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Eye health measures for Aboriginal and Torres Strait Islander people 2025



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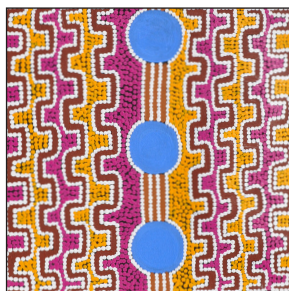
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A message from the Aboriginal and Torres Strait Islander Eye Health Data Report Advisory Group

Since it was first published in 2017, the Australian Institute of Health and Welfare's (AIHW's) annual Eye health measures for Aboriginal and Torres Strait Islander people report has been a valuable tool to monitor progress in driving down rates of preventable vision loss for Aboriginal and Torres Strait Islander people and in improving their eye health.

The report's evidence-based insights help to maintain a strong focus on the gains made and on areas where improvement is still needed, either nationally or in specific regions.

The reporting has evolved over time to provide further information at local levels. This helps communities and services to plan and monitor pathways of care and improved eye health outcomes.

The need is ongoing for strong data collections and reporting not only to monitor changes in the eye health of Indigenous people over time and their access to and use of eye health services, but also to identify gaps in service delivery.

Aboriginal and Torres Strait Islander Eye Health Data Report Advisory Group

The Eye health measures for Aboriginal and Torres Strait Islander people Advisory Group was established to provide expert advice to the AIHW on the national Eye health measures for Aboriginal and Torres Strait Islander people data report series. Members of this multi-disciplinary group are familiar with not only eye health conditions and the policy environment and programs aimed at improving eye health but also eye health service providers and data and indicators relevant to monitoring and reporting on eye health.

Summary

This is the ninth annual Eye health measures for Aboriginal and Torres Strait Islander people report. The measures in these annual reports were developed to provide an evidence base to monitor changes in eye health among Aboriginal and Torres Strait Islander (First Nations) people over time and their use of eye health services.

This report includes the latest available data for each measure where possible. The 2016, 2017 and 2018 editions of the report presented data for 23 measures; however, data stopped being collected for 1 measure. Of the 22 measures with ongoing data collections, 11 have sub-measures. In total, this 2025 edition of the report contains 37 measures and

sub-measures, 35 of which have been updated. Of the 35 measures that have been updated, Trend data for 20 of these measures and sub-measures are presented in Table 2.

- 7 measures or sub-measures appear to be improving.
- 3 measures or sub-measures appear to be worsening.
- 7 measures or sub-measures have updated data but show no change or no clear trend over time.
- 3 measures have updated data but it is not possible to determine if changes represent an improvement or not. For example, an increase in hospitalisations for eye diseases could be interpreted as an increase in disease rates or an increase in treatment rates.

Below is a summary of key findings. The latest findings for each measure are presented in Table 1, while trends data for selected measures together with an assessment of each trend are presented in Table 2.

Prevalence

With the release of the Australian Eye and Ear Health Survey (AEEHS) results, updated data now available for all three prevalence measures. The sub-measure for trachoma (1.3.1) shows improvement over time. However, trichiasis sub-measure (1.3.2) does not include time trend data due to changes in the way it has been assessed over time.

- The prevalence of bilateral vision impairment for First Nations people aged 50 and over was 11% and the prevalence of bilateral blindness was 0.2%, based on the latest available AEEHS 2025 data (combined vision impairment and blindness affected 11.2% of those First Nations participants).
- The 3 leading causes of vision impairment and blindness (vision loss) for First Nations people aged 50 and over were uncorrected refractive error (38%), cataract (34%) and diabetic retinopathy (15%).
- Repeated trachoma infections can result in scarring, in-turned eyelashes on the upper eyelid (trichomatous trichiasis, referred to as trichiasis in this report) and blindness. The overall prevalence of trachoma among children aged 5–9 fell from 15% in 2009 to 1.5% in 2024.

Diagnosis and screening

- Four of the 5 diagnosis and screening measures have updated data. Of these, both sub-measures of measure 2.1 (annual health assessments for First Nations people), and 1 of the 3 sub-measures of measure 2.3 (screening for diabetic retinopathy) appear to have improved over the reporting

years. Data for measure 2.2 (eye examinations by an eye care specialist) and sub-measure 2.3.3 (Screening for diabetic retinopathy with a retinal camera) do not show change or a clear trend over time. Time trend data for both sub-measures of measure 2.4 (trachoma and trichiasis screening) is not presented due to changes in how the sub-measures have been assessed over time.

- In 2023–24, 25% (259,941) of First Nations people had an annual health assessment that should have included an eye health check. The age-specific proportion of First Nations people who had a health assessment slightly increased from around 20%–24% in 2016–17 for all age groups up to age 44 years to around 20%–25% in 2023–24.
- In 2023–24, 14% of First Nations people (147,517) had an initial eye examination by an optometrist or ophthalmologist.
- Diabetic retinopathy is a complication of diabetes which can result in vision loss if not detected and treated early. An estimated 31,927 First Nations people had a diabetes test in the previous 2 years. Of these, 15,937 (50%) also had an eye examination in 2023–24.

Treatment

Updated data are available for all 10 treatment measures. Of these, measure 3.4 (cataract surgery) appears to have improved over the reporting years, while all 4 sub-measures of measure 3.6 (waiting times for elective cataract surgery) appear to have worsened. Data for both sub-measures of measure 3.7 (treated for diabetic retinopathy) show no change or no clear trend over time. It is not possible to determine if changes are improvements or not for measures 3.1 (diseases), 3.2 (injuries) and 3.3 (procedures). Time trend data for both sub-measures of measure 3.8 (trachoma and trichiasis treatment) are not presented due to changes in how the sub-measures have been assessed over time.

- In 2022–24, among First Nations people, there were 9,671 (4,736 per 1,000,000 population) hospitalisations for cataract surgery. Between 2016–17 and 2023–24, the age standardised rate for cataract surgery for First Nations people rose from 6,530 to 8,849 per 1,000,000.
- In 2022–24, among First Nations people, there were 15,461 (7.6 per 1,000 population) hospitalisations for diseases of the eye and around 14,920 (7.3 per 1,000) hospitalisations for eye procedures.
- In 2024, trachoma treatment coverage was 54% – that is, 1,674 active cases, household and community contacts received treatment. Treatment coverage for active cases detected in screening activities was 96%.
- In 2023–24, 21,977 pairs of spectacles were dispensed to First Nations people under state spectacle schemes by New South Wales, Victoria, Queensland, South Australia and Tasmania (the states and territories able to provide data). Of these, Victoria (3,742 spectacles, 46 per 1,000 population) came closest to meeting the estimated number of spectacles needed among First Nations people (5,302) – with 71% of the population-based need met.

Workforce and outreach

Three of the 4 workforce and outreach measures have updated data. Of these, measure 4.1 (optometrists) appears to have improved over the reporting years. Data for measures 4.2 (ophthalmologists), 4.3 (allied ophthalmic personnel) and 4.4 (outreach and other programs) show no change or no clear trend over time. Data for the 5 sub-measures of measure 4.4 are mixed. Some

sub-measures appear to show improvement over time while others seem to be worsening. Trends should be interpreted with caution, however, as jurisdictions may elect to use different outreach programs for eye services depending on their needs.

- In 2023, 6,275 optometrists were employed in Australia (21 full-time equivalent [FTE] per 100,000 total Australian population). The numbers and rates of optometrists were lowest in Remote and Very remote areas.
- In 2023, 1,004 ophthalmologists were employed in Australia (3.9 FTE per 100,000 total Australian population).
- The number of occasions of service provided under the Visiting Optometrist Scheme – which provides specialist eye health services to First Nations people in mainly regional and remote areas – has fluctuated; however, overall, First Nations services increased between 2014–15 (18,890 occasions of service) and 2023–24 (31,534 occasions of service).

Comparison with non-Indigenous Australians

- Between 2016–17 and 2023–24, the total age-standardised proportion of the First Nations population who had an eye examination was relatively stable, around 19%, while the equivalent proportion for non-Indigenous Australians rose from 23%–27%.
- Between 2013–14 and 2023–24, the total age-standardised proportion of First Nations people tested for diabetes who had an eye examination rose from 35%–43%, while for non-Indigenous Australians it rose from 39%–48%.
- In 2023–24, the age-standardised hospitalisation rate for First Nations people for cataract surgery (8,849 per 1,000,000 population) was lower than that for non-Indigenous Australians (9,204 per 1,000,000).
- In 2023–24, the proportion of First Nations people who had elective cataract surgery and were treated within 90 days (39%) was less than the proportion of non-Indigenous Australians who were treated within this time (43%).
- In 2023–24, the average days waited by First Nations people before receiving cataract surgery was 180 days, while the average for non-Indigenous Australians was 158 days.

Table 1: First Nations eye health measures and sub-measures update status

Measures (sub-measures)		Latest Reporting period	First reporting period	First Nations rate (latest reporting period)
Prevalence				
1.1	Prevalence of			
(1.1.1)	(i) Vision impairment (Crude %, aged 50 and over) ($n^a=617$)	2022–25	2016*	11
	(ii) Blindness (Crude %, aged 50 and over) ($n^a=617$)	2022–25	2016*	0.2
(1.1.2)	Self-reported eye or sight problems (age-standardised %)	2022–23	2001	51
1.2	Main causes of vision impairment and blindness			
(1.2.1)	(i) Refractive error (Crude % of those with vision impairment) ($n^b=68$)	2022–25	2016*	38
	(ii) Cataract (Crude % of those with vision impairment) ($n^b=68$)	2022–25	2016*	34
	(iii) Diabetic retinopathy (Crude % of those with vision impairment) ($n^b=68$)	2022–25	2016*	15
(1.2.2)	Self-reported causes of eye or sight problems			
	(i) Long-sightedness (%) ($n^a=7,768$)	2022–23	2012–13	23
	(ii) Short-sightedness (%) ($n^a=7,768$)	2022–23	2012–13	17
	(iii) Cataract (%) ($n^a=7,768$)	2022–23	2012–13	1.5
1.3	Prevalence of			
(1.3.1)	Trachoma (%), aged 5–9)	2024	2009	1.5
(1.3.2)	Trichiasis (%), aged 40 and over)	2024	2011	0.09
Diagnosis and screening services				
2.1	Conduct of			
(2.1.1)	Annual health assessments for First Nations people (Crude %)	2023–24	2016–17	25
(2.1.2)	Annual health assessments for First Nations people and initial eye examination (Crude %)	2023–24	2016–17	5.2
2.2	Initial eye examinations undertaken by an eye care professional (Crude %)	2023–24	2016–17	14.3
2.3	Target population screened for diabetic retinopathy			
(2.3.1)	Eye examination among those tested for diabetes (Crude %)	2023–24	2016–17	50
(2.3.2)	Screening for diabetic retinopathy among those with self-reported diabetes (Crude %)	2022–25	2016*	54

(continued)



Table 1 (continued): First Nations eye health measures and sub-measures update status

Measures (sub-measures)		Latest Reporting period	First reporting period	First Nations rate (latest reporting period)
(2.3.3)	Screening for diabetic retinopathy with a retinal camera (number per 1,000)	2023–24	2016–17	0.9
2.4	Screening coverage			
(2.4.1)	Trachoma (% aged 5–9, in communities designated as at risk of trachoma)	2024	2012	89
(2.4.2)	Trichiasis (% aged 40 and over)	2024	2011	30
2.5	Undiagnosed eye conditions (% aged 40 and over) ***			
2.6	Eye health problems managed by GPs*	2010–2015***		
Treatment services				
3.1	Hospitalisations for diseases of the eye (number per 1,000)	2022–24	2016–17	7.6
3.2	Hospitalisations for injuries to the eye (number per 1,000)	2022–24	2016–17	1.0
3.3	Hospitalisations for eye procedures (number per 1,000)	2022–24	2016–17	7.3
3.4	Cataract surgery rate (number per 1,000,000)	2022–24	2016–17	4,736
3.5	Cataract surgical coverage rate (Crude %, aged 50 and over)	2022–25	2016*	87
3.6	Waiting times for elective cataract surgery			
(3.6.1)	Median waiting time in days	2023–24	2012–13	138
(3.6.2)	Treated within 90 days (%)	2023–24	2012–13	39.1
3.7	Target population treated for diabetic retinopathy			
(3.7.1)	Treated for diabetic retinopathy (Crude % of those screened for diabetic retinopathy)	2023–24	2013–14	3.6
(3.7.2)	Treated for diabetic retinopathy (Crude % of those screened for diabetes)	2023–24	2013–14	1.8
3.8	Treatment coverage			
(3.8.1)	Trachoma (% active cases + household/ community contacts treated, all ages)	2024	2011	54
(3.8.2)	Trichiasis (number aged 40 and over who received surgery to correct trichiasis)	2024	2012	6
3.9	Treatment of refractive error (Crude %)	2022–25	2016*	54
3.10	Spectacles dispensed under state schemes	2023–24		—

(continued)

Table 1 (continued): First Nations eye health measures and sub-measures update status

Measures (sub-measures)	Latest Reporting period	First reporting period	First Nations rate (latest reporting period)	
<i>Workforce and outreach services</i>				
4.1	Number and rate of optometrists (FTE per 100,000)	2023	2013	21
4.2	Number and rate of ophthalmologists (FTE per 100,000)	2023	2014	3.9
4.3	Number and rate of allied ophthalmic personnel			
	(i) optical dispensers (FTE per 100,000)	2021	2016	14
	(ii) orthoptists (FTE per 100,000)	2021	2016	3
4.4	Occasions of eye health services provided under outreach and other programs			
(4.4.1)	Visiting Optometrists Scheme (number)	2023–24	2009–10	31,534
(4.4.2)	Rural Health Outreach Fund (number)	2023–24	2011–12	1,394
(4.4.3)	Medical Outreach Indigenous Chronic Disease Program (number)	2023–24	2014–15	15,257
(4.4.4)	Combined outreach (number)	2023–24	2014–15	48,185
(4.4.5)	Eye and Ear Surgical Support Services program (number)	2023–24	2020–21	648

 Not updated since previous reporting period
 Discontinued data

AATSIHS = Aboriginal and Torres Strait Islander Health Survey; ABS = Australian Bureau of Statistics; BEACH = Bettering the Evaluation and Care of Health survey; FTE = full-time equivalent; na = number of First Nations people who participated in the survey, nb = number of First Nations people who participated in the survey who had vision impairment, NATSIHS = National Aboriginal and Torres Strait Islander Health Survey; NATSINPAS = National Aboriginal and Torres Strait Islander Nutrition and Physical Activity Survey;

* Historical data are not directly comparable to the current survey data due to differences in survey methodology.

** Data for this measure were previously sourced from BEACH survey, which ceased collection in 2015. This measure was most recently presented in the 2018 edition of this report but is no longer presented since the data collection has ceased.

*** Updated data are not available due to limitations in using the AEEHS for updating existing eye health measures in this report.

Note: Measures 4.1, 4.2 and 4.3 are total rates and not First Nations rates.

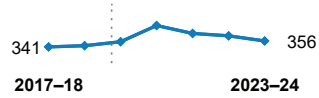
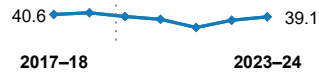
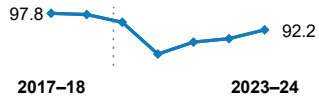
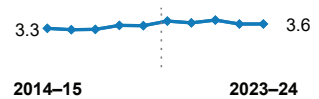
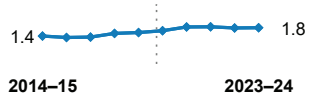
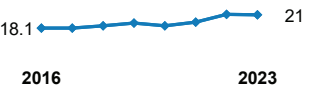


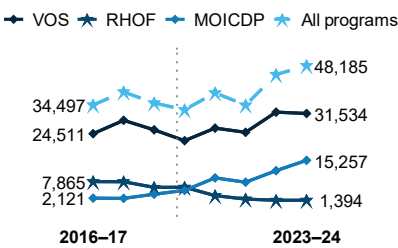
Sources: See chapters 1, 2, 3 and 4 and the online data tables for detailed results.

Table 2: Trend data for selected measures and sub-measures

Measure/sub-measure	Change over time for First Nations people	Progress
Prevalence		
1.3.1 Prevalence of overall trachoma in at-risk First Nations communities (First Nations children aged 5–9, crude per cent)	<p>2009 2024</p>	✓
Screening and diagnosis		
2.1.1 Annual health assessments for First Nations people (First Nations people, age-standardised proportion)	<p>2016–17 2023–24</p>	✓
2.1.2 Annual health assessments for First Nations people and initial eye examination (First Nations people, age-standardised proportion)	<p>2016–17 2023–24</p>	✓
2.2 Eye examinations by an eye care professional (First Nations people, age-standardised proportion)	<p>2016–17 2023–24</p>	--
2.3.1 Screening for diabetic retinopathy among those tested for diabetes (First Nations people, age-standardised proportion)	<p>2013–14 2023–24</p>	✓
2.3.3 Screening for diabetic retinopathy (First Nations people, crude per 1,000)	<p>2016–17 2023–24</p>	✓
Treatment		
3.1 Hospitalisations for diseases of the eye (First Nations people, age-standardised per 1,000)	<p>2016–17 2023–24</p>	~
3.2 Hospitalisations for injuries to the eye (First Nations people, age-standardised per 1,000)	<p>2016–17 2023–24</p>	~
3.3 Hospitalisations for eye procedures (First Nations people, age-standardised per 1,000)	<p>2016–17 2023–24</p>	~
3.4 Hospitalisations for cataract surgery (First Nations people, age-standardised per 1,000,000)	<p>2016–17 2023–24</p>	✓
3.6.1a Waiting times for cataract surgery (First Nations people, days waited at the 50th percentile)	<p>2017–18 2023–24</p>	✗

(continued)

Table 2 (continued): Trend data for selected measures and sub-measures

Measure/sub-measure	Change over time for First Nations people	Progress
3.6.1b Waiting times for cataract surgery (First Nations people, days waited at the 90th percentile)		X
3.6.2a Waiting times for cataract surgery (First Nations people, treated within 90 days, proportion)		--
3.6.2b Waiting times for cataract surgery (First Nations people, treated within 365 days, proportion)		X
3.7.1 Treated for diabetic retinopathy among those screened for diabetic retinopathy (First Nations people, crude proportion)		--
3.7.2 Treated for diabetic retinopathy among those screened for diabetes (First Nations people, crude proportion)		--
Workforce and outreach		
4.1 Optometrists (All Australians, FTE per 100,000)		✓
4.2 Ophthalmologists (All Australians, FTE per 100,000)		--
4.3 Allied ophthalmic personnel (All Australians, FTE per 100,000)		--
4.4 Outreach programs (First Nations people, occasions of service)		--

FTE = full-time equivalent, MOICDP = Medical Outreach Chronic Diseases Program, RHOF = Rural Health Outreach Fund, VOS = Visiting Optometrists Scheme

✓ Measure/sub-measure shows improvement over time.

X Measure/sub-measure worsening over time.

-- Updated data available but data show no change or no clear trend over time.

~ Unclear whether the trend in the data represents improvement or not. For example, an increase in hospitalisations for eye diseases could be interpreted as an increase in disease rates or an increase in treatment rates.

Notes

- Time trends shown in figures and assessment of progress for a measure use all data points between the specified dates.
- Trends shown in table 2 for 4.4 (Outreach programs) may not represent increases or declines in the provision of eye health outreach services. Jurisdictions may use different outreach programs for eye health services, depending on their needs so an apparent decline in services under one programme may be off-set by the provision of services under another outreach programme.

Sources: See chapters 1, 2, 3 and 4 and the online data tables for detailed results.



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Introduction

This publication and the accompanying web report are part of a series of reports that annually update the eye health measures for Aboriginal and Torres Strait Islander (First Nations) people. This is the ninth such annual report.

It presents comprehensive eye health data that are the most recently available at the national, state and regional levels, covering:

- the prevalence of vision impairment and blindness
- diagnosis and screening
- treatment
- the workforce
- outreach programs.

The 2016, 2017 and 2018 editions of the report presented data for 23 measures; however, collecting data for 1 measure stopped. Of the 22 measures with ongoing data collections, 11 have sub-measures. In total, this 2025 edition presents 37 measures and sub-measures, 27 of which have been updated. Table 1 provides information about which measures and sub-measures have been updated.

The eye health measures reports provides an evidence base:

- to monitor changes in First Nations eye health over time
- to monitor First Nations people's access to and use of eye health services
- to identify gaps in service delivery.

First nations people view health in a holistic way, as described in the National Aboriginal Community Controlled Health Organisation (NACCHO) Constitution (NACCHO, 2011: 5–6):

Aboriginal [and Torres Strait Islander] health means not just the physical well-being of an individual but refers to the social, emotional and cultural wellbeing of the whole Community in which each individual is able to achieve their full potential as a human being, thereby bringing about the total well-being of their Community. It is a whole-of-life view and includes the cyclical concept of life-death-life.

The health and wellbeing of First Nations people can be improved if local First Nations people determine and own the process of health-care delivery. First Nations community control in health is essential to attaining holistic health; it allows Aboriginal communities to determine their own affairs, protocols and procedures. (National Aboriginal Community Controlled Health Organisation 2012, as cited in Department of Health 2013).

Eye health has a profound impact on a person's quality of life and on their ability to perform everyday activities. Eye diseases and vision problems are the most common long-term health conditions reported by First Nations people, with over one-third (38%) self-reporting eye or sight problems (ABS 2019).

Vision loss may limit opportunities for physical mobility, work, education and social engagement. As well, people with vision loss may be more dependent on services and other people, and can also face an increased risk of injury or death and have reduced life expectancy (Razavi et al. 2018).

Self-determination and leadership are key to improving the health of First Nations people and involve practices and processes that incorporate not only self-governance and shared decision-making, but also the right to express and pass on culture, language and relationships with Country. Self-determination and leadership in health and wellbeing empower communities through culturally centred processes of decision-making and deliver solutions that respond to local context (The Lowitja Institute 2020).

First Nations children begin life with some of the best eyesight in the world, yet by adulthood, their rates of vision loss are significantly higher than those of non-Indigenous Australians. Research shared in *Minum Barreng: The Story of the Indigenous Eye Health Unit* highlights that although First Nations children may start with excellent vision, by age 40, they are almost six times more likely to suffer blindness from preventable conditions compared to non-Indigenous counterparts – a disparity rooted in limited access to care, service gaps, and the impacts of colonisation (Ryan and Senior 2022).

However, there are indications of a small decline in vision impairment rates in recent years. Findings from the 2025 Australian Eye and Ear Health Survey (AEEHS) indicate that the prevalence of vision impairment among First Nations adults has decreased, potentially reflecting improvements in prevention and treatment services.

Most of the blindness and vision impairment experienced by First Nations people is caused by conditions that are preventable or amenable to treatment – that is, vision loss due to refractive error, cataract and diabetic retinopathy (see Box 1 for the main eye conditions). For example, use of glasses (spectacles) and cataract surgery are 2 relatively low-cost effective interventions for treating the main causes of vision loss (Foreman et al. 2016).

Box 1: Main eye health conditions affecting First Nations people

Refractive error refers to problems with the focusing of light and occurs when the shape of the eye prevents light from focusing directly on the retina. It causes long- or short- sightedness and is a frequent cause of reduced visual acuity. The error can generally be corrected with the use of spectacles and contact lenses, or through laser surgery (National Eye Institute 2022).

A **cataract** is a mostly degenerative condition where the lens of the eye clouds over; this obstructs the passage of light to the retina, causing vision impairment and, potentially, blindness. Cataracts usually develop slowly and at different rates in each eye, and most are due to ageing. Other risk factors include smoking, exposure to the sun, diabetes and injury to the eye. Cataracts can be treated with surgery, which involves replacing the clouded lens with one made from plastic (Taylor et al. 2012). Surgery can be necessary when the cataract begins to interfere with daily activities.

Diabetic retinopathy is a complication of diabetes and refers to damage to the blood vessels in the retina. People with diabetes are at risk of developing diabetic retinopathy; factors that increase the risk include poor control of diabetes, having diabetes for a long time, high blood pressure, high cholesterol and smoking (Biotext 2008). Initially, the condition may cause no symptoms or only mild vision problems; however, if poor diabetes management continues, it can result in blindness. Hence, early diagnosis is important. At any stage of severity, diabetic retinopathy can be associated with diabetic macular edema, a swelling of the macular area of the retina that affects vision. Eye specialists use a retinal camera to screen for diabetic retinopathy. Treatment includes laser surgery to repair leaking blood vessels, injections to decrease inflammation and, in more severe cases, surgery (Healthinfonet 2016).

Trachoma is an infectious disease of the eye caused by the bacterium *Chlamydia trachomatis*. Active trachoma is characterised by the presence of multiple follicles or lumps (trachomatous inflammation–follicular) on the upper tarsal conjunctiva (upper inner eyelid), or pronounced thickening obscuring more than half the normal deep tarsal vessels (trachomatous inflammation–intense). Repeated episodes of infection can lead to scarring and distortion of the eyelid, causing the upper eyelashes to turn inward (trachomatous trichiasis) to scratch the cornea, eventually resulting in vision loss and blindness. Children aged under 10 generally have the highest prevalence of trachoma and are believed to be the main reservoirs of infection. Trachoma is linked to poor living conditions, including overcrowding, lack of water supply for bathing and general hygiene and limited waste disposal systems. Australia has adopted the World Health Organization’s (WHO’s) recommended package of interventions for trachoma control known as the ‘SAFE’ strategy – Surgery to correct trichiasis, Antibiotics to treat chlamydial infection, Facial cleanliness to reduce transmission and prevent reinfection and Environmental improvements to increase access to water, sanitation and hygiene facilities (Kuper et al. 2003; Solomon et al. 2020).

Protective and risk factors for eye health problems

The factors that contribute to poorer eye health for First Nations people are complex and may be related to a range of social and cultural determinants of health (Kirby Institute 2020; Razavi et al. 2018; Taylor et al. 2012).

The devastating impacts of colonisation on First Nations communities and culture are recognised as having a fundamental impact on the physical and mental health of the population. Consequential impacts of living conditions and poor nutrition have contributed to the development of eye problems and other chronic conditions (such as diabetes) which are an important risk factor for eye disease (Razavi et al. 2018). First Nations people, particularly those in remote areas, are more likely to have limited access to culturally safe primary health care, and inadequate access to appropriate living and environmental conditions – which further exacerbates eye health problems (Razavi et al. 2018).

In contrast, First Nations cultural identity and participation in cultural activities, access to traditional lands along with connection to family and kinship are recognised as protective factors and can positively influence overall health and wellbeing (AIHW 2023).

Health protective and risk factors

Health factors contributing to poor eye health may include age, high blood pressure, obesity, diabetes, low birthweight, diet, and alcohol and tobacco use. As well, past eye health – including increased incidence of eye injuries or repeated eye infections (for example, trachoma) – can increase the risk of poor eye health in the future (Razavi et al. 2018).

While a range of behavioural and biomedical factors are known to be associated with an increase in the risk of developing eye problems, improvements in these factors can contribute to improvements in eye health. For example, a better nutritional intake among a Central Australian cohort of Aboriginal people was found to protect against chronic diseases, including hypertension, diabetes and cardiovascular disease, all of which have known associations with eye health (Razavi et al. 2018). Reductions in tobacco use and hypertension, and improvements in diet, can also reduce the risk of eye problems.

Environmental and socioeconomic factors

Environmental conditions – such as exposure to dust, ultraviolet light exposure and access to nutritional food – all have an impact on eye health. Living conditions, such as access to adequate sanitation and safe and functional washing facilities, also directly influence the quality of eye health as does having appropriately sized and maintained housing and prompt repair of household hardware, such as washers and plumbing

Also important for overall eye health are broader socioeconomic factors such as education, employment and income (Razavi et al. 2018).

Access to services

Despite higher rates of vision loss, research consistently shows that First Nations people use eye health services at lower rates than non-Indigenous Australians (see, for example, AIHW 2019; Turner et al. 2011).

Eye health is influenced by the accessibility and availability of eye health services, including their cost (affordability and cost certainty), their location, and the availability of transport and outreach services. These factors mean that limited access is a risk factor for poor eye health for those living in remote First Nations communities.

Primary health care is the gateway to the health service. It plays an important role in providing primary eye care, and in facilitating access to culturally safe eye care services, improving the monitoring of eye health and adopting needs-based planning for eye care. Aboriginal and Torres Strait Islander community controlled health organisations (ACCHOs) make unique contributions to health care for First Nations people by delivering holistic, comprehensive and culturally appropriate health care. In 2023–24, of the 147 ACCHOs that received clinical service funding for First Nations health programs, 36 (24%) provided paid eye health services. Across states and territories, New South Wales and the Australian Capital Territory (14 ACCHOs, 9.5% of the total) and Queensland (7 ACCHOs, 4.8% of the total) had the highest proportions of ACCHOs that provided paid eye services. Across remoteness areas, *Outer regional* areas had the highest proportion of ACCHOs that provided paid eye services (11 ACCHOs, 7.5% of the total).

Improvements in eye care monitoring and access to eye care services by primary health care services will contribute to improvements in First Nations eye health (Boudville et al. 2013). The National Aboriginal and Torres Strait Islander Health Plan recommends that all services delivering primary health care at the local, regional and state levels should seek to optimise their engagement and involvement with First Nations people to improve health outcomes (Department of Health and Aged Care 2021).

Access to services is also influenced by the complexity of the eye health system and continuity of care – between general practitioners (GPs), optometrists, ophthalmologists, Aboriginal health workers/practitioners and other health-care providers. For example, treatment of eye conditions, such as diabetic retinopathy and cataract, involve complex clinical pathways and a series of visits to different providers (Taylor et al. 2012). This complexity means that people may not complete treatment.

Cultural safety

A lack of cultural safety in health-care services may also act as a barrier to accessing eye care services. Cultural safety is determined by First Nations individuals, families and communities. Culturally safe practice is the result of health practitioner knowledge, skills, attitudes and practising behaviours that negate power differentials and deliver safe, accessible and responsive health care free of racism (AHPRA 2020).

Improving cultural safety across all levels of care has been shown to increase First Nations people's access to health care. For example, patients are more likely to attend ophthalmology appointments if eye clinic staff take a sensitive, patient-centred approach and provide encouragement, reminders and transport (Razavi et al. 2018). However, even when there is proportionately greater access to culturally safe community-controlled health services, such as in rural and remote areas, these services are not always available in all areas and there is often a need to travel long distances to access care.

Wellbeing and quality of life

Poor eye health can have a major impact on the health of individuals and communities. One way to combine the fatal and non-fatal effects of diseases in a comparable way is through burden of disease analysis. This analysis measures the impact of different diseases and injuries in terms of the number of years of healthy life lost due to illness or premature death. Burden of disease is measured using a summary metric of disability-adjusted life years (DALY). One DALY is 1 year of healthy life lost to disease and injury. DALY caused by living in poor health (non-fatal burden) are the 'years lived with disability' (YLD) (AIHW 2022).

In 2018, it was estimated that vision disorders were responsible for 699 YLD among First Nations people. Total YLD for First Nations people was estimated to be 126,496 in 2018 – meaning that vision disorders were responsible for 0.6% of years of life lost to disability (Australian Institute of Health and Welfare (AIHW) Burden of Disease database, unpublished). After adjusting for differences in the age structure between the 2 populations, the rate of YLD due to vision disorders among First Nations people in 2018 was 2.3 times the rate for non-Indigenous Australians. This gap has decreased from 3.6 times in 2011.

An alternative way to quantify this is through the number of years with disability that can be averted by closing the gap for First Nations eye health and eliminating unnecessary blindness over the 10 years from 2015 to 2024. A 2015 report estimated that, if this occurred, 7,300 years of life lived with disability would be averted (using the WHO Global Burden of Disease 2004 disability weightings) (University of Melbourne 2015).

Eye health policy context, services and programs

Across a continuum of care, eye health services cover prevention, screening, diagnosis and treatment services. They are provided by a range of health-care workers, including GPs, optometrists, ophthalmologists, nurses and Aboriginal health workers. Table 3 lists a broad overview of these services.

The Medicare Benefits Schedule provides for general consultations with GPs. All First Nations people are also eligible for an annual health assessment (which incorporates a basic eye health check). The Schedule also provides for a comprehensive optometric consultation every 3 years (formerly every 2 years), as well as for consultations for people with existing conditions or notable changes in vision.

Table 3: Overview of eye health services – continuum of eye care

Primary	Secondary	Tertiary
Services	Services	Services
Eye health promotion Screening for eye health and vision; basic eye checks, trachoma screening Treatment of minor eye conditions (e.g. conjunctivitis, removal of foreign bodies) Diagnosis and referral of more complex cases (e.g. diabetes) Coordination of care Follow-up, post-operative care	Eye examinations Diagnosis and treatment of refractive error Diagnosis and referral for more complex conditions (e.g. cataracts, treatment for diabetic retinopathy) Prescription and supply of visual aids	Medical treatment of eye conditions Cataract surgery, laser treatment and other eye surgery Prescription of all eye care medications
Providers	Providers	Providers
GPs Nurses Aboriginal health workers/practitioners ACCHOs	Optometrists Ophthalmologists Eye health support staff	Ophthalmologists Ophthalmic nurses Hospital staff
Settings	Settings	Settings
Private general medical practices First Nations primary health care Community clinics and health centres	Private practices and clinics Sessional services in First Nations primary health care and community health centres Outreach services in various settings (e.g. First Nations primary health care services, private rooms)	Public and private hospitals Private clinics Outreach services in various settings (e.g. regional hospitals, First Nations primary health care services)
Access	Access	Access
No referral required, but optometrists may refer clients	Referral is not required for optometry services but is required for ophthalmology services.	Referral required if claiming Medicare GPs and optometrists can refer clients

Responsibility for eye health services in Australia is shared across different levels of government, the private sector, health-care professions and non-government organisations. Their respective initiatives to prevent and treat vision loss for First Nations people are having a positive impact on First Nations people’s access to eye health services.

The Australian Government, through Medicare, funds eye health services provided by GPs, optometrists and ophthalmologists, as well as procedures for private patients in public hospitals. It also funds some targeted eye health programs designed to improve access to eye care services for First Nations people.

Public hospitals are funded by state, territory and Australian governments; are managed by state and territory governments; and provide services to public and some private patients. States and territories also provide funding for various other eye health services, including outreach programs and spectacle schemes.

The context in which services are provided to patients can affect access and waiting times. Currently, rates of cataract surgery are lower for First Nations people than for other Australians (see also ACSQHC and AIHW 2017; Randall et al. 2014). This may be because age standardised rates of cataract surgery for First Nations people in public hospitals were higher than those for non-Indigenous Australians (927 and 388 per 1,000,000, respectively) in 2019–20 (AIHW analysis of the National Hospital Morbidity Database, unpublished). This means delays or interruptions to the public health system will disproportionately affect cataract surgery rates and waiting times for First Nations people. Delayed cataract surgery can lead to significant health and social consequences, including increased risk of falls, loss of independence, driving cessation, social isolation and worsening depressive symptoms (Huang-Lung et al., 2022).

Australian Government initiatives

Recent and current high-level policy developments provide an important context for the current state and future of eye health among First Nations people.

- All Australian governments are working with First Nations people, their communities, organisations and businesses to implement the National Agreement on Closing the Gap at the national, state and territory, and local levels. This has been undertaken in genuine partnership between Australian governments and the Coalition of Aboriginal and Torres Strait Islander Peak Organisations (hereafter referred to as the Coalition of Peaks) (see Box 2).
- The [National Aboriginal and Torres Strait Islander Health Plan \(2021–2031\)](#) changes the way governments work with First Nations people to achieve better health outcomes. Developed in genuine partnership with First Nations people, it reflects their priorities and embeds a holistic perspective of First Nations health. This perspective recognises the influence of social determinants, and the strengths of culture as a protective influence on physical, social and emotional wellbeing.

Box 2: National Agreement on Closing the Gap

The National Agreement on Closing the Gap commits all governments to uphold partnership, self-determination and community-control as the best way to close the gap in health outcomes for First Nations peoples. It does this through 4 Priority Reforms:

- Shared decision-making and partnerships
- Building the community-controlled sector
- Transforming government organisations
- Shared access to data and information at a regional level.

The agreement not only provides for more shared accountability but also facilitates a better ability to demonstrate progress than before. For the first time, the Australian, state and territory governments; local governments; and the Coalition of Peaks are jointly accountable for implementing targets under the National Agreement. Checks on progress toward achieving commitments in the National Agreement will be managed through ongoing monitoring by the Joint Council on Closing the Gap. In addition, there will be Productivity Commission and First Nations-led reviews every 3 years (see <http://www.closingthegap.gov.au>).

The Australian Government has also put in place a number of policies and initiatives specific to First Nations eye health, including:

- *Strong Eyes, Strong Communities – a 5-year plan for Aboriginal and Torres Strait Islander eye health and vision 2019–2024*, to close the gap for vision and achieve a world-class system of eye health and vision care for First Nations people. This plan was developed at the request of the Australian Government and presented in March 2019 to the Council of Australian Governments. The eye health sector is working with First Nations-led organisations to develop a First Nations led eye health plan to replace Strong Eyes Strong Communities
- the Australian Eye and Ear Health Survey – the survey obtained data on the prevalence and causes of vision and hearing loss, blindness and eye disease in the population. The survey was conducted between 2022 and 2025.
- an external review of health outreach programs conducted in 2022. The evaluation included the Visiting Optometrists scheme, the Eye and Ear Surgical Support program, the Medical Outreach Indigenous Chronic Diseases Program and the Rural Health Outreach Fund. The evaluation report is available here: [Evaluation of Outreach Programs Report | Australian Government Department of Health, Disability and Ageing](#). Data and recommendations from the evaluation have been used to refine outreach programs as well as in considerations for future policy development.
- Australia's Long Term National Health Plan's actions to support priorities to end avoidable blindness in First Nations communities by 2025 (Department of Health 2019)
- funding agreed to deliver health outreach services, trachoma control, surveillance and reporting, and the National Subsidised Spectacles Scheme.

State and territory-based programs and services

All jurisdictions have subsidised spectacle schemes which provide eye care and visual aids to clients at low or no cost. These schemes have varying eligibility criteria and different levels of entitlements. The schemes generally provide access for those eligible for pensioner or benefit concessions, through participating optometrists and ophthalmologists. Some jurisdictions also provide access for First Nations people through Aboriginal Community Controlled Health Services. These programs are currently being updated to enhance First Nations identification and improve access. Recently, some jurisdictions have broadened their spectacle schemes by expanding eligibility requirements to First Nations customers.

Outreach programs

Outreach programs aim to improve access to medical specialists, to GPs, and to allied and other health providers for people living in rural, regional and remote areas where these services are generally not available. Outreach services for eye health exist in all states and territories, though the models of service delivery vary. These services are provided through a mix of funding from the Australian Government, state and territory governments, and from philanthropic and educational organisations.

Eye health measures and the data sources

The framework for this report groups the 23 eye health measures into 4 categories as shown in Table 4.

Table 4: First Nations eye health measures

Measures	Main data source	Latest year of reporting
Prevalence		
1.1 Prevalence of vision impairment and blindness	AEEHS	2022–25
	NATSIHS	2022–23
1.2 Main causes of vision impairment and blindness	AEEHS	2022–25
1.3 Prevalence of trachoma and trichiasis	ATSR	2024
Diagnosis and screening services		
2.1 Annual health assessments for First Nations people	MBS	2023–24
2.2 Eye examinations undertaken by an eye care professional	MBS	2023–24
2.3 Target population screened for diabetic retinopathy	MBS	2023–24
2.4 Trachoma and trichiasis screening coverage	ATSR	2024
2.5 Undiagnosed eye conditions	NEHS*	2016
2.6 Eye health problems managed by GPs	BEACH** [discontinued]	2010–15
Treatment services		
3.1 Hospitalisations for diseases of the eye	NHMD	2022–24
3.2 Hospitalisations for injuries to the eye	NHMD	2022–24
3.3 Hospitalisations for eye procedures	NHMD	2022–24
3.4 Cataract surgery rate	NHMD	2022–24
3.5 Cataract surgical coverage rate	AEEHS	2022–25
3.6 Waiting times for elective cataract surgery	NHMD	2022–24
3.7 Target population treated for diabetic retinopathy	MBS	2023–24
3.8 Trachoma and trichiasis treatment coverage	ATSR	2024
3.9 Treatment of refractive error	AEEHS	2022–25
3.10 Spectacles dispensed under state and territory schemes	State admin	2023–24
Workforce and outreach services		
4.1 Number and rate of optometrists	NHWDS	2023
4.2 Number and rate of ophthalmologists	NHWDS	2023
4.3 Number and rate of allied ophthalmic personnel	Census	2021
4.4 Occasions of eye health services provided under outreach and other programs	Admin data	2023–24

ATSR = Australian Trachoma Surveillance Reports, AEEHS = Australian Eye and Ear Health Survey, BEACH = Bettering the Evaluation and Care of Health survey, Census = ABS Census of Population and Housing, GP = general practitioner, MBS = Medicare Benefits Schedule, NEHS = National Eye Health Survey, NHMD = National Hospital Morbidity Database, NHWDS = National Health Workforce Data Set.

* Updated data are not available from the AEEHS published results for this measure.

** Data for this measure were previously sourced from the BEACH survey which ceased collection in 2015. This measure was most recently presented in the 2018 edition of this report but is no longer presented since the data collection stopped.

Measures shown in the first category (Prevalence) of Table 4 provide information on the extent of First Nations vision problems. The next 2 categories focus on the continuum of eye care services, starting with diagnosis and screening of vision problems and then treatment of eye diseases and vision problems. The final category has measures on workforce and outreach programs that aim to increase First Nations access to eye health services.

Data disaggregations

Where possible, the data for each of these measures are presented:

- for both First Nations and other Australians
- by age and sex
- by state/territory
- by remoteness areas
- over time
- and/or by primary health network and/or Roadmap region.

Where possible, the report presents data broken down by 10-year age groups. However, for older age groups rates become unreliable and volatile due to small numbers. To address this, the report presents data as follows:

- for Australian Bureau of Statistics (ABS) survey data, MBS health assessments for First Nations people, and hospitalisation rates older ages are grouped into 75 years and over. However, for hospitalisation rates, numbers of patients treated and population denominators for age groups 75–84 and 85 and over are now reported separately in the online data tables for this report
- for MBS measures relying on the Voluntary Indigenous Identifier older ages are grouped into 65 years and over.

Key data sources

The main data sources used by the AIHW to report on the measures were:

- Australian Eye and Ear Health Survey 2025 (Kha et al. 2025) (see Box 3)
- National Aboriginal and Torres Strait Islander Health Survey, National Health Survey, Aboriginal and Torres Strait Islander Health Survey, ABS
- National Hospital Morbidity Database, AIHW
- Australian Trachoma Surveillance reports, Kirby Institute
- Medical Benefits Schedule data, Department of Health, Disability and Ageing
- National Health Workforce Dataset, Department of Health, Disability and Ageing
- Department of Health, Disability and Ageing administrative data on outreach programs
- state government administrative data on the spectacle subsidy schemes.

More details about the data sources are provided in the following chapters under each measure and in Appendix A.

Box 3: Australian Eye and Ear Health Survey

The Australian Eye and Ear Health Survey (AEEHS) is a nationwide survey of eye and ear health of Australians sampled from 30 selected sites from all 6 Australian States and 2 Territories. The survey was conducted between August 2022 and July 2025 and recruited a total of 4,519 participants for the eye survey component, of whom 617 (13.6%) were Indigenous. Publication of full results from the survey were in 2025.

In line with previous Australian eye surveys and the NEHS, bilateral vision impairment was defined as visual acuity of <6/12 to 6/60 in the better eye. Bilateral blindness was defined as visual acuity of <6/60 in the better eye. In addition, a separate category was defined to align with the WHO category of moderate vision impairments (VA <6/18-6/60). As well as building on the vision impairment data generated by the NEHS, this new survey added advanced ophthalmic imaging.

There are differences in the survey methodology and design across the 2016 NEHS and the 2025 AEEHS and therefore the results reported in this report are not directly comparable to previous results reported.

In addition, the AEEHS results presented are not weighted to the Australian population and whilst some data have been age-standardised, publicly available data for some items are limited to crude rates.

Population estimates

The statistics presented in this release are based on the Australian Bureau of Statistics 2021 Census-based population estimates and projections, unless stated otherwise. Where the denominator uses these estimates and projections, trends are limited to 2016 onwards due to a large non-demographic increase in Census counts of Aboriginal and Torres Strait Islander people between 2016 and 2021. As a result, the rates for Aboriginal and Torres Strait Islander people in this report are generally lower than those in previous reports and are not directly comparable. Details of how the different population rates presented in the report are calculated are presented in Box 4.

Box 4: Population rates

There are 3 types of population rates used to present data in this report:

- **Crude rates:** the number of events divided by the total population. Crude rates are used to look at differences within a population, such as the First Nations population. These can be misleading, however, when comparing populations with different age structures, such as First Nations people and non-Indigenous Australians. It is important to take into account these differences, particularly when looking at conditions that are age related, such as refractive error and cataracts.
- **Age-specific rates:** the number of events for a specified age group divided by the population in that age group. Age-specific rates allow populations with different age structures to be compared. These comparisons provide information about the measures of interest for different age groups, but are difficult to summarise and present.

(Continued)

- **Age-standardised rates (ASR):** the crude rates for different groups, such as First Nations people and non-Indigenous Australians, applied to a standard population to produce a summary rate. Age-standardised rates control for the effects of age and provide a summary rate for each of the populations of interest. The resulting rates, however, are not the ‘real’ or reported rates that occur in the population.

The statistics presented in this release are based on the Australian Bureau of Statistics 2021 Census-based population estimates and projections, unless stated otherwise. The crude or age standardised rate of prevalence within a survey sample uses the denominator of the sample to calculate the rate. However, for these statistics the ABS population estimates have also been used to make age adjustments to the proportions.

Where the denominator uses these estimates and projections, trends are limited to 2016 onwards due to a large non-demographic increase in Census counts of Aboriginal and Torres Strait Islander people between 2016 and 2021. As a result, the rates for Aboriginal and Torres Strait Islander people in this report are generally lower than those in previous reports and are not directly comparable.

First Nations identification

Improving the accuracy of First Nations identification in data collections is an important and ongoing issue across administrative data and needs to be considered when interpreting measure results across the report.

The quality of First Nations identification varies across data sources. The results of the AIHW’s examination of the quality of First Nations identification of patients in hospitals data are presented in Box 5.

Box 5: First Nations identification in hospitals data

The AIHW analysed the quality of First Nations identification in records of hospitalisations in public hospitals in Australia in both 2007–08 and 2011–12.

Overall, an estimated 11% and 12% of First Nations patients were either not identified or incorrectly identified, respectively, in the hospital record in 2007–08 and 2011–12. The weighted completeness of First Nations identification in public hospitals in different jurisdictions varied, as shown below:

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2007–08	88%	84%	86%	97%	87%	48%	59%	96%
2011–12	80%	78%	87%	96%	91%	64%	58%	98%

Source: AIHW 2013.

People accessing Medicare-funded services may choose to identify to Services Australia as being of Aboriginal and/or Torres Strait Islander descent. This information is provided on a voluntary basis, and is referred to as the Voluntary Indigenous Identifier (VII). First Nations people are not required to enrol on the VII to access Medicare services, but doing so helps with understanding their use of services and with evaluating and improving health policies and programs (Services Australia, 2023).

Not all First Nations people have identified as being of Aboriginal and/or Torres Strait Islander descent in the VII. The incomplete coverage of the VII means that Medicare data generated using the VII enrolments alone do not represent actual Medicare use by all First Nations people.

The AIHW, in consultation with the Department of Health, Disability and Ageing, has developed a scale-up methodology for estimating use of Medicare services by First Nations people (ABS 2011, 2012). The methodology compensates for the incompleteness of VII coverage by adjusting VII data based on the level of coverage compared with the total estimated First Nations population (Department of Health and Ageing 2012).

Before the current edition of this report, the Department of Health, Disability and Ageing calculated the scale-up factors. The AIHW calculated them for this report, however, the estimates obtained are consistent with those produced by the Department. The VII scale-up factors were applied in this report to estimate MBS service use for the following measure and sub-measures:

- Measure 2.2 (Eye examinations by an eye care professional)
- Sub-measure 2.3.1 (Eye examinations among those tested for diabetes)
- Sub-measure 3.7.1 (Treated for diabetic retinopathy among those screened for diabetic retinopathy)
- Sub-measure 3.7.2 (Treated for diabetic retinopathy among those tested for diabetes)

Regional data

The data for some of the measures are reported for smaller regional units, including Primary Health Networks (PHNs) and Roadmap regions.

- PHNs are 31 geographic areas covering Australia, with boundaries defined by the Department. They vary in relation to the size of the First Nations populations who live there, and by the proportion of the total population that is First Nations (for example, the Northern Territory, the Australian Capital Territory and Tasmania each constitute a whole PHN). In this report, PHNs were classified as being either metropolitan (if at least 85% of the population was in an area classified as *Major cities*) or regional (AIHW 2016b). The data relate to services provided to those living in these areas, and not to whether the PHNs provided the services. See Appendix B for a map and list of PHN areas.
- Roadmap to Close the Gap for Vision regions evolved as an outcome of the University of Melbourne's Indigenous Eye Health Unit Roadmap to Close the Gap for Vision project to review health service provision for First Nations people and develop a model to improve their eye care. There are 64 regions in which local collaborations to improve eye care pathways for First Nations patients have been initiated. Most of these regions have an identified 'surgical hub' – a hospital with an operating theatre where cataract surgery can be performed – and a network of stakeholders, mostly centred around local Aboriginal Community Controlled Health Services, who contribute to improved pathways of care and outcomes. Each Roadmap region is contained within a single state or territory. See Appendix B for a map and list of the Roadmap regions. Data for some Roadmap regions have been combined for reporting purposes, including across state and territory boundaries. This was done due to data quality issues associated with deriving reliable Roadmap estimates from the available geographic areas in the underlying data sets.

Needs estimates

The Indigenous Eye Health Unit at the University of Melbourne developed a 'calculator for the delivery and coordination of eye care services', based on the 2008 National Indigenous Eye Health Survey and models of service delivery developed in the *Roadmap to Close the Gap for Vision* (IEHU 2017). This calculator uses the First Nations population for a community or region to estimate the annual need for eye care services in that area. The results for the following 3 eye health measures in this report were comparable with these needs estimates and are reported in chapters 2 and 3:

- 2.2 Eye examinations by an eye care professional
- 3.4 Cataract surgery rate
- 3.10 Spectacles dispensed under state schemes.

Structure of the report

- **Chapter 1** presents detailed results on the prevalence of vision impairment and blindness.
- **Chapter 2** provides detailed results on diagnosis and screening services.
- **Chapter 3** presents detailed results on the treatment of eye health conditions.
- **Chapter 4** provides information on workforce and outreach programs.
- **Appendix A** provides information on the data sources.
- **Appendix B** provides the locations of PHNs and Roadmap regions.
- **Appendix C** provides technical specifications for the measures reported, including information on relevant classification codes.
- **Appendix D** presents information on data gaps and limitations.

An in-brief report <https://www.aihw.gov.au/reports/indigenous-australians/eye-health-measures-inbrief-2025>, an interactive web report <https://www.aihw.gov.au/reports/indigenous-australians/eye-health-measures-2025> and online data tables <https://www.aihw.gov.au/reports/indigenous-australians/eye-health-measures-2025/data> accompany this report.



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Prevalence
– what is the
extent of eye
health problems?

Eye diseases and vision problems are the most common long-term health conditions reported by Aboriginal and Torres Strait Islander (First Nations) people. Based on the latest available AEEHS 2025 data, 11% of First Nations survey participants over the age of 50 suffered from vision loss. After adjusting for age and sex, First Nations AEEHS respondents over the age of 50 had almost 3 times the rate of bilateral vision impairment of non-Indigenous participants .

Trachoma is not commonly found in high-income countries but has been endemic in some remote First Nations communities in Western Australia, South Australia and the Northern Territory.

Australia is a part of the World Health Organisations (WHO)'s Alliance for the Global Elimination of Trachoma initiative, which has set a global target for the elimination of trachoma as a public health problem by 2030 (WHO 2030)

Prevalence – measures and data sources

Three prevalence measures are reported on in this chapter.

Measure 1.1: Prevalence of vision impairment and blindness – the number of First Nations people with vision impairment and blindness (vision loss), proportion of the population and age-standardised rates [ASR's].

Measure 1.2: Main causes of vision impairment and blindness – main causes of vision impairment and blindness (vision loss) for First Nations people, as a proportion of those with vision loss.

The data for both of these measures come from sample surveys. The AEEHS 2025 included a sample of 617 First Nations people aged 50 and over and included ophthalmologic examinations to assess vision impairment and blindness. Self-reported data on prevalence of eye and sight problems are also available from the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) 2022–23.

Measure 1.3: Prevalence of trachoma and trichiasis – the proportion of overall trachoma in First Nations children aged 5-9 in all communities ever considered at risk of trachoma since the implementation of the National Trachoma Management Program from 2006, cases of trichiasis 'unknown to the health system' reported in First Nations adults aged 15 and over screened in regions currently and formerly at risk of trachoma.

Data for this measure were collected through state and territory screening programs and collated by the National Trachoma Surveillance and Reporting Unit at the Kirby Institute, UNSW Sydney (Kirby Institute 2025).

Measure 1.1: Prevalence of vision impairment and blindness

Key finding: In 2022–25, around 11 per cent of First Nations survey participants aged 50 and over suffered from vision impairment, almost 3 times the rate of non-Indigenous respondents.

1.1.1 Prevalence of vision impairment and blindness

Overall: Based on the available AEEHS data, in 2022–25, the sampling prevalence of bilateral vision impairment for First Nations respondents aged 50 and over was 1 in 10 (11%) and the sampling prevalence of bilateral blindness was 1 in 500 (0.2%) (Figure 1.1.1a).

After standardising for age and sex, the rate of First Nations survey participants with bilateral vision impairment was 2.9 times the rate for non-Indigenous participants (10.9%, confidence interval (CI) 8.2–14.3 and 3.8%, CI 3.2–4.5, respectively).

Age and sex: The prevalence of vision loss (vision impairment and blindness) for both First Nations and non-Indigenous survey participants in 2022–25 rose markedly with age. For First Nations participants, the prevalence of vision loss was 1 in 10 (9.8%) among those aged 50–59, compared with more than 1 in 5 (20%) among those aged 80 and over. First Nations' participants rates were higher than non-Indigenous participants rates for all age groups (Figure 1.1.1b).

There was no significant difference between First Nations males and females survey participants in the rates of vision loss (Figure 1.1.1c).

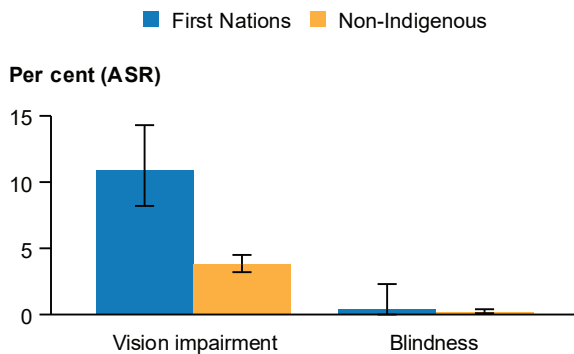
Remoteness: In 2022–25, the age-standardised prevalence of vision loss for First Nations survey participants in *Inner regional* and *Remote* areas was significantly higher than for non-Indigenous participants (Figure 1.1.1d).

Things to consider

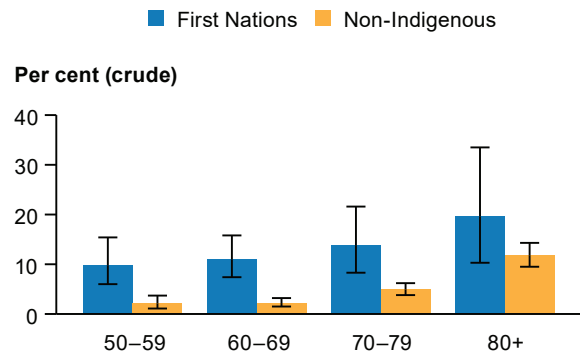
- Data are from the 2025 AEEHS, a sample survey of 617 First Nations people and 3,902 non-Indigenous Australians aged 50 and over for the eye survey component. The survey included an eye examination.
- Population estimates have not been calculated so AEEHS results are only representative of the sample selected.
- The AEEHS results are subject to sampling errors, so the 95% CIs are provided to indicate the reliability of the estimates reported.
- The 2021 Australian Census population is used as the standard population for age-standardised (or adjusted) data.
- Vision loss refers to vision impairment and blindness combined.
- Vision impairment does not include corrected refractive error.

Figure 1.1.1: Prevalence of vision loss (vision impairment and blindness), by Indigenous status and by various characteristics

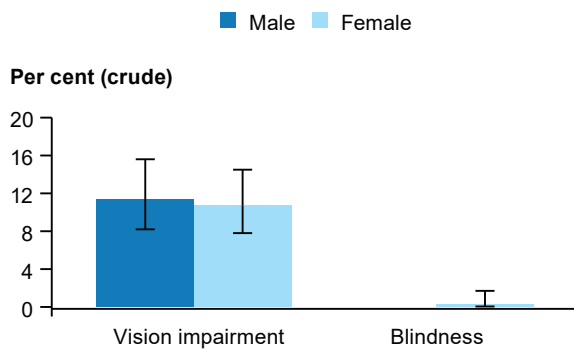
a) Overall prevalence, 2022 to 2025



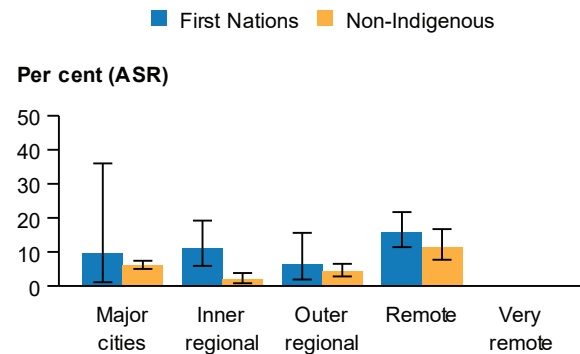
b) Vision loss, by age, 2022 to 2025



c) Vision loss, First Nations by sex, 2022 to 2025



d) Vision loss, by remoteness, 2022 to 2025



Notes

1. Error bars show 95% CIs
2. The rates presented are based on sample data. The 2021 Australian Census population is used as the standard population for age-standardised (or adjusted) data.
3. Data for these figures are available in the online data tables.

Source: Australian Eye and Ear Health Survey 2025.

1.1.2 Self-reported eye or sight problems

Overall: Based on the latest available NATSIHS data, in 2022–23, slightly more than 4 in 10 First Nations people (41%, or 408,800 people) reported long-term eye or sight problems (ABS 2022-23) (Figure 1.1.2a).

Age and sex: In 2022–23, the prevalence of self-reported eye or sight problems was higher for First Nations females than for First Nations males (Figure 1.1.2b). Self-reported eye or sight problems was highest for First Nations people aged 45 and over (ranging from around 80% to 93%), compared with around 13% for First Nations people aged 0–14 (Figure 1.1.2c).

Remoteness: In 2022–23, the proportion of First Nations people who self-reported eye or sight problems fell as remoteness increased, from 46% in Major cities to 26% in Very remote areas (Figure 1.1.2d).

Jurisdiction: In 2022–23, the prevalence of self-reported eye or sight problems for First Nations people was highest in Victoria (48%) and lowest in the Northern Territory (30%) (Figure 1.1.2e).

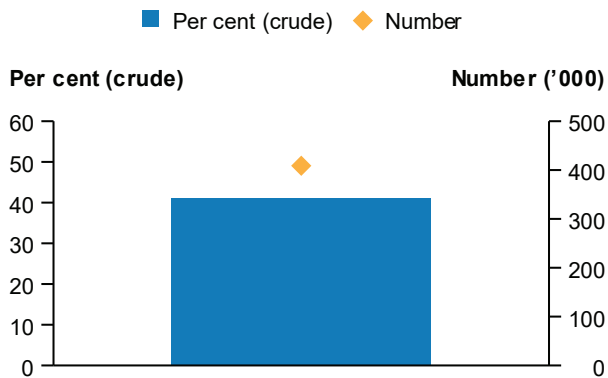
Time trend: Since 2001, the age-standardised proportion of First Nations people who had an eye or sight problem rose from 47% to 51% in 2022–23, while it remained stable for non-Indigenous Australians at around 52% across this period (Figure 1.1.2f). After adjusting for age, the proportion of First Nations people with an eye or sight problem was similar to that for non-Indigenous Australians (51% and 54%, respectively).

Things to consider

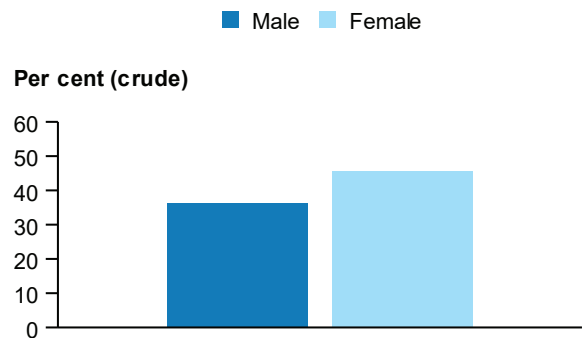
- The 2022–23 NATSIHS collected self-reported data on various health conditions, including diseases of the eye/adnexa – referred to as ‘eye or sight problems’ in this report. These data are self-reported and have not necessarily been diagnosed by a health professional. They do not include eye conditions that respondents are unaware that they have.
- The 2022–23 NATSIHS included 7,768 First Nations people in Australia (ABS 2022–23). Survey results are subject to sampling errors as only a proportion of the population is used to produce estimates that represent the whole population.
- Eye or sight problems include corrected refractive error.

Figure 1.1.2: Self-reported eye/sight problems, by various characteristics

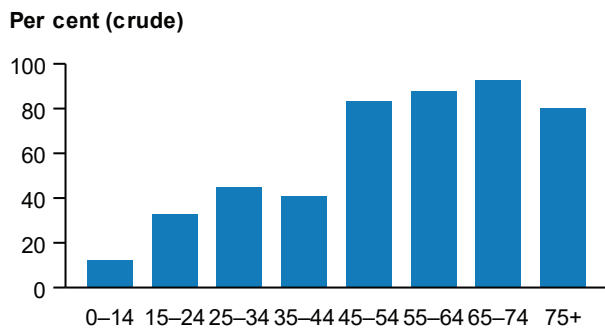
a) First Nations, 2022–23



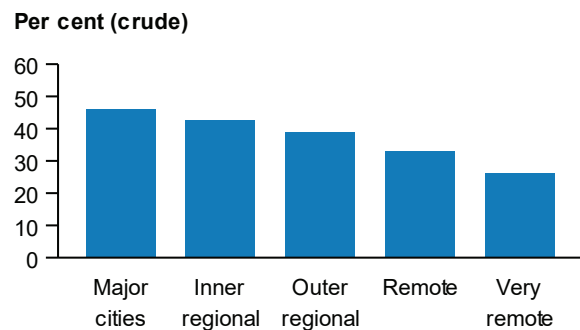
b) First Nations, by sex, 2022–23



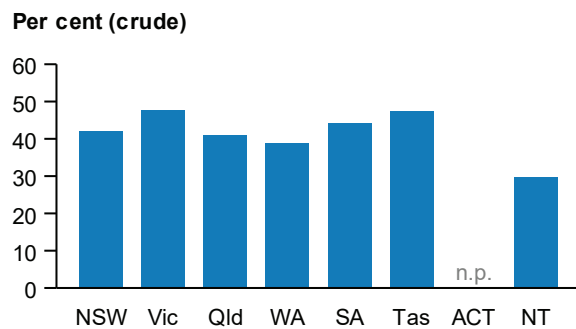
c) First Nations, by age, 2022–23



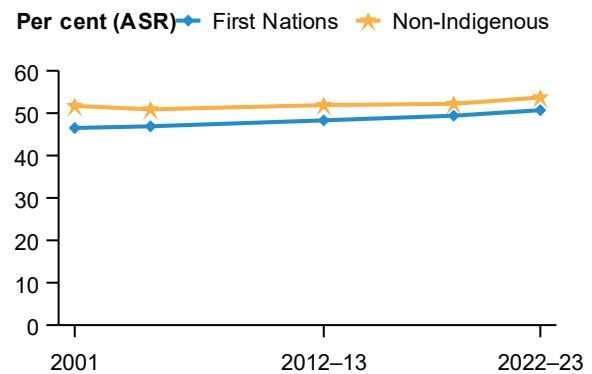
d) First Nations, by remoteness, 2022–23



e) First Nations, by jurisdiction, 2022–23



f) Time trend, 2001 to 2022–23



n.p. = not published

Note: Data for these figures are available in the online data tables.

Sources: AIHW analysis of ABS National Aboriginal and Torres Strait Islander Health Surveys and National Health Surveys.

Measure 1.2: Main causes of vision impairment and blindness

Key finding: In 2022–25, the 3 main causes of vision impairment for First Nations AEEHS survey participants aged 50 and over were refractive error (38%), cataract (34%) and diabetic retinopathy (15%).

1.2.1 Main causes of vision impairment and blindness

Overall: Based on the available AEEHS data, in 2022–25, the 3 main causes of vision loss for First Nations survey participants aged 50 and over were refractive error (38%), cataract (34%) and diabetic retinopathy (15%) (Figure 1.2.1a). For non-Indigenous survey participants with vision loss, the main causes were refractive error (42%), cataract (29%) and age-related macular degeneration (17%) (Figure 1.2.1b).

After excluding refractive error, cataract was the most frequent cause of bilateral vision impairment, accounting for more than half of cases (51%), and is also highly remediable through cataract surgery (Figure 1.2.1c).

Age and sex: In 2022–25, a higher proportion of First Nations female survey participants had refractive error than First Nations male survey participants (Figure 1.2.1c) while a higher proportion of non-Indigenous male survey participants had refractive error than non-Indigenous female participants.

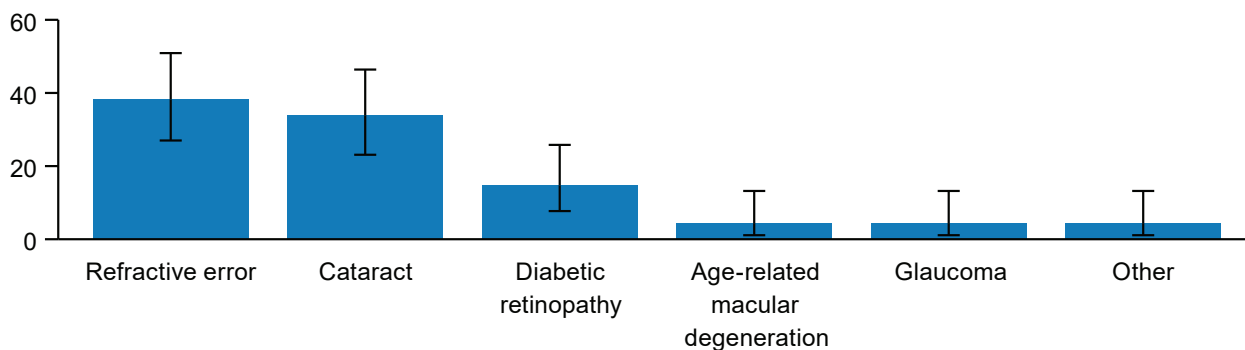
Things to consider

- Data are from the 2025 AEEHS, a sample survey of 617 First Nations people and 3,902 non-Indigenous Australians aged 50 and over for the eye survey component. The survey included an eye examination.
- Population estimates have not been calculated so AEEHS results are only representative of the sample selected.
- These results are subject to sampling errors, so, where available, the 95% CIs are provided to indicate the reliability of the estimates reported.
- Vision loss does not include corrected refractive error.
- The leading cause of blindness for First Nations adults is cataract (NACCHO, 2019).

Figure 1.2.1: Main causes of vision loss (vision impairment and blindness)

a) First Nations, by main cause, 2022 to 2025

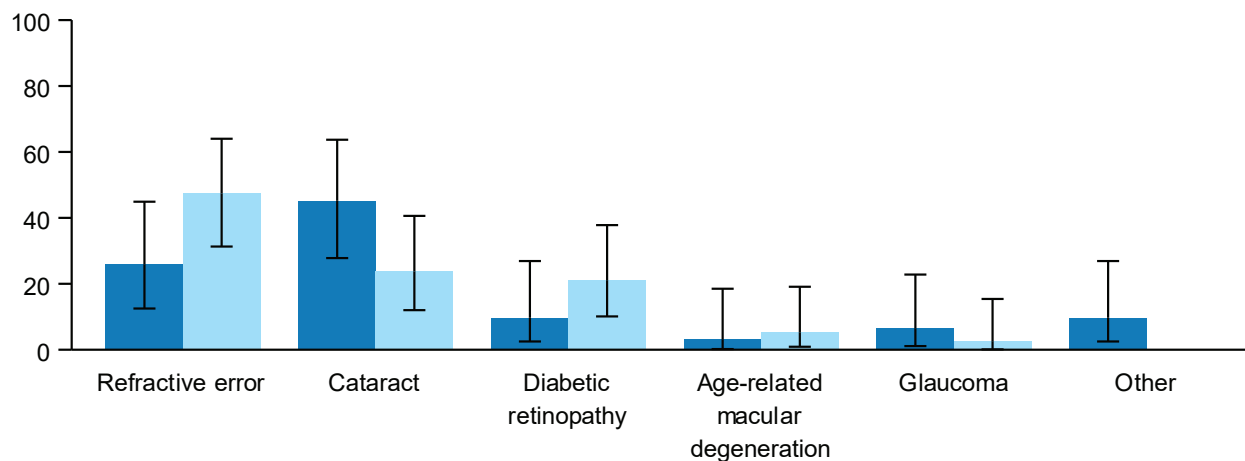
Per cent (crude)



b) Vision loss, First Nations by sex and main cause, 2022 to 2025

■ Male ■ Female

Per cent (crude)



Notes

1. Error bars show 95% CIs.
2. The rates presented are based on sample data
3. Data for these figures are available in the online data tables.

Source: Australian Eye and Ear Health Survey 2025.

1.2.2 Self-reported causes of eye or sight problems

Overall: Based on the latest available NATSIHS data, in 2022–23, the main causes of eye or sight problems reported by First Nations people were long-sightedness (23%), short-sightedness (17%) and cataract (1.5%) (Figure 1.2.2a).

Adjusting for age, First Nations people were more likely than non-Indigenous Australians to report blindness (around 2 times as likely) or having a cataract (around 1.7 times as likely) as a cause of sight problems (Figure 1.2.2b).

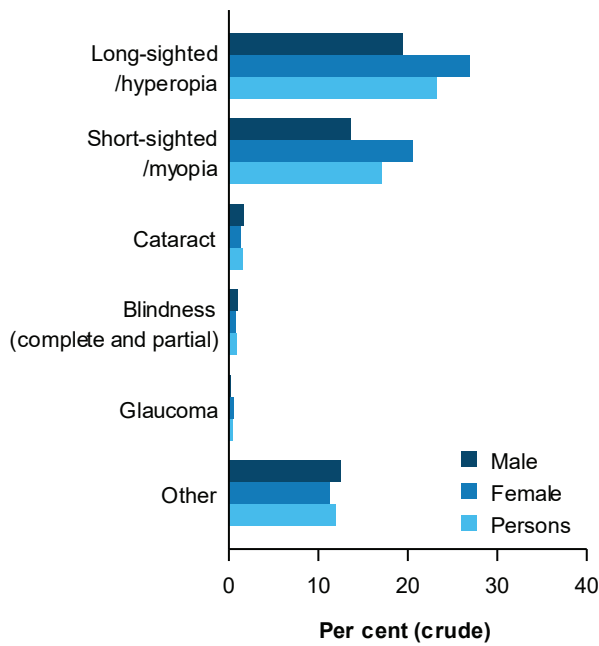
Age and sex: The prevalence of long-sightedness and short-sightedness was higher for First Nation's females (27% and 21%, respectively) than for First Nation's males (19% and 14%, respectively) (Figure 1.2.2a).

Things to consider

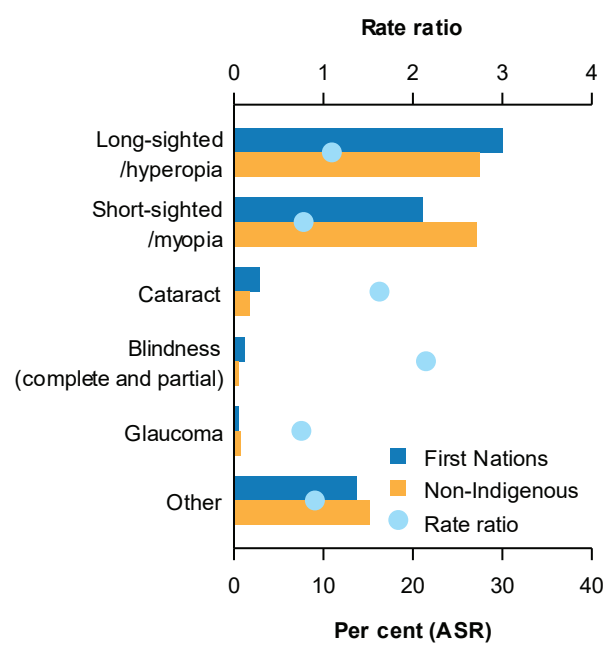
- The 2022–23 NATSIHS collected self-reported data on various health conditions, including diseases of the eye/adnexa – referred to as 'eye or sight problems' in this report. These data are self-reported and have not necessarily been diagnosed by a health professional. They do not include eye conditions that respondents are unaware that they have.
- The 2022–23 NATSIHS included 7,768 First Nations people in Australia (ABS 2022–23). Survey results are subject to sampling errors as only a proportion of the population is used to produce estimates that represent the whole population.
- Eye or sight problems include corrected refractive error.

Figure 1.2.2: Self-reported eye/sight problems, by main cause, by various characteristics

a) First Nations, by sex, 2022–23



b) By Indigenous status, 2022–23



Notes

1. The estimate for glaucoma for First Nations males, females and persons and the estimate for blindness for First Nations females have a relative standard error between 25% and 50% and should be used with caution. Multiple responses are allowed for this question, so proportions may add to more than 100%.
2. Data for these figures are available in the online data tables.

Sources: AIHW analysis of ABS National Aboriginal and Torres Strait Islander Health Survey 2022–23 and National Health Survey 2022.

Measure 1.3: Prevalence of trachoma and trichiasis

Key findings: In 2024, the national overall prevalence of active trachoma was 1.5% in First Nations children aged 5-9 years. In 2024, among First Nations people aged 15 and over who were examined in currently and formerly trachoma endemic regions, 9 (0.05%) were reported to have trichiasis.

1.3.1 Trachoma

Overall: In 2024, there were 68 children aged 5–9 identified with active trachoma in the 86 communities screened. The observed prevalence of active trachoma was 3.6% of 5–9-year-olds in the screened communities (Figure 1.3.1a). Overall prevalence (based on the most recent estimates carried forward in all communities who were considered at risk since 2006) was 1.5%.

Jurisdiction: In 2024, the observed prevalence of active trachoma in children aged 5–9 in screened communities was 4.1% in Western Australian (12 children) and 4.9% in the Northern Territory (56 children). In South Australia no children were found with active trachoma. In Queensland, screening for trachoma was not required in 2024 (Figure 1.3.1a).

Time trend: From 2009 to 2024 the national overall prevalence of trachoma in children aged 5–9 screened in all current and former at-risk communities fell from 14.9% to 1.5% (Figure 1.3.1b).

Things to consider

- Trachoma is classified according to WHO simplified grading criteria as trachomatous inflammation–follicular and/or trachomatous inflammation–intense.
- In 2024, trachoma screening was undertaken in 86 at-risk communities in 3 jurisdictions (Western Australia, South Australia and the Northern Territory). In 2024 the Northern Territory and South Australia undertook additional screening as part of evidence confirmation for final-year dossier validation surveillance. For the purposes of simplicity, results from these communities that would not normally require screening in 2024 are counted as at-risk communities and included in results (Kirby Institute 2025).
- The Communicable Diseases Network Australia (CDNA) guidelines for trachoma control were revised in 2014 so that at-risk communities are not required to be screened each year. The observed prevalence of active trachoma is calculated using only data from screening activities undertaken during the reporting year. The overall prevalence of trachoma is calculated by combining:
 - data from at-risk communities screened during the current year
 - the most recent prevalence data from at-risk communities who did not screen in the current year
 - the most recent prevalence data carried forward from communities who were judged by jurisdictions to have eliminated trachoma (Kirby Institute 2025).
- In line with CDNA guidelines, the 5–9 age group is the target group for screening programs in all regions`.

- Communities are classified by state and territory health departments as being at risk of trachoma based on:
 - past-year trachoma prevalence of 5% or more in children aged 5–9 years;
 - past-year trachoma prevalence of less than 5%, but recorded trachoma prevalence of 5% or more in the previous 5 years, or
 - no past-year data, but recorded trachoma prevalence of 5% or more in the previous 5 years (CDNA, 2014).

1.3.2 Trichiasis

Overall: In 2024, among First Nations people aged 15 and over examined in currently and formerly trachoma endemic regions, 9 new cases of trichiasis were reported, a prevalence rate of 0.05% (0.09% in people aged 40 and over). All cases were found in those aged 40 years and over (Figure 1.3.2a).

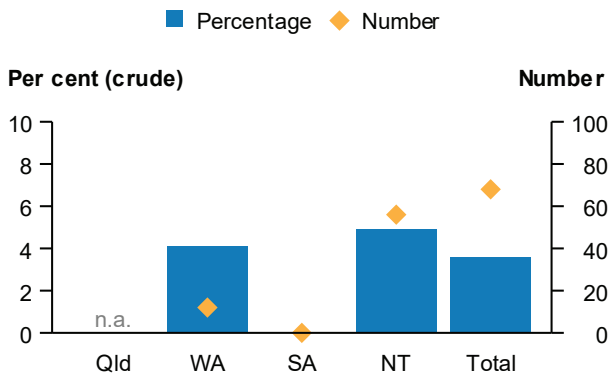
Jurisdiction: Of the four jurisdictions that reported trichiasis screening in 2024, the prevalence of trichiasis among First Nations people aged 40 years and over was 0.0% in Western Australia, 0.5% in South Australia, 0.7% in Queensland and 0.07% in the Northern Territory (Figure 1.3.2b). The comparable prevalence proportions for First Nations people aged 15 years and over were 0.0% (Western Australia), 0.3% (South Australia), 0.3% (Queensland) and 0.03% (Northern Territory).

Things to consider

- Cases of trichiasis reported are those previously unknown to the health system, that is, excluding cases detected in previous years, people on surgical waiting lists or who have refused surgery, and individuals with post-surgical trichiasis recurrence.
- In 2024, 165 communities reported screening for trichiasis in trachoma endemic regions in four jurisdictions (Western Australia, South Australia, Queensland and the Northern Territory) (Kirby Institute 2025).
- Screening of First Nations adults for trichiasis may be undertaken opportunistically (such as during annual health assessments) and may not be fully captured in the data. Data may also include multiple patient screenings.
- Trichiasis screening is linked to current and former trachoma endemic regions identified during implementation of the National Trachoma Management Program from 2006 and does not consider changing endemic regions over time and transiency between regions.
- Crude screened proportions are likely to over-estimate the true population level prevalence of trichiasis in Australian jurisdictions, as the broader population (First Nations people from non-remote areas and non-Indigenous people) does not have the same exposure risk.

Figure 1.3.1: Prevalence of trachoma in at-risk First Nations communities

a) Children aged 5–9, by jurisdiction, 2024



b) Children aged 5–9, 2009 to 2024

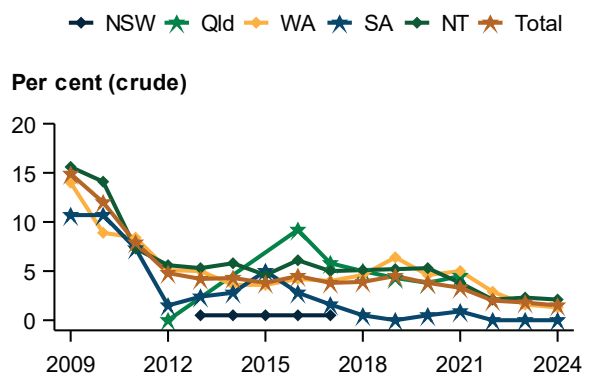
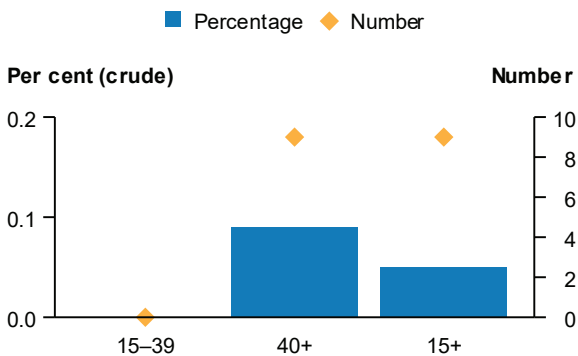
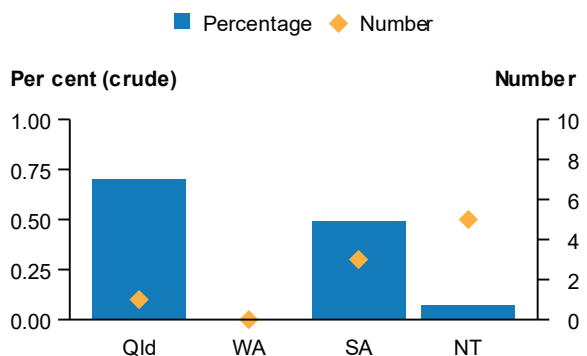


Figure 1.3.2: Prevalence of trichiasis in at-risk First Nations communities

a) By age, 2024



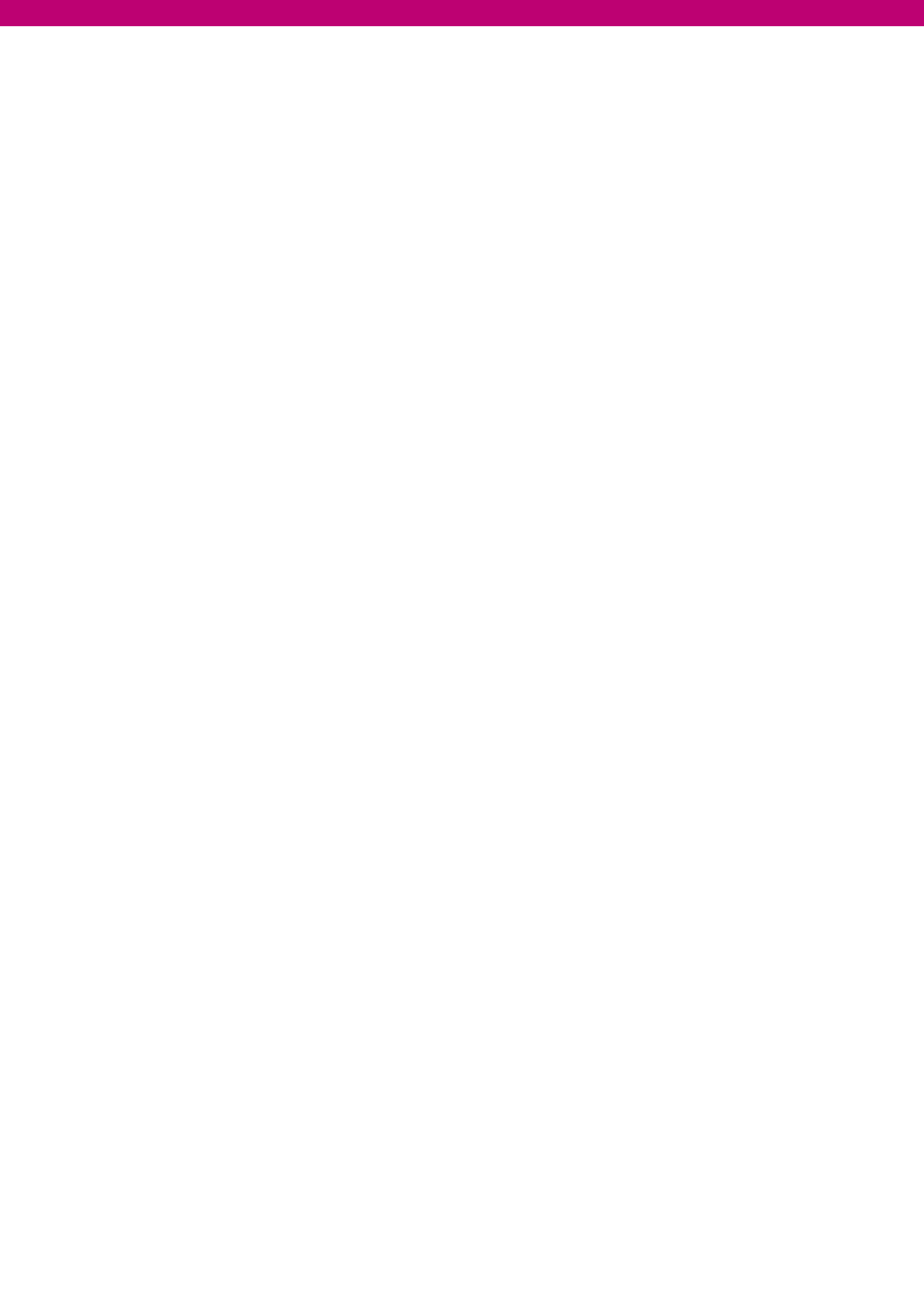
b) Aged 40 and over, by jurisdiction, 2024



Notes

1. The data cover 86 communities and 1,885 children (45 communities and 1,144 children in the NT, 15 communities and 446 children in SA and 26 communities and 295 children in WA) screened for trachoma and 165 communities (1 in Qld, 62 in WA, 13 in SA and 89 in the NT) screened for trichiasis in 2024.
2. The rates shown in Figure 1.3.1a are for observed prevalence of active trachoma.
3. The rates shown in Figure 1.3.1b are for overall prevalence of trachoma. Overall prevalence was calculated using the most recent data for all at-risk communities screened in 2024, as well as the most recent data carried forward from at-risk communities that did not screen and communities removed from the at risk register. National overall prevalence calculations do not include data from NSW and Qld as these jurisdictions undertook mapping exercises rather than a sustained screening program.
4. Data for these figures are available in the online data tables.

Sources: Australian Trachoma Surveillance Report 2009 (National Trachoma Surveillance and Reporting Unit 2010) to 2024 (Kirby Institute).





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Diagnosis and screening – how are eye health problems identified?

Primary health care providers play a key role in detecting problems, treating minor eye conditions and referring patients to more specialised care. Optometrists and ophthalmologists provide more specialised eye health screening services. Various types of eye examinations are rebated through the MBS.

All First Nations people, regardless of age, are eligible for a First Nations specific health assessment, which includes an eye health check.

First Nations health assessments relate to MBS items 715 and 228 for health checks undertaken in the community, including health assessments provided via videoconference or teleconference (MBS items 92004, 92011, 92016, 92023).

Diagnosis and screening – measures and data sources

Five measures are reported for diagnosis and screening. The MBS database was the data source for 3 of the measures in this category.

Measure 2.1: Annual health assessments for First Nations people

Two sub-measures are reported:

- **2.1.1: Annual health assessments for First Nations people** – the number, proportion and age-standardised rates of people who had a health assessment for First Nations people, including a health assessment provided via videoconference or teleconference.
- **2.1.2: Annual health assessments for First Nations people and initial eye examination by an optometrist** – the number, proportion and age-standardised rates of people who had a health assessment for First Nations people, including a health assessment provided via videoconference or teleconference, who also had an initial eye examination by an optometrist.

Measure 2.2: Eye examinations by an eye care professional – the number and proportion of First Nations people who had an eye examination by an optometrist or ophthalmologist in the last 12 months.

Measure 2.3: Screening for diabetic retinopathy among target population.

Three sub-measures are reported:

- **2.3.1: Eye examinations among those tested for diabetes (MBS data)** – the number and proportion of First Nations people and non-Indigenous Australians who had eye examinations in the 12-month period who were also screened for diabetes in the previous 2 years.
- **2.3.2: Screening for diabetic retinopathy among those with self-reported diabetes (survey data)** – the proportion of First Nations participants in the AEEHS with self reported diabetes who had a diabetic eye examination in the preceding 12 months.
- **2.3.3: Screening for diabetic retinopathy with a retinal camera (MBS data)** – the number and rate per 1,000 of First Nations people screened for diabetic retinopathy with a retinal camera.

Measure 2.4: Trachoma and trichiasis screening coverage – the estimated number, and proportion of:

- First Nations children in at-risk communities screened for trachoma in at-risk communities during the reporting year
- First Nations adults screened for trichiasis in current and former trachoma endemic regions.

Measure 2.5: Undiagnosed eye conditions

The diagnosis and screening chapter also includes a measure related to undiagnosed conditions. This measure aims to provide some indication of the number of First Nations people with vision impairment or blindness who had not had their condition formally diagnosed.

The measure relates to the number of First Nations people with vision impairment or blindness attributed to 1 of the 5 main causes (refractive error, cataract, diabetic retinopathy, age-related macular degeneration and glaucoma) who had not had their condition diagnosed, as a proportion of those with vision impairment or blindness attributed to 1 of the 5 main causes.

Measure 2.1: Annual health assessments for First Nations people

Key findings: In 2023–24, just over one-quarter (259,941) of First Nations people had a health assessment and 5.2% had a health assessment and an initial eye examination by an optometrist.

2.1.1 Annual health assessments for First Nations people

Overall: In 2023–24, just over one-quarter (259,941 or 25%) of First Nations people had a health assessment. This included over 2,600 health assessments provided via videoconference or teleconference.

Age and sex: In 2023–24, the number and proportion of First Nations males aged 0–14 who had a health assessment was slightly higher than the number and proportion of females of the same age – 40,657 (24%) and 35,810 (22%), respectively. For all other age groups, health assessments for First Nations females outnumbered those for First Nations males (Figure 2.1.1a).

Remoteness: In 2023–24, the proportion of First Nations people who had a health assessment was highest in Outer regional and Remote areas (around 31% in both cases); it was around 22% in Major cities, 24% in Inner regional areas and 26% in Very Remote areas (Figure 2.1.1b).

Jurisdiction: In 2023–24, the proportion of First Nations people who had a health assessment was highest in Queensland and the Northern Territory (both around 30%) (Figure 2.1.1c).

Time trend: The age-specific proportion of First Nations people who had a health assessment was between 20% and 24% in 2016–17 for age groups 44 years and under, it increased to between 20% and 25% for the same age groups in 2023–24. The proportion of First Nations people in all age groups aged 45 and over who had a health assessment rose from between 27% and 32% in 2016–17 to between 29% and 38% in 2023–24 (Figure 2.1.1d).

The age-standardised proportion of First Nations people who had a health assessment (including a telehealth assessment) grew from 24% (211,511 patients) in 2016–17 to 27% (259,941 patients) in 2023–24 (Figure 2.1.1e).

PHN: In 2023–24, the PHNs with the highest proportion of First Nations people who had a health assessment were Darling Downs and West Moreton (33%) and Brisbane South and Northern Queensland (both just under 33%) and (Figure 2.1.1f).

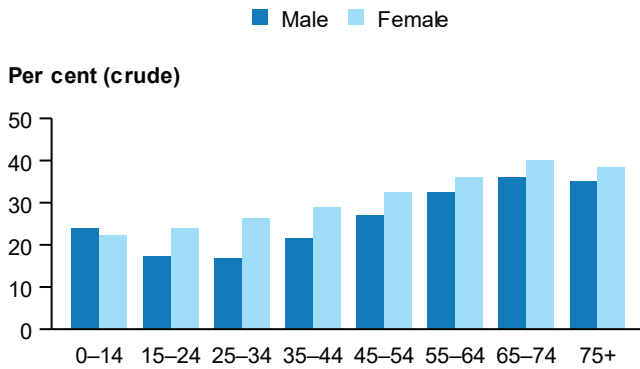
Roadmap region: In 2023–24, the Roadmap region with the highest proportion of First Nations people who had an MBS health assessment was Townsville/Palm Island (41%) (Figure 2.1.1g).

Things to consider

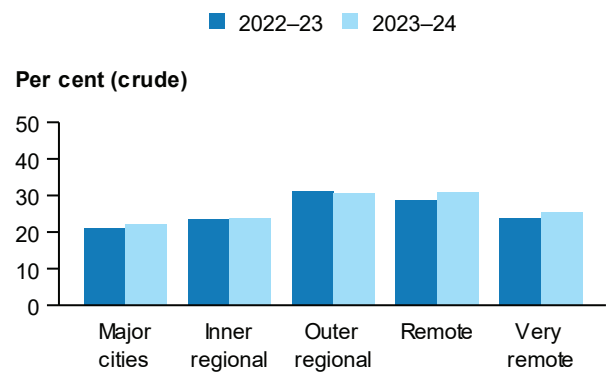
- While eye health checks are meant to be a mandatory component of health assessments for First Nations people, these checks are not always conducted. Hence, specific data on the provision of eye health checks as part of health assessments are not available
- MBS data reflect billing practices and do not necessarily reflect all services received. For example, MBS data do not generally capture equivalent services provided by jurisdiction funded primary health care, or by public hospitals as these services are often not billed to medicare. Additionally, some services, such as eye checks, may be billed under general consultation items, making them harder to identify specifically in the data.

Figure 2.1.1: MBS health assessments, First Nations people, by various characteristics

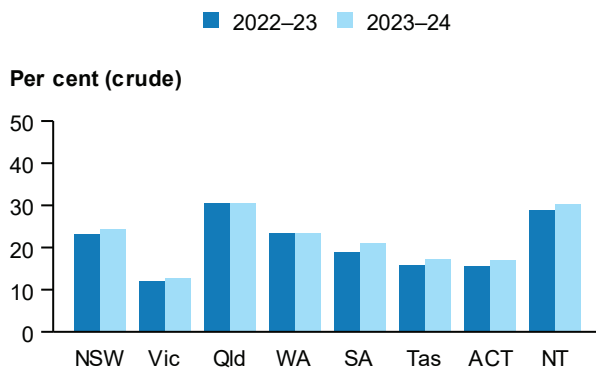
a) By age and sex, 2023–24



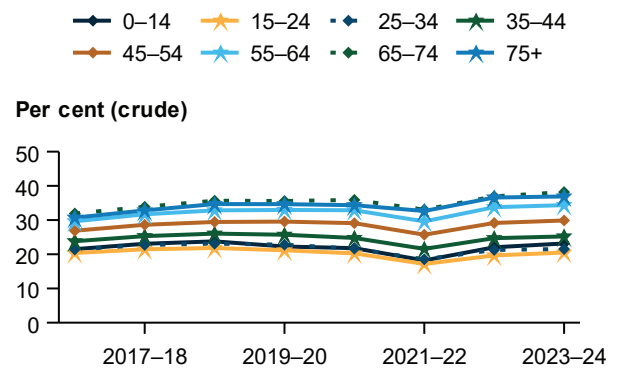
b) By remoteness, 2022–23 and 2023–24



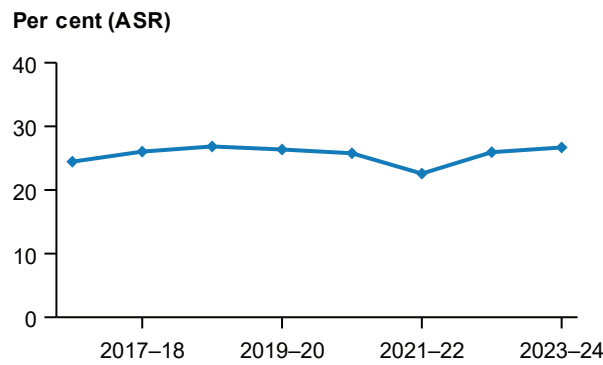
c) By jurisdiction, 2022–23 and 2023–24



d) By age, 2016–17 to 2023–24



e) Time trend (ASR), 2016–17 to 2023–24

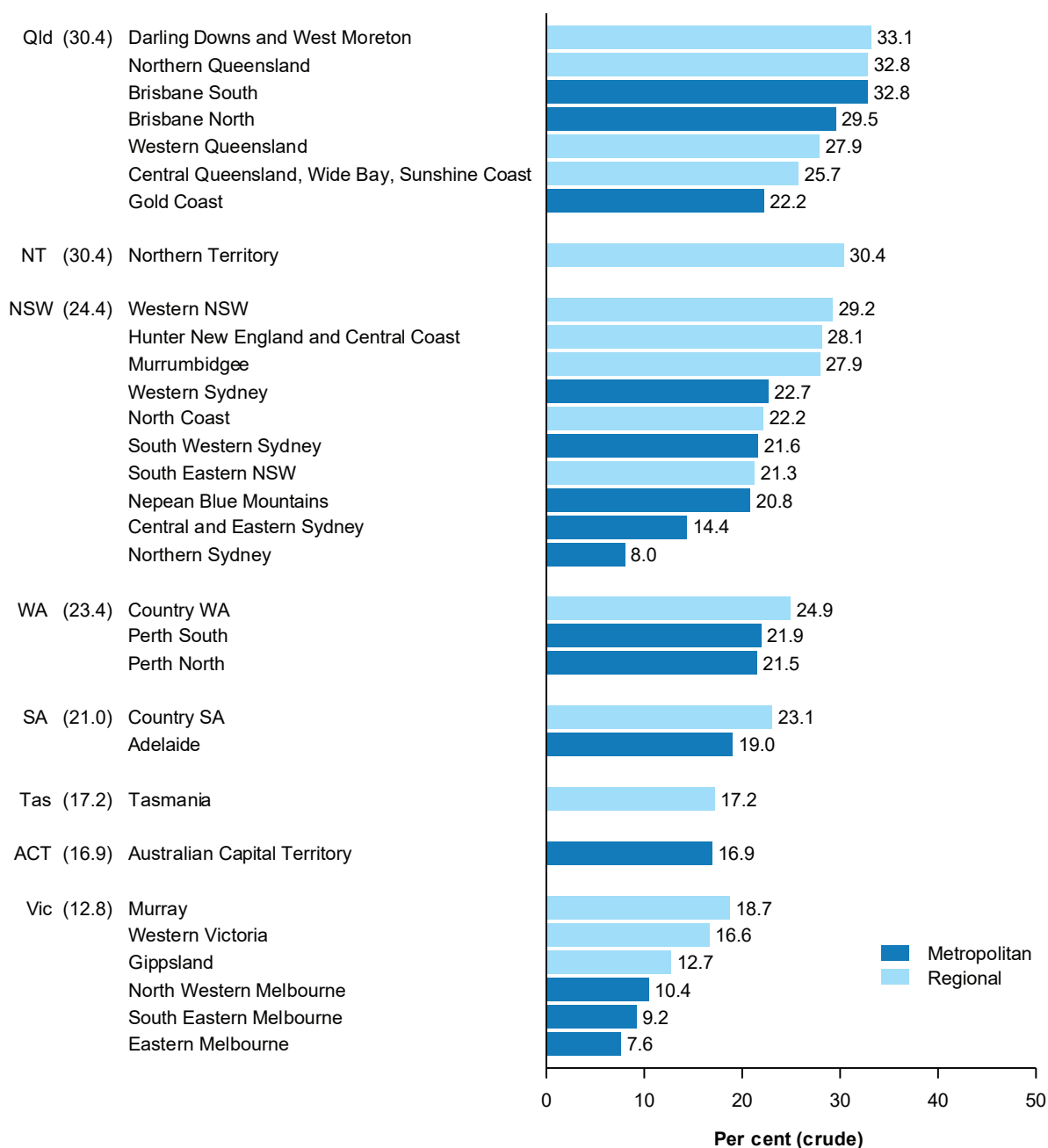


ASR = age-standardised rate.

Note: Data for these figures are available in the online data tables.

Source: AIHW analysis of Medicare Benefits Schedule data.

Figure 2.1.1f: MBS health assessments, First Nations people, by PHN, 2023–24

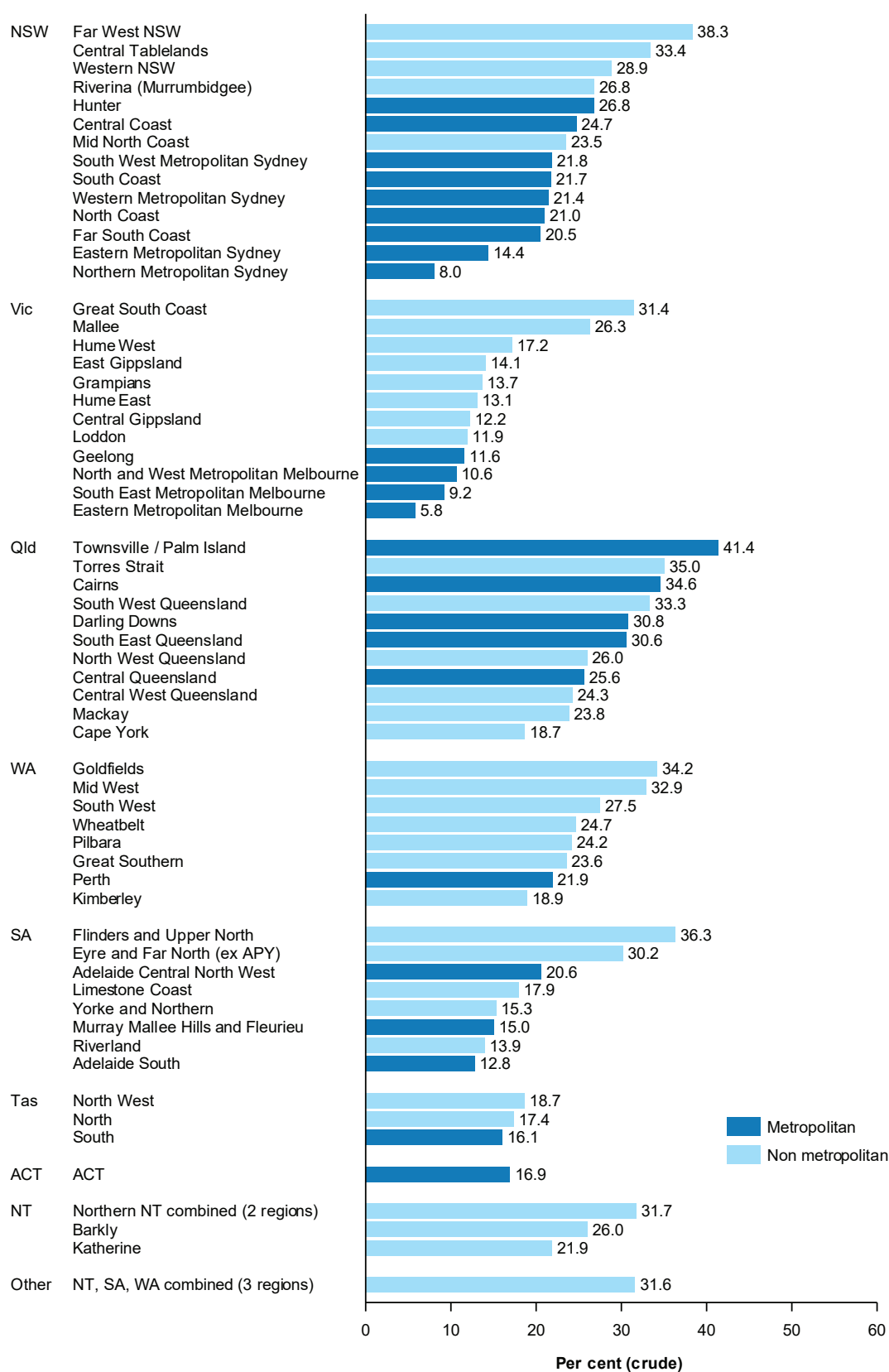


Notes

1. The percentages in brackets beside the jurisdictional labels are the overall crude rate of hospitalisation for eye diseases in that jurisdiction.
2. Data for this figure are available in the online data tables.

Source: AIHW analysis of Medicare Benefits Schedule data.

Figure 2.1.1g: MBS health assessments, First Nations people, by Roadmap region, 2023–24



Notes

1. Data for this figure are available in the online data tables.
2. APY Lands = Anangu Pitjantjatjara Yankunytjatjara Lands, *Northern NT combined* includes Greater Darwin and East Arnhem, NT, SA, WA *combined* includes Central Australia (NT), Ngaanyatjarra Lands (WA) and APY Lands (SA).

Source: AIHW analysis of Medicare Benefits Schedule data.

2.1.2: Annual health assessments for First Nations people and initial eye examination by an optometrist

Sub-measure interpretation

This sub-measure was originally intended to report on the number of First Nations people who had a health assessment and then a follow-up eye examination by an optometrist. A doctor may refer a patient as a result of a health assessment to another health-care professional for follow-up care, as needed – for example, by an optometrist, physiotherapist or dietitian. There is no MBS code for follow-up services by an optometrist. Consequently, it is not possible to provide exact estimates of the number of First Nations people who have had an eye examination by an optometrist as a follow-up from a health assessment.

To provide an indication of eye health follow-up services, this sub-measure presents the number of First Nations people who have a health assessment and an initial eye examination in a 12-month period. While the sub-measure will include cases where the eye examination arises out of the health assessment, it will also include cases where the initial eye examination is independent of the health assessment.

Overall: In 2023–24, just over 1 in 20 (54,028 or 5.2%) First Nations people had a health assessment and an initial eye examination by an optometrist.

Age and sex: In 2023–24, health assessments and initial eye examinations for First Nations females outnumbered those for First Nations males across all age groups, although differences were very small for the 0–14 age group (Figure 2.1.2a).

Remoteness: In 2023–24, the proportion of First Nations people who had a health assessment and an initial eye examination by an optometrist was highest in *Inner regional* and *Outer regional* areas (5.4% and 6.1%, respectively). The proportion was 5.0% in *Major cities* and *Remote* areas. It was lowest in *Very remote* areas (3.8%) (Figure 2.1.2b).

Jurisdiction: In 2023–24, the proportion of First Nations people who had a health assessment and an initial eye examination by an optometrist was highest in Queensland (6.4%) and New South Wales (5.6%) (Figure 2.1.2c).

Time trend: The age-specific proportion of First Nations people who had a health assessment and an initial eye examination by an optometrist increased from around 1% to 4% in 2016–17 for all age groups 44 years and under to around 2–5% in 2023–24. The proportion of First Nations people in all age groups aged 45 and over who had a health assessment rose from around 6–15% in 2016–17 to around 8–20% in 2023–24 (Figure 2.1.2d).

Between 2016–17 and 2023–24, the age-standardised proportion of First Nations people who had a health assessment (including a telehealth assessment) and an initial eye examination by an optometrist increased from around 5% in 2016–17 to around 7% in 2023–24 (Figure 2.1.2e).

PHN: In 2023–24, the PHNs with the highest proportion of First Nations people who had a health assessment and an initial eye examination by an optometrist were in Brisbane North, Brisbane South, Darling Downs and West Moreton and Western NSW (all over 7%) (Figure 2.1.2f).

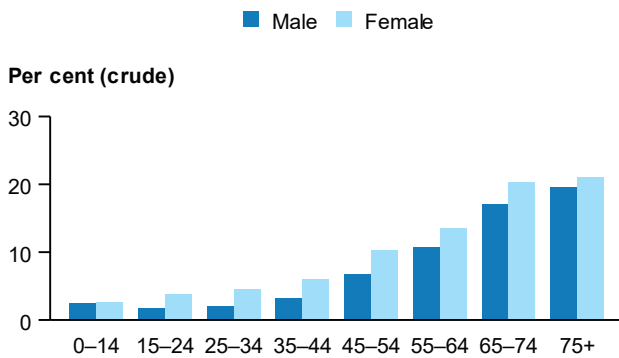
Roadmap region: In 2023–24, the Roadmap regions with the highest proportion of First Nations people who had an MBS health assessment and an initial eye examination by an optometrist were Far West NSW (9.2%) and Great South Coast (7.4%) (Figure 2.1.2g).

Things to consider

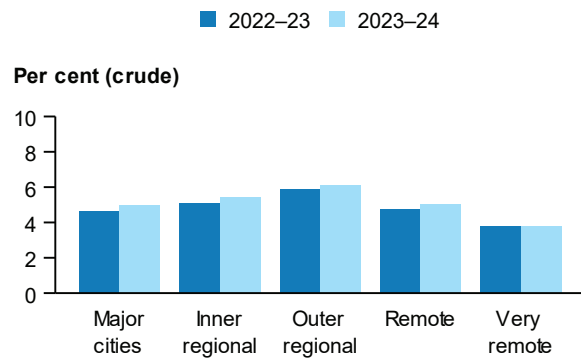
- A basic eye check is a mandatory component of the MBS health assessments for First Nations people.
- MBS data reflect billing practices and do not necessarily reflect all services received. For example, MBS data do not generally capture equivalent services provided by jurisdiction funded primary health care or by public hospitals as these services are often not billed to Medicare. Additionally, some services, such as eye checks, may be billed under general consultation items, making them harder to identify specifically in the data.

Figure 2.1.2: MBS health assessments and initial eye examinations, First Nations people, by various characteristics

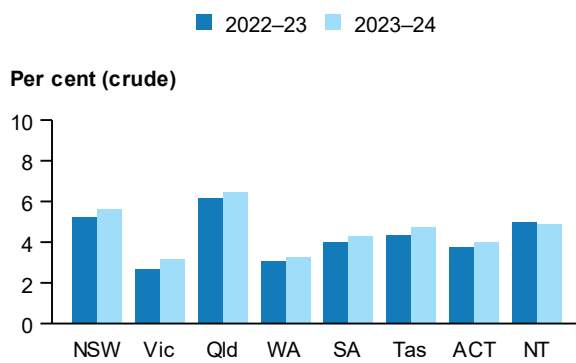
a) By age and sex, 2023–24



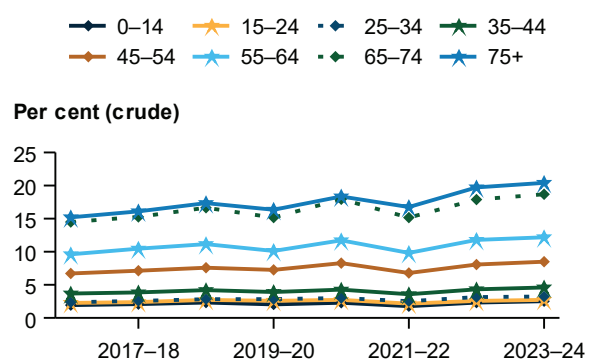
b) By remoteness, 2022–23 and 2023–24



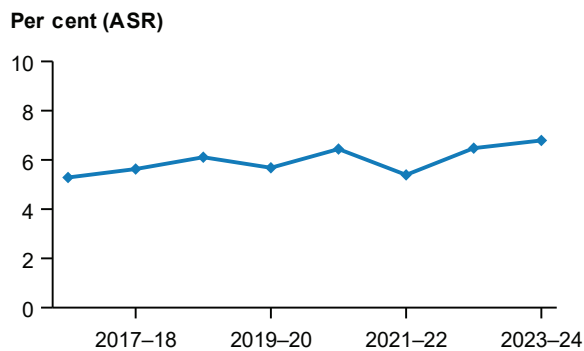
c) By jurisdiction, 2022–23 and 2023–24



d) By age, 2016–17 to 2023–24



e) Time trend (ASR), 2016–17 to 2023–24

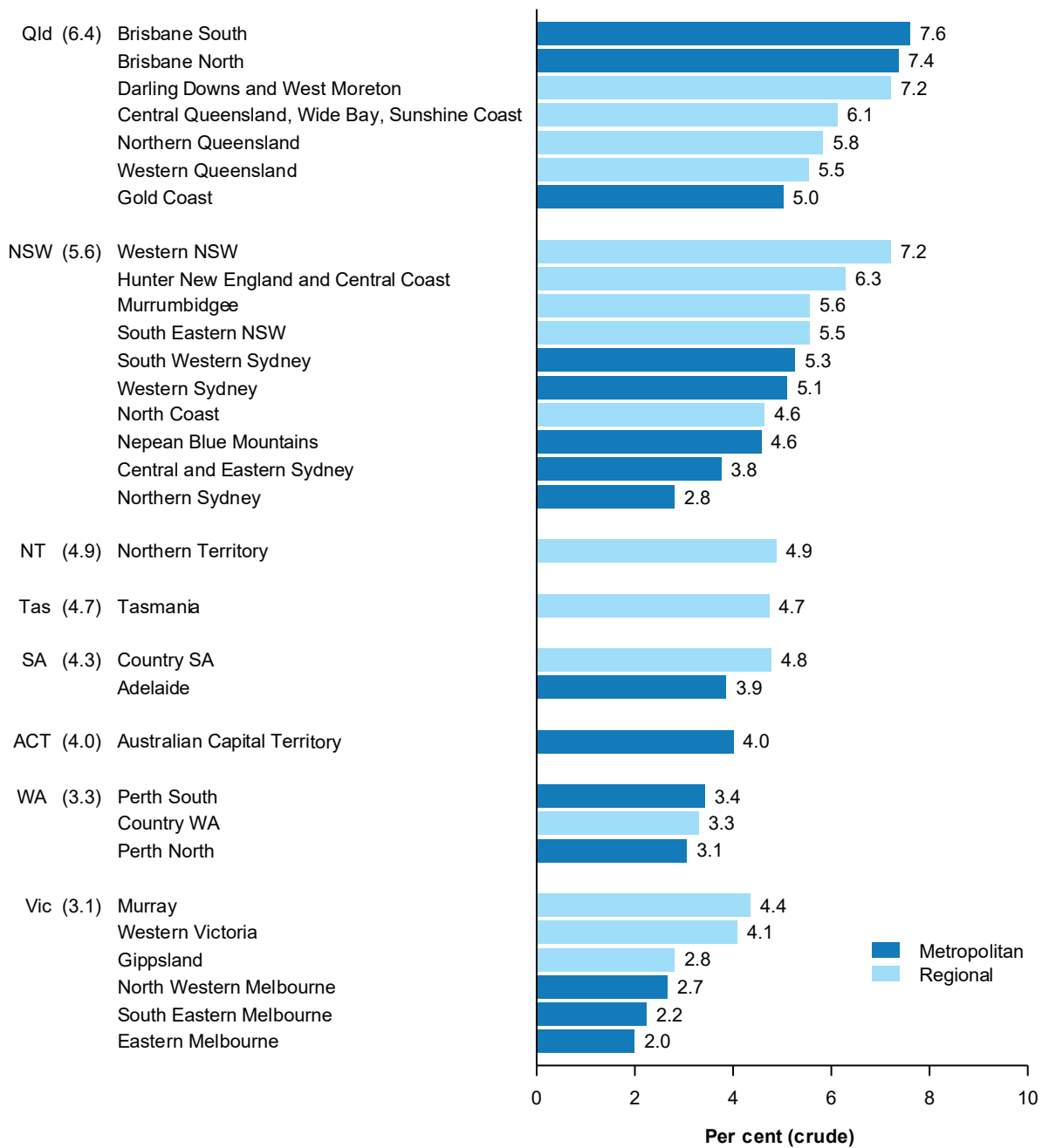


ASR = age-standardised rate

Note Data for these figures are available in online data tables

Source: AIHW analysis of Medical Benefits Schedule data.

Figure 2.1.2f: MBS health assessments with initial eye examination, First Nations people, by PHN, 2023–24

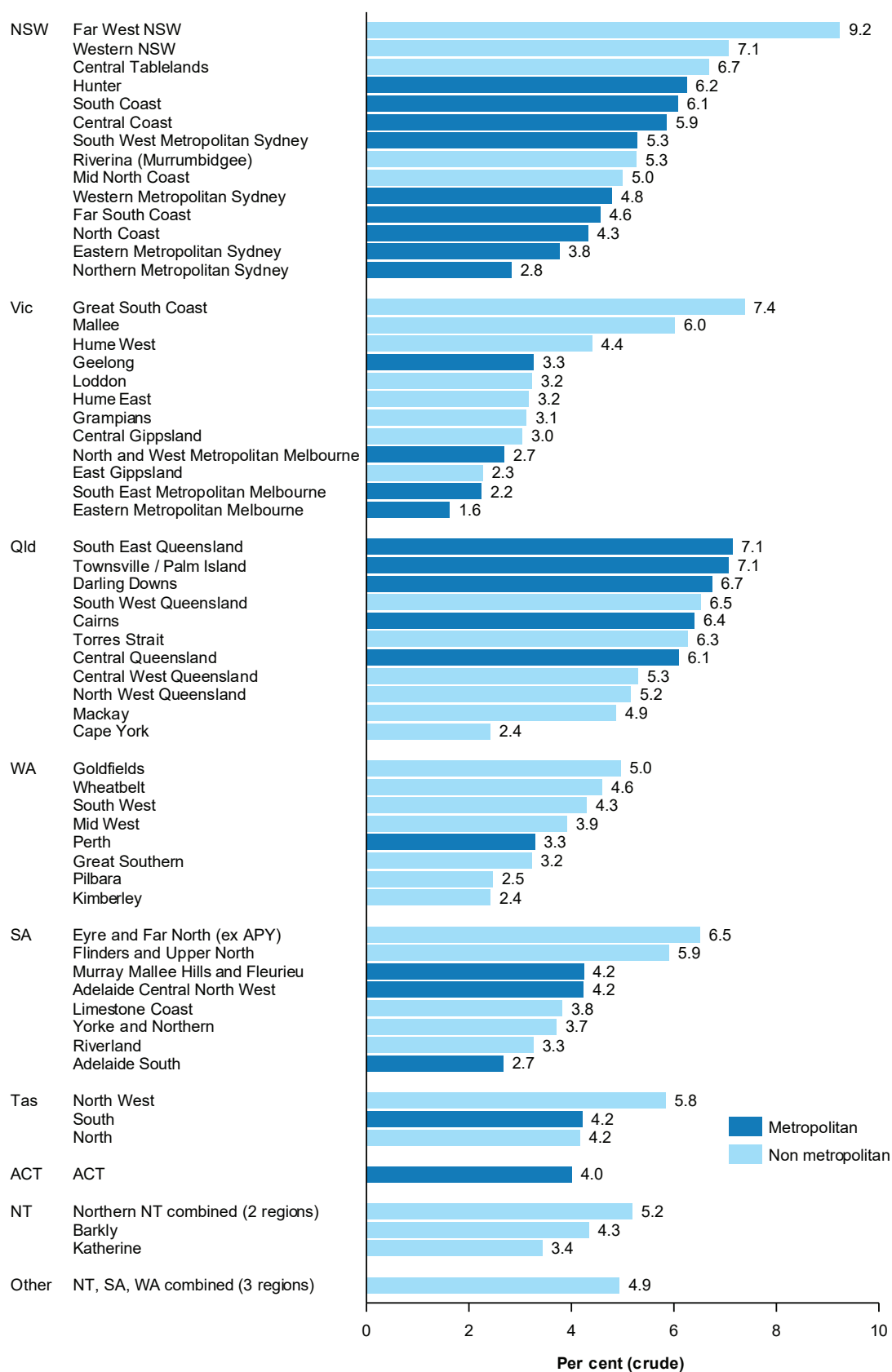


Notes

1. The percentages in brackets beside the jurisdictional labels are the overall crude rate of health assessments with an initial eye examination in that jurisdiction.
2. Data for this figure are available in the online data tables.

Source: AIHW analysis of Medicare Benefits Schedule data.

Figure 2.1.2g: MBS health assessments with initial eye examination, First Nations people, by Roadmap region, 2023–24



Notes

1. Data for this figure are available in the online data tables.
2. APY Lands = Anangu Pitjantjatjara Yankunytjatjara Lands.

Source: AIHW analysis of Medicare Benefits Schedule data.

Measure 2.2: Eye examinations by an eye care professional

Key findings: In 2023–24, 147,517 (14%) First Nations people had an initial eye examination by an optometrist or ophthalmologist in the preceding 12 months. Between 2016–17 and 2023–24, the total age-standardised proportion of First Nations people who had an eye examination increased from 18% to 19%, while the proportion for non-Indigenous Australians increased from 23% to 27%.

Overall: In 2023–24, 147,517 First Nations people had an initial eye examination by an optometrist or ophthalmologist in the preceding 12 months—14% of the population (Figure 2.2a). Optometrists conducted 147,400 of these examinations, and ophthalmologists conducted 117 of these examinations; 147,517 examinations in total; however, this total was fewer than the estimated number of eye examinations needed for First Nations people each year (over 200,000) (calculator developed by the IEHU 2017).

Remoteness: In 2023–24, the proportion of First Nations people who had an eye examination in the preceding 12 months decreased with remoteness, with the lowest proportion being for those living in *Very remote* areas (7.6%) (Figure 2.2b).

Jurisdiction: In 2023–24, the proportion of First Nations people who had an eye examination in the preceding 12 months ranged from 8.3% in the Northern Territory to 18.2% in Tasmania (Figure 2.2c).

Time trend: Age-specific rates of eye examinations by an optometrist or ophthalmologist in the preceding 12 months rose slightly between 2016–17 and 2023–24 for First Nations people, apart from those aged 65 and over where rates fell slightly. Age-specific rates rose for non-Indigenous Australians between 2016–17 and 2023–24 across all age groups (Figure 2.2d and Figure 2.2e). Across all age groups, rates of eye examinations were higher for non-Indigenous Australians than for First Nations people in the same age group.

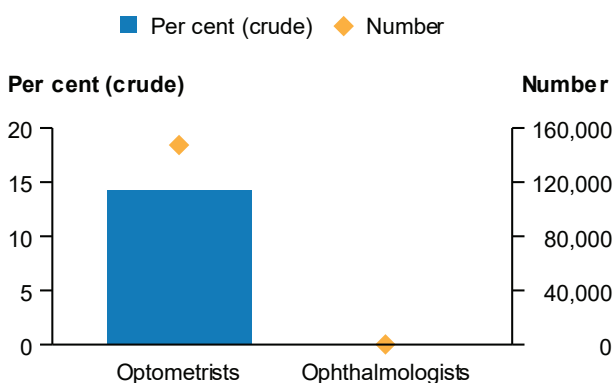
Between 2016–17 and 2023–24, the total age-standardised proportion of the First Nations population who had an eye examination was relatively stable, around 19% (Figure 2.2f).

Things to consider

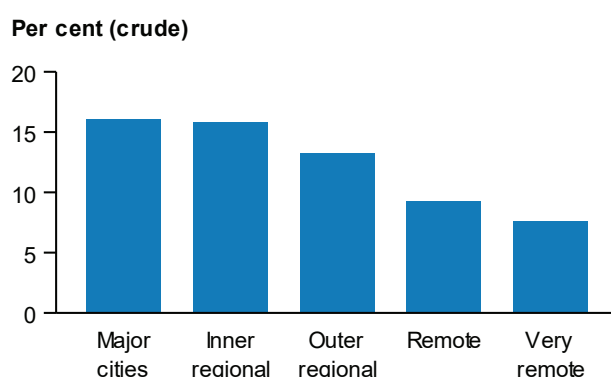
- MBS data reflect billing practices, and not necessarily all services received. For example, MBS data do not generally capture equivalent services provided by jurisdiction-funded primary health care or by public hospitals – for example, eye examinations undertaken by salaried ophthalmologists in public hospitals.
- Equivalent or similar care may also be billed as a different MBS item (such as a standard consultation).
- MBS data shown for this measure were adjusted for First Nations under-identification.
- The estimated annual number of First Nations people needing an eye examination was derived from the calculator for the delivery and coordination of eye care services, which was developed by the IEHU at the University of Melbourne. The calculations are first-order estimates based on condition prevalence rates from the NEHS (2009) and models of service delivery developed in The Roadmap to Close the Gap for Vision (Taylor et al. 2012) and should be interpreted with caution.
- Age-standardised and age-specific rates are both presented (see Box 4 – Population rates).

Figure 2.2: Population who had an eye examination by an eye care professional, by various characteristics

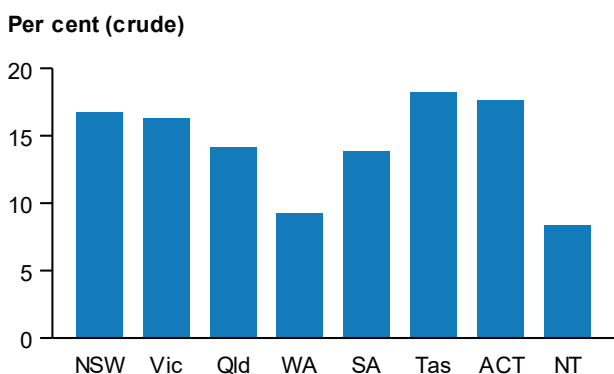
a) First Nations, by profession 2023–24



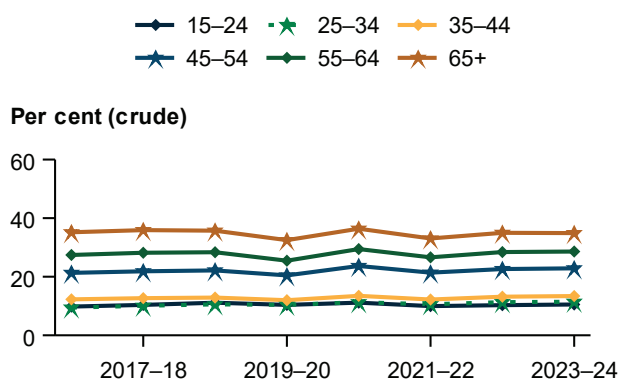
b) First Nations, by remoteness 2023–24



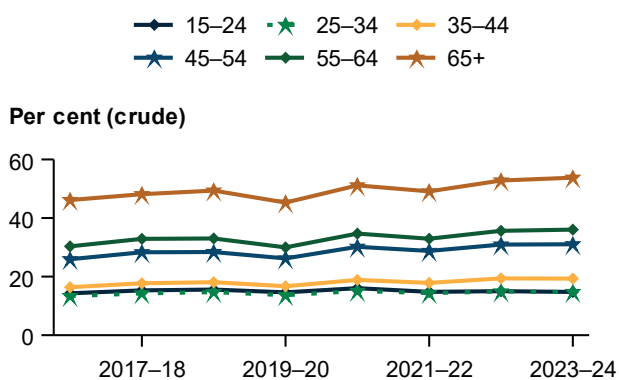
c) First Nations, by jurisdiction 2023–24



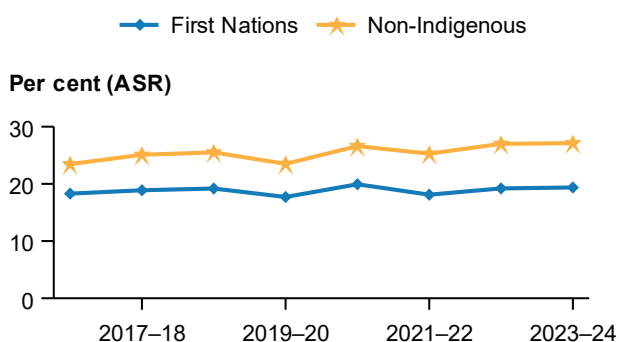
d) First Nations by age, 2016–17 to 2023–24



e) Non-Indigenous by age, 2016–17 to 2023–24



f) Time trend, 2016–17 to 2023–24



ASR = age-standardised rate

Note: Data for these figures are available in the online data tables.

Source: AIHW analysis of Medicare Benefits Schedule data.

Measure 2.3: Screening for diabetic retinopathy among target population

Key findings: An estimated 31,927 First Nations people had had a diabetes test in the previous 2 years, with 15,973 (50%) also having an eye examination at least once in 2023–24. Between 2013–14 and 2023–24, the total age-standardised proportion of First Nations people tested for diabetes who had an eye examination increased from 35% to 43%.

2.3.1 Eye examinations among those tested for diabetes (MBS data)

Overall: An estimated 31,927 First Nations people had a diabetes test in the previous 2 years, and 15,973 (50%) also had an eye examination at least once in 2023–24. Most of the screenings were performed by optometrists (15,525), with smaller numbers by ophthalmologists (1,068) and GPs (293) (Figure 2.3.1a).

Remoteness: In 2023–24, the proportion of First Nations people who had an eye examination was highest in *Inner regional areas* and *Major cities* (both around 53%), and then decreased with increasing remoteness (Figure 2.3.1b).

Jurisdiction: In 2023–24, the proportion of First Nations people who had an eye examination ranged from around 59% in the Australian Capital Territory to around 36% in the Northern Territory (Figure 2.3.1c).

Time trend: Age-specific proportions of those tested for diabetes who had an eye examination fluctuated between 2013–14 and 2023–24 for First Nations people and non-Indigenous Australians but, overall, rose across all age groups. The greatest increase for First Nations people was in those aged 15–24 where the proportion examined rose from 21% in 2013–14 to 32% in 2023–24 (Figure 2.3.1d). For non-Indigenous Australians, the increase in the proportion of examinations from 2013–14 to 2023–24 was similar across all age groups (Figure 2.3.1e). In 2023–24, higher proportions of non-Indigenous Australians than First Nations people were screened in all age groups, except for those aged 65 and over where slightly more First Nations people were screened.

Between 2013–14 and 2023–24, the total age-standardised proportion of First Nations people tested for diabetes who had an eye examination increased from 35% to 43%, while for non-Indigenous Australians it rose from 39% to 48% (Figure 2.3.1f).

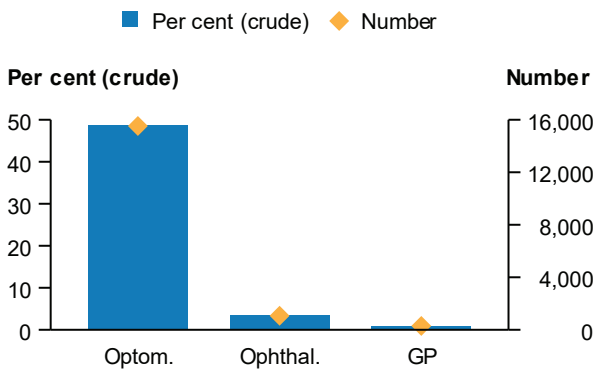
Things to consider

- MBS data reflect billing practices, and not necessarily all services received. For example, MBS data do not generally capture equivalent services provided by jurisdiction-funded primary health care or by public hospitals – for example, eye examinations undertaken by salaried ophthalmologists in public hospitals.
- Equivalent or similar care may also be billed as a different MBS item (such as a standard consultation).
- Current National Health and Medical Research Council guidelines recommend a diabetic eye examination annually for First Nations people with diabetes, and at least every 2 years for non-Indigenous Australians with diabetes.
- MBS data shown for this sub-measure were adjusted for First Nations under-identification.

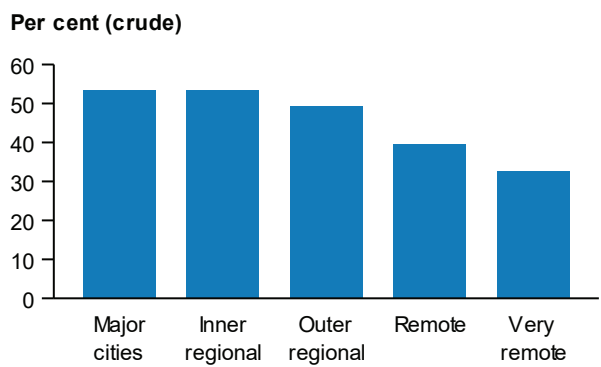
- Age-standardised and age-specific rates are both presented (see Box 4 – Population rates).
- First Nations people who had a diabetes test may not have been found to have diabetes. For this reason, the rate of those screened for diabetic retinopathy may be an underestimate.

Figure 2.3.1: Population who had an eye examination among those tested for diabetes, by various characteristics

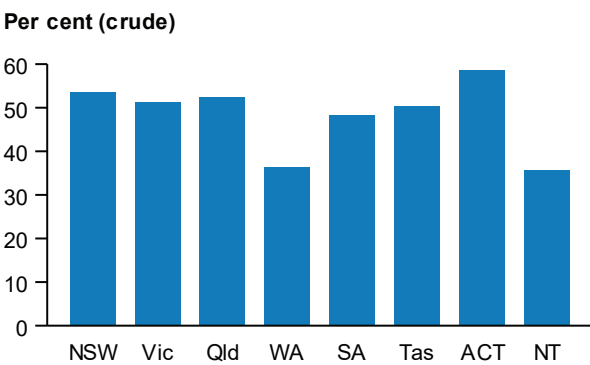
a) First Nations, by profession 2023–24



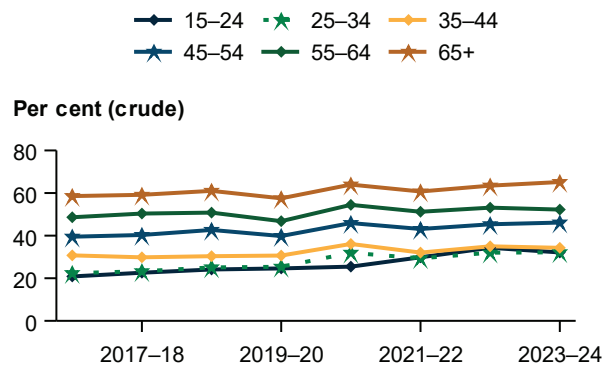
b) First Nations, by remoteness 2023–24



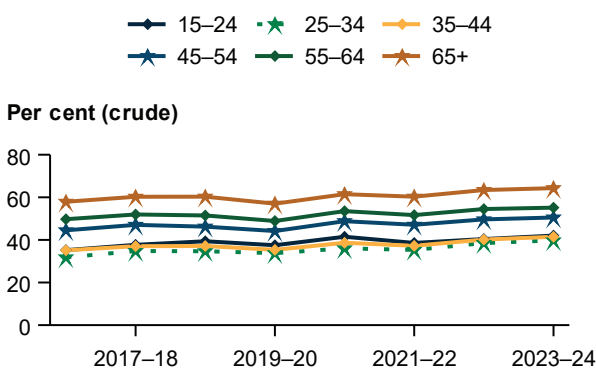
c) First Nations, by jurisdiction 2023–24



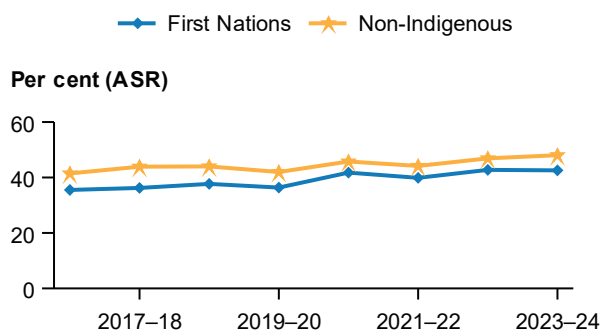
d) First Nations by age, 2016–17 to 2023–24



e) Non-Indigenous by age, 2016–17 to 2023–24



f) Time trend, 2016–17 to 2023–24



ASR = age-standardised rate.

Notes

1. Profession types in Figure (a): Optom. = optometrist; Ophthal. = ophthalmologist, GP = general practitioner.
2. Data for these figures are available in the online data tables.

Source: AIHW analysis of Medicare Benefits Schedule data.

2.3.2 Screening for diabetic retinopathy among those with self-reported diabetes (survey data)

Overall: Based on the latest AEEHS 2025 data, 82% of First Nations survey participants and 71% of non-Indigenous participants reported having had an eye check, with lower rates observed among younger participants.

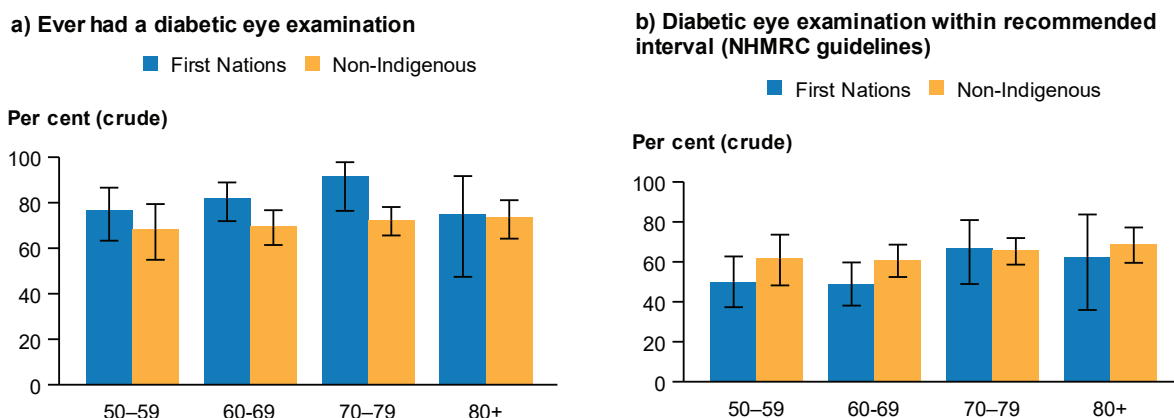
Over half (54%) of First Nations participants in the AEEHS aged 50 and over with known diabetes had a diabetic eye examination in the preceding 12 months, the period recommended in the NHMRC guidelines for First Nations people. For non-Indigenous participants with diabetes aged 50 and over, almost two thirds (65%) had a diabetic eye examination in the preceding 2 years, the period recommended in the NHMRC guidelines for non-Indigenous Australians.

Age and sex: The proportion of First Nations participants in the AEEHS with known diabetes who had a diabetic eye examination in the preceding 12 months varied by age. Rates were lowest among those aged 60–69 years (49%) and highest among those aged 70–79 years (67%). Among non-Indigenous participants, the lowest proportion was also observed in the 60–69 year age group, but rates were higher than those of First Nations participants across all age group except 70–79 years group (Figure 2.3.2a).

Things to consider

- Data are from the 2025 AEEHS, a sample survey of 617 First Nations people and 3,902 non-Indigenous Australians aged 50 and over for the eye survey component. The survey included an eye examination.
- Population estimates have not been calculated so AEEHS results are only representative of the sample selected.
- These results are subject to sampling errors, so the 95% CIs are provided to indicate the reliability of the estimates reported.
- Current NHMRC guidelines recommend a diabetic eye examination annually for First Nations people with diabetes, and at least every 2 years for non-Indigenous Australians with diabetes.

Figure 2.3.2: Population screened for diabetic retinopathy among those with self-reported diabetes, by Indigenous status



Notes

1. All figures show crude unadjusted sample proportions.
2. Error bars show 95% CIs.
3. Data for these figures are available in the online data tables.

Source: Australian Eye and Ear Health Survey 2025

2.3.3 Screening for diabetic retinopathy with a retinal camera (MBS data)

Overall: In 2023–24, an estimated 919 (0.9 per 1,000) First Nations people were screened for diabetic retinopathy with a retinal camera (Figure 2.3.3a).

Age and sex: The number and rate of screening tests for diabetic retinopathy with a retinal camera were similar for First Nations males and females in 2022–23 and 2023–24.

In 2022–23 rates of screening tests were slightly higher for First Nations females (0.9 per 1,000) than for First Nations males (0.7 per 1,000). In 2022–23, rates were also slightly higher for First Nations females (0.9 per 1,000) than for First Nations males (0.8 per 1,000) (Figure 2.3.3a).

Remoteness: In 2022–23, the rate of screening tests for diabetic retinopathy with a retinal camera for First Nations people was lowest in *Inner regional* areas (0.4 per 1,000) and highest in *Remote* and *Very remote* areas (both 2.0 per 1,000). In 2023–24, the rate of screening tests for First Nations people was lowest in *Inner regional* areas (0.3 per 1,000) and highest in *Very Remote* areas (2.2 per 1,000) (Figure 2.3.3b).

Jurisdiction: In 2022–23 and 2023–24, the rate of screening tests for diabetic retinopathy with a retinal camera for First Nations people was highest in Western Australia (3.4 and 4.3 per 1,000, respectively). Data were not available for Tasmania and the Australian Capital Territory in 2022–23 and 2023–24 (Figure 2.3.3c).

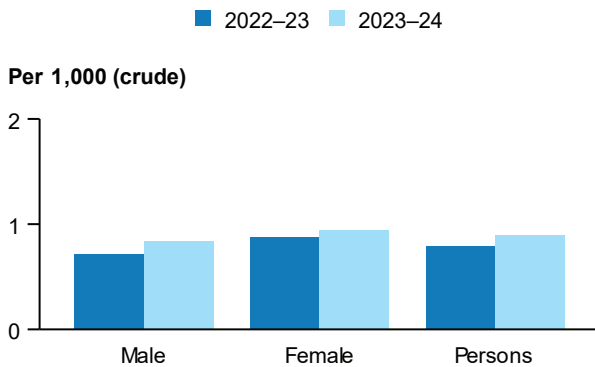
Time trend: From 2016–17 to 2023–24, age-specific rates of screening tests for diabetic retinopathy with a retinal camera for First Nations people fluctuated but overall have risen little for all age groups. The highest rates of screening tests for diabetic retinopathy with a retinal camera in 2023–24 were seen in those aged 55 and over (Figure 2.3.3d).

Things to consider

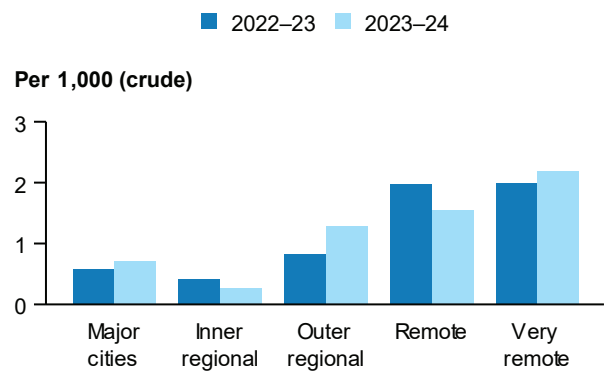
- Screening for diabetic retinopathy can be provided in a number of ways, including direct observations by a health professional during eye examinations or by using a retinal camera.
- MBS data reflect billing practices and not necessarily all services received. For example, the MBS data for this sub-measure do not capture equivalent services provided by eye care practitioners, optometrists and ophthalmologists, jurisdiction-funded primary health care, public hospitals or where retinal cameras are used without billing MBS.
- Age-specific rates are presented (see Box 4 – Population rates).

Figure 2.3.3: First Nations population screened for diabetic retinopathy with a retinal camera among those tested for diabetes, by various characteristics

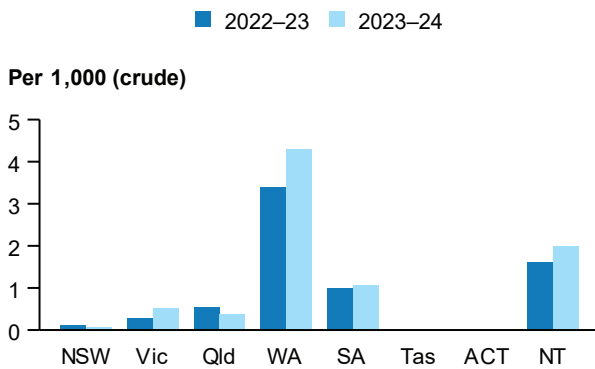
a) By sex, 2022–23 and 2023–24



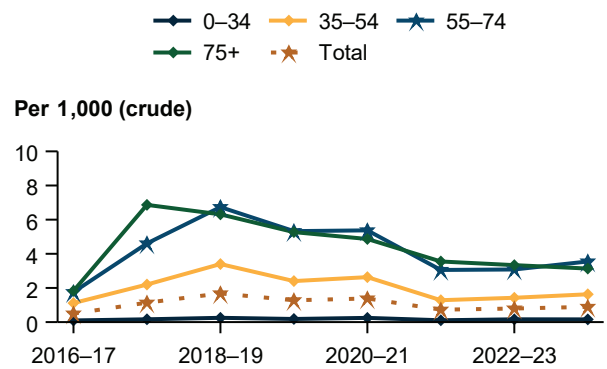
b) By remoteness, 2022–23 and 2023–24



c) By jurisdiction, 2022–23 and 2023–24



d) By age, 2016–17 to 2023–24



Note: Data for these figures are available in the online data tables.

Source: AIHW analysis of Medicare Benefits Schedule data.

Measure 2.4: Trachoma and trichiasis screening coverage

Key findings: In 2024, in the 86 communities who undertook screening, 1,885 (89%) First Nations children aged 5–9 were screened for trachoma. In 2024 18,931 First Nations people aged 15 and over were reported to be screened for trichiasis in current and former trachoma endemic regions, an estimated population coverage of 22%.

2.4.1 Trachoma

Overall: In 2024, in the 86 communities who undertook screening, 1,885 (89%) children aged 5–9 were screened for trachoma (Figure 2.4.1).

Jurisdiction: In 2024, the proportions of children aged 5–9 in at-risk communities screened for trachoma were 92% in Western Australia (295 children screened), 91% in South Australia (446 children screened) and 87% in the Northern Territory (1,144 children screened). In Queensland, screening for trachoma was not undertaken in 2024 (Figure 2.4.1a).

Things to consider

- In 2024, trachoma screening was undertaken in 86 at-risk communities in 3 jurisdictions (Western Australia, South Australia and the Northern Territory) (Kirby Institute, 2025). The Northern Territory and South Australia undertook additional screening in 2024 as part of evidence confirmation for final-year dossier validation surveillance. For the purposes of simplicity, results from these communities that would not normally require screening in 2024 are counted as at-risk communities and included in results.
- The CDNA guidelines for trachoma control were revised in 2014 so that at-risk communities were not required to be screened each year. The screening frequency for trachoma in at-risk communities is based on observed active trachoma prevalence and the existence of case clustering.
- In line with CDNA guidelines, the 5–9 age group is the target group for screening programs in all regions.
- Communities are classified by state and territory health departments as being at risk of trachoma based on:
 - past-year trachoma prevalence of 5% or more in children aged 5–9 years;
 - past-year trachoma prevalence of less than 5%, but recorded trachoma prevalence of 5% or more in the previous 5 years, or
 - no past-year data, but recorded trachoma prevalence of 5% or more in the previous 5 years (CDNA, 2014).

2.4.2 Trichiasis

Overall: In 2024, 8,348 First Nations people aged 15–39 and 10,583 First Nations adults aged 40 and over were reported to be screened for trichiasis in current and former trachoma endemic regions, with an estimated population coverage of 17% and 30%, respectively. Altogether, 18,931 First Nations people aged 15 and over were screened for trichiasis in trachoma endemic regions, with the estimated population coverage 22% (Figure 2.4.2a).

Jurisdiction: In 2024, the estimated proportion of people aged 40 years and over in trachoma endemic regions screened for trichiasis was 16% in Western Australia (2,268 people), 15% in South Australia (616 people) and 54% in the Northern Territory (7,556 people) (Figure 2.4.2b). The comparable screening proportions of First Nations people aged 15 years and over were 7%, 11% and 43%, respectively.

Things to consider

- In 2024, 165 communities reported screening for trichiasis in trachoma endemic regions in four jurisdictions (Western Australia, South Australia, Queensland and the Northern Territory) (Kirby Institute 2025).
- Population coverage for Queensland is not supplied due to screening results being reported for one community only.
- Screening for trichiasis is undertaken opportunistically, such as during adult health checks.
- It is likely that more First Nations adults were screened for trichiasis through health assessments than are included in the data presented for this sub-measure and the sub-measure may also include multiple screenings for a single patient.
- Screening coverage estimates are a guide only. Coverage is derived from ABS Census data and is linked to current and former trachoma endemic regions identified during implementation of the National Trachoma Management Program from 2006. Estimates do not consider changing endemic regions over time and transiency between regions.
- Cases of trichiasis reported are those previously unknown to the health system.

Figure 2.4.1: Trachoma screening coverage in First Nations communities, by state and territory, 2024

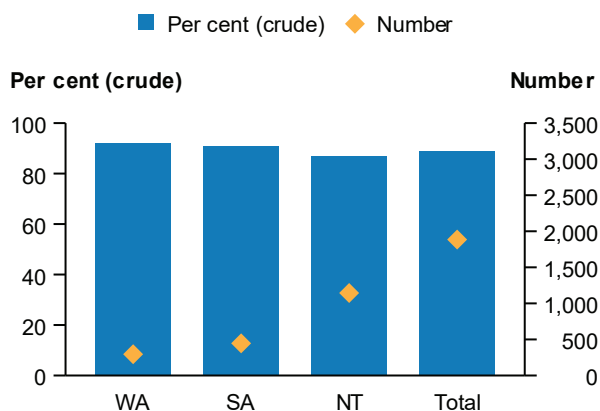
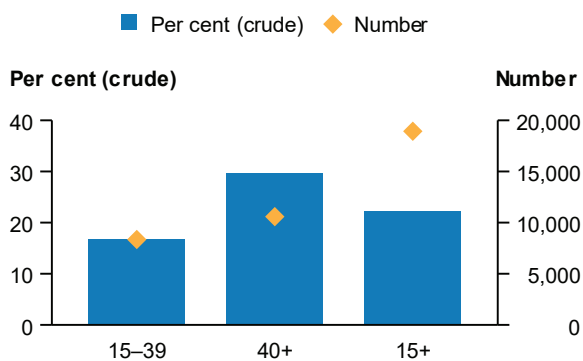
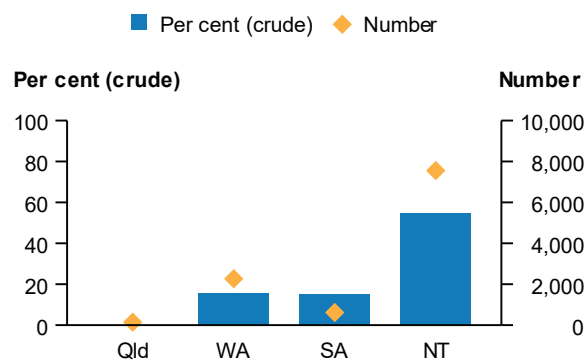


Figure 2.4.2: Trichiasis screening coverage in First Nations communities, by various characteristics

a) By age, 2024



b) Aged 40 and over, by jurisdiction, 2024



Notes

1. 2024 trachoma data cover 86 communities (45 in the NT, 15 in SA and 26 in WA).
2. 2024 trichiasis data cover 165 communities (1 in Qld, 62 in WA, 13 in SA and 89 in the NT).
3. Data for these figures are available in the online data tables.

Source: Australian Trachoma Surveillance Report 2024 (Kirby Institute 2025).



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Treatment – how are eye problems treated?

Based on the latest available AEEHS 2025 data, refractive error, cataract and diabetic retinopathy are the leading causes of vision loss among Aboriginal and Torres Strait Islander Australians. Information on their hospitalisations for cataract surgery, treatment for diabetic retinopathy, and on the provision of spectacles (a low-cost effective treatment for refractive error), reflect the prevalence of particular conditions in the First Nations population and their use of health services. Reporting the use of eye health treatment services allows for ongoing monitoring and for identifying particular services, regions or groups within the First Nations population, where access to and use of services could be improved.

Treatment – measures and data sources

The data for measures 3.1–3.4 and measure 3.6 reported in this chapter come from the National Hospital Morbidity Database (NHMD), reporting against treatment in admitted patient care:

Measure 3.1: Hospitalisations for diseases of the eye – the number of hospitalisations for diseases of the eye per 1,000 First Nations people.

Measure 3.2: Hospitalisations for injuries to the eye – the number of hospitalisations for injuries to the eye, per 1,000 First Nations people, age-standardised rate and rate ratio.

Measure 3.3: Hospitalisations for eye procedures – the number of hospital separations with a procedure on the eye, per 1,000 First Nations people.

Measure 3.4: Cataract surgery rate – the number of hospital separations with a procedure for cataract surgery, per 1,000,000 First Nations people.

These hospitalisation measures and elective surgery waiting times are based on admitted patient care data from the NHMD. Hospitalisation numbers and rates are based on episodes of care and not on the number of people who are hospitalised. State and territory health departments provide these data to the AIHW, which manages the national data collection. Except for time trend data, 2 financial years of data were aggregated to allow for analyses by Indigenous status and other characteristics, including by PHN and Roadmap region.

Measure 3.5: Cataract surgical coverage rate – the proportion of survey participants who have received cataract surgery out of all those who have either already had surgery or still require it.

The data for Measure 3.5 come from the AEEHS, the only source of data that includes an estimate of surgery rates for people who have been identified as having cataracts.

Measure 3.6: Waiting times for elective cataract surgery – expressed as:

- median waiting time (or the number of days within which 50% of patients who completed their wait were admitted for cataract surgery) and the 90th percentile waiting time (or the number of days within which 90% of patients who completed their wait were admitted for cataract surgery)
- proportion of patients who completed their wait who had cataract surgery within 90 days and within 365 days.

Data for this measure come from the NHMD.

(continued)

Treatment – measures and data sources (continued)

Measure 3.7: Treated for diabetic retinopathy among target population

There are 2 sub-measures reported:

- 3.7.1: Treated for diabetic retinopathy among those screened for diabetic retinopathy
- 3.7.2: Treated for diabetic retinopathy using a retinal laser procedure or an intravitreal injection among those tested for diabetes.

The data for this measure are based on MBS data.

Measure 3.8: Trachoma and trichiasis treatment coverage – the estimated number, and proportion of:

- active cases and household and community contacts who received treatment with the antibiotic azithromycin in communities where active trachoma was identified.
- First Nations adults aged 40 years and over who underwent surgery to correct trichiasis in the previous 12 months.

Measure 3.9: Treatment of refractive error – the number of First Nations people who had spectacle or contact lens correction for refractive error, as a proportion of those who had refractive error (whether or not they had spectacle or contact lens correction).

Measure 3.10: Spectacles dispensed under state schemes – the number of spectacles dispensed to First Nations people under state-subsidised spectacles programs, per 1,000 population.

These last 2 measures relate to refractive error, a major cause of vision impairment, which can generally be corrected easily by providing spectacles. *Treatment of refractive error* comes from the AEEHS 2025 and compares treatment rates for refractive error for non-Indigenous and First Nations people. All state and territory governments have subsidised spectacle schemes targeted at low-income people. The measure *Spectacles dispensed under state schemes* captures data on First Nations people's use of these schemes, although only 5 jurisdictions (New South Wales, Victoria, Queensland, South Australia and Tasmania) could provide data.

Measure 3.1: Hospitalisations for diseases of the eye

Key findings: In the 2-year period 2022–24, there were 15,461 (7.6 per 1,000 population) hospitalisations of First Nations people for diseases of the eye. Between 2016–17 and 2023–24, the age-standardised hospitalisation rate for diseases of the eye for First Nations people increased from 9.3 to 13.1 per 1,000 population.

Overall: In the 2-year period 2022–24, there were 15,461 hospitalisations of First Nations people for diseases of the eye – a crude rate of 7.6 per 1,000 population.

In 2023–24, the age-standardised hospitalisation rate for First Nations people for diseases of the eye (13.1 per 1,000) was lower than those for non-Indigenous Australians (14.1 per 1,000) (Figure 3.1a).

In 2022–24, for First Nations people, the most common principal diagnosis for hospitalisations for diseases of the eye was disorders of the lens (9,329 hospitalisations or 4.6 per 1,000). This was followed by disorders of the choroid and retina (2,267 hospitalisations or 1.1 per 1,000); disorders of the eyelid, lacrimal system and orbit (0.5 per 1,000); and disorders of the conjunctiva (0.4 per 1,000) (Figure 3.1b).

Age and sex: In 2022–24, hospitalisation rates for eye diseases increased with age and were greatest for those aged 75 and over. Hospitalisation rates were higher among non-Indigenous Australians aged 75 and over (107.0 per 1,000) than among First Nations people (84.2 per 1,000) (Figure 3.1c).

For First Nations people in 2022–24, age-specific hospitalisation rates for eye diseases were highest for males and females in the 75 and over age group (84.7 and 83.8 per 1,000, respectively).

Remoteness: In 2022–24, age-standardised hospitalisation rates for eye diseases increased with remoteness. *Remote and very remote* areas (combined) had the highest hospitalisation rate for First Nations people was (14.4 per 1,000) (Figure 3.1d).

Jurisdiction: In 2022–24, the jurisdictions with the highest age-standardised hospitalisation rates for First Nations people for diseases of the eye were Western Australia (19.4 per 1,000), Queensland (12.7 per 1,000) and Tasmania (12.6 per 1,000) (Figure 3.1e).

Time trend: Between 2016–17 and 2023–24, age-specific hospitalisation rates for First Nations people for diseases of the eye fluctuated but increased overall for all age groups over age 45. The largest increase was for those aged 75 and over, where the rate rose from 58.5 per 1,000 in 2016–17 to 88.0 per 1,000 in 2023–24 (Figure 3.1f). Hospitalisation rates for non-Indigenous Australians fluctuated but increased overall across all age groups apart from those aged 75 and over from 2016–17 to 2023–24 (Figure 3.1g). Hospitalisation rates were higher among First Nations people than among non-Indigenous Australians in 2023–24 for those aged 45 to 54 (9.3 and 6.3 per 1,000, respectively) and 55 to 64 (23.3 and 20.8 per 1,000, respectively) but were lower for those aged 65 to 74 and 75 and over (Figures 3.1 f and g).

Between 2016–17 and 2023–24, the age-standardised hospitalisation rate for diseases of the eye for First Nations people increased from 9.3 to 13.1 per 1,000, while the rate for non-Indigenous Australians showed little change, around 14 per 1,000. The trend line shows there has been a slight rise in the age-standardised hospitalisation rate for First Nations people over this time (Figure 3.1h).

PHN: In 2022–24, the PHNs with the highest hospitalisation rates for First Nations people for diseases of the eye were Country WA (16.1 per 1,000), Central Queensland, Wide Bay, Sunshine coast (10.4 per 1,000) and Western Queensland (9.9 per 1,000) (Figure 3.1i).

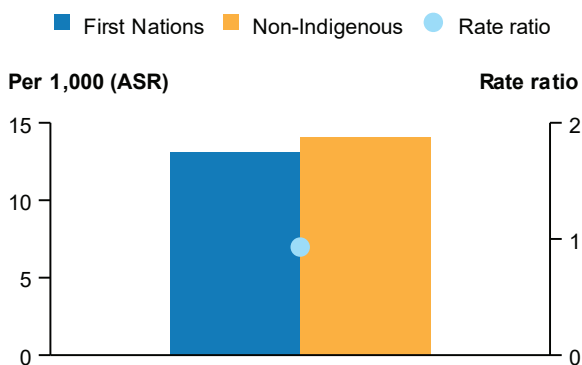
Roadmap region: In 2022–24, the Roadmap region with the highest hospitalisation rate for First Nations people for diseases of the eye was Mid West (25.3 per 1,000) (Figure 3.1j).

Things to consider

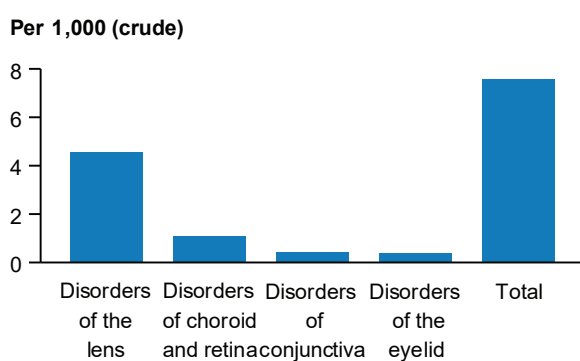
- The quality of data provided for Indigenous status varies.
- Time series analyses may be affected by changes in the quality of First Nations identification over time.
- Hospitalisations data presented by state and territory and remoteness area in this report are based on the patient's place of usual residence.
- PHN (or Roadmap region and IREG) data is derived using a concordance between Statistical Areas (SA) and PHNs (or Roadmap regions and IREG). This method may result in minor discrepancies when compared with state or territory totals, particularly where an entire state is represented by a single PHN (or Roadmap region and IREG).
- Age-standardised and age-specific rates are both presented (see Box 4 – Population rates).

Figure 3.1: Hospitalisations for diseases of the eye, by Indigenous status, by various characteristics

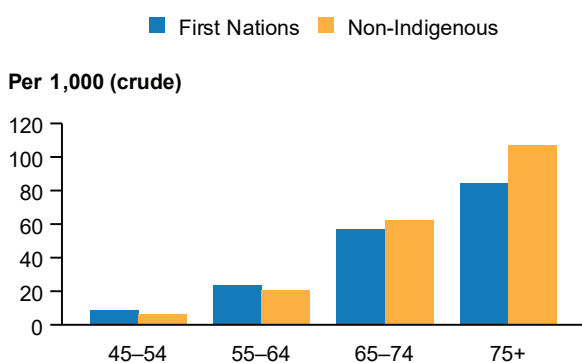
a) By Indigenous status, 2023–24



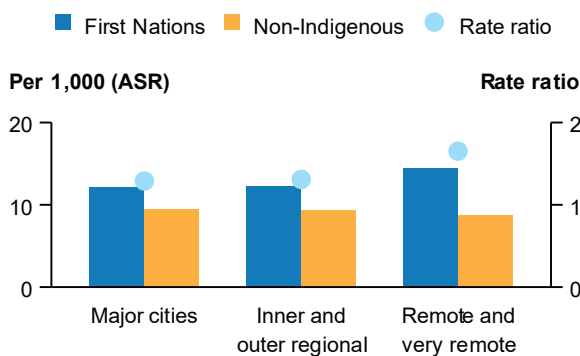
b) First Nations, by principal diagnosis, 2022–24



c) By Indigenous status and age, 2022–24



d) By remoteness, 2022–24



ASR = age-standardised rate.

Notes

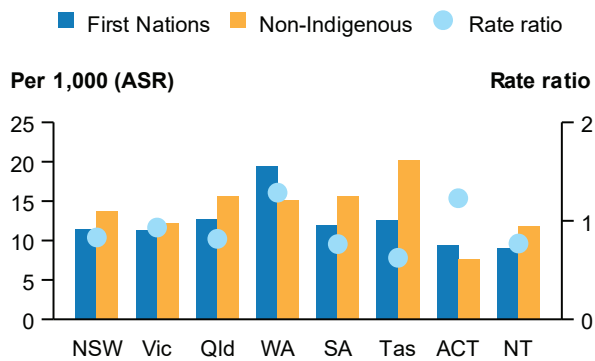
1. Figure (b) shows the top 4 principal diagnoses for First Nations people.
2. Data for these figures are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

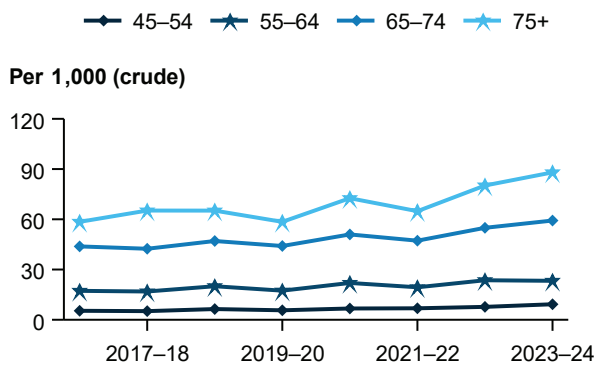
(continued)

Figure 3.1 (continued): Hospitalisations for diseases of the eye, by Indigenous status, by various characteristics

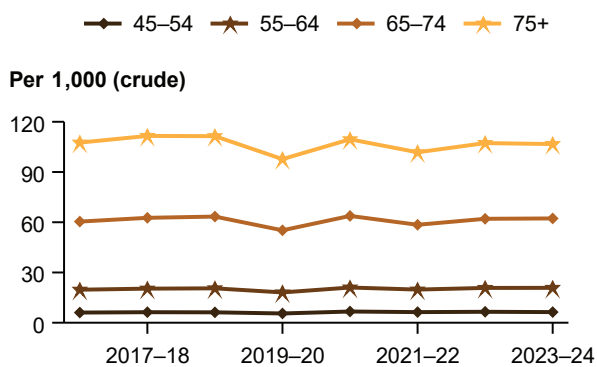
e) By jurisdiction, 2022–24



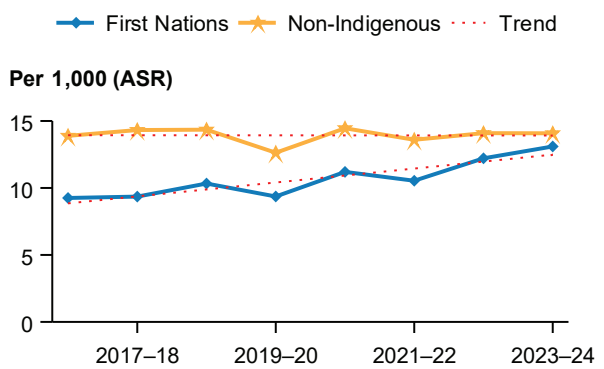
f) First Nations by age, 2016–17 to 2023–24



g) Non-Indigenous by age, 2016–17 to 2023–24



h) Time trend, 2016–17 to 2023–24

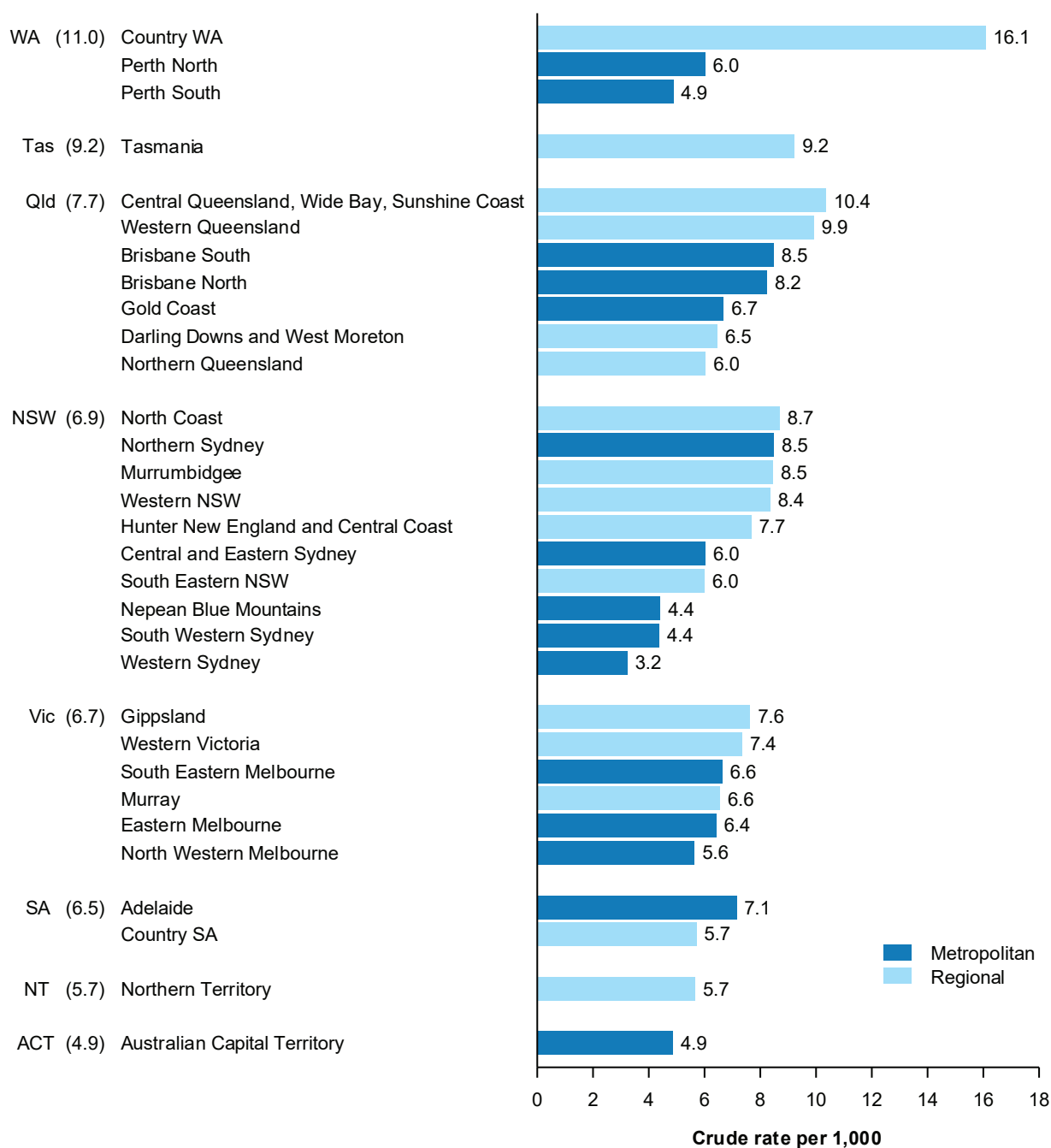


ASR refers to the age-standardised rate.

Note: Data for these figures are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

Figure 3.1i: Hospitalisations for diseases of the eye, First Nations people, by PHN, 2022–24

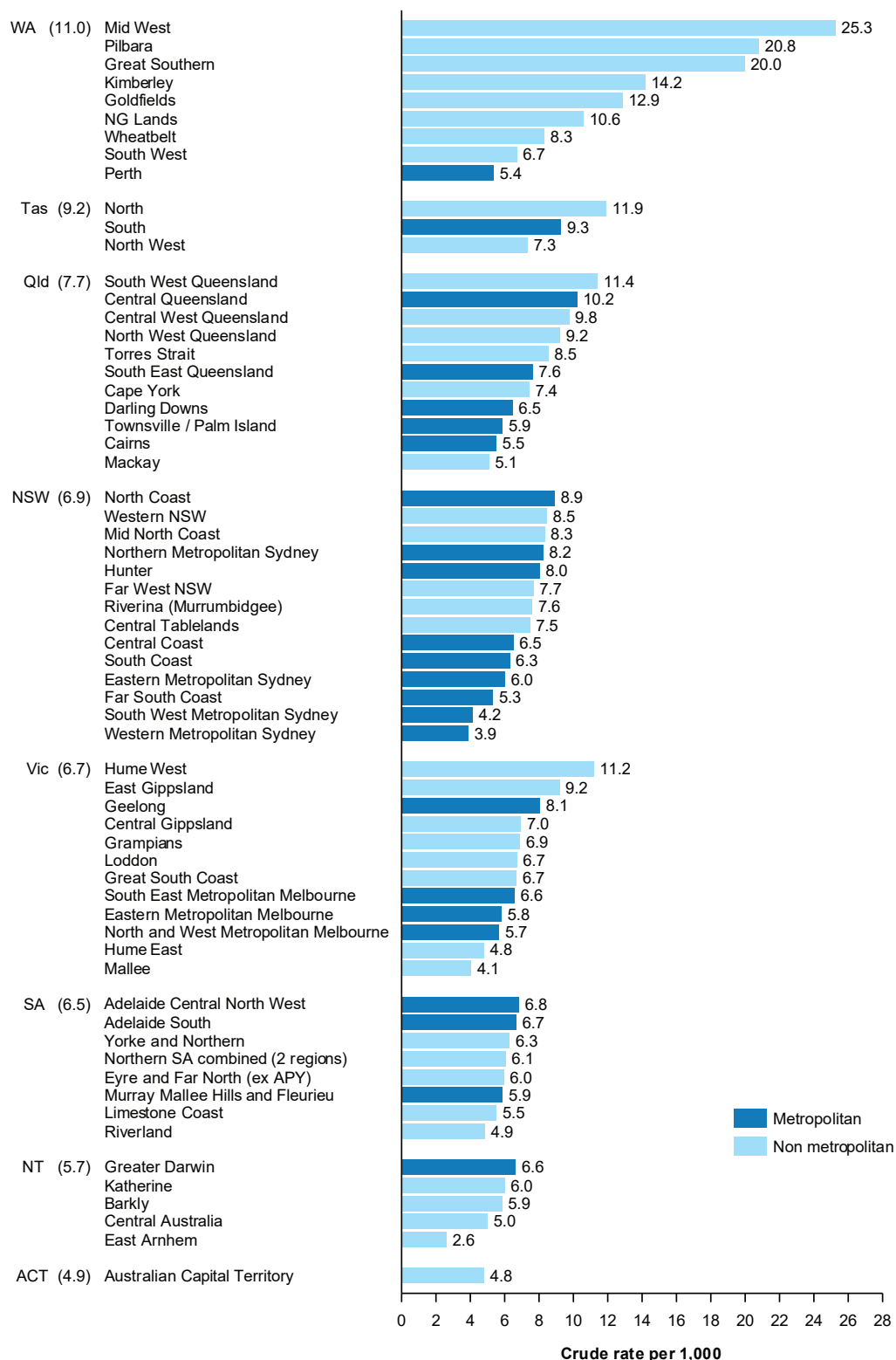


Notes

1. The percentages in brackets beside the jurisdiction labels relate to the overall crude rate of hospitalisation for eye diseases in that jurisdiction.
2. Data for this figure are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

Figure 3.1j: Hospitalisations for diseases of the eye, First Nations people, by Roadmap region, 2022–24



Notes

1. The percentages in brackets beside the jurisdiction labels relate to the overall crude rate of hospitalisation for eye diseases in that jurisdiction.
2. Data for this figure are available in the online data tables.
3. APY Lands = Anangu Pitjantjatjara Yankunytjatjara Lands, NG Lands = Ngaanyatjarra Lands, Northern SA combined (2 regions) = Anangu Pitjantjatjara Yankunytjatjara (APY) Lands and Flinders and Upper North.

Source: AIHW analysis of National Hospital Morbidity Database.

Measure 3.2: Hospitalisations for injuries to the eye

Key findings: In the 2-year period 2022–24, there were 2,107 (1.0 per 1,000 population) hospitalisations of First Nations people for injuries to the eye. Between 2016–17 and 2023–24, the age-standardised hospitalisation rate for eye injuries for First Nations people was fairly constant.

Overall: In the 2-year period from 2022–24, there were 2,107 hospitalisations of First Nations people for injuries to the eye – 1.0 per 1,000 population.

In 2023–24, age-standardised hospitalisation rates for First Nations people for injuries to the eye (1.2 per 1,000) were higher than those for non-Indigenous Australians (0.4 per 1,000) (Figure 3.2a).

In 2022–24, for First Nations people, the most common principal diagnosis for hospitalisations for injury to the eye was an open wound of eyelid and periocular area (0.4 per 1,000) (Figure 3.2b).

Age and sex: In 2022–24, hospitalisation rates for eye injuries were higher for First Nations people than for non-Indigenous Australians in all age groups apart from those aged 75 and over, where the rate was higher for non-Indigenous Australians. Hospitalisation rates for eye injuries were highest for First Nations people aged 35–44 and highest for non-Indigenous Australians aged 75 and over (Figure 3.2c).

For First Nations people in 2022–24, age-specific hospitalisation rates for eye injuries were highest for males and females in the 35–44 age group (1.8 and 2.0 per 1,000, respectively) (Figure 3.2d).

Remoteness: In 2022–24, *Remote and very remote* areas (combined) (2.8 per 1,000) had the highest age-standardised rate of hospitalisations for First Nations people for eye injuries. Rates were higher for First Nations people than non-Indigenous Australians in all regions (Figure 3.2e).

Jurisdiction: In 2022–24, the jurisdictions with the highest age-standardised hospitalisation rates for First Nations people for eye injuries were the Northern Territory (3.4 per 1,000), Western Australia (1.4 per 1,000) and Queensland (1.2 per 1,000) (Figure 3.2f).

Time trend: Between 2016–17 and 2023–24, age-specific hospitalisation rates for injuries to the eye for First Nations people and non-Indigenous Australians remained fairly constant within each age group over time (Figure 3.2g). In 2023–24, the age-specific hospitalisation rate for First Nations people aged 35–44 (2.0 per 1,000) was more than 6 times the rate for non-Indigenous Australians of the same age (0.3 per 1,000) (Figure 3.2g).

Between 2016–17 and 2023–24, the age-standardised hospitalisation rate for eye injuries for First Nations people and for non-Indigenous Australians was fairly constant. The trend line shows that the age-standardised hospitalisation rate for First Nations people has remained relatively constant over this period (Figure 3.2h).

PHN: In 2022–24, the PHN with the highest hospitalisation rate for First Nations people for injury to the eye was the Northern Territory (3.2 per 1,000) (Figure 3.2i).

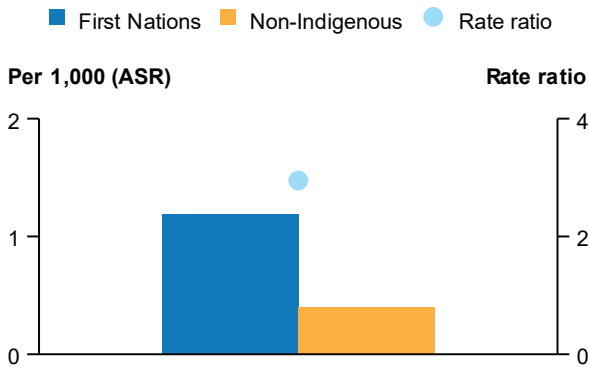
Roadmap region: In 2022–24, the 2 Roadmap regions with the highest hospitalisation rates for First Nations people for injuries to the eye had rates that were 4.6 per 1,000 or greater (Figure 3.2j).

Things to consider

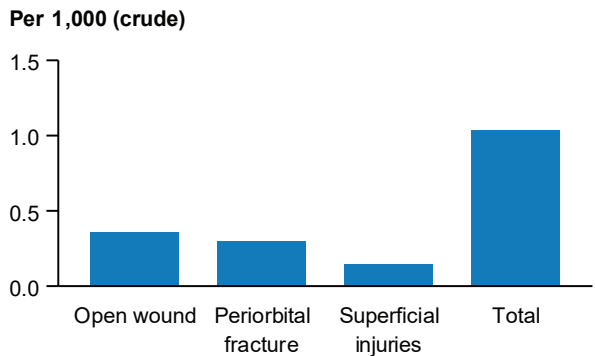
- This measure is a count of hospitalisations for injury, not of occurrence of injury – as some injuries would result in more than 1 hospitalisation.
- The quality of data provided for Indigenous status varies.
- Time series analyses may be affected by changes in the quality of First Nations identification over time.
- Hospitalisations data presented by state and territory and remoteness area in this report are based on the patient's place of usual residence.
- PHN (or Roadmap region and IREG) data is derived using a concordance between Statistical Areas (SA) and PHNs (or Roadmap regions and IREG). This method may result in minor discrepancies when compared with state or territory totals, particularly where an entire state is represented by a single PHN (or Roadmap region and IREG).
- Age-standardised and age-specific rates are presented (see Box 4 – Population rates).

Figure 3.2: Hospitalisations for injuries to the eye, by Indigenous status, by various characteristics

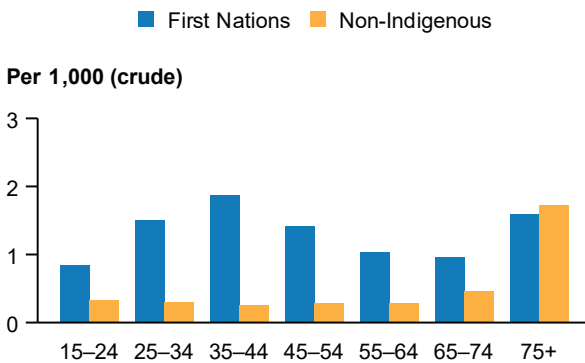
a) By Indigenous status, 2023–24



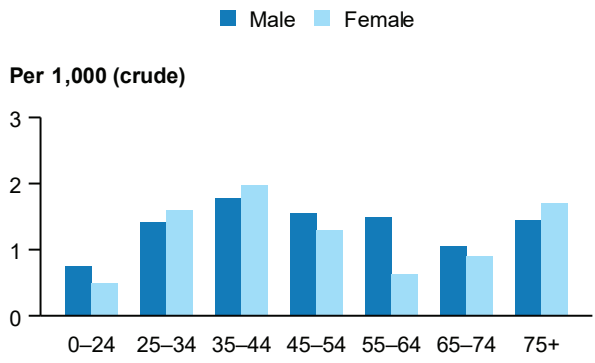
b) First Nations, by principal diagnosis, 2022–24



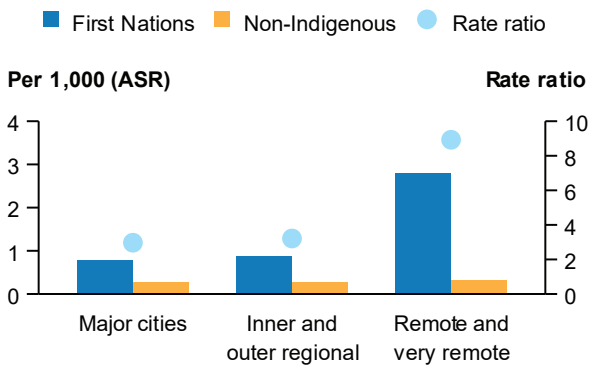
c) By Indigenous status and age, 2022–24



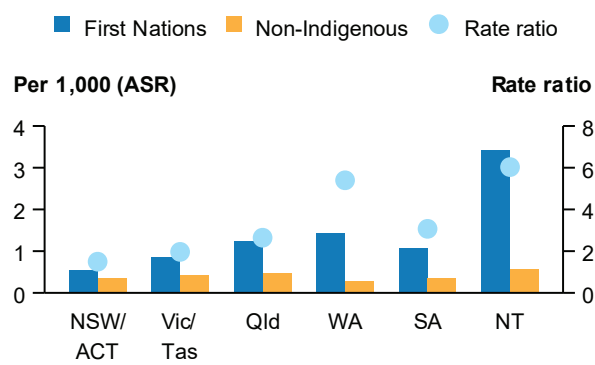
d) By age and sex, 2022–24



e) By remoteness, 2022–24



f) By jurisdiction, 2022–24



ASR = age-standardised rate.

Notes

1. Figure (b) shows the top 4 principal diagnoses for First Nations people.

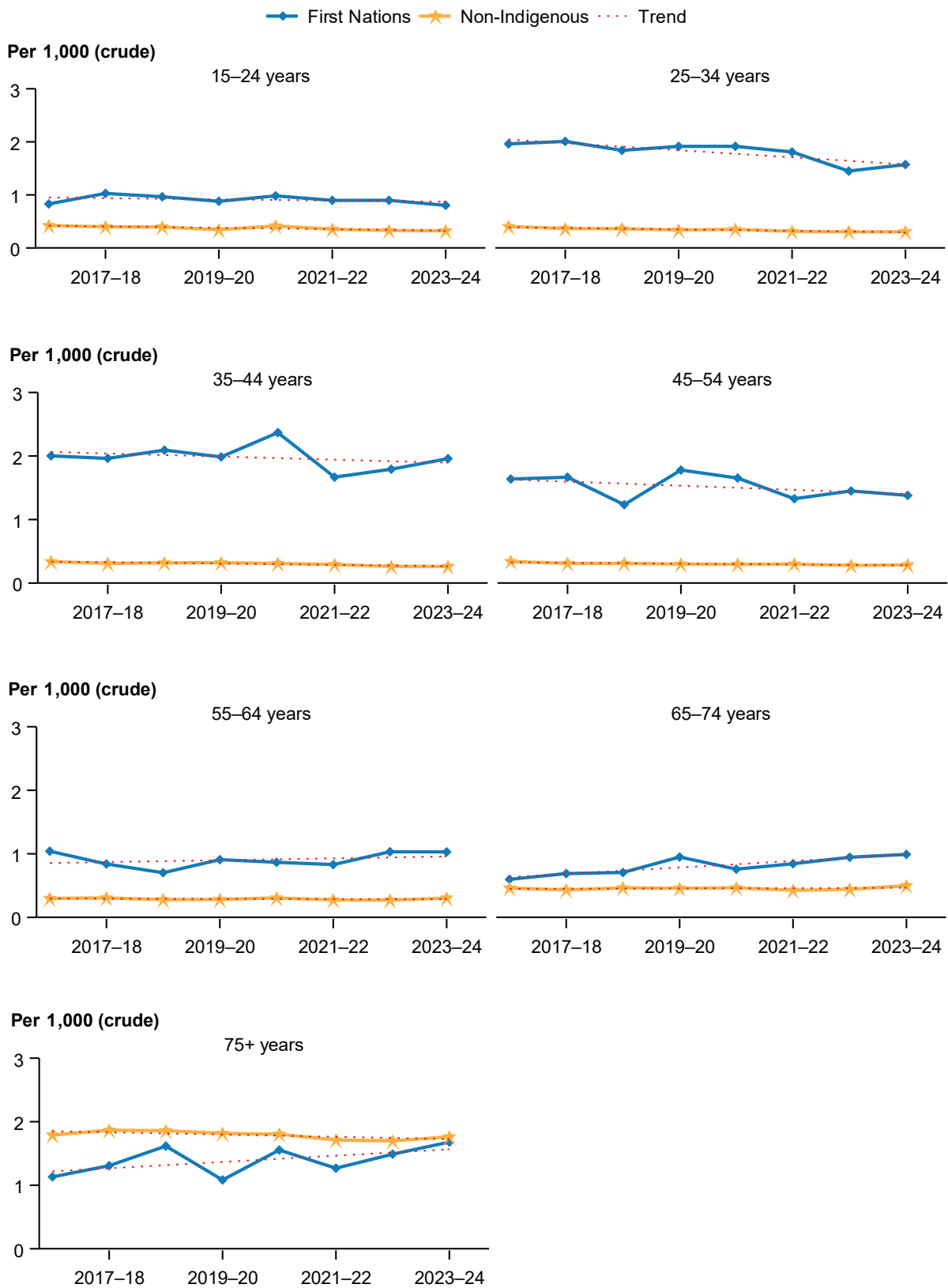
2. Data for these figures are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

(continued)

Figure 3.2 (continued): Hospitalisations for injuries to the eye, by Indigenous status, by various characteristics

g) By age group, 2016–17 to 2023–24

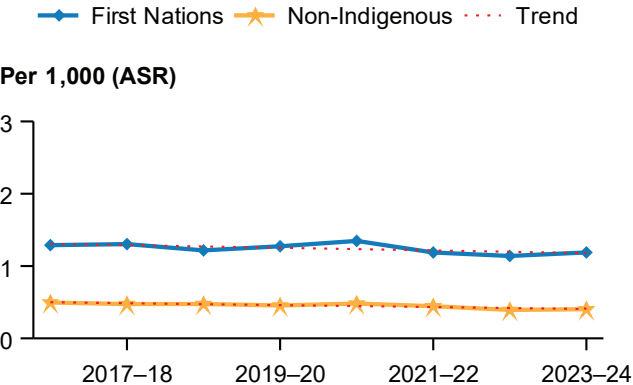


Note: Data for these figures are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

Figure 3.2 (continued): Hospitalisations for injuries to the eye, by Indigenous status, by various characteristics

h) All ages, 2016–17 to 2023–24

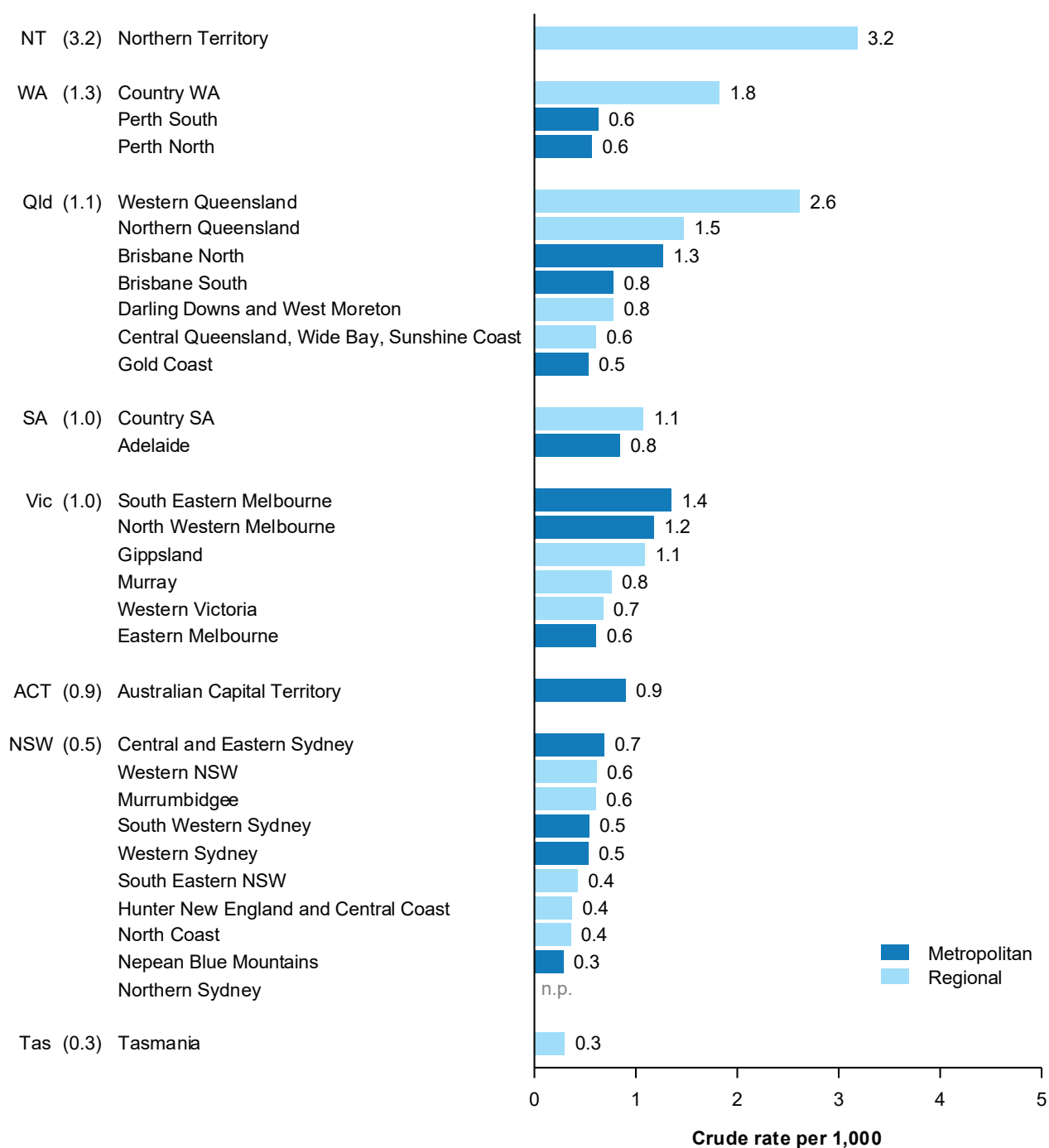


ASR = age-standardised rate.

Note: Data for this figure is available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

Figure 3.2i: Hospitalisations for injuries to the eye, First Nations people, by PHN, 2022–24

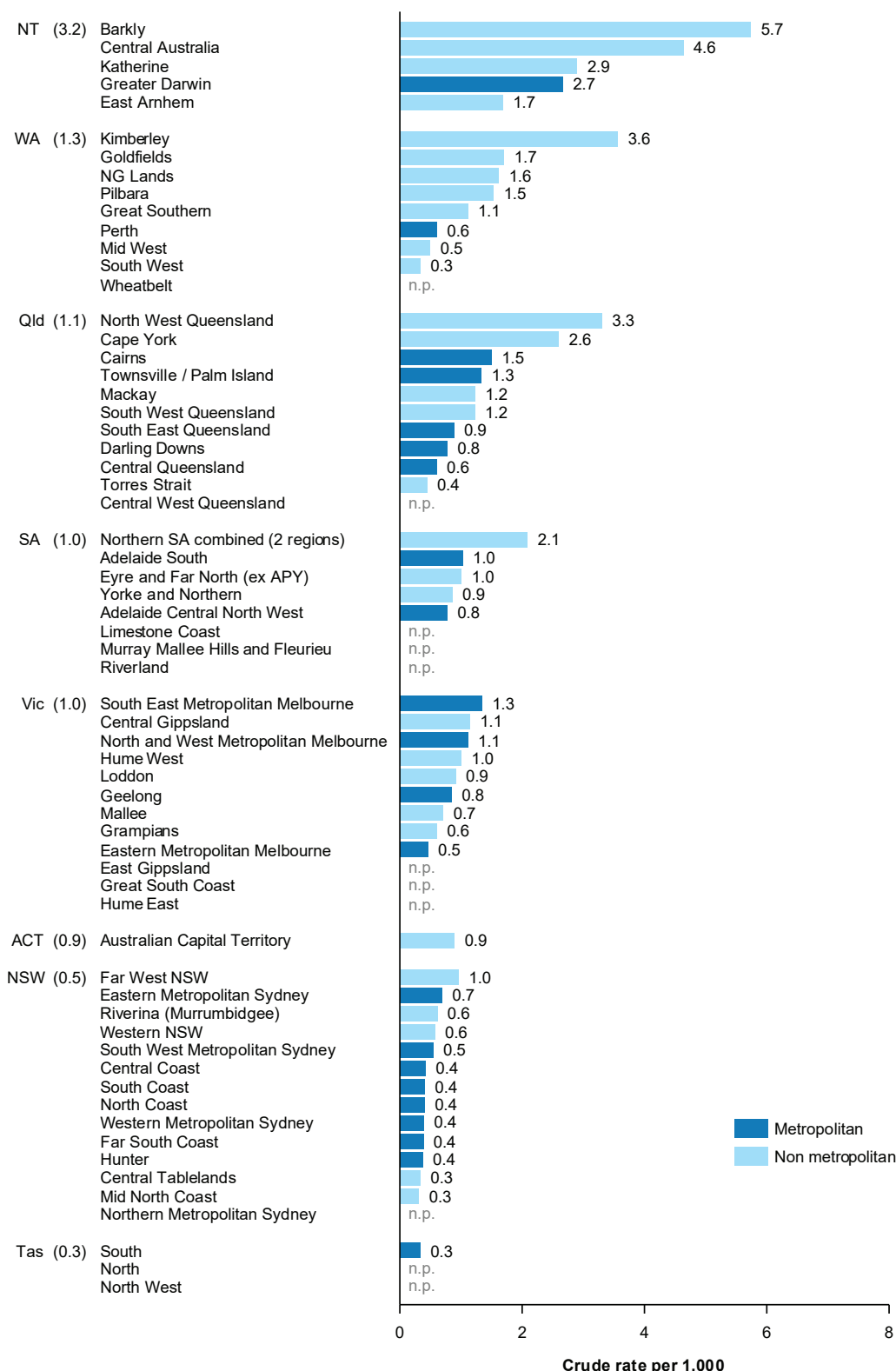


Notes

1. The percentages in brackets beside the jurisdiction labels relate to the overall crude rate of hospitalisation for eye injuries in that jurisdiction.
2. Data for this figure are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

Figure 3.2j: Hospitalisations for injuries to the eye, First Nations people, by Roadmap region, 2022–24



Notes

1. The percentages in brackets beside the jurisdiction labels relate to the overall crude rate of hospitalisation for eye injuries in that jurisdiction.
2. Data for this figure are available in the online data tables.
3. APY Lands = Anangu Pitjantjatjara Yankunytjatjara Lands, NG Lands = Ngaanyatjarra Lands, Northern SA combined (2 regions) = Anangu Pitjantjatjara Yankunytjatjara (APY) Lands and Flinders and Upper North.

Source: AIHW analysis of National Hospital Morbidity Database.

Measure 3.3: Hospitalisations for eye procedures

Key findings: In the 2-year period 2022–24, there were 14,920 (7.3 per 1,000 population) hospitalisations of First Nations people for eye procedures. Between 2016–17 and 2023–24, the age-standardised hospitalisation rate for eye procedures for First Nations people increased from 8.8 to 12.7 per 1,000 population.

Overall: In the 2-year period 2022–24, there were 14,920 hospitalisations of First Nations people for eye procedures – a crude rate of 7.3 per 1,000 population.

In 2023–24, age-standardised hospitalisation rates for First Nations people for eye procedures (12.7 per 1,000) were lower than those for non-Indigenous Australians (13.7 per 1,000) (Figure 3.3a).

In 2022–24, for First Nations people, the most common hospitalisations for an eye procedure were lens procedures (4.3 per 1,000) followed by retinal procedures (1.5 per 1,000) (Figure 3.3b).

Age and sex: In 2022–24, the rate of hospitalisations for eye procedures for First Nations people and non-Indigenous Australians increased with age. Rates were similar for First Nations people and non-Indigenous Australians at younger ages but were notably higher for non-Indigenous Australians than First Nations people for those aged 75 and over (Figure 3.3c).

For First Nations people in 2022–24, age-specific hospitalisation rates for eye procedures were highest for males and females in the 75 and over age group (81.9 and 81.5 per 1,000, respectively).

Remoteness: In 2022–24, age-standardised rates of hospitalisations for First Nations people for eye procedures were highest in *Remote and very remote* areas (combined) (13.8 per 1,000) (Figure 3.3d).

Jurisdiction: In 2022–24, the age-standardised hospitalisation rate for First Nations people for eye procedures was highest in Western Australia (19.0 per 1,000) (Figure 3.3e).

Time trend: Between 2016–17 and 2023–24, age-specific hospitalisation rates for eye procedures for First Nations people fluctuated but increased overall for all age groups, with the greatest increase for those aged 75 and over (Figure 3.3f). Hospitalisation rates for non-Indigenous Australians remained fairly constant for all age groups (Figure 3.3g). Hospitalisations rates for First Nations people aged 75 and over were lower than those for non-Indigenous Australians of the same age.

Between 2016–17 and 2023–24, the age-standardised hospitalisation rate for eye procedures for First Nations people increased from 8.8 to 12.7 per 1,000, while the rate for non-Indigenous Australians remained fairly constant. The trend line shows there has been a slight rise in the age-standardised hospitalisation rate for First Nations people over this time (Figure 3.3h).

PHN: In 2022–24, the PHN's with the highest reported rates of hospitalisations for First Nations people for eye procedures were Country WA (15.9 per 1,000) and Central Queensland, Wide Bay and Sunshine Coast (10.1 per 1,000) (Figure 3.3i).

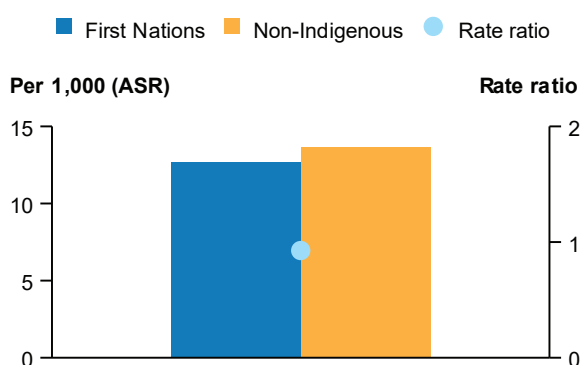
Roadmap region: In 2022–24, the Roadmap region with the highest hospitalisation rate for First Nations people for eye procedures was Mid West (23.8 per 1,000) (Figure 3.3j).

Things to consider

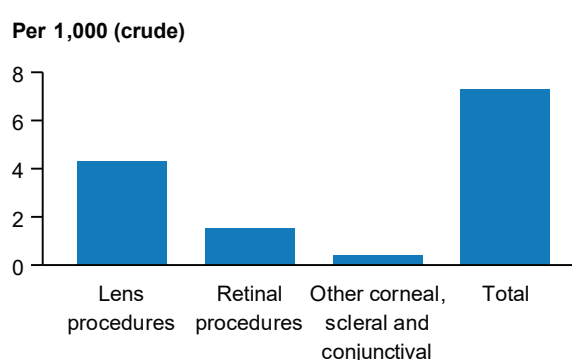
- The Australian Refined Diagnosis Related Group (AR-DRG) was used to disaggregate this measure into types of eye procedure. Each AR-DRG represents a class of patients with similar clinical conditions requiring similar hospital resources.
- The data may underestimate the number of procedures provided, as they do not include those undertaken on an outpatient basis.
- Hospitalisations data presented by state and territory and remoteness area in this report are based on the patient's place of usual residence.
- PHN (or Roadmap region and IREG) data is derived using a concordance between Statistical Areas (SA) and PHNs (or Roadmap regions and IREG). This method may result in minor discrepancies when compared with state or territory totals, particularly where an entire state is represented by a single PHN (or Roadmap region and IREG).
- The quality of data provided for First Nations status varies. Time series analyses may also be affected by changes in the quality of First Nations identification over time.
- Age-standardised and age-specific rates are both presented (see Box 4 – Population rates).

Figure 3.3: Hospitalisations for eye procedures, by various characteristics

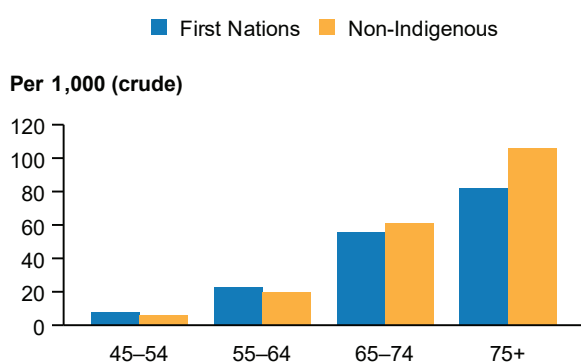
a) By Indigenous status, 2023–24



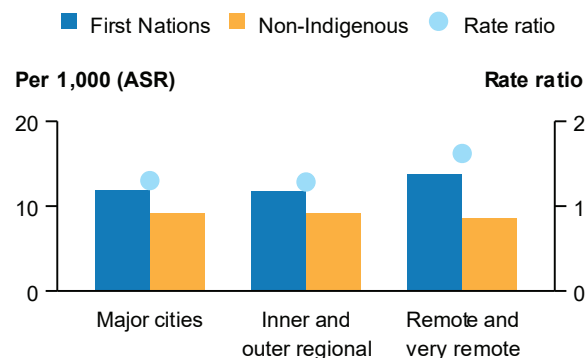
b) First Nations, by procedure type, 2022–24



c) By Indigenous status and age, 2022–24



d) By remoteness, 2022–24



ASR refers to the age-standardised rate.

Notes

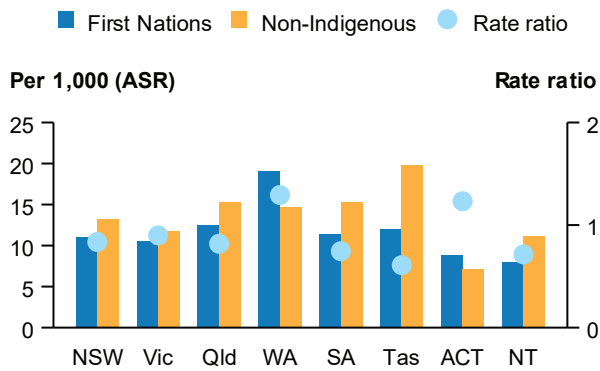
1. Figure (b) shows the top 4 principal diagnoses for First Nations people.
2. Data for these figures are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

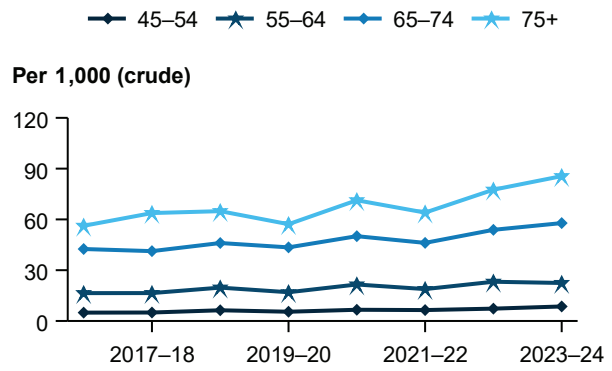
(continued)

Figure 3.3 (continued): Hospitalisations for eye procedures, by Indigenous status, by various characteristics

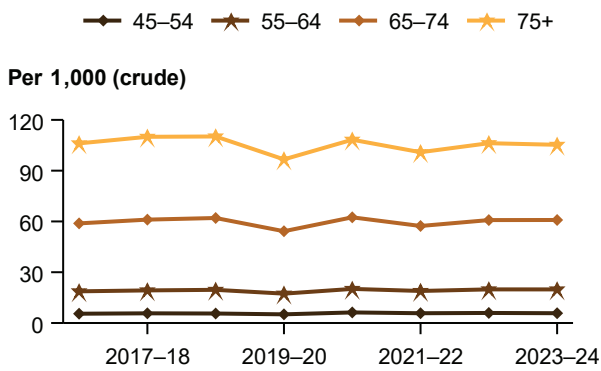
e) By jurisdiction, 2022–24



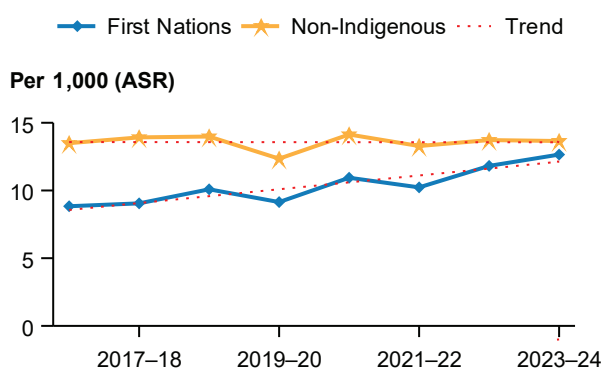
f) First Nations by age, 2016–17 to 2023–24



g) Non-Indigenous by age, 2016–17 to 2023–24



h) Time trend, 2016–17 to 2023–24

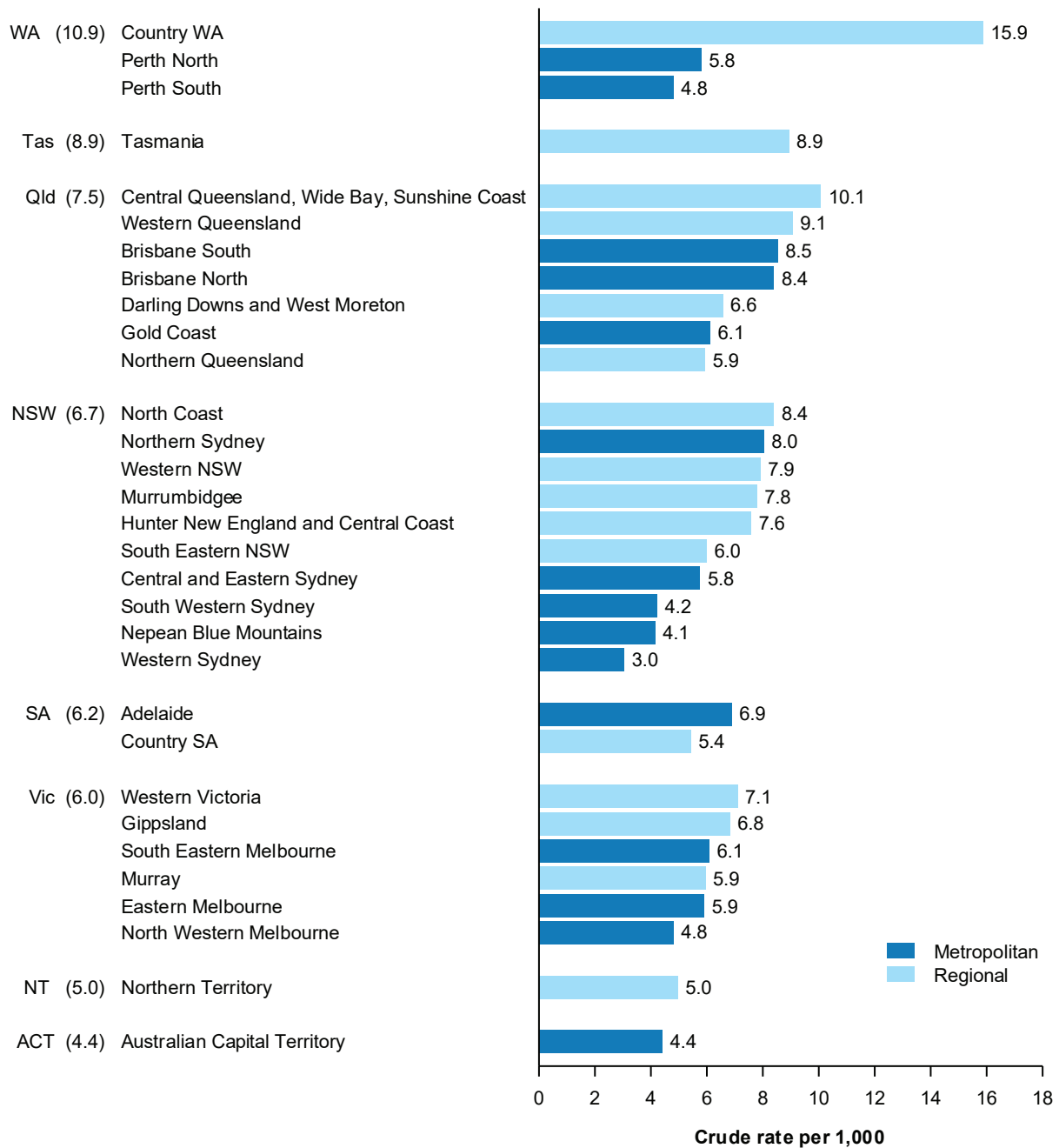


ASR refers to the age-standardised rate.

Note: Data for these figures are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

Figure 3.3i: Hospitalisations for eye procedures, First Nations people, by PHN, 2022-24

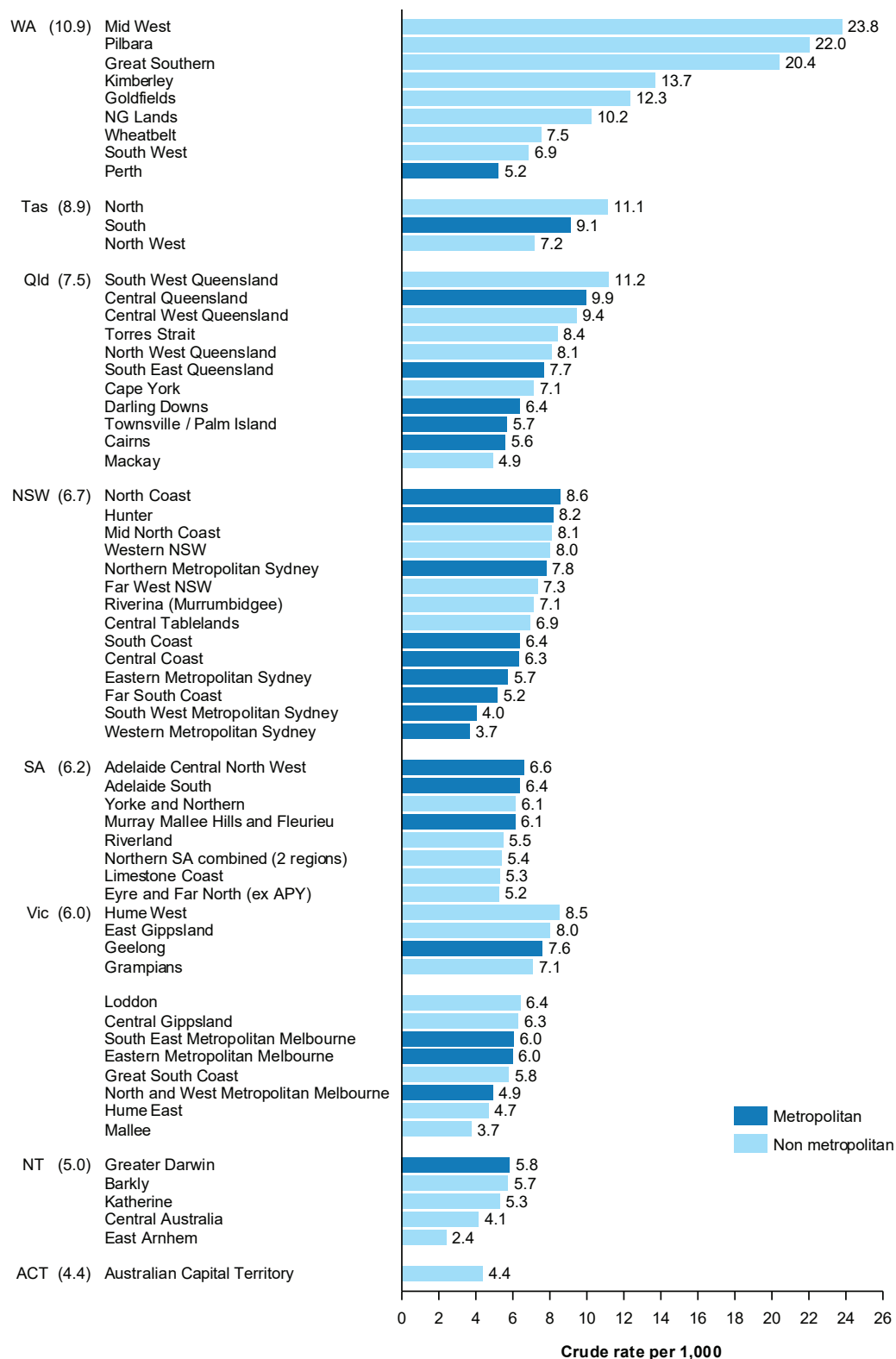


Notes

1. The percentages in brackets beside the jurisdiction labels relate to the overall crude rate of hospitalisation for eye procedures in that jurisdiction.
2. Data for this figure are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

Figure 3.3j: Hospitalisations for eye procedures, First Nations people, by Roadmap region, 2022-24



Notes

1. The percentages in brackets beside the jurisdiction labels relate to the overall crude rate of hospitalisation for eye procedures in that jurisdiction.
2. Data for this figure are available in the online data tables.
3. APY Lands = Anangu Pitjantjatjara Yankunytjatjara Lands, Northern SA combined (2 regions) = Anangu Pitjantjatjara Yankunytjatjara (APY) Lands and Flinders and Upper North.

Source: AIHW analysis of National Hospital Morbidity Database.

Measure 3.4: Cataract surgery rate

Key findings: In the 2-year period from 2022–24, there were 9,671 (4,736 per 1,000,000 population) hospitalisations for First Nations people for cataract surgery. Between 2016–17 and 2023–24, the age-standardised rate for cataract surgery for First Nations people increased from 6,530 to 8,849 per 1,000,000.

Overall: In the 2-year period from 2022–24, there were 9,671 hospitalisations for First Nations people for cataract surgery – a rate of 4,736 per 1,000,000 population. The number of hospitalisations over the 2-year period from 2022–24 was below the estimated number of First Nations people needing cataract surgery (17,031) (IEHU 2017).

In 2023–24, the age-standardised hospitalisation rate for First Nations people for cataract surgery (8,849 per 1,000,000) was lower than that for non-Indigenous Australians (9,204 per 1,000,000) (Figure 3.4a).

Age and sex: In 2022–24, rates of cataract surgery increased with age and were highest for those aged 75 and over. The difference in First Nations and non-Indigenous rates of cataract surgery was greatest for those aged 75 and over (63,464 and 69,453 per 1,000,000, respectively) (Figure 3.4b).

For First Nations people in 2022–24, age-specific hospitalisation rates for cataract surgery were highest for males and females in the 75 and over age group (63,991 and 63,051 per 1,000,000, respectively).

Remoteness: In 2022–24, the age-standardised rate of hospitalisations for First Nations people for cataract surgery was highest in *Remote and very remote* areas (combined) (9,275 per 1,000,000) (Figure 3.4c).

Jurisdiction: In 2022–24, the jurisdictions with the highest age-standardised hospitalisation rates for cataract surgery for First Nations people were Western Australia (11,526 per 1,000,000), South Australia (8,830 per 1,000,000) and New South Wales (8,438 per 1,000,000) (Figure 3.4d).

Time trend: Age-specific hospitalisation rates for First Nations people and non-Indigenous Australians for cataract surgery fluctuated but increased overall in all age-groups from 2016–17 to 2023–24 (Figure 3.4e). In 2023–24, the rate of hospitalisations was higher for First Nations people aged 45–54 and 55–64 than for non-Indigenous Australians of the same age. However, at older ages, rates were higher for non-Indigenous Australians than First Nations people.

Between 2016–17 and 2023–24, the age-standardised rate for cataract surgery for First Nations people fluctuated but increased overall from 6,530 to 8,849 per 1,000,000. The rate for non-Indigenous Australians also fluctuated but increased overall from 8,572 in 2016–17 to 9,204 in 2023–24. The trend line shows a slight rise in the age-standardised hospitalisation rate for First Nations people over this time (Figure 3.4f).

PHN: In 2022–24, the PHNs with the highest reported rates of hospitalisations for First Nations people for cataract surgery were Country WA (8,477 per 1,000,000) and North Coast (6,207 per 1,000,000) (Figure 3.4g).

Roadmap region: In 2022–24, 3 Roadmap regions, Mid West, Kimberley and Goldfields all in Western Australia, exceeded the estimated need for cataract surgery. These regions had hospitalisation rates

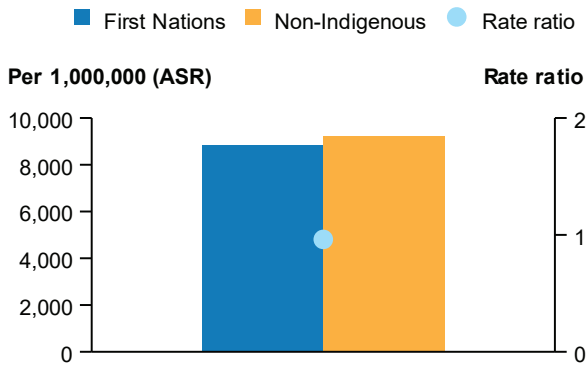
greater than 10,100 per 1,000,000 population (figures 3.4h and 3.4i). The estimated need for cataract surgery provides a target for the provision of eye care services for First Nations people and facilitates the planning of services but is not a limit on the need for services.

Things to consider

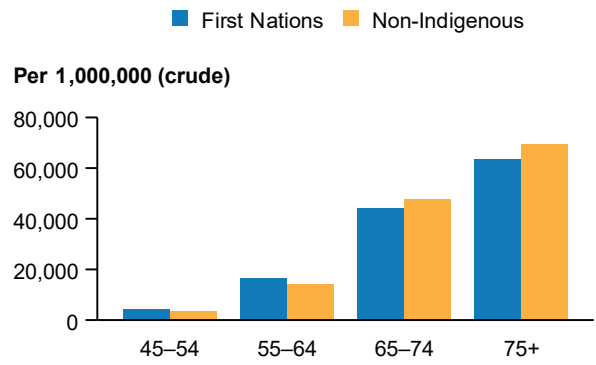
- The cataract surgery rate was calculated per 1,000,000 to align with international standards (WHO 2013).
- Almost all (96%) cataract surgery in Australia is undertaken on a same-day basis. The data do not include outpatient surgery and may underestimate the number of procedures.
- Hospitalisations data presented by state and territory and remoteness area in this report are based on the patient's place of usual residence.
- PHN (or Roadmap region and IREG) data is derived using a concordance between Statistical Areas (SA) and PHNs (or Roadmap regions and IREG). This method may result in minor discrepancies when compared with state or territory totals, particularly where an entire state is represented by a single PHN (or Roadmap region and IREG).
- Time series analyses may be affected by changes in the quality of First Nations identification over time.
- The estimated annual number of First Nations people needing cataract surgery was derived from the calculator for the delivery and coordination of eye care services developed by the Indigenous Eye Health Unit (IEHU) at the University of Melbourne. The calculations are first-order estimates based on condition prevalence rates from the NEHS (2009) and models of service delivery developed in the Roadmap to Close the Gap for Vision (2012) and should be interpreted with caution.
- Figures present age-standardised and age-specific rates (see Box 4 – Population rates).

Figure 3.4: Hospitalisations for cataract surgery, by Indigenous status, by various characteristics

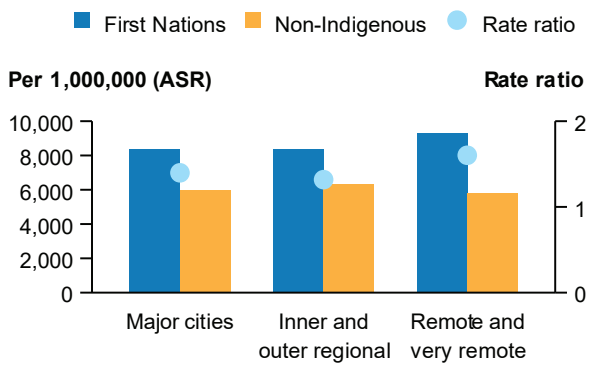
a) By Indigenous status, 2023–24



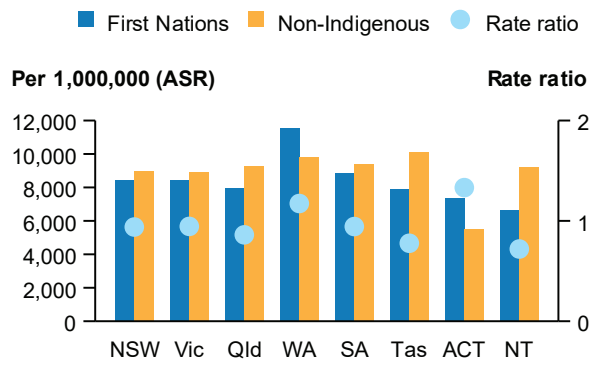
b) By Indigenous status and age, 2022–24



c) By remoteness, 2022–24



d) By jurisdiction, 2022–24



ASR = age-standardised rate.

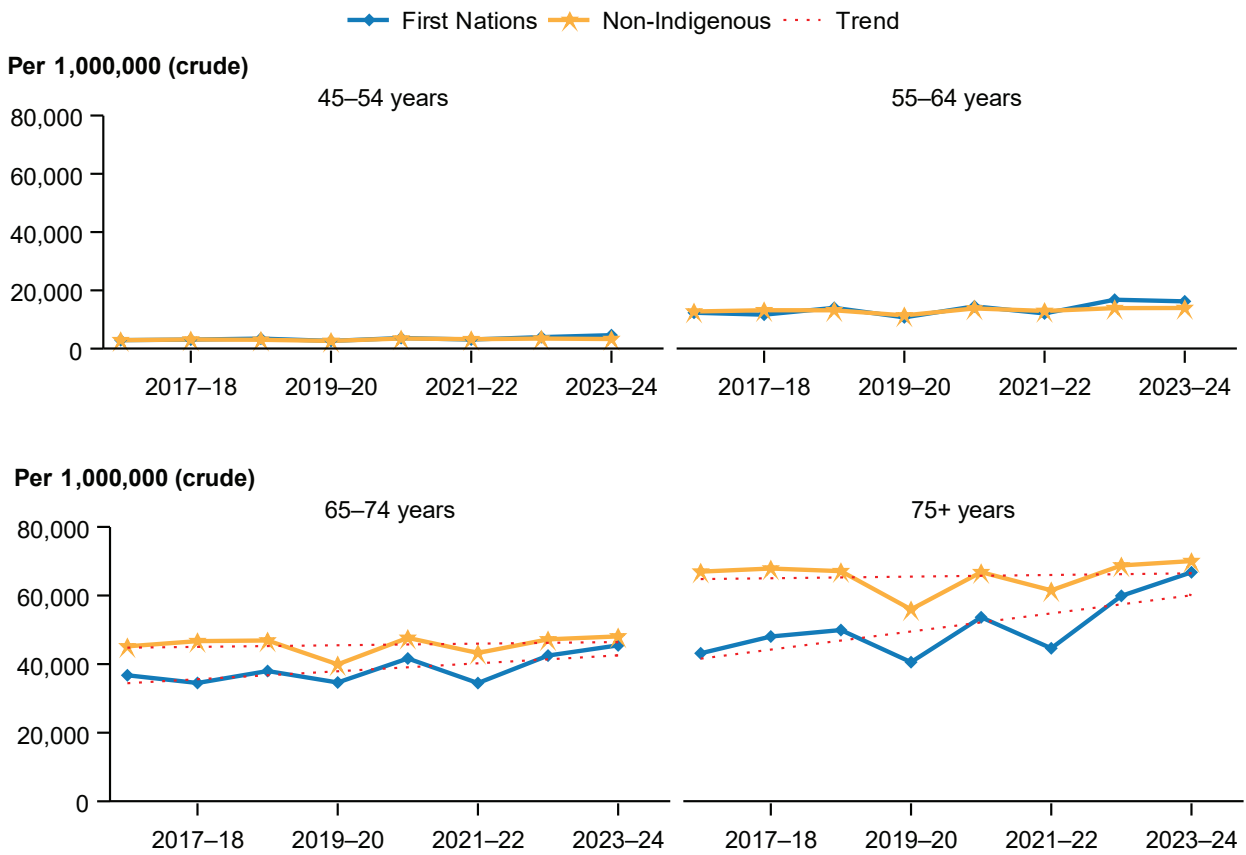
Note Data for these figures are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

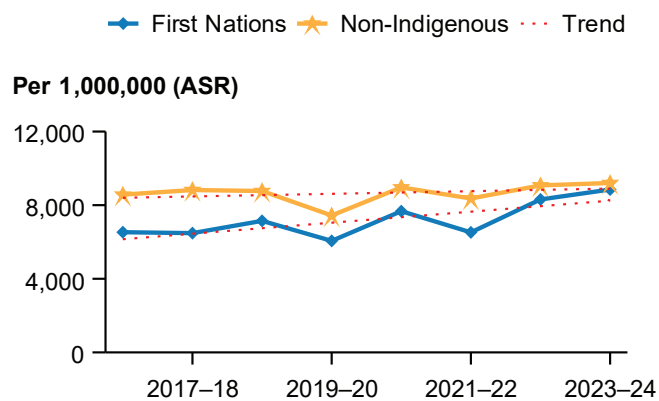
(continued)

Figure 3.4 (continued): Hospitalisation rates for cataract surgery, by Indigenous status, by various characteristics

e) By age group, 2016–17 to 2023–24



f) All ages, 2016–17 to 2023–24

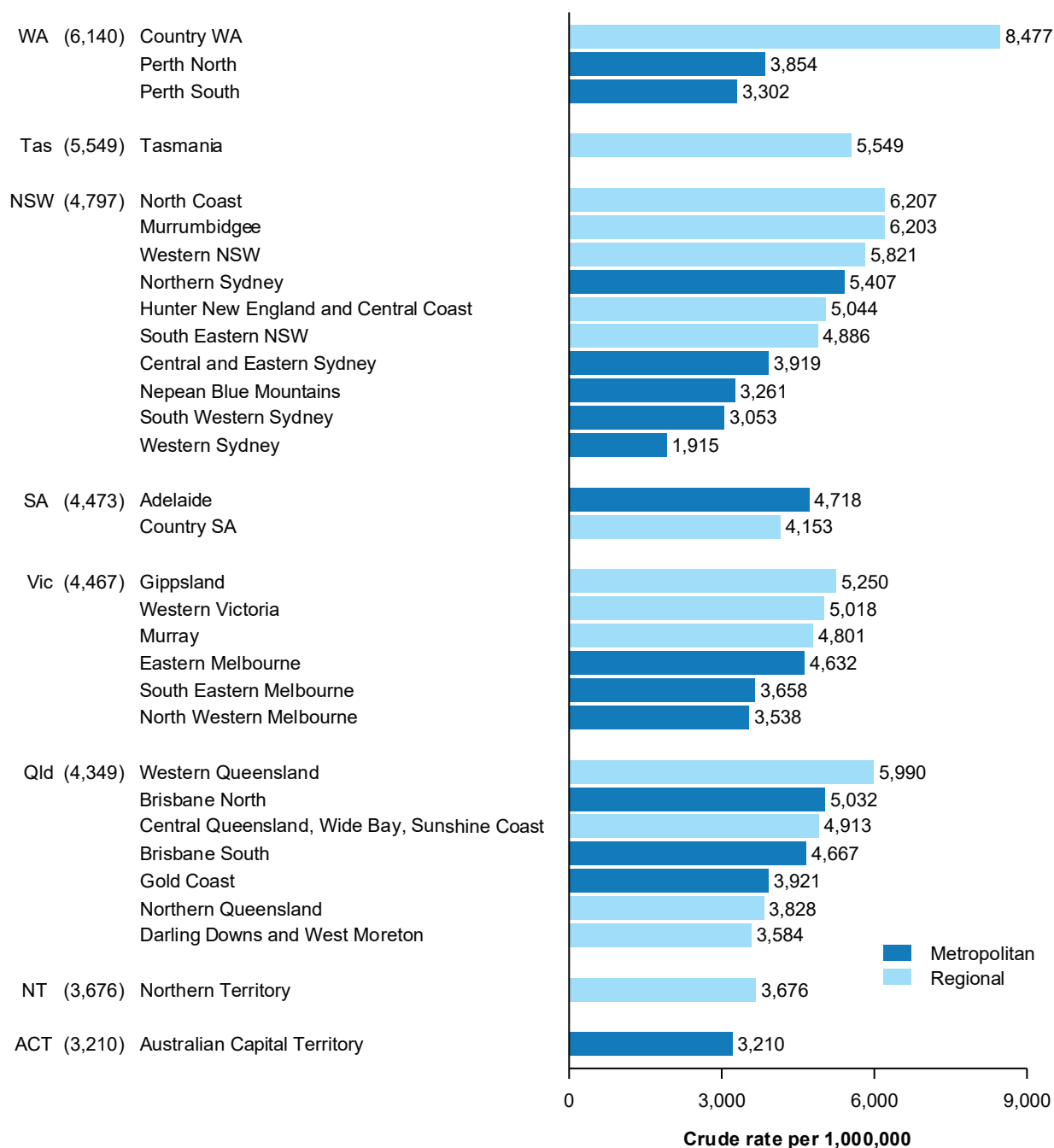


ASR refers to the age-standardised rate

Note: Data for these figures are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

Figure 3.4g: Hospitalisation rates for cataract surgery, First Nations people, by PHN, 2022–24

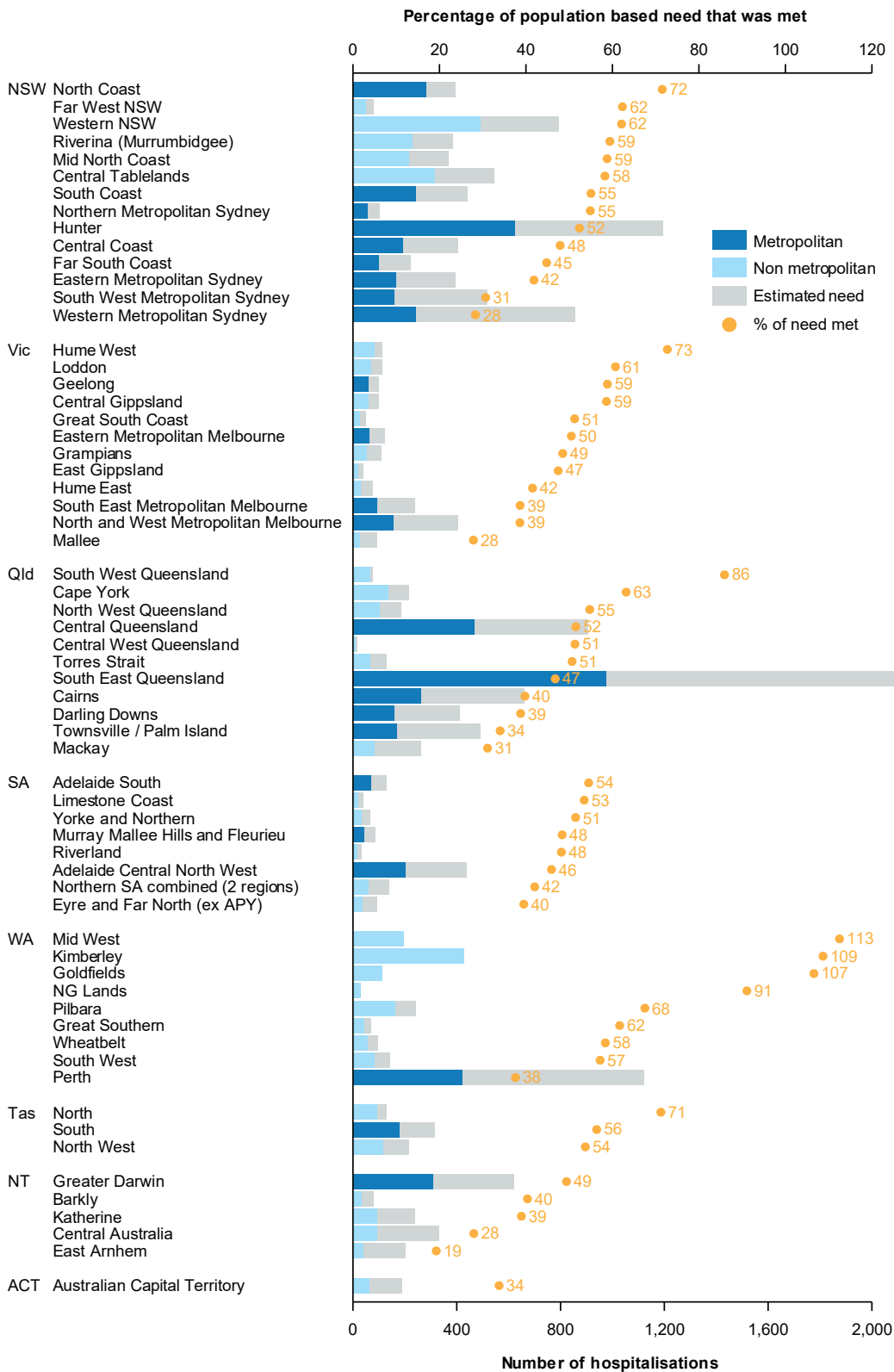


Notes

1. The percentages in brackets beside the jurisdiction labels relate to the overall crude rate of hospitalisation for eye procedures in that jurisdiction.
2. Data for this figure are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

Figure 3.4h: Hospitalisations and estimated need for cataract surgery, First Nations people, by Roadmap region, 2022–24

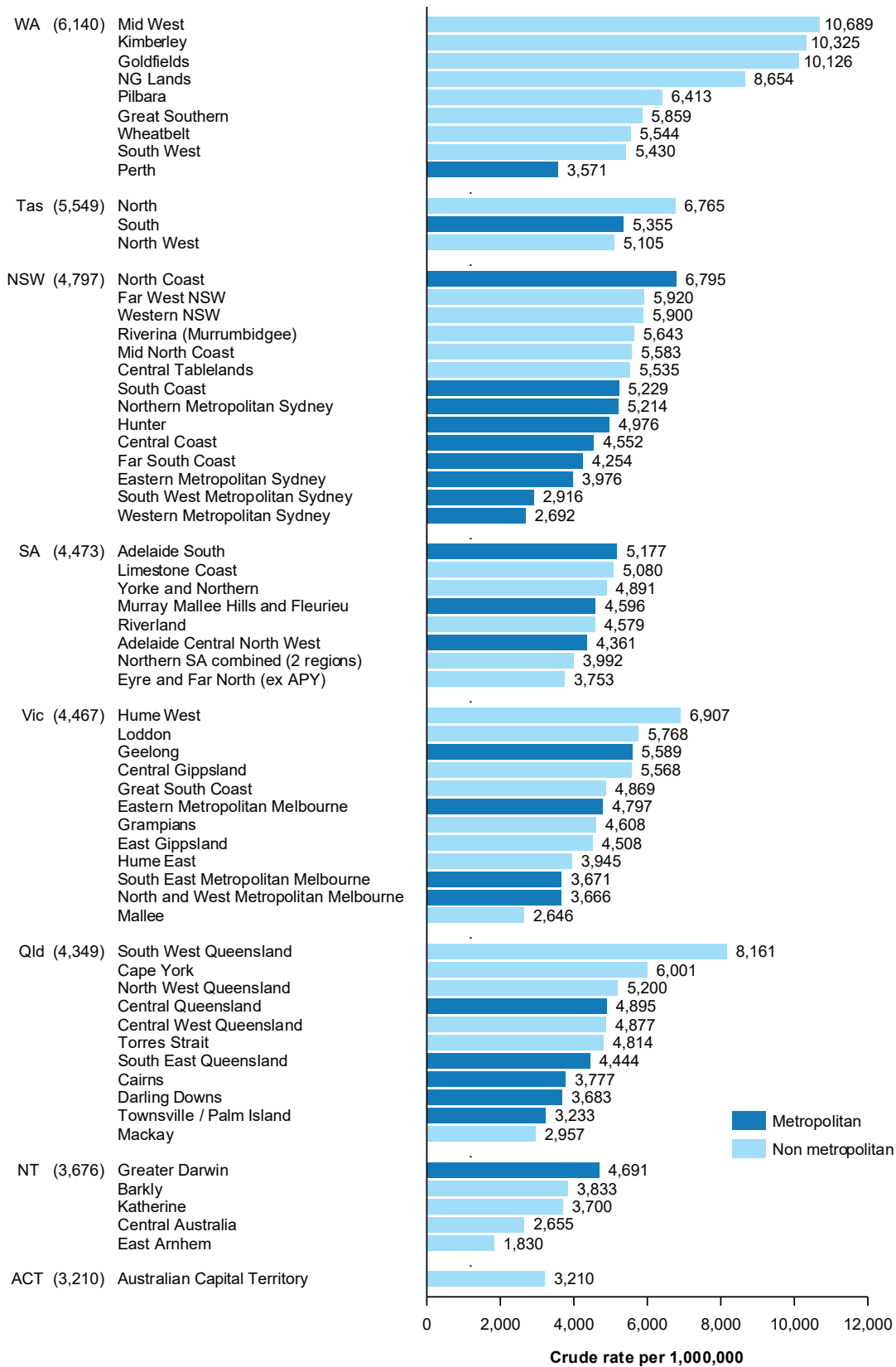


Notes

1. South coast region includes Jervis Bay.
2. Data for this figure are available in the online data tables.
3. APY Lands = Anangu Pitjantjatjara Yankunytjatjara Lands, NG Lands = Ngaanyatjarra Lands, Northern SA combined (2 regions) = Anangu Pitjantjatjara Yankunytjatjara (APY) Lands and Flinders and Upper North.

Sources: AIHW analysis of National Hospital Morbidity Database, and AIHW analysis of calculator for the delivery and coordination of eye care services (IEHU).

Figure 3.4i: Hospitalisations for cataract surgery, First Nations people, by Roadmap region, 2022–24



Notes

1. Data for this figure are available in the online data tables.
2. APY Lands = Anangu Pitjantjatjara Yankunytjatjara Lands, NG Lands = Ngaanyatjarra Lands, Northern SA combined (2 regions) = Anangu Pitjantjatjara Yankunytjatjara (APY) Lands and Flinders and Upper North.

Source: AIHW analysis of National Hospital Morbidity Database.

Measure 3.5: Cataract surgical coverage rate

Key finding: Based on the latest AEEHS 2025 data, the cataract surgical coverage rate for First Nations survey participants was 87% while the effective cataract surgery coverage was 71%.

3.5.1 NEHS coverage rate

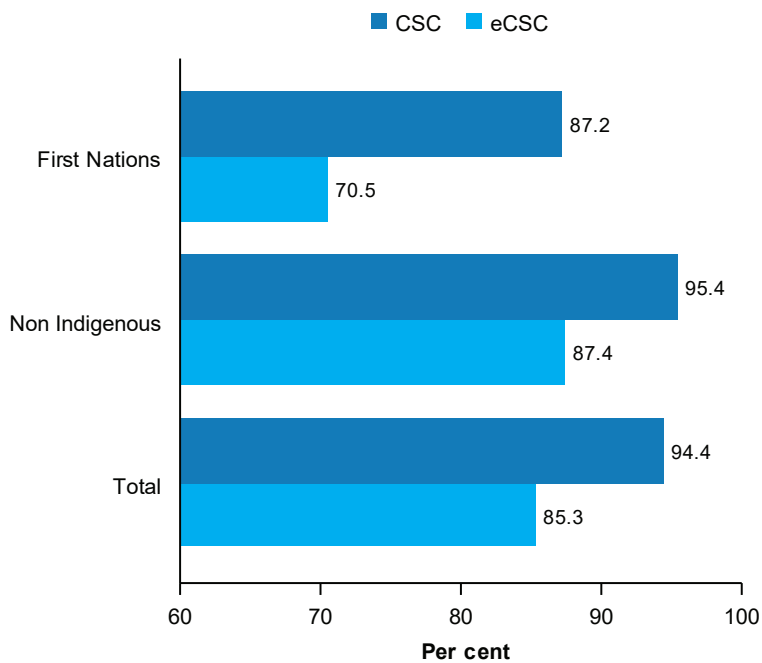
Overall: Based on the latest available AEEHS 2025, the total cataract surgical coverage rate among survey participants was 94%. Coverage rate among First Nations participants was 87%, lower than the rate for non-Indigenous participants (95%) (Figure 3.5.1a).

The total effective cataract surgery coverage rate was 85%, with lower rates observed for First Nations participants (71%) compared with non-Indigenous participants (87%) (Figure 3.5.1b).

Things to consider

- Data are from the 2025 AEEHS, a sample survey of 617 First Nations people and 3,902 non-Indigenous Australians aged 50 and over for the eye survey component. The survey included an eye examination.
- Population estimates have not been calculated so AEEHS results are only representative of the sample selected.
- Effective cataract surgery coverage (eCSC) is a clinical measure of quality which uses post-operative visual acuity to quality-correct cataract surgical coverage.
- Member states at the 74th World Health Assembly endorsed a global target of increasing eCSC by 30 percentage points by 2030. Countries with a baseline eCSC of 70% or higher were encouraged to pursue universal eye care coverage.

Figure 3.5: Cataract surgery coverage, by Indigenous status, 2022–25



Notes

1. Cataract surgery coverage (CSC) using the AEEHS definition is a service coverage indicator that measures the number of people in a population who have been operated on for cataract as a proportion of all people operated on or still requiring surgery
2. Effective CSC (eCSC) is a clinical measure of quality which uses post-operative visual acuity to quality-correct cataract surgical coverage.
3. Data for these figures are available in the online data tables.

Source: Australian Eye and Ear Health Survey 2025.

Measure 3.6: Waiting times for elective cataract surgery

Key findings: In 2023–24, the days waited at the 50th percentile for elective cataract surgery for First Nations people was longer than that for non-Indigenous Australians (138 and 114 days, respectively). From 2012–13 to 2023–24, the days waited at the 50th percentile for elective cataract surgery for First Nations people fluctuated, but overall, decreased slightly from 140 days to 138 days.

3.6.1 Median (50th percentile) and 90th percentile waiting times

Overall: In 2023–24, there were 2,504 admissions for First Nations people from public hospitals waiting lists for elective cataract surgery. The days waited at the 50th percentile for elective cataract surgery for First Nations people (138 days) was longer than that for non-Indigenous Australians (114 days). The average number of days waited was also longer for First Nations people than non-Indigenous Australians (180 days and 158 days, respectively). The days waited at the 90th percentile for First Nations people who were admitted for cataract surgery was longer than that for non-Indigenous Australians (356 days and 351 days, respectively).

Remoteness: In 2022–24, the days waited at the 50th percentile was longest in *Inner regional* and *Remote* areas for First Nations people (174 days) and in *Inner regional* areas for non-Indigenous Australians – 179 days. The days waited at the 50th percentile for First Nations people were shortest in *Major cities* (104 days) and shortest for non-Indigenous Australians in *Remote* areas (77 days) (Figure 3.6.1a).

The number of days within which 90% of patients were admitted for elective cataract surgery was longest for First Nations people in *Outer regional* areas (365 days) and shortest for those in *Remote* areas (353 days). For non-Indigenous Australians, waiting times were longest in *Inner regional* areas (370 days) and shortest in *Very remote* areas (277 days) (Figure 3.6.1b).

Jurisdiction: In 2022–24, the days waited at the 50th percentile were longest for First Nations people and non-Indigenous Australians in New South Wales (242 days and 280 days, respectively) (Figure 3.6.1c).

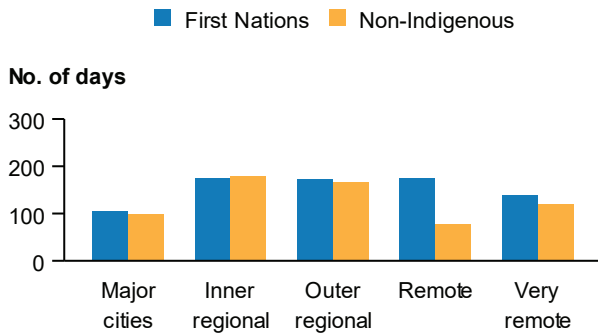
At the 90th percentile, days waited were longest for First Nations people and non-Indigenous Australians in New South Wales (370 days and 390 days, respectively) (Figure 3.6.1d).

Time trend: Between 2017–18 and 2023–24, the days waited at the 50th percentile for elective cataract surgery for First Nations people fluctuated, but overall rose from 132 days to 138 days. The days waited at the 50th percentile for non-Indigenous Australians also fluctuated between 2017–18 and 2023–24, but overall rose from 84 days to 114 days (Figure 3.6.1e).

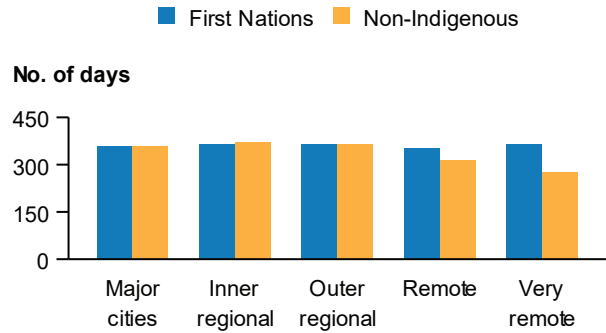
From 2017–18 to 2023–24, the number of days waited at the 90th percentile was, with one exception, greater for First Nations people than for non-Indigenous Australians. In 2022–23 fewer days were waited at the 90th percentile by First Nations people than by non-Indigenous Australians (369 and 381 days, respectively) (Figure 3.6.1f). The average number of days waited was greater for First Nations than non-Indigenous Australians from 2017–18 to 2023–24.

Figure 3.6.1: Waiting times for elective cataract surgery (days waited at the 50th and 90th percentiles), by Indigenous status, by various characteristics

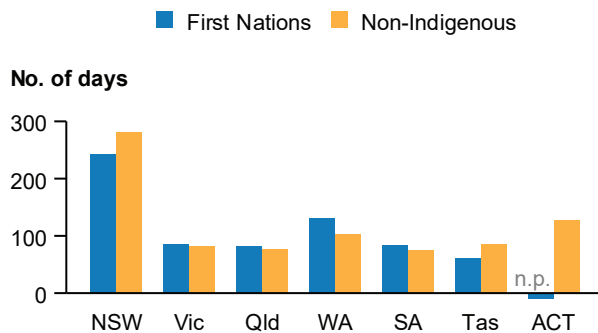
a) By remoteness, days waited, 50th percentile, 2022–24



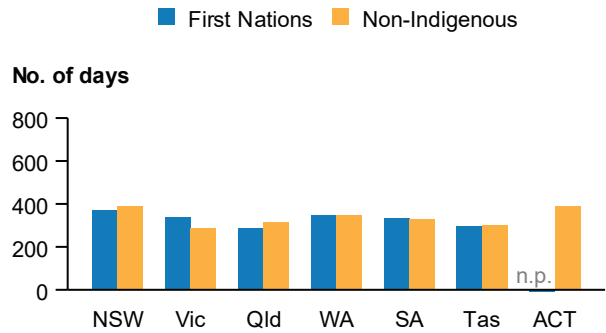
b) By remoteness, days waited, 90th percentile, 2022–24



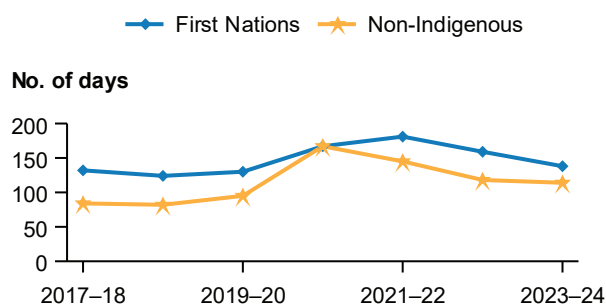
c) By jurisdiction, days waited, 50th percentile, 2022–24



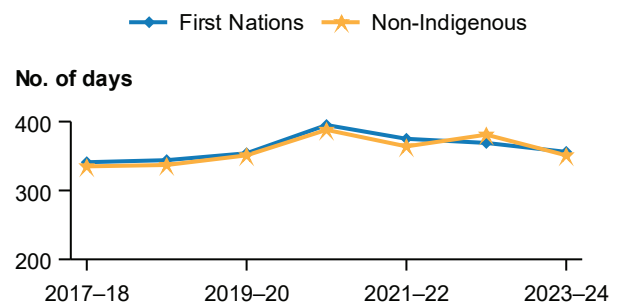
d) By jurisdiction, days waited, 90th percentile, 2022–24



e) Time trend, days waited at the 50th percentile, 2017–18 to 2023–24



f) Time trend, days waited at the 90th percentile, 2017–18 to 2023–24



n.p. = not published

Note: Data for these figures are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

3.6.2 Proportion of patients treated within 90 days, and within 365 days

Overall: In 2023–24, the proportion of First Nations people who had elective cataract surgery and were treated within 90 days was less than that for non-Indigenous Australians treated within this time (39% and 43%, respectively).

The proportion of First Nations people treated within 365 days for cataract surgery was slightly lower than that for non-Indigenous Australians treated within this time (92% and 93%, respectively).

Remoteness: In 2022–24, the proportion of First Nations people treated within 90 days for elective cataract surgery was highest in *Major cities* (46%) and highest for non-Indigenous Australians in *Remote* areas (53%). Proportions were lowest for First Nations people in *Remote* areas (32%) and for non-Indigenous Australians in *Inner regional* areas (36%) (Figure 3.6.2a).

The proportion of First Nations people treated within 365 days was lowest in *Outer regional* areas (90%) and highest in *Remote* areas (92%). For non-Indigenous Australians, the proportion was lowest in *Inner regional* areas (89%) and highest in *Very remote* areas (97%) (Figure 3.6.2b).

Jurisdiction: In 2022–24, the proportion of First Nations people treated within 90 days for elective cataract surgery was highest in Tasmania (60%); for non-Indigenous Australians, the proportion was highest in Queensland (55%) (Figure 3.6.2c).

Queensland, South Australia and Tasmania treated 94% or more of First Nations people within 365 days (Figure 3.6.2d).

Time trend: Between 2017–18 and 2023–24, the proportion of First Nations people treated within 90 days for elective cataract surgery fluctuated but overall remained fairly constant from 41% to 39% while the proportion of non-Indigenous Australians treated dropped from 52% to 43% (Figure 3.6.2e).

The proportion of First Nations people and non-Indigenous Australians treated within 365 days dropped between 2017–18 and 2023–24 (from 98% to 92% and from 98% to 93%, respectively) (Figure 3.6.2f).

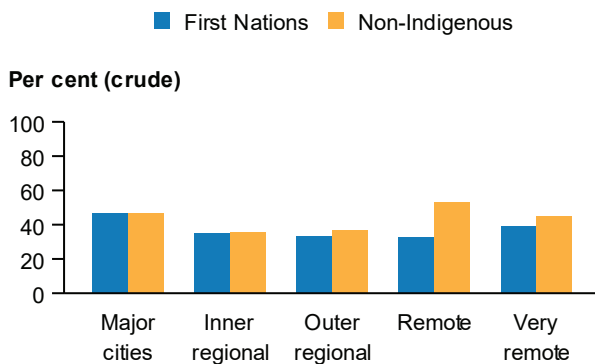
Things to consider

- This sub-measure includes data for waiting lists managed by public hospitals – and may include public patients admitted to private hospitals from public hospital waiting lists.
- There are no nationally agreed benchmarks for waiting times for cataract surgery, and there are notable variations across jurisdictions. Waiting times depend on the urgency of the referral and specific functional indicators (for example, one functional eye).
- The Queensland Health Clinical Prioritisation Criteria for cataract referrals provides 3 categories of appointment times for cataract surgery: within 30, 90 or 365 days, depending on the severity of the cataract and the impact on the patient's daily living activities <<https://cpc.health.qld.gov.au/Condition/132/cataracts>>.
- The number of days waited does not include the time waited for the initial appointment with the specialist (from the time of referral by the patient's GP or optometrist), because this information is not currently available.
- Under the National Elective Surgery Urgency Categorisation Guidelines, cataract surgery is elective (clinical urgency category 3), so the procedure is clinically indicated within 365 days (AHMAC 2015).

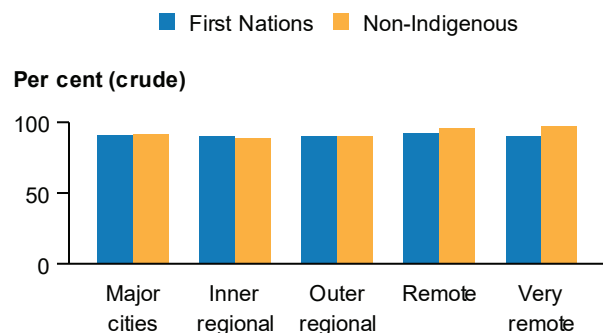
- The data may underestimate the number of procedures provided, as they do not include those undertaken on an outpatient basis.
- The quality of data provided for First Nations status varies.
- Time series analyses may be affected by changes in the quality of First Nations identification over time.

Figure 3.6.2: Waiting times for elective cataract surgery (percentage of patients treated within 90 days and within 365 days), by Indigenous status, by various characteristics

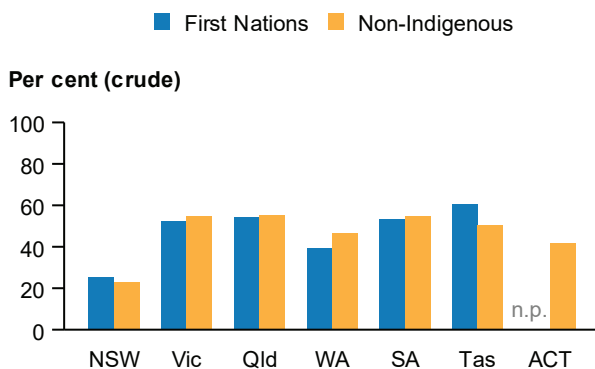
a) By remoteness, treated within 90 days, 2022–24



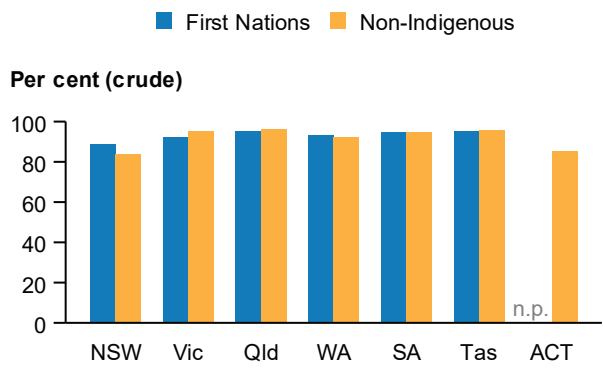
b) By remoteness, treated within 365 days, 2022–24



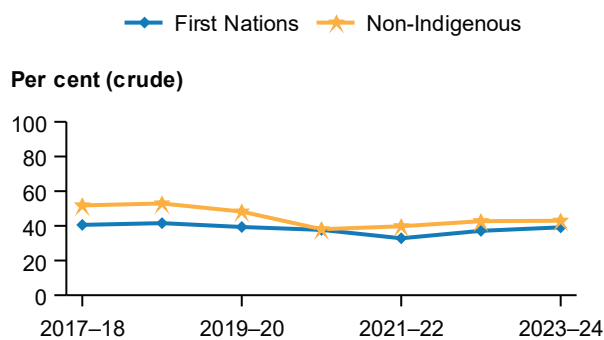
c) By jurisdiction, treated within 90 days, 2022–24



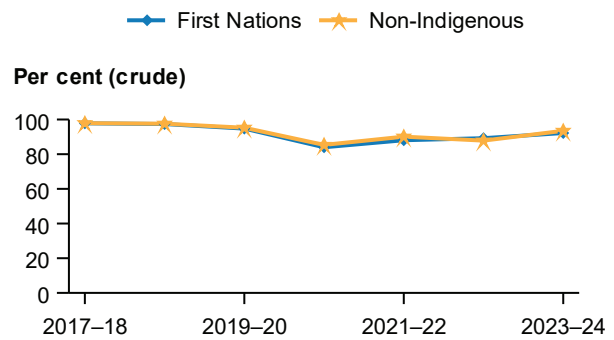
d) By jurisdiction, treated within 365 days, 2022–24



e) Time trend, treated within 90 days, 2017–18 to 2023–24



f) Time trend, treated within 365 days, 2017–18 to 2023–24



Note: Data for these figures are available in the online data tables.

Source: AIHW analysis of National Hospital Morbidity Database.

Measure 3.7: Treated for diabetic retinopathy among target population

Key finding: In 2023–24, 581 (3.6%) First Nations people screened for diabetic retinopathy underwent treatment, a slight increase from 3.3% in 2014–15.

3.7.1 Treated for diabetic retinopathy among those screened for diabetic retinopathy

Overall: In 2023–24, 581 First Nations people screened for diabetic retinopathy underwent treatment—3.6% of those screened. In 2023–24, the age standardised proportion treated was similar for First Nations people and non-Indigenous Australians (3.0% and 2.9%, respectively) (Figure 3.7.1a).

Age and sex: In 2023–24, the number of First Nations males and females treated for diabetic retinopathy rose with age while the proportion treated fluctuated over time, peaking at 4.6% (101 males) in the 55–64 age group and 4.0% (117 females), in the 65 and over age group. A higher proportion of males than females underwent treatment in all age groups except those aged 45–54 where the proportion of males and females treated was the same (Figure 3.7.1b).

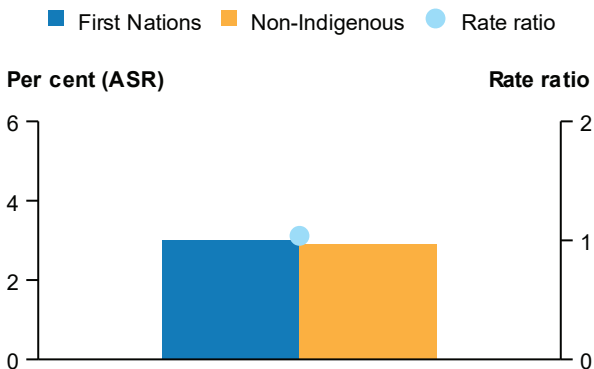
Remoteness: In 2023–24, the proportion of First Nations people who received treatment for diabetic retinopathy was highest in *Inner regional* and *Outer regional* areas (4.0% and 4.2%, respectively). The rate was lowest in *Remote* areas (1.8%) (Figure 3.7.1c).

Jurisdiction: In 2023–24, the proportion of First Nations people who received treatment for diabetic retinopathy ranged from 2.5% in Queensland to 4.9% and 3.8% in New South Wales and Western Australia, respectively. Numbers and rates were not publishable in the Australian Capital Territory and the Northern Territory (Figure 3.7.1d).

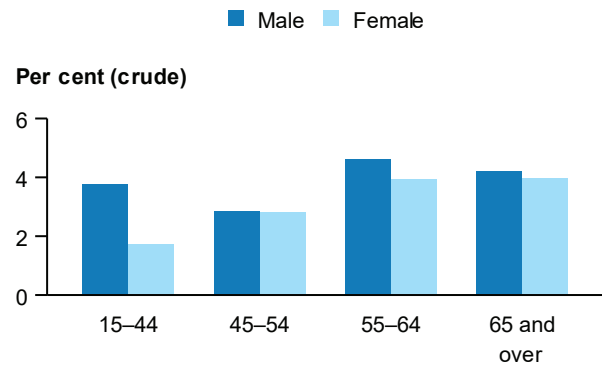
Time trend: Between 2014–15 and 2023–24, the number of First Nations people screened for diabetic retinopathy who underwent treatment fluctuated but increased overall, from 489 to 581. The proportion who underwent treatment was 3.3% in 2014–15 and 3.6% in 2023–24 (Figure 3.7.1e).

Figure 3.7.1: Population treated for diabetic retinopathy among those screened for diabetic retinopathy, by various characteristics

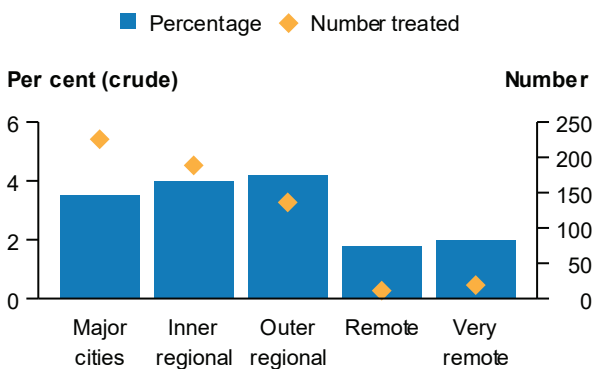
a) By Indigenous status, 2023–24



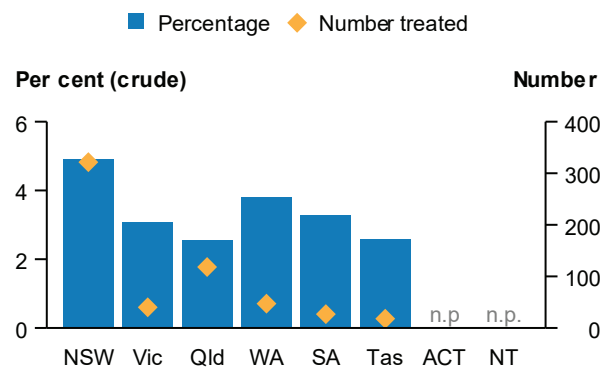
b) First Nations, by age and sex, 2023–24



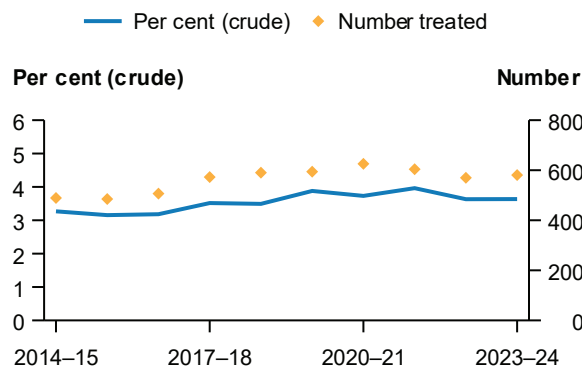
c) First Nations, by remoteness, 2023–24



d) First Nations, by jurisdiction, 2023–24



e) First Nations, time trend, 2014–15 to 2023–24



ASR = age-standardised rate.

Notes

1. Data for these figures are available in the online data tables.
2. The population screened for diabetic retinopathy comes from Measure 2.3.

Source: AIHW analysis of Medicare Benefits Schedule data.

3.7.2 Treated for diabetic retinopathy among those tested for diabetes

Overall: In 2023–24, there were 581 First Nations people screened for diabetes who underwent treatment for diabetic retinopathy. This was 1.8% of those screened for diabetes. The age-standardised proportion of those treated was slightly lower for First Nations people (1.4%) than for non-Indigenous Australians (1.5%) (Figure 3.7.2a).

Age and sex: In 2023–24, the number and proportion of First Nations males and females treated for diabetic retinopathy rose with age, peaking at 2.8% for males (117 males) and 2.5% for females (113 females) in the 65 and over age group. Across all age groups a higher proportion of males than females underwent treatment, apart from the 15–44 age group, where the proportion treated was the same (0.8%) (Figure 3.7.2b).

Remoteness: In 2023–24, the proportion of First Nations people screened for diabetes who received treatment for diabetic retinopathy was highest in *Inner regional* and *Outer regional* areas (both 2.1%) followed by *Major cities* (1.9%). The rate was lowest in *Remote* and *Very remote* areas (both 0.7%) (Figure 3.7.2c).

Jurisdiction: In 2023–24, the proportion of First Nations people screened for diabetes who received treatment for diabetic retinopathy ranged from 1.3% in Queensland and Tasmania to 2.6% in New South Wales. Numbers and rates were not publishable in the Australian Capital Territory and the Northern Territory (Figure 3.7.2d).

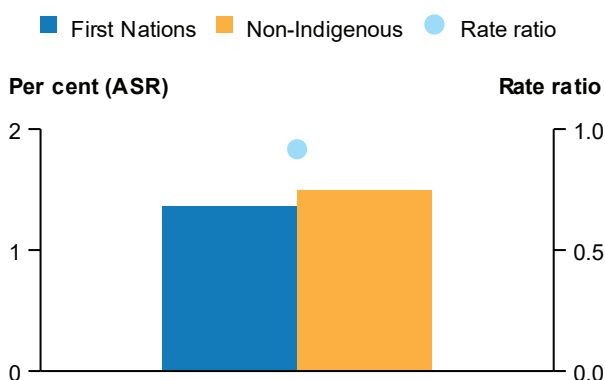
Time trend: Between 2014–15 and 2023–24, the estimated proportion of First Nations people screened for diabetes who underwent treatment rose from 1.4% to 1.8% (Figure 3.7.2e). The number screened fluctuated, but overall fell from 34,917 to 31,927 over this same period.

Things to consider

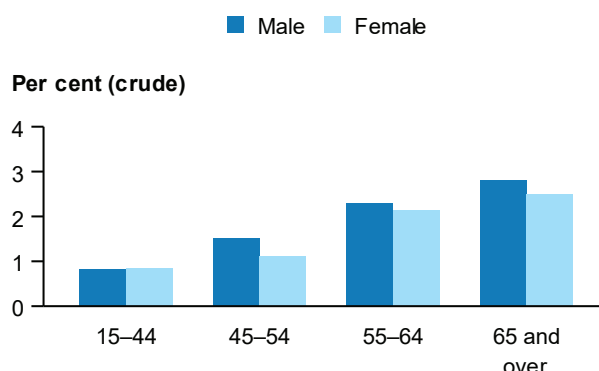
- MBS data reflect billing practices, and not necessarily all services received. For example, MBS data do not generally capture equivalent services provided by jurisdiction-funded primary health care or by public hospitals – for example, eye examinations undertaken by salaried ophthalmologists in public hospitals or intravitreal or laser procedures in outpatient settings or state facilities. Notably, in the Northern Territory, almost all treatment of diabetic retinopathy is done in public hospitals so most treatment services provided in the territory will not be captured.
- First Nations people screened for diabetes or diabetic retinopathy may not be found to have diabetes or diabetic retinopathy, so treatment rates for diabetic retinopathy may be an underestimate.
- Equivalent or similar care may also be billed as a different MBS item (such as a standard consultation).
- MBS data shown for this sub-measure were adjusted for First Nations under-identification.

Figure 3.7.2: Population treated for diabetic retinopathy among those tested for diabetes, by various characteristics

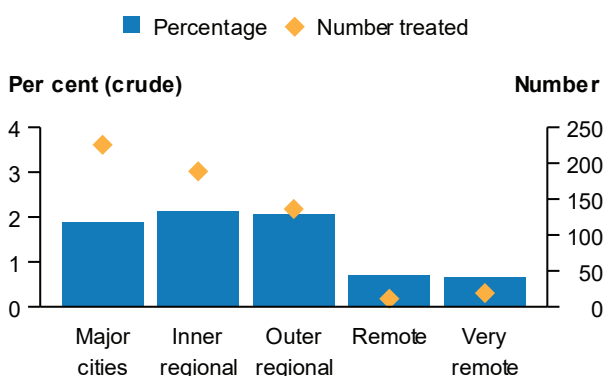
a) By Indigenous status, 2023–24



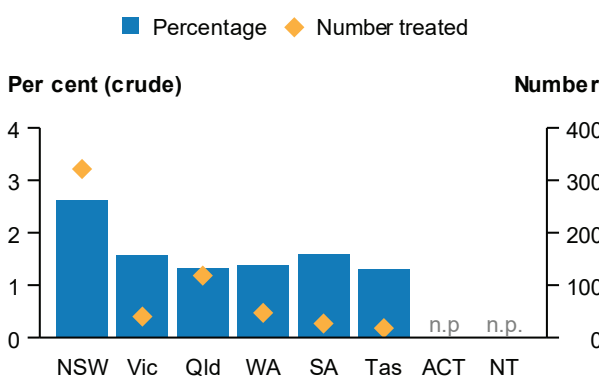
b) First Nations, by age and sex, 2023–24



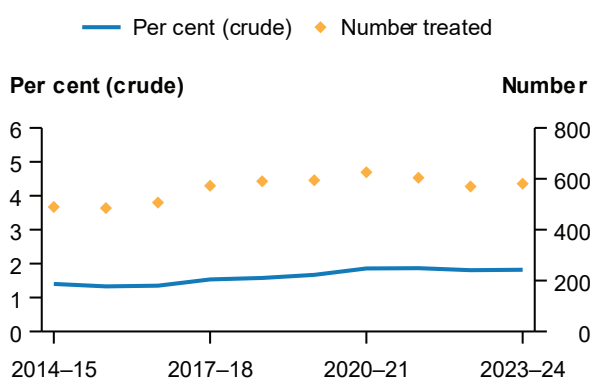
c) First Nations, by remoteness, 2023–24



d) First Nations, by jurisdiction, 2023–24



e) First Nations, time trend, 2014–15 to 2023–24



Notes

- ASR refers to the age-standardised rate.
- Data for these figures are available in the online data tables.
- The population screened for diabetes was calculated as the number who had a diabetes test within the past 2 years.

Source: AIHW analysis of MBS data.

Measure 3.8: Trachoma and trichiasis treatment coverage

Key findings: In 2024, a total of 1,674 active cases and household contacts received antibiotic treatment in communities in the Northern Territory and Western Australia where active trachoma was identified, 54% of those requiring treatment. Surgery to correct trichiasis was undertaken for six persons aged 15 years or over in 2024.

3.8.1 Trachoma

Overall: In 2024, in communities where active trachoma was identified, a total of 1,674 cases and household and community contacts received treatment, or 54% of people requiring treatment. This included 149 people aged 0–4 years (52% of those requiring treatment), 284 aged 5–9 years (74% of those requiring treatment), 186 aged 10–14 years (51% of those requiring treatment) and 1,055 aged 15 years and over (51% of those requiring treatment) (Figure 3.8.1a).

Jurisdiction: In 2024, in communities where active trachoma was identified, the proportion of cases and household and community contacts who received required treatment was 87% in Western Australia (92 people treated) and 53% in the Northern Territory (1,582 people treated). No active trachoma cases were identified in South Australia. In Queensland, screening for trachoma was not undertaken in 2023 (Figure 3.8.1b).

Things to consider

- Trachoma treatment strategies were applied in 25 communities. Treatment strategies depend on the prevalence and existence of case clustering, such as treatment of active cases and household contacts versus community-wide treatment.
- The treatment strategies are based on the screening of children aged 5–9 in all regions.

3.8.2 Trichiasis

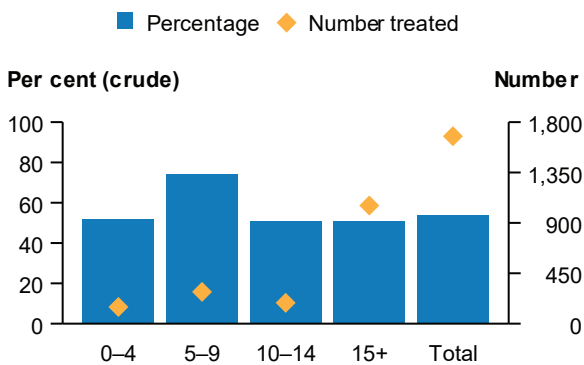
Overall: Surgery to correct trichiasis was undertaken for 6 people aged 40 years and over in 2024. Four of the 6 surgeries took place in Western Australia (Figure 3.8.2).

Things to consider

- The treatment for trichiasis referred to in this measure is surgery, but this is only one form of trichiasis treatment. Other interventions to manage trichiasis may include the epilation of inverted eyelashes, however this is considered a temporary relief measure and data for this form of treatment is not included in this report.
- Surgery may include trichiasis cases identified in previous years.

Figure 3.8.1: Cases and household and community contacts treated in communities where active trachoma was identified, by various characteristics

a) By age, 2024



b) By jurisdiction, 2024

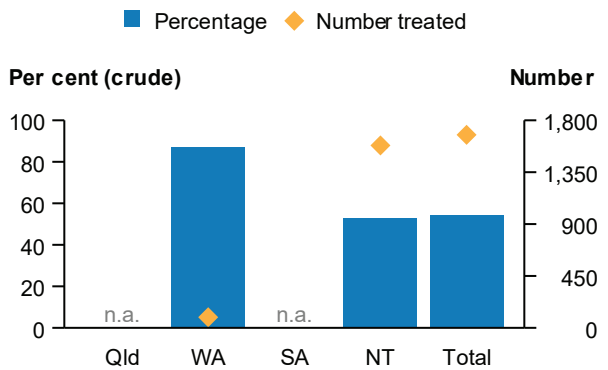
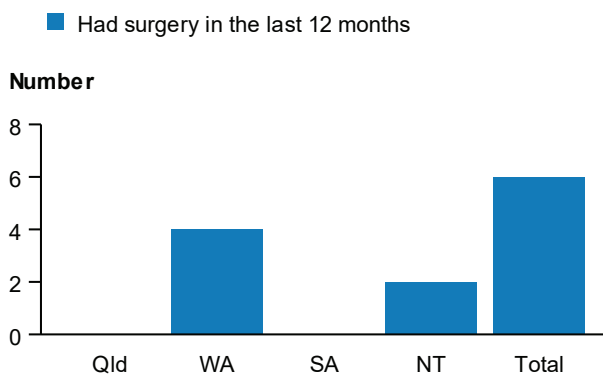


Figure 3.8.2: Trichiasis treatment occasions, by various characteristics

Aged 40 and over, by jurisdiction, 2024



Notes

1. All figures show crude rates. 'Per cent' relates to percentage of active cases and household/community contacts treated in communities where active trachoma was identified.
2. Figures 3.8.1 a and 3.8.1 b include data from the 18 communities who received treatment for trachoma.
3. Figure 3.8.2 includes data from the 150 communities who reported screening for trichiasis, though data may be incomplete.
4. Data for these figures are available in the online data tables.

Source: Australian Trachoma Surveillance Report 2024 (Kirby Institute 2025).

Measure 3.9: Treatment of refractive error

Key finding: Based on the latest AEEHS 2025 data, 90% of First Nations survey participants had corrected refractive error while the effective refractive error coverage was 87%.

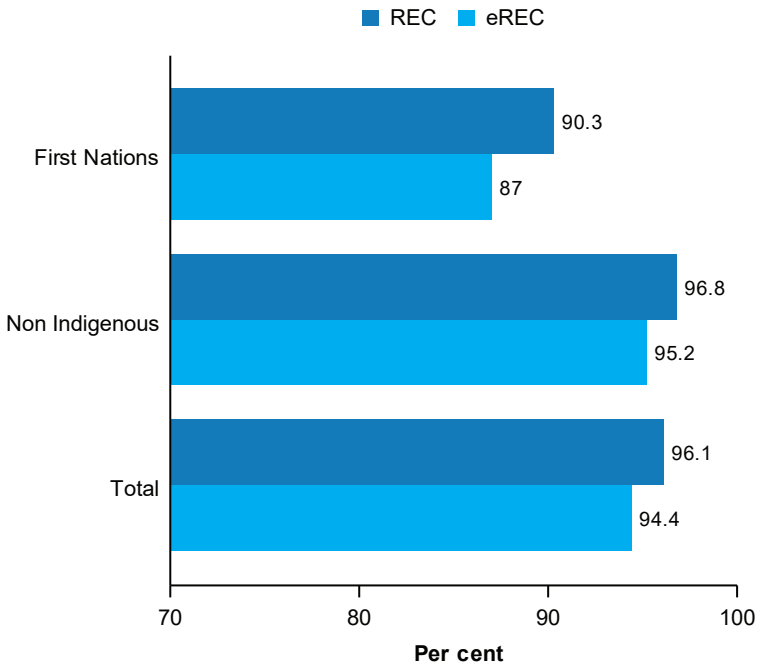
Overall: Based on the latest available AEEHS data, in 2022–25, the total refractive error coverage among participants was 96%. Coverage among First Nations participants was 90%, lower than the rate for non-Indigenous participants (97%) (Figure 3.9a).

The total effective refractive error coverage was 94%, with lower rates observed for First Nations participants (87%) compared with non-Indigenous participants (Figure 3.9b).

Things to consider

- Data are from the 2025 AEEHS, a sample survey of 617 First Nations people and 3,902 non-Indigenous Australians aged 50 and over for the eye survey component. The survey included an eye examination.
- Population estimates have not been calculated so AEEHS results are only representative of the sample selected.
- Effective refractive error coverage (eREC) is a measure of both the availability and quality of refractive correction in a population. It is defined as the proportion of people in need of refractive error correction who have received services (spectacles, contact lenses, or refractive surgery) and have a good quality outcome.
- Nations with baseline effective refractive error coverage (eREC) less than 60% were urged to increase eREC by 40 percentage points by 2030. Nations already at or above 60% eREC should aim for universal access and work to narrow gaps by focusing on underserved groups.

Figure 3.9: Treatment of refractive error, by Indigenous status, 2022–25



Notes

1. Refractive error coverage (REC) measures whether vision-impairing refractive error has been corrected, regardless of whether a good outcome is achieved
2. Effective REC (eREC) is a measure of both the availability and quality of refractive correction in a population. It is defined as the proportion of people in need of refractive error correction who have received services (spectacles, contact lenses, or refractive surgery) and have a good quality outcome
3. Data for these figures are available in the online data tables.

Source: Australian Eye and Ear Health Survey 2025.

Measure 3.10: Spectacles dispensed under state schemes

Key finding: In 2023–24, across the 5 jurisdictions able to provide data (New South Wales, Victoria, Queensland, South Australia and Tasmania), 21,977 spectacles were provided to First Nations people.

Overall: In 2023–24, 9,214 spectacles were provided to First Nations people under the New South Wales scheme (26 per 1,000), 3,742 under the Victorian scheme (46 per 1,000), 7,266 under the Queensland scheme (26 per 1,000) and 1,277 under the South Australian scheme (24 per 1,000) (Figure 3.10a).

Victoria was closest to meeting the estimated number of glasses needed by First Nations people aged over 40 (3,742 dispensed compared with 5,032 needed, 71% of need met). In the other jurisdictions, the estimated number needed was considerably greater than the number dispensed:

- 22,706 needed (9,214 dispensed, 41% of need met) in New South Wales
- 18,511 needed (7,266 dispensed, 39% of need met) in Queensland
- 3,466 needed (1,277 dispensed, 37% of need met) in South Australia
- 2,240 needed (478 dispensed, 21% of need met) in Tasmania (Figure 3.10b).

Age and sex: In New South Wales in 2023–24, higher rates of glasses were dispensed under the spectacle programs to First Nations females than males in all age groups. The highest rates were for First Nations males and females aged 65 and over (96 and 105 per 1,000, respectively) (Figure 3.10c).

In Victoria in 2023–24, the Australian College of Optometry dispensed 1,762 glasses (mainly in metropolitan areas), the largest number being for First Nations people aged 61 and over (508 glasses). A network of rural providers dispensed 1,980 glasses.

In Queensland in 2023–24, 7,266 glasses were dispensed to First Nations clients. The largest number was for First Nations people aged 50 to 64 (2,446, 69 per 1,000) while the highest rate was for those aged 65 and over (2,290, 138 per 1,000) (Figure 3.10d).

In South Australia in 2023–24, the number of glasses dispensed to First Nations people was highest among people aged 45–64 (484), while the rates were highest among First Nations males and females aged 65 and over (57 per 1,000 and 73 per 1,000, respectively) (Figure 3.10e)

In Tasmania in 2023–24, the number of glasses dispensed to First Nations people was highest among people aged 45–64 (199), while the rates were highest among First Nations males and females aged 65 and over (56 per 1,000 and 90 per 1,000, respectively) (Figure 3.10f).

Time trend: The rate per 1,000 population of spectacles dispensed to First Nations people:

- between 2016–17 and 2023–24 – fluctuated in New South Wales, Victoria and Queensland, but increased overall
- between 2017–18 and 2023–24 – fluctuated in South Australia, but increased overall from 1.7 to 23.4 per 1,000 (South Australia had data available from 2017–18).
- between 2019–20 and 2023–24 – fluctuated in Tasmania but fell overall from 15.5 to 13.6 (Tasmania had data available from 2019–20 and did not have data available in 2022–23) (Figure 3.10g).

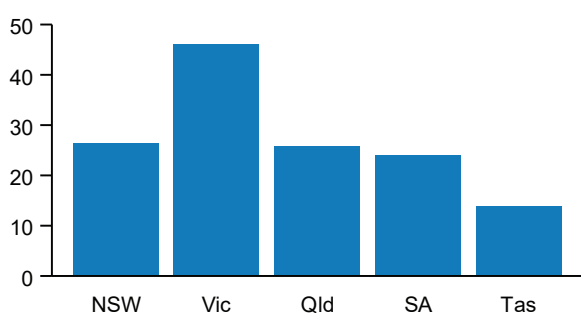
Things to consider

- The eligibility criteria and entitlements provided by the state schemes vary across jurisdictions.
- The estimated annual number of First Nations people needing spectacles was derived from the calculator for the delivery and coordination of eye care services developed by the IEHU at the University of Melbourne. The calculations are first-order estimates based on condition prevalence rates from the National Indigenous Eye Health Survey (2009) and models of service delivery developed in The Roadmap to Close the Gap for Vision (Taylor et al. 2012) and should be interpreted with caution.
- The IEHU calculator estimates the need for spectacles for those aged over 40, while the data on spectacles dispensed provided by jurisdictions cover all age groups.
- Data analysed in this report underestimate the number of spectacles provided to First Nations people. For example, jurisdictions such as Western Australia, the Northern Territory and the Australian Capital Territory currently do not routinely collect – or have only recently begun to collect – First Nations identification data; hence data on the spectacles dispensed to First Nations people in these jurisdictions cannot be reported.

Figure 3.10: State spectacles schemes, First Nations people, by various characteristics

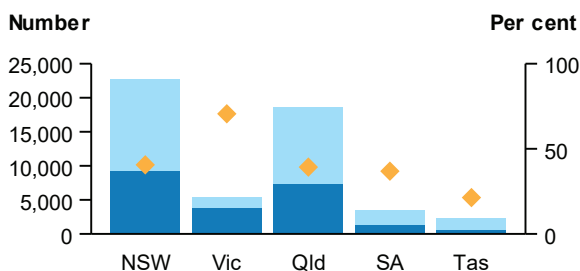
a) First Nations, by jurisdiction, 2023–24

Per 1,000 (crude)



b) First Nations need by jurisdiction, 2023–24

■ Number dispensed ■ Number needed ◆ Per cent of need met



Notes

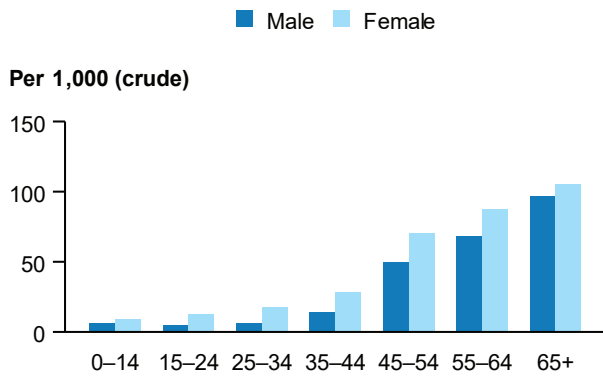
1. All figures show crude rates.
2. The estimated number of people needing spectacles was derived from the calculator for the coordination and delivery of eye care services.
3. Age groups vary by jurisdiction due to differences in the data provided.
4. Data for these figures are available in the online data tables.

Sources: AIHW analysis of Australian College of Optometry Victorian data (unpublished), Calculator for the delivery and coordination of eye care services (IEHU), NSW Department of Family and Community Services data (unpublished), Queensland Health data (unpublished), SA Department of Human Services (unpublished), Tasmania Health Service data (unpublished).

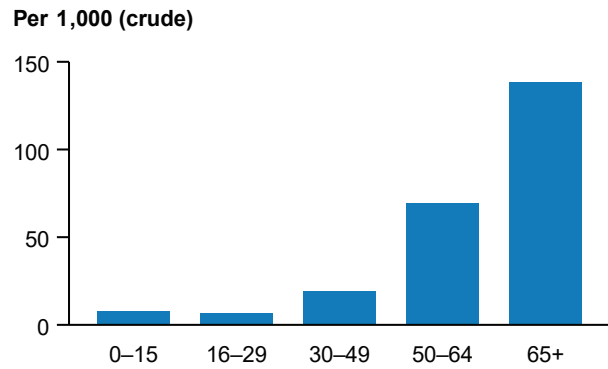
(continued)

Figure 3.10 (continued): State spectacles schemes, First Nations people, by various characteristics

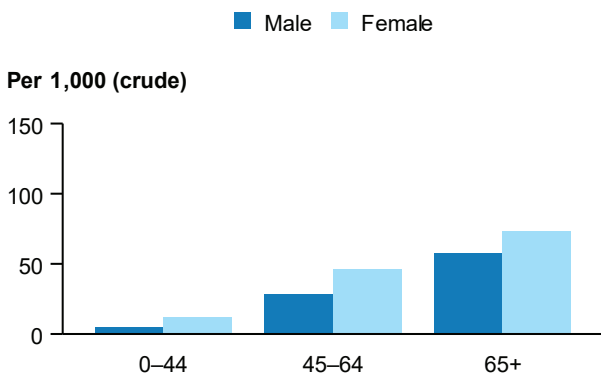
c) First Nations, by age and sex, NSW, 2023–24



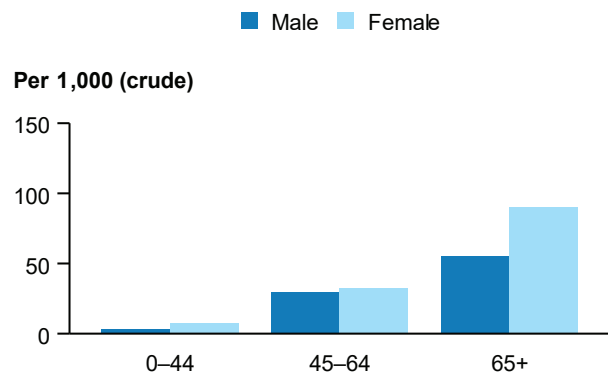
d) First Nations, by age Qld, 2023–24



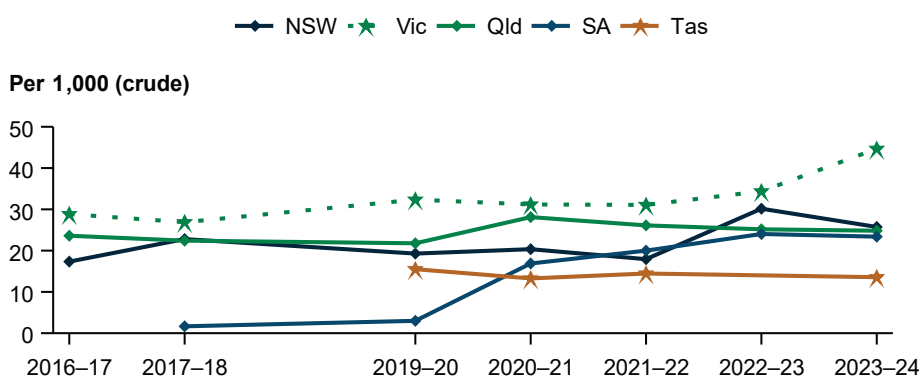
e) First Nations, by age and sex SA, 2023–24



f) First Nations, by age and sex Tas, 2023–24



g) By jurisdiction, 2016–17 to 2023–24



Notes

1. All figures show crude rates.
2. Data for Figure (d) include only spectacles dispensed by the Australian College of Optometry, mainly in metropolitan areas.
3. Age groups vary by jurisdiction due to differences in the data provided.
4. Data for these figures are available in the online data tables.

Sources: AIHW analysis of Australian College of Optometry Victorian data (unpublished), NSW Department of Family and Community Services data (unpublished), Queensland Health data (unpublished), SA Department of Human Services (unpublished), Tasmania Health Service data (unpublished).



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Workforce and outreach services

The size and location of the eye health workforce (see Box 4.1) broadly indicates levels of access to specialists and eye services. Specialist eye health practitioners, such as optometrists and ophthalmologists, are required to treat more serious eye problems and to undertake more complex procedures, such as cataract surgery. There are relatively few First Nations specialist eye health practitioners working in Australia: in 2023, 14 identified as optometrists and 5 identified as ophthalmologists.

Australian Government outreach programs play an important role in eye health for First Nations people. Outreach services are primarily provided in regional and remote areas where there are low numbers of registered optometrists and ophthalmologists. These services are intended to compensate for the uneven distribution of the health workforce and to improve access to health services across Australia. Several Australian Government outreach programs provide specialist eye health services:

- The Visiting Optometrists Scheme (VOS) supports optometrists in delivering outreach services to all Australians in regional, rural and remote locations. Of the total funding, 40% is allocated to services for First Nations patients. From July 2015, new guidelines expanded the program to include urban locations for First Nations Australian patients. Many of the services for First Nations people are delivered by visiting optometrists in ACCHOs.
- The Rural Health Outreach Fund (RHOF) supports the delivery of medical specialities, GPs and allied and other health outreach services in regional, rural and remote areas. These include eye health services.
- The Medical Outreach Indigenous Chronic Disease Program (MOICDP) improves access to medical specialists, GPs, nurses, allied health and other health professionals for First Nations people living with chronic disease. As part of this program, eye health services can be provided to those suffering from chronic conditions such as diabetes.
- The Eye and Ear Surgical Support Program (EESS) program expedites access to surgery for First Nations people with diagnosed eye and ear conditions who are on public surgery waiting lists. The program prioritises those living in rural and remote locations. The program facilitates a culturally safe surgical support pathway, access to hospital theatre time and access to bulk-billing surgeons. The program also arranges travel and accommodation for the surgical patient and carer (where needed).

Funding provisions differ under the various outreach programs. For example, the RHOF provides funding for the costs of travel and accommodation for a variety of medical specialities, including eye health services. Under the MOICDP, eye health services can be provided to those suffering from chronic conditions such as diabetes. The EESS supports access to surgical services, including for First Nations people who require eye surgery.

This means jurisdictions will access outreach services differently, depending on their needs. For example, some jurisdictions use the RHOF or the EESS chiefly for eye services while others use the RHOF for specialties apart from eye services. This should be kept in mind when comparing jurisdictional differences in the use of outreach services for eye health.

In 2023–24, actual expenditure on outreach services for eye health was estimated to be:

- for VOS – \$7,069,209 (a slight decrease from the 2022–23 expenditure of \$7,265,625) (see [Supplementary tables](#))

- for RHOF – \$966,845 (an increase from the 2022–23 expenditure of \$849,376) (see [Supplementary tables](#))
- for MOICDP – \$2,002,824 (an increase from the 2022–23 expenditure of \$1,405,736) (see [Supplementary tables](#)).

The proportion of total occasions of service that were for First Nations patients in 2023–24 was:

- for VOS – 60% (similar to the proportion in 2022–23, 59%)
- for RHOF – 6.5% (similar to the proportion in 2022–23, 6.4%)
- for MOICDP – 44% (a slight decrease from the proportion in 2022–23, 48%)

Workforce and outreach services – measures and data sources

There are 3 measures reported on workforce and outreach services in this chapter:

Measure 4.1: Number and rate of optometrists – the number of employed optometrists, FTE per 100,000 Australian population.

Measure 4.2: Number and rate of ophthalmologists – the number of employed ophthalmologists, FTE per 100,000 Australian population.

The data for both these measures come from the National Health Workforce Data Set. These annual data are derived from the annual registration process required for health workforce professionals.

Measure 4.3: Number and rate of allied ophthalmic personnel – the number and rate of allied ophthalmic personnel, FTE per 100,000 Australian population.

The data for this measure come from the ABS 2016 and ABS 2021 Census of Population and Housing.

The final measure relates to eye health services provided under outreach programs:

Measure 4.4: Occasions of eye health services provided under outreach and other programs – the number of occasions of service for First Nations people with eye health professionals, per 1,000 population, under the:

- Visiting Optometrists Scheme (VOS)
- Rural Health Outreach Fund (RHOF)
- Medical Outreach Indigenous Chronic Disease Program (MOICDP)
- Eye and Ear Surgical Support (EESS) Program.

These services were provided under the Australian Government outreach programs – VOS, RHOF, MOICDP and EESS. The outreach data do not include outreach services funded by state governments or other sources.

Box 4.1: Eye health workforce

- **Optometrists** are eye care professionals who perform eye examinations and vision tests to determine the presence of visual, ocular and other abnormalities; ocular diseases; and systemic diseases with ocular manifestations. They also prescribe lenses, other optical aids, therapy and medication to correct and manage vision problems and eye diseases.
- **Ophthalmologists** are medical doctors who provide diagnostic, treatment and preventive medical services related to diseases, injuries and deficiencies of the human eye and associated structures.
- **Optical dispensers** fit and service optical appliances such as spectacle frames and lenses.
- **Orthoptists** diagnose and manage eye movement disorders and associated sensory deficiencies.
- **Optical mechanics** operate machines to grind, polish and surface optical lenses to meet prescription requirements and to fit lenses to spectacle frames.
- **Orientation and mobility specialists** assist people who are experiencing difficulties in moving about due to vision loss.
- **Occupational therapists** who specialise in eye health assess the functional limitations of people resulting from eye illnesses and disability and provide therapy to enable them to perform their daily activities and occupations.
- **Ophthalmic nurses** are people who have completed general nurse training as well as specialist training in the nursing care of patients with eye problems, whether in hospital, clinics or the community. These nurses test vision and perform other eye tests under medical direction.

Source: AIHW 2016a.

Measure 4.1: Number and rate of optometrists

Key finding: In 2023, 6,275 (21 FTE per 100,000 population) optometrists were employed in Australia. Of these, 14 identified as First Nations people.

Overall: In 2023, 6,275 optometrists were employed in Australia (21 FTE per 100,000). Of these, 14 identified as First Nations people.

Remoteness: In 2023, *Major cities* had the highest number (5,011) and rate (22.8 FTE per 100,000) of employed optometrists, followed by *Inner regional areas* (898, or 17.7 FTE per 100,000) and *Outer regional areas* (323, or 14.4 FTE per 100,000). The numbers and rates of optometrists were lowest in *Remote* and *Very remote* areas (Figure 4.1a).

Jurisdiction: In 2023, the number and rate of employed optometrists varied across states and territories. New South Wales had the highest number (1,992) and

Victoria and South Australia had the highest rates (both 22.1 FTE per 100,000) of employed optometrists (Figure 4.1b).

Time trend: Between 2016 and 2023, the number and rate of optometrists increased from 4,734 (18.1 FTE per 100,000) to 6,275 (21.0 FTE per 100,000) (Figure 4.1c).

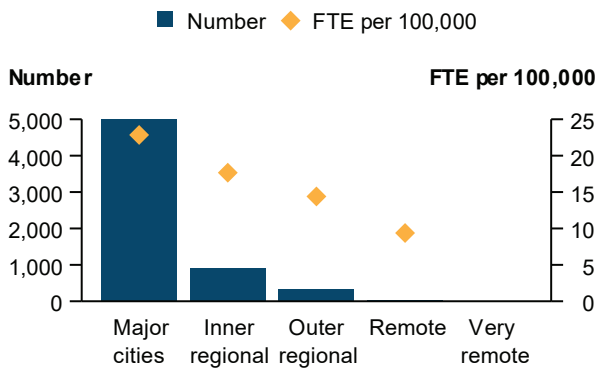
PHN: In 2023, the highest numbers and rates of optometrists were in metropolitan areas. The PHN with the highest number and rate of employed optometrists was Central and Eastern Sydney (578, or 31.0 FTE per 100,000). The number of optometrists was too low to calculate FTE rates in one PHN (Figure 4.1d).

Things to consider

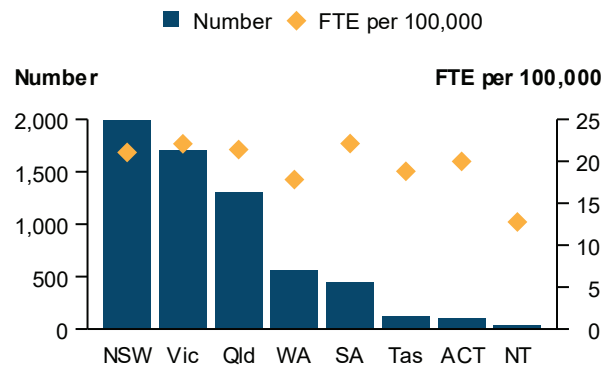
- The data come from the Department of Health, Disability and Ageing's national health workforce dataset (NHWDS). The data set includes optometrists who register with their respective health practitioner board via the National Registration and Accreditation Scheme and are employed in Australia.
- Optometrists can include details of only one site in their registration, so multiple sites are not captured in the data.
- The FTE rate takes into account both the number of practitioners and the hours they work. It is based on the hours worked in a standard working week (38 hours for all practitioners, except medical practitioners where it is 40 hours), which is equivalent to 1 FTE. The FTE is calculated as the number of FTE practitioners divided by the relevant population count, multiplied by 100,000.

Figure 4.1: Optometrists, by various characteristics

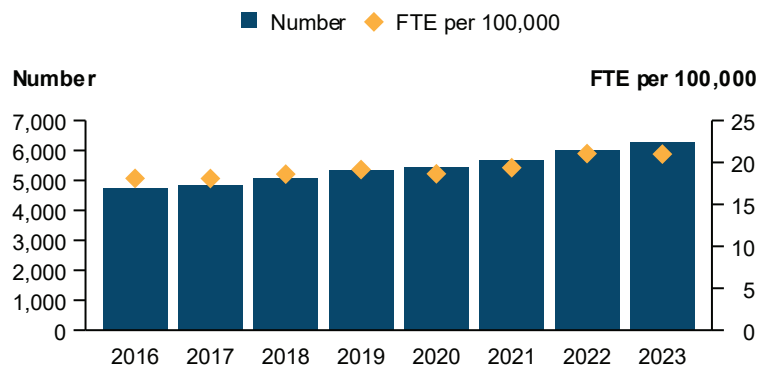
a) Optometrists, by remoteness, 2023



b) Optometrists, by jurisdiction, 2023



c) Optometrists, 2016 to 2023

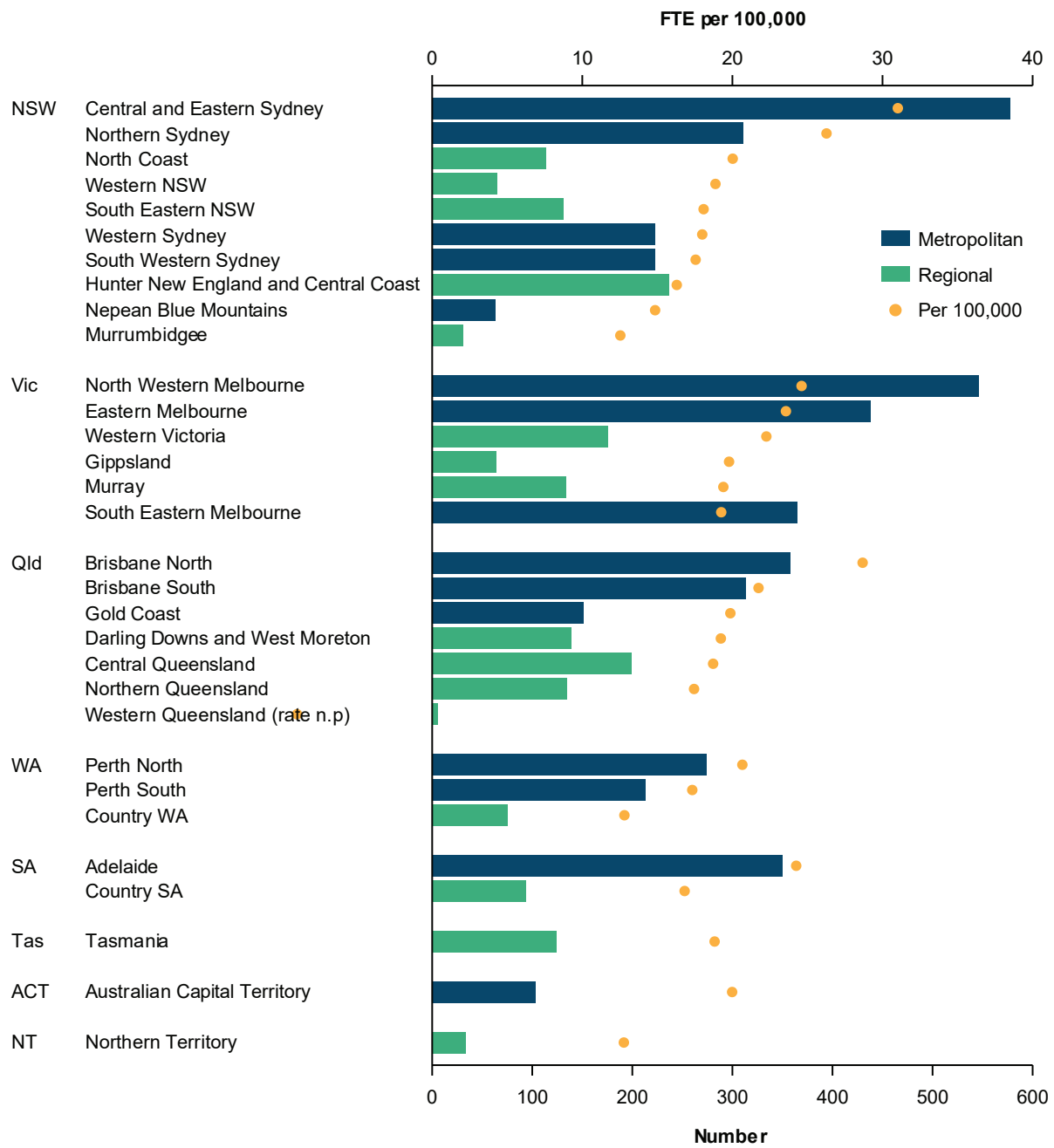


Notes

1. Data are based on optometrists employed in Australia working in their registered profession.
2. FTE per 100,000 population are based on a 38-hour work week.
3. Data for these figures are available in the online data tables.

Source: AIHW analysis of National Health Workforce Dataset.

Figure 4.1d: Optometrists, by PHN, 2023



Notes

1. Data are based on optometrists employed in Australia working in their registered profession.
2. FTE per 100,000 population based on a 38-hour work week.
3. Rates have not been published where fewer than 10 people were employed for any occupation.
4. Data for this figure are available in the online data tables.

Source: AIHW analysis of National Health Workforce Data Set.

Measure 4.2: Number and rate of ophthalmologists

Key finding: In 2023, 1,004 (4 FTE per 100,000 population) ophthalmologists were employed in Australia. Five First Nations people identified as ophthalmologists.

Overall: In 2023, 1,004 ophthalmologists were employed in Australia (3.9 FTE per 100,000). Five First Nations people identified as ophthalmologists.

Remoteness: In 2023, *Major cities* had the highest number (853) and rate (4.6 FTE per 100,000) of employed ophthalmologists, followed by *Inner regional areas* (115, 2.5 FTE per 100,000) and *Outer regional areas* (34, or 1.8 FTE per 100,000). There were insufficient numbers of ophthalmologists to calculate rates in other areas (Figure 4.2a).

Jurisdiction: In 2023, the number and rate of employed ophthalmologists varied across states and territories. New South Wales had the highest number (365) of employed ophthalmologists followed by Victoria (257). New South Wales had the highest rate (4.4 FTE per 100,000) of employed ophthalmologists followed by Tasmania (4.2 FTE per 100,000) and South Australia (4.1 FTE per 100,000) (Figure 4.2b).

Time trend: Between 2016 and 2023, the number of employed ophthalmologists increased slightly, while the rate remained fairly constant. In 2016, there were 916 employed ophthalmologists (4.0 FTE per 100,000) and in 2023 there were 1,004 employed ophthalmologists (3.9 FTE per 100,000) (Figure 4.2c).

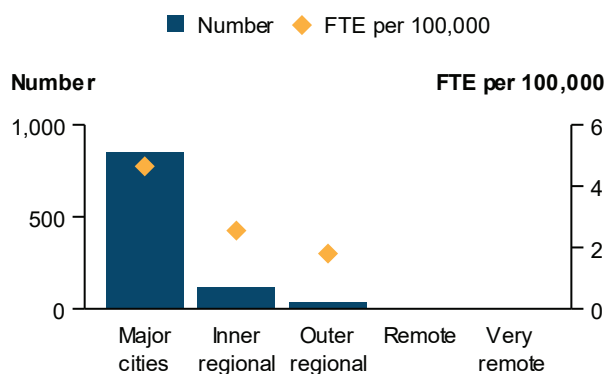
PHN: Central and Eastern Sydney had the highest number (138) and rate (8.4 FTE per 100,000) of employed ophthalmologists. The PHNs with the next highest rates were Northern Sydney (70, or 7.6 FTE per 100,000) and Brisbane North (64, or 6.0 FTE per 100,000). The number of ophthalmologists was too low to calculate FTE rates in 7 PHNs (Figure 4.2d).

Things to consider

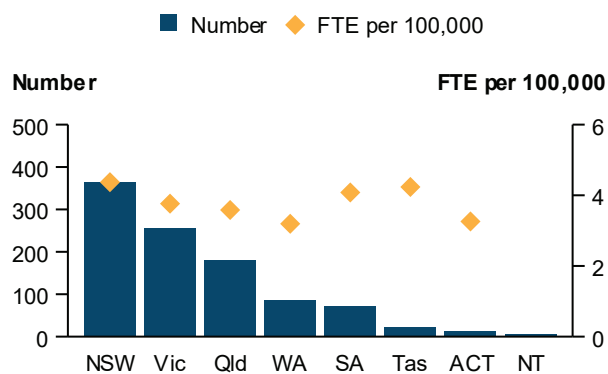
- The data come from the Department of Health, Disability and Ageing's national health workforce data set (NHWDS). The data set includes ophthalmologists who register with their respective health practitioner board via the National Registration and Accreditation Scheme and are employed in Australia.
- Ophthalmologists can include details of only one site in their registration, so multiple sites are not captured in the data.
- FTE is a measure calculated by dividing an estimate of the total hours worked by employees in an occupation in a week by an estimate of the standard hours worked for ophthalmologists (40 hours per week). The FTE measure is then compared with the size of the relevant population to calculate the FTE per 100,000 population.

Figure 4.2: Ophthalmologists, by various characteristics

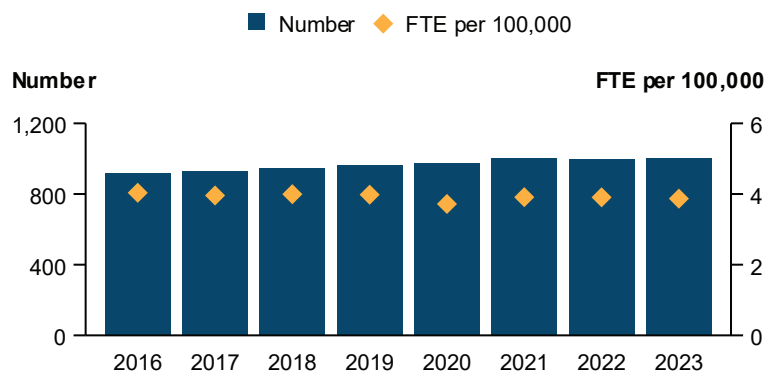
a) Ophthalmologists, by remoteness, 2023



b) Ophthalmologists, by jurisdiction, 2023



c) Ophthalmologists, 2016 to 2023

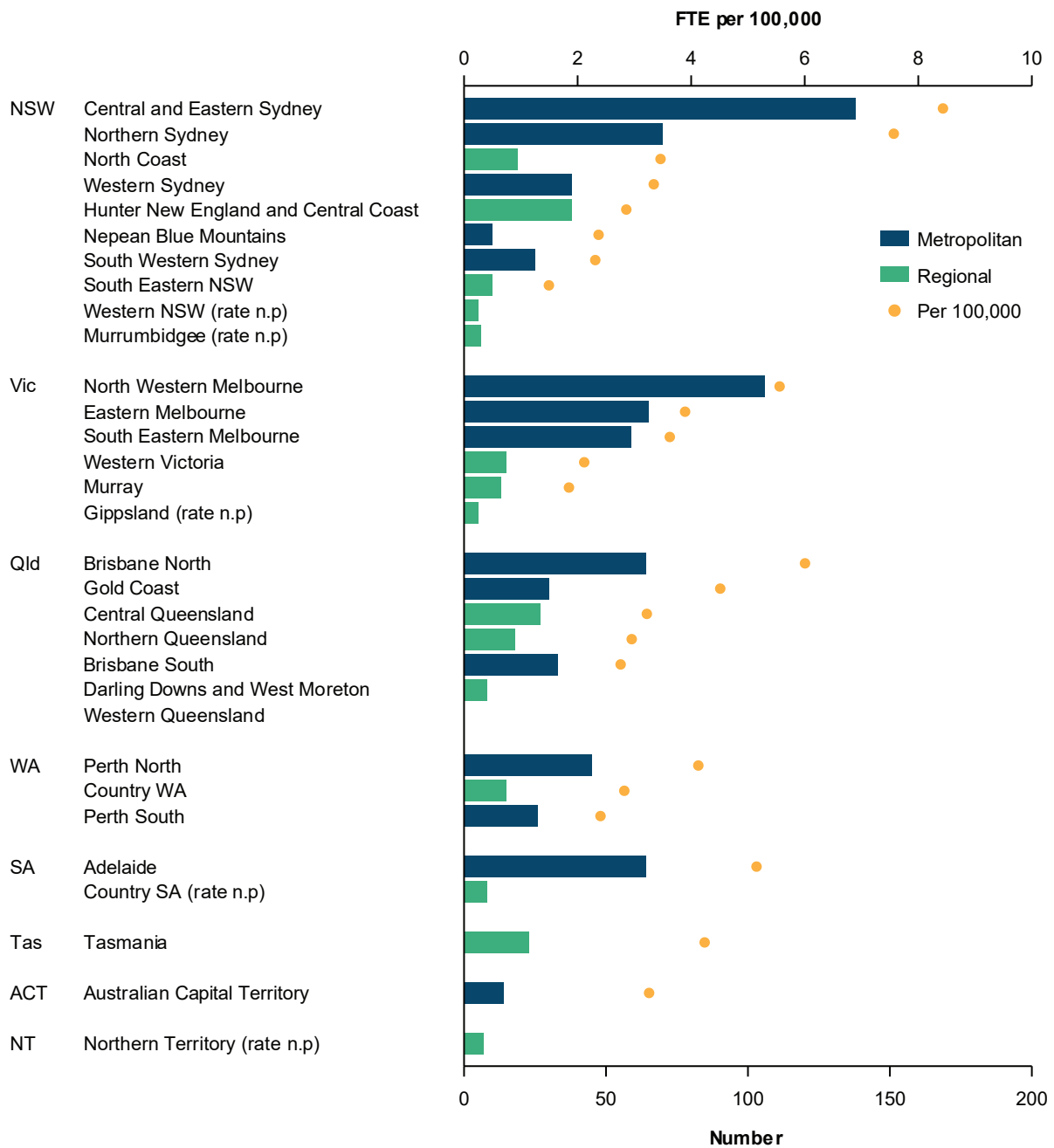


Notes

1. Data are based on ophthalmologists employed in Australia working in their registered profession.
2. FTE per 100,000 population based on a 40-hour work week.
3. Rates have not been published where fewer than 10 people were employed for any occupation.
4. Data for these figures are available in the online data tables.

Source: AIHW analysis of National Health Workforce Data Set.

Figure 4.2d: Ophthalmologists, by PHN, 2023



Notes

1. Data are based on ophthalmologists employed in Australia working in their registered profession.
2. FTE per 100,000 population are based on a 40-hour work week.
3. Rates have not been published (n.p.) where fewer than 10 people were employed for any occupation.
4. Data for this figure are available in the online data tables.

Source: AIHW analysis of National Health Workforce Data Set.

Measure 4.3: Number and rate of allied ophthalmic personnel

Key finding: In 2021, there were around 6,200 optical dispensers (14 FTE per 100,000 population), 400 optical mechanics (1.3 FTE per 100,000) and 1,100 orthoptists (3.0 FTE per 100,000) in Australia.

Overall: The biggest category of allied ophthalmic personnel in Australia is optical dispensers. In 2021, there were 6,162 optical dispensers (14.2 FTE per 100,000), 401 optical mechanics (1.3 FTE per 100,000) and 1,069 orthoptists (3.0 FTE per 100,000) in Australia (Figure 4.3a).

Time trend: From 2016 to 2021, the FTE rate of all allied ophthalmic personnel remained relatively constant, from 15.1 to 14.4 FTE per 100,000 for optical dispensers, and from 4.5 to 4.4 FTE per 100,000 for optical mechanics and orthoptists combined (Figure 4.3b).

Remoteness: In 2021, *Major cities* had the highest number (4,604) of optical dispensers and the highest number and rate of other allied ophthalmic personnel (1,299, or 5.3 FTE per 100,000). *Inner regional* areas had the highest rate of optical dispensers (17.6 FTE per 100,000, 1,143 optical dispensers) and 141 other allied ophthalmic personnel (2.0 FTE per 100,000). There were insufficient numbers of optical dispensers and other allied ophthalmic personnel in *Remote* and *Very remote* areas to calculate rates (Figure 4.3c).

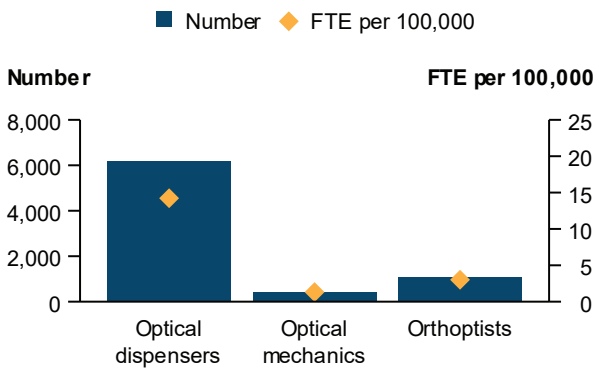
Jurisdiction: In 2021, New South Wales had the highest number (1,784) of optical dispensers and of other allied ophthalmic personnel (615). Western Australia had the highest rate of optical dispensers (18.6 FTE per 100,000), and Victoria had the highest rate of optical mechanics and orthoptists (5.9 FTE per 100,000) (Figure 4.3d). There were insufficient numbers of optical mechanics and orthoptists in Tasmania, the Australian Capital Territory and the Northern Territory to report rates.

Things to consider

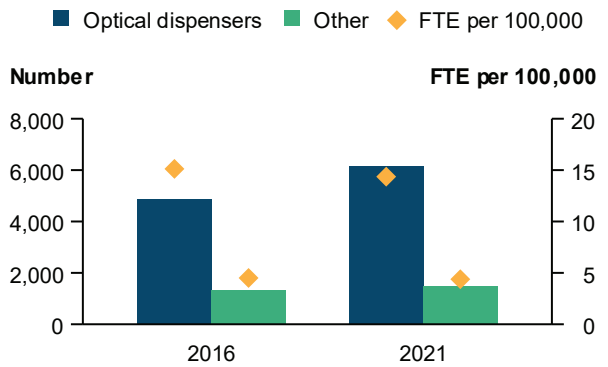
See Box 4.1 for information on the eye health workforce and the roles of various allied ophthalmic personnel.

Figure 4.3: Allied ophthalmic personnel, by various characteristics

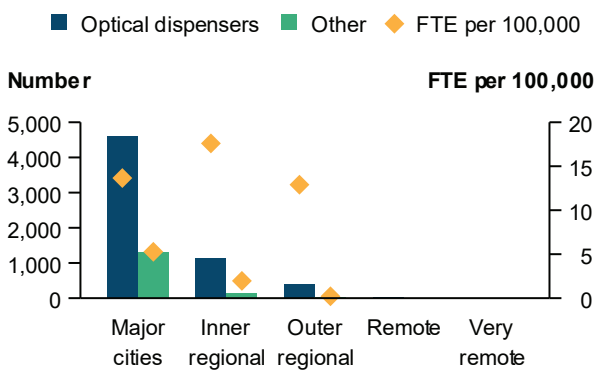
a) By profession, 2021



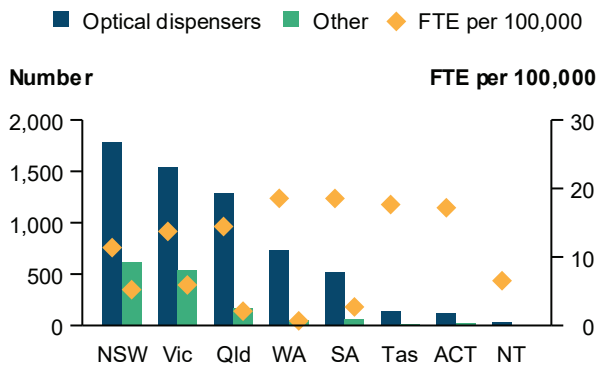
b) By profession, 2016 and 2021



c) By profession, by remoteness, 2021



d) By profession, by jurisdiction, 2021



Notes

1. 'Other' includes orthoptists and optical mechanics.
2. FTE per 100,000 population based on a 38-hour week.
3. Rates have not been published where fewer than 30 people were employed for any occupation.
4. Data for these figures are available in the online data tables.

Sources: AIHW analysis of 2016 and 2021 Census.

Measure 4.4: Occasions of eye health services provided under outreach and other programs

Key finding: In 2022–23, eye health professionals provided 45,726 occasions of service for First Nations patients under combined outreach services (VOS, RHOF and MOICDP).

4.4.1 Visiting Optometrists Scheme

Overall: In 2023–24, there were 31,534 occasions of service for First Nations patients and 21,147 for other patients under the VOS.

Remoteness: The rate of First Nations occasions of service under the VOS in 2023–24 was highest in *Remote and very remote* areas (combined) (113.5 per 1,000 population) followed by *Inner and outer regional* areas (combined) (23.2 per 1,000) (Figure 4.4.1a).

Jurisdiction: In 2023–24, the rate of First Nations occasions of service under the VOS differed by jurisdiction. Rates were highest in the Northern Territory (55.9 per 1,000 population) and Western Australia (40.2 per 1,000 population) (Figure 4.4.1b). The number of First Nations occasions of service was highest in Queensland (10,371), followed by New South Wales and the Australian Capital Territory (combined) 8,407 (Figure 4.4.1c).

Time trend: In 2014–15, there were 18,890 occasions of service for First Nations patients under the VOS. This increased to 31,534 in 2023–24 (Figure 4.4.1d). In 2023–24, First Nations people had 10,387 more occasions of service under the VOS than other Australian patients. VOS occasions of service have been higher for First Nations people than non Indigenous Australians since 2016–17.

Between 2016–17 and 2023–24 the rate per 1,000 population of VOS occasions of service for First Nations people:

- fluctuated but increased overall in New South Wales, Queensland, Western Australia, South Australia and Tasmania
- fluctuated but declined overall in Victoria and the Northern Territory (Figure 4.4.1e).

PHN: In 2023–24, the number of occasions of service for First Nations patients under the VOS ranged from 0 in Perth North, Adelaide, Brisbane South, Brisbane North and Nepean Blue Mountains, to 4,908 in Country WA. The rate of occasions of service ranged from 0 per 1,000 in Perth North, Adelaide, Brisbane South, Brisbane North and Nepean Blue Mountains to 155 per 1,000 in Western Queensland (Figure 4.4.1f).

Things to consider

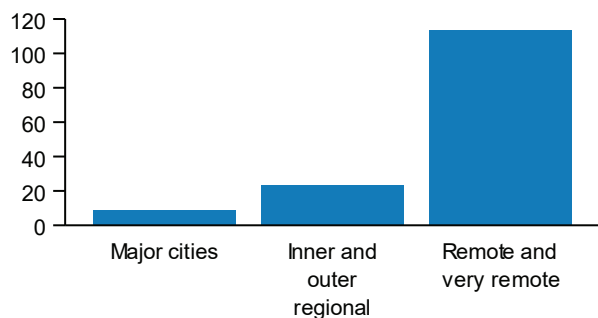
- Patients may have more than one occasion of service.
- The identification of First Nations patients varies between practitioners, so the number of occasions of service for First Nations patients may be understated.
- The rates by PHN should be interpreted with caution, as these services are predominantly provided in non-metropolitan areas. Rates were calculated for some metropolitan areas for comparison purposes, as these areas were included in the program only from 2014–15, and only a small number of services were provided there.

- These data include outreach services funded by the Australian Government and not those funded by state governments or other providers.

Figure 4.4.1: VOS occasions of service, by various characteristics

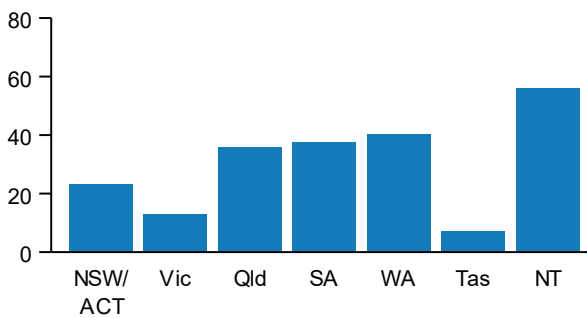
a) First Nations by remoteness, 2023–24

Per 1,000 (crude)



b) First Nations by jurisdiction, 2023–24

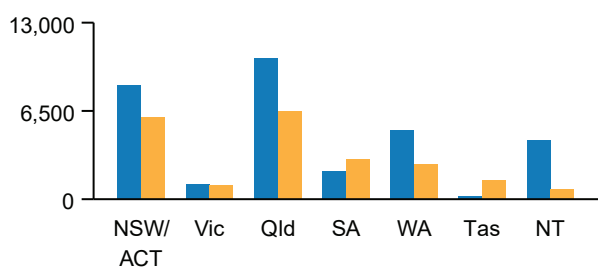
Per 1,000 (crude)



c) By jurisdiction, 2023–24

■ First Nations ■ Other

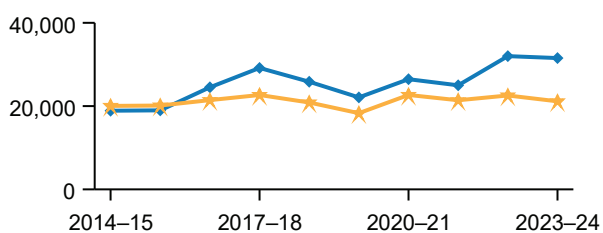
No. of occasions of service



d) Time trend, 2014–15 to 2023–24

— First Nations — Other

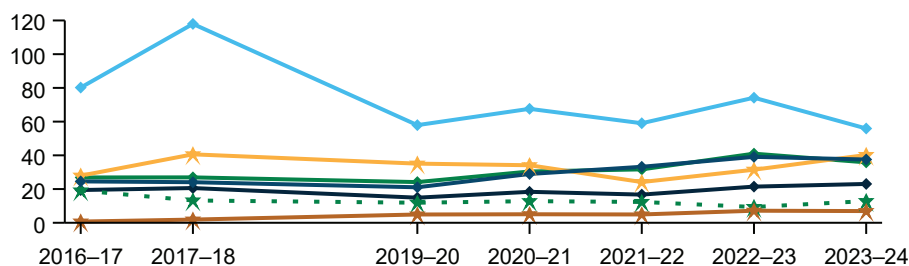
No. of occasions of service



e) By jurisdiction, 2016–17 to 2023–24

— NSW — Vic — Qld — WA — SA — Tas — NT

Per 1,000

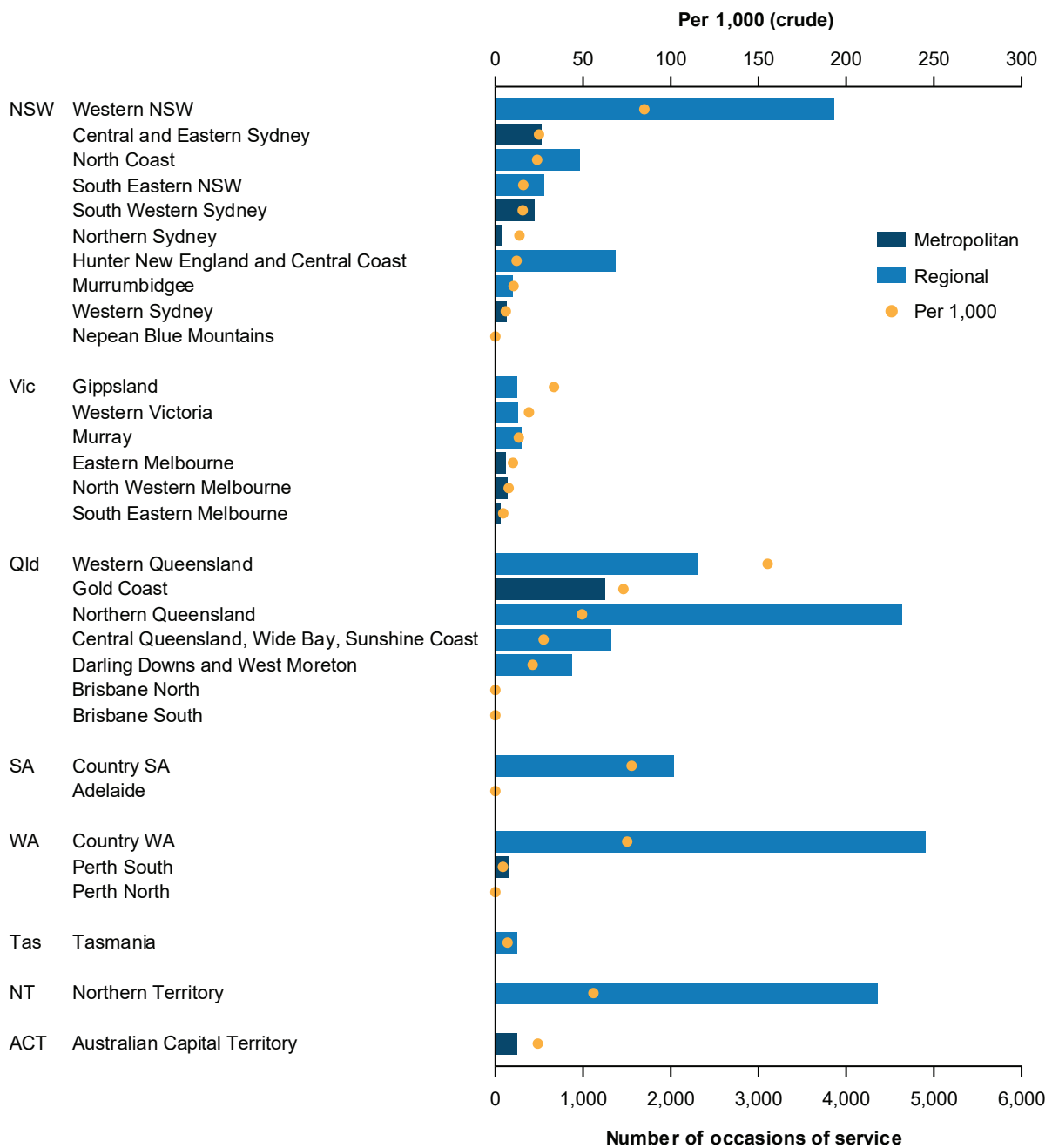


Notes

1. 'Other' includes occasions of service for non-Indigenous patients and patients with 'not stated' Indigenous status.
2. Years not shown in figure (e) are years when VOS data was not able to be reported on by AIHW.
3. Data for these figures are available in the online data tables.

Source: AIHW analysis of Department of Health and Aged Care data (unpublished).

Figure 4.4.1f: VOS occasions of service for First Nations people, by PHN, 2023–24



Notes

1. These services are mainly provided in non-metropolitan areas so are not delivered in all PHNs.
2. Data for this figure are available in the online data tables.

Source: AIHW analysis of Department of Health and Aged Care data (unpublished).

4.4.2 Rural Health Outreach Fund

Overall: In 2023–24, 1,394 occasions of eye health services for First Nations patients were provided under the RHOF.

Remoteness: In 2023–24, the number of First Nations occasions of eye health services under the RHOF was higher in *Remote and very remote* areas (combined) (855) than in *Inner and outer regional* areas (combined) (539). The rate was also higher in *Remote and very remote* areas (combined) (5.6 per 1,000) than in *Inner and outer regional* areas (combined) (1.2 per 1,000) (Figure 4.4.2a).

Jurisdiction: In 2023–24, the number of First Nations eye health occasions of service under the RHOF was highest in Western Australia (796), followed by the Northern Territory (266). The rate was highest in Western Australia (11.9 per 1,000) followed by the Northern Territory (3.4 per 1,000) (Figure 4.4.2b).

Time trend: In 2015–16, there were 8,652 First Nations eye health occasions of service under the RHOF. This number declined to 1,394 in 2023–24 (Figure 4.4.2c).

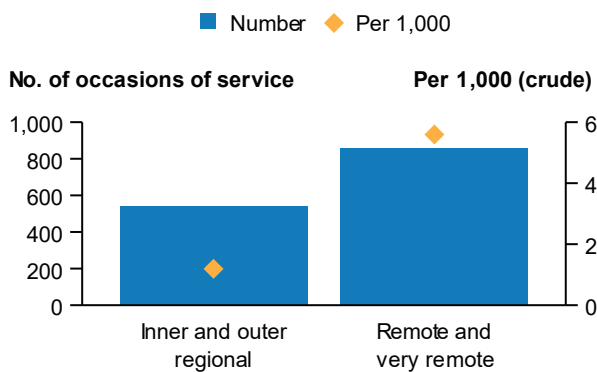
In all states, occasions of service under the RHOF fluctuated but fell overall between 2016–17 and 2023–24. The decline in the rate of occasions of service was particularly steep in the Northern Territory, from 48.9 per 1,000 in 2016–17 to 3.4 per 1,000 in 2023–24 (Figure 4.4.2d).

Things to consider

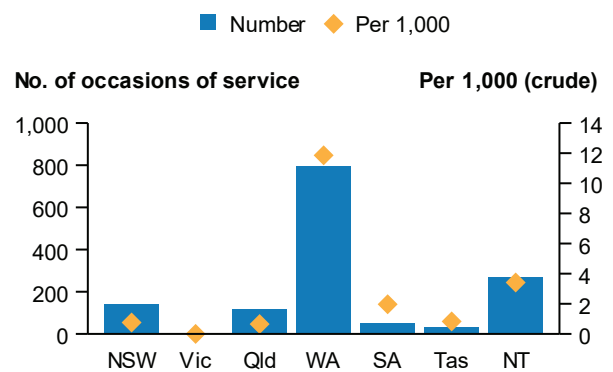
- Patients may have more than one occasion of service.
- Numbers reflect First Nations RHOF patient contacts with all health professionals in relation to their eye health, and include those patients seen by ophthalmologists, optometrists, orthoptists, retinal photographers, ophthalmic assistants, ophthalmic nurses and Aboriginal health workers.
- RHOF services are provided only in non-metropolitan areas.
- These data include outreach services funded by the Australian Government and not those funded by state governments or other providers.

Figure 4.4.2: RHOF occasions of eye health service, First Nations people, by various characteristics

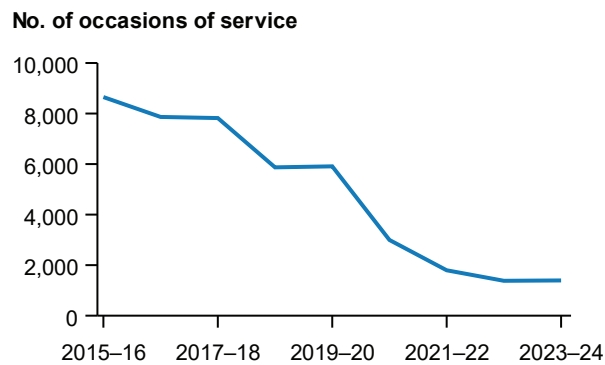
a) By remoteness, 2023–24



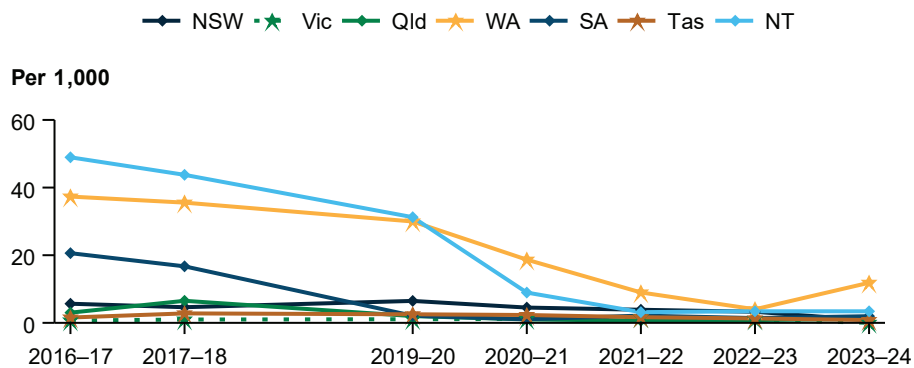
b) By jurisdiction, 2023–24



c) Time trend, 2015–16 to 2023–24



d) By jurisdiction, 2016–17 to 2023–24



Notes

1. RHOF services are provided in *Inner regional*, *Outer regional*, *Remote* and *Very remote* areas only.
2. Years not shown in Figure 4.4.2 (d) are years when RHOF data were not able to be reported on by AIHW
3. Data for these figures are available in the online data tables.

Source: AIHW analysis of Department of Health and Aged Care data (unpublished).

4.4.3 Medical Outreach Indigenous Chronic Disease Program

Overall: In 2023–24, eye health professionals provided a total of 15,257 occasions of service for First Nations patients under the MOICDP.

Remoteness: In 2023–24, the number of First Nations occasions of eye health services under the MOICDP was highest in *Remote and very remote* areas (combined) (7,450) and lowest in *Major cities* (1,909). The rate was highest in *Remote and very remote* areas (combined) (487.5 per 10,000) and lowest in *Major cities* (44.9 per 10,000) (Figure 4.4.3a).

Jurisdiction: Eye health services were provided to First Nations patients in 7 jurisdictions. The highest rate of First Nations occasions of service provided by professionals for eye health under the MOICDP was in Western Australia, 448.1 (Figure 4.4.3b).

Time trend: In 2017–18, around 2,038 First Nations occasions of services were provided by health professionals for eye health under the MOICDP. This number increased to 15,257 in 2023–24 (Figure 4.4.3c).

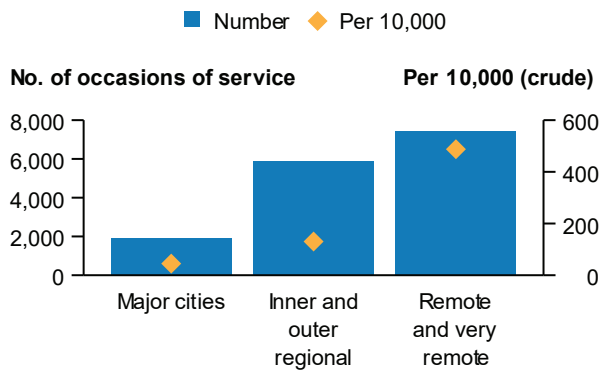
In New South Wales and Queensland, rates of occasions of service under the MOICDP fluctuated but increased overall between 2016–17 and 2023–24. Western Australia had the biggest increase in rates over this time, from 50.8 per 10,000 to 448.1 per 10,000. Tasmania had data available from 2017–18 while Victoria, South Australia and the Northern Territory had data available from 2019–20. In these jurisdictions rates of occasions of service fluctuated but increased overall to 2023–24. (Figure 4.4.3d).

Things to consider

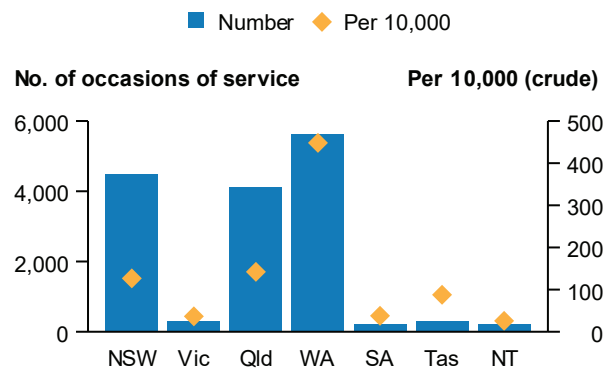
- Patients may have more than one occasion of service.
- The numbers show occasions of service provided to First Nations patients by all health professionals in relation to eye health, including ophthalmologists, ophthalmic assistants, ophthalmic nurses and Aboriginal health workers.
- These data include outreach services funded by the Australian Government but not those funded by state governments or other providers.

Figure 4.4.3: MOICDP, occasions of eye health service, First Nations people, by various characteristics

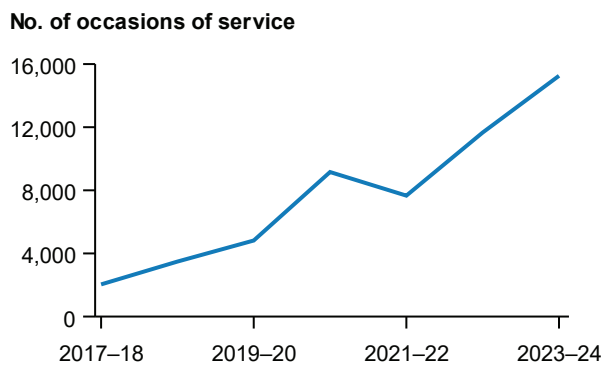
a) By remoteness, 2023–24



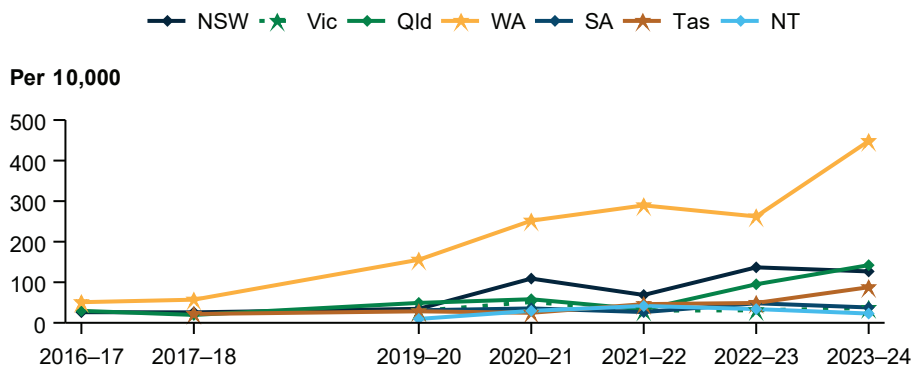
b) By jurisdiction, 2023–24



c) Time trend, 2017–18 to 2023–24



d) By jurisdiction, 2016–17 to 2023–24



Notes

1. Years not shown in figure 4.4.3 (d) are years when MOICDP data were not able to be reported on by the AIHW.
2. Data for these figures are available in the online data tables.

Source: AIHW analysis of Department of Health and Aged Care data (unpublished).

4.4.4 Combined outreach programs

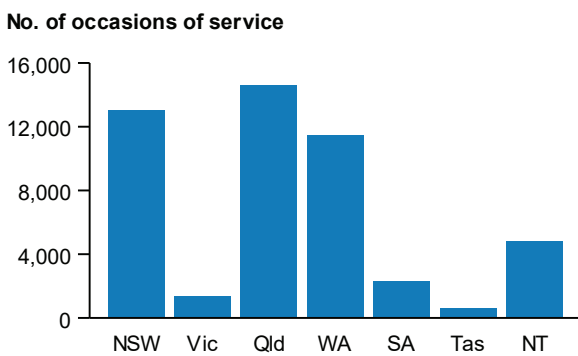
Overall: In 2023–24, eye health professionals provided a total of 48,185 occasions of service for First Nations patients under all the outreach programs combined (VOS, RHOF and MOICDP).

Jurisdiction: In 2023–24, the highest number of First Nations occasions of service provided by an eye health professional under the combined outreach programs was in Queensland (14,601) followed by New South Wales (13,042) (Figure 4.4.a).

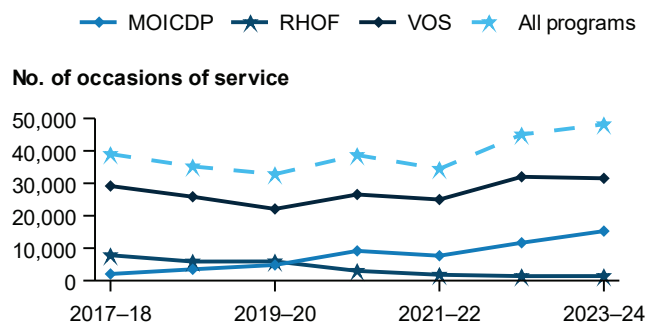
Time trend: In 2017–18, health professionals provided 39,020 First Nations occasions of services in relation to eye health under the combined outreach programs. This number increased to 48,185 in 2023–24 (Figure 4.4.b).

Figure 4.4.4: Combined outreach programs, First Nations people, number of occasions of service

a) By jurisdiction, 2023–24



b) Time trend, 2017–18 to 2023–24



Note: Data for these figures are available in the online data tables.

Source: AIHW analysis of Department of Health and Aged Care data (unpublished).

4.4.5 Eye and Ear Surgical Support Program

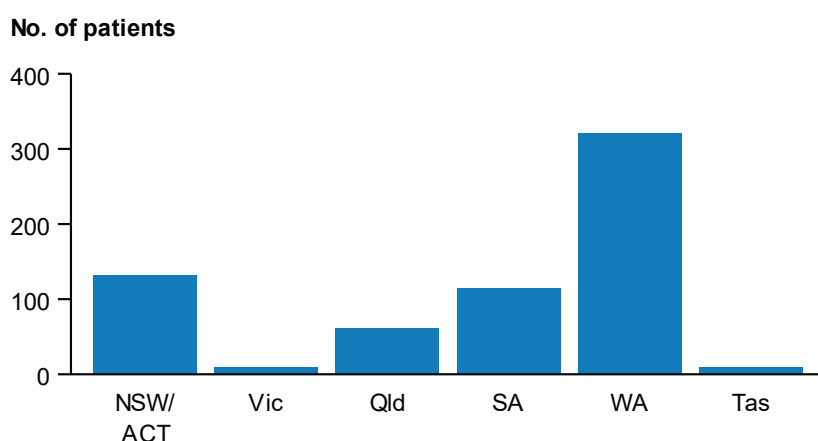
Overall: In 2023–24, eye health professionals provided a total of 508 occasions of service for First Nations patients under the EESS.

Jurisdiction: In 2023–24, the highest number of First Nations occasions of service provided by an eye health professional under the EESS was in Western Australia (269) followed by New South Wales and the Australian Capital Territory (combined) (132) (Figure 4.4.5).

Things to consider

- Patients may have more than one occasion of service.
- The identification of First Nations patients varies between practitioners, so the number of occasions of service for First Nations patients may be understated.

Figure 4.4.5: EESS, occasions of eye health service, First Nations people, by jurisdiction, 2023–24



Note: Data for these figures are available in the online data tables.

Source: AIHW analysis of Department of Health and Aged Care data (unpublished).

Case study: Indigenous Eye Health Coordination Program

The Department of Health and Aged Care funds the Aboriginal Eye Health Coordination Program (AEHC) of the NSW Rural Doctors Network under the Indigenous Australian's Health Program (IAHP). The program helps to improve access to eye care services for First Nations patients in Far West New South Wales through improved coordination of services, particularly the linkages between the range of different eye health services and the delivery of services (such as initial consultation, treatment, referral and continuity of care).

A single funded organisation in each jurisdiction administers the program is administered by and it operates in conjunction with the Australian Government's other outreach programs: the RHOF, the MOICDP, the VOS and the EESS. The single funded organisation arrangement in each jurisdiction enables improved planning, coordination and integration of services that contribute to program efficiencies.

The program has been successful in establishing collaborative partnerships with the Rural Doctors Network, the Far West New South Wales Local Health District, the Maari Ma Health Aboriginal Corporation and the visiting optometrist providing regular services under the Rural Doctors Network's Outreach VOS program. This collaborative approach has enabled streamlined processes and culturally safe service delivery for First Nations patients accessing services by embedding services within Aboriginal Community Controlled Health Services. Key enablers—such as travel time allowances, workforce support payments, and cultural safety training—have ensured services are both accessible and culturally appropriate. For example:

- fast-tracking referrals, appointments and surgeries where required
- arranging transportation for patients to access services
- providing regular, and locally delivered optometry clinics
- upskilling local GPs
- improving the referral pathway between optometrists and ophthalmologists to ensure prompt patient follow-up and referral to surgery (RWA 2022–2025).

Appendix A: Data sources

ABS population data

Population data are used for demographic analyses and as the denominator in calculating rates. The data on Australian, Aboriginal and Torres Strait Islander (First Nations) people and the non-Indigenous population used in this report were based on data from Australian Bureau of Statistics (ABS) publications, as well as on unpublished data from the ABS. ABS publications, include:

- National, state and territory population <<https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release>>
- Estimates of Aboriginal and Torres Strait Islander Australians <<https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/estimates-aboriginal-and-torres-strait-islander-australians/latest-release>>
- Estimates and Projections, Aboriginal and Torres Strait Islander Australians <<https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/estimates-and-projections-aboriginal-and-torres-strait-islander-australians/latest-release>>

The size of the First Nations population varies substantially by state and territory. In 2021, it ranged from about 9,500 in the Australian Capital Territory to about 340,000 in New South Wales (ABS 2022). The proportion of the total population who are First Nations people also varies by state and territory. In 2021, this proportion ranged from 1.2% in Victoria to 31% in the Northern Territory (ABS 2022).

Australian Aboriginal and Torres Strait Islander Health Survey

The ABS conducted the Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) in the years 2012–13, 2018–19 and 2022–23 to report on the health of First Nations people in Australia. It provides information on long-term health conditions, health risk factors, selected social and emotional wellbeing indicators, health measurements, and health-related actions for First Nations people.

The AATSIHS forms part of the broader Australian Health Survey and is based on a nationally representative sample of 7,768 First Nations people across the nation. It was conducted in remote and non-remote areas throughout Australia.

The AATSIHS has 3 components:

- a National Aboriginal and Torres Strait Islander health survey (NATSIHS)
- a National Aboriginal and Torres Strait Islander nutrition and physical activity survey
- a National Aboriginal and Torres Strait Islander health measures survey that includes biomedical data.

Australian Trachoma Surveillance Reports

The Department of Health, Disability and Ageing funds the National Trachoma Surveillance and Reporting Unit at the Kirby Institute, UNSW, Sydney to undertake data collation, analysis and reporting related to trachoma control strategies in Australia. The Australian Trachoma Surveillance Reports are released annually (Kirby Institute 2025).

The National Trachoma Management Program was initiated in 2006. Communities at risk of trachoma in Western Australia, South Australia and the Northern Territory and were initially identified based on historic prevalence data. Mapping to establish if trachoma remained a public health problem was also undertaken in New South Wales and Queensland in the early to mid 2010s, with these jurisdictions declared non-endemic for trachoma in 2017 and 2022 respectively.

The Communicable Diseases Network Australia's (CDNA's) 2014 *National guidelines for the public health management of trachoma in Australia* – an update of the guidelines previously published in 2006 – informs the surveillance and management of trachoma. These revised guidelines state that not all 'at-risk' communities must screen for trachoma each year, this allows jurisdictions the option to:

- concentrate efforts on treatment activities in high-prevalence communities or,
- make more efficient use of resources in communities with low levels of trachoma that would otherwise benefit little from annual screening.

The frequency of screening recommended also varies according to the observed prevalence and clustering of active trachoma in the community (CDNA 2014).

WHO trachoma grading criteria were used to diagnose and classify individual cases of trachoma in all jurisdictions undertaking screening in 2024. The target age group for trachoma screening activities in Australia since 2006 has been children aged 5–9 years. (Kirby Institute 2025).

Medicare Benefits Schedule data

The Medical Benefits Schedule (MBS) is a list of Medicare services subsidised by the Australian Government. It is part of the Medicare program, which is managed by the Department of Health and Aged Care and administered by the Department of Human Services. Through the Medicare program, all Australian residents and certain categories of visitors to Australia are entitled to benefits for medical and hospital services, based on fees determined for each service provided. These services are itemised, forming the schedule of fees. Statistics on each item are collected when benefits are claimed.

MBS data reflect MBS claims and not necessarily all the services received. A person may be provided with equivalent care from a health care provider who is not eligible to bill Medicare. The data are based on the date of processing of claims. While the data have been used to measure the level of specific activities, changes in the use of an MBS item over time can reflect changes in billing and claiming practices or the introduction of new items, and not necessarily changes in the health care provided.

Data presented by state and territory and by remoteness area are based on the address information recorded in the patient's Medicare record. Data presented by remoteness area were classified according to the Australian Standard Geographical Classification.

Indigenous identification

The identification of First Nations people in Medicare data is not complete. Since 2002, individuals who choose to identify as being of Aboriginal and/or Torres Strait Islander descent have been able to have this information recorded on the Medicare database through the VII. VII enrolment is through either a VII enrolment form or a tick-box on a Medicare Australia enrolment form. Both methods of enrolment indicate that identifying as First Nations people is optional.

As at March 2016, an estimated 65% of the First Nations population had identified as being of Aboriginal and/or Torres Strait Islander origin through the VII process. VII coverage varies by age group and state and territory. The MBS data presented in this report have been adjusted for under-identification, except for data on MBS items for annual health assessments and the MBS item 12325 for diabetic retinopathy screening, which are specific for First Nations people.

Before the current edition of this report, the Department of Health and Aged Care calculated the scale-up factors. The AIHW calculated them for this report, however, the estimates obtained are consistent with those produced by the Department of Health and Aged Care.

Australian Eye and Ear Health Survey

The 2025 Australian Eye and Ear Health Survey (AEEHS) was a nationwide population-based study designed to:

- provide estimates of the prevalence and causes of vision impairment and blindness in First Nations people and non-Indigenous Australians by gender, age and geographical area
- measure the treatment and coverage rate of major conditions and diseases.

It used a multi-stage, random-cluster sampling methodology to select 30 geographic areas stratified by remoteness and was conducted between August 2022 and July 2025 to provide a representative target population of First Nations and non-Indigenous Australians aged 50 and older. Participants were primarily recruited by door-to-door knocking, with adjustments as required to adapt to local circumstances within diverse First Nations communities. Over this period, 18,145 homes were door knocked, with a response rate of 73.7% achieved. The survey recruited a total of 4,519 participants for the eye survey, of whom 617 (13.6%) were Indigenous and 3,902 (86.4%) were non-Indigenous

The testing protocol involved a general questionnaire, vision testing, anterior segment examination, visual field testing, fundus photography and intraocular pressure testing. Where possible, sampling adjusted rates were provided, though some of the survey results presented are crude unadjusted sample proportions. These results are subject to sampling error so 95% CIs were provided to indicate the reliability of all estimates reported. Some of the estimates should be treated with caution due to large CIs.

National Health Workforce Data Set

The Australian Health Practitioner Regulation Agency, in conjunction with the national health professional registration boards, is responsible for the national registration process for 14 health professions. The data from the annual registration process, together with data from a workforce survey that is voluntarily completed at the time of registration, form the Department of Health, Disability and Ageing's NHWDS. Data in the NHWDS include demographic and employment information (for example, labour force status, location of main job, area of practice, work setting) for registered health professionals. In this report, the data on optometrists and ophthalmologists come from the NHWDS as reported by the Australian Institute of Health and Welfare (AIHW).

National Hospital Morbidity Database

Data about hospitalisations were extracted from the AIHW National Hospital Morbidity Database (NHMD), which is a compilation of episode-level records from admitted patient care data collection systems in Australian hospitals in each state and territory. Each year, state and territory health departments provide the AIHW with information on the characteristics, diagnoses and care of admitted patients in public and private hospitals. Data are based on financial years.

Data are a count of hospital separations (episodes of admitted patient care, which can be a total hospital stay, or a portion of a hospital stay that begins or ends in a change of type of care) and not of patients. Patients who separated from hospital more than once in the year will be counted more than once in the data set. The number and pattern of hospitalisations can be affected by differing admission practices among the jurisdictions and from year to year, and by differing levels and patterns of service delivery.

Data on diagnoses are recorded using the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM, 13th edition). Information on procedures was recorded using the Australian Classification of Health Interventions. The relevant diagnosis and procedure codes used in this report are outlined in the online Data tables: Eye health measures for Aboriginal and Torres Strait Islander people – Treatment.

NHMD data presented by state and territory and remoteness area in this report are based on the patient's place of usual residence. For some analyses by state and territory, data for the Australian Capital Territory were combined with those for New South Wales, and data for Tasmania were combined with those for Victoria, due to small numbers.

For analyses by remoteness area, the NHMD data for 2012–13 onwards were classified according to the Australian Statistical Geography Standard, while earlier years were classified according to the Australian Standard Geographical Classification.

See <http://meteor.aihw.gov.au/content/index.phtml/itemId/611030> for a data quality statement for the NHMD.

Indigenous identification

There is some under-identification of First Nations people in the NHMD, but NHMD data for all states and territories are considered to have adequate First Nations identification from 2010–11 onwards (AIHW 2013). An AIHW study found that, in 2011–12, the number of hospitalisations nationally for First Nations people was about 9% higher than reported (AIHW 2013). In 2013–14, about 408,000 hospitalisations were recorded as being for First Nations people (AIHW 2015a). Based on the level of under-identification suggested by the AIHW study (AIHW 2015b), the number of hospitalisations for First Nations people in 2013–14 was estimated to have been about 445,000. NHMD data presented in this report have not been adjusted for under-identification, so are likely to underestimate the level of First Nations hospitalisations.

Changes in the accuracy of First Nations identification in hospital records will result in changes in the reported number of hospitalisations for First Nations people. Caution should be used when interpreting changes over time, as it is not possible to ascertain whether a change in reported hospitalisations is due to changes in the accuracy of First Nations identification and/or to real changes in the rates at which First Nations people were hospitalised. An increase in hospitalisation rates for a particular population might also reflect higher use of admitted patient hospital services – as opposed to other forms of health care – rather than a worsening of health. Likewise, a decrease in hospitalisation rates might

not necessarily indicate better health. It should also be noted that the levels of under identification vary by state/territory and remoteness; it is not known whether they also vary by reason for hospitalisation.

Except for data from hospitals in Western Australia, hospitalisations where the person's Indigenous status was not stated were excluded from analyses that compare First Nations and non-Indigenous rates. In 2011–14, Indigenous status was not stated for about 618,000 hospitalisations, representing around 2% of all hospitalisations in that period. For hospitals in Western Australia, records with an unknown Indigenous status are reported as non-Indigenous, so are included in the 'non-Indigenous' data in these analyses.

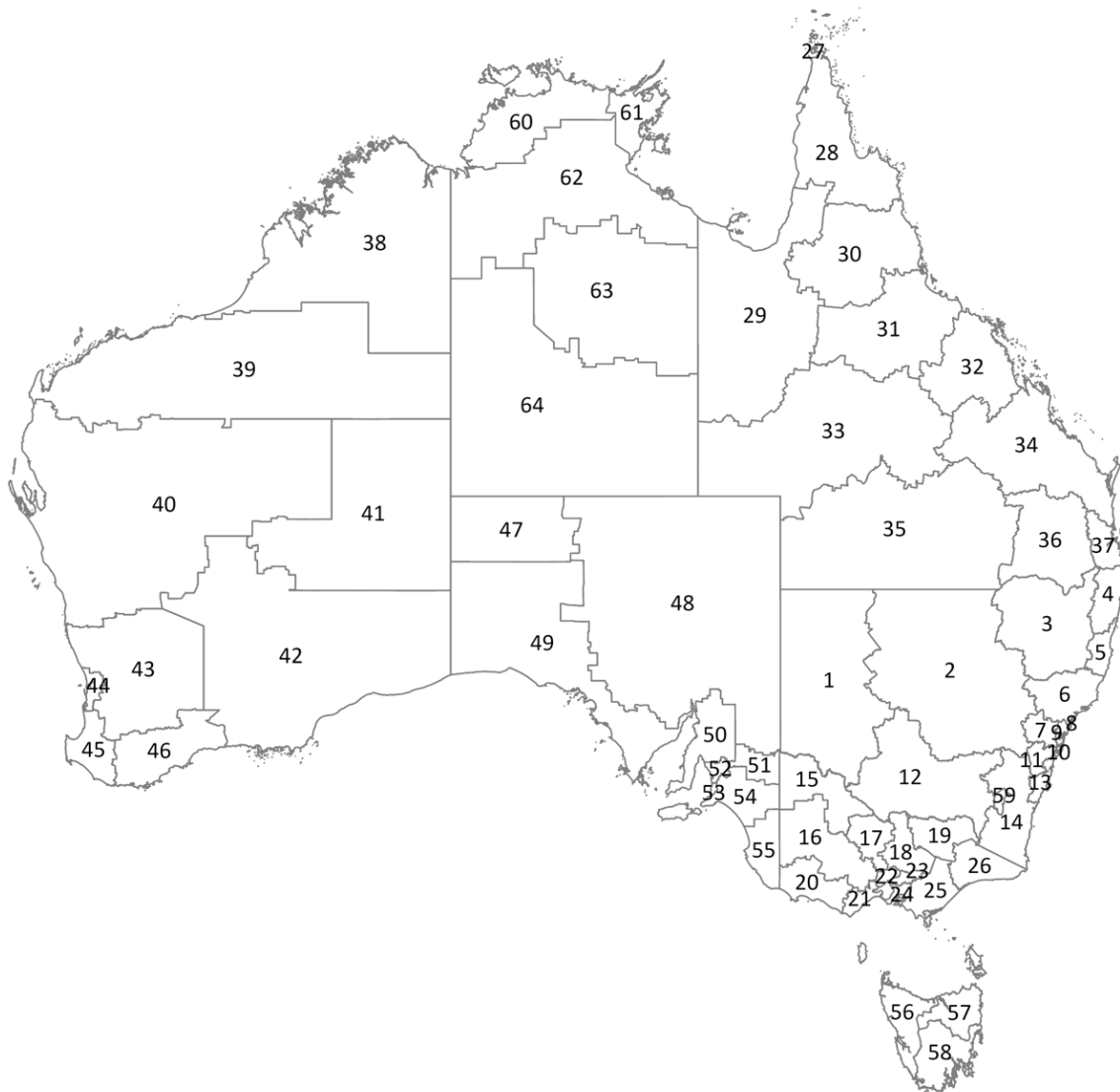
Appendix B: PHN and Roadmap regions

Figure B1: PHN – locations



No.	State	PHN	No.	State	PHN
1	NSW	Central and Eastern Sydney	17	QLD	Brisbane North
2	NSW	Northern Sydney	18	QLD	Brisbane South
3	NSW	Western Sydney	19	QLD	Gold Coast
4	NSW	Nepean Blue Mountains	20	QLD	Darling Downs and West Moreton
5	NSW	South Western Sydney	21	QLD	Western Queensland
6	NSW	South Eastern NSW	22	QLD	Central Queensland, Wide Bay, Sunshine Coast
7	NSW	Western NSW	23	QLD	Northern Queensland
8	NSW	Hunter New England and Central Coast	24	WA	Perth North
9	NSW	North Coast	25	WA	Perth South
10	NSW	Murrumbidgee	26	WA	Country WA
11	VIC	North Western Melbourne	27	SA	Adelaide
12	VIC	Eastern Melbourne	28	SA	Country SA
13	VIC	South Eastern Melbourne	29	Tas	Tasmania
14	VIC	Gippsland	30	ACT	Australian Capital Territory
15	VIC	Murray	31	NT	Northern Territory
16	VIC	Western Victoria			

Figure B2: Roadmap regions – locations



No.	State	Roadmap region	No.	State	Roadmap region	No.	State	Roadmap region
1	NSW	Far West NSW	23	VIC	Eastern Metropolitan Melbourne	45	WA	South West
2	NSW	Western NSW	24	VIC	South East Metropolitan Melbourne	46	WA	Great Southern
3	NSW	Central Tablelands	25	VIC	Central Gippsland	47	SA	APY Lands
4	NSW	North Coast	26	VIC	East Gippsland	48	SA	Flinders and Upper North
5	NSW	Mid North Coast	27	QLD	Torres Strait	49	SA	Eyre and Far North (ex APY)
6	NSW	Hunter	28	QLD	Cape York	50	SA	Yorke and Northern
7	NSW	Western Metropolitan Sydney	29	QLD	North West Queensland	51	SA	Riverland
8	NSW	Central Coast	30	QLD	Cairns	52	SA	Adelaide Central North West
9	NSW	Northern Metropolitan Sydney	31	QLD	Townsville / Palm Island	53	SA	Adelaide South
10	NSW	Eastern Metropolitan Sydney	32	QLD	Mackay	54	SA	Murray Mallee Hills and Fleurieu
11	NSW	South West Metropolitan Sydney	33	QLD	Central West Queensland	55	SA	Limestone Coast
12	NSW	Riverina (Murrumbidgee)	34	QLD	Central Queensland	56	Tas	North West
13	NSW	South Coast	35	QLD	South West Queensland	57	Tas	North
14	NSW	Far South Coast	36	QLD	Darling Downs	58	Tas	South
15	VIC	Mallee	37	QLD	South East Queensland	59	ACT	Australian Capital Territory
16	VIC	Grampians	38	WA	Kimberley	60	NT	Greater Darwin
17	VIC	Loddon	39	WA	Pilbara	61	NT	East Arnhem
18	VIC	Hume West	40	WA	Mid West	62	NT	Katherine
19	VIC	Hume East	41	WA	NG Lands	63	NT	Barkly
20	VIC	Great South Coast	42	WA	Goldfields	64	NT	Central Australia
21	VIC	Geelong	43	WA	Wheatbelt			
22	VIC	North and West Metropolitan Melbourne	44	WA	Perth			

APY Lands = Anangu Pitjantjatjara Yankunytjatjara Lands, NG Lands = Ngaanyatjarra Lands

Appendix C: Technical specifications

Table C1: Technical specifications for eye health measures for Aboriginal and Torres Strait Islander people

Measure	Description	Calculation	Numerator	Denominator	Notes and definitions	Data sources
1.1.1	Prevalence of vision impairment and blindness	Crude rate: Numerator ÷ denominator x 100 Age-standardised rate (ASR): $ASR = \frac{\sum_i N_i p_i}{\sum_i N_i}$ where: p_i is the agespecific rate for age group i in the population being studied N_i is the population of age group i in the standard population	Number of participants with: i) bilateral vision impairment (<6/12–6/60) ii) bilateral blindness (<6/60)	Number of participants responding to AEEHS		AEEHS
1.1.2	Proportion of target population with self-reported eye or sight problems,	Numerator ÷ denominator x 100	Number of participants who reported that they had an eye or sight problem	Number of participants responding to AATSIHS		AATSIHS
1.2.1	Main cause of vision impairment and blindness	Numerator ÷ denominator x 100	Number of participants with bilateral vision impairment caused by: a) refractive error b) cataract c) age-related macular degeneration d) diabetic retinopathy e) glaucoma f) combined mechanisms g) other h) not determinable	Number of participants with bilateral vision impairment (<6/12–6/60)	Numbers were too small to present for main causes of blindness	AEEHS

(continued)

Measure	Description	Calculation	Numerator	Denominator	Notes and definitions	Data sources
1.2.2	Self-reported causes of eye or sight problems	$\frac{\text{Numerator}}{\text{denominator}} \times 100$	Number of participants who reported that they had an eye or sight problem caused by: a) cataract b) short-sightedness/myopia c) long-sightedness/hyperopia d) blindness (complete and partial) e) glaucoma f) macular degeneration g) other	Number of participants who reported that they had an eye or sight problem		AATSIHS
1.3.1a	Observed prevalence of trachoma	$\frac{\text{Numerator}}{\text{denominator}} \times 100$	Number of children aged 5–9 with active trachoma	Number of children aged 5–9 screened for trachoma	Target age group is children aged 5–9	Australian Trachoma Surveillance Report
1.3.1b	Overall prevalence of trachoma	$\frac{\text{Numerator}}{\text{denominator}} \times 100$	Number of First Nations children aged 5–9 with active trachoma at last screening occasion in communities ever considered at risk of trachoma under the National Trachoma Management Program.	Number of First Nations children aged 5–9 screened at last screening occasion in communities ever considered at risk of trachoma under the National Trachoma Management Program.	Target age group is children aged 5–9 years	Australian Trachoma Surveillance Report
1.3.2	Prevalence of trichiasis	$\frac{\text{Numerator}}{\text{denominator}} \times 100$	Number of First Nations people aged 15 and over reported with trichiasis, previously unknown to the health system	Number of First Nations people aged 15 and over screened for trichiasis	Target age group is those aged 15 and over, but data for those aged 40 and over are also shown.	Australian Trachoma Surveillance Report

(continued)

Measure	Description	Calculation	Numerator	Denominator	Notes and definitions	Data sources
2.1.1	Annual health assessments for First Nations people	Numerator ÷ denominator x 100 See calculation for Measure 1.1 for age-standardised rate	Number of First Nations people who had a face-to-face health assessment (MBS items 715,228, 93470 and 93479) or a Telehealth assessment (MBS items 92004, 92011) claimed in the financial year	First Nations population at the middle of the financial year, calculated from the average of the populations as at 30 June, at the beginning and end of the financial year		MBS, and ABS population data
2.1.2	Proportion of the population that had an annual health assessment and an initial eye examination by an optometrist	Numerator ÷ denominator x 100 See calculation for Measure 1.1 for age-standardised rate		First Nations population at the middle of the financial year, calculated from the average of the populations as at 30 June, at the beginning and end of the financial year		MBS, and ABS population data
2.2	Proportion of the population that had an eye examination by an eye care professional	Numerator ÷ denominator x 100 See calculation for Measure 1.1 for age-standardised rate	Number of people who had an eye examination (MBS items 11215, 11218, 10910–10916 or 10918 within the reference period) claimed in the financial year	Population at the middle of the financial year, calculated from the average of the populations as at 30 June, at the beginning and end of the financial year		MBS, VII and ABS population data
2.3.1	Eye examinations among those tested for diabetes	Numerator ÷ denominator x 100	Number of people who claimed MBS item 66551 in the financial year or year before, and who had an eye examination in the financial year: i) MBS group A10, Optometrical Services (except items 10921–10930) and/or ii) MBS group D1 subgroup 2: Miscellaneous Diagnostic Procedures and Investigations, Ophthalmology	Number of people who claimed MBS item 66551 (Quantitation of glycosylated haemoglobin performed in the management of established diabetes) in the financial year or year before		MBS and VII

(continued)

Measure	Description	Calculation	Numerator	Denominator	Notes and definitions	Data sources
2.3.2	Proportion of the target population screened for diabetic retinopathy (survey data)	$\text{Numerator} \div \text{denominator} \times 100$	Number of participants responding to the AEEHS with diabetes mellitus who have had a diabetic eye examination within the specified time categories	Number of participants responding to AEEHS with diabetes mellitus		AEEHS
2.3.3	Number and rate per 1,000 of the target population who were screened for diabetic retinopathy with a retinal camera	$\text{Numerator} \div \text{denominator} \times 1,000$	Number of people who claimed MBS item 12325 in the financial year or the year before	Population at the middle of the financial year, calculated from the average of the populations as at 30 June, at the beginning and end of the financial year		MBS and ABS population data
2.4.1	Screening coverage for: trachoma	$\text{Numerator} \div \text{denominator} \times 100$	Number of First Nations children aged 5–9 screened for trachoma during the reporting year	Estimated number of First Nations children aged 5–9 in at-risk communities who were screened for trachoma during the reporting year		Australian Trachoma Surveillance Report
2.4.2	Screening coverage for trichiasis	$\text{Numerator} \div \text{denominator} \times 100$	Number of First Nations people aged 15 and over screened for trichiasis	Estimated number of First Nations people aged 15 and over in trachoma endemic regions based on ABS Census data.	Target age group is those aged 15 and over, but data for those aged 40 and over are also shown	Australian Trachoma Surveillance Report and ABS population data
2.5	Undiagnosed eye conditions	$\text{Numerator} \div \text{denominator} \times 100$	Number of participants with vision impairment or blindness attributed to each main cause who self-reported 'No' or 'Unsure' to the question 'Have you ever been told by a doctor that you have the following condition?' for that condition	Number of participants with vision impairment or blindness attributed to each main cause		NEHS

(continued)

Measure	Description	Calculation	Numerator	Denominator	Notes and definitions	Data sources
3.1	Hospitalisation rates for diseases of the eye	Numerator ÷ denominator x 1,000 (See calculation for Measure 1.1 for ASR)	Number of hospitalisations with a principal diagnosis of diseases of the eye and adnexa (International Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification (ICD-10-AM) codes H00-H59) and care type not 'new born - unqualified days only' or 'organ procurement - posthumous' or 'hospital boarder'	Population at the middle of the financial year, calculated from the average of the populations as at 30 June, at the beginning and end of the financial year	Includes hospitalisations in public and private hospitals	NHMD and ABS population data
3.2	Hospitalisation rates for injuries to the eye	Numerator ÷ denominator x 1,000 (See calculation for Measure 1.1 for ASR)	Number of hospitalisations with a principal diagnosis of injuries to the eye and adnexa (ICD-10-AM codes S001, S002, S011, S021, S023, S028, S040-S042, S044, S050-S059, T150, T151, T158, T159, T260-T264, T495, T904) and care type not 'new born - unqualified days only' or 'organ procurement - posthumous' or 'hospital boarder'	Population at the middle of the financial year, calculated from the average of the populations as at 30 June, at the beginning and end of the financial year	Includes hospitalisations in public and private hospitals	NHMD and ABS population data

(continued)

Measure	Description	Calculation	Numerator	Denominator	Notes and definitions	Data sources
3.3	Hospitalisation rates for eye procedures	Numerator ÷ denominator x 1,000 (See calculation for Measure 1.1 for ASR)	Number of hospitalisations, that had a procedure on the eye or adnexa (Australian Classification of Health Interventions (ACHI) block codes 160–256) and care type not 'new born – unqualified days only' or 'organ procurement – posthumous' or 'hospital boarder' (For some analysis, the numerator is disaggregated by Australian Refined Diagnosis Group (AR-DRG) version 7.0)	Population at the middle of the financial year, calculated from the average of the populations as at 30 June, at the beginning and end of the financial year	Includes hospitalisations in public and private hospitals Only includes patients who received acute care	NHMD and ABS population data
3.4	Cataract surgery rate	Numerator ÷ denominator x 1,000,000 Numerator ÷ estimated need x 100 (for analysis by roadmap region only) (See calculation for Measure 1.1 for ASR)	Number of hospitalisations that had a procedure related to cataract surgery (ACHI procedure blocks 193-203) and care type not 'new born – unqualified days only' or 'organ procurement – posthumous' or 'hospital boarder'	Population at the middle of the financial year, calculated from the average of the populations as at 30 June, at the beginning and end of the financial year	Includes hospitalisations in public and private hospitals The estimated number of people requiring cataract surgery was derived from the Calculator for the co-ordination and delivery of eye care services developed by the IEHU; University of Melbourne	NHMD and ABS population data
3.5	Cataract surgical coverage rate	Numerator ÷ denominator x 100	Number of participants in the AEEHS who have had cataract surgery	Total AEEHS participants operated on or still requiring surgery		AEEHS

(continued)

Measure	Description	Calculation	Numerator	Denominator	Notes and definitions	Data sources
3.6.1	Waiting times for elective cataract surgery	<p>i) 50th and 90th percentile:</p> <p>a) The 50th percentile (median waiting time) represents the number of days within which 50% of patients were admitted for elective cataract surgery</p> <p>b) The 90th percentile data represent the number of days within which 90% of patients were admitted for elective cataract surgery</p>	The time elapsed in days for a patient on the public hospital elective surgery waiting list, from the date they were added to the waiting list for the procedure to the date they were removed from the waiting list for hospitalisations, that had a procedure related to cataract surgery (indicator procedure '01') and care type not 'new born – unqualified days only' or 'organ procurement – posthumous' or 'hospital boarder' (Based on first indicator procedure waiting time)	Number of hospitalisations for a patient on the public hospital elective surgery waiting list that had a procedure related to cataract surgery (indicator procedure '01') and care type not 'new born – unqualified days only' or 'organ procurement – posthumous' or 'hospital boarder'		NHMD
3.6.2	Proportion of hospitalisations for cataract surgery treated within 90 days, and within 365 days	<p>ii) The proportion of patients:</p> <p>a) treated within 90 days</p> <p>b) treated within 365 days for elective cataract surgery: $\frac{\text{Numerator}}{\text{denominator}} \times 100$</p>	<p>Number of hospitalisations for a patient on the public hospital elective surgery waiting list who had a procedure related to cataract surgery (indicator procedure '01') and care type not 'new born – unqualified days only' or 'organ procurement – posthumous' or 'hospital boarder' for which the waiting time was:</p> <p>a) less than or equal to 90 days</p> <p>b) less than or equal to 365 days</p> <p>(Based on first indicator procedure waiting time)</p>	Number of hospitalisations for a patient on the public hospital elective surgery waiting list who had a procedure related to cataract surgery (indicator procedure '01') and care type not 'new born – unqualified days only' or 'organ procurement – posthumous' or 'hospital boarder'		NHMD

(continued)

Measure	Description	Calculation	Numerator	Denominator	Notes and definitions	Data sources
3.7.1	Target population screened for diabetic retinopathy who underwent treatment for diabetic retinopathy	Numerator ÷ denominator x 100 (See calculation for Measure 1.1 for ASR)	Number of people who had a laser eye procedure (MBS item 42809) and/or Intra-vitreous injection (MBS items 42738 and 42739), and who claimed MBS item 66551 in the financial year or year before	Number of people who claimed MBS item 66551 in the financial year or year before, and who had an eye examination in the financial year: i) MBS group A10, Optometrical Services (except items 10921–10930) and/or ii) MBS group D1 subgroup 2, Miscellaneous Diagnostic Procedures and Investigations, Ophthalmology iii) Medical practitioner MBS item 12325		MBS and VII
3.7.2	Target population tested for diabetes who underwent treatment for diabetic retinopathy	Numerator ÷ denominator x 100 (See calculation for Measure 1.1 for ASR)	Number of people who had a laser eye procedure (MBS item 42809) and/or Intra-vitreous injection (MBS items 42738 and 42739), and who claimed MBS item 66551 in the financial year or year before	Number of people who claimed MBS item 66551 in the financial year or year before		MBS and VII
3.8.1	Trachoma treatment coverage	Numerator ÷ denominator x 100	Number of active cases and household/community contacts treated in communities where active trachoma was identified	Estimated number of active cases and household/community contacts requiring treatment according to CDNA guidelines in communities with active trachoma		Australian Trachoma Surveillance Report

(continued)

Measure	Description	Calculation	Numerator	Denominator	Notes and definitions	Data sources
3.8.2	Trichiasis treatment occasions	Number	Number of First Nations people aged 15 years and over who had surgery to correct trichiasis in the past 12 months.	n.a.	Surgery may include cases identified in previous years	Australian Trachoma Surveillance Report
3.9	Treatment of refractive error	$\frac{\text{Numerator}}{\text{denominator}} \times 100$	Number of participants who reported distance spectacle or contact lens correction and had visual acuity (VA) $\geq 6/12$	Number of participants who reported distance spectacle or contact lens correction and had VA $\geq 6/12$ + participants who had refractive error as their main cause of vision impairment or blindness		AEEHS
3.10	Number and rate of glasses dispensed under state spectacle schemes	$\frac{\text{Numerator}}{\text{denominator}} \times 1,000$	Data are the number of spectacles provided to First Nations people	Population at the middle of the financial year, calculated from the average of the populations as at 30 June, at the beginning and end of the financial year	Only 5 jurisdictions could provide data The estimated number of people requiring spectacles was derived from the Calculator for the co-ordination and delivery of eye care services developed by the IEHU; University of Melbourne	NSW Department of Family & Community Services; Australian College of Optometry Victorian; Queensland Health, SA Dept of Human Services, Tasmanian Health Service data (unpublished) and ABS population data

(continued)

Measure	Description	Calculation	Numerator	Denominator	Notes and definitions	Data sources
4.1	Number and rate of optometrists	Number FTE rate: Numerator (FTE) ÷ denominator x 100,000	Number of registered optometrists employed in Australia working in registered profession FTE of registered optometrists employed in Australia working in registered profession	Population as at 30 June	FTE based on a 38-hour work week	NHWDS and ABS population data
4.2	Number and rate of ophthalmologists	Number FTE rate: Numerator (FTE) ÷ denominator x 100,000	Number of registered ophthalmologists employed in Australia working in registered profession FTE of registered ophthalmologists employed in Australia working in registered profession	Population as at 30 June	FTE based on a 40-hour work week	NHWDS and ABS population data
4.3	Number and rate of allied ophthalmic personnel	Number FTE rate: Numerator (FTE) ÷ denominator x 100,000	Number of allied ophthalmic personnel employed in the workforce FTE of allied ophthalmic personnel employed in the workforce	Population as at 30 June	FTE based on a 38-hour work week	Census; professional associations and employer organisations; and ABS population data

(continued)

Measure	Description	Calculation	Numerator	Denominator	Notes and definitions	Data sources
4.4.1	Occasions of eye health services provided under Visiting Optometrist Scheme (VOS) outreach programs	Crude rate: Numerator ÷ denominator x 1,000	The number of occasions of service by eye health professionals under the VOS	Population at the middle of the financial year, calculated from the average of the populations as at 30 June, at the beginning and end of the financial year		The Department of Health and Aged Care and ABS population data
4.4.2	Occasions of eye health services provided under Rural Health Outreach Fund (RHOF) outreach programs	Crude rate: Numerator ÷ denominator x 1,000	The number of First Nations occasions of service by eye health professionals under the RHOF	Population at the middle of the financial year, calculated from the average of the populations at 30 June, at the beginning and end of the financial year (Note that RHOF services are provided in <i>Inner regional, Outer regional, Remote and Very remote</i> areas only. Therefore populations used to calculate the rates for RHOF did not include <i>Major cities</i>)		The Department of Health and Aged Care and ABS population data
4.4.3	Occasions of eye health services provided under Medical Outreach Indigenous Chronic Disease Program (MOICDP) outreach programs	Crude rate: Numerator ÷ denominator x 10,000	The number of First Nations occasions of service by eye health professionals under the MOICDP	Population at the middle of the financial year, calculated from the average of the populations as at 30 June, at the beginning and end of the financial year		The Department of Health and Aged Care and ABS population data

(continued)

Measure	Description	Calculation	Numerator	Denominator	Notes and definitions	Data sources
4.4.4	Combined outreach programs		The number of First Nations occasions of service by eye health professionals under the VOS, RHOF and MOICDP			The Department of Health and Aged Care and ABS population data
4.4.5	Eye and Ear Surgical Support Program (EESS)		The number of First Nations occasions of service that received support from the EESS.			The Department of Health and Aged Care and ABS population data

(continued)

Appendix D: Data gaps and limitations

Australian Eye and Ear Health Survey

The AEEHS was conducted from August 2022 to July 2025. There is difference in the survey methodology and design across the 2016 NEHS and the 2025 AEEHS and therefore the results reported in this report are not directly comparable to previous results reported.

In addition, the AEEHS results presented are not weighted to the Australian population and whilst some data have been age-standardised, publicly available data for some items are limited to crude rates.

Future work is planned to present additional disaggregations from the AEEHS along with weighting results to the Australian population.

Primary health care

Primary health care is the entry level to the health system and, as such, is usually a person's first encounter with the health system. It includes a broad range of activities and services, from health promotion and prevention to treatment and management of acute and chronic conditions.

Currently, there is no national primary health care data collection in Australia. Bettering the Evaluation and Care of Health (BEACH) data provided an indication of problems managed by general practitioners (GPs) in Australia including problems related to eye health; however, this collection ceased in 2015. The AIHW is working to establish a primary health care data collection.

Primary health care data collection relevant to First Nations people are collected from Indigenous Specific Primary Health Care services, the majority of which are delivered by ACCHOs. The data collected from these services do not currently include any measures related to eye health.

Through Medicare, First Nations people can receive primary health care through regular health checks for First Nations people. The requirements of a health check for First Nations people—set out in the relevant sections of the MBS—include an assessment of the patient's problems related to eye health. The MBS data cover the total number and proportion of First Nations people for whom a health check was undertaken but not the specific conditions examined during each health check.

Medicare benefits schedule data

MBS data reflect MBS claims and not necessarily all the services received. A person may be provided with equivalent care from a health care provider who is not eligible to bill Medicare. The data are based on the date of processing of claims. While the data have been used to measure the level of specific activities, changes in the use of an MBS item over time can reflect changes in billing and claiming practices or the introduction of new items, and not necessarily changes in the health care provided.

The identification of First Nations people in Medicare data is not complete. Since 2002, individuals who choose to identify as being of Aboriginal and/or Torres Strait Islander descent have been able to have this information recorded on the Medicare database through the VII. VII enrolment is through either a VII enrolment form or a tick-box on a Medicare Australia enrolment form. Both methods of enrolment indicate that identifying as First Nations people is optional.

As at March 2016, an estimated 65% of the First Nations population had identified as being of Aboriginal and/or Torres Strait Islander origin through the VII process. VII coverage varies by age group and state and territory. The MBS data presented in this report have been adjusted for under-identification, except for data on MBS items for annual health assessments and the MBS item 12325 for diabetic retinopathy screening, which are specific for First Nations people. Before the current edition of this report by the Department of Health and Aged Care calculated the scale-up factors. The AIHW calculated them for this report, however, the estimates obtained are consistent with those produced by the Department of Health and Aged Care.

MBS data presented for treatment for diabetic retinopathy may underestimate rates. The denominator for this measure, includes the total population who undergo a diabetes test regardless of whether they are diagnosed with diabetes.

National Hospital Morbidity Database

The NHMD is a count of hospital separations (episodes of admitted patient care, which can be a total hospital stay, or a portion of a hospital stay that begins or ends in a change of type of care) and not of patients. Patients who separated from hospital more than once in the year will be counted more than once in the data set. The number and pattern of hospitalisations can be affected by differing admission practices among the jurisdictions and from year to year, and by differing levels and patterns of service delivery.

There is some under-identification of First Nations people in the NHMD, but NHMD data for all states and territories are considered to have adequate First Nations identification from 2010–11 onwards (AIHW 2013). An AIHW study found that, in 2011–12, the number of hospitalisations nationally for First Nations people was about 9% higher than reported (AIHW 2013). In 2013–14, about 408,000 hospitalisations were recorded as being for First Nations people (AIHW 2015a). Based on the level of under-identification suggested by the AIHW study (AIHW 2015b), the number of hospitalisations for First Nations people in 2013–14 was estimated to have been about 445,000. NHMD data presented in this report have not been adjusted for under-identification, so are likely to underestimate the level of First Nations hospitalisations.

Changes in the accuracy of First Nations identification in hospital records will result in changes in the reported number of hospitalisations for First Nations people. Caution should be used when interpreting changes over time, as it is not possible to ascertain whether a change in reported hospitalisations is due to changes in the accuracy of First Nations identification and/or real changes in the rates at which First Nations people were hospitalised. An increase in hospitalisation rates for a particular population might also reflect higher use of admitted patient hospital services – as opposed to other forms of health care – rather than a worsening of health. Likewise, a decrease in hospitalisation rates might not necessarily indicate better health. It should also be noted that the levels of under identification vary with state and remoteness and it is not known whether they also vary by reason for hospitalisation.

Except for hospitals in Western Australia, hospitalisations where the person's Indigenous status was not stated were excluded from analyses that compare First Nations and non Indigenous rates. In 2011–14, there were about 618,000 hospitalisations for which Indigenous status was not stated, representing around 2% of all hospitalisations in that period. For hospitals in Western Australia, records with an unknown Indigenous status are reported as non-Indigenous, so are included in the 'non-Indigenous' data in these analyses.

There are complexities and inconsistencies in the methodology of waiting time data capture and reporting. The number of people and waiting times for non-urgent outpatient appointments are not publicly reported in some jurisdictions (for example, New South Wales, Western Australia, the Australian Capital Territory and the Northern Territory). Where data are available, the reporting methods (measures and time periods) are inconsistent across the states and territories; hence comparisons should be interpreted with caution. There needs to be greater transparency and uniformity in reporting wait times for patients seeking care in public hospitals, potentially with standardised national reporting.

Australian Trachoma Surveillance Report

Estimates of the 5–9 year old population in at-risk communities are derived by health programs using ABS census data, enrolment lists from schools and health clinics, supplemented by local advice on movement into and out of communities. Community population estimates for trichiasis screening coverage are based on the most recent ABS Census data. Although this approach is current best practice, the estimates may not accurately reflect populations, given the small size and mobility of some communities.

The number of people screened for trichiasis may not account for all adults who may be examined in routine adult health checks and may also include multiple patient screenings. Screening is linked to trachoma endemic regions identified during implementation of the National Trachoma Management Program from 2006, and does not consider changing endemic regions over time and transiency between regions.

Spectacles data

Data analysed in this report represent one aspect of a broader system through which First Nations people may receive subsidised spectacles.

In some instances, spectacles are received outside of jurisdictional spectacle schemes (for example, through philanthropic programs or private prescribers). Data received through the National Subsidised Spectacles Scheme (NSSS) Project indicate that, in some jurisdictions, the supply of subsidised spectacles may be substantially higher than captured in data presented in this report. As well, jurisdictions such as Western Australia, the Australian Capital Territory and the Northern Territory currently do not routinely collect or have only recently begun to collect First Nations identification data as part of their subsidised spectacles eligibility provisions, so the number of subsidised spectacles delivered to First Nations people in these jurisdictions cannot be presented in this report.

Workforce data

Eye health workforce data give a broad indication of access to specialists and eye services. However, current data provide an incomplete picture of the extent of First Nations eye health services. For example, data do not capture many ophthalmological services – for example, eye examinations undertaken by salaried ophthalmologists in public hospitals. As well, the extent to which First Nations patients are serviced by eye health professionals is not clear from the optometrist, ophthalmologist or allied ophthalmic personnel data. The data on allied ophthalmic personnel come from Census data so are updated infrequently. Data on outreach eye health services included in this report are fragmented and do not include those services funded by state governments or other providers.

There is also a need for more detailed information on:

- the training pathways for First Nations people entering the eye health workforce
- the extent to which the eye health workforce provides services in or near First Nations communities and partnerships with First Nations communities.

Further information is also needed on the cultural safety of the eye health care provided to First Nations people and the referral pathways of First Nations patients from health service providers to optometrists and ophthalmologists.

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Abbreviations

AATSIHS	Aboriginal and Torres Strait Islander Health Survey
ABS	Australian Bureau of Statistics
ACCHO	Aboriginal Community Controlled Health Organisations
AEHS	Australian Eye and Ear Health Survey
AIHW	Australian Institute of Health and Welfare
APY	Anangu Pitjantjatjara Yankunytjatjara
AR-DRG	Australian Refined Diagnosis Related Group
ASR	age-standardised rate
BEACH	Bettering the Evaluation and Care of Health
CDNA	Communicable Diseases Network Australia
Census	ABS Census of Population and Housing
CI	confidence interval
COVID-19	coronavirus disease of 2019
DALY	disability-adjusted life years
EESS	Eye and Ear Surgical Support program
FTE	full-time equivalent
GP	general practitioner
ICD-10-AM	International Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification
IEHU	Indigenous Eye Health Unit
MBS	Medical Benefits Schedule
MOICDP	Medical Outreach Indigenous Chronic Disease Program
NACCHO	National Aboriginal Community Controlled Health Organisation
NATSIHS	National Aboriginal and Torres Strait Islander Health Survey
NEHS	National Eye Health Survey
NHMD	National Hospital Morbidity Database
NHWDS	National Health Workforce Data Set
NSSS	National Subsidised Spectacles Scheme
NSW	New South Wales
NT	Northern Territory

PHN	Primary Health Network
Qld	Queensland
RHOF	Rural Health Outreach Fund
SA	South Australia
Tas	Tasmania
Vic	Victoria
VII	Voluntary Indigenous Identifier
VOS	Visiting Optometrists Scheme
WA	Western Australia
WHO	World Health Organization
YLD	years lived with disability

Symbols

n.a.	not applicable
n.p.	not publishable because of small numbers, confidentiality or other concerns about the quality of the data
>	greater than
<	less than

Glossary

Aboriginal Health Worker: An Aboriginal and or Torres Strait Islander person who is in possession of a minimum qualification (Certificate III) within the fields of **primary health care** work or clinical practice. **Aboriginal or Torres Strait Islander:** A person who identifies themselves as being of Aboriginal or Torres Strait Islander origin. See also **First Nations people** and **Indigenous**.

admitted patient: A person who undergoes a public or private hospital's formal admission process to receive treatment and/or care. The types of care provided include surgical care, medical care, intensive care, newborn care, rehabilitation care, palliative care, and mental health care.

adnexa: Parts of the anatomy that are conjoined, subordinate, or associated.

age-specific rate: The number of events for a specified age group divided by the population in that age group.

age-standardised rates: The crude rates for different groups, such as for **First Nations** people and **non-Indigenous** Australians, applied to a standard population to produce a summary rate.

at-risk community (trachoma): Communities classified by state and territory health departments as being at higher risk of trachoma based on:

(1) past-year trachoma prevalence of 5% or more in children aged 5-9 years

(2) past-year trachoma prevalence of less than 5% but there is recorded trachoma prevalence of 5% or more in the previous 5 years or

(3) no past-year data, but there is recorded trachoma prevalence of 5% or more in the previous 5 years (CDNA, 2014)

Australian Refined Diagnosis Related Groups (AR-DRGs): An Australian system of diagnosis-related groups. These groups provide a clinically meaningful way to relate the number and type of patients treated in a hospital (that is, its casemix) to the resources required by the hospital. Each AR-DRG represents a class of patients with similar clinical conditions requiring similar hospital services.

blindness: Presenting visual acuity of $<6/60$ in the better eye.

burden of disease and injury: The quantified impact of a disease or injury on a population, using the disability-adjusted life years (**DALY**) measure.

cardiovascular disease/condition: Any disease of the circulatory system, namely the heart (cardio) or blood vessels (vascular). Includes angina, heart attack, stroke and peripheral vascular disease. Also known as circulatory disease.

cataract: A cloudy or opaque area in the lens of the eye or the transparent membrane around it that prevents light passing through it properly, resulting in blurred vision.

choroid: Part of the vascular layer of the eye.

confidence interval (CI): A range that indicates the uncertainty of an estimate from data analysis. A 95% confidence interval is a range of values that contain the true value with 95% confidence.

conjunctiva: A thin, protective mucous membrane that lines the insides of the eyelids and covers the white part of the eye.

cornea: A raised layer of clear, transparent tissue that covers the front part of the eye. As light passes through it, it helps the eye to focus.

COVID-19 (coronavirus disease of 2019): A highly infectious disease caused by the SARS-CoV-2 virus.

crude rate: A rate derived from the number of events recorded in a population during a specified time period, without adjustments for other factors such as age.

diabetes (diabetes mellitus): A chronic condition where the body cannot properly use its main energy source – the sugar glucose. This is due to a relative or absolute deficiency in insulin, a hormone produced by the pancreas, which helps glucose enter the body's cells from the bloodstream and be processed by them. Diabetes is marked by an abnormal build up of glucose in the blood; it can have serious short- and long-term effects. The 3 main types of diabetes are type 1 diabetes, type 2 diabetes and gestational diabetes.

diabetic retinopathy: A condition that can occur among people with diabetes where blood vessels in the retina grow abnormally and can cause vision loss and blindness.

disability-adjusted life year (DALY): A year of healthy life lost, either through premature death or equivalently through living with ill health due to illness or injury. It is the basic unit used in burden of disease and injury estimates.

elective surgery: Surgery that is planned in advance, following medical assessment. Though it may be optional in some cases, this is not always the case. Elective surgery contrasts with emergency surgery.

First Nations people: People who have identified themselves, or have been identified by a representative (for example, their parent or guardian), as being of **Aboriginal and/or Torres Strait Islander** origin. See also **Indigenous**.

full-time equivalent (FTE) workforce or workload: A standard measure of the size of a workforce that takes into account both the number of workers and the hours that each works. For an ophthalmologist, an FTE of 1 is assumed to be 40 hours in a week. For example, if a workforce comprises 2 people working full time 40 hours a week and 2 working half time, this is the same as 3 working full time – that is, an FTE of 3.

general practitioner (GP): A medical practitioner who provides primary, comprehensive and continuing care to patients and their families in the community.

glaucoma: A set of eye diseases that occur when the optic nerve at the back of the eye is damaged. This damage may occur when fluid builds up in the eye, due to ineffective drainage, putting excessive pressure on the optic nerve.

hospitalisation: An episode of hospital care that starts with the formal admission process and ends with the formal separation process (synonymous with admission and separation). An episode of care can be completed by the patient's being discharged, being transferred to another hospital or care facility, or dying – or by a portion of a hospital stay starting or ending in a change of type of care (for example, from acute care to rehabilitation).

hospitalisation (separation): An episode of care for an admitted patient that can be a total hospital stay (from admission to discharge, transfer or death), or a portion of a hospital stay beginning or ending in a change of care type (for example, from acute care to palliative care).

hypertension/ high blood pressure: The definitions vary but a well-accepted one is from the World Health Organization: a systolic blood pressure of 140 mmHg or more or a diastolic blood pressure of 90 mmHg or more, or [the person is] receiving medication for high blood pressure.

Indigenous: A term that describes a person who identifies themselves as being of **Aboriginal and/or Torres Strait Islander** origin. See also **First Nations people**.

Indigenous status: A term used to describe whether or not a person identifies as being of **Aboriginal and/or Torres Strait Islander** origin.

intravitreal injection: An injection that deposits medication into the space (called the vitreous cavity) at the back of the eye.

lacrimal system: An interconnected system of ducts, glands and sacs around the eye that carry tears from the surface of the eye to the nasal cavity.

macular degeneration: An eye disorder more common among people aged over 50. Dry macular degeneration (the most common form) sees central vision reducing or becoming blurry as inner layers of the macula – the part of the retina that enables clear central vision – thin and break down. Wet macular degeneration – much less common and more serious – sees abnormal blood vessels growing under the macula which may leak, scarring the macula. The peripheral vision of people with macular degeneration generally remains normal.

Medicare: A national, government-funded scheme that subsidises the cost of personal medical services for all Australians and aims to help them afford medical care. The Medicare Benefits Schedule (MBS) is the listing of Medicare services subsidised by the Australian Government. The schedule is part of the wider Medicare Benefits Scheme (Medicare).

non-Indigenous: A term used to describe people who have indicated that they are not of **Aboriginal or Torres Strait Islander** origin. See also **First Nations people**.

ophthalmologist: A medical specialist who provides diagnostic, treatment and preventive medical services related to diseases, injuries and deficiencies of the human eye and associated structures.

optometrist: An eye care professional trained to perform eye examinations and vision tests to determine the presence of visual, ocular and other abnormalities; ocular diseases; and systemic diseases with ocular manifestations. They also prescribe lenses, other optical aids, therapy and medication to correct and manage vision problems and eye diseases.

other Australians: Includes both non-Indigenous people and those whose Indigenous status is not known. Compare with non-Indigenous Australians.

periocular area: The area surrounding the eyeball but within the orbit.

periorbital: A term that describes the tissue around the eye.

primary health care: Services delivered in general practices, community health centres, Aboriginal health services and allied health practices (for example, physiotherapy, dietetic and chiropractic practices) under numerous funding arrangements.

Primary Health Network: An administrative not-for-profit organisation set up under the Australian Government Primary Health Networks Program to commission **primary health care** services:

- to meet the identified and prioritised needs of people in their administrative health region
- to provide practice support to **general practitioners**
- to integrate health services, including coordinating with local hospitals, to improve operational efficiency and provide a better experience for patients.

principal diagnosis: The diagnosis established, after study, to be chiefly responsible for occasioning an episode of admitted patient care, an episode of residential care or an attendance at the health care establishment. METeOR identifier: 514273.

procedure: A clinical intervention that is surgical in nature, carries a procedural risk, carries an anaesthetic risk, requires specialised training and/or requires special facilities or equipment available only in an acute care setting. METeOR identifier: 514040.

public patient: A person admitted to hospital who has agreed to be treated by doctors of the hospital's choice and to accept shared ward accommodation. Such patients are admitted and treated at no charge and are mostly funded through public sector health or hospital service budgets.

rate: One number (the numerator) divided by another number (the denominator). The numerator is commonly the number of events in a specified time. The denominator is the population 'at risk' of the event. Rates (**crude rates**, **age-specific rates** and **age-standardised rates**) are generally multiplied by a number such as 100,000 to create whole numbers.

rate difference: The literal, or absolute, gap between 2 population rates; for this report, it was calculated as the rate for First Nations people minus the rate for non-Indigenous Australians.

rate ratio: The relative difference between populations taking scale into account; for this report, it was calculated as the rate for First Nations people divided by the rate for non-Indigenous Australians, and is interpreted as follows:

1. a rate ratio of 1 indicates there is no difference between the rates
2. a ratio less than 1 indicates the rate is lower in the First Nations population
3. a ratio greater than 1 indicates the rate is higher in the First Nations population.

remoteness areas: Regions defined by the Australian Statistical Geographical Standard and based on the Accessibility/Remoteness Index of Australia, which uses the road distance to goods and services (such as to general practitioners, hospitals and specialist care) to measure relative accessibility of regions around Australia.

remoteness classification: A classification that divides each state and territory into several regions based on their relative accessibility to goods and services (such as to **general practitioners**, hospitals and specialist care) as measured by road distance. These regions are based on the Accessibility/Remoteness Index of Australia and defined as Remoteness Areas by either the Australian Standard Geographical Classification (before 2011) or the Australian Statistical Geographical Standard (from 2011 onwards) in each Census year. The 5 **Remoteness Areas** are *Major cities*, *Inner regional*, *Outer regional*, *Remote* and *Very remote*.

retina: The layer of tissue in the back of the eye that is sensitive to light.

separation: The formal process where a hospital records the completion of an episode of treatment and/or care for an admitted patient. See also **hospitalisation**.

telehealth: The remote delivery of health care services, such as health assessments or consultations, over the telecommunications infrastructure.

trachoma: An infectious disease of the eye caused by the bacterium *Chlamydia trachomatis*. Repeated episodes of infection can eventually cause loss of vision and blindness.

trachomatous trichiasis (trichiasis): A condition where at least one eyelash from the upper eyelid touches the eyeball, or evidence of recent epilation of in-turned eyelashes from the upper eyelid (WHO Alliance for the Global Elimination of Trachoma, 2019).

trachoma treatment coverage: The proportion of active cases and household and or community contacts requiring azithromycin treatment according to CDNA National Guidelines for the public health management of trachoma

wellbeing: A state of health, happiness and contentment. It can also be described as judging life positively and feeling good. For public health purposes, physical wellbeing (for example, feeling very healthy and full of energy) is also viewed as being critical to overall wellbeing. Because wellbeing is subjective, it is typically measured with self-reports, but objective indicators (such as household income, unemployment levels and neighbourhood crime) can also be used.

vision impairment: Presenting distance visual acuity of <6/12 in the better eye.

vision loss: vision impairment plus blindness.

Voluntary Indigenous Identifier: Data collected on people with a Medicare record who choose to have their Indigenous status recorded.

workforce: People who are employed or unemployed (not employed but actively looking for work). Also known as the labour force.

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Eye diseases and vision problems are the most common long-term health conditions reported by Aboriginal and Torres Strait Islander (First Nations) people. This is the ninth annual report to update the Eye health measures for Aboriginal and Torres Strait Islander people. The measures cover the prevalence of eye health conditions, diagnosis and treatment services, the eye health workforce and outreach services. The report provides an evidence base for monitoring changes in eye health amongst First Nations people over time, their access and use of eye health services, and for identifying gaps in service delivery. This report includes the latest available data against each measure where possible.

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