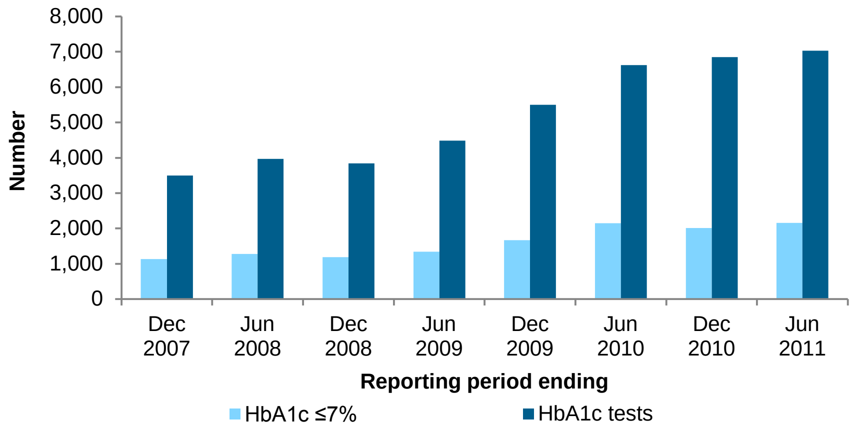
The number of services providing valid data on clients with Type 2 diabetes who had an HbA1c test trended from 61 in 1 July–31 December 2007 to 83 in 1 January–30 June 2011 (Figure 8.15). The number of clients with Type 2 diabetes about whom data on whether or not they had an HbA1c test increased from 8,807 to 13,777 over the same period, in large part due to the increase in the number of services reporting valid data.



Note: Data presented for 61 services in December 2007, 60 services in June 2008, 65 services in December 2008, 68 services in June 2009, 73 services in December 2009, 75 services in June 2010, 83 services in December 2010 and 83 services in June 2011.

Figure 8.15: Total regular clients about whom data on whether or not an HbA1c test occurred, number with an HbA1c test and services providing valid data, 1 July–31 December 2007 to 1 January–30 June 2011

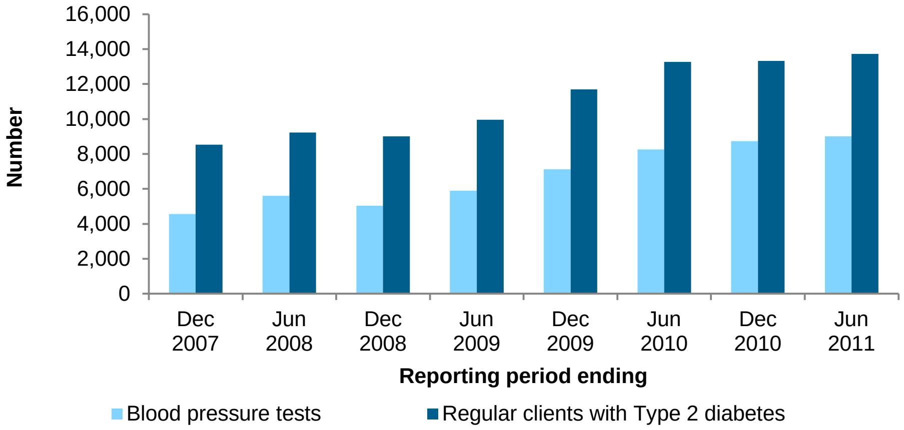
The number of services providing valid data on the number of clients with Type 2 diabetes who had an HbA1c less than or equal to 7% increased from 55 in the period 1 July–31 December 2007 to 77 in the period 1 January–30 June 2011 (Figure 8.16). The number of clients with Type 2 diabetes about whom and HbA1c result classification were reported trended upward from 3,494 to 7,028 over the same period, in large part due to the increase in number of services reporting valid data.



Note: Data presented for 55 services in December 2007, 57 services in June 2008, 65 services in December 2008, 68 services in June 2009, 71 services in December 2009, 73 services in June 2010, 80 services in December 2010 and 77 services in June 2011.

Figure 8.16: Total clients with Type 2 diabetes about whom an HbA1c result classification were reported, those with a result less than or equal to 7%, and services providing valid data, providing valid data, 1 July–31 December 2007 to 1 January–30 June 2011

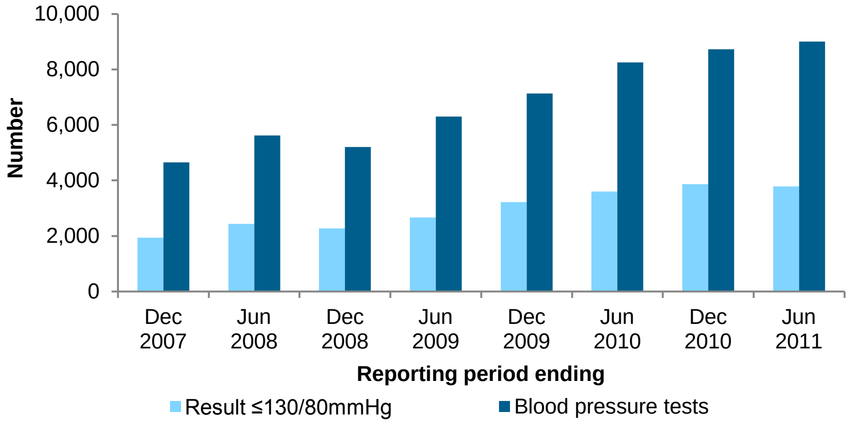
The number of services providing valid data on regular clients with Type 2 diabetes who had a blood pressure test increased from 60 in 1 July–31 December 2007 to 83 in 1 January–30 June 2011 (Figure 8.17). The number about whom valid data were reported increased from 8,539 to 13,734 over the same period, in large part due to the increase in the number of services reporting valid data.



Note: Data presented for 60 services in December 2007, 62 services in June 2008, 66 services in December 2008, 68 services in June 2009, 73 services in December 2009, 75 services in June 2010 82 services in December 2010 and 83 services in June 2011.

Figure 8.17: Total clients with Type 2 diabetes about whom data were provided on whether or not they had a blood pressure test, those who had a blood pressure test, and services providing valid data, 1 July–31 December 2007 to 1 January–30 June 2011

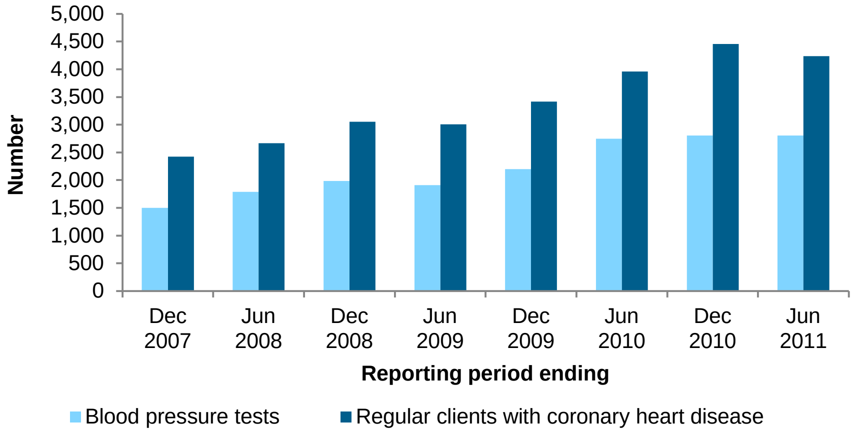
The number of services providing valid data on clients with Type 2 diabetes whose blood pressure was less than or equal to 130/80 increased from 61 in 1 July–31 December 2007 to 83 in 1 January–30 June 2011 (Figure 8.18). The number of those who had a blood pressure test increased from 4,656 to 9,004 over the same period, in large part due to the increase in the number of services reporting valid data.



Note: Data presented for 61 services in December 2007, 63 services in June 2008, 66 services in December 2008, 70 services in June 2009, 73 services in December 2009, 75 services in June 2010, 82 services in December 2010 and 83 services in June 2011.

Figure 8.18: Total clients with Type 2 diabetes about whom blood pressure test results were provided, those who had a blood pressure test result ≤130/80mmHg, and services providing valid data, 1 July–31 December 2007 to 1 January–30 June 2011

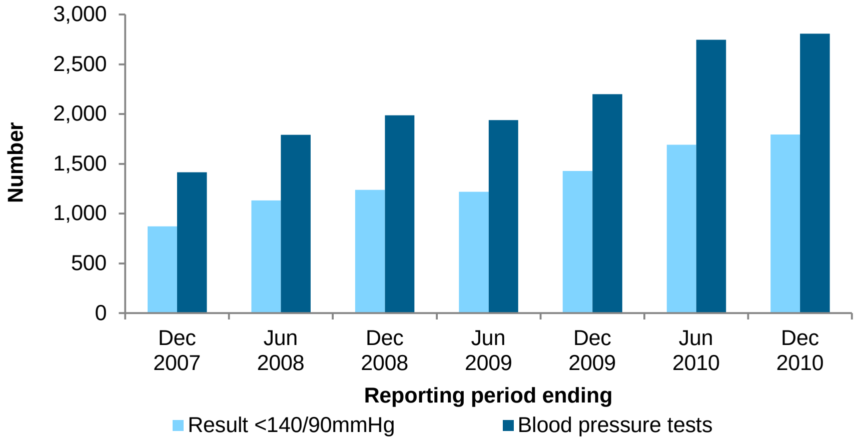
The number of services providing valid data on regular clients with coronary heart disease who had a blood pressure test increased from 56 in 1 July–31 December 2007 to 82 in 1 January–30 June 2011 (Figure 8.19). The number of clients about whom valid data were reported trended upward from 2,426 to 4,236 over the same period, in large part due to the increase in the number of services reporting valid data.



Note: Data presented for 56 services in December 2007, 62 services in June 2008, 65 services in December 2008, 68 services in June 2009, 72 services in December 2009, 75 services in June 2010, 81 services in December 2010 and 82 services in June 2011.

Figure 8.19: Total clients with coronary heart disease about whom data were provided on whether or not they had a blood pressure test, those who had a blood pressure test, and services providing valid data, 1 July–31 December 2007 to 1 January–30 June 2011

The number of services providing valid data on clients with coronary heart disease whose blood pressure was less than or equal to 140/90 increased from 54 in 1 July–31 December 2007 to 81 in 1 July–31 December 2007 (Figure 8.20). The specifications for the indicator changed in 2011 and results are not comparable. The number of those who had a blood pressure test result less than or equal to 140/90 increased from 873 to 1,795 between 1 July–31 December 2007 and 1 July–31 December 2010, in large part due to the increase in the number of services reporting valid data.



Note: Data presented for 54 services in December 2007, 62 services in June 2008, 65 services in December 2008, 69 services in June 2009, 72 services in December 2009, 75 services in June 2010, 81 services in December 2010.

Figure 8.20: Total clients with Type 2 diabetes about whom blood pressure test results were provided, those who had a blood pressure test result <140/90mmHg, and services providing valid data, 1 July–31 December 2007 to 1 July–31 December 2010

8.5 Service strategies

Chronic disease strategies were reported by 76 of the 85 services that reported (89%) and included population lists, adult health assessments, recall systems and other strategies.

The most common strategies used to ensure that chronic disease care was appropriate, available, accessible and affordable were:

- provision of transport (88%)
- use of population lists to identify groups at high risk of chronic diseases (85%)
- use of deliberate strategies to reach the service population (80%)
- appropriate space to deliver chronic disease services (69%).

More than 4 in 5 health services had optometry (86%), podiatry (86%), nursing care (85%), dentistry (85%), psychology or counselling (84%) and dietician services (81%) available.

Almost 2 in 3 services (62%) provided adult health assessments in other settings.

Services used a number of strategies to improve chronic disease preventive care, including behavioural risk reduction for nutrition (93%), physical activity (92%) and emotional wellbeing (92%), brief intervention for smoking (88%) and alcohol (86%), and using recognised guidelines in a population-based approach (92%).

About 9 in 10 services used systematic follow-up of abnormal results (93%), and opportunistic clinical, behavioural, social and environmental risk assessments (91%).

The most common strategies used in the management of the organisation to better address chronic disease were reducing behavioural risk factors by promoting physical activity (89%) and nutrition (88%), using recognised guidelines in a population-based approach (88%), having a team-based approach (87%), and using brief interventions for smoking (84%) and alcohol (81%).

About 4 in 5 services undertook systematic follow-up of abnormal results (84%) and opportunistic immunisation (79%).

Client education (82%) was the most common strategy for client self-management.

More than 3 in 4 of services had communication with hospitals on admission (76%) and discharge (79%) of their clients.

9 Progress towards program’s outcomes and objectives

The Healthy for Life Program had the following objectives:

- improve the availability of child and maternal health care
- improve the prevention, early detection and management of chronic disease
- improve men’s health (added in 2008)
- improve long-term health outcomes for Aboriginal and Torres Strait Islander Australians
- increase the capacity of Aboriginal and Torres Strait Islander health workforce, including through the Puggy Hunter Memorial Scholarship Scheme.

There were specific outcomes associated with the first two objectives towards which HfL services were expected to strive.

Short- to medium-term outcomes (1–4 years)

- increase in first attendance for antenatal care in first trimester
- 10% increase per year of adult and child health checks with associated plans for follow-up
- 30% improvement in best-practice service delivery for people with chronic conditions.

Longer-term outcomes (5–10 years)

- increase in mean birthweight to within 200 grams of the non-Indigenous population
- decrease in incidence of low birthweight by 10%
- reduction in selected behavioural risk factors (for example, smoking, harmful alcohol intake among others) in pregnancy by 10%
- 30% reduction in hospital admissions for chronic disease complications
- 30% improvement in numbers of patients with intermediate health outcomes within acceptable range.

Analyses were undertaken on a subset of services that provided data for the Essential Indicators across all reporting periods between the baseline (June 2008) and the most recent period (June 2011) to assess if services had made progress against the expected outcomes. The baseline period and the most recent data period vary for different indicators. For example, the baseline data are available from December 2007 for HbA1c levels and blood pressure tests, while for maternal indicators and health checks the baseline is June 2008. For clients with coronary heart disease and low-risk blood pressure, the most recent period for which data are available is for December 2010, as data from 2011 were not comparable due to changed indicator definition.

The length of time between the baseline and final reporting period makes measurement of achievement against the short- to medium-term (1–4 years) outcomes relatively straightforward. Table 9.1 summarises the progress. When interpreting this information the following contextual issues should be taken into consideration.

There was a 13% decrease in the proportion of children with health assessments between June 2008 and June 2011. This may be because the Northern Territory Emergency Response that was announced in June 2007 had provision for health assessments for children which may have led to an increase in child health assessments at the start of the Healthy for Life Program. In contrast, there was a 30% increase in the proportion of adults who had health assessments between June 2008 and June 2011, a greater increase than expected in the short-to-medium term.

There was an 18% increase in the proportion of clients with Type 2 diabetes who had an HbA1c test in the previous 6 months and an 18% increase in the proportion who had a blood pressure test in the last 6 months. These results should be interpreted in the context of health services increasing the number of regular clients seen. For instance, the number of clients with Type 2 diabetes in the subset of services that reported on their blood pressure tests increased by 18%, and the number of clients with coronary heart disease in the subset of services which reported on their blood pressure tests increased by 31%. There was no substantial change in the overall number of clients with Type 2 diabetes.

Table 9.1: Healthy for Life progress against short- to medium-term outcomes (1–4 years) for the subset of services[(a)] which provided data against relevant Essential Indicators

		Baseline reporting period[(b)]	June 2011	Change[(c)]
Increase in first attendance for antenatal care in first trimester		62.3%	63.6%	No change
10% increase per year of adult and child health checks with associated plans for follow-up	Children	15.9%	13.8%	13% decrease
	Adults	11.7%	15.2%	30% increase
30% improvement in best practice service delivery for people with chronic conditions	HbA1c testing for clients with Type 2 diabetes	45.7%	55.8%	18% increase
	Blood pressure testing for clients with Type 2 diabetes	52.7%	62.3%	18% increase
	Blood pressure testing for clients with coronary heart disease	62.2%	62.7%	No change

(a) Data are shown for a subset of services that provided valid data based on a complete count of clients for an indicator part for all reporting periods.

(b) Baseline reporting period was June 2008 for maternal indicators, and health checks; and December 2007 for HbA1c levels and blood pressure tests.

(c) Change in indicator is presented as a percentage of the baseline period.

Notes

1. Data for maternal indicators are for all Indigenous babies.
2. Data for EI 1–7 were reported annually (1 July–30 June) and data for EI 8–10 were reported every 6 months (1 July–31 December and 1 January–30 June).

Measurement against the longer-term (5–10 years) objectives is complicated by the fact that valid Healthy for Life data do not span the 5- to 10- year time frame. It is unclear if these improvements could be expected to be seen from the beginning of the program, improve consistently over time or take time before changes are evident. Table 9.2 summarises the progress.

The mean birthweight in HfL remained more than 200 grams below the average of 3,385 grams for live-born babies of non-Indigenous mothers (Laws et al. 2010). As shown in Table 9.2, there was 4% increase (116 grams) in the mean birthweight. Based on this rate of improvement, if it is continued for the full 10 years, the outcome target would have been reached. There was a 13% decrease in the incidence of low birthweight.

Among regular clients who attended an antenatal visit in the third trimester, there was a 3% decrease in the proportion of non-users of illicit drugs, no substantial change in the proportion who smoked and a 4% increase in the proportion of non-drinkers.

Results for chronic disease may reflect substantial increases in the number of regular clients with Type 2 diabetes and coronary heart disease. Among clients with Type 2 diabetes, there was a 14% decrease in the proportion who had low-risk HbA1c levels and no substantial change in the proportion with low-risk blood pressure levels between December 2007 and June 2011. There was a 4% increase in the proportion of clients with coronary heart disease who had low-risk blood pressure levels between December 2007 and December 2010, the last period with comparable data.

However, the number of patients with intermediate health outcomes in an acceptable range consistently increased. The number of clients with Type 2 diabetes with low-risk HbA1c levels increased by 22% between December 2007 and June 2011, while the number with low-risk blood pressure increased by 43%. The number of clients with coronary heart disease with low-risk blood pressure increased by 41% between December 2007 and December 2010. Taken together, these statistics suggest that health services were largely able to maintain the proportion of clients with low-risk intermediate health outcomes while the number of clients with Type 2 diabetes and coronary heart disease increased.

Table 9.2: Healthy for Life progress against longer-term outcomes (5–10 years) for the subset of services(a) that provided data against relevant Essential Indicators

		Baseline reporting period(b)	**June 2011**	**Change(c)**
Increase in mean birthweight to within 200g of the non-Indigenous population(d		3,015g	3,131g	4% increase
Decrease in incidence of low birthweight by 10%		15.2%	13.5%	13% decrease
Reduction in selected behavioural risk factors in pregnancy by 10%(e)	Smoking	46.6% non-smokers	47.6%	No change
	Alcohol consumption	78.6% non-drinkers	82.1%	4% increase in proportion of non-drinkers
	Illicit drug use	85.6% non-users	82.8%	3% decrease in proportion of non-users
30% improvement in numbers of patients with intermediate health outcomes within acceptable range	Low-risk HbA1c levels for clients with Type 2 diabetes	34.2%	29.5%	14% decrease
	Low-risk blood pressure for clients with Type 2 diabetes	41.0%	41.6%	No change
	Low-risk blood pressure for clients with coronary heart disease(f)	61.4%	64.0%	4% increase

(a) Data are shown for a subset of services that provided valid data based on a complete count of clients for an indicator part for all reporting periods.

(b) Baseline reporting period was June 2008 for maternal indicators and December 2007 for HbA1c levels and blood pressure tests.

(c) Change in indicator is presented as a percentage of the baseline period.

(d) The average weight of live-born babies of non-Indigenous mothers is 3,385 grams (Laws et al. 2010).

(e) Data are presented for mothers of Indigenous babies who were non-smokers, non-drinkers or non-users of illicit drugs.

(f) Final data are from the December 2010 reporting period, as data from 2011 were not comparable due to indicator definition changes.

Note: Data for maternal indicators are for all Indigenous babies.

One longer-term outcome, a 30% reduction in hospital admissions for chronic disease complications, was unable to be assessed using Healthy for Life data. Three of the overarching objectives, improving long-term health outcomes for Aboriginal and Torres Strait Islander Australians, improving men's health, and increasing the capacity of Aboriginal and Torres Strait Islander health workforce, including through the Puggy Hunter Memorial Scholarship Scheme, cannot be measured using Healthy for Life data.

The degree to which services understand the importance of data collection and its role in CQI will affect data quality and reporting. For the qualitative data in particular, there have been wide variances over time in terms of the number of services reporting and data completeness. There is a correlation between the amount of training on reporting and the completeness of data for that period.

In the annual reporting period ending June 2010, there was an increase in face-to-face training for services on the benefits of data collection, how to record Healthy for Life data and how it could be used for to quality improvement. In late April 2010, OATSIH held a Healthy for Life & New Directions Mothers & Babies Services Conference, which many services attended. There were a number of presentations on quality improvement and health services shared strategies for improving performance. The AIHW gave a presentation at the conference on how services could use HfL data to improve service quality. Menzies School of Health Research held 14 regional meetings for Healthy for Life services, most of which were in the latter part of the period.

At the census date of 30 June 2010, the staff of many services had just been trained in using data to assess service quality. If the training were effective, it is likely that this analysis might then be used in formal quality improvement processes in the forthcoming year that would be reported on in June 2011. The data are consistent with this hypothesis. There were increases in the number of services that participated in formal quality improvement processes between the period ending June 2010 and that ending June 2011 (1 percentage point for maternal health, 7 percentage points for child health and 9 percentage points for chronic disease). This suggests that face-to-face training may enhance health services' capacity to use data to improve service delivery.

The amount of training decreased in the following period. This may explain why there was a decrease in the number of health services using data to review quality in an ongoing manner (rather than through formal quality improvement processes) across maternal health (6 percentage points), child health (3 percentage points, and chronic disease (2 percentage points) in the period ending June 2011.

10 Healthy for Life and the national Key Performance Indicators

Under the National Indigenous Reform Agreement, the Australian Government and states and territories undertook to improve performance indicator data. It was agreed that DoHA, in partnership with state and territory health departments and in collaboration with the AIHW, would develop national Key Performance Indicators (nKPIs) for Indigenous specific primary health-care services (COAG 2011).

The nKPI Technical Working Group recommended 24 nKPIs to the Australian Health Ministers' Council, which approved these in June 2011. Indicators are being introduced in stages:

- 11 indicators were used in a trial collection that took place in March 2012. These indicators began to be collected in 1 July 2012
- 8 will be collected from 1 January 2013
- 5 will be collected from 1 July 2014.

The introduction of the nKPIs is being supported by the rollout of the new web-based reporting tool, OCHREStreams (OATSIH 2011b).

The nKPIs were developed based on the experience of HfL, and for that reason, there is a high level of correspondence between the two data sets. As shown in Table 10.1, many of the nKPIs have forerunners in the HfL Essential Indicators. Only two HfL Essential Indicators have not been incorporated into the nKPIs:

- EI 2—average birthweight
- EI 10
  - part I—regular clients with coronary heart disease who had a blood pressure test in the last 6 months
  - part II—those with a blood pressure test result less than 130/90mmHg.

A small number of Essential Indicator parts were not carried over to the nKPIs, for instance, alcohol consumption and illicit drug use during pregnancy and average HbA1c results for regular clients with Type 2 diabetes.

In the nKPIs, a regular client is one who has visited the service three or more times in the last 2 years. In contrast, the recommended definition of regular client for HfL is a person who has a record of having attended the service for any reason at least twice during the 3 years preceding the end of the reporting period. However, services could use whatever definition of regular client they felt was most appropriate to their service. This difference, in addition to other differences between the indicators, means that data from the nKPIs are not directly comparable with data from HfL.

The experiences of HfL have influenced how the new approach has been designed in four key ways.

First, the definition of regular client is uniform across all services providing data against the nKPIs. This facilitates national-level analysis and comparison between jurisdictions and remoteness classifications.

Second, the number of services providing nKPI data will be expanded to include all services funded to provide Indigenous primary health care by DoHA (250–300 services) starting from 1 January 2013 and will include services similarly funded by states and territories from 1 July 2014.

Third, the amount of quantitative data collected in the nKPIs will be slightly larger than in the case of HfL Essential Indicators while qualitative data will be reduced. It is hoped this will reduce the reporting burden placed on services.

Fourth, to further reduce the reporting burden, data collection has been largely automated in the nKPIs, with most services able to electronically transfer data from their PIRS to OCHREStreams. This should result in efficiencies for most services which no longer need to manually enter data, which was the case in HfL.

Table 10.1: List of draft indicators to be collected for the national Key Performance Indicator data collection

National Key Performance Indicator	Description	Healthy for Life Essential Indicator
Birthweight recorded	Number and proportion of Indigenous babies born within the previous 12 months whose birthweights were recorded	Low and high birthweight babies (EI 3)
Birthweight result	Number and proportion of Indigenous babies born within the previous 12 months with a recorded birthweight of either low, normal, or high	Low and high birthweight babies (EI 3)
Child immunisation	Number and proportion of Indigenous children who are fully immunised at 1, 2 and 5 years of age	Child immunisation (EI 5)
Health assessment key measure	Number and proportion of regular clients who are Indigenous and who had an MBS Health Assessment (MBS item 715) within the previous 12 months (0–4 years) or 24 months (25 years and over)	Health checks (EI6)
Pap test	Number and proportion of female Indigenous regular clients aged between 20 and 69 years who are recorded as having a pap test within the previous 2, 3 and 5 years	
HbA1c recorded	Number and proportion of regular clients with Type 2 diabetes who are Indigenous and have had an HbA1c measurement recorded within the previous 6 months and 12 months	Regular clients with Type 2 diabetes who had an HbA1c test in the last 6 months (EI 8 part I)
HbA1c result	Number and proportion of regular clients with Type 2 diabetes who are Indigenous and have had an HbA1c measurement recorded within the previous 6 months and 12 months AND whose last recorded HbA1c was within specified ranges	HbA1c levels in regular clients with Type 2 diabetes (EI 8 part II)
Type 2 diabetes clients who had a blood pressure test recorded	Number and proportion of regular clients with Type 2 diabetes who are Indigenous and who have had a blood pressure test recorded within the previous 6 months	Regular clients with Type 2 diabetes who had a blood pressure test in the last 6 months (EI 9 part I)
Type 2 diabetes clients with blood pressure less than or equal to 130/80 mmHg	Number and proportion of regular clients with Type 2 diabetes who are Indigenous whose blood pressure test was less than or equal to 130/80 mmHg within the previous 6 months	Regular clients with Type 2 diabetes who had a blood pressure test with a result less than or equal to 130/80mmHg (EI 9 part II)
GP Management Plan MBS item 721	Number and proportion of regular clients with Type 2 diabetes who are Indigenous and have a GP Management Plan	Chronic Disease Management Plans (MBS Item 721) GPMP (EI 7 part I)
Team Care Arrangement MBS item 723	Number and proportion of regular clients with Type 2 diabetes who are Indigenous and have a Team Care Arrangement	Chronic Disease Management Plans (MBS Item 723) TCA (EI 7 part III)
Smoking recorded	Number and proportion of regular clients who are Indigenous with a known smoking status	

(continued)

Table 10.1 (continued): List of draft indicators to be collected for the national Key Performance Indicator data collection

National Key Performance Indicator	Description	Healthy for Life Essential Indicator
Smoking status	Number and proportion of regular clients who are Indigenous and who have a smoking status of ex-smoker, current smoker, never smoked or not recorded	
Body mass index	Number and proportion of regular clients who are Indigenous and have a BMI recorded as overweight or obese	
First antenatal visit	Number and proportion of regular clients who are Indigenous and who had their first antenatal visit within specified periods	Timing of first antenatal visit (EI 1)
Adult immunisation	Number and proportion of regular clients aged 50 or over who are Indigenous and are recorded as being fully immunised against influenza	
Adult immunisation for regular clients with chronic disease	Number and proportion of adult regular clients with Type 2 diabetes or chronic obstructive pulmonary disease who are Indigenous and are recorded as being fully immunised against influenza	
Alcohol consumption recorded	Number and proportion of regular clients who are Indigenous and have had their alcohol consumption recorded within the previous 2 years	
Estimated Glomerular Filtration Rate (eGFR) recorded	Number and proportion of regular clients who are Indigenous, have a chronic disease and who are recorded as having an eGFR AND urinary albumin : creatinine ratio OR other urinary micro albumin test result within the previous 12 months	
Risk of long-term harm from alcohol(a)	Number and proportion of regular clients who are Indigenous and have been recorded as at risk of harm from alcohol	
Smoking during pregnancy(a)	Number and proportion of regular clients who are Indigenous, gave birth to a baby in the previous 12 months AND who had an antenatal visit during that pregnancy AND who smoked at that time	Risk factors identified before 13 weeks of pregnancy (EI 4 part I) Risk factors identified in the third trimester of pregnancy (EI 4 part II)
eGFR result(a)	Number and proportion of regular clients who are Indigenous, have a chronic disease and who are recorded as having an eGFR test result within the previous 12 months with a result within specified levels	
Absolute risk assessment recorded(a)	Number and proportion of regular clients who are Indigenous, have not had a diagnosis of cardiovascular disease and who have had an absolute risk assessment recorded.	
Absolute risk assessment result(a)	Number and proportion of regular clients who are Indigenous, have not had a diagnosis of cardiovascular disease and who have had an absolute risk assessment with results within specified levels	

(a) National Key Performance Indicator has been given in-principle approval from the Australian Health Ministers' Advisory Council and is still being developed.

11 Conclusions

Healthy for Life services were located in all states and territories and across all geographical areas of Australia from *Major cities* to *Very remote* areas. In 2010–11, one-third (33%) of services were in *Outer regional* areas, while another third (34%) were in either *Remote* or *Very remote* areas.

More than 1.1 million episodes of care were provided to more than 180,000 clients at services that provided valid data. Three-quarters of clients (more than 135,000) were Indigenous. This represented almost one-quarter of the total Indigenous population in Australia, although clients who attended more than one service may be counted more than once.

Since the program began in 2007, the number of clients who received health-care services increased for almost all of the Essential Indicators, meaning that the program has provided health services to a growing number of Indigenous people.

Services in *Remote* and *Very remote* areas performed well on many of the HfL measures, providing a higher proportion of their clients with recommended health services than services in other regions. This was also reflected in the Northern Territory where more than half of the HfL services are in *Very remote* areas. The Northern Territory performed well on almost all of the HfL measures.

Overall, health services in *Major Cities* had a lower proportion of clients receiving appropriate tests than services in other areas. Clients in *Major cities* are more likely to have access to other health services and may have received these tests elsewhere. Clients in *Remote* and *Very remote* areas may have access only to the HfL service.

Quality improvement was a major focus of the program. About four-fifths or more of services used health service data to review quality in maternal health (79%), child health (84%) and chronic disease care (87%). More than two-thirds of services used repeated cycles of Plan-Do-Study-Act as part of quality improvement processes for maternal health (68%), child health (79%) and chronic disease care (84%).

Other factors were important in quality service delivery, including accreditation, appropriate governance of the health service and client satisfaction. About two-thirds of services (67%) were accredited and another 16% were undergoing accreditation. To ensure appropriate governance, services used a range of strategies, including training, development and support for the board of management, ensuring community representation on the board and holding regular meetings of the board of directors. More than four-fifths of services (86%) had a complaints mechanism for ensuring client satisfaction and more than three-quarters (79%) had a client satisfaction survey.

A variety of measures were used to ensure health services were appropriate to clients. These included improving access by providing transport, having access to appropriate medical specialists, providing culturally appropriate care, having staff with relevant training, using a team-based approach and coordinating care across services, using electronic systems to maintain regular client lists and to recall clients for follow-up, using best-practice guidelines, and raising awareness of behavioural risks and running programs to reduce risks. More specifically, health services provided breastfeeding support as part of maternal health-care and immunisation clinics and preschool and school visits to perform child health assessments. They also developed care plans, conducted case conferencing with medical specialists, and educated clients in self-management as part of chronic disease care.

Appendix A Data analysis and data quality

This appendix details the data analysis techniques and sampling methods used by services. It also assesses data quality.

Data analysis

Data analyses involved calculating proportion and/or averages for the 85 HfL services that provided valid data. Proportions were calculated using the following formula:

$$\text{Proportion} = \frac{\text{Sum of values for each Healthy for Life service numerator}}{\text{Sum of values for each Healthy for Life service denominator}} \times 100$$

The values of the denominator are shown before each proportion.

Data with quality issues were excluded from analyses.

Some states and territories are more likely to have a higher proportion of HfL services in a particular geographic area—for example, in the current reporting period, 12 of the 13 services in the Northern Territory were in *Remote* or *Very remote* areas, while in Victoria and Tasmania combined, all of the services were in *Major cities, Inner regional* or *Outer regional* areas. Geography may affect the indicator outcomes for that state/territory.

Sampling methods used

Services used a combination of methods to obtain their data. Most services used a complete count—between 87% (EI 6 part II) and 100% of services (EI 7 parts II and IV). The sampling methods used are shown in Table A1. Data from services that reported samples were included in this report.

Time series analyses are shown for a subset of services that provided valid data based on a complete count of clients for an Indicator for all reporting periods.

Table A1: Services that used sampling or complete counts to obtain data

	Complete count		Sample		Other[(a)]		Total	
Indicator	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
EI 1	73	98.6	1	1.4	0	0.0	74	100.0
EI 2	72	98.6	1	1.4	0	0.0	73	100.0
EI 3	73	98.6	1	1.4	0	0.0	74	100.0
EI 4 part I	69	95.8	1	1.4	2	2.8	72	100.0
EI 4 part II	69	95.8	1	1.4	2	2.8	72	100.0
EI 5	61	89.7	7	10.3	0	0.0	68	100.0
EI 6 part I	76	92.7	5	6.1	1	1.2	82	100.0
EI 6 part II	27	87.1	4	12.9	0	0.0	31	100.0
EI 7 part I	75	98.7	1	1.3	0	0.0	76	100.0
EI 7 part II	13	100.0	0	0.0	0	0.0	13	100.0
EI 7 part III	69	98.6	1	1.4	0	0.0	70	100.0
EI 7 part IV	11	100.0	0	0.0	0	0.0	11	100.0
EI 8 part I	81	97.6	2	2.4	0	0.0	83	100.0
EI 8 part II	80	96.4	2	2.4	1	1.2	83	100.0
EI 8 part III	81	97.6	2	2.4	0	0.0	83	100.0
EI 9 part I	80	96.4	2	2.4	1	1.2	83	100.0
EI 9 part II	81	97.6	2	2.4	0	0.0	83	100.0
EI 10 part I	81	98.8	1	1.2	0	0.0	82	100.0
EI 10 part II	79	96.3	1	1.2	2	2.4	82	100.0

(a) 'Other' includes services which obtained their data by another method and which did not provide details of the method used to obtain their data.

Note: Includes services for which data were not presented due to inconsistencies.

Table A2: Number of services that provided valid data and total number of clients for the quantitative indicators, reporting periods ending 31 December 2007 to 30 June 2011

	Dec 2007		Jun 2008		Dec 2008		Jun 2009		Dec 2009		Jun 2010		Dec 2010		Jun 2011	
Indicator	**Valid data[a]**	**Total clients[b]**	**Valid data[a]**	**Total clients[b]**	**Valid data[a]**	**Total clients[b]**	**Valid data[a]**	**Total clients[b]**	**Valid data[a]**	**Total clients[b]**	**Valid data[a]**	**Total clients[b]**	**Valid data[a]**	**Total clients[b]**	**Valid data[a]**	**Total clients[b]**
EI 1	. .	. .	44	1,071	. .	. .	54	1,704	. .	. .	66	2,057	. .	. .	71	2,223
EI 2	. .	. .	48	1,294	. .	. .	52	1,510	. .	. .	63	1,836	. .	. .	73	2,233
EI 3	. .	. .	50	1,364	. .	. .	49	1,461	. .	. .	65	1,878	. .	. .	73	2,185
EI 4 part I																
Smoking status	. .	. .	41	390	. .	. .	53	560	. .	. .	65	727	. .	. .	72	836
Alcohol consumption	. .	. .	41	353	. .	. .	53	460	. .	. .	65	672	. .	. .	72	750
Illicit drug use status	. .	. .	41	280	. .	. .	53	362	. .	. .	65	581	. .	. .	72	673
EI 4 part II																
Smoking status	. .	. .	46	533	. .	. .	51	819	. .	. .	64	1,176	. .	. .	72	1,338
Alcohol consumption	. .	. .	46	464	. .	. .	51	678	. .	. .	64	1,081	. .	. .	72	1,214
Illicit drug use status	. .	. .	46	413	. .	. .	51	599	. .	. .	64	1,005	. .	. .	72	1,187

(continued)

Table A2 (continued): Number of services that provided valid data and total number of clients for the quantitative indicators, reporting periods ending 31 December 2007 to 30 June 2011

	Dec 2007		Jun 2008		Dec 2008		Jun 2009		Dec 2009		Jun 2010		Dec 2010		Jun 2011	
Indicator	**Valid data(a)**	**Total clients(b)**	**Valid data(a)**	**Total clients(b)**	**Valid data(a)**	**Total clients(b)**	**Valid data(a)**	**Total clients(b)**	**Valid data(a)**	**Total clients(b)**	**Valid data(a)**	**Total clients(b)**	**Valid data(a)**	**Total clients(b)**	**Valid data(a)**	**Total clients(b)**
EI 5(c)																
12 < 24 months	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	36	1,184
24 < 36 months	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	36	1,443
60 < 72 months	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	36	2,253
Total(d)	**. .**	**. .**	**44**	**10,916**	**. .**	**. .**	**59**	**13,894**	**. .**	**. .**	**67**	**19,228**	**. .**	**. .**	**. .**	**. .**
EI 6																
0–14 years	. .	. .	56	38,242	. .	. .	66	39,086	. .	. .	72	47,866	. .	. .	77	50,504
15–54 years	. .	. .	61	64,553	. .	. .	67	69,787	. .	. .	74	88,010	. .	. .	77	91,841
55 years and over	. .	. .	59	9,834	. .	. .	65	10,927	. .	. .	70	13,510	. .	. .	77	14,851
EI 7 GPMP																
Type 2 diabetes	. .	. .	52	7,725	. .	. .	59	8,535	. .	. .	69	11,928	. .	. .	76	12,620
Coronary heart disease	. .	. .	51	2,289	. .	. .	59	2,395	. .	. .	69	3,668	. .	. .	75	4,020

(continued)

Table A2 (continued): Number of services that provided valid data and total number of clients for the quantitative indicators, reporting periods ending 31 December 2007 to 30 June 2011

	Dec 2007		Jun 2008		Dec 2008		Jun 2009		Dec 2009		Jun 2010		Dec 2010		Jun 2011	
Indicator	**Valid data[(a)]**	**Total clients[(b)]**	**Valid data[(a)]**	**Total clients[(b)]**	**Valid data[(a)]**	**Total clients[(b)]**	**Valid data[(a)]**	**Total clients[(b)]**	**Valid data[(a)]**	**Total clients[(b)]**	**Valid data[(a)]**	**Total clients[(b)]**	**Valid data[(a)]**	**Total clients[(b)]**	**Valid data[(a)]**	**Total clients[(b)]**
EI 7 TCA																
Type 2 diabetes	. .	. .	50	7,084	. .	. .	56	7,905	. .	. .	65	11,230	. .	. .	70	11,592
Coronary heart disease	. .	. .	49	2,148	. .	. .	56	2,294	. .	. .	65	3,510	. .	. .	70	3,874
EI 8 part I	61	8,807	60	8,865	65	9,001	68	9,960	73	11,690	75	13,264	83	13,370	83	13,777
EI 8 part II	55	3,494	57	3,964	65	3,838	68	4,482	71	5,495	73	6,619	80	6,850	77	7,028
EI 8 part III	54	3,318	57	4,007	64	3,827	69	4,981	70	5,430	72	6,543	79	6,830	77	7,028
EI 9 part I	60	8,539	62	9,225	66	9,009	68	9,960	73	11,690	75	13,264	82	13,317	83	13,777
EI 9 part II	61	4,656	63	5,621	66	5,202	70	6,299	73	7,128	75	8,253	82	8,725	83	9,004
EI 10 part I	56	2,426	62	2,665	65	3,052	68	3,009	72	3,415	75	3,957	81	4,458	82	4,236
EI 10 part II[(e)]	54	1,416	62	1,792	65	1,988	69	1,940	72	2,200	75	2,748	81	2,807	49	1,654

(a) The total number of services that provided valid data.

(b) The total number of Indigenous clients is the grand total for the denominator. This is the total number of clients for which the Indicator is applicable.

(c) The specifications for child immunisation changed for 2010–11, resulting in fewer services reporting valid data.

(d) The total number of children who were fully immunised is provided for previous reporting periods, where the immunisations required were different and the age groups included all children aged 6 months to less than 6 years.

(e) The specification for clients with coronary heart disease changed from those who had a blood pressure result less than 140/90mmHg to less than or equal to 130/80mmHg for 2010–11, resulting in fewer services reporting valid data.

. . Not applicable.

Notes

1. Services used their own definition of regular client.
2. Only includes services that provided valid data.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Appendix B Reporting framework

Table B1: Reporting framework for Healthy for Life

Section	Module	Qualitative indicator	Quantitative indicator
1. Service details	. .		
2. Service profile	. .	Funding, services provided and consortium relationships	
			Episodes of care
			Clients
			Staffing
			Staff qualifications
3. Service quality — Organisational infrastructure	Accreditation	QI 1 Accreditation by a recognised provider	
	Governance	QI 2 Service population involvement in service planning and feedback	
	Leadership and management	QI 3 Quality improvement	
		QI 4 Community health promotion/community development	
	Information capability	QI 1 Use of electronic client information system	
		QI 2 Information systems and training	
4. Service quality — Health priorities	Maternal health	QI 1 Access	EI 1 Timing of first antenatal visit
		QI 2 Antenatal and postnatal care	EI 2 Average birthweight
			EI 3 Low and high birthweights
			EI 4 Risk factors identified during pregnancy
	Child health	QI 1 Access	EI 5 Child immunisation
		QI 2 Care	
	Health assessments		EI 6 Health assessments
	Chronic disease	QI 1 Access	EI 7 Chronic Disease Management plans
		QI 2 Preventive care	EI 8 HbA1c tests
		QI 3 Management	EI 9 Blood pressure tests for regular clients with Type 2 diabetes
			EI 10 Blood pressure tests for regular clients with coronary heart disease

. . Not applicable.

Appendix C Health service priorities—maternal health

This appendix provides a breakdown of each of the maternal health indicators by state and territory.

Antenatal visits by state and territory

Table C1: Number and percentage of women[a] who gave birth to an Indigenous baby[b], by timing of the first antenatal visit and state and territory

Timing of first antenatal visit	NSW/ACT	Vic/Tas	Qld	WA	SA	NT	Total
				Number			
Total	**364**	**150**	**454**	**502**	**182**	**571**	**2,223**
				Percentage			
Before 13 weeks of pregnancy	51.1	44.0	49.8	41.4	51.6	47.6	47.3
At 13 weeks or after, but before 20 weeks of pregnancy	29.1	21.3	13.9	18.1	17.6	20.8	19.9
Total before 20 weeks of pregnancy	*80.2*	*65.3*	*63.7*	*59.5*	*69.2*	*68.4*	*67.2*

(a) Women who were regular clients of the Healthy for Life service.

(b) A baby with at least one parent who identifies as Indigenous.

Notes

1. Valid data for this indicator were provided by 71 services (NSW/ACT 15, Vic/Tas 11, Qld 10, WA 9, SA 13 and NT 13).
2. Services used their own definition of regular client.
3. The total number is the total number of women who gave birth to an Indigenous baby. These figures are used as the denominators in calculating percentages. The numerator is the number of women who attended an antenatal visit.
4. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Average birthweight by state and territory

Table C2: Average birthweight of Indigenous babies[(a)], by state and territory

NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
D	Average (g)	D	Average (g)	D	Average (g)	D	Average (g)	D	Average (g)	D	Average (g)	D	Average (g)
363	3,254	271	3,067	388	3,234	485	3,090	161	3,200	565	3,137	2,233	3,159

(a) Indigenous babies born in the current reporting period to women who were regular clients of the Healthy for Life service.

D D (denominator) is the total number of Indigenous babies whose birthweight was recorded.

Notes

1. Valid data for this indicator were provided by 73 services (NSW/ACT 14, Vic/Tas 14, Qld 10, WA 9, SA 13 and NT 13).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Low birthweight babies by state and territory

Table C3: Number and percentage of Indigenous babies[(a)] who had a low birthweight, by state and territory

	NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
Birthweight	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**
Low birthweight[(b)]	363	11.0	223	13.5	388	11.9	485	13.8	161	13.0	565	13.5	2,185	12.8

(a) Indigenous babies born in the current reporting period to women who were regular clients of the Healthy for Life service.

(b) Low birthweight is <2,500g.

D D (denominator) is the total number of Indigenous babies whose birthweight was recorded. The numerator is the number of Indigenous babies by birthweight.

Notes

1. Valid data for this indicator were provided by 73 services (NSW/ACT 15, Vic/Tas 13, Qld 10, WA 9, SA 13 and NT 13).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Risk factors of women in the first trimester by state and territory

Table C4: Risk factors of women[(a)] who gave birth to an Indigenous baby[(b)] who attended an antenatal visit before 13 weeks of pregnancy, by state and territory, (number and percentage)

	NSW/ACT	Vic/Tas	Qld	WA	SA	NT	Total
Smoking status							
				Number			
Total	**169**	**72**	**149**	**158**	**79**	**209**	**836**
				Percentage			
Smoker[(c)]	57.4	54.2	52.3	46.8	59.5	53.1	53.3
Other[(d)]	42.6	45.8	47.7	53.2	40.5	46.9	46.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Alcohol consumption							
				Number			
Total	**116**	**70**	**132**	**156**	**69**	**207**	**750**
				Percentage			
Alcohol consumption[(e)]	31.9	38.6	20.5	22.4	47.8	15.9	25.6
No alcohol consumption[(f)]	68.1	61.4	79.5	77.6	52.2	84.1	74.4
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Illicit drug use status							
				Number			
Total	**121**	**67**	**69**	**150**	**64**	**202**	**673**
				Percentage			
Used drugs[(g)]	30.6	23.9	8.7	10.7	32.8	8.4	16.8
Other[(h)]	69.4	76.1	91.3	89.3	67.2	91.6	83.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Women who were regular clients of the Healthy for Life service.

(b) A baby with at least one parent who identifies as Indigenous.

(c) Smoker includes daily smokers, weekly smokers and irregular smokers (people who smoke tobacco less than weekly).

(d) Other includes ex-smokers and non-smokers.

(e) A person who consumes some alcohol during pregnancy.

(f) A person who does not drink at all during pregnancy.

(g) Used illicit drugs include daily, weekly and irregular users (people who use less than weekly).

(h) Other includes ex-users and non-users.

Notes

1. Valid data for this indicator were provided by 72 services (NSW/ACT 15, Vic/Tas 12, Qld 10, WA 9, SA 13 and NT 13).
2. Services used their own definition of regular client.
3. The total number is the total number of women who attended an antenatal visit before 13 weeks of pregnancy whose smoking status, alcohol consumption or illicit drug use was recorded. These figures are used as the denominator in calculating percentages. The numerator is the number of women by smoking status, alcohol consumption or illicit drug use before 13 weeks of pregnancy.
4. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Risk factors of women in the third trimester by state and territory

Table C5: Risk factors of women[(a)] who gave birth to an Indigenous baby[(b)] who attended an antenatal visit in the third trimester of pregnancy, by state and territory, (number and percentage)

	NSW/ACT	Vic/Tas	Qld	WA	SA	NT	Total
Smoking status							
	Number						
Total	**306**	**157**	**150**	**281**	**127**	**317**	**1,338**
	Proportion						
Smoker[(c)]	55.9	59.2	46.7	52.3	59.1	53.0	54.1
Other[(d)]	44.1	40.8	53.3	47.7	40.9	47.0	45.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Alcohol consumption							
	Number						
Total	**219**	**151**	**151**	**277**	**107**	**309**	**1,214**
	Proportion						
Alcohol consumption[(e)]	14.6	33.8	2.6	19.1	37.4	7.8	16.8
No alcohol consumption[(f)]	85.4	66.2	97.4	80.9	62.6	92.2	83.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Illicit drug use status							
	Number						
Total	**215**	**150**	**143**	**280**	**99**	**300**	**1,187**
	Proportion						
Used drugs[(g)]	22.3	32.0	5.6	12.9	24.2	5.0	15.1
Other[(h)]	77.7	68.0	94.4	87.1	75.8	95.0	84.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Women who were regular clients of the Healthy for Life service.

(b) A baby with at least one parent who identifies as Indigenous.

(c) Smoker includes daily smokers, weekly smokers and irregular smokers (people who smoke tobacco less than weekly).

(d) Other includes ex-smokers and non-smokers.

(e) A person who consumes some alcohol during pregnancy.

(f) A person who does not drink at all during pregnancy.

(g) Used illicit drugs include daily, weekly and irregular users (people who use less than weekly).

(h) Other includes ex-users and non-users.

Notes

1. Valid data for this indicator were provided by 72 services (NSW/ACT 15, Vic/Tas 12, Qld 10, WA 9, SA 13 and NT 13).
2. Services used their own definition of regular client.
3. The total number is the total number of women who attended an antenatal visit in the third trimester of pregnancy whose smoking status, alcohol consumption or illicit drug use was recorded. These figures are used as the denominators in calculating percentages. The numerator is the number of women by smoking status, alcohol consumption or illicit drug use in the third trimester of pregnancy.
4. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Appendix D Health service priorities—child health

This appendix provides a breakdown of the child immunisation indicator by age group and by state and territory.

Immunisation by state and territory

Table D1: Number and percentage of Indigenous regular clients who were fully immunised[(a)], by state and territory

	NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
Age group	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**
12 months to < 24 months	265	74.0	177	78.0	569	67.3	0	. .	85	36.5	88	95.5	1,184	70.3
24 months to < 36 months	276	77.5	253	66.8	746	62.3	0	. .	66	47.0	102	100.0	1,443	68.0
60 months to < 72 months	297	78.1	748	61.2	1,019	40.4	0	. .	49	20.4	140	100.0	2,253	55.6

(a) Children who were fully immunised have received all immunisations according to Australian Child Immunisation Register (ACIR).
Children aged: 12 months to less than 24 months are required to have received all immunisations that are due at 6 months of age.
Children aged: 24 months to less than 36 months are required to have received all immunisations that are due at 12 months of age.
Children aged: 60 months to less than 72 months are required to have received all immunisations that are due at 4 years of age.

D D (denominator) is the total number of Indigenous regular clients. The numerator is the number of Indigenous regular clients who were fully immunised.

Notes

1. Valid data for this indicator were provided by 36 services (NSW/ACT 10, Vic/Tas 8, Qld 8, WA 0, SA 6 and NT 4).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Appendix E Health service priorities—health checks

This appendix provides a breakdown of each of the health assessment indicator by state and territory.

Health assessments by state and territory

Table E1: Number and percentage of Indigenous regular clients[(a)] who had a current and complete health assessment, by state and territory

	NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
Age (years)	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**
0–14	7,486	12.9	4,429	8.3	10,581	20.4	13,667	6.0	3,837	4.8	10,504	21.3	50,504	13.3
15–54	13,012	9.4	8,777	11.7	17,936	17.7	24,791	11.7	7,623	7.2	19,702	27.9	91,841	15.6
55 and over	2,641	16.8	1,213	11.7	2,779	28.9	3,907	16.6	1,213	10.0	3,098	31.7	14,851	21.2

(a) Indigenous regular clients aged 0–14 years, 15–54 years and 55 years and over.

D D (denominator) is the total number of Indigenous regular clients. The numerator is the number of Indigenous regular clients who had a current and complete health assessment.

Notes

1. Valid data were provided by 77 services (NSW/ACT 17, Vic/Tas 16, Qld 9, WA 10, SA 13 and NT 12).
2. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Appendix F Health service priorities—chronic disease

This appendix provides a breakdown of each of the chronic disease indicators by state and territory.

GP Management Plans by state and territory

Table F1: Number and percentage of Indigenous regular clients with Type 2 diabetes[(a)] who had a current GPMP, by state and territory

	NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
Type of GPMP	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**
GPMP (MBS Item 721)	1,611	27.5	763	36.2	1,835	36.8	3,629	20.0	1,212	22.9	3,570	46.0	12,620	32.0

(a) Indigenous regular clients aged 15 and over.

D D (denominator) is the total number of Indigenous regular clients with Type 2 diabetes. The numerator is the number of Indigenous regular clients with Type 2 diabetes who had a current GPMP.

Notes

1. Valid data for this indicator were provided by 76 services (NSW/ACT 17, Vic/Tas16, Qld 9, WA 10, SA 11 and NT 13).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Table F2: Number and percentage of Indigenous regular clients with coronary heart disease [(a)] who had a current GPMP, by state and territory

	NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
Type of GPMP	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**
GPMP (MBS Item 721)	787	23.6	431	30.2	696	35.6	828	27.5	376	30.1	902	52.1	4,020	34.2

(a) Indigenous regular clients aged 15 and over.

D D (denominator) is the total number of Indigenous regular clients with coronary heart disease. The numerator is the number of Indigenous regular clients with coronary heart disease who had a current GPMP.

Notes

1. Valid data for this indicator were provided by 75 services (NSW/ACT 17, Vic/Tas 16, Qld 9, WA 10, SA 11 and NT 12).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Team Care Arrangements by state and territory

Table F3: Number and percentage of Indigenous regular clients with Type 2 diabetes[(a)] who had a current TCA, by state and territory

	NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
Type of TCA	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**
TCA (MBS Item 723)	1,524	24.1	733	35.2	1,724	36.7	3,246	11.5	1,169	16.0	3,196	41.7	11,592	27.2

(a) Indigenous regular clients aged 15 and over.

D D (denominator) is the total number of Indigenous regular clients with Type 2 diabetes. The numerator is the number of Indigenous regular clients with Type 2 diabetes who had a current TCA.

Notes

1. Valid data for this indicator were provided by 70 services (NSW/ACT 16, Vic/Tas16, Qld 8, WA 8, SA 10 and NT 12).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Table F4: Number and percentage of Indigenous regular clients with coronary heart disease[(a)] who had a current TCA (MBS Item 723), by state and territory

	NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
Type of TCA	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**
TCA (MBS Item 723)	769	19.2	426	28.2	666	35.3	776	10.8	363	21.2	874	43.5	3,874	26.9

(a) Indigenous regular clients aged 15 and over.

D D (denominator) is the total number of Indigenous regular clients with coronary heart disease. The numerator is the number of Indigenous regular clients with coronary heart disease who had a current TCA.

Notes

1. Valid data for this indicator were provided by 70 services (NSW/ACT 16, Vic/Tas 16, Qld 8, WA 8, SA 10 and NT 12).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

HbA1c tests in the last 6 months by state and territory

Table F5: Number and percentage of Indigenous regular clients[(a)] with Type 2 diabetes who had an HbA1c test in the last 6 months, by state and territory, 1 January–30 June 2011

NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
D	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**
1,628	45.8	777	77.0	2,826	52.4	3,629	44.0	1,347	49.6	3,570	65.7	13,777	53.9

(a) Indigenous regular clients aged 15 and over.

D D (denominator) is the total number of Indigenous regular clients with Type 2 diabetes. The numerator is the number of Indigenous regular clients with Type 2 diabetes who had an HbA1c test in the last 6 months.

Notes

1. Valid data for this indicator were provided by 83 services (NSW/ACT 18, Vic/Tas 17, Qld 11, WA 10, SA 14 and NT 13).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

HbA1c levels by state and territory

Table F6: Number and percentage of Indigenous regular clients[(a)] with Type 2 diabetes who had an HbA1c test in the last 6 months, by HbA1c result[(b)] and state and territory, 1 January–30 June 2011

	NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
HbA1c result	**D**	**%**	**D**	**%**	**D**	%	**D**	**%**	**D**	**%**	**D**	**%**	**D**	**%**
≤7%	661	36.6	306	40.2	1,464	30.5	1,595	26.9	658	32.8	2,344	29.7	7,028	30.6
>7% to ≤8%	661	20.3	306	20.6	1,464	22.0	1,595	18.8	658	17.8	2,344	18.6	7,028	19.5
>8% to <10%	661	26.0	306	23.5	1,464	23.9	1,595	24.4	658	26.4	2,344	21.6	7,028	23.7
≥10%	661	17.1	306	15.7	1,464	23.6	1,595	29.9	658	22.9	2,344	30.1	7,028	26.2
Total	**661**	**100.0**	**306**	**100.0**	**1,464**	**100.0**	**1,595**	**100.0**	**658**	**100.0**	**2,344**	**100.0**	**7,028**	**100.0**

(a) Indigenous regular clients aged 15 and over.

(b) HbA1c results in the last 6 months.

D D (denominator) is the total number of Indigenous regular clients with Type 2 diabetes who had an HbA1c test in the last 6 months. The numerator is the number of Indigenous regular clients with Type 2 diabetes who had an HbA1c test in the last 6 months by HbA1c result.

Notes

1. Valid data for this indicator were provided by 77 services (NSW/ACT 17, Vic/Tas 13, Qld 11, WA 10, SA 13 and NT 13).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Average HbA1c result by state and territory

Table F7: Average HbA1c result for Indigenous regular clients[(a)] with Type 2 diabetes who had an HbA1c test in the last 6 months, by state and territory, 1 January–30 June 2011

NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
D	Average	D	Average	D	Average	D	Average	D	Average	D	Average	D	Average
661	8.1	306	8.0	1,464	8.5	1,595	8.9	658	8.4	2,344	8.8	7,028	8.6

(a) Indigenous regular clients aged 15 and over.

D D (denominator) is the total number of Indigenous regular clients with Type 2 diabetes who had an HbA1c test in the last 6 months.

Notes

1. Valid data for this indicator were provided by 77 services (NSW/ACT 17, Vic/Tas 13, Qld 11, WA 10, SA 13 and NT 13).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Type 2 diabetes clients who had a blood pressure test in the last 6 months by state and territory

Table F8: Number and percentage of Indigenous regular clients[(a)] with Type 2 diabetes who had a blood pressure test in the last 6 months, by state and territory, 1 January–30 June 2011

NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
D	%	D	%	D	%	D	%	D	%	D	%	D	%
1,628	63.9	777	72.6	2,826	60.8	3,629	57.5	1,347	56.1	3,570	79.5	13,777	65.4

(a) Indigenous regular clients aged 15 and over.

D D (denominator) is the total number of Indigenous regular clients with Type 2 diabetes. The numerator is the number of Indigenous regular clients with Type 2 diabetes who had a blood pressure test in the last 6 months.

Notes

1. Valid data for this indicator were provided by 83 services (NSW/ACT 18, Vic/Tas 17, Qld 11, WA 10, SA 14 and NT 13).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Type 2 diabetes clients who had a blood pressure test in the last 6 months with a result less than or equal to 130/80mmHg by state and territory

Table F9: Number and percentage of Indigenous regular clients[(a)] with Type 2 diabetes who had a blood pressure test in the last 6 months with a result less than or equal to 130/80mmHg, by state and territory, 1 January–30 June 2011

NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
D	%	D	%	D	%	D	%	D	%	D	%	D	%
1,040	34.2	564	37.2	1,719	41.5	2,088	38.0	756	47.1	2,837	47.8	9,004	42.0

(a) Indigenous regular clients aged 15 and over.

D D (denominator) is the total number of Indigenous regular clients with Type 2 diabetes who had a blood pressure test in the last 6 months. The numerator is the number of Indigenous regular clients with Type 2 diabetes who had a blood pressure test in the last 6 months with a result less than or equal to 130/80mmHg.

Notes

1. Valid data for this indicator were provided by 83 services (NSW/ACT 18, Vic/Tas 17, Qld 11, WA 10, SA 14 and NT 13).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Coronary heart disease clients who had a blood pressure test in the last 6 months by state and territory

Table F10: Number and percentage of Indigenous regular clients[(a)] with coronary heart disease who had a blood pressure test in the last 6 months, by state and territory, 1 January–30 June 2011

NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
D	%	D	%	D	%	D	%	D	%	D	%	D	%
788	65.7	427	57.1	841	68.7	828	58.5	436	65.8	916	75.9	4,236	66.2

(a) Indigenous regular clients aged 15 and over.

D D (denominator) is the total number of Indigenous regular clients with coronary heart disease. The numerator is the number of Indigenous regular clients with coronary heart disease who had a blood pressure test in the last 6 months.

Notes

1. Valid data for this indicator were provided by 82 services (NSW/ACT 18, Vic/Tas 16, Qld 11, WA 10, SA 14 and NT 13).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Coronary heart disease clients who had a blood pressure less than or equal to 130/80mmHg by state and territory

Table F11: Number and percentage of Indigenous regular clients[(a)] with coronary heart disease who had a blood pressure test in the last 6 months with a result less than or equal to 130/80mmHg, by state and territory, 1 January–30 June 2011

NSW/ACT		Vic/Tas		Qld		WA		SA		NT		Total	
D	%	D	%	D	%	D	%	D	%	D	%	D	%
484	39.5	178	56.2	562	53.4	49	63.3	104	55.8	277	65.0	1,654	52.0

(a) Indigenous regular clients aged 15 and over.

D D (denominator) is the total number of Indigenous regular clients with coronary heart disease who had a blood pressure test in the last 6 months. The numerator is the number of Indigenous regular clients with coronary heart disease who had a blood pressure test in the last 6 months with a result less than or equal to 130/80mmHg.

Notes

1. Valid data for this indicator were provided by 49 services (NSW/ACT 15, Vic/Tas 10, Qld 10, WA 2, SA 6 and NT 6).
2. Services used their own definition of regular client.
3. This table includes those services that offered a particular service but did not have any clients. These services were excluded from analyses in the body of the report. For this reason, the number of health services in this table may differ from the number provided in the body of the report.

Appendix G Data Quality Statement—Healthy for Life Database

Summary of key issues

- The HfL database collects service-level information from Aboriginal and Torres Strait Islander health services that received Australian Government funding.
- The AIHW identified three major problems with the data quality: missing data, inappropriate data provided for the question and divergence of data among two or more questions.
- There was change in the services that reported valid data in each 6-monthly reporting period.
- Where needed, AIHW staff contacted services to follow up and get additional or corrected data; however not all services were able to provide corrected data within the necessary time frames.

Description

The HfL database collects service-level information from services funded by OATSIH to participate in the Healthy for Life data program. Information about this program is available on the OATSIH website <http://www.health.gov.au/internet/h4l/publishing.nsf/Content/home-1>.

HfL data was collected electronically from individual services.

Institutional environment

The AIHW is an Australian Government statutory authority accountable to Parliament and operates under the provisions of the *Australian Institute of Health and Welfare Act 1987*. This Act ensures that the data collections managed by the AIHW are kept securely and under strict conditions with respect to privacy and confidentiality. More information about the AIHW is available on the AIHW website <www.aihw.gov.au>.

Service-level data were collected for the first time by AIHW for the 6 months ending 30 June 2007 from Aboriginal and Torres Strait Islander primary health-care services funded by OATSIH to participate in the Healthy for Life Program.

Timeliness

HfL data were collected every 6 months, starting from the period ending 30 June 2007. Due to the small number of services that reported valid data in this period, time trend analysis conducted by the AIHW begins in the subsequent period. The last collection was for the period ending June 2011. Some questions are asked annually, rather than every 6 months, at the end of financial years.

Accessibility

National level data are available in the Healthy for Life: results for July 2007–June 2011 report through print on demand or on the AIHW website. Users can request data not available in reports via Indigenous Community and Health Service Reporting Unit, Australian Institute of Health and Welfare on (02) 6244 1000 or via email to dataquality@aihw.gov.au. Requests might involve a charge on a cost-recovery basis.

Interpretability

Data were collected by using a designed electronic questionnaire. The statistical analyses used in reports are descriptive. Numbers and percentages are commonly used to interpret major trends in publications.

Relevance

Some questions were not relevant for all services, for instance not all services provided antenatal care.

For some questions, all or nearly all services for which the question was relevant provided correct data. There were a number of questions that were not relevant to all services, and so a smaller number of services provided data for these questions.

Unless otherwise stated, the denominator used for percentage calculation is the number of services that provided correct data for each question.

Accuracy

The AIHW examined all completed questionnaires to identify missing data and problems with data quality. Where needed, AIHW staff contacted the relevant services to follow up and obtain additional or corrected data.

The AIHW identified three major problems with the data quality: missing data, inappropriate data provided for the question and divergence of data among two or more questions.

There were a number of questions for which some services that were required to answer the question were unable to provide appropriate data, even after follow-up.

Two major reasons for missing data or data with quality problems were the lack of the complete records of data held by the service or insufficient data management resources in the service to support the data collection. In these cases, some services provided estimates.

The AIHW assessed that some of these estimates were likely to either underestimate or overestimate the actual figure.

Coherence

There was change in the services that reported valid data in each 6-monthly reporting period, as the number of services participating increased substantially through time, and a small number of services stopped participating or reporting data. A comparatively small number of services provided valid data in the first period, and this time period is excluded in AIHW time trend analyses.

Adjustments to the data collected were made to several indicators to account for changes to the Medicare Benefits Schedule and best-practice recommendations for blood pressure levels. These changes were for the period ending 30 June 2011, and should be taken into account when deciding whether to make time trend comparisons.

Glossary

age: Age is measured on the last day of the reporting period.

alcohol consumption (based on the National Health and Medical Research Council 'Australian alcohol guidelines: health risks and benefits' 2001)**:**

> **high-risk alcohol consumption:** A person who, over a week, has more than 7 standard drinks, OR on any one day, more than 2 standard drinks.
>
> **low-risk alcohol consumption:** A person who over a week, has less than 7 standard drinks, AND on any one day, no more than 2 standard drinks (spread over at least two hours).
>
> **No alcohol consumption:** A person who does not drink at all during the pregnancy.

birthweight:

low birthweight: Birthweight of less than 2,500 grams.

normal birthweight: Birthweight of 2,500–4,499 grams.

high birthweight: Birthweight of 4,500 grams and over.

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

coronary heart disease: Coronary heart disease includes: myocardial infarction, angina, unstable angina pectoris, revascularisation as evidenced by angioplasty with or without a stent, and coronary artery bypass surgery.

The primary feature of coronary heart disease is insufficient blood supply to the heart itself. The two major clinical forms are heart attack (the insufficient blood supply is sudden and extreme) and angina.

Essential Indicators: Set of 10 quantitative indicators on which all Healthy for Life services are required to report (EI 1–10).

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

first trimester: The first trimester is from the first day of the last menstrual period up to, but not including, week 13 of pregnancy.

fully immunised: Children who have received all immunisations according to the ACIR, as outlined below:

> children aged: 12 months to less than 24 months are required to have received all immunisations that are due at 6 months of age.
>
> children aged: 24 months to less than 36 months are required to have received all immunisations that are due at 12 months of age.
>
> children aged: 60 months to 72 months are required to have received all immunisations that are due at 48 months of age.

General Practitioner Management Plan (GPMP): Chronic Disease Management plan carried out according to the MBS Schedule (Item 721).

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

health assessments: MBS Item 715 for those aged 0–14, 15–54 and 55 and over.

illicit drug use:

daily: A person who uses daily.

weekly: A person who uses at least weekly but not daily.

irregular: A person who uses less than weekly.

ex-user (quit during pregnancy): A person who does not use at all now, but has used in the last 12 months and did use at some stage during pregnancy.

ex-user (quit before pregnancy): A person who does not use at all now and did not use at any stage during pregnancy, but has used in the last 12 months.

non-user: A person who does not use now and has not used in the last 12 months.

illicit drugs: Illegal drugs (such as marijuana/cannabis), pharmaceutical drugs (such as painkillers, tranquilisers) when used for non-medical purposes, and other substances used inappropriately (such as inhalants).

indicator population: Used to indicate whether the data provided were a complete count or sample of clients and the method of sampling used.

indigenous baby: A baby with at least one parent who identifies as Indigenous (born to mothers who are either Indigenous or non-Indigenous).

mother's age: Mother's age at the birth of the baby.

regular client: A recommended definition was adopted in 2009 where 'regular client' includes any person who has a record of having attended the service for any reason at least twice during the 3 years preceding the end of the reporting period. This definition is a guideline only, so some services use their own definition of regular client.

reporting period: For Essential Indicators 1–7, the reporting period is 1 July–30 June. For Essential Indicators 8–10, the reporting periods are 1 July–31 December and 1 January–30 June.

smoking status:

daily smoker: A person who smokes cigarettes or other tobacco products daily.

weekly smoker: A person who smokes cigarettes or other tobacco products at least weekly but not daily.

irregular smoker: A person who smokes cigarettes or other tobacco products less than weekly.

ex-smoker (quit during pregnancy): 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 and did smoke at some stage during pregnancy.

ex-smoker (quit before pregnancy): 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 and did not smoke at all during pregnancy.

non-smoker: 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.

subset of services: All time series included in this report show data from a subset of services that provided valid data based on a complete count of clients for an indicator for all reporting periods.

Team Care Arrangement (TCA): Chronic Disease Management Plan carried out according to the MBS Schedule (Item 723).

third trimester: The period after 26 weeks of pregnancy, where gestation is calculated from the first day of the last menstrual period.

Type 2 diabetes: Type 2 diabetes is the most common form of diabetes, affecting 85–90% of all people with the disease. This type of diabetes, also known as late-onset diabetes, is characterised by insulin resistance and relative insulin deficiency. The disease is strongly genetic in origin but lifestyle factors such as excess weight, inactivity, high blood pressure and poor diet are major risk factors for its development. Symptoms may not show for many years and, by the time they appear, significant problems may have developed. People with Type 2 diabetes are twice as likely to suffer cardiovascular disease. Type 2 diabetes may be treated by dietary changes, exercise and/or tablets. Insulin injections may later be required (HealthInsite 2011). Type 2 diabetes does not include: Type 1 diabetes, gestational diabetes mellitus or secondary diabetes.

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Related publications

The following AIHW publications relating to Indigenous health and health services might also be of interest:

- AIHW 2011. Aboriginal and Torres Strait Islander Health services report, 2009–10: OATSIH Services Reporting—key results. Cat. no. IHW 56. Canberra: AIHW.
- AIHW 2011. The health and welfare of Australia's Aboriginal and Torres Strait Islander people: an overview 2011. Cat. no. IHW 42. Canberra: AIHW.
- AIHW 2011. Aboriginal and Torres Strait Islander Health Performance Framework 2010: detailed analyses. Cat. no. IHW 53. Canberra: AIHW.
- AIHW 2011. Contribution of chronic disease to the gap in mortality between Aboriginal and Torres Strait Islander people and other Australians. Cat. no. IHW 48. Canberra: AIHW.

This is the first publicly released Healthy for Life report published since data collection and reporting began in 2007. Some key findings are that the average birthweight of babies at Healthy for Life services increased from 3,015 to 3,131 grams between the reporting periods ending in June 2008 and June 2011. Over the same period, the proportion of clients who had health assessments increased from 11.7% to 15.2% for those aged 15–54 and from 14.7% to 20.7% for those aged 55 and over. For clients aged 0–14, the proportion who had health assessments decreased slightly from 15.9% to 13.8%.