



# Eye health measures for Aboriginal and Torres Strait Islander people 2024:

## Tasmania

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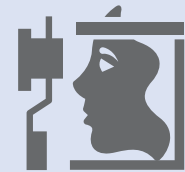
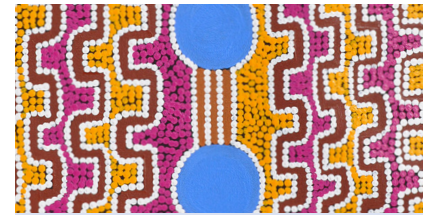
Eye health has a profound impact on a person's quality of life and ability to perform everyday activities. Lions Outback Vision notes that each year "thousands of Australians suffer from the debilitating effects of vision loss and blindness", yet 94% of vision loss is preventable or treatable ([Lions Outback Vision – Saving sight is our vision](#)).

Eye diseases and vision problems are the most common long-term health conditions reported by Aboriginal and Torres Strait Islander (First Nations) people affecting an estimated 45% of the population (ABS 2019). The main eye health conditions affecting First Nations people are refractive error, cataract and diabetic retinopathy. Trachoma is not commonly found in high-income countries but is endemic in some remote First Nations communities in Western Australia, South Australia and the Northern Territory ([Box 1](#)).

There is a substantial gap in access to eye health services between rural and remote areas and urban areas. Because of this variability in access to services, measures in this report are examined by remoteness within the state using The Roadmap to Close the Gap for Vision regions ([Box 2](#)) where possible. Roadmap regions were assigned to one of 3 'predominant remoteness' categories (*Major cities, Inner and outer regional, or Remote and very remote*) based on the estimated distribution of First Nations people across Remoteness Areas (Edition 3) in 2021.

Across a continuum of care, eye health services cover prevention, screening, diagnosis and treatment services. This report presents eye health and eye health service measures across the continuum of care for the First Nations population in Tasmania and compares this with the total national First Nations population. Comparisons with the non-Indigenous population are also presented in the report. All rates referred to in the text or presented in figures and tables in this report are crude rates, unless specified otherwise.

This report is part of a series of reports, one for each state and territory. This report highlights programs particular to Tasmania that aim to improve access to services and outcomes.



Around **2 in 10** First Nations people in Tasmania had an eye examination by an optometrist or ophthalmologist in 2022–23.



Nationally, **0.9 per 1,000** First Nations people were screened for diabetic retinopathy with a retinal camera in 2022–23. The Tasmanian screening rate was not available.



In 2021–23, **62%** of First Nations people's need for cataract surgery in Tasmania was met.

## Main Findings

- In 2018–19, in Tasmania, 12,313 (62%) First Nations people aged 15 years and over reported eye and sight problems. This was lower than the national First Nations proportion, 52%.
- During the 2022–23 financial year, 5,586 (18%) First Nations people in Tasmania had an eye examination by an optometrist or ophthalmologist. The comparable rate for the total First Nations population was lower, 14% (126,816).
- In 2022–23, in Tasmania the number of First Nations people who were screened and the rate of screening for diabetic retinopathy with a retinal camera were too small to publish. Across Australia, 802 First Nations people were screened for diabetic retinopathy with a retinal camera in 2022–23 (0.9 per 1,000 population).
- In 2021–23, the hospitalisation rate for First Nations people living in Tasmania for diseases of the eye was 9.5 per 1,000 population. The comparable rate for the total First Nations population was 7.4 per 1,000.
- In 2021–23, the number of hospitalisations for cataract surgery for First Nations people in Tasmania (366 hospitalisations) was below the estimated number of people needing cataract surgery (595). Therefore, 62% of the need for cataract surgery was met. The comparable number of hospitalisations for the total First Nations population was 8,008 people which was also below the estimated number of people needing cataract surgery (17,031), only 47% of need met nationally

# Tasmania population

Tasmania is Australia's smallest state, containing three Roadmap regions (Figure 1).

On 30 June 2021, the estimated resident population of First Nations people in Tasmania was 33,857 or 6.0% of Tasmania's population (ABS 2023). This represents 3.4% of the total Aboriginal and Torres Strait Islander population in 2021 (983,700 population).

This represented an increase from the 2011 Census and 2016 Census which showed the estimated resident First Nations population was 4.7% (ABS 2013) and 5.5% (ABS 2018), respectively of the Tasmanian population.

In 2021, among the total population living in each Tasmanian remoteness area, the proportion who were First Nations people was:

- 4.7% (16,490) of people living in Tasmanian *Inner regional areas* were First Nations
- 8.1% (16,496) in *Outer regional areas*
- 7.8% (871) in *Remote and very remote areas*.

In 2023, the South Roadmap region had the highest proportion of the total Tasmanian population who were First Nations people (Figure 2).

Figure 1: Tasmania-Roadmap regions

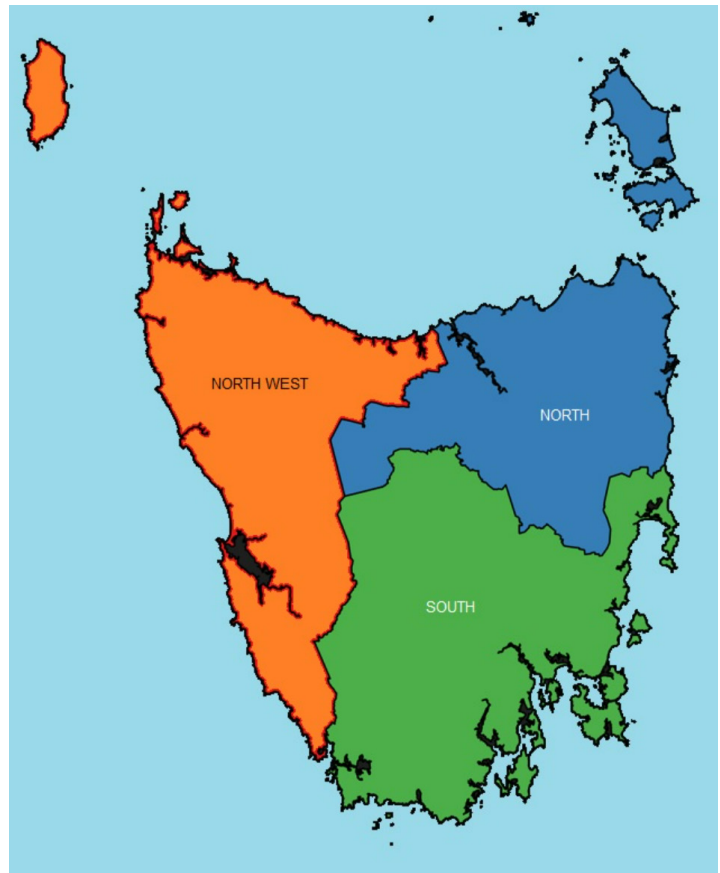
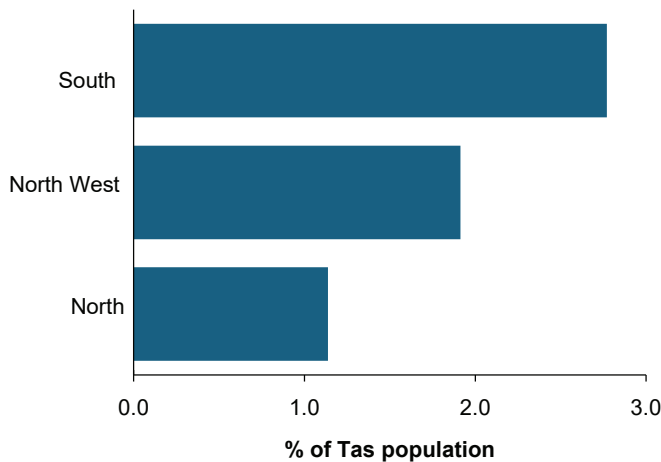


Figure 2 : Tasmania Roadmap regions, First Nations people, 2023



Remoteness <sup>1</sup>	Roadmap region	% of Tas population <sup>2</sup>
Inner and outer regional	North	2.8
	North West	1.9
	South	1.1
Tas		5.8

Notes:

1. Roadmap regions were assigned to one of 3 'predominant remoteness' categories (*Major cities, Inner and outer regional, or Remote and very remote*) based on the estimated distribution of First Nations people across Remoteness Areas (Edition 3) in 2021. The geographic area of a Roadmap region may differ from the boundary of the remoteness area to which it is assigned.
2. Roadmap region populations were modelled by the AIHW using 2016 ABS population estimates and projections (series B).

# Eye health measures

## Eye health prevalence

In 2018–19, in Tasmania, 12,313 (61.5%) First Nations people aged 15 years and over reported eye and sight problems. This was higher than the national First Nations proportion, 52%.

In 2018–19, in Tasmania, after adjusting for age differences between the First Nations and non-Indigenous populations, the proportion of self-reported eye or sight problems for First Nations people was 56%. This was higher than the age adjusted proportion for non-Indigenous Australians in Tasmania, 52% (rate ratio of 1.1). This was also higher than the age adjusted national proportion for First Nations people, 49% (AIHW 2023).

## Eye health diagnosis and screening

Primary health care providers, such as general practitioners and pharmacists, play a key role in detecting and diagnosing problems, treating minor eye conditions and referring patients for more specialised care. They also conduct annual health assessments. Optometrists provide dedicated eye specific primary care, vision and refraction assessment and eye health screening services including screening for diabetic retinopathy. Ophthalmologists provide medical and surgical eye specialist care and treatment for eye conditions including cataract surgery and treatments for diabetic retinopathy.

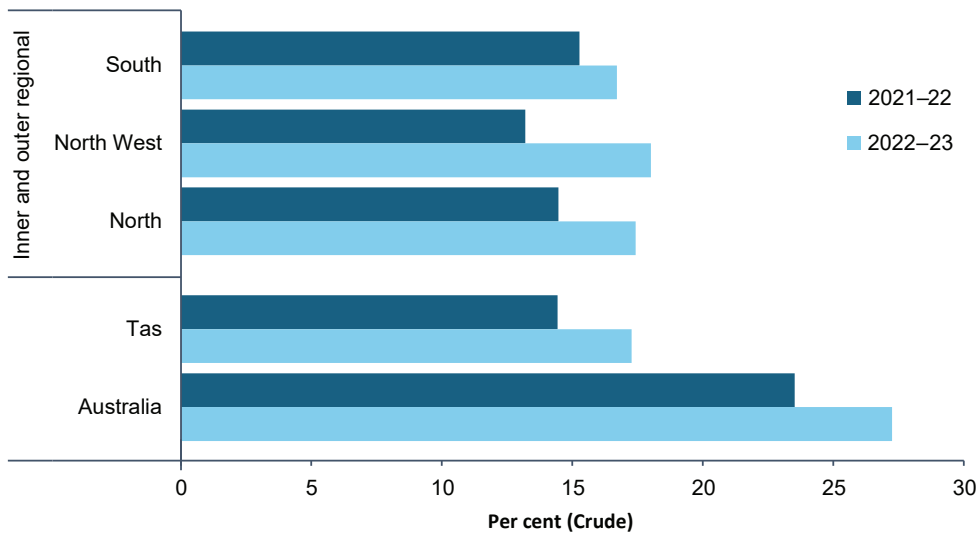
## Annual health assessments

First Nations people can receive an annual health assessment, designed specifically for First Nations people, and funded through Medicare. A basic eye check is a mandatory part of the assessment and may include examining the eye, checking visual acuity, and referring the patient to an optometrist or ophthalmologist for comprehensive eye care if necessary.

In 2022–23, around two in ten (17%, 5,458) First Nations people in Tasmania had an annual health check, lower than the national proportion (27%). In 2021–22, the rate of health checks in Tasmania was lower; just more than one in ten (14%, 4,487) First Nations people in Tasmania had an annual health check, again lower than the national First Nations proportion (24%) (Figure 3).

In 2022–23, the proportion of general MBS annual health assessments for First Nations people in Tasmania was highest in North West Roadmap region (18% or 1,868). Rates of annual health assessments in all Roadmap regions increased between 2021–22 and 2022–23 (Figure 3).

**Figure 3: Annual health assessments, by Roadmap Region, Tasmania and Australia, First Nations people**



Remoteness	Roadmap region	2021-22		2022-23	
		Number of people	Per cent	Number of people	Per cent
Inner and outer regional	South	2,261	15.3	2,514	16.7
	North West	1,347	13.2	1,868	18.0
	North	879	14.5	1,075	17.4
Tas		4,487	14.4	5,458	17.3
Australia		208,759	23.5	246,707	27.3

Source: AIHW analysis of MBS data.

## Eye examinations by an eye care professional (optometrists and ophthalmologists)

Patients may have one or a series of appointments with an optometrist or ophthalmologist. This measure includes only the first appointment.

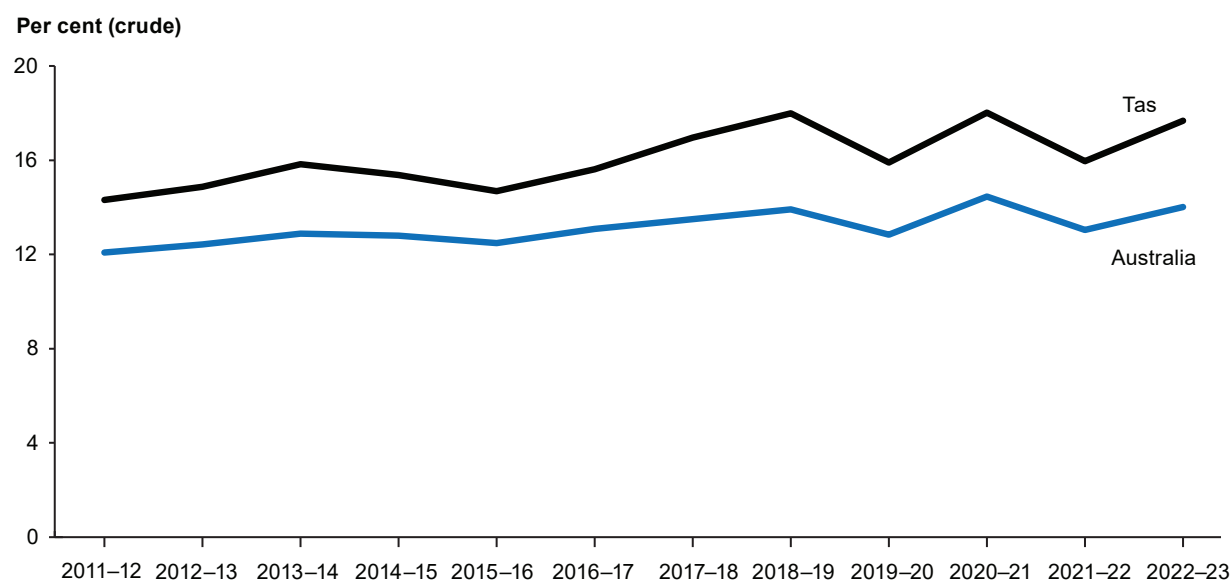
The proportion of initial eye examinations for First Nations people in Tasmania has increased slightly over time from 14% in 2011-12 to 18% in 2022-23. The proportion of eye examinations for First Nations people in Tasmania has been consistently higher than the national proportion, over this period (Figure 4).

**Optometrists** – primary eye care professionals who perform eye examinations, vision tests for refractive error to prescribe glasses and critical screening for other eye conditions, some are therapeutically endorsed for limited prescribing rights

**Ophthalmologists** – medical eye specialists who provide diagnostic, treatment and preventive medical services related to diseases, injuries and deficiencies in the human eye, such as cataract surgery.

The age adjusted proportion of the national population who had an initial eye examination by an optometrist or ophthalmologist has been consistently lower for First Nations people than for non-Indigenous Australians from 2011-12 to 2022-23. The First Nations age adjusted national proportion ranged from 18% to 20%, over this period, while the non-Indigenous proportion ranged from 22% to 27%, over the same period. In 2022-23, after adjusting for differences in age structure, First Nations people were less likely than non-Indigenous Australians to have an eye examination (rate ratio of 0.7, rate difference of -7.5).

**Figure 4: Eye examinations by an eye care professional, Tasmania and Australia, First Nations people**



Year	Tasmania		Australia	
	Number of patients	Per cent	Number of patients	Per cent
2011-12	3,730	14.3	87,929	12.1
2012-13	3,960	14.9	92,393	12.4
2013-14	4,297	15.8	97,873	12.9
2014-15	4,255	15.4	99,155	12.8
2015-16	4,148	14.7	98,683	12.5
2016-17	4,491	15.6	105,430	13.1
2017-18	4,951	17.0	110,951	13.5
2018-19	5,337	18.0	116,560	13.9
2019-20	4,791	15.9	109,709	12.8
2020-21	5,513	18.0	125,862	14.5
2021-22	4,964	16.0	115,735	13.0
2022-23	5,586	17.7	126,816	14.0

Source: AIHW analysis of MBS data.

## Screening for diabetic retinopathy

Diabetic retinopathy is an eye condition that can cause vision loss and blindness in people who have diabetes. Current guidelines recommend that First Nations people with diabetes have an annual eye examination to screen for diabetic retinopathy (National Health and Medical Research Council 2008).

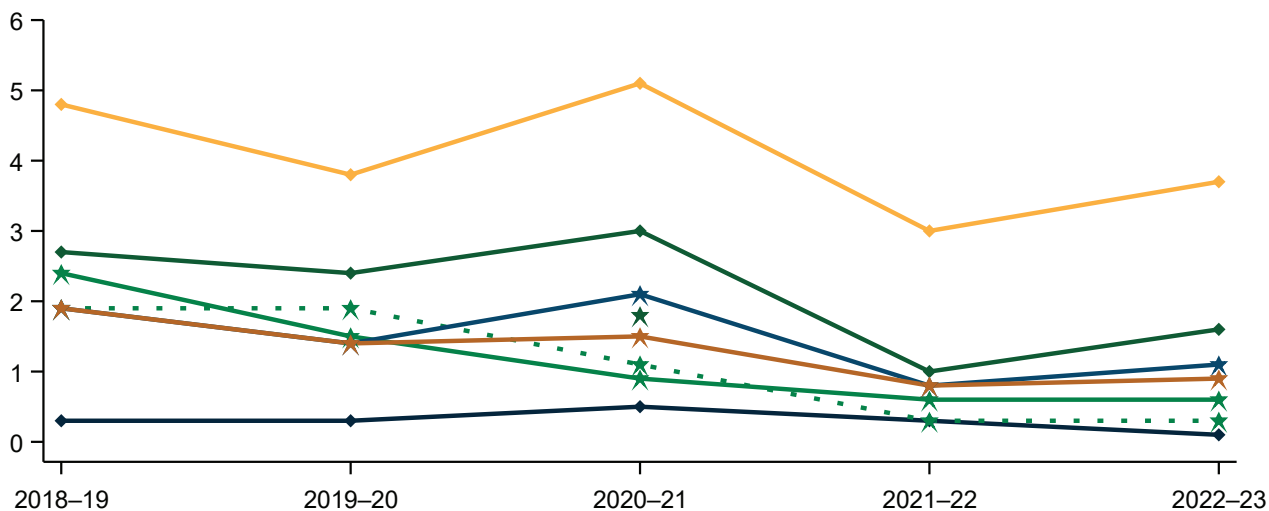
In the 2016 National Eye Health Survey, just over half (53%) of First Nations participants aged 40 and over with self-reported diabetes had a diabetic eye examination in the preceding 12 months. This varied by remoteness, with participants in Very remote areas having the lowest proportion of examinations (35%).

More recent Medicare data of rates of eye examinations among those tested for diabetes indicate whether people who may have diabetes are accessing eye examinations and retinopathy screening. Not all people who have a diabetes test have diabetes so this measure may be an underestimate.

There were too few or no First Nations people in Tasmania, who were screened for diabetic retinopathy with a retinal camera, to publish numbers or rates. Screening rates for diabetic retinopathy with a retinal camera are shown nationally and for other states and territories (Figure 5).

Figure 5: Screened for diabetic retinopathy with a retinal camera, by state/territory, First Nations people

Per cent (crude)



	2018-19		2019-20		2020-21		2021-22		2022-23	
	Number of patients	Rate per 1,000	Number of patients	Rate per 1,000	Number of patients	Rate per 1,000	Number of patients	Rate per 1,000	Number of patients	Rate per 1,000
NSW	93	0.3	88	0.3	140	0.5	99	0.3	35	0.1
Vic	115	1.9	121	1.9	73	1.1	20	0.3	23	0.3
Qld	566	2.4	354	1.5	231	0.9	152	0.6	150	0.6
WA	512	4.8	403	3.8	557	5.1	329	3.0	418	3.7
SA	85	1.9	65	1.4	98	2.1	40	0.8	50	1.1
Tas	—	—	n.p.	n.p.	—	—	n.p.	n.p.	—	—
ACT	—	—	n.p.	n.p.	15	1.8	n.p.	n.p.	—	—
NT	211	2.7	186	2.4	234	3.0	79	1.0	126	1.6
Australia	1,582	1.9	1,225	1.4	1,348	1.5	721	0.8	802	0.9

Note: n.p. = not published due to small numbers. — = Number of patients and rate was 0.

Source: AIHW analysis of MBS data.

## Eye health treatment

Different eye problems require different treatments. For example, surgery is required to remove cataracts while refractive error is treated by using visual aids, such as glasses and contact lenses.

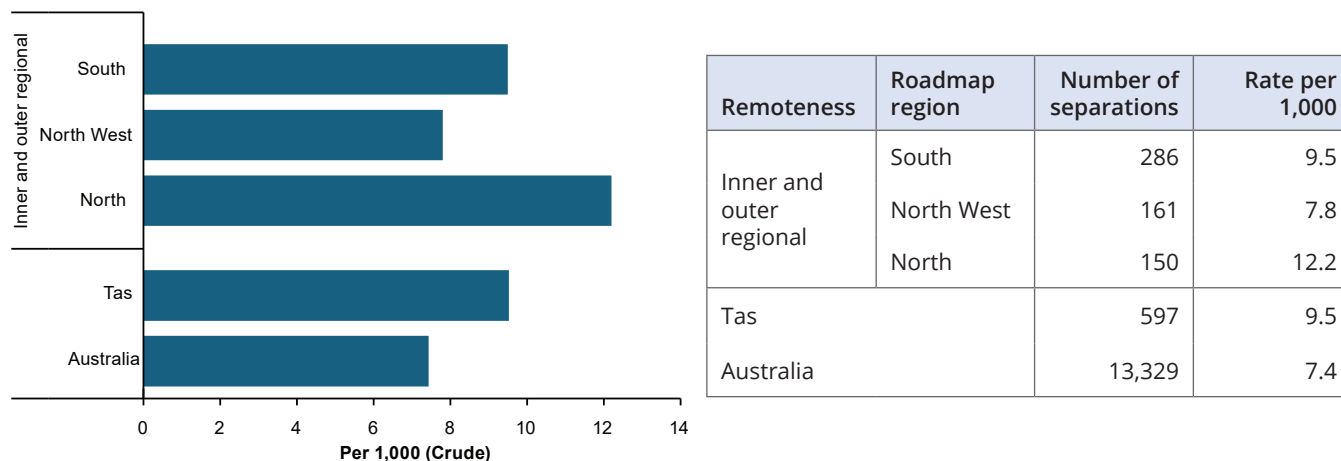
### Hospitalisations for diseases of the eye

In the 2-year period, 2021-23, there were 597 hospitalisations (9.5 per 1,000) for diseases of the eye for First Nations people in Tasmania.

In 2021-23, in Tasmania, hospitalisation rates for eye diseases were highest in the North Roadmap region (12.2 per 1,000, 150 hospitalisations) followed by South (9.5 per 1,000, 286 hospitalisations).

Hospitalisation rates in all 3 Roadmap regions in Tasmania were higher than the Australian rate (Figure 6).

**Figure 6 : Hospitalisation rates for diseases of the eye, by Roadmap region, Tasmania and Australia, First Nations people, 2021–23**



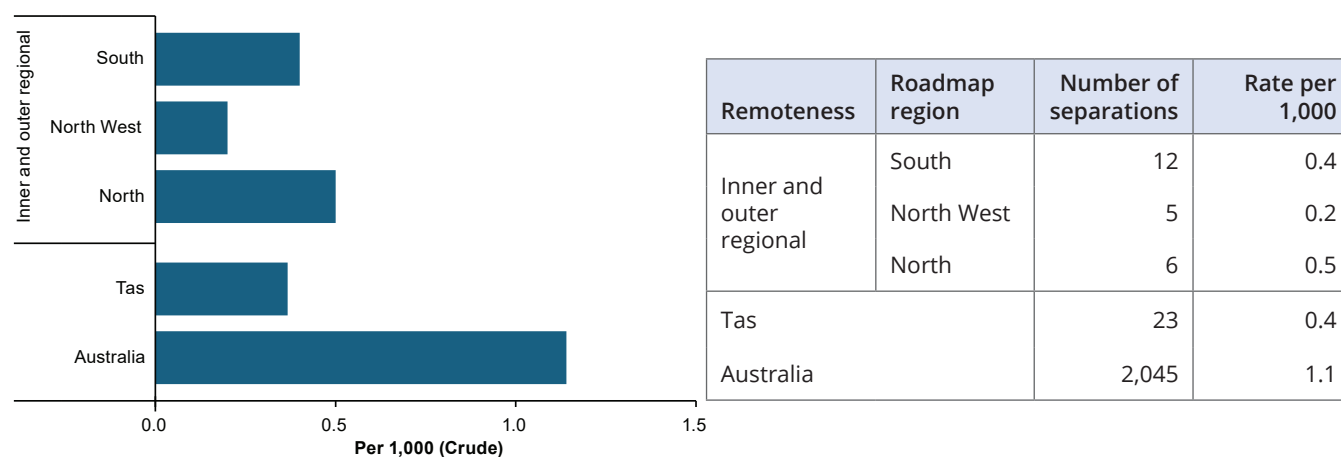
Source: AIHW analysis of NHMD.

In 2021–23 in Tasmania, after adjusting for age differences between the First Nations and non-Indigenous populations, the hospitalisation rate for First Nations Australians for diseases of the eye (13.9 per 1,000 population) was lower than the non-Indigenous hospitalisation rate (22.1 per 1,000 population); rate ratio of 0.6, rate difference of -8.2.

### Hospitalisations for injuries to the eye

In the 2-year period, 2021–23, for First Nations people nationally, the most common principal diagnosis for hospitalisations for injury to the eye were an open wound of eyelid and periocular area, periorbital fracture and superficial injuries of eyelid and periocular area. In 2021–23, in Tasmania, there were 23 hospitalisations (0.4 per 1,000 population) for injuries to the eye for First Nations people (Figure 7).

**Figure 7: Hospitalisation rates for injuries to the eye, by Roadmap region, Tasmania and Australia, First Nations people, 2021–23**



Source: AIHW analysis of NHMD.

The number of hospitalisations for injuries to the eye is low, so age adjusted rates for First Nations people and non-Indigenous Australians are calculated for Victoria and Tasmania combined. In 2021–23, the hospitalisation rate for injuries to the eye for First Nations people in Victoria and Tasmania (0.9 per 1,000 population) was higher than the non-Indigenous hospitalisation rate (0.4 per 1,000 population); rate ratio of 2.2, rate difference of 0.5.

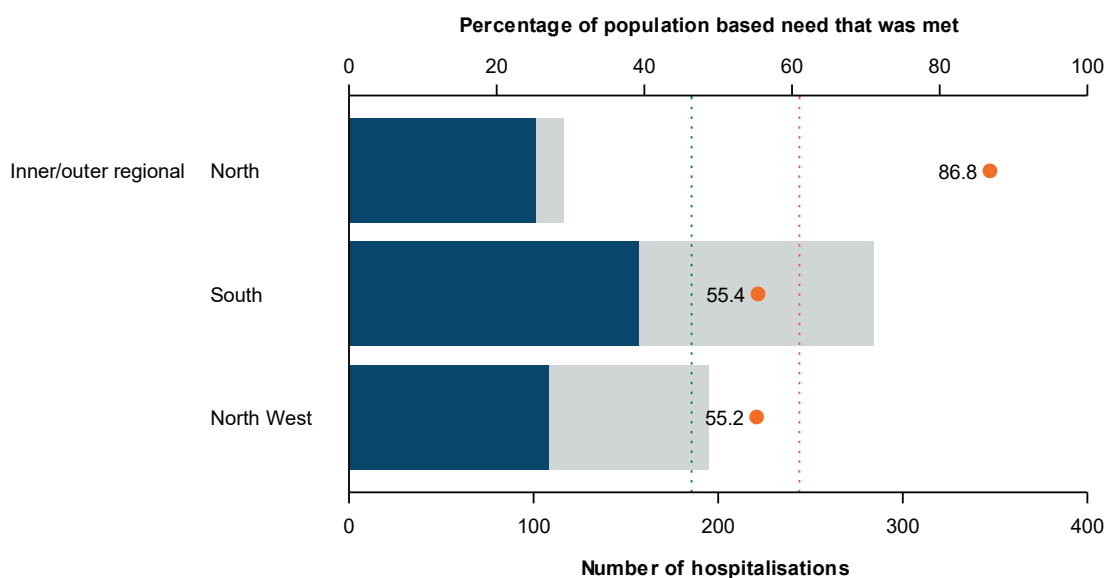
## Cataract surgery

In the 2-year period, 2021–23, there were 366 hospitalisations for cataract surgery for First Nations people in Tasmania (5,839 per 1,000,000 population). In 2021–23, the number of hospitalisations for cataract surgery in Tasmania for First Nations people was below the estimated number of people needing cataract surgery (595) (IEHU 2017). The data do not include outpatient surgery and may underestimate the number of procedures and, therefore, the percentage of need for cataract surgery that was met.

The number of people needing cataract surgery was calculated using the University of Melbourne IEHU ‘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.

In 2021–23, for First Nations people in Tasmania, rate of hospitalisations for cataract surgery was highest in the North Roadmap region (8,182 per 1,000,000 population, 101 hospitalisations). In 2021–23, the Roadmap region with the highest proportion of need for cataract surgery that was met was North, 86% of need met. In 2021–23, in all of the Roadmap regions in Tasmania, the proportion of need for cataract surgery that was met was above the Australian proportion of need for cataract surgery that was met (Figure 8).

**Figure 8: Hospitalisation rates, need for cataract surgery and proportion of need that was met, by Roadmap Region, Tasmania and Australia, First Nations people, 2021–23**



Remoteness	Roadmap region	Hospitalisations	Rate per 1,000,000	Hospitalisations need	Percentage of need that was met
Inner and outer regional	South	157	5,259	284	55.4
	North West	108	5,248	195	55.2
	North	101	8,248	116	86.8
Tas		366	5,839	595	61.5
Australia		8,008	4,467	17,031	47.0

Source: AIHW of NHMD, and AIHW analysis of calculator for the delivery and coordination of eye care services (IEHU).

In 2021–23 in Tasmania, after adjusting for age differences between the First Nations and non-Indigenous populations, the hospitalisation rate for First Nations people for cataract surgery (8,985 per 1,000,000 population) was lower than the non-Indigenous hospitalisation rate (10,780 per 1,000,000); rate ratio of 0.8, rate difference of -1,795. The cataract surgery rate was calculated per 1,000,000 to align with international standards (WHO 2013).

## Trachoma and trichiasis

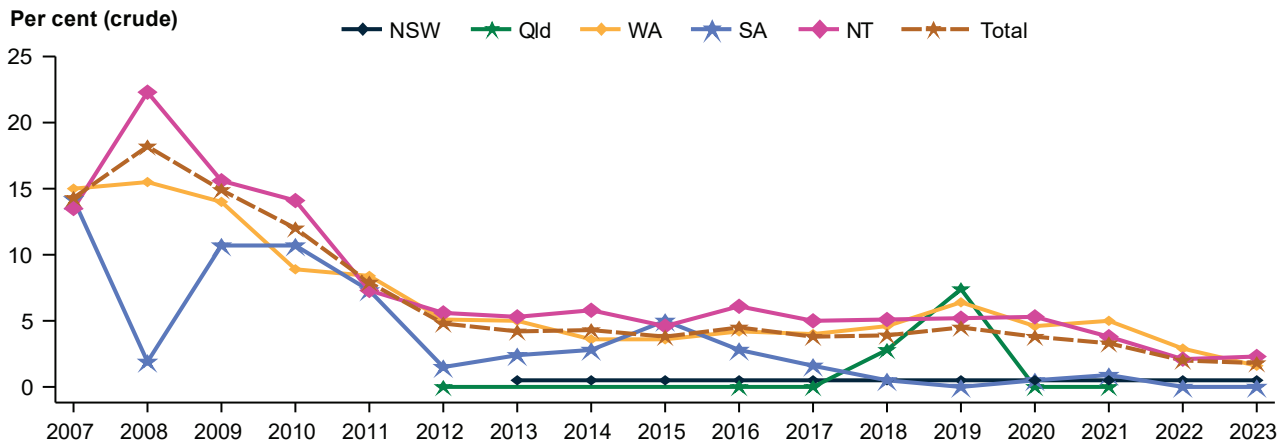
Trachoma is the world's leading infectious cause of preventable blindness, caused by the bacteria *Chlamydia trachomatis*. Australia is the only high-income country in which trachoma has remained endemic. Trachoma is primarily found in remote Aboriginal and Torres Strait Islander communities in Western Australia, South Australia and the Northern Territory. Antibiotics, facial cleanliness and environmental improvements are used to control the spread of trachoma. Surgery is required to correct trichomatous trichiasis, an advanced sequela of multiple trachoma infections that lead to vision loss and blindness (WHO Alliance for the global elimination of Trachoma, 2023).

There were no communities designated at-risk of trachoma or trichiasis in Tasmania in 2023.

## Trachoma and trichiasis, prevalence and treatment

In 2023, jurisdictions designated 67 remote Indigenous communities in the Northern Territory, South Australia and Western Australia as at risk of endemic trachoma. New South Wales and Queensland were declared non endemic for trachoma in 2017 and 2022 respectively. Nationally, the overall prevalence of trachoma in children aged 5–9 years fell from 12% in 2010 to 2.0% in 2023. Overall prevalence was 2.3% in the Northern Territory, 0% in South Australia, 1.6% in Western Australia and 0.5 in New South Wales in 2023 (Table 1 and Figure 9). Eighteen communities nationally received antibiotic treatment for chlamydial infection in 2023. Treatment coverage for cases detected in screening activities was 99%, with 81% of household and community contacts also treated (Figure 9).

**Figure 9: Overall trachoma prevalence among Aboriginal children aged 5–9 years in all current and former at-risk communities**



Note: Overall prevalence was calculated using the most recent data for all at-risk communities screened in 2023 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. More information can be found in Table 1.2 [Australian Trachoma Surveillance Reports | Kirby Institute \(unsw.edu.au\)](#)

Sources: Kirby Institute 2011, 2012, 2013, 2014, 2015, 2016, 2018, 2019a, 2019b, 2020, 2021, 2022, 2023, in press.

Nationally, in 2023, 13,219 adults aged 15 years and over in 150 at risk and previously at risk communities were screened for trichiasis. There were 9 cases of trichiasis detected in persons aged 15 years and older, with a prevalence in screened persons of 0.07%. Surgery for trachoma related trichiasis was reported by jurisdictional teams to have been undertaken for 7 adults in 2023.

### Subsidised spectacles

All states and territories have schemes that provide eye care and visual aids, including glasses, to eligible people at low or no cost. Data on the spectacles dispensed to First Nations people in Tasmania is not available for 2022–23.

In 2022–23, across the 4 states able to provide data (New South Wales, Victoria, Queensland, and South Australia), around 21,900 spectacles were provided to First Nations people through the schemes.

## Eye health workforce

The size and location of the eye health workforce gives a broad indication of access to specialists and eye services.

### Eye Health Workforce:

**Optometrists** - primary eye care professionals - described above

**Ophthalmologists** - medical eye specialists - described above

**Allied ophthalmic personnel** include:

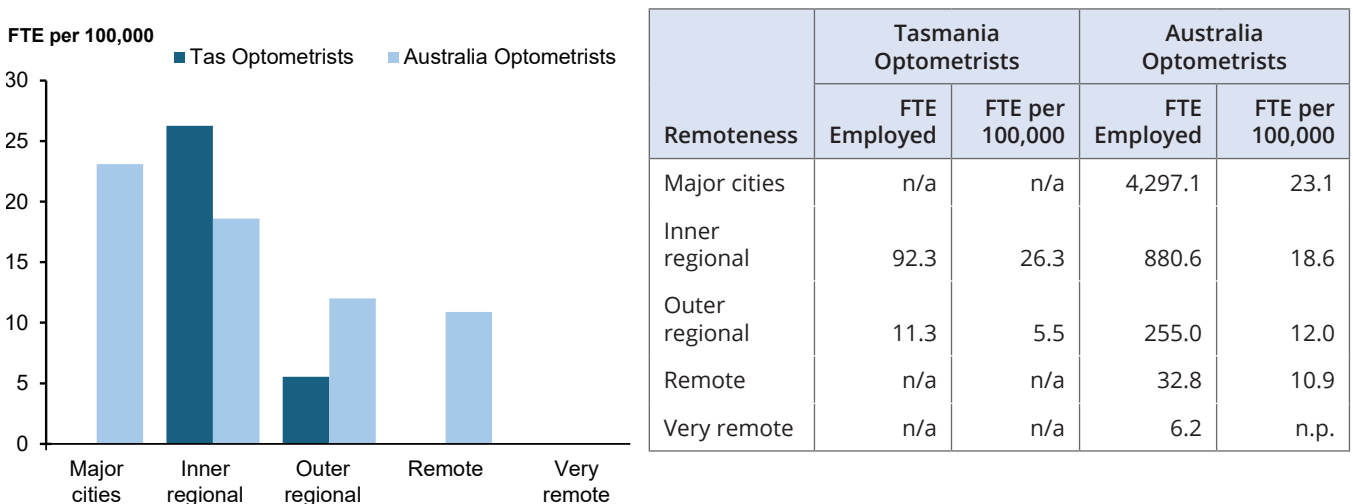
- **optical dispensers** who supply and manage spectacles and contact lenses
- **opticians** who fit glasses and contact lenses
- **ophthalmic nurses** who test vision and provide other eye tests under medical direction
- **orthoptists** who diagnose and manage eye movement disorders

**Full-time equivalent (FTE)** The FTE is a measure used to present data on the eye health workforce. It is calculated by dividing the total hours worked by employees in an occupation, by the standard hours worked.

**Full-time equivalent (FTE) rate** (number of FTE practitioners per 100,000 population) is a measure of workforce supply.

There were 117 optometrists (18.1 FTE per 100,000 population) employed in 2022 and 23 ophthalmologists (4.2 FTE per 100,000 population) employed in 2023 in Tasmania. In 2021, there were 140 optical dispensers (17.7 FTE per 100,000 population) employed in Tasmania. The FTE rate per 100,000 population was highest in Tasmania in Inner regional areas. There are no Major cities in Tasmania, so it was not possible to calculate FTE rates for optometrists for Major cities. Nationally, FTE rates for optometrists was highest in Major cities. The national FTE rate of optometrists in Inner regional areas was lower than the Tasmanian FTE rate (Figure 10).

Figure 10: Optometrists, by remoteness, Tasmania and Australia, 2022



#### Notes:

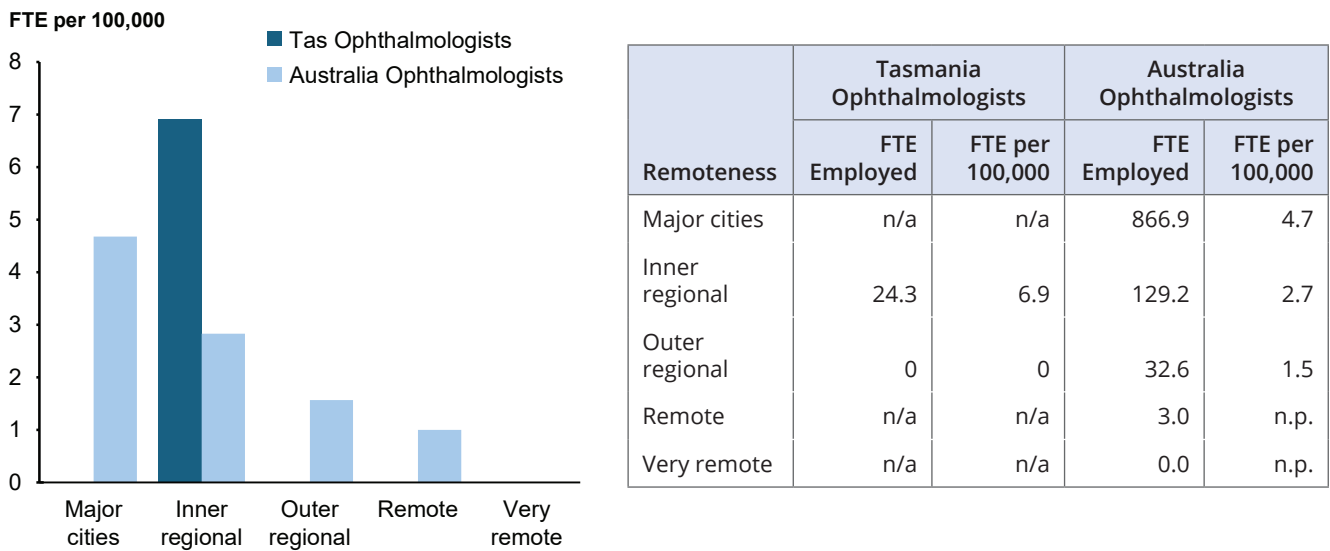
1. Data for optometrists are based on those employed in Australia working in their registered profession.

2. FTE per 100,000 population are based on a 38-hour week.

Sources: AIHW analysis of National Health Workforce Dataset.

The Australian ophthalmology workforce is skewed toward metropolitan areas. The FTE rates per 100,000 population of ophthalmologists was highest in Tasmania in *Inner regional* areas, higher than the national FTE rate. As with optometrists, it was not possible to calculate FTE rates for ophthalmologists in *Major cities*. There were no ophthalmologists employed full time in Tasmania in *Outer regional* and *Remote* areas and in Tasmania and nationally in *Very remote* areas (Figure 11).

Figure 11: Ophthalmologists, by remoteness, Tasmania and Australia, 2023



Notes:

1. Data for ophthalmologists are based on those employed in Australia working in their registered profession.
2. FTE per 100,000 population are based on a 38-hour week.

Sources: AIHW analysis of National Health Workforce Dataset.

## Outreach and other programs

Australian Government outreach programs are designed to address the uneven distribution of the health workforce and to improve access to eye health services across Australia. For example, TAZREACH works together with Rural Health Tasmania and the Tasmanian Aboriginal Centre to coordinate Commonwealth funded eye health outreach programs in regional and rural areas (Department of Health Tasmania 2021).

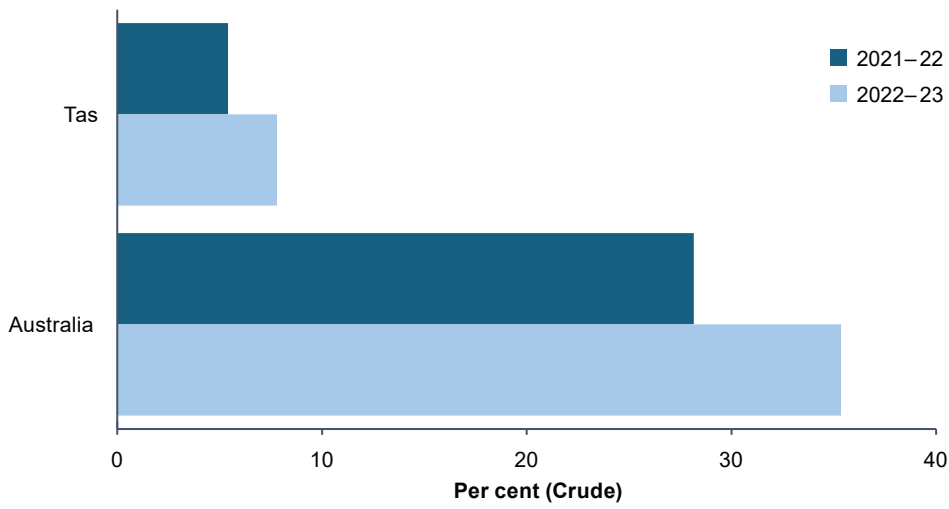
In addition, several programs provide specialist eye health services, primarily in regional and remote areas of Australia. The outreach programs include the Visiting Optometrists Scheme (VOS), the Rural Health Outreach Fund (RHOF), the Medical Outreach Indigenous Chronic Disease Program (MOICDP) and the Eye and Ear Surgical Support Program (EESS) program and the Coordination of Indigenous Eye Health.

This section focusses on eye health services provided through the VOS in Western Australia. Data on the other outreach programs are available in [Eye Health measures for Aboriginal and Torres Strait Islander people 2024](#).

Organisations supported through outreach programs are referred to as fundholders. Fundholders make effective use of available funding to identify and meet community needs. The jurisdictional fundholders liaise regularly to monitor and evaluate workforce needs and service delivery to make best-practice improvements (RWAV 2017). There are seven jurisdictional fundholders for the Australian Government’s eye health outreach programs. In Tasmania this is the Department of Health and Human Services, through the coordinating office, TAZREACH.

In 2022–23 there were 247 occasions of service (7.8 per 1,000 population) provided in Tasmania, higher than 2021–22 (168 occasions of service, 5.4 per 1,000 population) (Figure 12).

**Figure 12: VOS occasions of service, Tasmania and Australia, First Nations people**



PHN	2021–22		2022–23	
	Number of services	Rate per 1,000	Number of services	Rate per 1,000
Tasmania	168	5.4	247	7.8
Australia	24,992	28.2	32,001	35.4

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

## Box 1

### Main eye health conditions affecting First Nations people

**Refractive error** refers to problems with the focusing of light and causes long- or short- sightedness. It can generally be corrected with spectacles, contact lenses or laser surgery (National Eye Institute 2010)

**Cataract** is a degenerative condition when the lens of the eye clouds over obstructing the passage of light to the retina and causing vision impairment or eventually blindness

**Diabetic retinopathy** is a complication of diabetes and involves damage to the blood vessels of the retina. All diabetics can eventually develop diabetic retinopathy, even with good diabetic control, and suffer visual disturbance and vision loss and, if diabetes is poorly managed diabetic retinopathy can result in blindness (Healthinfonet 2016)

**Trachoma** is an infectious disease of the eye caused by the bacterium *Chlamydia trachomatis*. Repeated episodes of infection can eventually cause loss of vision and blindness.

## Box 2

### Area classifications

Data for some measures are reported for smaller geographic areas, including PHNs and Roadmap regions:

**Primary Health Networks (PHNs)** are 31 geographic areas covering Australia, with boundaries defined by the Department of Health and Aged Care. They vary in relation to the size of the First Nations populations that live there and by the proportion of the total population that is First Nations. Data relate to the services provided to those living in these areas, and not to whether the PHNs provided the services. Tasmania constitutes a whole PHN. A map and list of PHN areas are available in [Appendix A](#).

**Roadmap to close the gap for vision regions** evolved out of the University of Melbourne's Indigenous Eye Health Unit (IEHU) Roadmap to Close the Gap for Vision project to review health service provision for First Nations people and to 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 which have a 'surgical hub' or hospital where cataract surgery can be performed and a network of stakeholders, mostly centred around Aboriginal Community Controlled Health Services, who contribute to improved pathways of care and outcomes. There are three Roadmap Regions in Tasmania: North West, North and South. A map and list of Roadmap regions are available in [Appendix B](#).

## Box 3

### Data gaps and limitations

#### Prevalence

**Eye health prevalence** Data on self-reported eye or sight problems come from 10,579 Aboriginal and Torres Strait people in Australia included in the 2018–19 NATSIHS (ABS 2019). Self-reported data on various health conditions, including diseases of the eye/adnexa – referred to as ‘eye or sight problems’ in this report were collected. As data are self-reported they have not necessarily been diagnosed by a health professional and do not include eye conditions that respondents are unaware that they have. 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 health diagnosis and screening

**Eye examinations by an eye care specialist** (optometrist or ophthalmologist) 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, GP’s, nurses, health workers 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).

**Screening for diabetic retinopathy** Screening for diabetic retinopathy can be provided in several 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.

#### Treatment

**Hospitalisation data** The data may underestimate the number of eye specialist clinical work provided, as it does not include those undertaken on an outpatient basis. This may also mean the percentage of need for cataract surgery that was met may also be an underestimate.

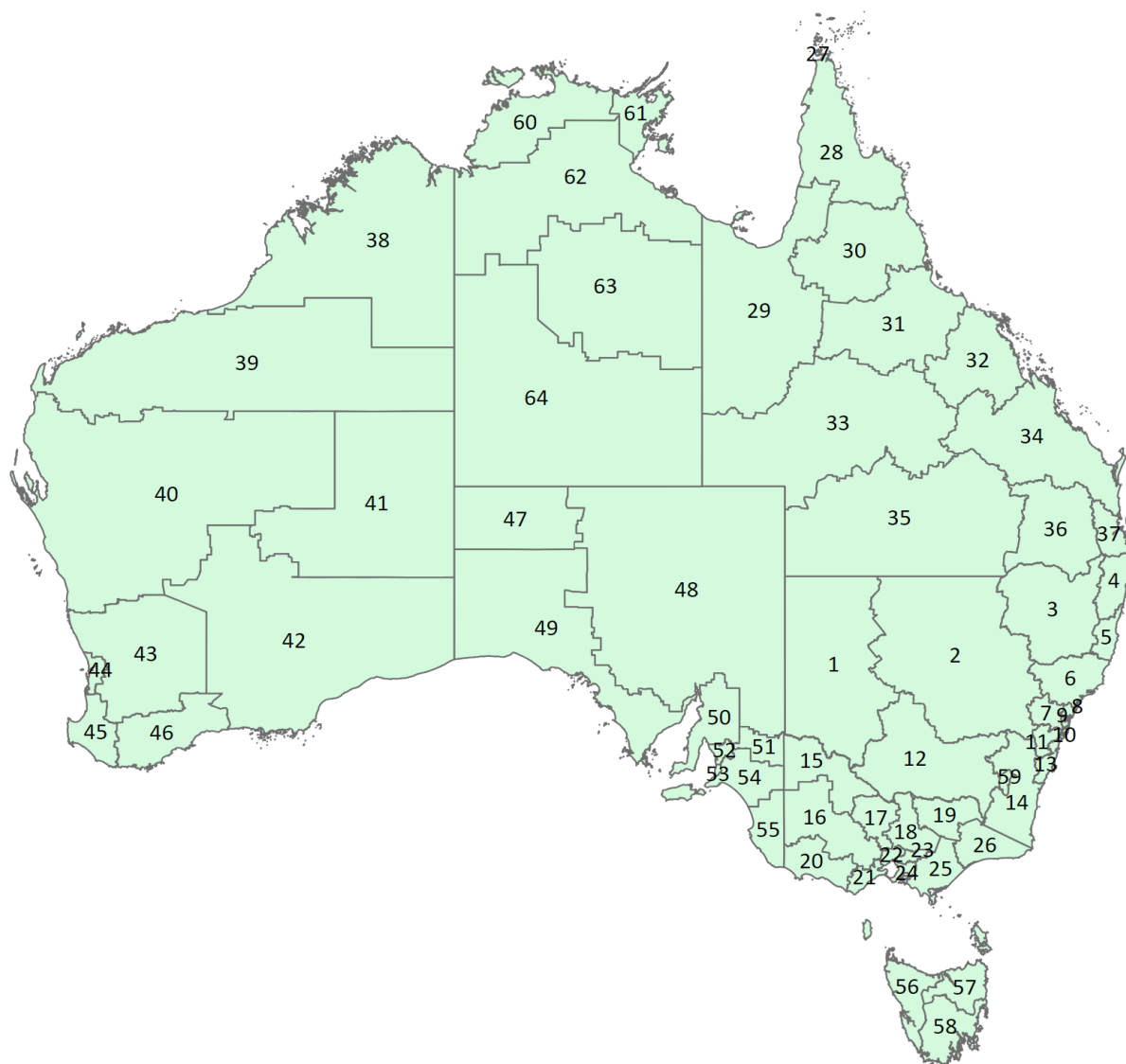
**Trachoma and trichiasis** Treatment strategies depend on the prevalence and extent of case clustering, such as treatment of active cases and contacts versus community-wide treatment. Screening coverage estimates are a guide only. Screening of Aboriginal and Torres Strait Islander adults for trichiasis may be undertaken opportunistically, such as during annual health assessments, and may not be included in the data. Data may also include multiple patient screenings. Coverage is derived from ABS census data and is linked to current trachoma endemic regions. Estimates do not consider changing endemic regions over time and transiency between regions. Trichiasis surgery cases may include cases identified in previous years.

## Appendix A: PHN regions



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			

## Appendix B: Roadmap regions



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			

# Glossary

**Aboriginal and Torres Strait Islander:** A person of Aboriginal and/or Torres Strait Islander descent who identifies as an Aboriginal and/or Torres Strait Islander. See also First Nations Australians.

**age adjustment/age-standardisation:** A set of statistical techniques used to remove, as far as possible, the effects of differences in age when comparing 2 or more populations.

**at-risk community (trachoma):** Communities classified by jurisdictions as being at higher risk of trachoma based on:

- (1) no recent data, but historical evidence of endemicity
- (2) data of active trachoma prevalence of 5% or more in children aged 5–9 in the last 5 years, or
- (3) data of less than 5% active trachoma prevalence but with a recorded prevalence of active trachoma of 5% or above in the past 5 years.

**blindness:** Presenting visual acuity of <3/60 in the better eye.

**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.

**First Nations people:** Used interchangeably with Aboriginal and Torres Strait Islander people in this report.

**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).

**non-Indigenous Australians:** People who indicated that they are not of Aboriginal or Torres Strait Islander descent. Compare with other Australians.

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

**periocular area** is the area surrounding the eyeball but within the orbit.

**periorbital** is a term that describes the tissue around the eye.

**separation:** See hospitalisation.

**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 (CDNA, 2014).

**trachomatous trichiasis (trichiasis):** at least one eyelash from the upper eyelid touches the eyeball, or evidence of recent epilation of in-turned eyelashes from the upper eyelid (World Health Organization, 2019).

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

**vision loss:** Vision impairment plus blindness.

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For more information, see [Eye Health measures for Aboriginal and Torres Strait Islander people 2024](#).

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