

Closing the gap

Performance report
2016



The Queensland Government acknowledges and respects Traditional Owners and Aboriginal and Torres Strait Islander Elders past and present, on whose land we work to support the provision of safe and quality healthcare.

Indigenous artwork is by Riki Salam of Gilimbaa Indigenous Creative Agency.

Closing the Gap performance report 2016

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Summary

Improved life expectancy and child mortality

2005-2007 to 2010-2012

↑ 1.6 years
(67.1 to 68.7)

Male life expectancy



↑ 1.7 years
(72.7 to 74.4)

Female life expectancy

2005-2009 to 2011-2015



↓ child mortality:
200.4 to 162.7
deaths per 100,000

↕ There is still a gap in life expectancy and child mortality
More effort is needed to close the gap

Improved mortality rates

2002 to 2013



↓ all cause mortality: 1,087 to 788 deaths per 100,000



↓ circulatory mortality: 355 to 208 deaths per 100,000



↓ respiratory mortality: 116 to 73 deaths per 100,000



↓ endocrine mortality (including diabetes): 152 to 74 deaths per 100,000

Mortality rates are higher than non-Indigenous rates but are improving

Gap in hospitalisation rate widening

2002-03 to 2015-16



Gap in hospitalisation rate widening: 288.3 to 419.3 per 1,000



1.9x the non-Indigenous hospitalisation rate

Reflects higher rates of underlying disease but also suggests improving access

Improved child and maternal health

2002-03 to 2015-16; Smoking 2005-06 to 2015-16



↑ attendance at antenatal appointments: 76.8 per cent to 87.8 per cent



Fewer women smoke while pregnant: 54.6 per cent to 43.1 per cent



Low birthweight rate reducing: 10.8 per cent to 8.5 per cent

While higher than non-Indigenous rates, child and maternal health is improving

Through the Council of Australian Governments (COAG), the Queensland Government is prioritising the achievement of specific health targets:

- to close the gap in life expectancy between Aboriginal and Torres Strait Islander Queenslanders and other Queenslanders within a generation (by 2031)
- to halve the mortality gap for Aboriginal and Torres Strait Islander children under five within a decade (by 2018).

Queensland Health has further strengthened its commitment to improving the health and wellbeing of Queensland's Aboriginal and Torres Strait Islander people in its 10 year vision. The vision, *My health, Queensland's future: Advancing health 2026*, includes a headline measure of success to increase life expectancy for Aboriginal and Torres Strait Islander males by 4.8 years and females by 5.1 years by 2026.

Like the COAG health targets, the vision target focuses on life expectancy gains. However, the vision sets a target for increased Aboriginal and Torres Strait Islander life expectancy independent of non-Indigenous life expectancy, but aligned with projected life expectancy assuming current gains in Aboriginal and Torres Strait Islander life expectancy in Queensland continue.

In Queensland, progress towards closing the health gap is monitored and reported through closing the gap performance reports developed and published annually by Queensland Health. The *Queensland Health Closing the Gap performance report 2016* charts progress in achieving health gains and improving system access for Aboriginal and Torres Strait Islander Queenslanders against a comprehensive suite of key performance indicators, including progress towards closing the gap in life expectancy and halving the gap in child mortality.

For the first time, this report also includes reporting against the:

- *Queensland Health Aboriginal and Torres Strait Islander Mental Health Strategy 2016–2021*
- *Queensland Aboriginal and Torres Strait Islander cardiac health strategy 2014–2017*
- *North Queensland Aboriginal and Torres Strait Islander Sexually Transmissible Infections (STI) Action Plan 2016–2021.*

This report is one in a series of tools that can be used by the department, Hospital and Health Services (HHSs) and partner agencies to set priorities, inform investment decisions, and plan service delivery at a statewide and regional level.

Key findings

Life expectancy

Since the previous report, the Australian Bureau of Statistics (ABS) has not released updated life expectancy estimates. However, as reported last year, life expectancy is improving for Aboriginal and Torres Strait Islander Queenslanders.

In 2010–2012 in Queensland, the gap in Aboriginal and Torres Strait Islander life expectancy was 10.8 years for males and 8.6 years for females. This represents a narrowing of the gap of 1 year for males and 1.4 years for females since 2005–2007.

Child mortality

Mortality rates for Aboriginal and Torres Strait Islander children 0–4 years in Queensland decreased by 18.8 per cent between 2005–2009 and 2011–2015. However, simultaneous declines in mortality rates for non-Indigenous children continue to maintain the health gap. Therefore, the target of halving the gap by 2018 is unlikely to be achieved within the established timeframe.

Despite this, real progress has been achieved. Using data from 2005–2009 to 2011–2015, child mortality is projected to have reduced by 31.6 per cent in 2018 representing a significant gain in child mortality. This represents a significant gain since the targets were set in 2007, and it is important that both the effort and achievements are not understated.

Mortality

Queensland has seen a decline in Indigenous all-cause mortality rates, in particular, for cardiovascular disease (CVD), respiratory disease and endocrine disorders. The gap between Aboriginal and Torres Strait Islander and non-Indigenous mortality is closing, declining from 411.9 in 2002 to 269.3 deaths per 100,000 persons in 2013. This is a promising step towards closing the gap in life expectancy.

Morbidity

Rates of hospitalisation for CVD, cancer, endocrine and nutritional disorders have remained relatively constant for the last decade, though the gap in all cause hospitalisation widened slightly from 394.8 in 2014–2015 to 419.3 per 1,000 people in 2015–2016. Rates of hospitalisation for respiratory disease, external causes of morbidity, self-harm and injury, and poisoning have all increased over the last decade. While this might reflect increasing disease prevalence among Aboriginal and Torres Strait Islander people, this could also mean improved access to hospital care.

Maternal and child health

There continues to be improvements in antenatal attendance amongst Aboriginal and Torres Strait Islander women, with more women attending in the first trimester and more women attending five or more visits.

Maternal smoking continues to improve, with reductions in smoking at all during pregnancy and after 20 weeks. However, in 2015–2016 maternal smoking was still more than four times the rate of non-Indigenous women.

The rate of low birthweight babies born to Aboriginal and Torres Strait Islander women has remained between 9–10 per cent for the last decade. In 2015–2016, the rate dropped below nine per cent to 8.5 per cent.

Improvements

This report clearly illustrates there is much to be positive about in Aboriginal and Torres Strait Islander Health in Queensland. While there still a long way to go to address health inequality for Aboriginal and Torres Strait Islander people in Queensland, achievements evidenced in this report are significant. These improvements suggest that Queensland Health is now starting to better meet the needs of Aboriginal and Torres Strait Islander people. It is imperative this momentum is not taken for granted and that effort is sustained and enhanced to ensure recent momentum is maintained well into the future.

It is important to note that sustained health gains can take many years to achieve and today's investment may not yield measurable gain for several years. Consequently we have included in the 2016 report a number of case studies which detail the positive impact of a whole range of programs funded by the Department of Health to address Aboriginal and Torres Strait Islander health disadvantage.

Areas of ongoing concern

Despite ongoing improvements, Queensland's Aboriginal and Torres Strait Islander people continue to experience poorer health and die prematurely compared to non-Indigenous Queenslanders. High levels of psycho-social distress and poor mental health outcomes contribute significantly to poor physical health outcomes. Closing the gap in physical health is unlikely to be achieved without simultaneous effort and improvements in mental health outcomes. Diabetes continues to challenge the system and requires greater effort and innovation to blunt the ongoing diabetes epidemic affecting Aboriginal and Torres Strait Islander Queenslanders

Moving forward

Through the *Making Tracks towards closing the gap in health outcomes for Indigenous Queenslanders by 2033: Investment Strategy 2015–2018*, the Queensland Government continues to focus efforts on areas that will have the greatest impact on the health gap. The *Queensland Aboriginal and Torres Strait Islander cardiac health strategy 2014–2017* and the *Queensland Health Aboriginal and Torres Strait Islander Mental Health Strategy 2016–2021*, provide guidance to improving the health and wellbeing of Queensland's Aboriginal and Torres Strait Islander people with CVD or a severe mental illness. Given the high mortality associated with Type 2 diabetes, this is a priority to improve the health and wellbeing of Aboriginal and Torres Strait Islander Queenslanders.

Progress at a glance

Life expectancy

Males

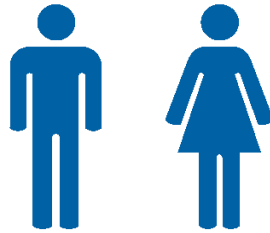
Average life expectancy at birth 2010–2012

68.7
years

up from 67.1 in 2005–2007

10.8 year gap with non-Indigenous

down from 11.8 in 2005–07



Females

Average life expectancy at birth 2010–2012

74.4
years

up from 72.7 in 2005–2007

8.6 year gap with non-Indigenous

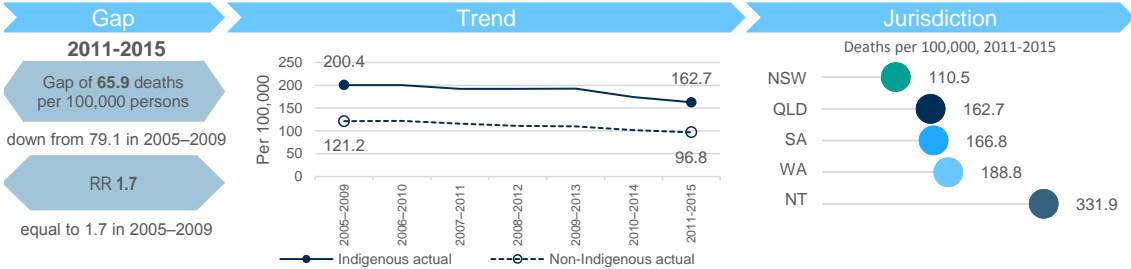
down from 10.0 in 2005–07

Jurisdiction

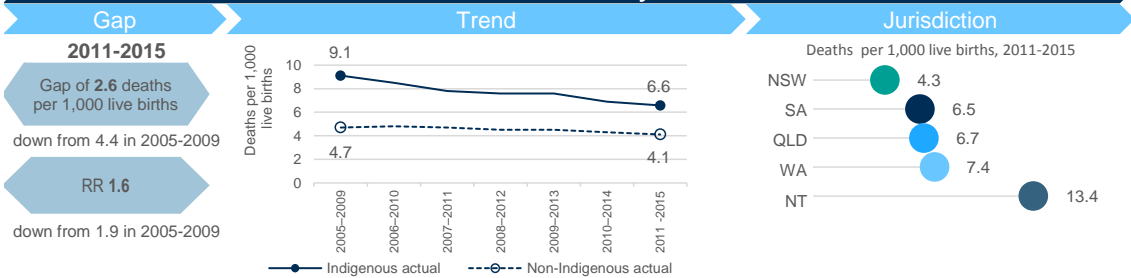


Data source: ABS 2013, cat no. 3302.0.55.003

Child mortality (0-4 years)



Infant mortality



Sources: Perinatal, foetal and neonatal deaths from ABS, 2015, Cat No. 3303.0; Infant and child mortality rates from ABS, 2015, Cat No. 3302.0

Child and maternal health

Gap

Trend

HHS region

Antenatal visits

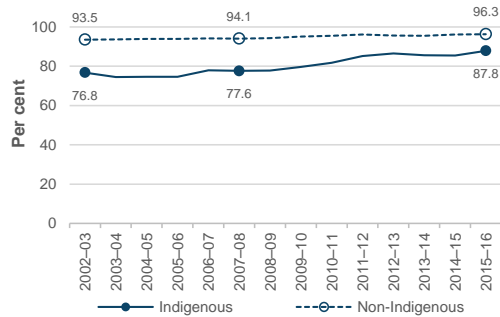
2015-16

Gap of 8.5 per cent

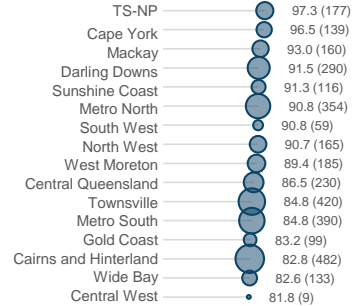
down from 16.8 in 2002-03

RR 0.91

up from 0.82 in 2002-03



Per cent (number), 2015-16



Bubble size represents no. of women that attended 5 or more antenatal visits

Low birth weight

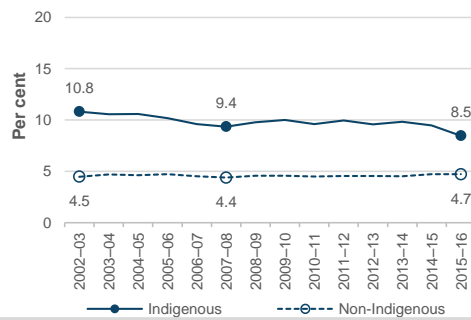
2015-16

Gap of 3.8 per cent

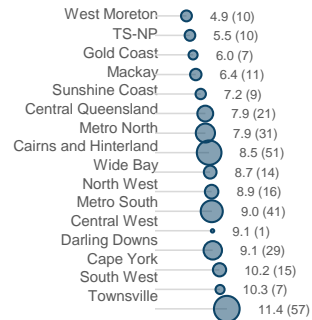
down from 6.3 in 2002-03

RR 1.80

down from 2.42 in 2002-03



Per cent (number), 2015-16



Bubble size represents no. of low birth weight babies

Smoked during pregnancy

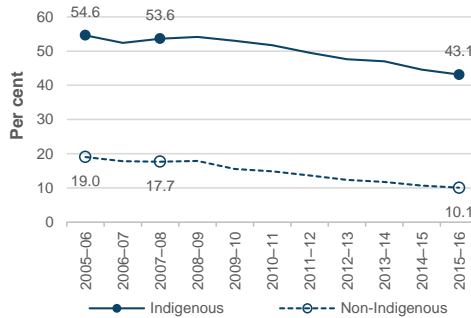
2015-16

Gap of 33.1 per cent

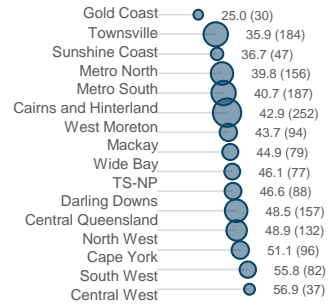
down from 35.6 in 2005-06

RR 4.29

up from 2.87 in 2005-06



Per cent (number), 2015-16



Bubble size represents no. of smokers during pregnancy

Smoked after 20 weeks gestation

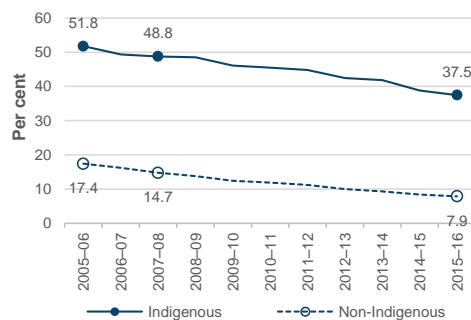
2015-16

Gap of 29.6 per cent

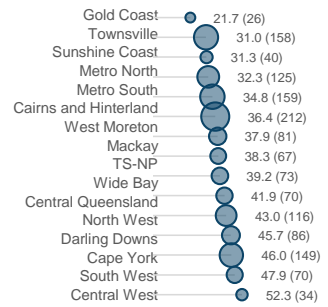
down from 34.4 in 2005-06

RR 4.75

up from 2.98 in 2005-06



Per cent (number), 2015-16



Bubble size represents no. of smokers after 20 weeks gestation

Data source: Perinatal Data Collection (PDC), Queensland Health

All cause mortality

Gap

2013

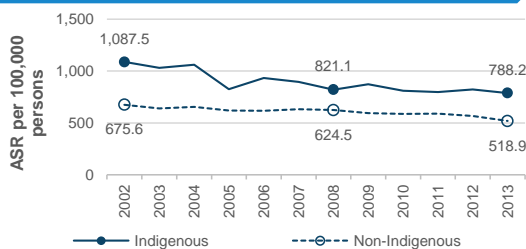
Gap of 269.3 per 100,000 persons

down from 411.9 in 2002

RR 1.5

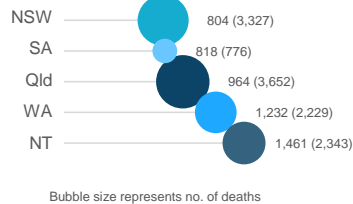
down from 1.6 in 2002

Trend



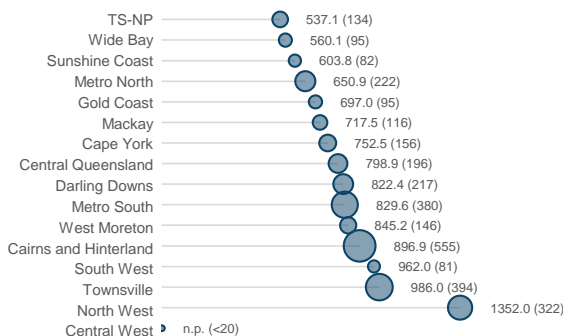
Jurisdiction

ASR per 100,000 persons (no. deaths), 2009–2013



Hospital and Health Service

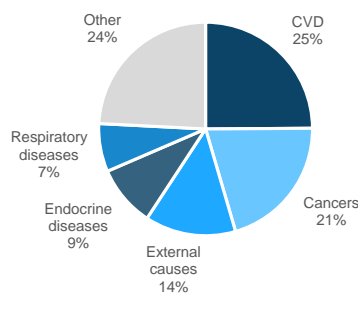
ASR per 100,000 persons (no. deaths), 2009–2013



Bubble size represents no. of deaths
n.p. Number of deaths too low to calculate ASR

Major causes

2009–2013



ASR Age standardised rate

Data source: Jurisdiction data from AIHW 2014, *Aboriginal and Torres Strait Islander Health Performance Framework data*, Table 1.22.4; all other data from Cause of Death Unit Record File, Queensland Health

All cause hospital separations

Gap

2015–16

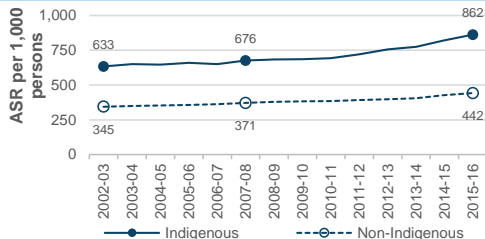
Gap of 419.3 per 1,000 persons

up from 288.3 in 2002-03

RR 1.9

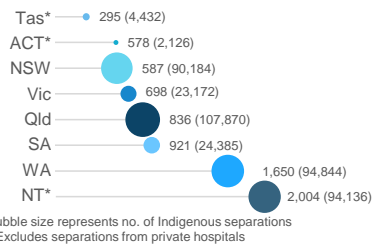
up from 1.8 in 2002-03

Trend



Jurisdiction

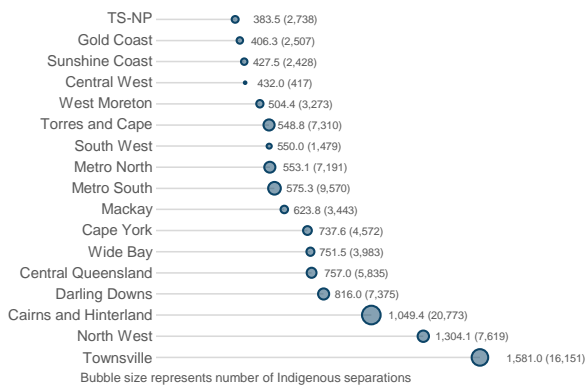
ASR per 1,000 persons (no. of seps), 2014–15



Bubble size represents no. of Indigenous separations
* Excludes separations from private hospitals

Hospital and Health Service

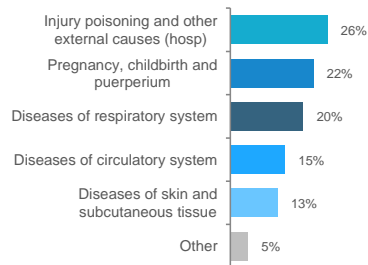
ASR per 1,000 persons (average no. seps/year), 2011–12 to 2015–16



Bubble size represents number of Indigenous separations

Excess separations

2011-12 to 2015-16



Excludes: Factors influencing health status & contact with health services (Z00-Z99), and Symptoms, signs and abnormal findings (R00-R99)

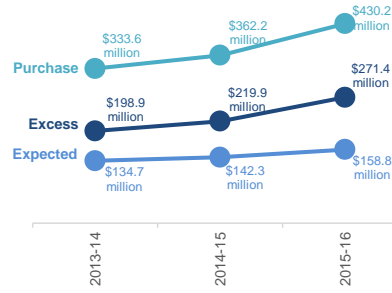
Data source: Jurisdiction chart - AIHW 2015, *Admitted patient care 2013–14: Australian hospital statistics*; all other from Queensland Hospital Admitted Patient Data Collection (QHAPDC), Queensland Health

Financial impact on the Queensland Health system

Cost
2013-14 to 2015-16

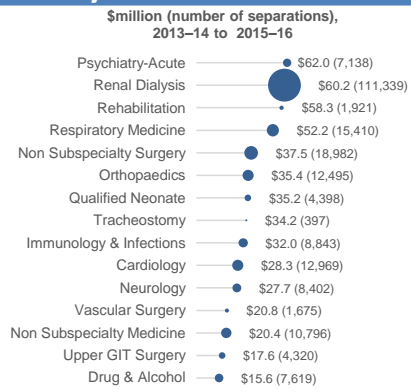
\$690.2 million

is the estimated cost to the public inpatient hospital system of the gap in health status between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders.



Growth 2013-14 to 2015-16
Purchase cost growth: 29%
Excess cost growth: 36%
Expected cost growth: 18%

Major SRG* contributors



Bubble size represents number of separations

*Service related group

Data source: Queensland Hospital Admitted Patient Data Collection (QHAPDC), Queensland Health; pAWS Patient acute weighted separations, Queensland Health

Policy context

In 2008, COAG agreed to a collective effort to closing the gap in outcomes for Aboriginal and Torres Strait Islander people, agreeing to specific targets to address Aboriginal and Torres Strait Islander disadvantage. In 2014, COAG agreed to a new target to close the gap in school attendance by the end of 2018. The full suite of targets are:

Close the gap in life expectancy within a generation
(by 2031)

Halve the gap in child mortality within a decade
(by 2018)

Halve the gap in employment outcomes between Indigenous
and non-Indigenous Australians within a decade

Halve the gap for Indigenous students in reading, writing and
numeracy within a decade

All four year olds in remote areas have access to early childhood
education within five years

At least halve the gap for Indigenous students in Year 12
attainment or equivalent attainment rates by 2020

Close the gap in school attendance by the end of 2018

It is important to note that these targets cannot be considered independently – improvements in one area can impact another. Health outcomes, in particular, are strongly influenced by the social determinants of health, such as education, employment and housing. For example, good health requires good health literacy, which is influenced by education and literacy skills. While Queensland Health is working to close the health gap, ultimately success in closing the gap will be achieved by working in collaboration with Aboriginal and Torres Strait Islander people, and in collaboration with other government and non-government sectors.

The Queensland Government is working to address the two health-specific targets, closing the gap in life expectancy by 2033 and halving the gap in mortality rates for Aboriginal and Torres Strait Islander children 0–4 years of age by 2018, through its [Making Tracks towards closing the gap in health outcomes for Indigenous Queenslanders by 2033: Investment Strategy 2015–2018](#) (Making Tracks Investment Strategy 2015–2018).

A number of indicator frameworks, operating at the national, state and regional level, are used to monitor Queensland's progress, including:

1. The [National Indigenous Reform Agreement](#) (NIRA), which commits all jurisdictions to closing the health gap through the achievement of the COAG targets.
2. The [Aboriginal and Torres Strait Islander Health Performance Framework](#) (HPF), which publishes national and jurisdictional reports every two years against 71 indicators across three domains.
3. The 10 year vision [My health, Queensland's future: Advancing health 2026](#), which includes a headline measure of success to increase life expectancy for Aboriginal and Torres Strait Islander males by 4.8 years and females by 5.1 years by 2026.
4. [Queensland Health Service Delivery Statement](#), which provides information on system wide and HHS-level performance, service standard levels and targets.
5. The [Making Tracks towards closing the gap in health outcomes for Indigenous Queenslanders by 2033: policy and accountability framework](#) (Making Tracks), which provides a comprehensive, evidence-based policy framework to achieve sustainable health gains for Aboriginal and Torres Strait Islander Queenslanders.
6. Individual [HHS service agreement](#) Aboriginal and Torres Strait Islander key performance indicators (KPIs).
7. The [Queensland Health Aboriginal and Torres Strait Islander health KPIs](#) and trajectories reported annually at the state-wide and HHS level.

This report is a synthesis of key indicators from the frameworks listed above. It also provides a more in depth analysis of Queensland's progress against the two COAG health targets.

The Queensland Government has also developed a number of targeted strategies to guide efforts towards addressing specific health issues that contribute significantly to the current gap in health outcomes. These strategies all include performance indicators. The strategies are:

- The [Queensland Aboriginal and Torres Strait Islander cardiac health strategy 2014–2017](#), which provides direction and monitors performance on improving health service responsiveness for Aboriginal and Torres Strait Islander Queenslanders with CVD.
- The [Queensland Aboriginal and Torres Strait Islander Mental Health Strategy 2016–2021](#), which monitors improvements in mental health outcomes for Aboriginal and Torres Strait Islander Queenslanders against baseline targets.
- The [North Queensland Aboriginal and Torres Strait Islander STI Action Plan 2016–2021](#), which seeks to progressively reduce the incidence of syphilis, chlamydia and gonorrhoea amongst Aboriginal and Torres Strait Islander people in North Queensland.

Purpose and scope

This performance report underpins and informs the Making Tracks Investment Strategy 2015–2018, which articulates the actions Queensland Health will take between 2015 and 2018 to make health services more accessible for Aboriginal and Torres Strait Islander Queenslanders. Consistent with the Making Tracks policy and accountability framework, the investment strategy guides the Queensland Government's effort to areas where evidence indicates potential for greatest health gain.

Performance context

The main purpose of this report is to detail progress against the two key COAG targets and supporting indicators at a Queensland level. It also provides some indication of relative health needs across HHS regions¹, allowing for more targeted and effective use of resources, as well as a comparative assessment of individual HHS progress against selected measures.

While this is a Queensland Health report, the progress shown is influenced by efforts from all parts of the health system, and by whole of government efforts to improve social and economic outcomes generally. Measures such as mortality or hospitalisation rates are strongly influenced by access to quality, evidence based care across the health continuum and more broadly by the social determinants of health.

While there have been ongoing improvements against a range of health outcomes, it is important to note that sustained health gains can take many years to achieve and today's investment may not yield measurable gain for several years. Consequently included in this report are a number of case studies which detail the positive impact of a whole range of programs funded by the Department to address Aboriginal and Torres Strait Islander health disadvantage.

Measuring 'the gap'

Throughout this report, the term 'the gap' is used to refer to the rate difference between Aboriginal and Torres Strait Islander and non-Indigenous populations. For trend analyses, references to the widening or narrowing of the gap refer to changes in the age standardised rate difference over time.

Improved performance against the indicators included in this report is expected to contribute to the indicators of life expectancy at birth and child mortality. While data in this report is the latest available, certain measures will draw on data which is several years old and therefore may not fully reflect the impact of recent effort.

The problems with the quality and availability of Aboriginal and Torres Strait Islander health data are well documented. Limitations including the quality of data on key health

¹ Although the Cape York and Torres Strait and Northern Peninsula Area HHSs merged on 1 July 2014, data for these two regions continue to be reported separately in Indigenous health performance reports to support planning and priority setting within the HHS regions.

measures, uncertainty about the size and composition of the Aboriginal and Torres Strait Islander population, the paucity of available data on other health issues such as access to health services, and under-identification are commonly recognised as impacting on the completeness of Aboriginal and Torres Strait Islander health data collections. Data to support the majority of indicators are derived from existing administrative databases and registers.

Performance challenges

In setting targets there are some important considerations. Targets can be, by their very nature, both arbitrary and ambitious/aspirational in equal measure, particularly health outcome targets. This can create both challenges and opportunity, which is the case for the health system in responding to both the COAG Closing the Gap targets.

From a health perspective, to close the gap in life expectancy and half the gap in child mortality requires acceleration in health gain of a more unwell population experiencing more social and economic disadvantage to the point where they can overtake a more advantaged, healthy population.

A fundamental challenge is that the two COAG Closing the Gap health measures are relative. A very significant exponential factor for health gain in the Aboriginal and Torres Strait Islander population is required to offset not only the current health gap, but current and future health gain in the non-Indigenous population. This is further confounded by the fact that the health gain experienced by affluent, advantaged populations in developed countries is driven largely by social and economic advantage.

People with higher incomes live longer and have better health, on average, than people with lower incomes. A higher income allows for greater access to goods and services that support health, such as better food and additional health care options (private health insurance).

Better health is also associated with other factors that influence socioeconomic position, including educational attainment, employment and housing. For example, education enables people to achieve employment, have a secure income, live in adequate housing, provide for families and assist to make informed health care choices.

Population snapshot 2015

In 2015, the estimated resident Aboriginal and Torres Strait Islander population of Queensland was 208,026, representing 4.4 per cent of the total Queensland population and accounting for 28.5 per cent of Australia's Aboriginal and Torres Strait Islander population (Table 1).

Table 1 Estimated resident population, 2015

Age Group	Indigenous		Non-Indigenous		Total	
	Count	%	Count	%	Count	%
0–19	96,717	46.5%	1,156,400	25.3%	1,253,117	26.2%
20–49	82,796	39.8%	1,899,850	41.6%	1,982,646	41.5%
50 years +	28,513	13.7%	1,514,578	33.1%	1,543,091	32.3%
Total	208,026	4.4%	4,570,828	95.6%	4,778,854	100%

Source: Queensland Government Statistician's Office, Queensland Treasury, 2015

The age distribution of Queensland's Aboriginal and Torres Strait Islander population is significantly younger than the non-Indigenous population. In 2015, Aboriginal and Torres Strait Islander Queenslanders aged 0–19 years made up 46.5 per cent of the Aboriginal and Torres Strait Islander population in Queensland, while the same age group made up 25.3 per cent of the non-Indigenous population in Queensland. Conversely, those aged 65 years and over comprised 3.6 per cent of the Aboriginal and Torres Strait Islander population in Queensland, compared with 14.9 per cent of the non-Indigenous population.

The age and geographic distribution of Queensland's Aboriginal and Torres Strait Islander population has important policy and planning implications for the Queensland health system. The Aboriginal and Torres Strait Islander population pyramid (Figure 1) is typically described as a developing population pyramid, where the population experiences both high fertility, and high mortality, particularly in the middle years for mortality. The non-Indigenous pyramid is typically described as a developed pyramid, where the population experiences low fertility and low mortality, with most deaths clustered in the older age groups.

Figure 1 Estimated resident population, 2015 – Queensland Aboriginal and Torres Strait Islander and non-Indigenous population pyramid



Source: Australian Bureau of Statistics (ABS), Cat No. 3235.0

In 2015 in Queensland, the majority of Aboriginal and Torres Strait Islander people lived in major cities (32.7 per cent), inner regional (20.5 per cent) and outer regional (30.5 per cent) areas. Less than one-fifth of Aboriginal and Torres Strait Islander Queenslanders lived in remote (6.6 per cent) and very remote (9.7 per cent) areas in 2015 (Table 2).

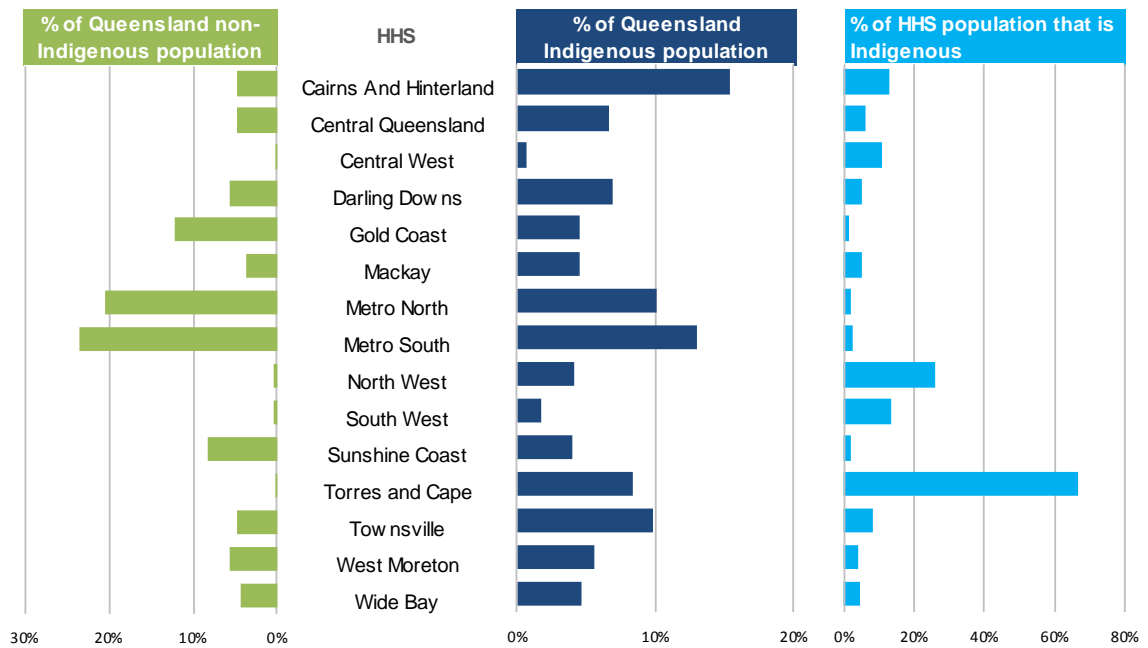
Table 2 Estimated resident population by remoteness and Indigenous status, 2015

Remoteness	Indigenous	Indigenous %	Non-Indigenous	Non-Indigenous %	Total	Total %
1. Major cities	68,098	32.7%	2,925,039	64.0%	2,993,137	62.6%
2. Inner regional	42,600	20.5%	923,085	20.2%	945,685	20.2%
3. Outer regional	63,536	30.5%	636,546	13.9%	700,082	14.6%
4. Remote	13,684	6.6%	57,577	1.3%	71,261	1.5%
5. Very remote	20,108	9.7%	28,581	0.6%	48,689	1.0%
Total	208,026	100.0%	4,570,828	100.0%	4,778,854	100.0%

Source: ABS, 2015, Cat No. 3235.0

Cairns and Hinterland HHS region (31,967), Metro South HHS region (27,173), Metro North HHS region (21,015) and Townsville HHS region (20,546) have the highest number of Aboriginal and Torres Strait Islander residents, with almost half (48.4 per cent) of all Aboriginal and Torres Strait Islander Queenslanders living in these regions. Torres and Cape and North West HHS regions have the highest percentage of Aboriginal and Torres Strait Islander people, with 66.7 per cent and 26.1 per cent respectively (Figure 2).

Figure 2 Distribution of 2015 population by HHS region



Source: ABS, 2015, Cat No. 3235.0

Life expectancy

Why it is important

Life expectancy is the most commonly used measure to describe the health status of a population and reflects the overall mortality level of a population. Due to the lag in availability of life expectancy estimates, a number of proxy indicators are used for interim reporting purposes to measure progress towards this headline indicator. These include cause-specific mortality and morbidity rates, which allow for better monitoring of the Queensland performance in the management and reduction of chronic disease, injury and self-harm for Aboriginal and Torres Strait Islander Queenslanders. Progress against these indicators are detailed in the following chapters.

What we found

Since the previous report, updated life expectancy estimates have not been released. Based on the latest available estimates, life expectancy is improving for both Aboriginal and Torres Strait Islander males and females in Queensland. For the period 2005–07 to 2010–12 there was an increase in life expectancy for Aboriginal and Torres Strait Islander Queenslanders. In 2010–12 in Queensland, Indigenous life expectancy was 68.7 years for males and 74.4 years for females (Table 3). The Indigenous life expectancy gap for males and females was 10.8 years and 8.6 years respectively.

The gap

Between 2005–07 and 2010–12 Queensland Indigenous life expectancy increased by 1.6 years for males and 1.7 years for females (Table 3). For the same period Queensland non-Indigenous life expectancy increased by 0.6 years for males and 0.3 years for females. This has led to a narrowing of the gap by one year for males and 1.4 years for females.

Table 3 Life expectancy at birth (years), 2005–2007 to 2010–2012

	2005–2007			2010–2012			Change 2005–2007 to 2010–2012		
	Indigenous	Non-Indigenous	Gap	Indigenous	Non-Indigenous	Gap	Indigenous	Non-Indigenous	Gap
Males									
Qld	67.1	78.8	11.8	68.7	79.4	10.8	1.6	0.6	-1.0
Aust	65.7	78.9	13.1	67.4	79.8	12.4	1.7	0.9	-0.7
Females									
Qld	72.7	82.7	10.0	74.4	83.0	8.6	1.7	0.3	-1.4
Aust	71.7	82.7	11.0	72.3	83.2	10.9	0.6	0.5	-0.1

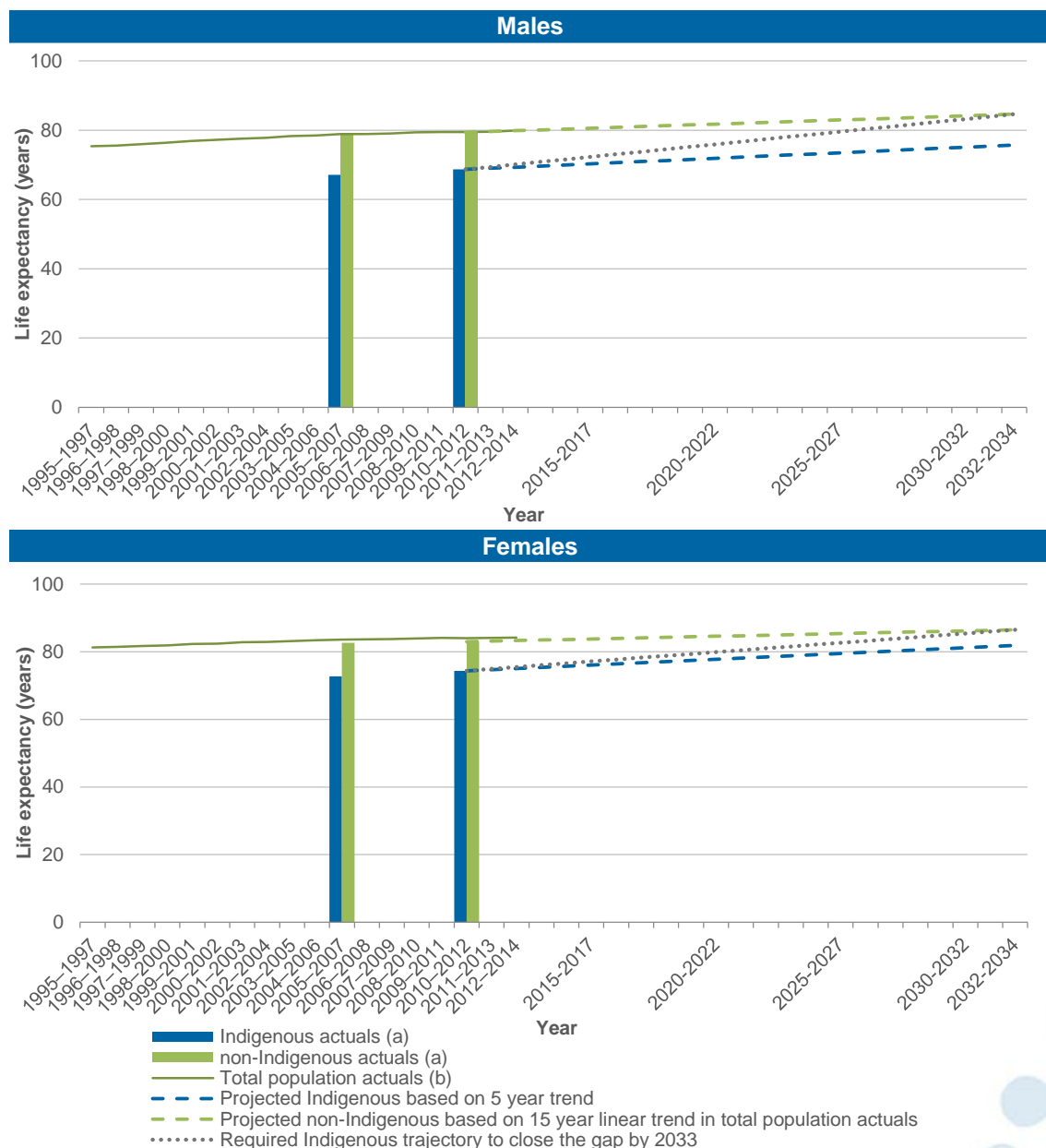
Source: ABS, 2009 & 2013, Cat no. 3302.0.55.003

Projected gain

If gains in Indigenous life expectancy continue at the same rate, the projected life expectancy in 2033 for Aboriginal and Torres Strait Islander males and females in Queensland will be 75.7 years and 81.9 years respectively. This would be a significant achievement, over the life of the COAG agreement, gaining seven years for Aboriginal and Torres Strait Islander males and 7.5 years for Aboriginal and Torres Strait Islander females (Figure 3).

This projected gain would equate to an improvement of approximately four months of life expectancy every year from 2011 to 2033 for both Aboriginal and Torres Strait Islander male and female Queenslanders.

Figure 3 Life expectancy trajectories



Source: (a) ABS, 2013, cat. no. 3302.0.55.003; (b) Queensland Government Statistician's Office, Life expectancy at birth (years) by sex, Queensland and Australia, 1881 to 2010-12; projected based on our analysis of ABS data

Life expectancy gap decomposed

To enable efforts to close the gap in life expectancy to be more precisely targeted, we need an understanding of the disease conditions within age groups that are driving the continuing health gap. We are able to do this by decomposing the life expectancy measure by condition and age². Doing so, it was found that in 2011:

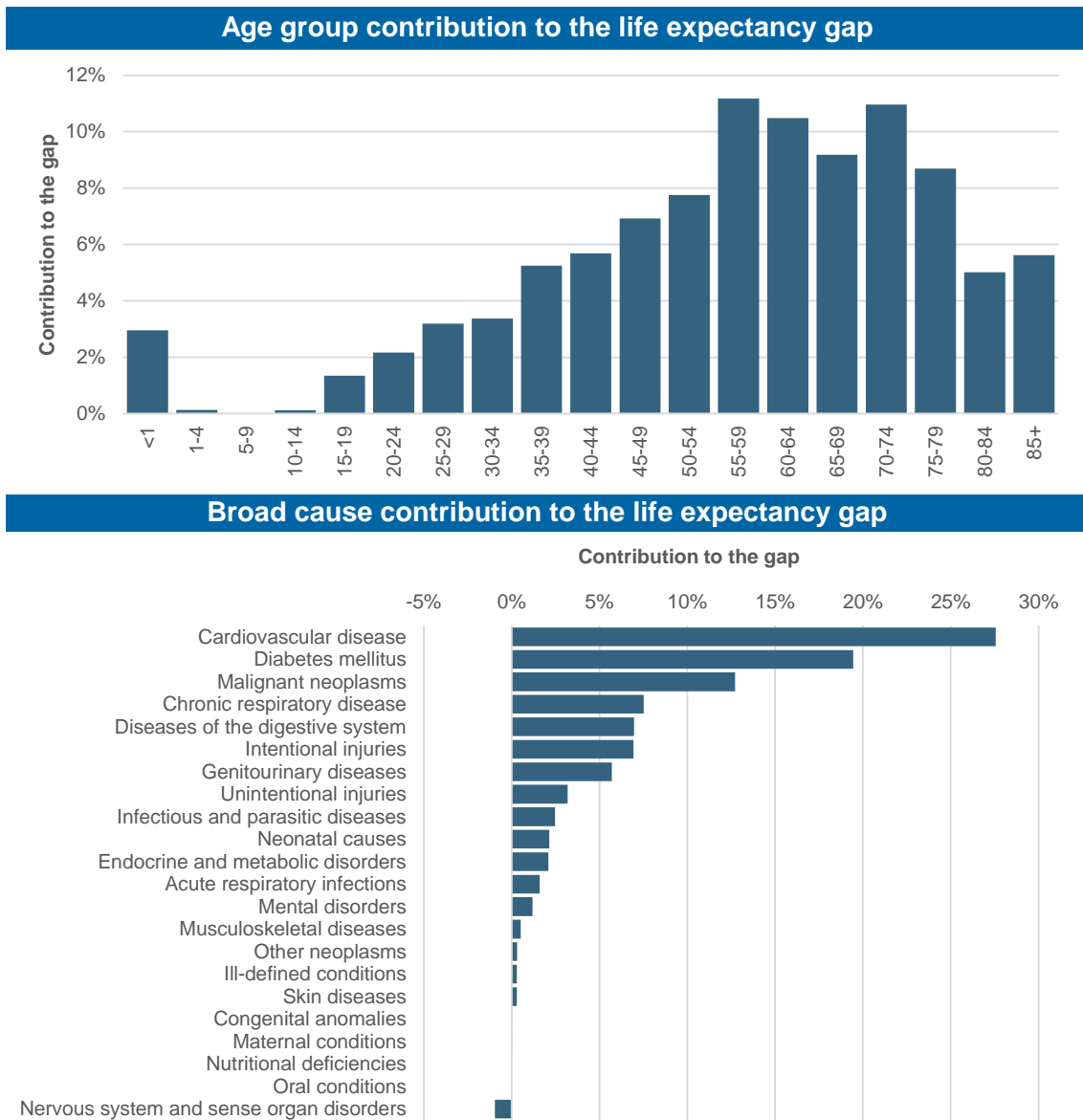
- CVD contributed 28 per cent of the gap in life expectancy at birth, diabetes 19 per cent and cancers 13 per cent, which together accounted for more than 60 per cent of the gap in life expectancy (Figure 4).
- Of the 10.54 year gap in life expectancy, 2.9 years was due to CVD. This was followed by diabetes (2.05 years) and cancers (1.34 years) (Figure 5).
- The 55 to 79 year age group contributed to over half of the gap.
- Child mortality contributed three per cent of the gap. If there was no gap in child mortality, Aboriginal and Torres Strait Islander life expectancy would be about 0.33 years higher.
- Neonatal causes were the leading cause of the gap in infants under one year of age, and this contributed 0.22 years to the life expectancy gap.

For the change in life expectancy from 2007 to 2011 for Aboriginal and Torres Strait Islander Queenslanders:

- 43 per cent of the improvement in Aboriginal and Torres Strait Islander life expectancy was due to reductions in CVD mortality in the older ages (Figure 4).
- Reduction in mortality from injuries (unintentional and intentional), particularly in persons aged under 40 years, was responsible for 26 per cent of the increase in Indigenous life expectancy.
- Cancer mortality improvements caused 14 per cent of the improvement in life expectancy.
- The increased mortality due to diabetes had a detrimental effect of 10 per cent on the increase in life expectancy.

² Life expectancy decomposition via the Arriaga method as described in: Auger N, Feuillet P, Martel S, Lo E, Barry AD, Harper S. Mortality inequality in populations with equal life expectancy: A practical decomposition method in SAS and Excel. *Annals of Epidemiology* 2014; doi: 10.1016/j.annepidem.2014.05.006.

Figure 4 Contribution to the life expectancy gap between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders, by age and cause, 2011



Source: QLD Health – Burden of Disease 2011, Unpublished data

Figure 5 Contribution (years) to 2011 life expectancy gap between non-Indigenous and Aboriginal and Torres Strait Islander by age and cause

Age	Infectious and parasitic diseases	Acute respiratory infections	Maternal conditions	Neonatal causes	Nutritional deficiencies	Malignant neoplasms	Other neoplasms	Diabetes mellitus	Endocrine and metabolic disorders	Mental disorders	Nervous system and sense organ disorders	Cardiovascular disease	Chronic respiratory disease	Diseases of the digestive system	Genitourinary diseases	Skin diseases	Musculoskeletal diseases	Congenital anomalies	Oral conditions	Ill-defined conditions	Unintentional injuries	Intentional injuries	All cause
<1	0.01	0.03	0.00	0.22	0.00	-0.01	0.00	0.00	0.01	0.00	-0.01	0.01	0.00	0.00	0.00	0.01	0.00	-0.03	0.00	0.03	0.03	0.01	0.31
1-4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
5-9	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
10-14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01
15-19	0.01	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.08	0.14
20-24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.14	0.23
25-29	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03	-0.01	0.02	0.02	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.19	0.34
30-34	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.05	0.00	0.09	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.12	0.36
35-39	0.01	0.01	0.00	0.00	0.00	0.05	0.00	0.02	0.02	0.02	-0.01	0.14	0.00	0.12	0.04	0.00	0.01	0.01	0.00	0.00	0.03	0.10	0.55
40-44	0.00	0.03	0.00	0.00	0.00	0.12	0.00	0.05	0.02	0.03	0.01	0.17	0.01	0.06	0.02	0.00	0.01	0.01	0.00	0.00	0.03	0.05	0.60
45-49	0.01	0.00	0.00	0.00	0.00	0.10	0.00	0.08	0.02	0.01	0.00	0.28	0.05	0.10	0.03	0.00	0.01	0.00	0.00	0.00	0.05	-0.01	0.73
50-54	0.01	0.00	0.00	0.00	0.00	0.17	0.01	0.18	0.01	-0.01	0.00	0.21	0.04	0.08	0.03	0.01	0.00	0.00	0.00	0.00	0.02	0.04	0.82
55-59	0.06	0.01	0.00	0.00	0.00	0.25	0.02	0.19	0.01	0.02	0.02	0.30	0.13	0.07	0.09	0.02	0.02	0.00	0.00	0.00	0.00	-0.01	1.18
60-64	-0.01	0.00	0.00	0.00	0.00	0.26	0.00	0.31	0.00	-0.01	0.02	0.38	0.05	0.05	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.10
65-69	0.01	0.03	0.00	0.00	0.00	0.17	0.00	0.21	0.02	0.00	0.03	0.28	0.06	0.08	0.05	0.01	0.00	0.01	0.00	0.00	0.01	-0.01	0.97
70-74	0.04	0.06	0.00	0.00	0.00	0.15	0.00	0.34	0.09	-0.01	-0.05	0.26	0.16	0.04	0.08	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.16
75-79	0.04	-0.01	0.00	0.00	0.00	0.08	0.02	0.27	0.01	0.00	-0.04	0.33	0.08	0.02	0.12	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.92
80-84	0.04	0.02	0.00	0.00	0.00	-0.07	0.01	0.26	0.01	0.00	-0.03	0.17	0.07	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.53
85+	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.14	-0.01	0.00	-0.05	0.23	0.12	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.59
All ages	0.26	0.17	0.00	0.23	0.00	1.34	0.03	2.05	0.22	0.13	-0.10	2.90	0.79	0.73	0.60	0.03	0.05	0.00	0.00	0.03	0.34	0.73	10.54

Source: Queensland Health, Burden of Disease 2011, unpublished data

What has changed

Since the previous report, updated life expectancy estimates have not been released. Nonetheless, based on the latest available estimates, the results highlight the need for significant and sustained efforts to continue improving Aboriginal and Torres Strait Islander health outcomes, both directly through health interventions and indirectly by addressing the broader determinants of health. An understanding of the conditions and age groups that drive the health gap is critical to ensuring that effort is targeted to those areas which will have the most significant impact on closing the life expectancy gap.

In addition, ongoing barriers to education, meaningful employment and access to appropriate health care are among the broader drivers of the gap. The Australian Institute of Health and Welfare (AIHW) suggests that the differences in social determinants explain a large part of the difference in health status between Aboriginal and Torres Strait Islander and non-Indigenous Australians.³ The evidence also suggests that a complex relationship exists between health service access, social disadvantage, health behaviours, and health outcomes.

Policy implications

While improvements in life expectancy for Aboriginal and Torres Strait Islander Queenslanders have been observed, parallel improvements in the non-Indigenous population represent a challenge to achieving the closing the gap target. An annual increase in life expectancy of 0.24 years in males and 0.16 in females⁴ in the total population from 1998–00 through to 2010–2012 essentially offset the annual gain of 0.32 years in males and 0.34 years in females for Aboriginal and Torres Strait Islander Queenslanders from 2005–2007 to 2010–2012.

While projections indicate that the goal of closing the gap in life expectancy is unlikely within a generation, with sustained effort and focus over a longer timeframe, parity of life expectancy can be achieved, and the progress made to date should not be understated.

³ Australian Institute of Health and Welfare 2016, *Australia's Health 2016*, Australia's health series no. 15. Cat. No. 199. Canberra: AIHW.

⁴ This is based on linear trend 1995–97 to 2010–12

Child mortality

Why it is important

Infant and child mortality is a well-established indicator of child health, the overall health of the population, and the population's physical and social environment. Improvements in infant and child mortality rates for the Queensland population over the past century have largely been the result of improved immunisation, improvements in neonatal intensive care and treatment, and prevention of sudden infant death syndrome.

Perinatal deaths refer to deaths of a fetus in utero after 20 weeks gestational age (fetal deaths) as well as deaths within the first 28 days after birth (neonatal deaths).

What we found

For the period 2011–2015 there were 207 deaths of Aboriginal and Torres Strait Islander children aged 0–4 years in Queensland (Table 4). The bulk of child mortality occurred in the first year of life (infant mortality) and in particular within the first 28 days (perinatal mortality).

Table 4 Child, infant and perinatal mortality indicators by Indigenous status

	Indigenous deaths	Indigenous rate	Non-Indigenous deaths	Non-Indigenous rate	Rate ratio
Child 0-4 mortality (2011 – 2015)	207 (41/year)	162.7 per 100,000 population	1395 (279/year)	96.8 per 100,000 population	1.7
Child 1-4 mortality (2011-2015)	32 (6.4/year)	31.6 per 100,000 population	212 (42/year)	18.4 per 100,000 population	1.7
Infant <1 mortality (2011 – 2015)	175 (35/year)	6.6 per 1,000 live births	1183 (237/year)	4.1 per 1,000 live births	1.6
Perinatal deaths (2011-2015)	259	9.7 per 1,000 live births	2711	9.4 per 1,000 live births	1.0
Fetal deaths (2011-2015)	147	5.5 per 1,000 total births	1880	6.5 per 1,000 total births	0.8
Neonatal deaths (2011-2015)	112	4.2 per 1,000 live births	831	2.9 per 1,000 live births	1.5

Sources: Perinatal, foetal and neonatal deaths from ABS, 2015, Cat No. 3303.0; Infant and child mortality rates from ABS, 2015, Cat No. 3302.0

From 2005–2009 to 2011–2015, the mortality rate for Aboriginal and Torres Strait Islander children under five decreased from 200.4 to 162.7 deaths per 100,000 population and the gap in the mortality rate narrowed from 79.1 to 65.9 deaths per 100,000 population (Figure 6). Between 2005–2009 and 2011–2015, the Indigenous infant mortality rate declined from 9.1 to 6.6 deaths per 1000 live births. Despite these improvements, child and infant mortality rates are significantly higher than non-Indigenous rates, at 1.7 and 1.6 times non-Indigenous rates respectively.

Perinatal mortality and fetal mortality have declined and in 2011–2015 were similar to non-Indigenous rates. Aboriginal and Torres Strait Islander neonatal deaths however, remain 1.5 times higher than non-Indigenous rates.

Figure 6 Child, infant and perinatal mortality rates



Sources: Perinatal, foetal and neonatal deaths from ABS, 2016, Cat No. 3303.0; infant and child mortality rates from ABS, 2015, Cat No. 3302.0

What has changed

Since the last report, the gap in child mortality continues to narrow. However, due to improvements in the non-Indigenous child mortality rates, the target for halving the gap is in fact moving. Therefore meeting the target is unlikely to be achieved by 2018.

Despite this, there have been improvements in mortality among Aboriginal and Torres Strait Islander children in Queensland.

Policy implications

Maternal factors and complications of pregnancy, labour and delivery as well as disorders related to length of gestation affecting the growth of the foetus and new born babies have been identified as leading causes of infant mortality. External causes, mainly injury, become by far the leading causes of mortality once a baby reaches one year of age. Interventions targeting these leading causes of infant and child mortality will lead to sustained improvement.

Child mortality presents the same policy challenge as life expectancy. While there has been an 18.8 per cent reduction in the Aboriginal and Torres Strait Islander child mortality rate, these improvements were offset by parallel improvements in the non-Indigenous child mortality rate, and it is unlikely the COAG target will be achieved within the specified timeframe.

Despite this, real progress has been achieved. Using data from 2005–2009 to 2011–2015, child mortality is projected to reduce by 31.6 per cent in 2018 representing a significant gain in child mortality. It is important that these gains are not understated. Sustained effort into the future will see the target achieved.

Mortality and morbidity

Mortality

Why it is important

Mortality rates are a useful measure to compare the overall health status of different populations over time. They are also used as a proxy measure for overall life expectancy, and allow for more targeted monitoring of progress in Queensland against the headline indicator.

The gap between Aboriginal and Torres Strait Islander and non-Indigenous populations for particular causes of mortality gives an indication of the prevalence and management of particular diseases for Aboriginal and Torres Strait Islander people, relative to the rest of the population. This provides a useful indication of the diseases that have a greater impact on the health status of Aboriginal and Torres Strait Islander Queenslanders.

However, not all significant health problems will be reflected in mortality statistics. Many conditions that cause chronic, debilitating health problems, such as mental illness, are not necessarily direct causes of death and their impact is not reflected in mortality data. Their impacts are measured through morbidity statistics and burden of disease studies which take into account both fatal and non-fatal effects.

What we found

Queensland has seen a decline in Aboriginal and Torres Strait Islander all-cause mortality rates from 2002 to 2013. There have also been declines in mortality due to circulatory disease, respiratory disease and endocrine disorders.

The three leading causes of death were diseases of the circulatory system (23.8 per cent, Figure 8), cancers (19.7 per cent, Figure 11) and external causes (13.8 per cent, Figure 11).

Explanatory notes for Figures 9 to 13:

ASR: Age standardised rate;

I = Indigenous, NI = Non-Indigenous

The mortality rates per 100,000 have been standardised to the Australian 2001 population. This standardisation allows a comparison of rates between the two population groups and between the conditions.

More than the expected number of deaths is the 'excess deaths' (the difference between the actual number of deaths [observed] and the number of expected deaths if the rates for the Aboriginal and Torres Strait Islander population were the same as the non-Indigenous rate).

Source: Cause of Death Unit Record File, Queensland Health

In 2002, there were 614 Aboriginal and Torres Strait Islander deaths and in 2013, there were 680 Aboriginal and Torres Strait Islander deaths (Figure 7a).

After controlling differences in age structures, between 2002 and 2013 the Queensland Aboriginal and Torres Strait Islander mortality rate declined from 1087 to 788 deaths per 100,000. The gap between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders reduced from 411 to 269 deaths per 100,000.

Despite these improvements, the Aboriginal and Torres Strait Islander mortality rate was 1.5 times the non-Indigenous rate in 2013 (Figure 7b).

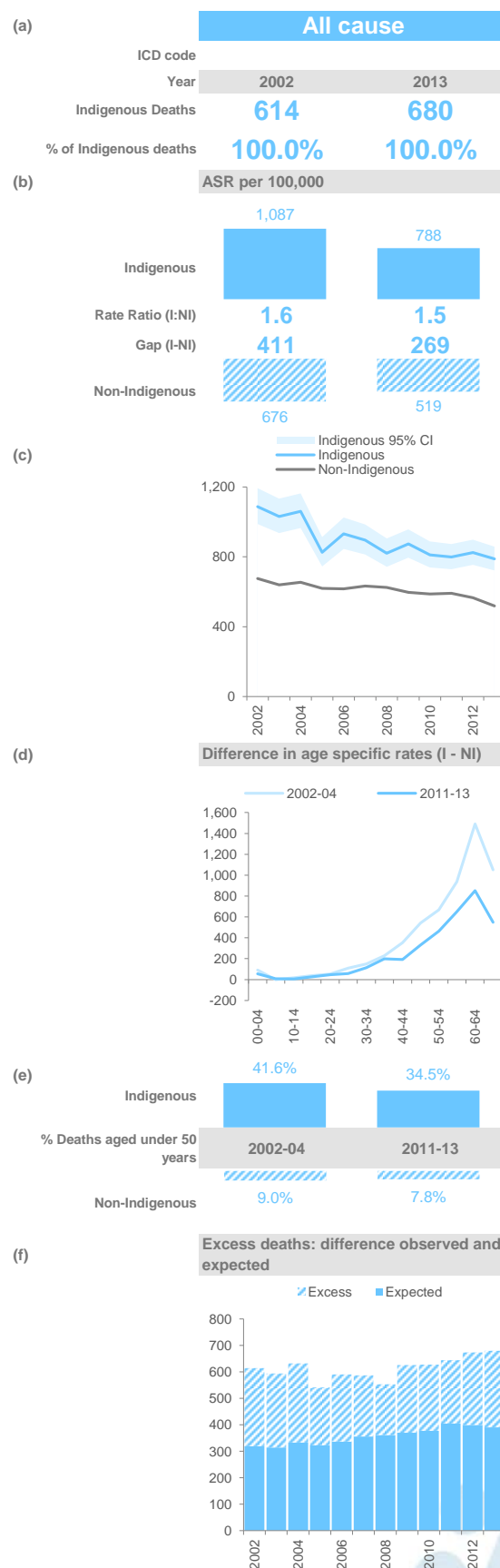
The Aboriginal and Torres Strait Islander rate reduced more between 2002 and 2013 than the non-Indigenous rate, however remains significantly higher than the non-Indigenous rate (Figure 7c).

The difference in age specific rates between the Aboriginal and Torres Strait Islander and the non-Indigenous populations has reduced in the 35 years and older age groups from 2002–2004 to 2011–2013 (Figure 7d).

In 2011–2013 the percentage of deaths below 50 years of age was 34.5 per cent for the Aboriginal and Torres Strait Islander population but only 7.8 per cent for the non-Indigenous population – the deaths in the Aboriginal and Torres Strait Islander population occur at much younger age groups compared to the non-Indigenous population (Figure 7e).

In 2013, there were 290 excess Aboriginal and Torres Strait Islander deaths based on non-Indigenous rates. The observed number of deaths was greater than expected, with on average 41.8 per cent of Aboriginal and Torres Strait Islander deaths considered excess based on non-Indigenous rates (Figure 7f).

Figure 7 Mortality – 2002 to 2013: All cause



Mortality - Circulatory disease

Deaths caused by circulatory diseases accounted for 27.7 per cent of Aboriginal and Torres Strait Islander deaths in 2002 and 23.8 per cent in 2013 (Figure 8a).

After controlling for differences in age structures, between 2002 and 2013 the rate of circulatory disease deaths in Aboriginal and Torres Strait Islander Queenslanders declined from 355 to 208 deaths per 100,000 (Figure 8b). Ischaemic heart disease mortality decreased significantly, from 205 to 96 deaths per 100,000.

The gap between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders has reduced for circulatory diseases (95 to 56 deaths per 100,000) and ischaemic heart disease (62 to 23 deaths per 100,000) (Figure 8b). Despite these improvements, in 2013, Aboriginal and Torres Strait Islander mortality from circulatory diseases and ischaemic heart disease was 1.4 times and 1.3 times the non-Indigenous rate respectively.

In contrast, the gap for stroke deaths has increased due to reductions in the non-Indigenous stroke mortality rate (Figure 8b).

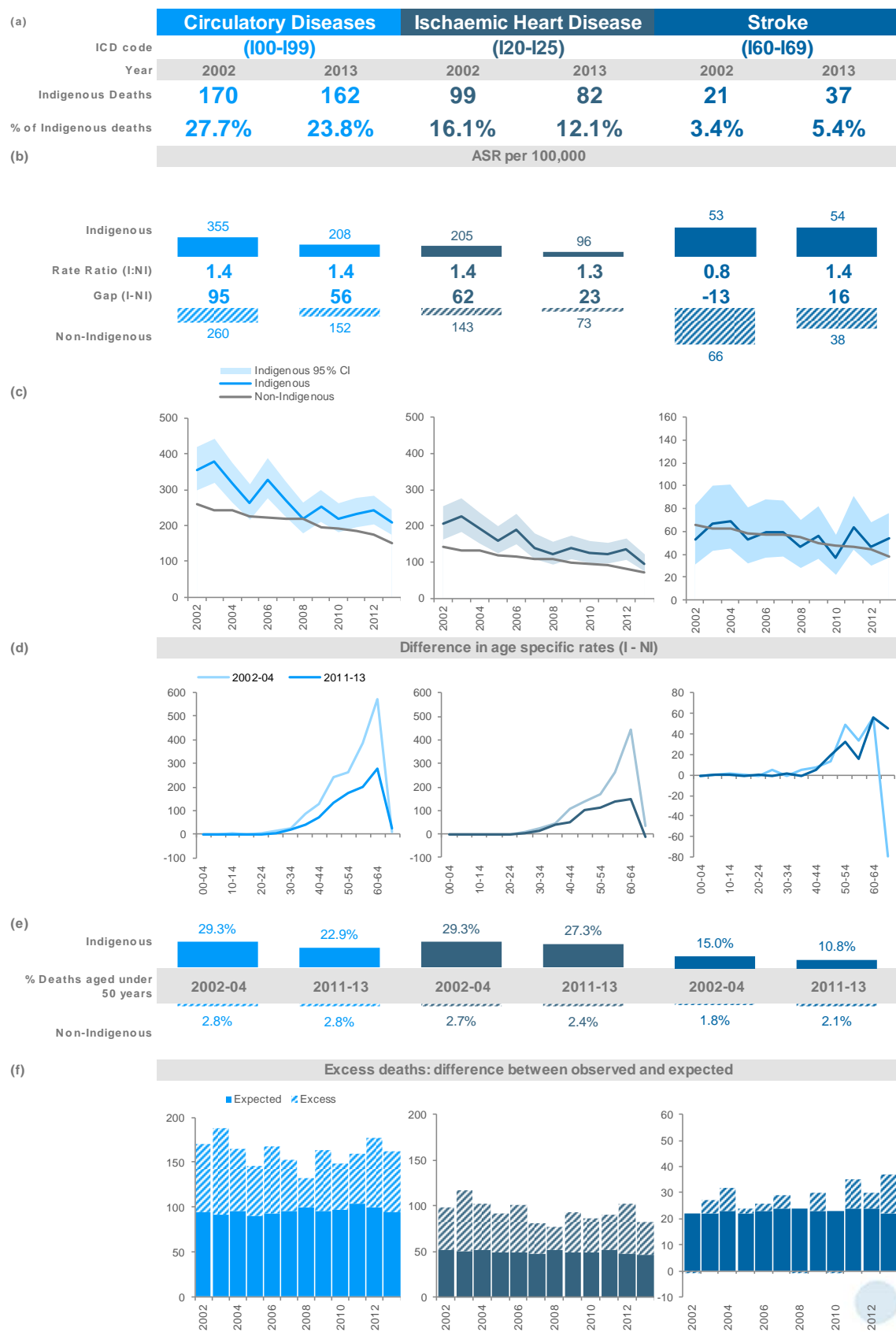
There have been significant declines in circulatory and ischaemic heart disease mortality since 2002, however there has been no significant change to stroke mortality, with the rate remaining steady (Figure 8c).

The difference in age specific rates between the Aboriginal and Torres Strait Islander and the non-Indigenous populations reduced in the 35 years and above age groups from 2002–04 to 2011–13 (Figure 8d).

The percentage of deaths below 50 years of age was several times higher in the Aboriginal and Torres Strait Islander population compared to the non-Indigenous population – the deaths in the Aboriginal and Torres Strait Islander population occur at much younger age groups compared to the non-Indigenous population (Figure 8e).

In 2013, there were 68 excess circulatory disease Aboriginal and Torres Strait Islander deaths based on non-Indigenous rates. On average, between 2002 and 2013, 40.5 per cent of the Aboriginal and Torres Strait Islander circulatory deaths were considered excess based on non-Indigenous rates. On average, 47.2 per cent of the Aboriginal and Torres Strait Islander ischaemic heart disease deaths were considered excess based on non-Indigenous rates. On average, 17.9 per cent of the Aboriginal and Torres Strait Islander stroke deaths were considered excess based on non-Indigenous rates (Figure 8f).

Figure 8 Mortality – 2002 to 2013: Circulatory diseases, ischaemic heart disease, stroke



Source: Cause of Death Unit Record File, Queensland Health

Mortality – Respiratory diseases

Respiratory deaths accounted for 8.3 per cent of Aboriginal and Torres Strait Islander deaths in 2002 and 7.5 per cent in 2013 (Figure 9a).

After controlling for differences in age structures, there was a decline in the Aboriginal and Torres Strait Islander respiratory mortality rate between 2002 and 2013, from 116 to 73 deaths per 100,000, and a decline in the gap from 59 to 32 deaths per 100,000 (Figure 9b). However, in 2013, the rate was 1.8 times the non-Indigenous respiratory mortality rate.

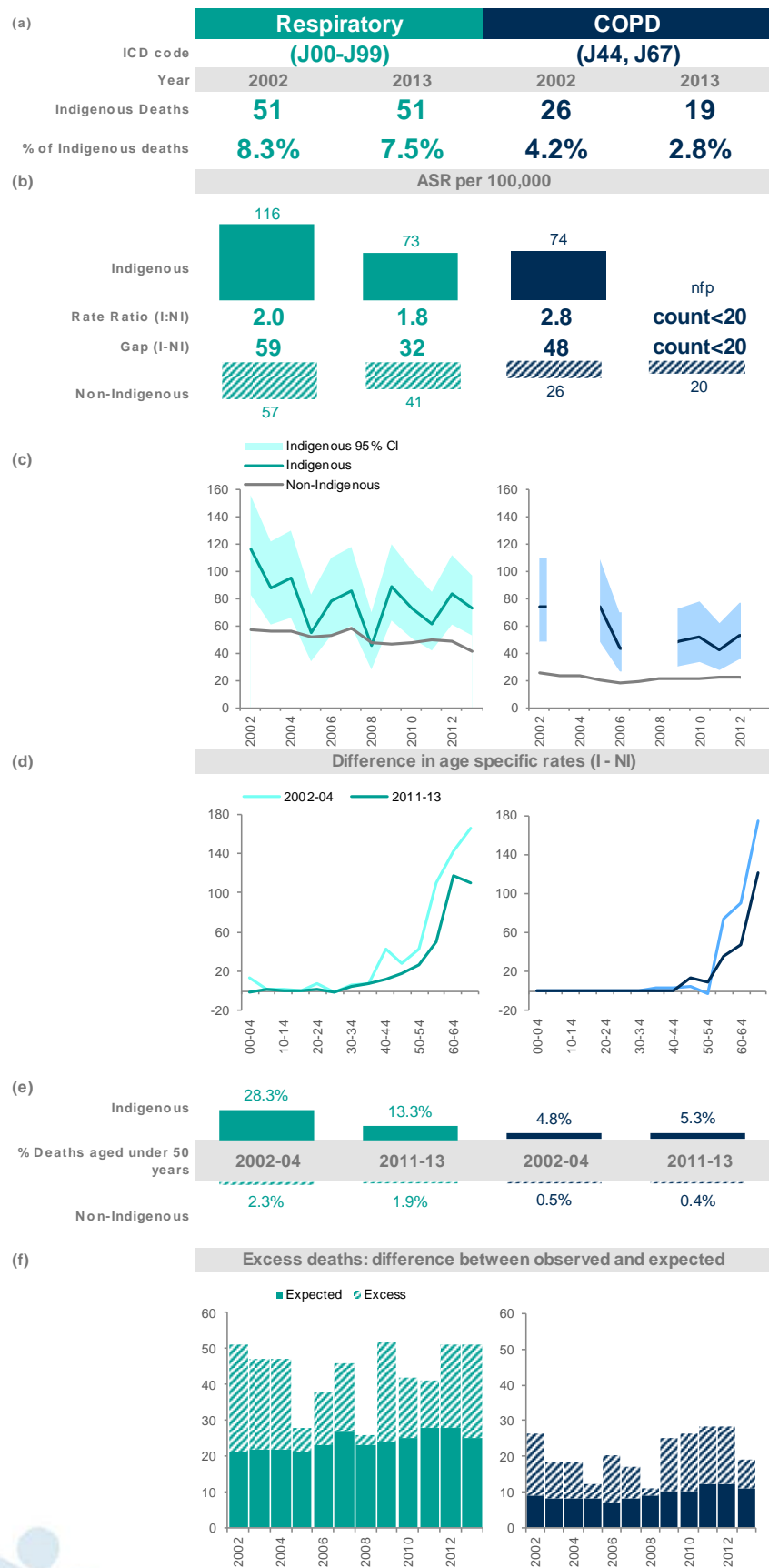
While the number of COPD deaths decreased from 26 in 2002 to below 20 in 2013 due to small numbers no meaningful information on changes and comparisons can be made (Figure 9b).

The difference in age specific rates between the Aboriginal and Torres Strait Islander and the non-Indigenous populations has reduced in the 35 years and above age groups for respiratory conditions and only at 55 years and above for COPD (Figure 9d).

The percentage of deaths below 50 years of age was several times higher in the Aboriginal and Torres Strait Islander population compared to the non-Indigenous population. The proportion of respiratory deaths occurring in Aboriginal and Torres Strait Islander people under the age of 50 years has reduced, from 28.3 per cent in 2002-04 to 13.3 per cent in 2011-13 (Figure 9e).

In 2013, there were 26 excess Aboriginal and Torres Strait Islander respiratory deaths based on non-Indigenous rates. On average between 2002 and 2013, 44.4 per cent of the respiratory deaths and 54.8 per cent of the COPD deaths among Aboriginal and Torres Strait Islander people were considered excess based on non-Indigenous rates (Figure 9f).

Figure 9 Mortality – 2002 to 2013: Respiratory disease, Chronic Obstructive Pulmonary Disease (COPD)



Source: Cause of Death Unit Record File, Queensland Health

Mortality – Endocrine, nutritional and metabolic diseases

Endocrine mortality refers to deaths due to endocrine, nutritional and metabolic diseases, including diabetes. Endocrine deaths accounted for 8.7 per cent of Aboriginal and Torres Strait Islander deaths in 2013, and Type 2 diabetes accounted for 3.2 per cent (Figure 10a).

While endocrine related mortality rates have reduced, there is still a large differential between Aboriginal and Torres Strait Islander and non-Indigenous mortality rates.

Between 2002 and 2013, Aboriginal and Torres Strait Islander endocrine mortality rates reduced from 152 to 74 deaths per 100,000 and the gap reduced from 131 to 54 deaths per 100,000 (Figure 10b). Although the rate ratio has decreased from 7.2 times the non-Indigenous rate in 2002, it remained 3.7 times the non-Indigenous rate in 2013.

There has been a decline in Aboriginal and Torres Strait Islander Type 2 diabetes mortality rates from 66 to 28 deaths per 100,000, and in the gap from 60 to 22 deaths per 100,000 (Figure 10b). Although the rate ratio has decreased, it remains high at 4.7 times the non-Indigenous rate in 2013.

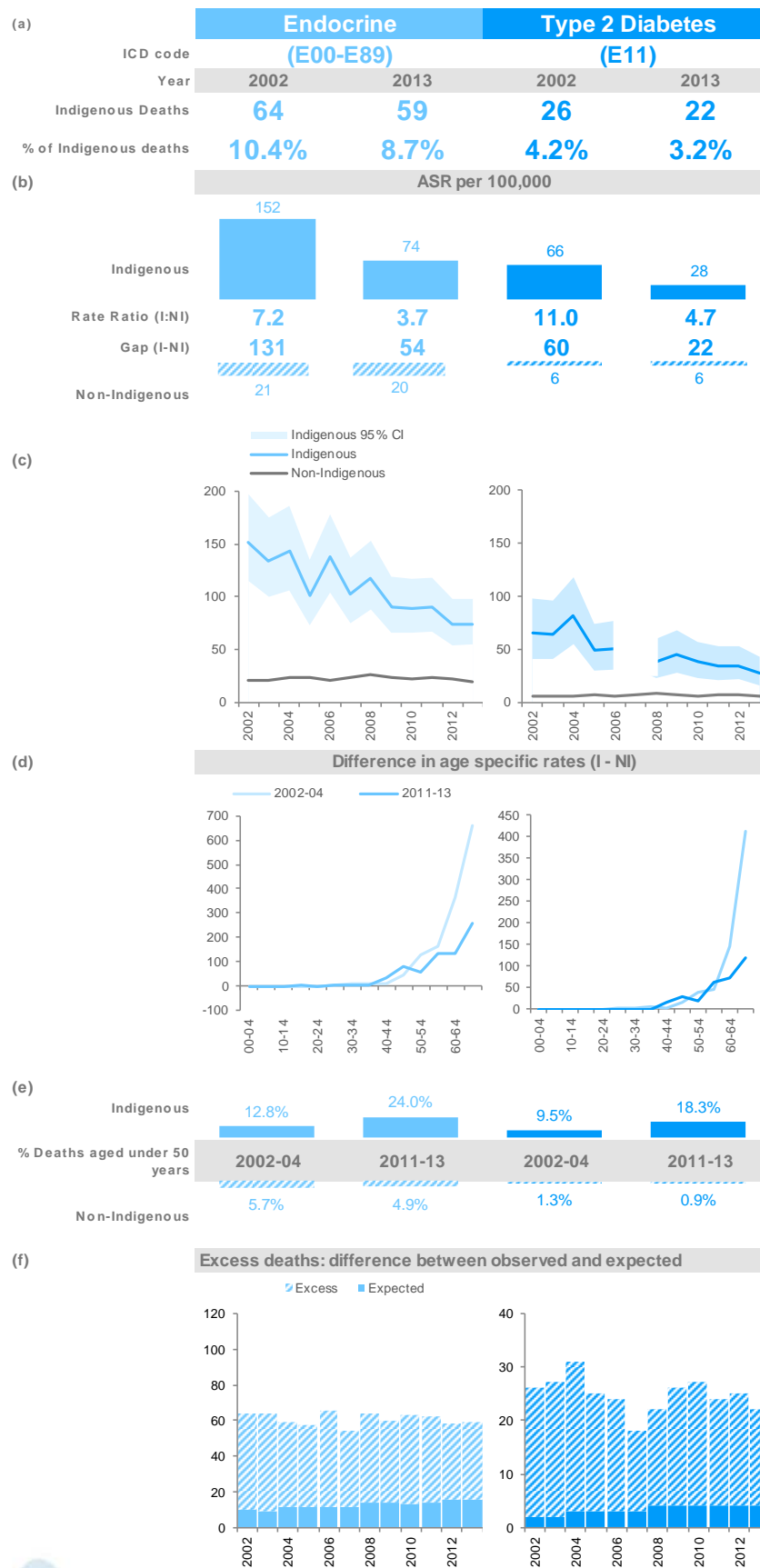
There has been a decline in Aboriginal and Torres Strait Islander endocrine and Type 2 diabetes mortality rates whereas the non-Indigenous rates have remained static. Mortality rates for both endocrine disease and Type 2 diabetes are significantly higher than the non-Indigenous rates (Figure 10c).

The difference in age specific rates between the Aboriginal and Torres Strait Islander and the non-Indigenous populations has reduced in the 50–54 years and above age groups for endocrine diseases and in 60–64 years and above age groups for Type 2 diabetes (Figure 10d).

The percentage of Aboriginal and Torres Strait Islander deaths below 50 years have doubled in the periods 2002–04 to 2011–13 for both endocrine diseases (12.8 to 24.0 per cent) and Type 2 diabetes (9.5 to 18.3 per cent) (Figure 10e).

Were Aboriginal and Torres Strait Islander Queenslanders to have the same rates of endocrine and Type 2 diabetes deaths as non-Indigenous people, the number of deaths would reduce by a factor of about five. Of the 59 observed Aboriginal and Torres Strait Islander endocrine deaths in 2013, 44 of these were considered excess based on non-Indigenous rates. On average between 2002 and 2013, 79.7 per cent of the endocrine deaths were considered excess and 86.8 per cent of the Type 2 diabetes deaths were considered excess based on non-Indigenous rates (Figure 10f).

Figure 10 Mortality – 2002 to 2013: Endocrine, type 2 diabetes



Source: Cause of Death Unit Record File, Queensland Health

Mortality – External causes, suicide, cancers

External causes includes accidents, intentional self-harm, assault and adverse effects of drugs.

Deaths due to external causes accounted for 13.8 per cent of Aboriginal and Torres Strait Islander deaths in 2013 whilst suicides accounted for 6.9 per cent and cancers 19.7 per cent (Figure 11a).

There has been a decline in Aboriginal and Torres Strait Islander external cause rates from 76 to 63 deaths per 100,000 and a the gap from 34 to 25 deaths per 100,000 (Figure 11b). The rate ratio decreased from 1.8 to 1.7 times the non-Indigenous rate from 2002 to 2013.

The Aboriginal and Torres Strait Islander suicide rate per 100,000 has varied year on year but there is no trend, either increasing or decreasing. The annual rates remain higher than the non-Indigenous rates (Figure 11c).

There has been a small decline in Aboriginal and Torres Strait Islander cancer mortality rates from 193 to 187; however due to declines in the non-Indigenous rate, the gap has increased from 1 per 100,000 in 2002 to 27 per 100,000 in 2013 (Figure 11b).

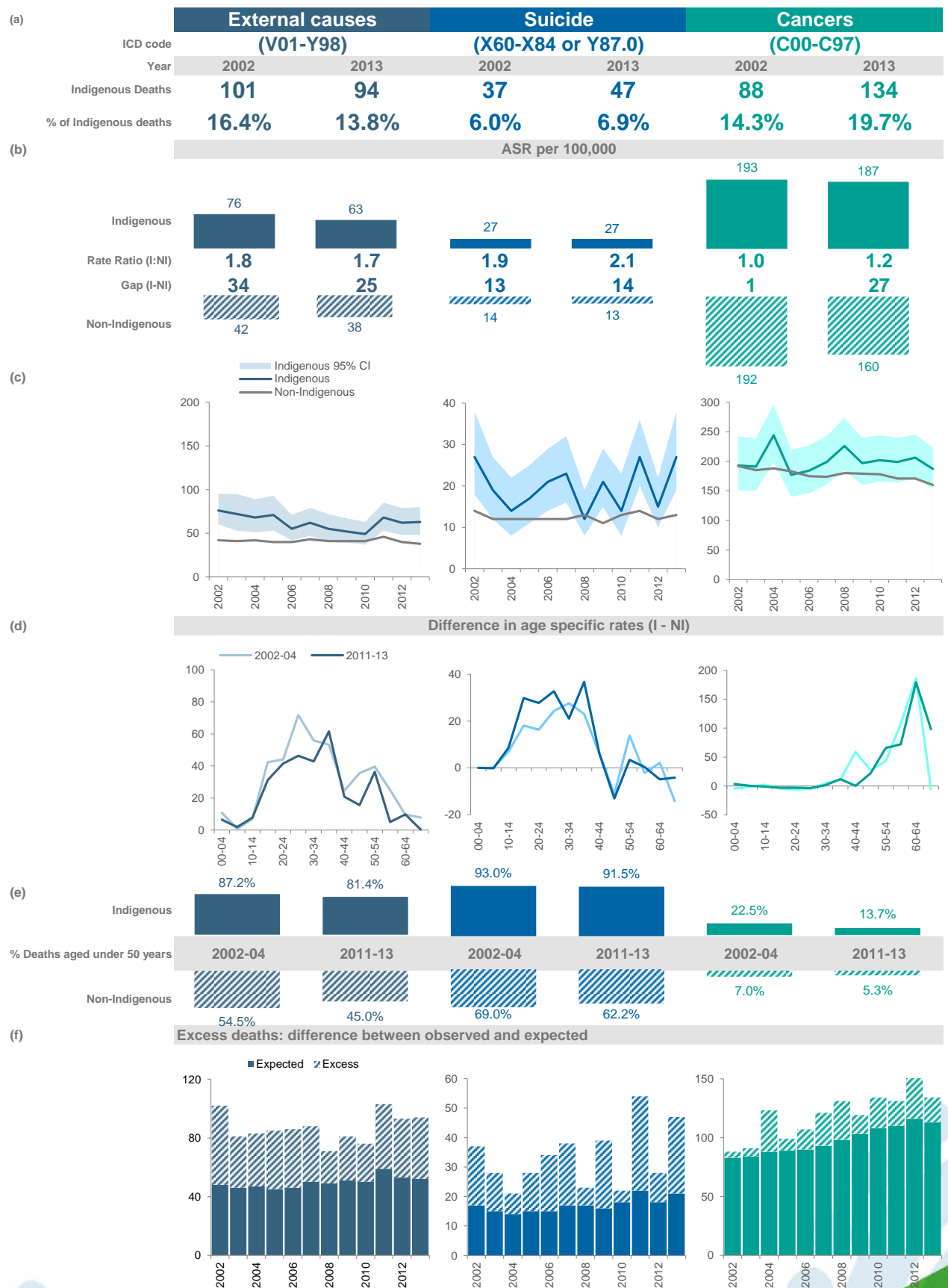
There have been small changes in the difference in age specific rates between the Aboriginal and Torres Strait Islander and the non-Indigenous populations between 2002–04 and 2011–13 (Figure 11d).

The percentage of deaths below 50 years of age was about 1.5 times higher in the Aboriginal and Torres Strait Islander population compared to the non-Indigenous population for both external causes and suicides. For cancers the deaths below the age of 50 was nearly three times (Figure 11e).

Of the 94 observed Aboriginal and Torres Strait Islander deaths from external causes in 2013, 42 of these were considered excess based on non-Indigenous rates. On average between 2002 and 2013, 42.9 per cent of the deaths from external causes and 48.6 per cent of suicides were considered excess based on non-Indigenous rates.

Of the 134 observed Aboriginal and Torres Strait Islander cancer deaths in 2013, 21 were considered excess based on non-Indigenous rates. On average between 2002 and 2013, 17.8 per cent of cancer deaths were considered excess based on non-Indigenous rates (Figure 11f).

Figure 11 Mortality – 2002 to 2013: External causes, suicide, cancers



Source: Cause of Death Unit Record File, Queensland Health

What has changed

Mortality rates for Aboriginal and Torres Strait Islander Queenslanders continue to improve. In particular, since last year's report, further declines are seen for all cause and circulatory disease mortality rates. This suggests the health system is starting to respond appropriately to the needs of Aboriginal and Torres Strait Islander people. However, the non-Indigenous population has also observed decreases in mortality rates and, as a result, while there has been a narrowing of the gap between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders, the gap remains. Increased effort will be needed to accelerate the rate of change required for Queensland to reach the target COAG headline indicator by 2033.

Policy implications

While improving, Aboriginal and Torres Strait Islander people continue to have significantly higher mortality rates than non-Indigenous Queenslanders. This reflects the poor health status of Aboriginal and Torres Strait Islander Queenslanders and the ongoing high rates of chronic disease and injury in the population.

Understanding the prevalence and impact of multiple modifiable risk factors, together with the impact of socio-economic and cultural factors on health, is essential in policy and planning.

Through the Making Tracks Investment Strategy 2015-2018, the Queensland Government continues to focus its efforts on areas that will have the greatest impact on the health gap. This includes focusing on the risk factors for chronic disease, particularly smoking and obesity, and the major contributors to the health gap—mental illness, CVD, chronic respiratory disease and cancer. Given the high mortality associated with Type 2 diabetes, this is a priority to improve the health and wellbeing of Aboriginal and Torres Strait Islander Queenslanders.

The *Queensland Aboriginal and Torres Strait Islander cardiac health strategy 2014–2017* and the *Queensland Aboriginal and Torres Strait Islander Mental Health Strategy 2016–2021*, provide guidance to improving the health and wellbeing of Queensland's Aboriginal and Torres Strait Islander people with CVD or a severe mental illness.

What we are doing

Improving cardiovascular mortality

In 2011, CVD was estimated to contribute 28 per cent of the life expectancy gap between Queensland's Aboriginal and Torres Strait Islander and non-Indigenous people.

While CVD is and remains a significant problem, there have been improvements in cardiac care and in closing the gap in cardiovascular mortality.

- Approximately 43 per cent of the improvement in life expectancy between 2006 and 2011 was due to reductions in CVD mortality in the older ages.
- The mortality rate for ischemic heart disease has more than halved between 2002 and 2013, from 205 to 96 deaths per 100,000.

This means that on average, Aboriginal and Torres Strait Islander Queenslanders are living longer with cardiovascular disease. This has been achieved through prevention and management in the primary health care sector, as well as increased access to tertiary services, in particular to cardiac related procedures such as percutaneous coronary interventions, coronary artery bypass grafts and coronary angiography.

- Access to hospital for percutaneous coronary interventions, coronary artery bypass grafts, coronary angiography have increased over time. For the July to December 2010 period, 40.2 per cent of Aboriginal and Torres Strait Islander people admitted to a Queensland Health facility for acute coronary syndrome received guideline-based therapy. By January to June 2016, this had increased to 49.2 per cent.
- This rate is similar to that of non-Indigenous Queenslanders – although does not consider the vast number of predominately non-Indigenous procedures that occur in private facilities. Nonetheless, Aboriginal and Torres Strait Islander people are accessing appropriate treatment to ensure the best clinical outcomes.
- Townsville HHS in particular produced significant gains in access to hospital for percutaneous coronary interventions, coronary artery bypass grafts, and coronary angiography. For the July to December 2010 period 54.8 per cent of Aboriginal and Torres Strait Islander people living in Townsville HHS admitted to a Queensland Health facility for acute coronary syndrome received one of these interventions. By January to June 2016, this had increased to 75.0 per cent.
- This is driven by increased outreach to places like Ayr, Ingham and Charters Towers. Townsville HHS has also initiated a rapid access chest pain clinic in addition to a primary percutaneous coronary interventions programme to improve access to all patients.

Metro South HHS: Better Cardiac Care, Princess Alexandra Hospital

The Better Cardiac Care Program aims to improve quality of care and health outcomes for Aboriginal and Torres Strait Islander people with CVD. The program achieves this by offering a culturally sensitive model of care that supports patients during their acute hospital admission and when transitioning between the acute and primary care settings in a seamless and supported way.

The program is funded \$1.47 million through the Making Tracks Investment Strategy 2015–2018, and is conducted through the Princess Alexandra Hospital (PAH) covering the Metro South HHS catchment.

The program is working in partnership with Aboriginal and Torres Strait Islander Community Controlled Health Organisations to deliver cardiology clinics in Woolloongabba and Stradbroke Island with plans to deliver additional clinics in Wynnum and Logan.

Since its inception in February 2015, the program has achieved significant progress and notable successes including:

- Reducing failure-to-attend rates for scheduled outpatient specialist cardiac clinic appointments and reviews by up to 35 per cent (compared to baseline before program commencement), increasing the likelihood of patients following their medical care plans, and reducing the likelihood of patient readmission into hospital.
- The 28 day readmission rate for patients under the Better Cardiac Care program is 9.7 per cent, lower than the rate of Aboriginal and Torres Strait Islander all cause 28 day readmissions at the PAH (24.3 per cent).
- Overcoming system barriers through innovation with the implementation of a Closing the Gap medication subsidy scheme in which registered patients are provided with a seven day supply of medications at no cost (subsidised by hospital). To date 151 patients have received a seven day supply, also reducing potential readmissions.
- Increased attendance at general practitioner follow up appointments within seven days (from 30 per cent to 89 per cent), and outpatient follow up with specialist appointment attendance (from 69 per cent to 88 per cent).

Morbidity

Why it is important

Hospitalisation data provides a proxy measure of morbidity. Hospitalisation rates can indicate the occurrence of illnesses and conditions requiring hospitalisation within a population, and the level of access to and use of hospital treatment by people with those conditions.

It is important to note that hospitalisations for a particular disease or condition do not directly indicate incidence or prevalence of that disease in a population. They tend to reflect disease in a population which is either more acute, or disease that is more advanced on an individual disease continuum.

Methodological considerations

Hospitalisation rates represent the number of episodes of care, rather than the number of individual people hospitalised. One person who is hospitalised multiple times for the same condition will be counted for each episode of hospitalisation.

Data presented in this chapter is by principal diagnosis for episodes of care for Aboriginal and Torres Strait Islander Queenslanders compared to non-Indigenous Queenslanders.

It is important to note that changes in coding of diabetes which occurred in 2010–11 had the impact of lowering hospitalisation rates. This was in no way reflective of the actual burden of disease in the population, and up until this coding change, hospitalisations for Type 2 diabetes were increasing. This report uses updated data as a result there may be small differences in the data compared to previous reports.

What we found

Rates of hospitalisation for CVD, cancer, endocrine and nutritional disorders have remained relatively constant for the last decade. Rates of hospitalisation for respiratory disease, external causes of morbidity, self-harm and injury and poisoning have all increased over the last decade.

Compared to non-Indigenous Queenslanders, Aboriginal and Torres Strait Islander Queenslanders had lower hospitalisation rates for cancer; however, it must be noted that this is affected by a lower incidence in cancers associated with ageing.

Explanatory notes for Figures 14 to 19:

The morbidity rates per 1000 have been standardised to the Australian 2001 population. This standardisation allows a comparison of rates between the two population groups and between the conditions.

More than the expected number of separations is the 'excess separations' (the difference between the actual number of separations (observed) and the number of expected separations if the rates for the Aboriginal and Torres Strait Islander population were the same as the non-Indigenous rate). The ratio of Observed separations to Expected separations is the Standardised Morbidity Ratio (SMR) and represents how many times the actual separations is greater than the expected number of separations.

Morbidity – Circulatory disease

For the period 2011–12 to 2015–16, the hospitalisation rate amongst Aboriginal and Torres Strait Islander people for diseases of the circulatory system was 1.6 times the non-Indigenous rate (Figure 12a). The gap between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders for disease of the circulatory system was 13.0 separations per 1000.

The hospitalisation rate among Aboriginal and Torres Strait Islander people for ischaemic heart disease was 2.2 times the non-Indigenous rate, with a gap of 7.8 separations per 1000 (Figure 12a).

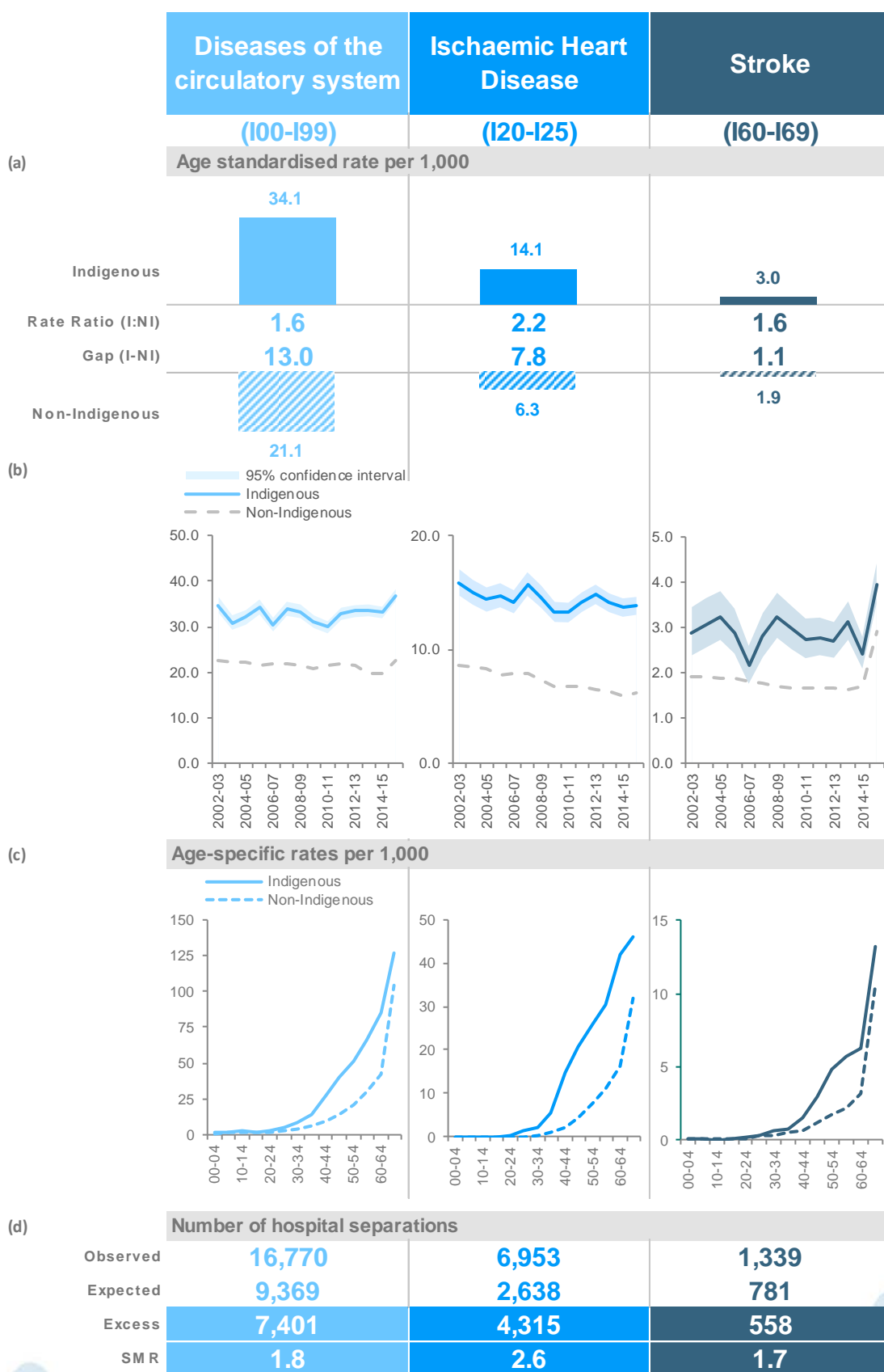
The hospitalisation rate among Aboriginal and Torres Strait Islander people for stroke was 1.6 times the non-Indigenous rate, with a gap of 1.1 separations per 1000 (Figure 12a).

Aboriginal and Torres Strait Islander separation rates for circulatory system diseases have remained static over the last few years and were significantly higher than the non-Indigenous rates. Ischaemic heart disease rates have shown a reducing rate trend whereas stroke rates were very variable (Figure 12b).

Across the circulatory disease groups, age specific rates were higher for the Aboriginal and Torres Strait Islander population for those over 25 years of age (Figure 12c).

The observed (actual) number of circulatory system disease separations was 1.8 times the expected number (if the Aboriginal and Torres Strait Islander hospitalisation rates were equal to the non-Indigenous rates) representing an excess of 7401 separations (Figure 12d). Ischaemic heart disease was 2.6 times the expected number of separations, with an excess of 4315 separations. Stroke was 1.7 times the expected number of separations, with an excess of 558 separations.

Figure 12 Hospital separations, 2011–12 to 2015–16: circulatory system, ischaemic heart disease, stroke



Source: QHAPDC, Queensland Health

Morbidity – Hypertensive diseases, chronic rheumatic heart diseases, acute rheumatic fever

For the period 2011–12 to 2015–16, the hospitalisation rate amongst Aboriginal and Torres Strait Islander people for hypertensive diseases was 1.9 times the non-Indigenous rate (Figure 13a). The gap between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders for hypertensive diseases was 0.5 separations per 1000.

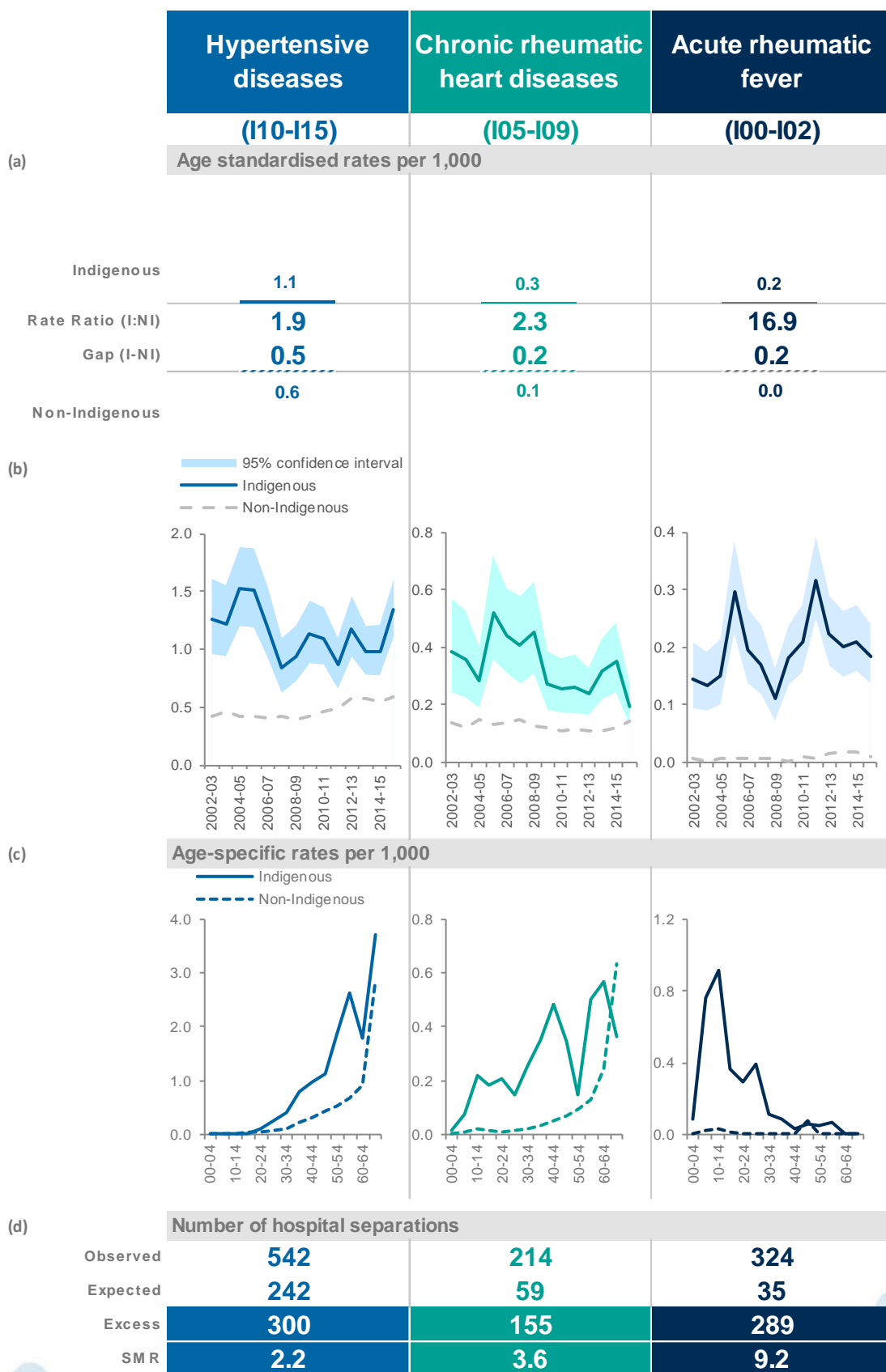
Although the number of separations was small, chronic rheumatic heart diseases and acute rheumatic fever is significantly higher than non-Indigenous rates. The hospitalisation rate among Aboriginal and Torres Strait Islander people for chronic rheumatic heart diseases was 2.3 times the non-Indigenous rate, and acute rheumatic fever 16.9 times the non-Indigenous rate (Figure 13a).

Hypertensive diseases and chronic rheumatic heart diseases showed variable rates of separations over time whilst the latter showed reducing rates in the last few years. Acute rheumatic fever also showed variable rates but much higher than the non-Indigenous population (Figure 13b).

For all three disease groups, age specific rates were higher for the Aboriginal and Torres Strait Islander population (Figure 13c). Age specific rates for hypertensive disease and are significantly higher in Aboriginal and Torres Strait Islander people of middle age, with both Aboriginal and Torres Strait Islander and non-Indigenous rates rising in later adult life. Age specific rates are significantly higher among Aboriginal and Torres Strait Islander people for chronic rheumatic heart diseases and acute rheumatic fever.

The observed (actual) number of hypertensive disease separations was 2.2 times the expected number (if the Aboriginal and Torres Strait Islander hospitalisation rates were equal to the non-Indigenous rates) representing an excess number 300 separations (Figure 13d). The observed number of chronic rheumatic heart disease separations was 3.6 times the expected number, and the observed number of acute rheumatic fever separations was 9.2 times the expected number (Figure 13d).

Figure 13 Hospital separations, 2011–12 to 2015–16: hypertensive diseases, chronic rheumatic heart diseases, acute rheumatic fever



Source: QHAPDC, Queensland Health

Morbidity – Respiratory diseases

For the period 2011–12 to 2015–16, the hospitalisation rate amongst Aboriginal and Torres Strait Islander people for respiratory disease was 2.0 times the non-Indigenous rate (Figure 14a). The gap between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders for respiratory disease was 18.1 separations per 1000.

The hospitalisation rate among Aboriginal and Torres Strait Islander people for chronic lower respiratory disease was 3.0 times the non-Indigenous rate, with a gap of 9.3 separations per 1000 (Figure 14a).

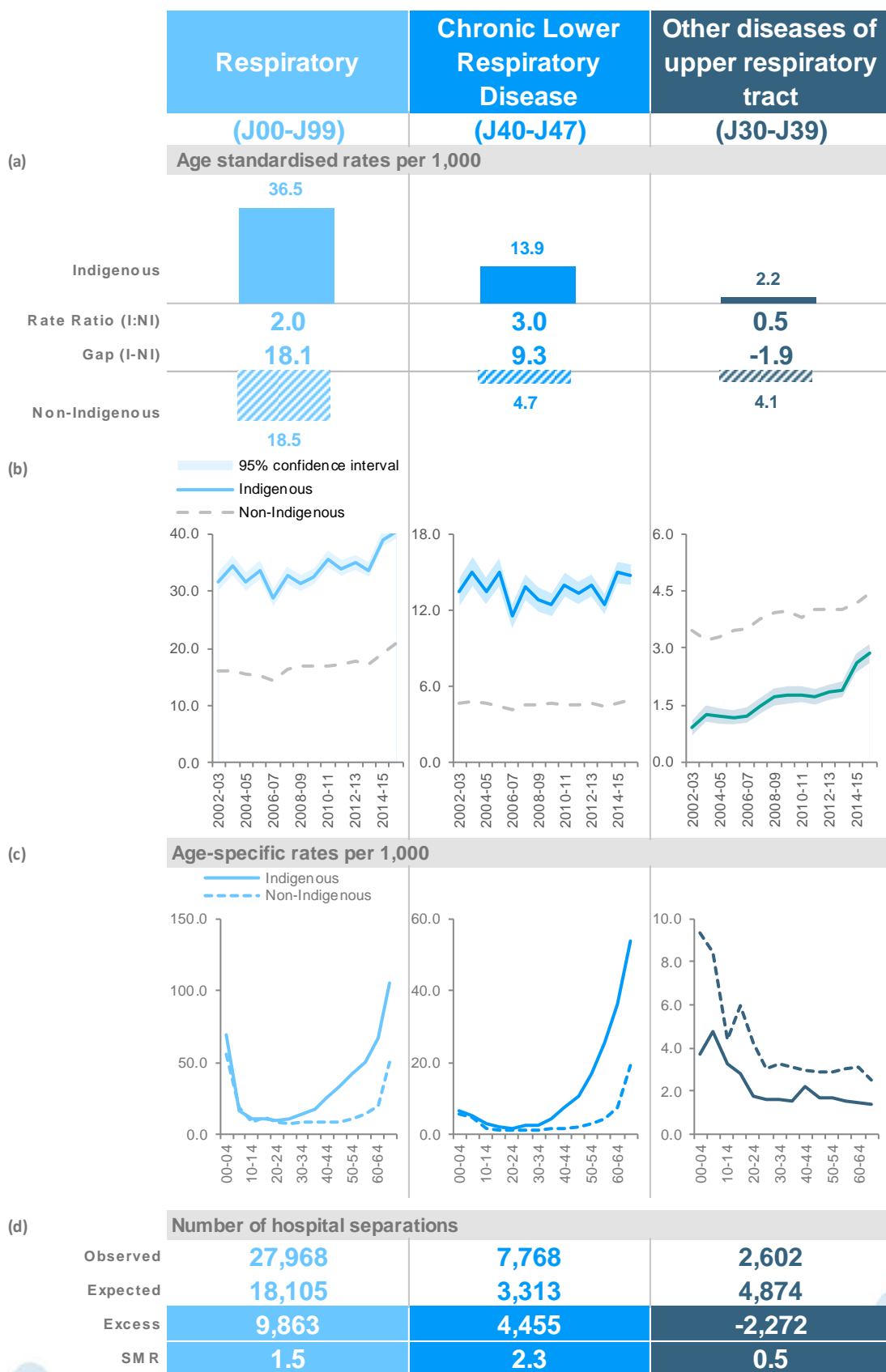
The hospitalisation rate among Aboriginal and Torres Strait Islander people for other diseases of the respiratory tract was 0.5 times the non-Indigenous rate, with a gap of -1.9 separations per 1000 (Figure 14a).

Separation rates for respiratory conditions show an increasing trend in both population groups, though rates are significantly higher among Aboriginal and Torres Strait Islander people. Although rates of separations for other diseases of the upper respiratory tract have been increasing the Aboriginal and Torres Strait Islander rates were significantly lower than the non-Indigenous rates (Figure 14b).

Age specific rates were significantly higher for the Aboriginal and Torres Strait Islander population for respiratory disease and chronic lower respiratory disease, but lower than non-Indigenous age specific rates for other diseases of the upper respiratory tract (Figure 14c).

The observed (actual) number of respiratory diseases separations was 1.5 times the expected number (if the Aboriginal and Torres Strait Islander hospitalisation rates were equal to the non-Indigenous rates) representing an excess number of 9863 separations (Figure 14d). Chronic lower respiratory disease separations were 2.3 times the expected number representing an excess of 4455 separations. Other diseases of the upper respiratory tract had a standardised ratio of 0.5 indicating that the Aboriginal and Torres Strait Islander population had lower rates than the non-Indigenous (Figure 14d).

Figure 14 Hospital separations, 2011–12 to 2015–16: respiratory, chronic lower respiratory disease, other disease of upper respiratory tract



Source: QHAPDC, Queensland Health

Morbidity – Endocrine diseases

For the period 2011–12 to 2015–16, the hospitalisation rate amongst Aboriginal and Torres Strait Islander people for endocrine diseases was 2.2 times the non-Indigenous rate (Figure 15a). The gap between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders for endocrine diseases was 7.5 separations per 1000.

The hospitalisation rate among Aboriginal and Torres Strait Islander people for Type 2 diabetes was 6.2 times the non-Indigenous rate, with a gap of 5.4 separations per 1000 (Figure 15a).

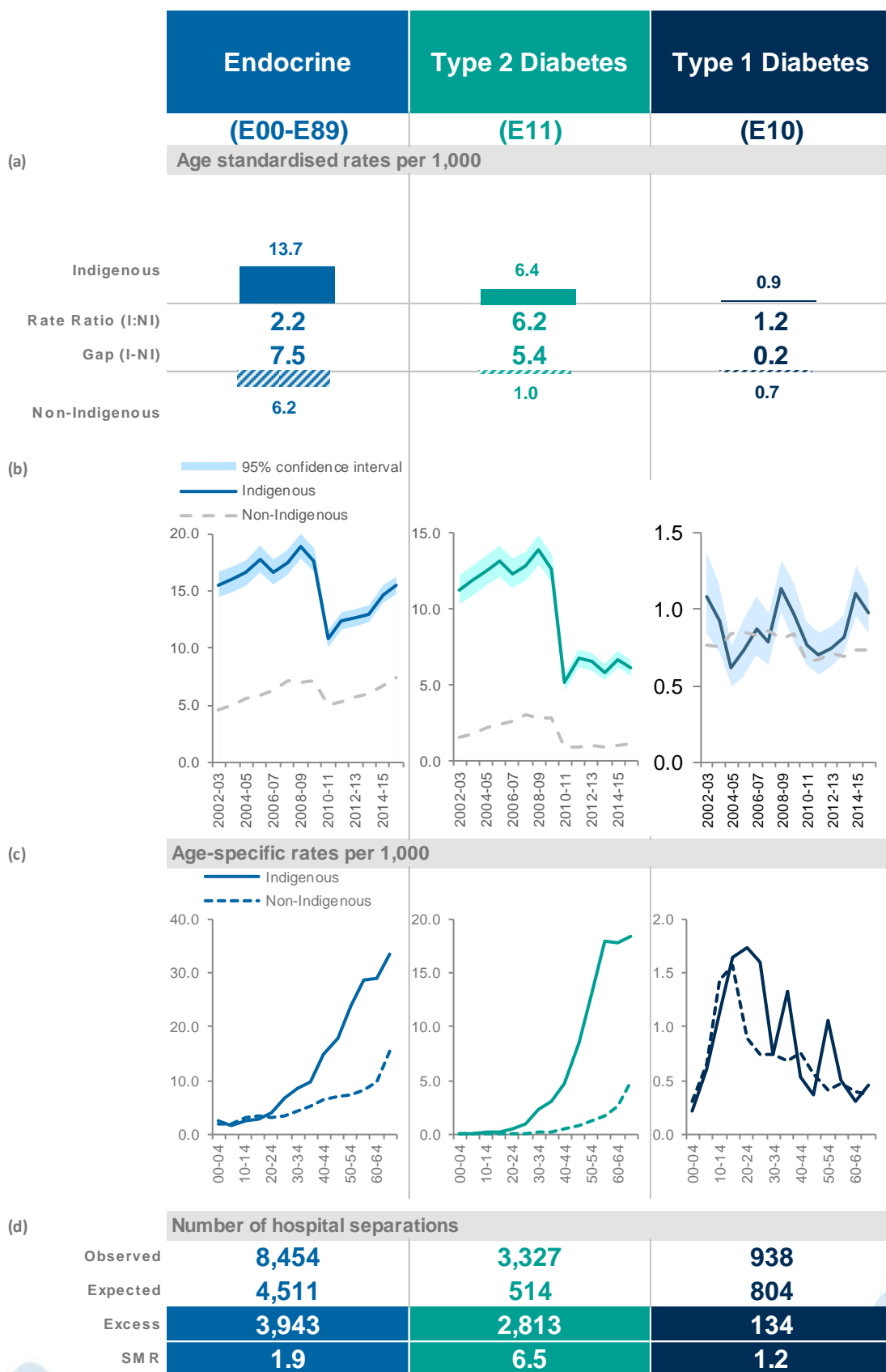
The hospitalisation rate among Aboriginal and Torres Strait Islander people for Type 1 diabetes was 1.2 times the non-Indigenous rate, with a gap of 0.2 separations per 1000 (Figure 15a).

Changes in the coding of diabetes occurred in 2010–11 and this had the impact of lowering hospitalisation rates as seen in Figure 15b. This was in no way reflective of the actual burden of disease in the population, and up until this coding change, Type 2 diabetes hospitalisations were increasing. Aboriginal and Torres Strait Islander separation rates for endocrine diseases and Type 2 diabetes remain significantly higher than the non-Indigenous rates. Type 1 diabetes rates are very variable (Figure 15b).

Age specific rates for endocrine diseases and Type 2 diabetes were significantly higher for the Aboriginal and Torres Strait Islander population for those over 25 years of age (Figure 15c). Type 1 diabetes showed greater variability.

The observed (actual) number of endocrine disease separations was 1.9 times the expected number (if the Aboriginal and Torres Strait Islander hospitalisation rates were equal to the non-Indigenous rates) representing an excess number of 3943 separations (Figure 15d). Type 2 diabetes was 6.5 times the expected number of separations, with an excess of 2813 separations (Figure 15d). Type 1 diabetes was 1.2 times the expected number of separations, with an excess of 134 separations.

Figure 15 Hospital separations, 2011–12 to 2015–16: endocrine, Type 2 diabetes, and Type 1 diabetes



Source: QHAPDC, Queensland Health

Morbidity – Injury and poisoning, external causes, and self-harm

For the period 2011–12 to 2015–16, the hospitalisation rate amongst Aboriginal and Torres Strait Islander people for injury and poisoning was 1.5 times the non-Indigenous rate (Figure 16a). The gap between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders was 15.7 separations per 1000.

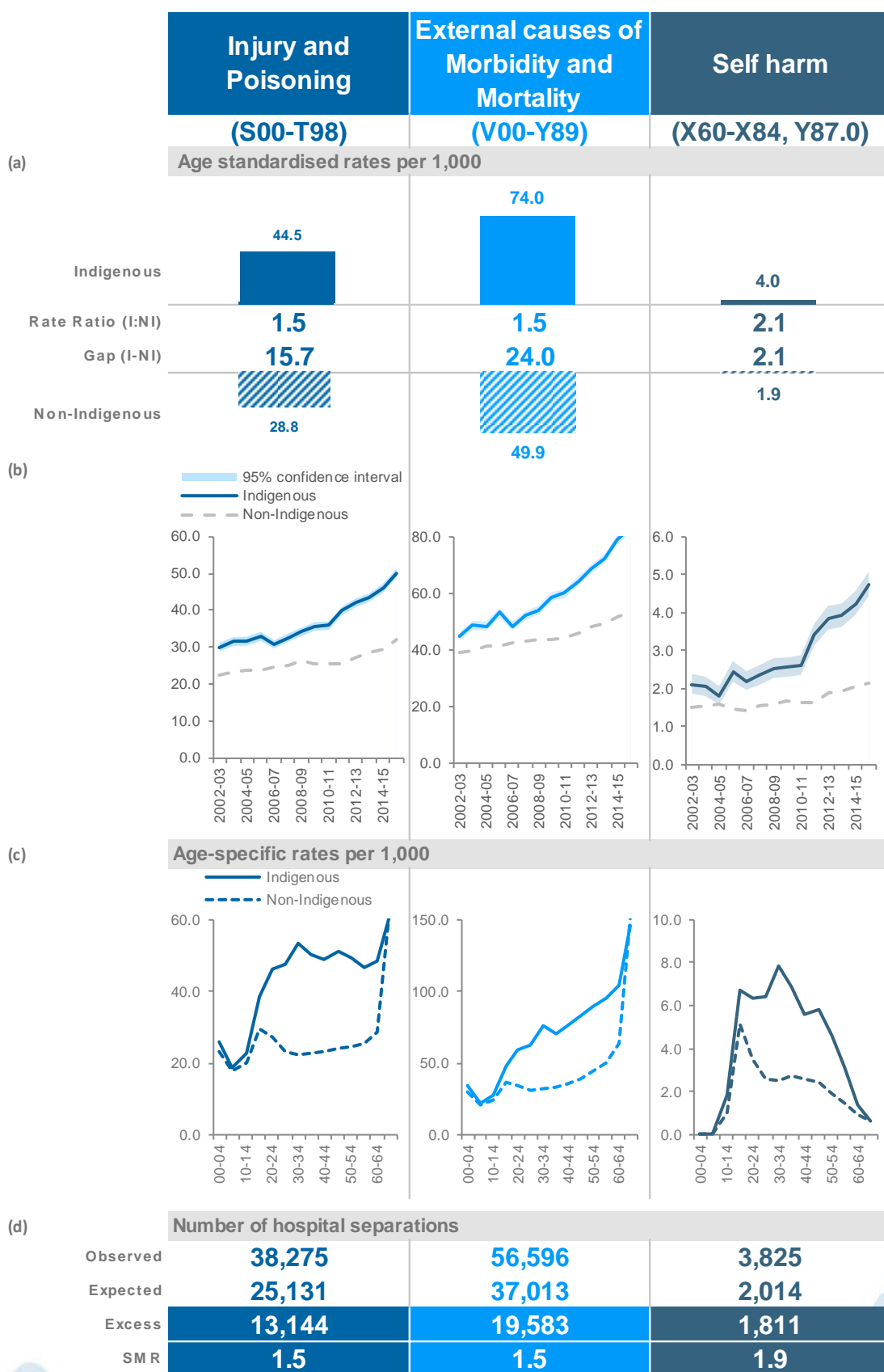
The hospitalisation rate among Aboriginal and Torres Strait Islander people for external causes was 1.5 times the non-Indigenous rate, with a gap of 24.0 separations per 1000 (Figure 16a).

The hospitalisation rate among Aboriginal and Torres Strait Islander people for self-harm was 2.1 times the non-Indigenous rate, with a gap of 2.1 separations per 1000 (Figure 16a).

Aboriginal and Torres Strait Islander separation rates for all three causes have shown an increasing trend and were significantly higher than the non-Indigenous rates (Figure 16b). Age specific rates are significantly higher for the 15–19 year age group (Figure 16c).

The observed (actual) number of injury and poisoning separations was 1.5 times the expected number (if the Aboriginal and Torres Strait Islander hospitalisation rates were equal to the non-Indigenous rates) representing an excess number of 13,144 separations (Figure 16d). External causes were 1.5 times the expected number of separations, with an excess of 19,583 separations. Self-harm was 1.9 times the expected number of separations, with an excess of 1811 separations.

Figure 16 Hospital separations, 2011–12 to 2015–16: Injury and poisoning, external causes of morbidity and mortality, self harm



Source: QHAPDC, Queensland Health

Morbidity – Cancer and chronic renal failure

For the period 2011–12 to 2015–16, the hospitalisation rate amongst Aboriginal and Torres Strait Islander people for cancers were less than the non-Indigenous rate (Figure 17a). This meant the gap between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders was -5.6 separations per 1000 (Figure 17a).

Aboriginal and Torres Strait Islander hospitalisation rates for cancer were significantly less than the non-Indigenous population with an upward trend in the last few years (Figure 17b). Age specific rates are slightly less than non-Indigenous rates for cancers (Figure 17c).

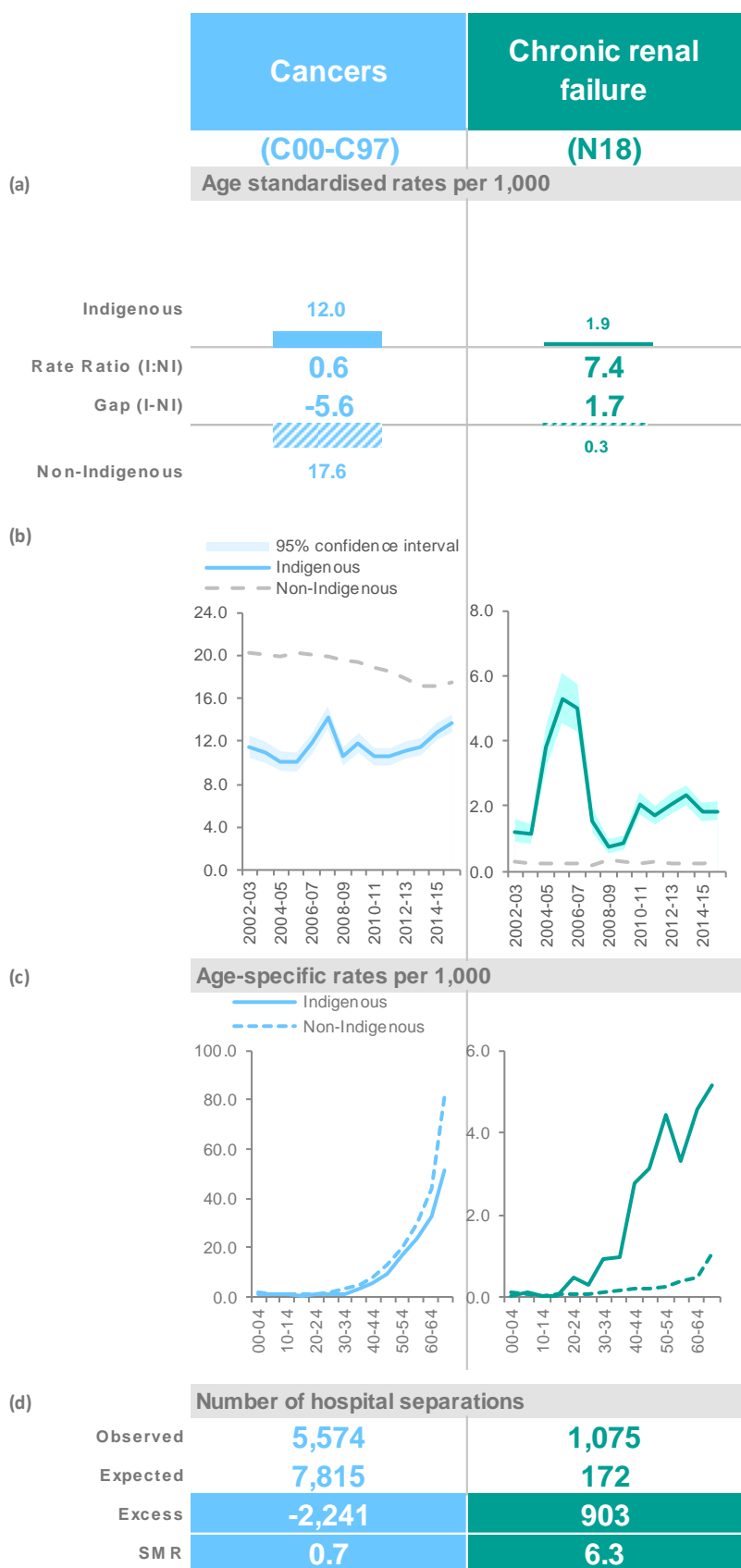
The observed (actual) number of cancer related separations was less than the expected number (if the Aboriginal and Torres Strait Islander hospitalisation rates were equal to the non-Indigenous rates) representing 2241 separations fewer than expected (Figure 17d).

For the period 2011–12 to 2015–16, the hospitalisation rate among Aboriginal and Torres Strait Islander people for chronic renal failure was 7.4 times the non-Indigenous rate (Figure 17a). This means that the gap between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders was 1.7 separations per 1000 (Figure 17a). Aboriginal and Torres Strait Islander hospitalisation rates for chronic renal failure were significantly more than the non-Indigenous population (Figure 17b).

Age specific rates were higher from the 20–24 year age group with the gap increasing in the older age groups (Figure 17c).

The observed (actual) number of chronic renal failure related separations were 6.3 times the expected number (if the Aboriginal and Torres Strait Islander hospitalisation rates were equal to the non-Indigenous rates) representing an excess 903 separations than expected (Figure 17d).

Figure 17 Hospital separations, 2011–12 to 2015–16: Cancers, chronic renal failure



Source: QHAPDC, Queensland Health

Table 5 shows the age standardised hospital separations per 100,000 by cause of admission and HHS. Rates are standardised to Australian standard population 2001 using age groups 0–4, 5–9, 65+ per 100,000 population: HHS region heat map (by columns). Chapter comparisons are made within each HHS region. The higher rates are in indicated red. Of interest is that a number of HHS regions have high hospitalisation rates across a wide range of conditions⁵.

Table 5 Aboriginal and Torres Strait Islander age standardised hospital separations per 100,000 persons: 2011–12 to 2015–16.

Chapters	CAH	CQ	CW	CY	DD	GC	Mac	MN	MS	NW	SC	SW	T&C	TSNPA	TSV	WB	WM	Qld
All Causes	104,943	75,701	43,197	73,763	81,604	40,630	62,376	55,314	57,529	130,411	42,751	54,996	54,876	38,355	158,101	75,150	50,444	79,057
Blood and blood forming organs	575	722	994	480	1,059	369	579	740	708	967	637	776	427	385	430	607	450	633
Circulatory system	3,693	3,992	3,177	3,693	3,795	1,851	2,927	2,747	2,780	5,507	2,765	4,567	2,888	2,181	4,313	3,840	3,144	3,409
Congenital anomalies	98	104	0	80	149	124	100	186	104	100	145	105	80	79	118	122	170	120
Digestive system	3,868	3,634	3,454	3,615	5,276	2,811	3,725	3,506	3,611	5,679	3,849	5,746	2,929	2,339	3,930	4,229	3,682	3,852
Ear and mastoid process	217	313	0	560	449	188	113	319	308	550	256	271	440	332	289	197	284	300
Endocrine, nutritional and metabolic	1,602	1,241	1,477	1,779	1,471	1,048	841	1,054	937	2,017	951	1,864	1,520	1,277	2,405	830	712	1,368
Eye and adnexa	624	1,451	1,092	1,450	1,039	846	1,161	1,015	813	1,648	882	1,560	1,196	1,023	1,048	668	622	978
Genitourinary system	2,468	2,522	1,932	2,525	3,146	1,939	1,996	2,053	2,355	3,352	2,096	2,433	2,048	1,648	2,757	2,516	2,800	2,435
Infectious and parasitic diseases	1,490	1,005	1,586	1,487	1,080	819	584	881	810	1,939	912	1,382	1,139	849	1,300	1,088	700	1,103
Injury poisoning and external causes	4,609	4,428	4,400	5,625	4,855	2,975	3,347	3,716	3,763	8,309	4,015	5,904	3,842	2,209	5,837	4,566	3,899	4,453
Mental and behavioural disorders	2,693	2,046	2,584	1,711	3,249	1,528	1,759	4,438	2,426	3,253	1,877	2,785	1,183	684	2,648	2,238	2,076	2,519
Musculoskeletal system and connective tissue	1,534	1,352	1,468	1,609	1,909	2,145	1,258	1,756	1,827	2,285	2,134	1,665	1,301	1,048	1,596	2,225	1,668	1,700
Neoplasms - benign	420	388	0	377	659	451	357	767	811	407	810	624	363	353	310	1,101	619	558
Neoplasms - malignant	1,041	1,302	0	911	1,607	1,284	1,146	1,264	1,363	1,066	1,160	1,067	838	752	1,343	1,476	1,147	1,200
Nervous system	960	1,541	1,794	651	1,214	1,476	1,087	1,447	1,213	1,080	839	1,209	521	436	961	1,062	945	1,087
Perinatal	335	267	0	399	250	281	325	328	210	447	329	156	302	233	309	305	187	288
Pregnancy, childbirth	4,183	2,931	2,067	4,092	4,611	1,816	2,928	2,692	2,199	4,082	3,238	3,398	4,077	4,083	3,267	3,030	2,822	3,246
Respiratory system	4,541	3,312	3,112	4,080	5,124	1,910	2,363	2,756	2,836	6,519	2,523	6,157	2,823	1,840	4,511	4,065	2,693	3,654
Skin and subcutaneous tissue	1,700	1,360	1,108	1,811	1,489	524	948	886	1,021	3,123	658	1,175	2,023	2,146	2,109	1,286	1,000	1,445
Symptoms, signs and abnormal findings	4,407	5,411	3,744	3,831	5,510	3,753	4,208	4,250	4,266	6,438	4,121	4,802	2,737	1,816	4,525	4,617	3,830	4,373
Factors influencing health status and contact with health services	63,886	36,380	8,014	32,997	33,664	12,493	30,622	18,513	23,165	71,642	8,553	7,350	22,198	12,641	114,094	35,082	16,996	40,336

Source: Queensland Hospital Admitted Patient Data Collection (QHAPDC), Queensland Health

⁵ The two chapters 'Symptoms, signs and abnormal findings' and 'Factors influencing health status and contact with health services' have not been included in the analysis as they do not relate to specific disease conditions.

Table 6 shows the rate ratio of Aboriginal and Torres Strait Islander hospital separations to non-Indigenous Queenslanders. Aboriginal and Torres Strait Islander people residing in most HHS had higher rates of all cause hospitalisations, except for Gold Coast, Sunshine Coast and Torres Strait-Northern Peninsula region. Aboriginal and Torres Strait Islander rates of hospital admission are lower than Queensland non-Indigenous rates for musculoskeletal system and connective tissue diseases, and benign and malignant cancers.

Rates are standardised to Australian standard population 2001 using age groups 0–4, 5–9, 65+ per 100,000 population. Chapter comparisons are made within each HHS region (i.e. by columns) relative to the non-Indigenous population of Queensland.

Table 6 Rate ratio: Aboriginal and Torres Strait Islander HHS region to non-Indigenous Queensland

Chapter	CAH	CQ	CW	CY	DD	GC	Mac	MN	MS	NW	SC	SW	T&C	TSNPA	TSV	WB	WM	Qld
All Causes	2.7	1.8	1.2	1.9	2.0	1.0	1.6	1.3	1.4	3.9	1.0	1.4	1.2	0.6	4.3	1.7	1.2	1.9
Blood and blood forming organs	1.0	1.4	2.0	0.5	1.1	0.5	1.0	0.9	0.8	2.3	0.9	1.0	0.5	1.5	0.7	0.9	0.7	0.9
Circulatory system	1.9	1.7	1.2	1.7	1.9	1.0	1.3	1.3	1.5	2.4	1.2	2.1	1.4	1.2	2.1	1.4	1.4	1.6
Congenital anomalies	0.7	0.7	0.0	0.6	1.1	0.7	0.8	1.2	0.8	0.7	1.0	0.7	0.5	na	0.7	0.8	1.2	0.8
Digestive system	1.0	0.9	0.8	0.9	1.2	0.7	0.9	0.8	0.9	1.4	0.8	1.2	0.8	0.6	1.0	0.9	0.9	0.9
Ear and mastoid process	0.9	1.3	0.0	1.1	1.7	0.7	0.4	1.1	1.0	2.1	1.1	1.0	0.9	0.8	1.4	0.7	1.0	1.1
Endocrine, nutritional and metabolic	3.2	1.6	2.1	2.8	2.5	1.6	1.4	1.7	1.5	2.2	1.8	1.8	2.5	2.6	3.5	1.3	1.1	2.2
Eye and adnexa	0.6	1.1	0.9	1.2	0.9	0.5	1.0	0.7	0.7	1.3	0.5	1.3	1.0	0.9	0.7	0.5	0.4	0.7
Genitourinary system	1.3	1.2	1.1	1.4	1.6	1.0	1.0	1.0	1.2	1.9	1.0	1.3	1.1	0.8	1.2	1.2	1.3	1.2
Infectious and parasitic diseases	1.7	1.4	1.3	1.1	1.7	1.1	0.9	1.3	1.2	2.5	1.2	1.3	0.9	0.8	1.9	1.5	1.1	1.6
Injury poisoning and external causes	1.4	1.3	0.9	1.2	1.7	1.1	1.0	1.4	1.5	2.6	1.2	1.3	0.8	0.7	2.1	1.4	1.4	1.6
Mental and behavioural disorders	1.6	2.5	2.2	1.9	2.3	1.0	2.0	1.6	1.0	4.5	1.2	3.0	1.4	1.1	3.4	2.1	1.1	1.3
Musculoskeletal system and connective tissue	0.8	0.7	0.7	0.6	0.9	0.9	0.6	0.8	0.9	1.2	1.0	0.8	0.5	0.7	0.7	1.0	0.7	0.8
Neoplasms - benign	0.5	0.5	0.0	0.5	0.7	0.6	0.4	0.7	0.6	0.7	0.7	0.8	0.5	0.5	0.3	1.0	0.6	0.5
Neoplasms - malignant	0.7	0.7	0.0	0.6	1.0	0.8	0.8	0.7	0.7	0.9	0.7	0.7	0.6	0.5	0.9	0.8	0.6	0.7
Nervous system	0.9	1.1	1.5	0.6	1.0	1.2	0.9	1.0	0.9	1.1	0.8	1.1	0.5	0.6	0.9	0.7	0.7	0.8
Perinatal	1.3	1.1	0.0	1.4	1.0	1.1	1.1	1.2	0.9	1.2	1.3	0.9	1.1	0.9	1.2	0.9	0.7	1.1
Pregnancy, childbirth	1.3	1.1	0.8	1.7	1.5	0.9	1.0	1.2	1.0	1.8	1.2	1.2	1.6	1.2	1.5	1.2	1.1	1.4
Respiratory system	2.5	1.6	1.3	1.7	2.6	1.1	1.3	1.5	1.6	3.3	1.3	2.4	1.2	0.9	2.9	2.1	1.2	2.0
Skin and subcutaneous tissue	1.8	1.8	1.1	1.0	2.5	0.9	1.3	1.2	1.6	3.1	1.0	1.5	1.0	0.9	3.0	1.5	1.5	2.1
Symptoms, signs and abnormal findings	1.7	1.7	1.1	1.2	1.9	1.1	1.3	1.4	1.3	2.1	1.3	1.7	0.9	0.7	1.5	1.5	1.2	1.4
Factors influencing health status and contact with health services	6.9	3.9	2.1	6.5	3.9	1.2	3.3	2.0	2.2	15.2	0.9	1.6	2.0	0.3	15.0	3.3	1.8	4.2

RR<1.0 increasing shades of green
RR>1.0 increasing shades of red

Source: QHAPDC, Queensland Health

What has changed

Interpretation of hospital activity data can be challenging. Reductions in hospital activity for certain conditions does not necessarily equate to health improvements, just as increases in hospitalisation for certain conditions does not reflect increases in the disease burden in the population. Regardless, as published in the previous report, hospitalisation rates remained steady since 2010–11 to 2014–15.

Of concern are the persistently high rates of hospitalisations for CVD, respiratory disease, injury and poisoning, and external causes of morbidity and self-harm. External causes of morbidity (such as injury and poisoning, suicide and transport accidents) and self-harm are strongly correlated to substance use and mental illness, and persistent high rates in these areas would indicate that a great deal more work needs to be done to manage mental illness and substance use disorders in the Aboriginal and Torres Strait Islander population.

What we are doing

Increased Indigenous Hospital Liaison Services for Central Queensland

Central Queensland HHS has dramatically increased the provision of Aboriginal and Torres Strait Islander hospital liaison services across their region. From 1 July 2016, funding has increased from approximately \$190,000 per year to over \$680,000. This funding is made jointly from the Making Tracks Investment Strategy 2015–2018 and Central Queensland HHS. The additional funding means that an increased number of staff across different disciplines - Liaison, Administration and Transport Officers - are now employed within the Service across a range of locations including Rockhampton, Yeppoon (Capricorn Coast), Gladstone and Biloela, with a new position covering Emerald, Blackwater and Springsure to be established in early 2017.

The additional funding for the Aboriginal and Torres Strait Islander Hospital Liaison Service has enabled it to target fail-to-attend (FTA) cases among Aboriginal and Torres Strait Islander people scheduled to attend specialist outpatient appointments and has achieved very significant results, particularly in Rockhampton.

In July 2016 there were 230 cases of FTA in Rockhampton, whereas by December 2016 this number had dropped to just 29. As well as ensuring Aboriginal and Torres Strait Islander people are supported to receive timely care there is a saving of approximately \$1100 every time an episode of FTA is avoided.

New community controlled primary healthcare care satellite clinic for North West Queensland

In 2016, Queensland Health invested \$2.43 million over two years in Gidgee Healing (Gidgee) to establish a new primary healthcare satellite clinic in the Mount Isa suburb of Pioneer, providing increased access to primary healthcare services for Aboriginal and Torres Strait Islander people living in Mount Isa and the Lower Gulf communities. Gidgee's Pioneer clinic opened its doors in February 2017 and is delivering additional evidence based comprehensive primary healthcare services including chronic disease management, sexual health screening and treatment, health education, health prevention and early intervention across the life span.

The emerging role of Gidgee as a lead provider of health services in the North West region over the past 18 months is providing Aboriginal and Torres Strait Islander people with new opportunities to inform the planning and delivery of services in their community. The Lower Gulf Health Strategy established in 2016, and with membership including Gidgee, the North West HHS and the Western Queensland Primary Health Network, has been instrumental in supporting Gidgee in its expansion.

More broadly it has also seen a shared approach to health service planning emerging in the region which is changing the service landscape by better aligning Queensland Health and Commonwealth investment, and providing greater role clarity amongst local health providers.

Comprehensive primary health care for Palm Island residents

Townsville HHS are working with the community of Palm Island and other service providers to undertake delivery of early primary health care and support the future planning of the health needs for Palm Island. In February 2016, Townsville HHS took the step of introducing the MMEX electronic patient information system in the Joyce Palmer Health Service on Palm Island. This is a significant improvement from the previous paper based system and allows a patient's full clinical history to be seen and shared electronically, and in addition supports both development of care plans for the individual and monitoring of the health needs and issues for the community.

In combination with the above, the clinic staff at Joyce Palmer have increased their role in providing preventative health services, rather than responding to someone being already ill to access the doctors. As a demonstration of this, the number of MBS 715 health checks has increased, with over 100 health checks being undertaken in October 2016.

In addition, Townsville HHS in partnership with Palm Island Aboriginal Shire Council is supporting the development of a new Palm Island Health Action Plan. The Queensland Government is also contributing \$16.5 million for the building of a new primary healthcare service for Palm Island. Townsville HHS is taking active steps to ensure the community and other health providers are providing the lead on identifying the future health needs and services for Palm Island.

QUITLINE helping Aboriginal and Torres Strait Islander people quit smoking

- In 2015-16, 2701 Aboriginal and Torres Strait Islander people received quit smoking advice and counselling from Queensland's Quitline, representing eight per cent of total callers. A team of Aboriginal and Torres Strait Islander counsellors is also available.
- Quitline's Yarn to Quit program provides up to four tailored quit smoking support counselling sessions for Aboriginal and Torres Strait Islander Queenslanders.
- Quit for You... Quit for Baby provides tailored quit smoking support through Quitline, for pregnant women. Recruitment is through Queensland public hospital antenatal services. During 2015-16, around 10 per cent of participants were identified as Aboriginal and Torres Strait Islander.
- Under the Healthy Indigenous Communities Project, Apunipima have been funded for 12 months to build the capacity of Aboriginal and Torres Strait Islander shire councils in Cape York to create healthier food and smokefree environments.
- The Menzies School of Health Research have been funded for three years to deliver the Aboriginal and Torres Strait Islander Brief Intervention Training Program, which will upskill health and community workers to conduct nutrition, physical activity and smoking brief interventions to Aboriginal and Torres Strait Islander clients.

Maternal and child health

Antenatal visits

Why it is important

Effective and timely antenatal care is particularly important for Aboriginal and Torres Strait Islander women, as they are at higher risk of giving birth to babies of low birthweight, and have greater exposure to other risk factors such as anaemia, poor nutrition, hypertension, diabetes, genital and urinary tract infections and smoking.

Improved access to quality antenatal care provides expectant mothers with information and early screening that can identify and manage issues that may affect birth outcomes. The indicators included in this chapter measure the Queensland Government's capacity to address the key early life determinants of child health outcomes by providing improved and integrated antenatal services.

Clinical practice guidelines recommend women present for antenatal care within the first 10 weeks of pregnancy, and depending on need, attend a schedule of 10 visits for the first pregnancy and seven for subsequent uncomplicated pregnancies. The indicator of five visits identified in the NIRA reflects a minimum standard in the context of Australian guidelines, particularly given the higher rates and complexity of pre-existing conditions and higher complications in pregnancy experienced by Aboriginal and Torres Strait Islander women.

What we found

In 2015–16 in Queensland 87.8 per cent of Aboriginal and Torres Strait Islander women who gave birth attended five or more antenatal visits. While this is an improvement on previous years, it is still 8.5 percentage points lower than the non-Indigenous rate (Figure 18).

In 2015–16 in Queensland 60.6 per cent of Aboriginal and Torres Strait Islander women who gave birth attended their first antenatal visit in the first trimester, an increase from 36.3 per cent in 2009–10.

What has changed

There continues to be improvements in antenatal attendance among Aboriginal and Torres Strait Islander women, with more women attending in the first trimester and more women attending five or more visits. Earlier and more regular attendance at antenatal care is fundamental to improving outcomes for Aboriginal and Torres Strait Islander mothers and babies, as well as improvements in the quality of antenatal care received. Given that there is still a significant gap for antenatal visits, more work in this area is required.

Low birthweight babies

Why it is important

Low birthweight babies (newborns weighing less than 2,500 grams) are at a greater risk of dying in their first year of life, experiencing ill-health during childhood, and developing chronic disease in adulthood. Often associated with premature birth or restricted foetal growth, there are a number of risk factors for low birthweight including maternal smoking, socio-economic disadvantage, overweight and obesity, or inadequate nutrition of the mother, excessive alcohol consumption during pregnancy, and poor antenatal care.

What we found

In 2015, the rate of low birthweight babies was 8.5 per cent. This was 1.8 times the non-Indigenous rate.

What has changed

The rate of low birthweight babies has remained between 9–10 per cent for the last decade. For the first time this rate has dropped below nine per cent.

It is important effort is prioritised in this area. Given the link between low birthweight and antenatal and prenatal behaviours, education taking a life course approach should begin for women in pre-adolescence.

Smoking in pregnancy

Why it is important

Smoking in pregnancy increases the risk of miscarriage and complications during pregnancy, and is associated with low birthweight, fetal growth restriction, pre-term birth, congenital anomalies, and perinatal death. Passive smoking by the mother during pregnancy has been found to have the same risks. Evidence shows that smoking cessation, particularly during the first trimester, can reduce these risks.

What we found

In 2015–16, 43.1 per cent of Aboriginal and Torres Strait Islander women who gave birth reported smoking at some stage during pregnancy. This was more than four times the rate of non-Indigenous women (10.1 per cent) (Figure 20).

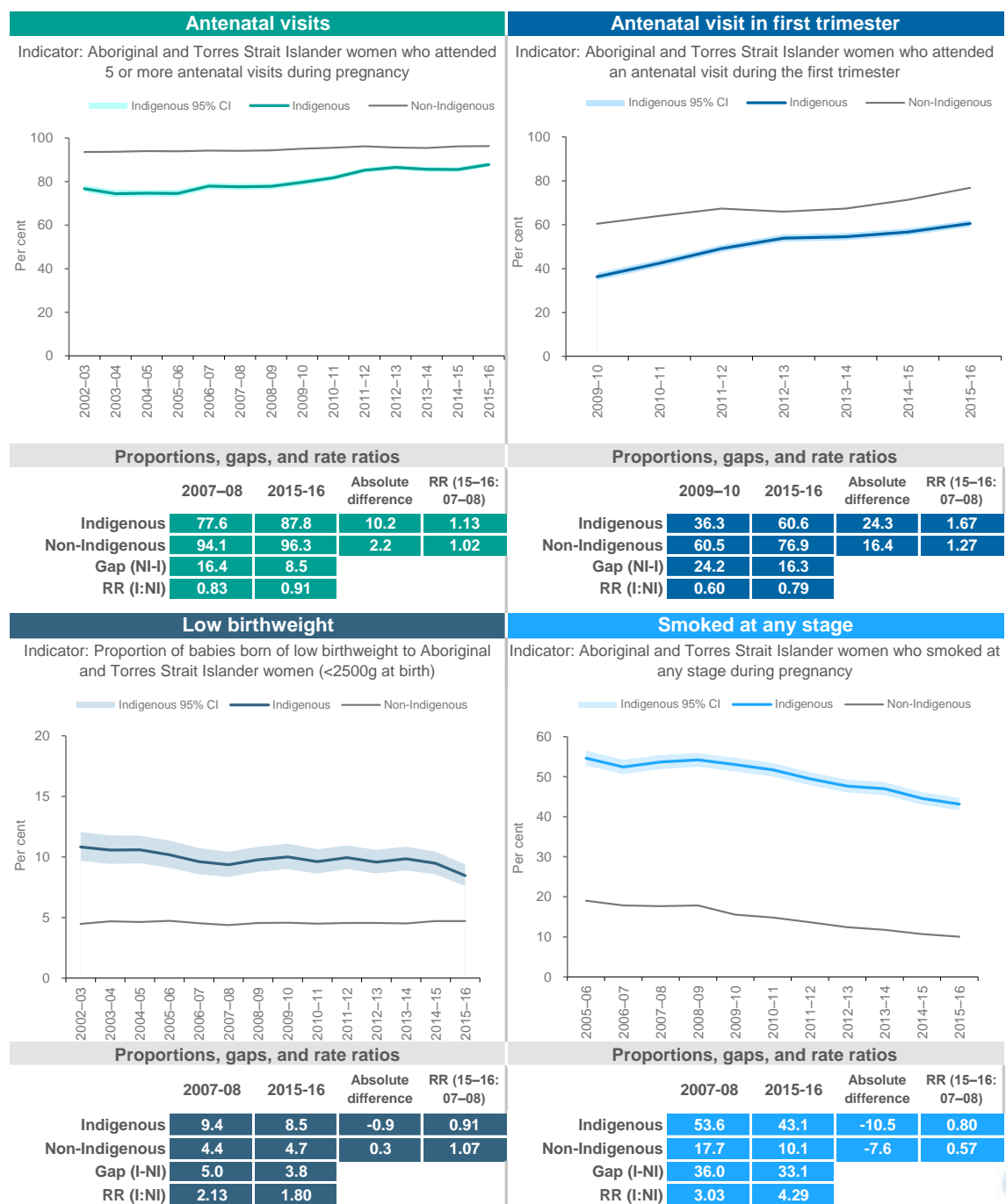
This rate dropped to 37.5 per cent of Aboriginal and Torres Strait Islander women who gave birth who reported smoking at 20 weeks gestation. However, this was still 4.8 times the rate of non-Indigenous women (7.9 per cent).

What has changed

There continues to be improvements in maternal smoking, with reductions in smoking at all during pregnancy and after 20 weeks. However, significant differentials remain between Aboriginal and Torres Strait Islander and non-Indigenous rates.

Given the well documented health risks associated with smoking during pregnancy, this is an area where gains must be made in order to address issues of low birthweight, pre-term births and illness and disability in childhood. While gains have been encouraging there is a requirement to not only sustain but accelerate these improvements into the future.

Figure 18 Child and maternal health indicators



* CI Confidence interval

Source: Perinatal Data Collection, Queensland Health

What we are doing

Ngarrama program working towards closing the gap

“Ngarrama” meaning Guardian Birth Spirit, comes from the Yuwaalayaay language. Ngarrama is an antenatal, birthing and postnatal service for Aboriginal and Torres Strait Islander families who choose to birth at the Royal Brisbane and Women’s Hospital, Caboolture and Redcliffe hospitals.

Metro North HHS will receive \$2.29 million between 2015 and 2018 under the Making Tracks Investment Strategy 2015–2018, to provide holistic, culturally appropriate and responsive community based antenatal, postnatal and infant care services to Aboriginal and Torres Strait Islander women and their families.

This investment, along with other initiatives, has enabled Metro North HHS to:

- increase the percentage of Aboriginal and Torres Strait Islander women attending five or more antenatal visits to 90.8 per cent.
- decrease the number of women who smoked at any stage during pregnancy from 47.0 per cent in 2010–2011 to 39.8 per cent in 2015–2016, which is lower than the Queensland Aboriginal and Torres Strait Islander average (43.1 per cent).

The number of Aboriginal and Torres Strait Islander women giving birth in Metro North facilities has increased from 170 on average between 2003–03 to 2006–07, to 392 in 2015–16⁶.

The service involves a collaborative continuity of care model where care follows the woman and, where appropriate, her family across the interface of community and hospital services through all aspects of her antenatal, birthing and early postnatal experiences. This involves health service partnership hub/s where community controlled health maternity services are offered alongside maternity related services offered by Queensland Health, the GP sector and non-government service organisations.

The Ngarrama Model of Care:

- Care is culturally and clinically safe and ‘feels’ safe for parents and family
- Care reinforces pride in cultural heritage
- Care needs to empower the woman and her family
- Care is trusted, valued and accepted by the women and her family
- Care is holistic and integrated
- Care is local or ‘feels’ local
- Care and carer continuity is ensured (transitions are supported).

⁶

Data Source: Perinatal Data Collection (PDC), Queensland Health, 2002–03 to 2015–16.

Birth in Our Communities

The Birth in Our Communities (BiOC) program was established in 2013 through a partnership between the Brisbane Mater Mothers' Hospital, the Institute for Urban Indigenous Health (IUIH) and the Aboriginal and Torres Strait Islander Community Health Service Brisbane (ATSICHS Brisbane).

The partnership includes a multidisciplinary steering committee, shared clinical governance with Aboriginal and Torres Strait Islander cultural guidance and oversight.

A World Café workshop in 2012 involving community elders, service users, providers and policy advisors, identified that Aboriginal and Torres Strait Islander women did not feel comfortable in the hospital, preferring community-based maternity care.

The Queensland Government has provided to the IUIH \$3.0 million over two years through the Making Tracks Investment Strategy 2015–2018 for the expansion of the BiOC workforce. This has allowed BiOC to increase the number of midwives and Indigenous Worker positions and to establish a BiOC hub in Salisbury, Brisbane, which opened in October 2016.

The hub delivers intensive antenatal and family support services for vulnerable women birthing an Aboriginal and/or Torres Strait Islander baby at the Mater Mothers' Hospital. The program provides continuity of care, twenty-four hours seven days a week, through pregnancy, birth and up to six weeks postnatal. Every woman has their own midwife on-call twenty-four hours a day and a support team that includes Aboriginal health workers, Aboriginal student midwives, doctors and other health professionals. The service provides antenatal care, intrapartum care, birthing support, the Stop Smoking in its Tracks incentive program, perinatal mental health, breastfeeding support and family support services.

Since opening, of the women the BiOC Hub has supported to birth at the Mater Mothers Hospital, 97.8 per cent have had five or more antenatal visits and only 4.0 per cent have birthed a low weight baby (weighing less than 2500gms).

Immunisation

Why it is important

Immunisation has been a highly effective tool in reducing morbidity and mortality. Since the introduction of childhood vaccination in Australia, deaths by vaccine-preventable diseases have declined significantly. Immunisation is one of the front line defences against disease and death in developed countries across the globe. It is a fundamental element of any developed health system and crucial to controlling preventable disease in any population.

To support the implementation of effective immunisation coverage for all Queenslanders, Queensland Health has developed the [Queensland Immunisation Strategy 2014–2017](#)⁷ to ensure that coverage rates remain high and that immunisation plays a significant role in promoting wellbeing and preventing disease.

What we found

Overall, immunisation coverage rates for Aboriginal and Torres Strait Islander children are comparatively high, with all but one HHS region (South West HHS) registering vaccination coverage rates of greater than 90 per cent at age five (Table 7). For South West HHS to achieve non-Indigenous HHS parity, an additional seven Aboriginal and Torres Strait Islander children would need to be fully vaccinated.

What has changed

Compared to rates for 2014–15, vaccination coverage rates have improved across a number of HHS regions at all three vaccination points (Table 8). However, the proportion of fully vaccinated children at one and two years remains under 90 per cent coverage for a number of HHS. Declining vaccination coverage has also been reflected in the non-Indigenous population, both at the state-wide and national level.

Achieving good immunisation coverage reflects the strength and effectiveness of the primary health care system. While the coverage of immunisation for Aboriginal and Torres Strait Islander children in Queensland is high, there continue to be disparities in the timeliness of vaccinations between Indigenous and non-Indigenous children.

Immunisation timeliness is crucial. Significant research has gone into the scheduled timing of immunisation and delays in immunisation at one and two years of age introduce unnecessary risk to babies and children.

Efficient use of recall systems, community leadership, support of immunisation programs, and integration of immunisation services with community-based programs and services are effective strategies to address immunisation coverage issues. These strategies have been put in place to increase immunisation rates in Aboriginal and Torres Strait Islander children across Queensland.




















































⁷ The draft [Queensland Health Immunisation Strategy 2017–2022](#) is out for public consultation

Table 7 Aboriginal and Torres Strait Islander vaccination coverage rates by HHS region, 2015–16

HHS	1 year		2 years				5 years			
	% fully vaccinated (# children in cohort)	Gap indicator (I-NI)	% with MMR dose 2 (# children in cohort)	Gap indicator (I-NI)	% fully vaccinated (# children in cohort)	Gap indicator (I-NI)	% with MMR dose 2 (# children in cohort)	Gap indicator (I-NI)	% fully vaccinated (# children in cohort)	Gap indicator (I-NI)
Cairns and Hinterland	84.0 (774.4)	-8.9	89.1 (747)	-2.7	88.1 (747)	-2.7	96.9 (812.4)	5.6	96.7 (812.4)	5.8
Central Queensland	88.2 (396.7)	-7.2	86.8 (362.6)	-7.5	82.9 (362.6)	-10.4	93.4 (335.9)	-0.7	92.6 (335.9)	-0.9
Central West	94.4 (18)	-1.7	95.5 (22)	0.5	95.5 (22)	2.6	96.3 (27)	-2.3	96.3 (27)	-1.6
Darling Downs	90.0 (462.3)	-4.3	88.1 (428.5)	-5.3	85.3 (428.5)	-7.1	93.5 (414.2)	-1.4	91.8 (414.2)	-2.5
Gold Coast	91.7 (181)	-1.3	90.4 (167)	-0.2	88.6 (167)	-0.9	98.8 (172)	7.7	98.8 (172)	8.3
Mackay	92.1 (253)	-2.7	92.7 (219)	-1.3	91.3 (219)	-1.6	96.2 (211)	0.8	96.2 (211)	1.4
Metro North	89.2 (565.1)	-4.9	91.1 (570.9)	-2.5	88.8 (570.9)	-3.8	93.8 (434.8)	0.4	93.1 (434.8)	0.2
Metro South	86.7 (608)	-6.6	89.8 (551)	-3.4	88.4 (551)	-3.5	94.4 (535)	1.5	94 (535)	1.8
North West	90.0 (264.0)	-4.3	90.1 (215.3)	-3.5	88.3 (215.3)	-4.7	95.8 (259)	1.6	95.4 (259)	1.5
South West	80.2 (91)	-17.3	83.3 (84)	-11.5	78.6 (84)	-15.1	88.9 (72)	-6.1	84.7 (72)	-9.9
Sunshine Coast	88.7 (195)	-1.5	87.1 (186)	-2.5	84.9 (186)	-3.7	90.6 (191)	0.4	90.1 (191)	0.5
Torres and Cape	95.5 (334)	9.8	95.1 (327)	4.2	94.8 (327)	6.2	97.4 (352)	9.1	97.4 (352)	10.8
Townsville	83.6 (603.6)	-12.5	84.7 (529.7)	-10.0	82.8 (529.7)	-11.3	95.5 (557.6)	-0.4	94.4 (557.6)	-1.1
West Moreton	89.7 (311.9)	-4.5	91.1 (282.2)	-2.4	87.6 (282.2)	-4.7	94.1 (256.2)	-0.5	92.9 (256.2)	-1.0
Wide Bay	90.9 (253)	-3.4	90.6 (244)	-3.2	88.9 (244)	-3.6	97.7 (221)	4.8	96.4 (221)	3.7
QUEENSLAND	88.1 (5311)	-5.5	89.4 (4936)	-3.5	87.4 (4936)	-4.4	95.2 (4851)	2.1	94.5 (4851)	2.0
AUSTRALIA	89.8 (16654)	-3.4	89.8 (15672)	-2.7	87.7 (15672)	-3.2	95.4 (14893)	1.9	94.6 (14893)	1.8
	< 90%	I<NI I>NI	< 90%	I<NI I>NI	< 90%	I<NI I>NI	< 90%	I<NI I>NI	< 90%	I<NI I>NI

Source: Australian Childhood Immunisation Register, Australian Government Department of Health

Table 8 Change in per cent fully vaccinated by HHS region, Aboriginal and Torres Strait Islander children 2014–15 to 2015–16

HHS region	Change in % fully vaccinated					
	1 year		2 years		5 years	
Cairns and Hinterland		-1.8		-1.8		1.2
Central Queensland		2.7		-3.5		2.0
Central West		-1.2		-0.7		1.6
Darling Downs		4.5		0.3		-2.0
Gold Coast		7.7		0.2		2.3
Mackay		1.6		1.1		0.0
Metro North		-1.1		-0.5		-0.2
Metro South		-1.5		3.4		2.2
North West		3.3		0.0		3.9
South West		2.3		1.8		-10.8
Sunshine Coast		3.3		-1.4		1.3
Torres and Cape		0.4		4.2		1.2
Townsville		2.6		1.9		1.4
West Moreton		1.7		1.4		0.1
Wide Bay		5.9		-0.8		10.5
QUEENSLAND		1.4		0.5		1.3
AUSTRALIA		2.1		1.0		1.1

Source: Australian Childhood Immunisation Register, Australian Government Department of Health

Financial cost to the system

Aboriginal and Torres Strait Islander Queenslanders experience first-hand the high level of ill health within their communities. Higher rates of chronic disease particularly within younger age groups manifests in poorer health outcomes, lower quality of life and premature deaths. The Queensland Government is committed to achieving health equality for Aboriginal and Torres Strait Islander Queenslanders. Improving early detection and treatment of the major conditions contributing to the health gap will make a significant difference to Aboriginal and Torres Strait Islander health outcomes.

By focusing effort earlier in the disease continuum, there is a secondary financial benefit to the health system. Higher rates of hospitalisation for acute interventions lead to significant system costs and lower health outcomes. Investing in disease prevention, improved management and appropriate intervention will reduce rates of hospitalisation, improve health outcomes and increase financial sustainability of the health system. This profile provides information on the extent of savings possible if we can close the gap in hospitalisation rates between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders.

\$690.2 million

2013–14 to 2015–16

Is the estimated notional saving to the public inpatient hospital system if Aboriginal and Torres Strait Islander Queenslanders were hospitalised at the same rate as non-Indigenous Queenslanders.⁸

This cost saving is calculated as the difference between the purchase of inpatient hospital services provided to Aboriginal and Torres Strait Islander patients of the Queensland public health system and expected purchase if the rate of hospitalisation was the same as the Queensland non-Indigenous rate.

If hospitalisation rates for Aboriginal and Torres Strait Islander people were the same as other Queenslanders, the expected number of separations, and therefore the purchase, would be significantly less. Reducing Aboriginal and Torres Strait Islander separations in Queensland through appropriate health responses will lead to significant savings.

Better access to more culturally responsive primary, community and secondary care services, increased access to screening and diagnostic services, particularly with a preventative focus, and robust partnerships with other service providers and the community, are key factors to reducing separations and subsequent excess purchase.

⁸ The estimate is based on the activity based funding model, phase 18, with a base price per weighted activity unit of \$4,597.05. This has been applied to all HHSs including those not funded under this model. Non-admitted and emergency activity has not been factored into this estimate.

This analysis can help inform strategic action in service areas to improve Aboriginal and Torres Strait Islander health and to inform where savings could be achieved through targeted investments in future years.

Table 9 illustrates that over the three year period the actual purchase of public hospital activity was 2.6 times higher than it would be if Aboriginal and Torres Strait Islander Queenslanders were hospitalised at the same rate as non-Indigenous Queenslanders – representing a real financial imperative to closing the gap. Table 10 breaks this down by HHS.

Table 9 Potential savings for Aboriginal and Torres Strait Islander hospitalisations

Measure	2013–14	2014–15	2015–16	Total
Actual purchase (millions)	\$333.6	\$362.2	\$430.2	\$1,126.0
Expected purchase (millions)	\$134.7	\$142.3	\$158.8	\$435.8
Potential savings (millions)	\$198.9	\$219.9	\$271.4	\$690.2
Ratio of total purchase to expected purchase	2.5 times	2.5 times	2.7 times	2.6 times

Table 10 Highest potential savings to the system by HHS, 2013–14 to 2015–16

HHS	Potential Savings	% of Total Potential Savings	per Person based on 2015 population
Cairns and Hinterland	\$131,115,665	19.0%	\$4,102
Central Queensland	\$37,071,839	5.4%	\$2,673
Central West	\$3,234,587	0.5%	\$2,425
Darling Downs	\$50,460,793	7.3%	\$3,528
Gold Coast	\$12,402,185	1.8%	\$1,304
Mackay	\$14,467,158	2.1%	\$1,555
Metro North	\$50,165,606	7.3%	\$2,387
Metro South	\$77,974,199	11.3%	\$2,870
North West	\$62,011,566	9.0%	\$7,326
South West	\$11,265,885	1.6%	\$3,113
Sunshine Coast	\$11,220,398	1.6%	\$1,331
Torres and Cape	\$73,160,255	10.6%	\$4,228
Townsville	\$114,670,832	16.6%	\$5,581
West Moreton	\$18,120,651	2.6%	\$1,562
Wide Bay	\$22,880,898	3.3%	\$2,388
Queensland	\$690,222,516	100.0%	\$3,318

Service related groups (SRGs)

The total excess purchase in Queensland was \$690.2 million. The highest potential savings to the system are illustrated in Figure 19. The top 15 SRGs contributed 77.8 per cent of the excess purchase in Queensland (Table 11).

Figure 19 Highest potential savings to the system by service related group (SRG)

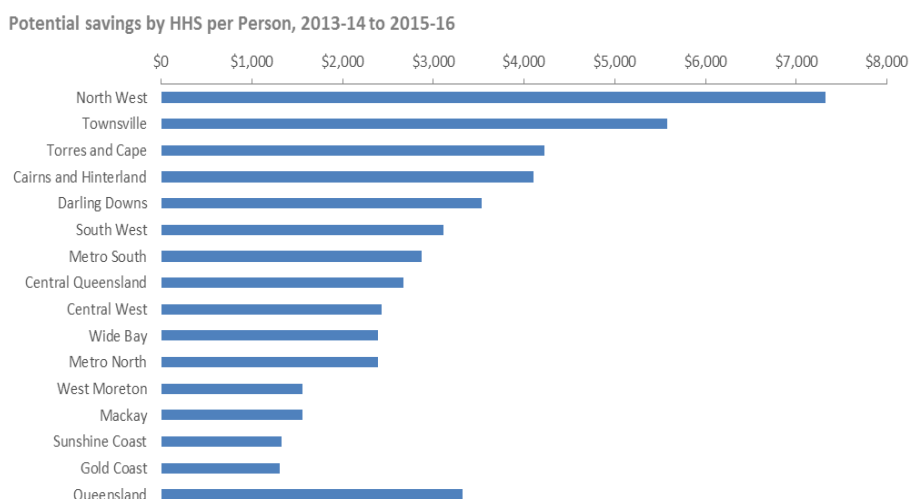


Table 11 Highest potential savings to the system by SRG

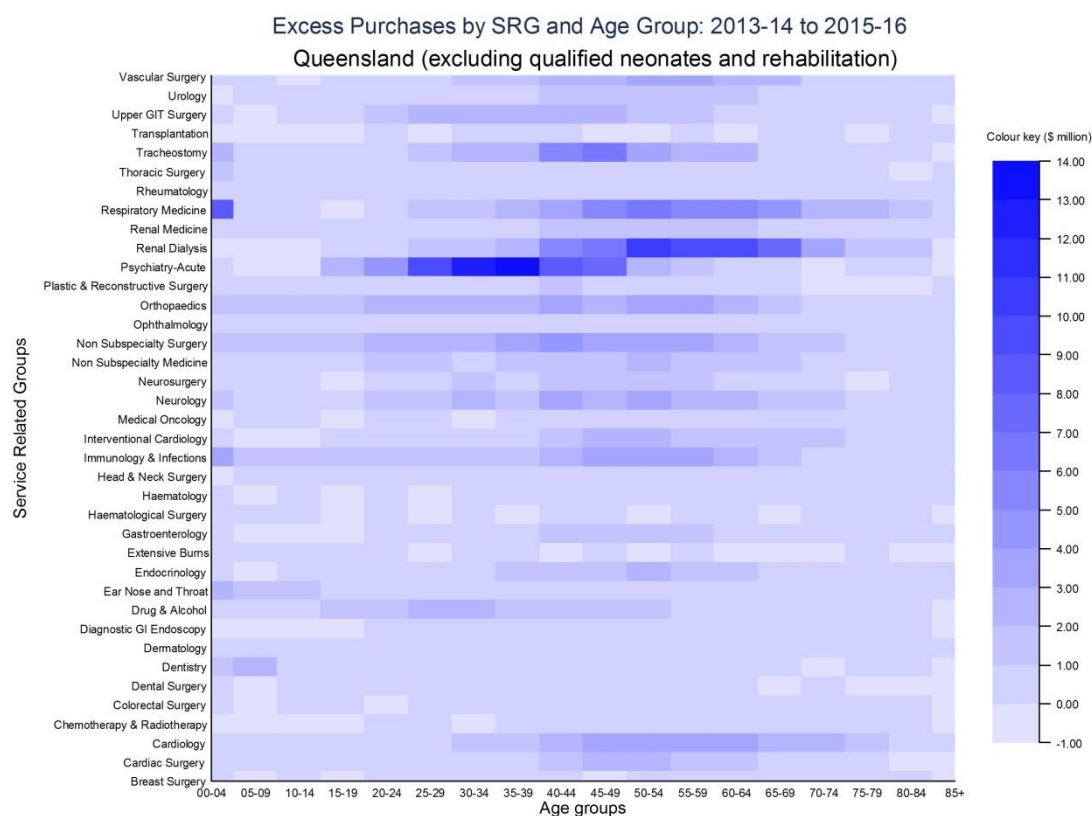
Queensland	2014–16	% of Total
Psychiatry-Acute	\$61,976,501	9.0%
Renal Dialysis	\$60,157,088	8.7%
Rehabilitation	\$58,257,792	8.4%
Respiratory Medicine	\$52,193,950	7.6%
Non Subspecialty Surgery	\$37,464,343	5.4%
Orthopaedics	\$35,359,915	5.1%
Qualified Neonate	\$35,249,284	5.1%
Tracheostomy	\$34,172,917	5.0%
Immunology & Infections	\$31,986,682	4.6%
Cardiology	\$28,274,499	4.1%
Neurology	\$27,694,422	4.0%
Vascular Surgery	\$20,834,395	3.0%
Non Subspecialty Medicine	\$20,447,015	3.0%
Upper GIT Surgery	\$17,621,757	2.6%
Drug & Alcohol	\$15,624,220	2.3%
All others	\$152,907,735	22.2%
Total	\$690,222,516	100.0%

The Aboriginal and Torres Strait Islander population of Queensland in 2015 was 208,206 persons. The average excess purchase per Aboriginal and Torres Strait Islander residing in Queensland was \$1,106 per annum. Table 12 and Figure 20 highlight potential savings of excess purchase across SRGs (excluding qualified neonate) and age groups.

Table 12 Highest potential savings to the system by SRG and age

Age Group	SRG with highest potential savings
0–4 years	Qualified neonate (not shown: \$35.2 million); respiratory medicine; tracheostomy; immunology and infections
20–40 years	Acute psychiatric care; rehabilitation (\$33.1 million), orthopaedics; non–subspecialty surgery
>40 years	Renal dialysis; respiratory medicine; cardiology; non–subspecialty surgery

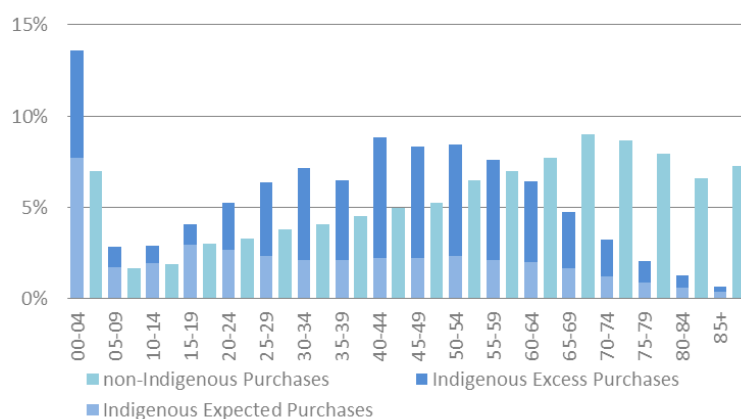
Figure 20 Highest potential savings to the system by SRG



Age distribution

The 0–4 year age group had the highest hospitalisation purchase (\$153.1 million, 13.6 per cent) and a potential saving of \$66.6 million (9.7 per cent). Almost half (48.5 per cent) of the purchase related to Aboriginal and Torres Strait Islander people aged less than 40 years (compared to 29.1 per cent for the non–Indigenous population) (Figure 21).

Figure 21. Purchase by age group



Projection to 2033 from 2015

The projected excess purchase to 2033 from 2015 is estimated to be \$5.6 billion based on an inflation rate of 3.5 per cent per annum. Psychiatry, dialysis and rehabilitation will each approach an excess purchase of half a billion dollars (Table 13).

Table 13 Projection to 2033 by SRG

SRG	Excess Purchases	Annual Average	Projection to 2033
Psychiatry-Acute	\$61,976,501	\$20,658,834	\$506,135,049
Renal Dialysis	\$60,157,088	\$20,052,363	\$491,276,695
Rehabilitation	\$58,257,792	\$19,419,264	\$475,765,974
Respiratory Medicine	\$52,193,950	\$17,397,983	\$426,245,222
Non Subspecialty Surgery	\$37,464,343	\$12,488,114	\$305,954,948
Orthopaedics	\$35,359,915	\$11,786,638	\$288,768,997
Qualified Neonate	\$35,249,284	\$11,749,761	\$287,865,521
Tracheostomy	\$34,172,917	\$11,390,972	\$279,075,309
Immunology & Infections	\$31,986,682	\$10,662,227	\$261,221,277
Cardiology	\$28,274,499	\$9,424,833	\$230,905,502
Neurology	\$27,694,422	\$9,231,474	\$226,168,264
Vascular Surgery	\$20,834,395	\$6,944,798	\$170,145,418
Non Subspecialty Medicine	\$20,447,015	\$6,815,672	\$166,981,850
Upper GIT Surgery	\$17,621,757	\$5,873,919	\$143,909,205
Drug & Alcohol	\$15,624,220	\$5,208,073	\$127,596,190
Others	\$152,907,735	\$50,969,245	\$1,248,730,767
Total	\$690,222,516		\$5,636,746,190

Closing the gap conclusions

Queensland Health, in collaboration with other state government partners, and key stakeholders both locally and nationally is continuing to move forward to address the Aboriginal and Torres Strait Islander health gap.

The Department will utilise the findings from this report to support the state and national policy agenda. This report will also inform the development of the next Queensland Aboriginal and Torres Strait Islander investment strategy, which adds a needs based planning approach to the allocation of Aboriginal and Torres Strait Islander specific investment to ensure that funds are being maximised to address Aboriginal and Torres Strait Islander health inequality in Queensland.

Despite significant gains, the targets of closing the gap in life expectancy by 2033 and halving the gap in child mortality by 2018 are currently not on target and evidence suggests that they are unlikely to meet the target into the future. However, failure to meet a target does not imply policy, program or investment failure. In many instances it is more a reflection of the target setting process rather than health system efforts to address the target.

This report provides illustration of significant improvements in Aboriginal and Torres Strait Islander health in Queensland across a comprehensive series of domains and indicators. This report details positive improvements in life expectancy, child mortality, all-cause mortality, child and maternal health measures and chronic disease measures. This would suggest that the policy effort, investment and resources directed into Aboriginal and Torres Strait Islander health over the last decade and a half have been able to derive some tangible health gains in the context of generations of disadvantage. This is motivation in light of the sustained and ongoing effort that is key to continuing to produce positive health outcomes for Aboriginal and Torres Strait Islander Queenslanders.

It is imperative that the significant change that has occurred is not lost in target myopia, and that there is clarity around the magnitude of what has already been achieved, and what can be achieved into the future.

This report would suggest that the system is starting, in a very significant way, to respond to the needs of Aboriginal and Torres Strait Islander Queenslanders. Ongoing improvements will be achieved through focused Aboriginal and Torres Strait Islander specific programs supported by a culturally competent mainstream health service, and most importantly, through engagement with Aboriginal and Torres Strait Islander people. If the current momentum can be sustained there will be ongoing and continued health gain for Aboriginal and Torres Strait Islander Queenslanders into the 21st century and the disadvantage of previous generations will be just that, a thing of the past.

Current strategic priorities

The Queensland Government, in consultation with national and regional bodies, has identified a number of strategic policy priority areas for additional focus and effort for Aboriginal and Torres Strait Islander health.

These priority areas are based on evidence and data which point to significant differentials between the Aboriginal and Torres Strait Islander and non-Indigenous population, and where the greatest impacts can be made.

The Queensland Department of Health (the Department) is continuing to affect change through a variety of policy and investment mechanisms.

The current strategic priorities are:

- CVD
- Mental health
- Sexual health.

These priority areas are addressed through specific strategies underpinned by a performance framework, which will be reported upon in the following sections. These are:

- The *Queensland Aboriginal and Torres Strait Islander cardiac health strategy 2014–2017*, which provides direction and monitors performance on improving health service responsiveness for Aboriginal and Torres Strait Islander Queenslanders with CVD.
- The *Queensland Health Aboriginal and Torres Strait Islander Mental Health Strategy 2016–2021*, which monitors improvements in mental health outcomes for Aboriginal and Torres Strait Islander Queenslanders against baseline targets.
- The *North Queensland Aboriginal and Torres Strait Islander STI Action Plan 2016–2021*, which seeks to progressively reduce the incidence of syphilis, chlamydia and gonorrhoea amongst Aboriginal and Torres Strait Islander people in North Queensland.

The Department is also looking at population groups and specific conditions where health improvements could be supported and leveraged through the development of further health policy and strategy documents. The principal focus for 2017 is the development of a rheumatic heart disease and acute rheumatic fever action plan and to undertake scoping work to develop a diabetes response for Aboriginal and Torres Strait Islander Queenslanders.

While we have had some significant improvements in CVD outcomes for Aboriginal and Torres Strait Islander Queenslanders, diabetes continues to challenge the system and requires greater effort and innovation to blunt the ongoing diabetes epidemic affecting Aboriginal and Torres Strait Islander Queenslanders.

Cardiovascular disease

In 2013, AHMAC highlighted improving cardiac health for Aboriginal and Torres Strait Islander Australians as a priority.

In 2015, the Queensland Government released the [Queensland Aboriginal and Torres Strait Islander cardiac health strategy 2014–2017](#), a three-year framework of actions and performance measures to provide clear direction on how health service responsiveness for Aboriginal and Torres Strait Islander Queenslanders can be improved. The actions include targeted strategies across the health continuum for prevention, early identification and intervention, ongoing management and treatment, and rehabilitation.

What we found

The rate of potentially preventable hospitalisations (Indicator 1) has been slowly decreasing in both the Aboriginal and Torres Strait Islander and non-Indigenous Queensland populations. Compared to the 2012–14 baseline rate of 42.4 per cent the Aboriginal and Torres Strait Islander rate decreased to 38.6 per cent in January–June 2016.

Compared to the baseline (January–June 2014), the percentage of Aboriginal and Torres Strait Islander health checks (MBS715, Indicator 2) increased from 14.4 per cent to 16.2 per cent, but this does not show the proportion of clients who were followed up after the initial health check.

The rate in January–June 2016 was 6.1 per cent compared to the baseline of 5.3 per cent for QUITLINE clients who identify as Aboriginal and Torres Strait Islander, Indicator 3.

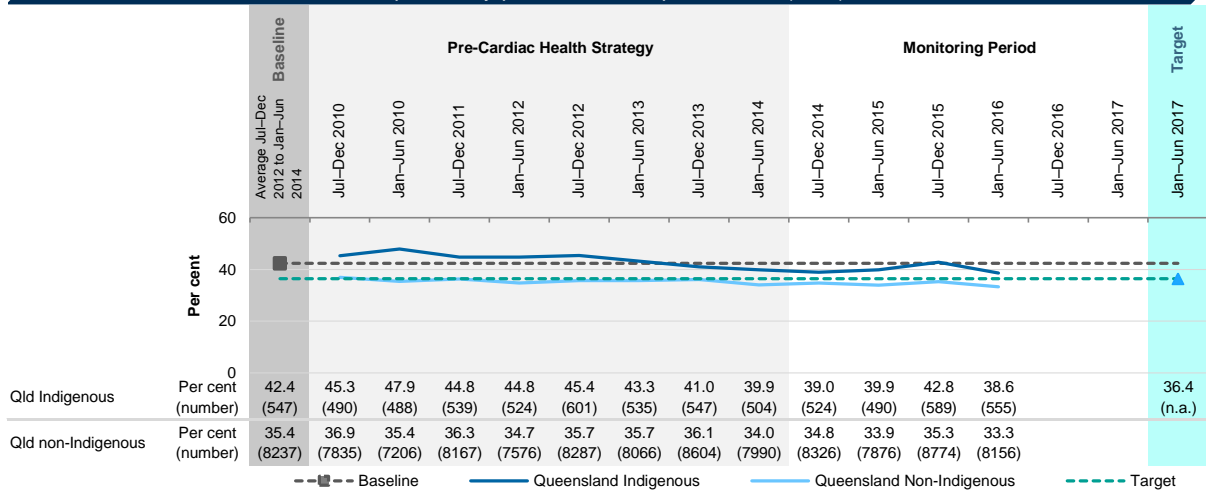
Rates of guideline-based therapy for acute coronary syndrome (Indicator 6) have remained stable for both population groups with very similar trends.

The rate of Discharge Against Medical Advice (DAMA) for cardiac related admissions (Indicator 7) has decreased among Aboriginal and Torres Strait Islander Queenslanders to 2.5 per cent since baseline reporting, and it appears that the target of 1.1 per cent could be met by June 2017.

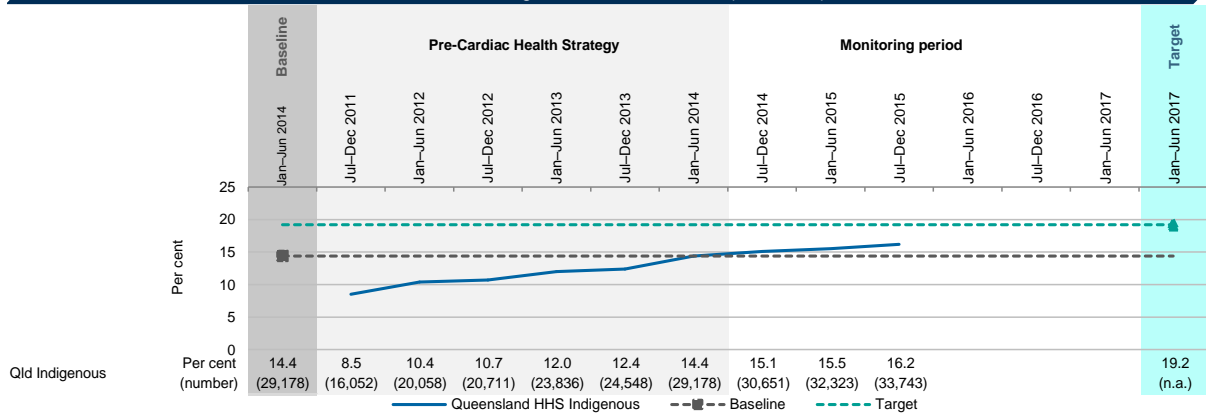
The median age of hospitalisation for acute coronary syndrome and chronic heart failure (Indicator 9) shows that the Aboriginal and Torres Strait Islander patients are hospitalised at a much younger age than the non-Indigenous patients.

Early cardiovascular risk assessment and management

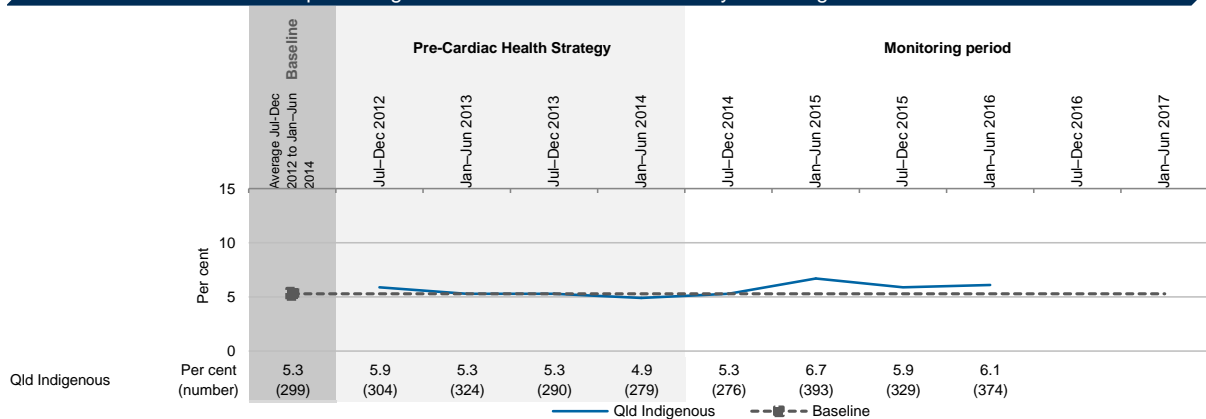
Indicator 1: Rate and number of potentially preventable hospitalisations (PPH) for cardiac related conditions



Indicator 2: Number of Indigenous health checks (MBS 715) undertaken



Indicator 3: Number and percentage of QUITLINE clients who identify as Aboriginal and/ or Torres Strait Islander



Indicator 4: Number of outpatients not seen within the appropriate period for a general cardiac specialist appointment

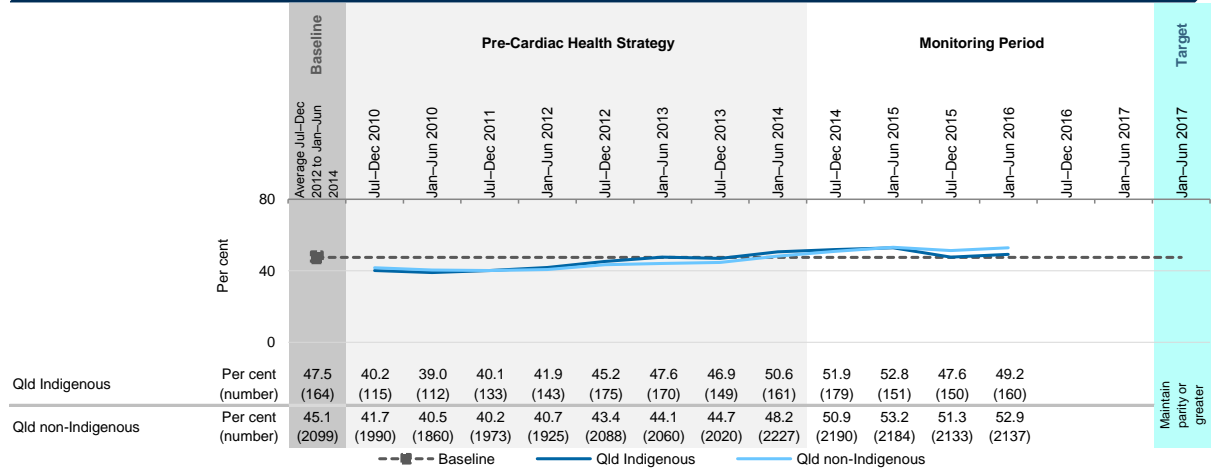
Number of outpatients seen within the appropriate period for a general cardiac specialist appointment (Indicator 4) is omitted from this performance report due to variable data availability from key facilities.

Indicator 5: Average wait times for Aboriginal and Torres Strait Islander outpatients not seen within the appropriate time from referral

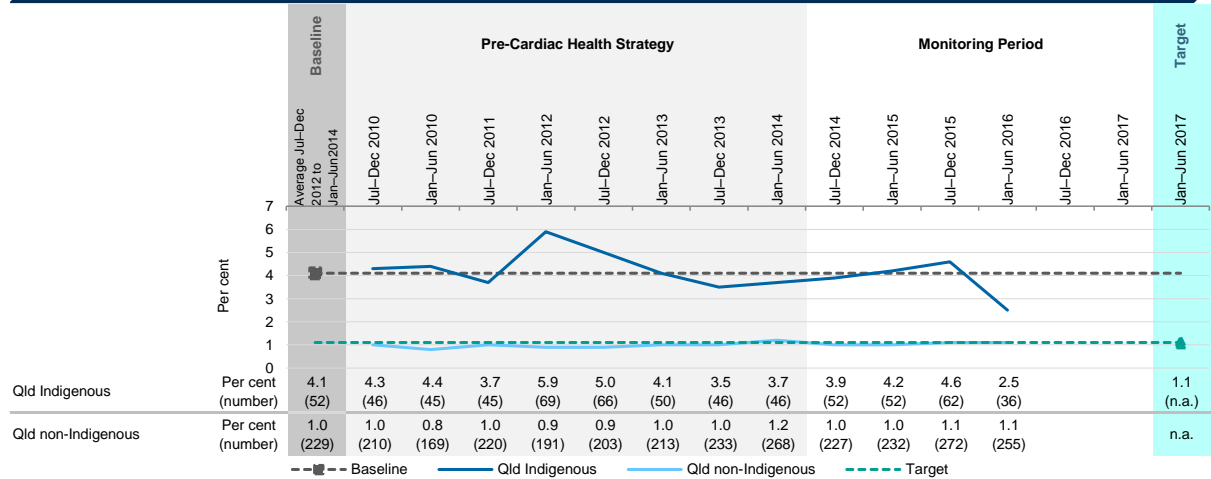
Average wait times for Aboriginal and Torres Strait Islander outpatients not seen within the appropriate time for referral (Indicator 5) is omitted from this performance report due to variable data availability from key facilities.

Guideline-based therapy for acute coronary syndrome

Indicator 6: Rates of access to hospital for percutaneous coronary interventions, coronary artery bypass grafts, coronary angiography



Indicator 7: Rate of DAMA for cardiac related admissions

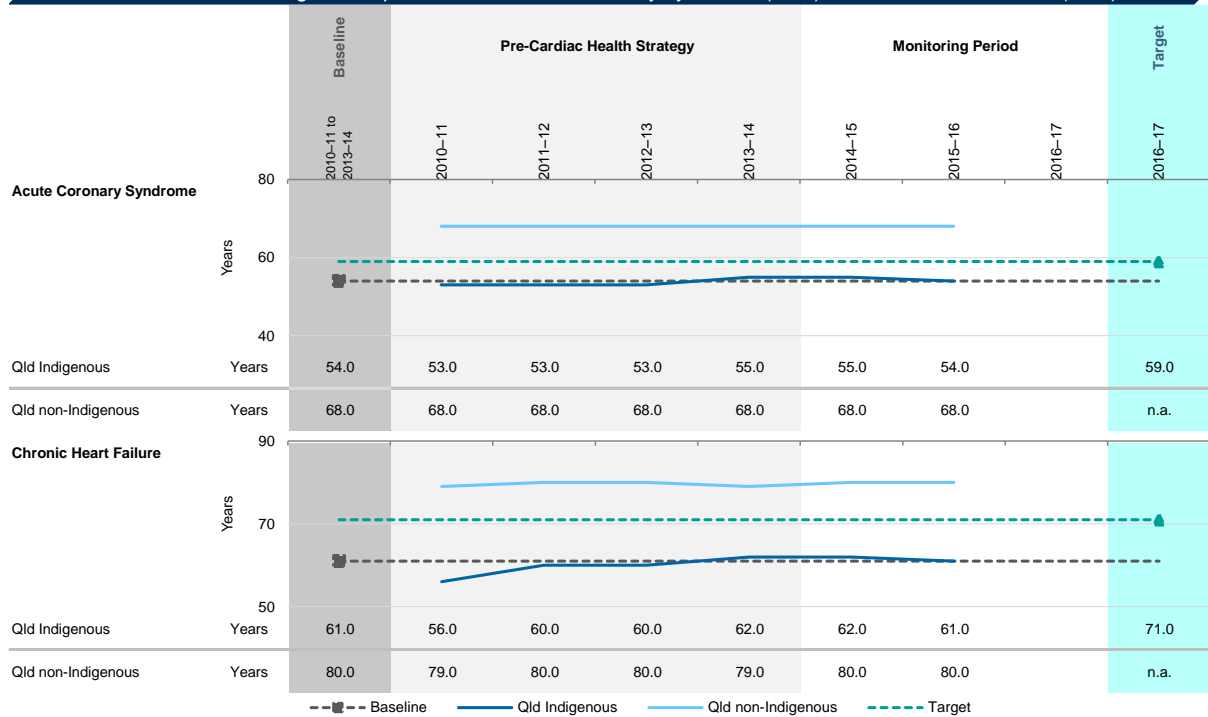


Indicator 8: Percentage of paramedics able to provide pre-hospital reperfusion therapy

To 1 Sept 2015, 309 Advanced Care Paramedics in rural and remote locations had received training on Decision supported fibrinolysis. This is approximately 25 per cent of the Advanced Care Paramedics in these locations state wide.

Optimisation of health status and ongoing preventive care

Indicator 9: Median age of hospitalisation for acute coronary syndrome (ACS) and chronic heart failure (CHF)



Indicator 10: Failure to attend for outpatient general cardiac appointments

Note: Data for Indicator 10 – Failure to attend for outpatient general cardiac appointments - was not available at time of reporting.

Indicators 11-15: ARF and RHD

Acute rheumatic fever and rheumatic heart disease indicators 11-15 are not available for publication at time of report.

Mental health

The [Queensland Health Aboriginal and Torres Strait Islander Mental Health Strategy 2016–2021](#) focuses on improving the responsiveness of Queensland services to address the needs of Aboriginal and Torres Strait Islander Queenslanders with severe mental illness. It provides direction to HHSs on priority areas for action, and will emphasise the need for effective partnerships between all health service providers, as well as social service providers.

What we are doing

New program to support Aboriginal and Torres Strait Islander men and their health

Central Queensland HHS commenced the New Endings Men's Program from 1 July 2016. In operating this program Central Queensland HHS ensure they acknowledge the culture, language, traditions and current life situations of Aboriginal and Torres Strait Islander men and support them to advocate, navigate and coordinate the needs of Aboriginal and Torres Strait Islander men aged 18 and up to increase their utilisation of health services and take ownership of their own health. There is a particular focus on social and emotional wellbeing, drug and alcohol misuse, domestic violence and mental health.

Under the Making Tracks Investment Strategy 2015–2018, funding of \$426,454 and \$437,690 is being provided in 2016–2017 and 2017–2018 respectively to Central Queensland HHS to support this program. A coordinator and two outreach workers are now employed under the Program, with two further outreach workers anticipated to be employed by March 2017.

To February 2017, 23 men are on the Program, 16 of whom who are on parole and probation orders. Client care plans are established for clients in their initial enrolment and reviewed every month. As well as increasing the men's awareness of their health issues and access to health services the program increases access to other social services. This holistic approach has particularly benefited the participants on probation and parole by providing a one-on-one mentoring type service to prevent recidivism and provide support to the men to meet their reporting obligations. Early signs indicate this is having a positive impact on decreasing the incidences of recidivism for participants of the New Ending Men's Program, with Queensland having a comparatively high rate of recidivism, 34.1 per cent, compared to the Australian average 24.8 per cent.⁽¹⁾

1. SCRGSP (Steering Committee for the Review of Government Service Provision) 2014, Report on Government Services 2014, vol. C, Justice, Productivity Commission, Canberra.

Metro South and Metro North HHS: The Way Forward - an Indigenous approach to wellbeing

The Way Forward: an Indigenous approach to wellbeing is a culturally informed, strengths-focussed, approach to improving mental health and addictions outcomes for Aboriginal and Torres Strait Islanders in Metro South and Metro North HHSs.

Aboriginal and Torres Strait Islander people are over represented in the acute mental health system based on what would be expected if admissions followed their representation in the local population (1 in 46 people in the metro Brisbane area are Aboriginal and Torres Strait Islander). In the metro Brisbane area, 1 in 19 patients hospitalised for mental disorders are Aboriginal and Torres Strait Islander people.

The project will receive \$2.24 million over three financial years, through the Making Tracks Investment Strategy 2015–2018, to develop, implement and evaluate innovative and culturally secure services to support Aboriginal and Torres Strait Islander consumers through mental health treatment and management, taking a workforce redesign approach to improve the cultural capability of mental health services, improve partnerships and referral pathways and overall improve the experience of mental health service treatment for Aboriginal and Torres Strait Islander people with mental health conditions.

The Way Forward was a finalist in the 2016 Metro North HHS Staff Excellence Awards for Excellence in Integrated care. The project has established a successful in-reach psychiatric program in partnership with the Institute for Urban Indigenous Health Moreton Aboriginal and Torres Strait Islander Community Health Service Caboolture clinic that has now been identified as an ongoing activity in conjunction with the Caboolture Mental Health Service.

Increased funding for a community based Child and Youth Mental Health Service (CYMHS) in Aurukun

In 2016, Queensland Health invested \$1.2 million over three years in Torres and Cape HHS to increase access to child and youth mental health services in Aurukun from 1 July 2016.

The service supports children and young people who are 'at risk of developing', or have a diagnosed mental illness. The service is located in community and offers a five days a week service from Monday to Friday, employing two additional mental health clinicians and a community liaison officer, who is a key interface between the service and community.

Since the expanded service commenced in July 2016, 38 families have been referred for assessment and support. This has resulted in 488 occasions of service delivered and 28 care plans in place between the period 1 July to 31 December 2016. At the end of the year the service reported 15 open cases, representing a significant increase from the four open cases reported in June 2016, with case numbers expected to increase in 2017.

What we found

Hospitalisation rates for all mental health disorders, disorders due to psychoactive substance use and intentional self-harm, remain higher for the Queensland Aboriginal and Torres Strait Islander population compared to the non-Indigenous population. Suicide rates are twice as high among Aboriginal and Torres Strait Islander people in 2013, and have increased since 2007 but do appear to fluctuate.

Age-specific rates show a different pattern amongst the Aboriginal and Torres Strait Islander population than non-Indigenous population. Of concern are the very high rates of suicide among Aboriginal and Torres Strait Islander population 10–44 years, particularly in Aboriginal and Torres Strait Islander females aged 20–24 years and males aged 30–34 years. Alcohol related mortality is much greater in Aboriginal and Torres Strait Islander Queenslanders than non-Indigenous Queenslanders, both males and females.

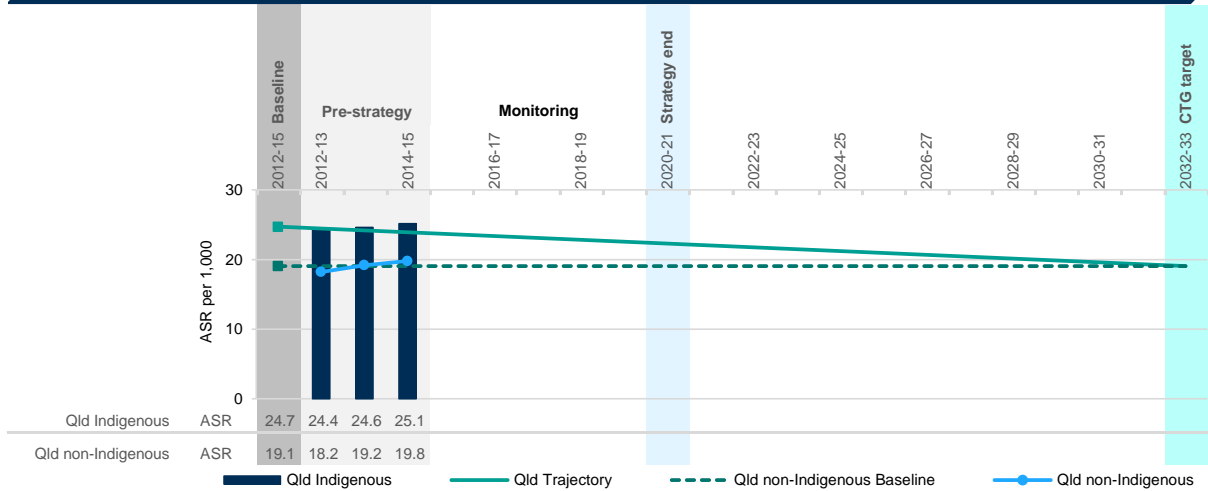
Along the patient journey, there appears to be no difference from 2012–2013 to 2014–2015 among Aboriginal and Torres Strait Islander Queenslanders and non-Indigenous Queenslanders in regards to pre-admission community contact, post-discharge community contact within seven days or average length of stay and a slight difference in readmission within 28 days (15.5 per cent Aboriginal and Torres Strait Islander versus 13.8 per cent non-Indigenous).

Aboriginal and Torres Strait Islander Queenslanders were 1.2 times greater than non-Indigenous Queenslanders to have episodes subject to involuntary order, 1.8 times higher episodes subject to seclusions event and 2.6 times the number of episodes where the consumer has discharged against medical advice.

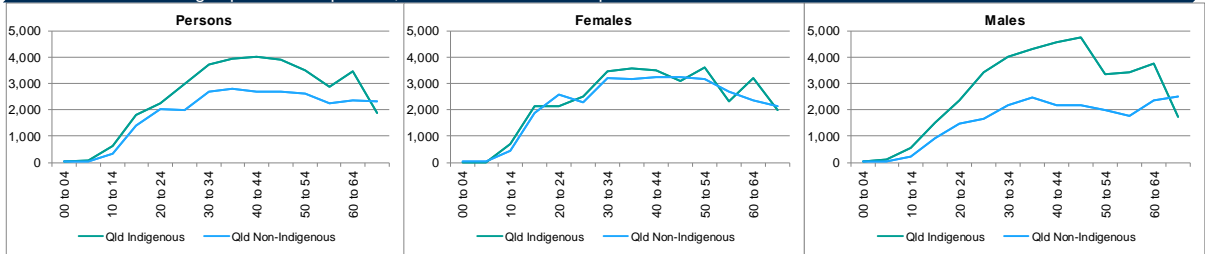
Social and economic determinants are considered less than that compared to non-Indigenous Queensland in education indicators such as reading, numeracy and year 12 certificate however the percentage of Aboriginal and Torres Strait Islander Queenslanders attaining to year 12 or a certificate three have increased since 2011. Indicators associated with child protection and justice is significantly higher and employment and income significantly lower among Aboriginal and Torres Strait Islander Queenslanders compared with non-Indigenous Queenslanders.

Tier One: Health and Wellbeing Status

Indicator 1.1 Queensland: hospitalisation rates for all mental health disorders for Persons

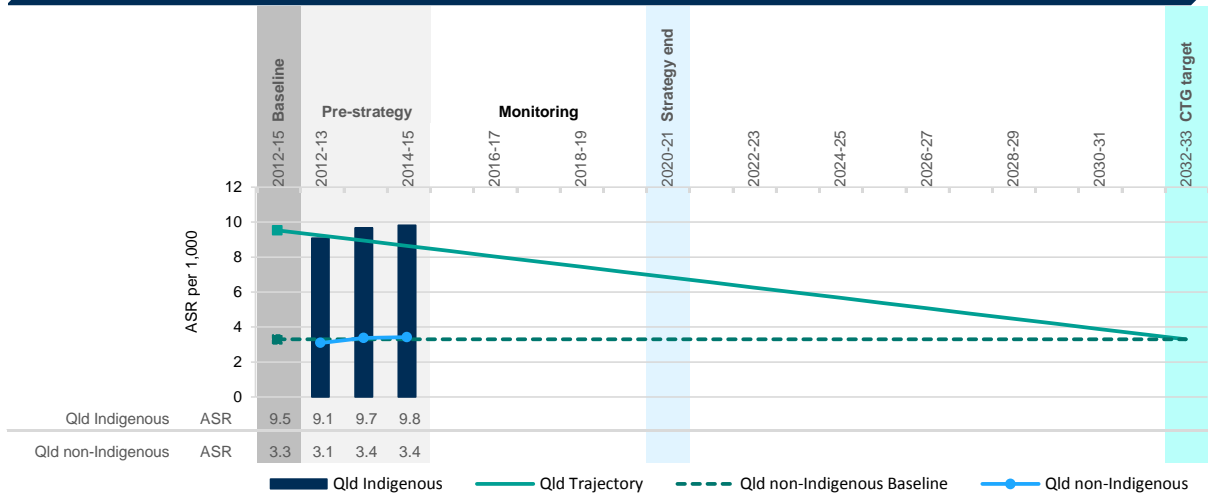


Queensland - Age specific rates per 100,000 for Indicator 1.1: hospitalisation rates for all mental health disorders 2012-13 to 2014-15

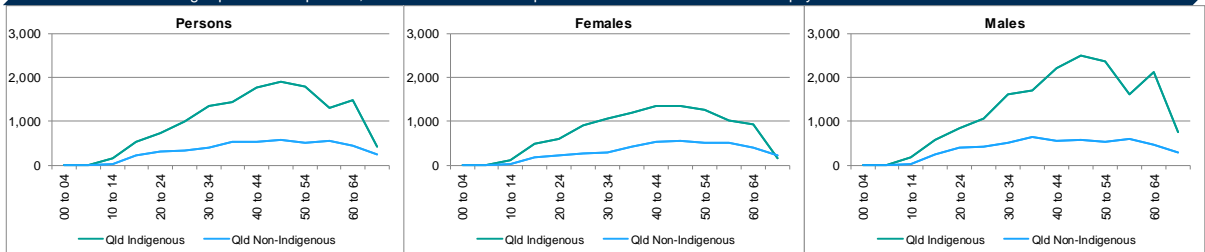


Source: QHAPDC

Indicator 1.2 Queensland: hospitalisation rates for disorders due to psychoactive substance use for Persons

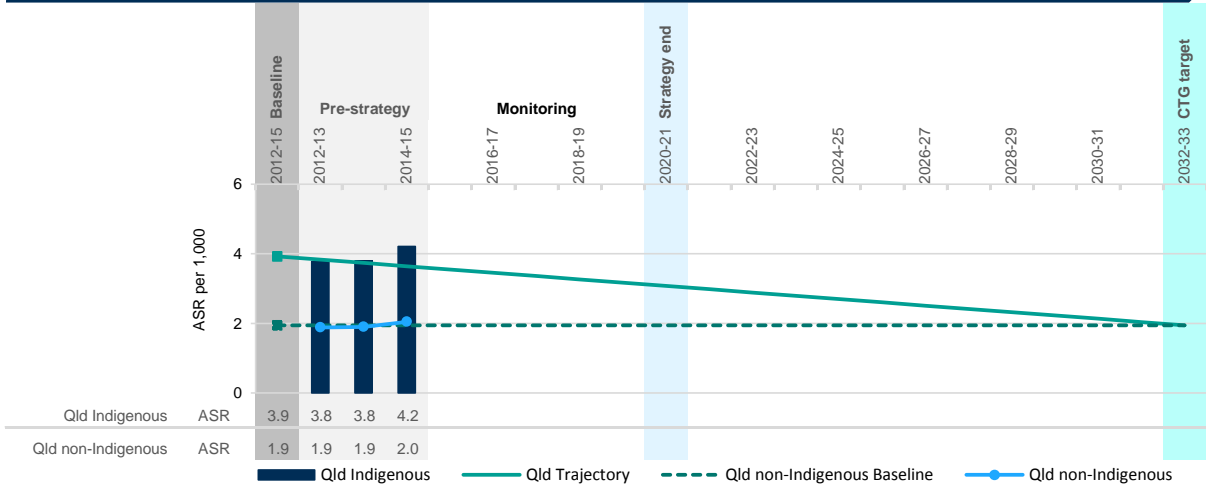


Queensland - Age specific rates per 100,000 for Indicator 1.2: hospitalisation rates for disorders due to psychoactive substance use 2012-13 to 2014-15

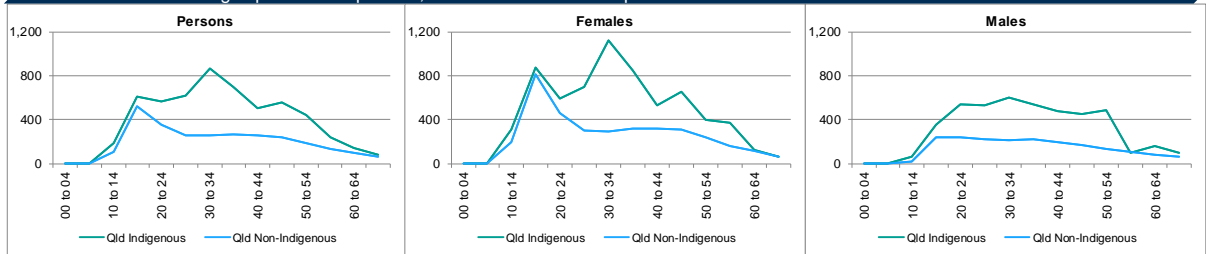


Source: QHAPDC

Indicator 1.3 Queensland: hospitalisation rates for intentional self-harm for Persons

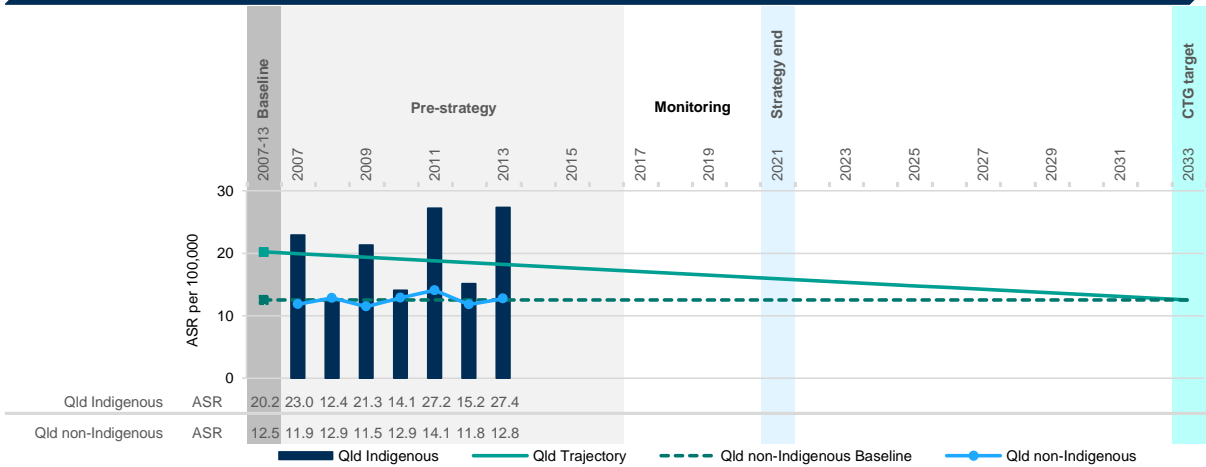


Queensland - Age specific rates per 100,000 for Indicator 1.3: hospitalisation rates for intentional self-harm 2012-13 to 2014-15

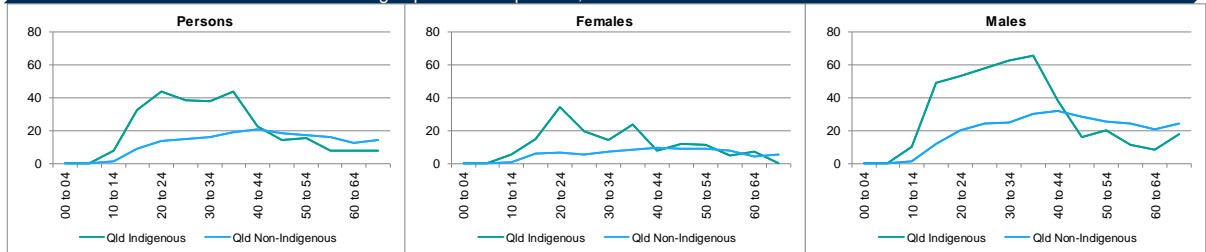


Source: QHAPDC

Indicator 1.4 Queensland: Suicide rates for Persons

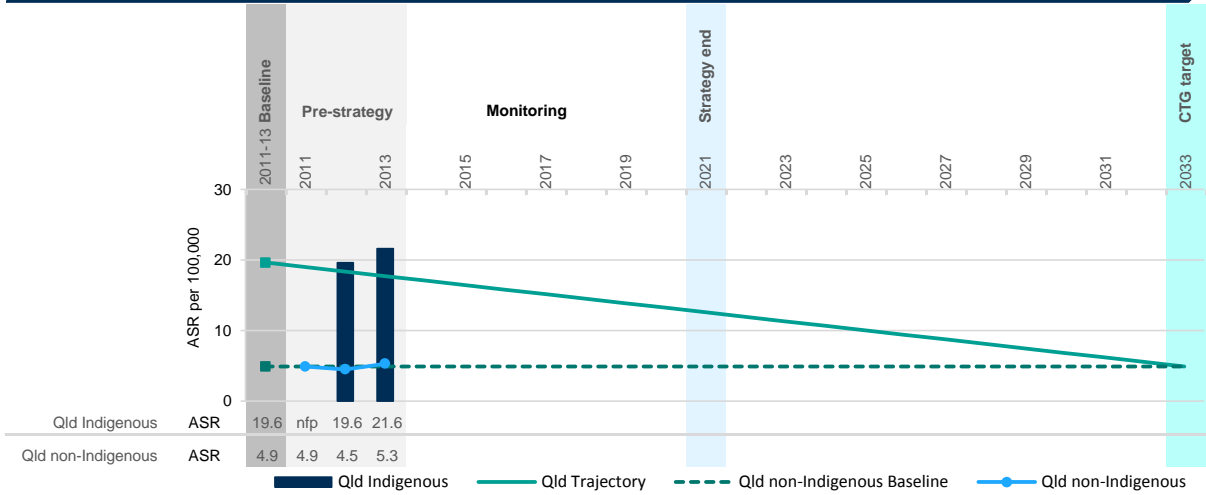


Queensland - Age specific rates per 100,000 for Indicator 1.4: Suicide rates 2007-2013

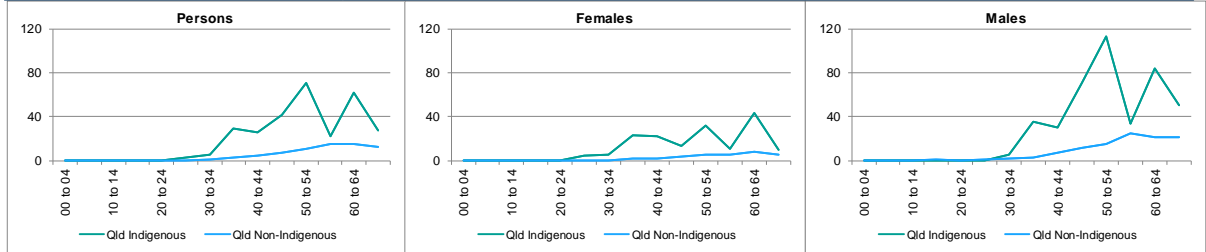


Source: QHAPDC

Indicator 1.5 Queensland: alcohol related mortality for Persons



Queensland - Age specific rates per 100,000 for Indicator 1.5: alcohol related mortality 2011-2013



Source: QHAPDC

Tier 2 mental health indicators along the patient journey
Queensland baseline: 2012-13 to 2014-15

Indicator 2.1: Episodes with pre-admission community contact		
	<u>Indigenous</u>	<u>Non-Indigenous</u>
Episodes with pre-admission community contact	2,243 of 3,944 (56.9%)	22,253 of 40,857 (54.5%)
	1.0 x non-Indigenous Qld rate	
Indicator 2.2: Episodes with post-discharge community contact within 7 days		
	<u>Indigenous</u>	<u>Non-Indigenous</u>
Episodes with post-discharge community contact within 7 days	2,778 of 4,283 (64.9%)	28,849 of 44,718 (64.5%)
	1.0 x non-Indigenous Qld rate	
Indicator 2.3: Average length of stay of admitted episodes		
	<u>Indigenous</u>	<u>Non-Indigenous</u>
Total days	64,638	653,622
Average length of stay (days)	13.3	12.9
	1.0 x non-Indigenous Qld rate	
Indicator 2.4: Episodes with re-admission within 28 days of discharge		
	<u>Indigenous</u>	<u>Non-Indigenous</u>
Episodes with readmission within 28 days	661 of 4,254 (15.5%)	5,997 of 43,396 (13.8%)
	1.1 x non-Indigenous Qld rate	
Queensland baseline: 2012-13 to 2014-15		
Indicator 2.5: Episodes where consumer subject to involuntary order		
	<u>Indigenous</u>	<u>Non-Indigenous</u>
Episodes where consumer subject to involuntary order	2,969 of 4,218 (70.4%)	28,580 of 48,984 (58.3%)
	1.2 x non-Indigenous Qld rate	
Indicator 2.6: Episodes where consumer subject to a seclusion event		
	<u>Indigenous</u>	<u>Non-Indigenous</u>
Episodes where consumer subject to a seclusion event	450 of 5,300 (8.5%)	2,802 of 60,418 (4.6%)
	1.8 x non-Indigenous Qld rate	
Indicator 2.7: Episodes where consumer discharged against medical advice		
	<u>Indigenous</u>	<u>Non-Indigenous</u>
Episodes where consumer discharged against medical advice	208 of 6,567 (3.2%)	927 of 75,785 (1.2%)
	2.6 x non-Indigenous Qld rate	

Notes

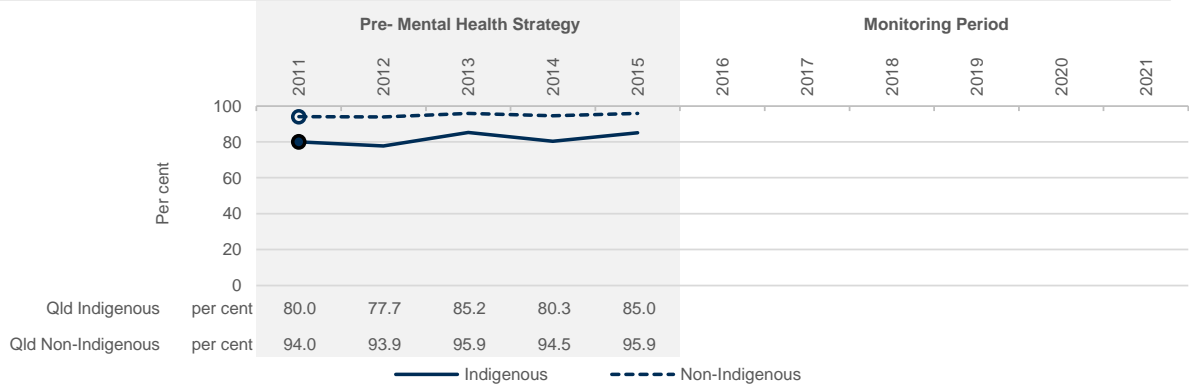
Baseline: Combined rate 2012-13 to 2014-15

Admitted data source: CIMHA/QHAPDC

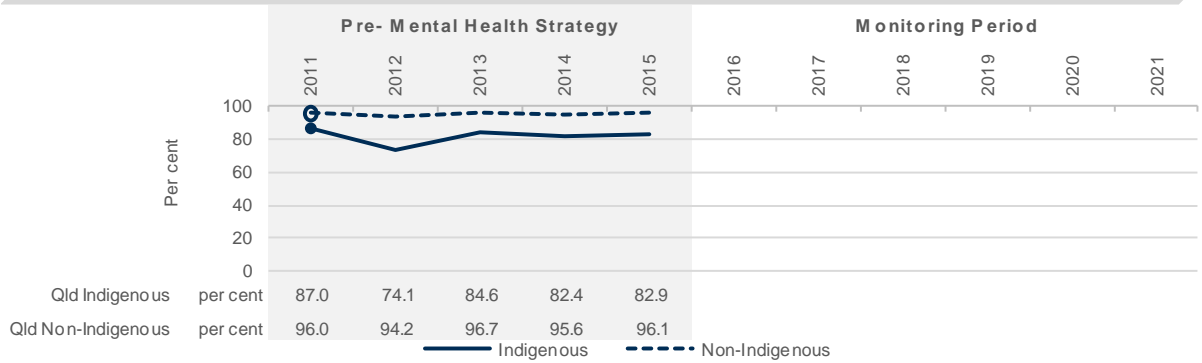
Tier Three: Social and Economic Determinants

Indicator 3.1 Education (NAPLAN) - Year 3 Minimum Standards

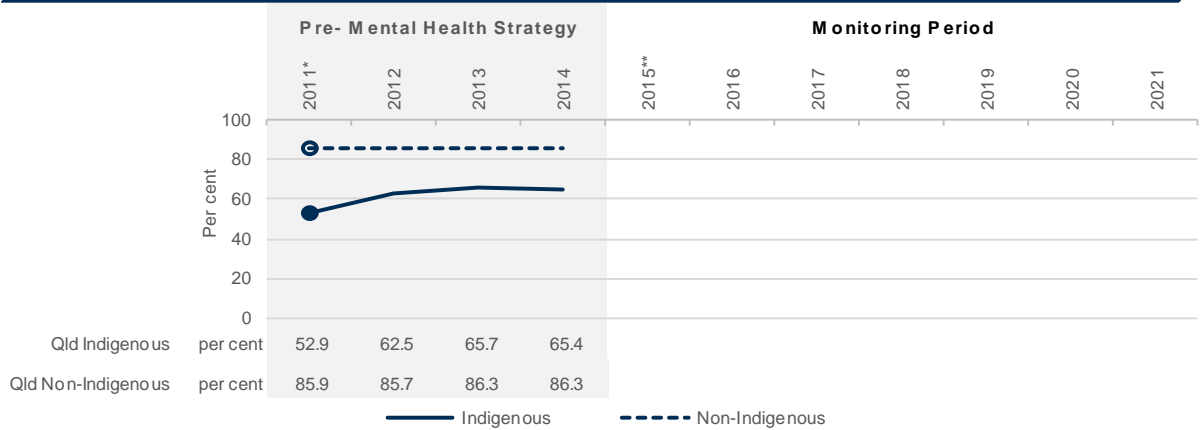
Reading



Numeracy

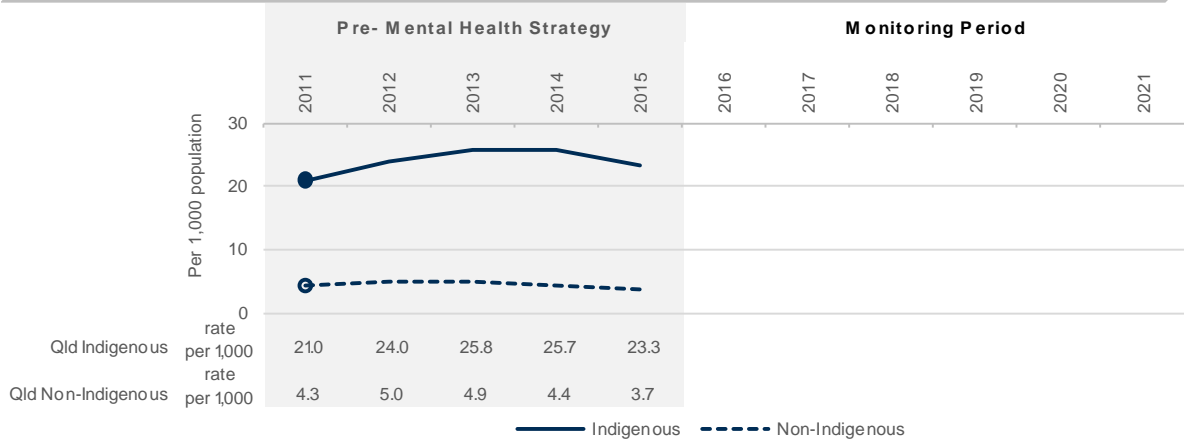


Indicator 3.2 Education - Year 12 or Certificate III attainment

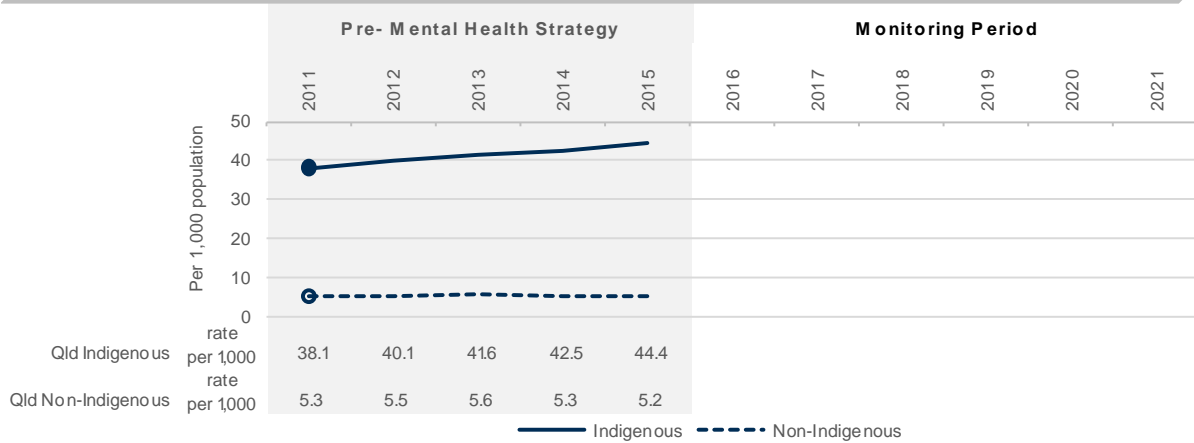


Indicator 3.3 Child Protection

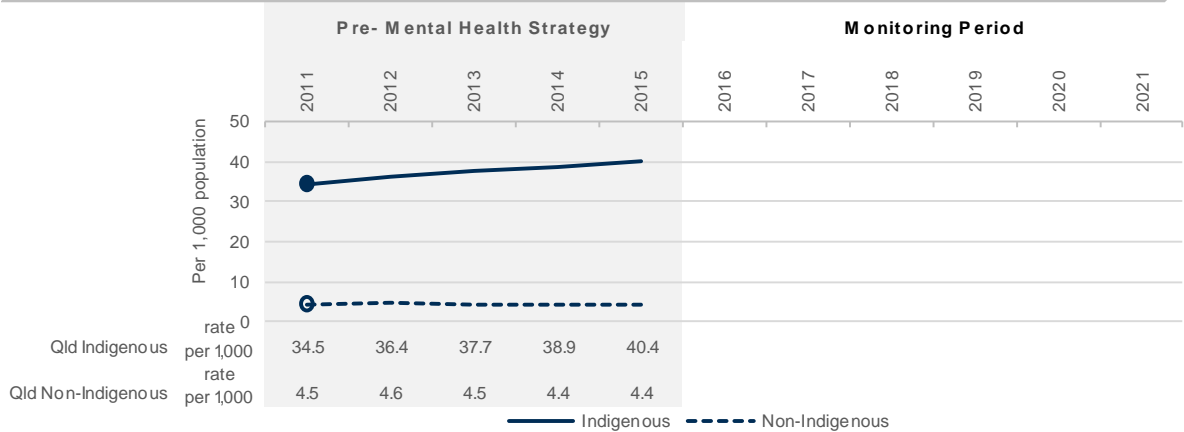
Children subject to substantiated notifications



Children subject to child protection orders

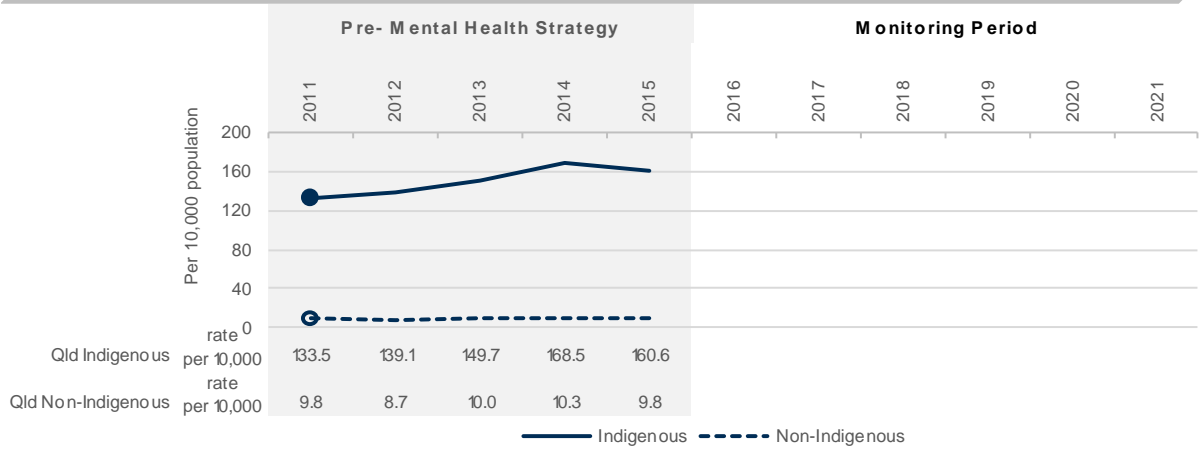


Children living in out of home care

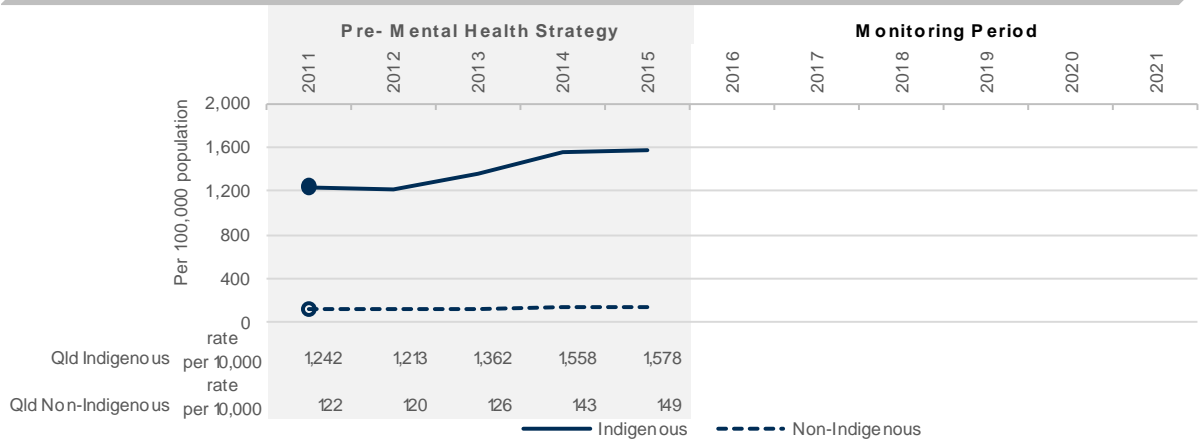


Indicator 3.4 Justice

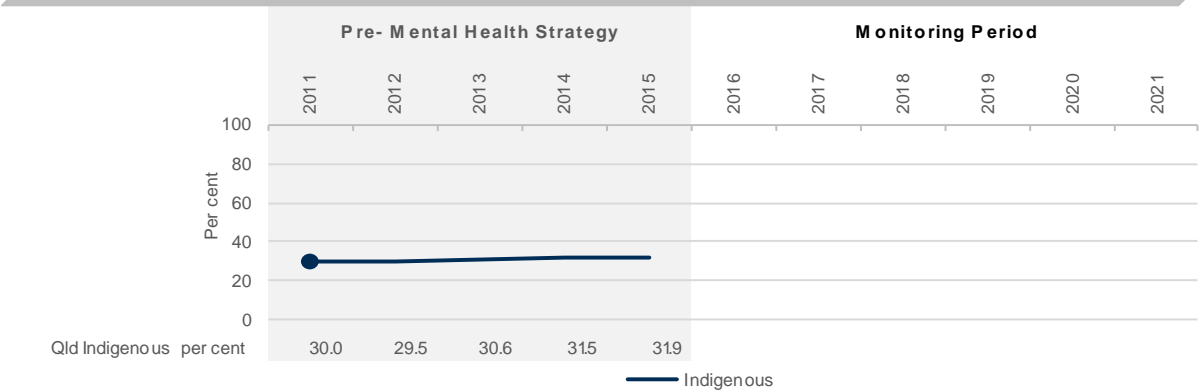
Juvenile detention



Adult incarceration

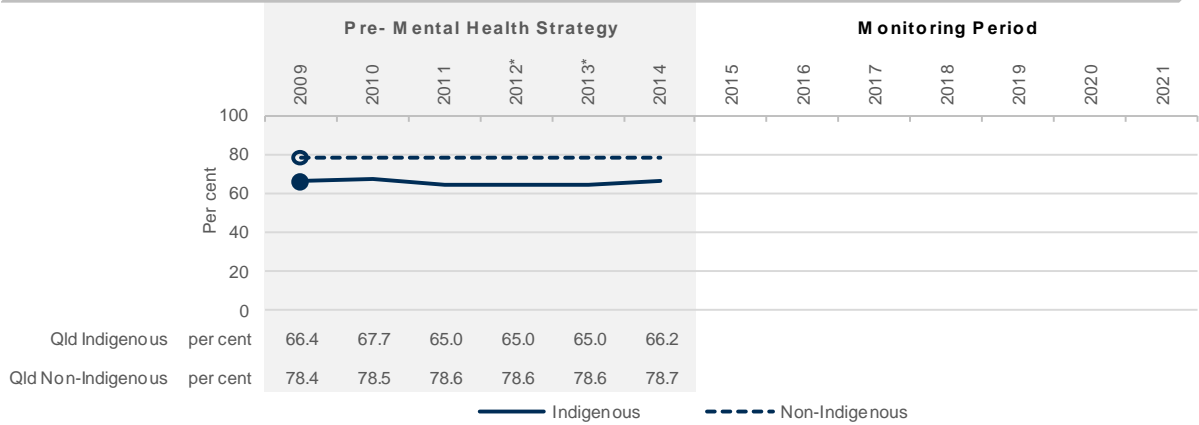


Proportion of adult incarceration

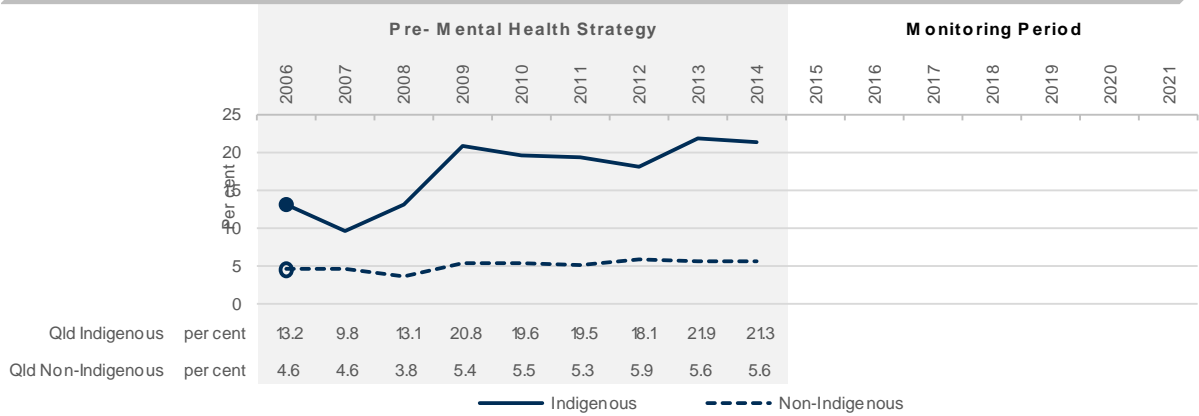


Indicator 3.5 Employment and Income

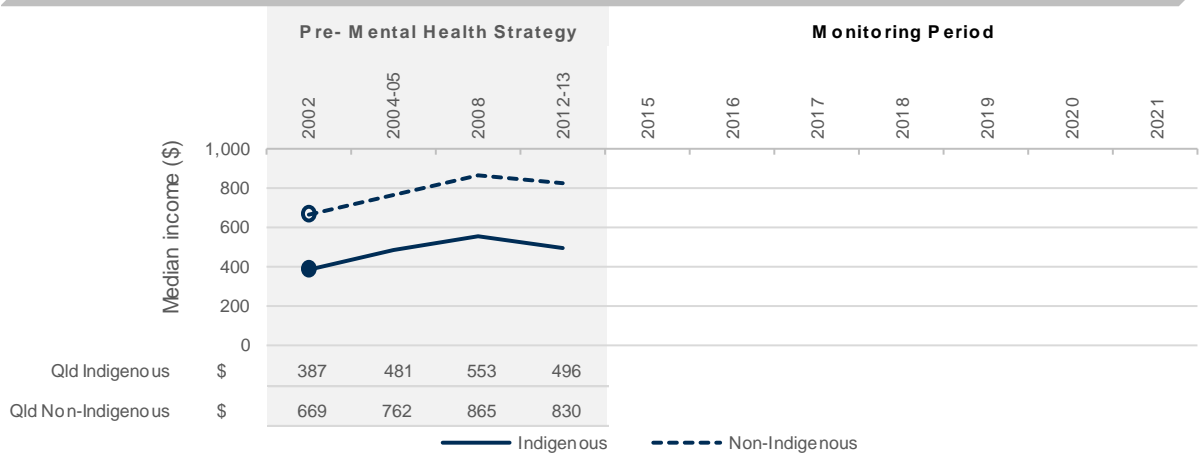
Labour force participation



Unemployment



Median Weekly Household Income



Sexually transmissible infections

The [North Queensland Aboriginal and Torres Strait Islander STI Action Plan 2016–2021](#) (NQ STI Action Plan) was developed to complement the [Queensland Sexual Health Strategy 2016–2021](#).

The NQ STI Action Plan was led by the five North Queensland HHSs as a direct response to the increasing numbers of notifications of syphilis. The NQ STI Action Plan sets out both strategic directions and a clear set of actions to eliminate congenital syphilis, redress the current outbreak of infectious syphilis and reduce the prevalence of other STI among Aboriginal and Torres Strait Islander people in North Queensland. A commitment of \$15.8 million has been made to support the first three years implementation of this plan.

Redressing STI across this broad geographic area requires a multi-faceted approach with clear coordination amongst the five HHSs and other health providers. The NQ STI Action Plan sets out actions in the areas of:

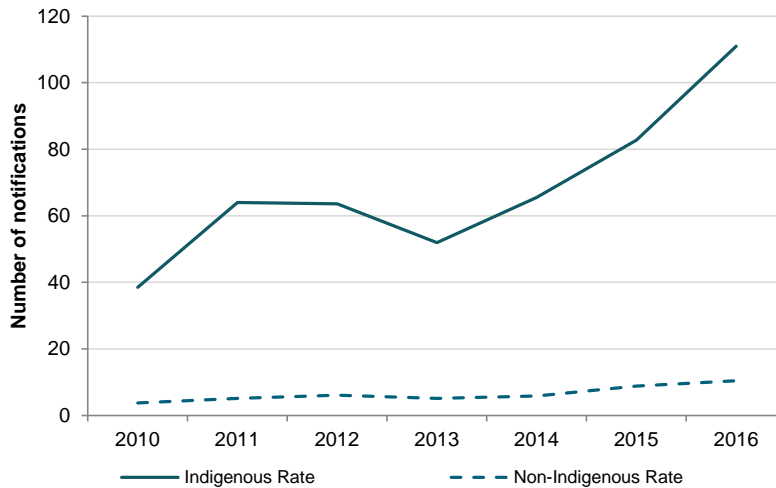
1. Strengthening a regional approach. Actions include, increased sharing of information, enhanced capacity of Cairns and Townsville Public Health Units to provide regional clinical direction, increased engagement with Aboriginal and Torres Strait Islander Community Controlled Health Organisations and other health providers.
2. Promotion and prevention. Actions include increased access to contraceptive services including condoms, build capacity of local services to undertake sexual health promotion activities and in partnership with Education Queensland implementation of the Strong, Proud, Health and Safe Sexuality and Relationships Education Curriculum aimed at years five to 10.
3. Testing and treatment of STIs. Actions include intensive community based screening in key locations, consistent approach for testing of syphilis during pregnancy and prioritisation of contact tracing.
4. Better Health Services. Actions include increasing training for sexual health staff, share best practice stories and research, increased prioritisation of STI testing in clinical engagement with Aboriginal and Torres Strait Islander clients, and increase access to Point of Care testing.
5. Monitoring and evaluation. Actions include increasing Aboriginal and Torres Strait Islander status within data collection, develop evaluation and audit tools for each type of clinical service, monitor the ongoing syphilis outbreak, and threats of possible emerging outbreaks, and report to HHSs as required.

The NQ STI Action Plan demonstrates the five North Queensland HHSs taking a shared responsibility for redressing a significant health issue for Aboriginal and Torres Strait Islander people within their collective areas.

What we found

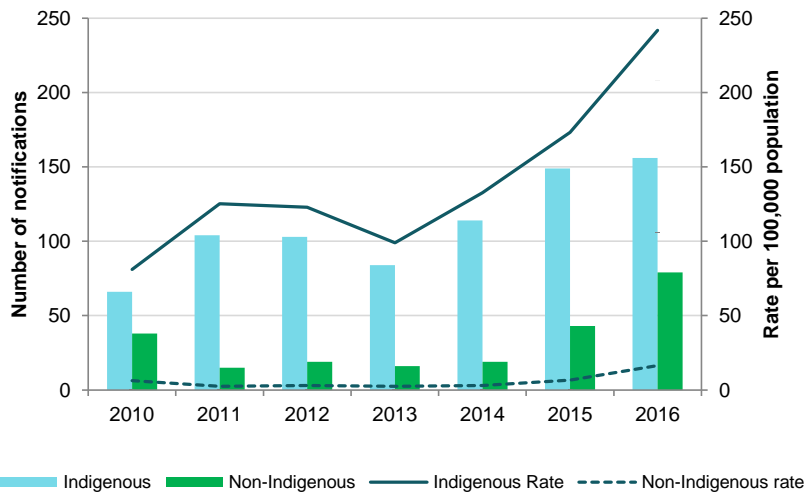
In 2016, infectious syphilis notification rates continue to increase in Queensland among Aboriginal and Torres Strait Islander Queenslanders. This increase was driven largely by North Queensland.

Infectious syphilis notification rate per 100,000 population by Aboriginal and Torres Strait Islander status, Queensland, 1 Jan 2010 to 30 Sep 2016



NOTE: Notifications to 30 Sep 2016;. Data extracted from Notifiable Conditions System on 31 October 2016 by Onset Date.

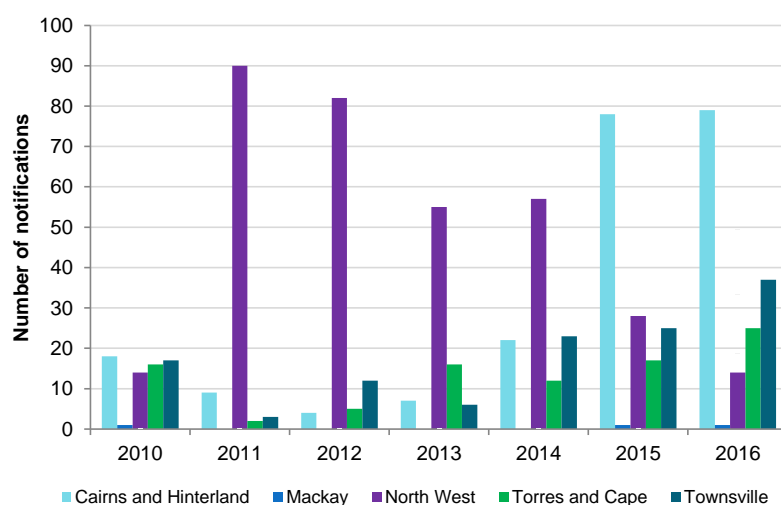
Number and rate per 100,000 population infectious syphilis notifications in five North Queensland HHSs by Aboriginal and Torres Strait Islander status, 1 Jan 2010 to 30 Sep 2016



NOTE: Notifications to 30 Sep 2016; HHSs of Cairns and Hinterland, Mackay, North West, Torres and Cape, and Townsville. Data extracted from Notifiable Conditions System on 31 October 2016 by Onset Date.

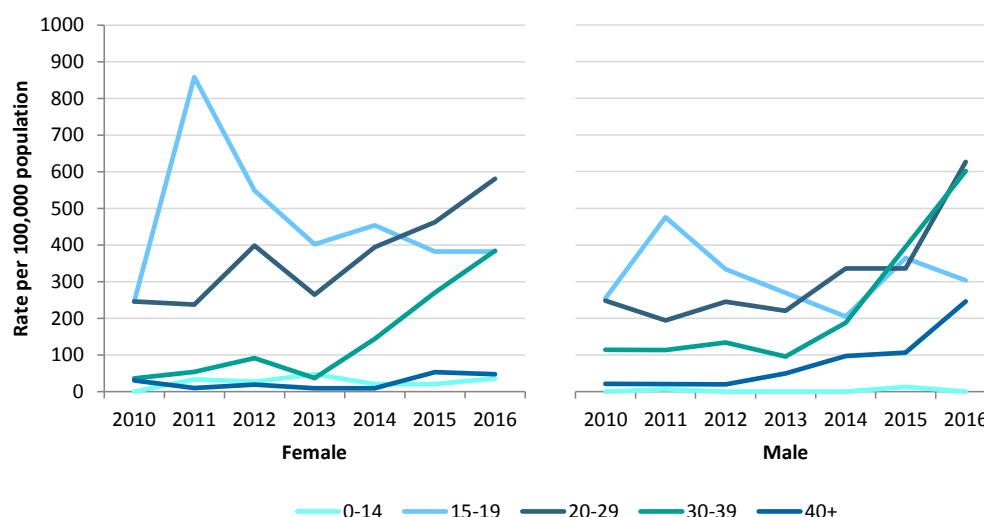
Since 2010, clusters and outbreaks of syphilis have been identified in the Aboriginal and Torres Strait Islander population in the North West HHS region and more recently in the Cairns and Hinterland HHS region. These syphilis diagnoses have been disproportionately notified amongst Aboriginal and Torres Strait Islander youth aged 15 to 29 years, with female notifications higher than males and a resurgence of syphilis in pregnancy leading to a number of notifications of congenital syphilis.

Aboriginal and Torres Strait Islander notifications of infectious syphilis in five North Queensland HHSs by Aboriginal and Torres Strait Islander status, 1 Jan 2010 to 30 Sep 2016



NOTE: Notifications to 30 Sep 2016; Data extracted from Notifiable Conditions System on 31 October 2016 by Onset Date.

Rate per 100,000 population infectious syphilis notifications in Aboriginal and Torres Strait Islander people in five North Queensland HHSs by sex and age group, 1 Jan 2010 to 30 Sep 2016



NOTE: Notifications to 30 Sep only; HHSs of Cairns and Hinterland, Mackay, North West, Torres and Cape, and Townsville. Data extracted from Notifiable Conditions System on 31 October 2016 by Onset Date.

The number of chlamydia and gonorrhoea notifications is also higher in the Aboriginal and Torres Strait Islander population than in the non-Indigenous population, both nationally and in Queensland. It should be noted that recording of Aboriginal and Torres Strait Islander status for chlamydia and gonorrhoea infection is incomplete in Queensland. Therefore reliable reporting at the regional (HHS) level by Aboriginal and Torres Strait Islander status for these two infections is not currently possible.

A regular sexual health check-up and blood screen can detect syphilis. Syphilis at any stage of infection can be treated with penicillin however early treatment is required to prevent health complications and reduce transmission to sexual partners. Contact tracing is an important component of managing sexually transmitted infectious outbreaks.

Methodological issues

Interpreting trends

Interpreting changes in Aboriginal and Torres Strait Islander rates over time is complicated by the challenge of accounting for under identification of Aboriginal and Torres Strait Islander deaths, under enumeration of Aboriginal and Torres Strait Islander people in census counts, and changing propensity to identify as being (or be identified as) a person of Aboriginal and Torres Strait Islander origin, and the impact of choice of standard population.

Estimated resident population

Mortality and morbidity rates presented in this report are not comparable to the rates in the previous report, *Closing the Gap performance report 2014*. The Aboriginal and Torres Strait Islander estimated resident population (ERP) used in this report is based on results of the 2011 Census of Population and Housing. The previous Closing the Gap Performance Report used ERP based on the 2006 Census of Population and Housing. Due to methodological improvements, and an increase in the propensity to identify as being of Aboriginal and Torres Strait Islander origin, the population estimates based on the 2011 Census are higher than those based on the 2006 Census. This means that the rates reported in this document are lower than those reported for the same period in the previous report.

ERP is adjusted and back-cast from 2011 effectively taking methodological improvements and an increase in the propensity to identify into account. However, the numerators in the calculation of these rates (i.e. deaths or hospitalisations) are not adjusted for under identification or changing propensity for a death or person hospitalised to be recorded as being Aboriginal and Torres Strait Islander origin. This means that caution needs to be applied when interpreting trends due to the potential year-to-year variation in propensity to identify impacting on the numerator, but not the denominator.

Choice of standard population

An additional complicating factor in the analysis of trends in rates of Aboriginal and Torres Strait Islander mortality and morbidity over time is the impact of the age structure of the standard population. Direct age standardisation distributes the age specific rates in the study population(s) by the age distribution in a standard population, and sums them into a single measure. It removes the confounding effect of different age structures on rates and thereby allows rates to be compared between two or more populations, and over time. To be consistent with past reports and to allow comparisons with other published data, we have standardised to the 2001 Australian standard population. However, it should be noted that the choice of standard

population can have implications on the interpretation of trends, the magnitude of the rates, rate ratios and rate differences⁹.

Infant and child mortality trends

Trends in infant and child mortality appear to be inconsistent with each other; despite most child deaths occurring in infants the infant mortality rate has seen substantial reductions compared to the child mortality rate. This is primarily due to the different denominator used in the two measures. Infant mortality is measured as the number of registered deaths of Aboriginal and Torres Strait Islander infants over the number of registered live births in the same year where the mother or father is reported as being of Aboriginal and Torres Strait Islander origin. Changing propensity to identify as Aboriginal and Torres Strait Islander, and changing or inconsistent recording of Indigenous status may mean that the cohort being measured year to year is changing in both the numerator and denominator. Child mortality, however, is measured as the number of deaths in children age 0–4 years identified as being Aboriginal and Torres Strait Islander origin, over the ERP of children aged less than five years of age. So in this case, deaths may be subject to changing propensity or recording practices, while the population is effectively held static in terms of propensity. The trend in mortality for infants when the denominator is ERP shows much more gradual improvements compared to the trend in traditional infant mortality rates where the denominator is live births.

Life expectancy

Aboriginal and Torres Strait Islander life expectancy estimates are derived using deaths adjusted for under identification. In Queensland, deaths for the 2010–2012 period were revised up by 24 per cent based on results of an ABS data linkage exercise where census and deaths data are linked¹⁰. Similar adjustments are not performed on deaths used in the calculation of mortality rates (all cause and cause specific) such as those presented here. This distances the relationship between cause specific mortality and life expectancy calculations, and may in part explain why apparent large reductions in mortality rates appear not to be reflected in gains in life expectancy. It also means that the magnitude of the mortality rates and gaps are likely to underestimate any difference.

Life expectancy projections

Life expectancy estimates for Aboriginal and Torres Strait Islander people were most recently produced by the Australian Bureau of Statistics for the 2010–2012 period.

⁹ Robson B, Purdie G, Cram F and Simmonds S 2007, 'Age standardisation – an Indigenous standard?', *Emerging Themes in Epidemiology*, vol. 4, iss. 3, retrieved 23 March 2016 <<http://ete-online.biomedcentral.com/articles/10.1186/1742-7622-4-3>>

¹⁰ ABS 2013, Information Paper: Death registrations to Census linkage project - Key Findings for Aboriginal and Torres Strait Islander peoples, 2011-2012, cat. no. 3302.0.55.005

Revised 2005–2007 estimates were also produced to allow comparison between the two time periods¹¹. Projected Aboriginal and Torres Strait Islander life expectancy at birth estimates for 2033 were based on the average annual change in life expectancy between 2005–2007 and 2010–2012.

For Queensland's non-Indigenous people, life expectancy at birth projections were based on the linear trend in sex specific total Queensland population life expectancy estimates over the fifteen years 1998–2000 to 2012–2014^{12,13}. This trend was applied to the non-Indigenous life expectancy estimates for 2010–2012, and projected out to 2033.

Life expectancy gap decomposition

Life expectancy gaps and changes in life expectancy over time were decomposed into cause and age-specific contributions using the Arriaga method¹⁴. Mortality by Indigenous status, age group (0, 1–4, 5–9, ..., 85+), and broad cause was based on unpublished data from the Queensland Burden of Disease and Injury study 2011.

Excess purchases

The excess purchase¹⁵ is calculated as the difference between the purchase of hospital-based admitted patient services provided to Aboriginal and Torres Strait Islander people (measured by weighted activity units (WAUs)) and the expected purchase if the rate of hospitalisation was the same as the Queensland non-Indigenous rate. WAUs are converted to a dollar value by multiplying by the efficient purchase price (\$4,676.00 for ABF Phase 17). The excess cost of purchases represents the excess dollar value of hospital-based clinical services purchased for Aboriginal and Torres Strait Islander Queenslanders relative to non-Indigenous Queenslanders.

¹¹ ABS 2013, Life Tables for Aboriginal and Torres Strait Islander Australians, cat. no. 3302.0.55.003.

¹² ABS 2014, *Australian Historical Population Statistics, 2014* (for years 1881–1890 to 2010–2012), cat. no. 3105.0.65.001

¹³ ABS 2015, *Life Tables, States, Territories and Australia, 2012–2014*, cat. no. 3302.0.55.001

¹⁴ Auger, N et. al. 2014, 'Mortality inequality in populations with equal life expectancy: Arriaga's decomposition method in SAS, Stata, and Excel', *Annals of Epidemiology*, vol. 24, iss. 8, pp. 575–580, retrieved 21 March 2016, < <http://www.sciencedirect.com/science/article/pii/S1047279714001872>>

¹⁵ Does not include all clinical services, only those measured by WAUs.

Abbreviations

AATSIHS	Australian Aboriginal and Torres Strait Islander Health Survey
ABF	Activity Based Funding
ABS	Australian Bureau of Statistics
ACIR	Australian Childhood Immunisation Register
AHMAC	Australian Health Ministers' Advisory Council
COAG	Council of Australian Governments
CVD	Cardiovascular disease
DALY	Disability-adjusted life year
DAMA	Discharge against medical advice
ERP	Estimated resident population
HHS	Hospital and Health Service
HSCE	Health Service Chief Executive
HPF	Aboriginal and Torres Strait Islander Health Performance Framework
KPI	Key performance indicator
LE	Life expectancy
NGO	Non-government organisation
OESR	Office of Economic and Statistical Research
NIRA	National Indigenous Reform Agreement
PDC	Perinatal Data Collection
PPH	Potentially preventable hospitalisation
QHAPDC	Queensland Hospital Admitted Patients Data Collection
RR	Rate ratio
STI	Sexually transmissible infection
WAU	Weighted activity unit
YLD	Years lived with disability
YLL	Years of life lost

Glossary

Age standardised rates (ASR) provide an indication of the frequency of an event within a population adjusted for the confounding effect of different age structures in the populations (or time periods) being compared. In this report ASRs refer to directly age standardised rates to the Australian standard population 2001 in 5 year age groups to age 65+ years.

Burden of disease is a summary measure of population health (disability adjusted life years and health adjusted life expectancy) that aims to quantify the gap between the ideal of living to old age in good health, and the current situation where healthy life is shortened by illness, injury, disability and premature death. It is an important measure for health policy and planning because it quantifies the total impact of health conditions on the individual at the population level in a comparable and consistent way.

Chronic disease is a disease of long duration and generally slow progression which often does not resolve spontaneously and is rarely cured completely. Chronic diseases, such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes contribute significantly to premature mortality for Aboriginal and Torres Strait Islander people.

Excess purchases refer to the estimated cost to the public inpatient hospital system of the gap in health status between Aboriginal and Torres Strait Islander and non-Indigenous Queenslanders.

External causes refer to those disease groups used in ICD-10-AM classification developed in Australia by the National Centre for Classification in Health, which was based on the World Health Organisation ICD-10. Note the ICD-10-AM is used to classify and code external causes, rather than diagnoses. External causes include, but are not limited to, injury, poisoning, burns and trauma.

Foetal deaths refer to the spontaneous death in utero of a foetus after 20 weeks of gestation or weighing 500 grams. Foetal deaths later in pregnancy (at 20 weeks of gestation or more) are also sometimes referred to as stillbirths.

'Gap' refers to the rate difference between Aboriginal and Torres Strait Islander and non-Indigenous populations. For trend analyses, references to the widening or narrowing of the gap refer to changes in the age standardised rate difference over time.

Health gap refers to the difference between the burden of disease estimates for Aboriginal and Torres Strait Islander Australians in a given calendar year and what the estimates would have been if Aboriginal and Torres Strait Islander Australians had experienced mortality and disability at the level of the total Australian population.

Health sector consists of organised public and private health services, the policies and activities of health departments, health related non-government and community organisations and professional associations.

Health services include alcohol and drug services, health promotion and disease prevention services, women's and men's health, child and maternal health, aged care services, service for people living with a disability, mental health services as well as clinical and hospital services.

Hospital and Health Services are statutory agencies established and funded by the Queensland Government to deliver a range of integrated services, including hospital inpatient, outpatient and emergency services, community and mental health services, aged care services, public health and health promotion programs.

Indigenous Queenslanders is used in this document to describe a person of Aboriginal and/or Torres Strait Islander descent who identifies as an Aboriginal person or a Torres Strait Islander, is accepted as such by the community in which he or she lives, and who resides in Queensland.

Life expectancy measures the average number of additional years a person of a given age and sex might expect to live if the age-specific death rates of the given period continued throughout their lifetime. In this report life expectancy refers to life expectancy at birth.

Low birth weight is defined as less than 2500 grams.. Low birth weight constitutes a risk factor for diseases of early childhood and chronic disease in later life.

Mortality rate refers to the number of deaths registered in a given calendar year expressed as a proportion of the estimated resident population at June 30 that year. Age specific death rates are the number of deaths at a specified age as a proportion of the resident population of the same age. Higher age specific death rates in younger age groups indicate excess of unnecessary early deaths.

Neonatal deaths refers to deaths within the first 28 days after birth.

Perinatal deaths refers to the death of a fetus or neonate. That is in utero after 20 weeks gestational age until the first 28 days after birth.

Preventative health refers to services designed to protect and promote health and to prevent illness, injury and disability.

Prevalence indicates how often a particular health condition can be found within a particular population.

Primary health care is the first point of contact between the community and the health system. Primary healthcare in Queensland is provided through:

- general practitioners
- government operated community health services
- primary healthcare clinics
- the Royal Flying Doctor Service
- public and private dental health services
- Aboriginal and Torres Strait Islander community-controlled health services.

It also includes some outpatient services provided by a general hospital. Primary healthcare services provide clinical and community healthcare, and facilitate access to specialist health services.

Targeted health services refer to services and programs that are designed and provided for Aboriginal and Torres Strait Islander people.

Data sources

Population data

Australian Bureau of Statistics Catalogue No. 3235.0 - Population by Age and Sex, Regions of Australia;

Hospital and Health Service data derived by Statistical Analysis Linkage Team, Statistical Services Branch, Department of Health, Queensland

Prepared by: Statistical Reporting and Coordination Unit, Statistical Services Branch, Department of Health, 20 December 2016

Life expectancy

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