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Cover Map Trachoma Prevalence

-  $\geq 10\%$ and $< 25\%$
-  $\geq 5\%$ and $< 10\%$
-  $< 5\%$
-  No trachoma detected

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Australian Trachoma Surveillance Report 2016

The Kirby Institute, UNSW Australia 2017

Prepared by the National Trachoma Surveillance and Reporting Unit The Kirby Institute, UNSW Sydney
On behalf of Australian organisations involved in trachoma control activities, under a funding agreement with the
Australian Government.

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Technical terms and definitions

Definitions are from the Communicable Diseases Network Australia's 2014 *CDNA National guidelines for the public health management of trachoma in Australia*.¹

Active trachoma :

The presence of chronic inflammation of the conjunctiva caused by infection with *Chlamydia trachomatis*; includes World Health Organization simplified grading: trachomatous inflammation - follicular (TF) and trachomatous inflammation - intense (TI).

At-risk communities :

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 $\geq 5\%$ in children aged 5-9 years in the last 5 years; or 3) data $< 5\%$ active trachoma prevalence but with a recorded prevalence of active trachoma $\geq 5\%$ in the past 5 years.

Clean face :

Absence of nasal and ocular discharge on the face.

Community-wide treatment :

The antibiotic treatment of all people in the community who weigh > 3 kg living in houses with children under 15 years of age.

Contacts :

Anyone who is living and sleeping in the same house as a child with trachoma. If the child lives or sleeps in multiple households, then all members of each household are regarded as contacts.

Endemic trachoma :

Prevalence of active trachoma of 5% or more in children aged 1-9 years or a prevalence of trichiasis of at least 0.1% in the adult population.

Hyperendemic trachoma :

Prevalence of active trachoma of 20% or more in children aged 1-9 years.

Prevalence of active trachoma :

Proportion of people found in a screening program to have active trachoma.

Screening coverage :

Proportion of Aboriginal and Torres Strait Islander children aged 5-9 years in a community who were screened for trachoma at the time of community screening.

Trachomatous inflammation - follicular (TF) :

Presence of five or more follicles in the central part of the upper tarsal conjunctiva, each at least 0.5 mm in diameter, as observed through a loupe.

Trachomatous inflammation - intense (TI) :

Pronounced inflammatory thickening of the upper tarsal conjunctiva that obscures more than half of the normal deep tarsal vessels.

Trachomatous trichiasis (TT) :

Evidence of the recent removal of in-turned eyelashes or at least one eyelash rubbing on the eyeball.

Treatment coverage :

Proportion of Aboriginal and Torres Strait Islander people in a community who weigh > 3 kg and live in a house with one or more children aged below 15 years who were treated for trachoma during an episode of community-wide treatment.

Abbreviations

ABS	Australian Bureau of Statistics
APY	Anangu Pitjantjatjara Yankunytjatjara
ACCHS	Aboriginal Community Controlled Health Services
AHCSA	Aboriginal Health Council of South Australia
CDC	Centre for Disease Control, NT Department of Health
CDNA	Communicable Diseases Network Australia
EH&CDSSP	Eye Health and Chronic Disease Specialist Support Program
MBS	Medicare Benefits Schedule
NSW	New South Wales
NT	Northern Territory
NTSRU	National Trachoma Surveillance and Reporting Unit
PCR	Polymerase Chain Reaction
QLD	Queensland
SA	South Australia
SAFE	Surgery, Antibiotics, Facial cleanliness and Environment
NTSCRG	National Trachoma Surveillance and Control Reference Group
WA	Western Australia
WACHS	WA Country Health Service
WHO	World Health Organization

Executive summary

Trachoma screening and management data for 2016 were provided to the National Trachoma Surveillance and Reporting Unit at the Kirby Institute by the Northern Territory (NT), South Australia (SA), Western Australia (WA) and Queensland (QLD). Program activities, data collection and analysis were guided by the *CDNA National Guidelines for the Public Health Management of Trachoma in Australia*.¹ In 2016, 150 remote Indigenous communities were classified as at risk of endemic trachoma by jurisdictions. Efforts by the jurisdictions and their clinical service partners over the past several years, under the guidance of the National Trachoma Surveillance and Control Reference Group (NTSCRG), have led to substantial gains in trachoma control in Australia with the estimated prevalence of active trachoma decreasing from 14% in 2009 to 4.7% in 2016. However, the 2016 trachoma prevalence rate is an increase of 0.2% over the 2015 rate. Small variations such as this, while not ideal, reflect the complex nature of trachoma control and highlight the need for sustained cooperative action. The number of communities considered at risk for endemic trachoma has continued to decrease, but persistently high levels of trachoma were still found in some regions, highlighting the need for continued efforts in all areas of trachoma control.

The NTSCRG has highlighted the need for current screening and treatment programs to be complemented by enhanced activity in the areas of health hygiene promotion and environmental improvements to achieve trachoma elimination. The Australian Government has made a commitment of \$20.8 million over the period 2017-18 to 2020-21 to continue trachoma screening and treatment and invest in improvements in health hygiene and environmental health in affected jurisdictions. These activities are essential to achieving the elimination of trachoma as a public health problem by 2020 and validation of elimination by the World Health Organization (WHO).

Trachoma program coverage

- Of 150 communities designated by jurisdictions to be at risk at the start of 2016, 136 (90%) were determined to require screening, antibiotic distribution or both according to the Guidelines, with 25 requiring antibiotic treatment but not screening (Table 1.1).
- The remaining 14 at-risk communities did not require screening or treatment as their previous year's prevalence was under 5%.
- Of the communities that required screening and/or treatment, 93% (127/136) received the required screening and/or treatment (Table 1.1).

Screening coverage

- Jurisdictions undertook screening for 95% (106/111) of the communities determined to require screening in 2016 (Table 1.1, Table 1.2).
- Within screened communities, 3,143 (91%) of an estimated 3,426 resident children aged 5-9 years were screened (Table 1.2).
- Screening coverage of children aged 5-9 years in these communities was 92% for the NT, 90% for SA and 93% for both WA and QLD (Table 1.2, Figure 1.4).

Clean face prevalence

- A total of 3,369 children aged 5-9 years in at-risk communities were examined for clean faces (Table 1.2).
- The overall prevalence of clean faces in children aged 5-9 years was 73%, with 70% in the NT, 75% in SA, 74% in WA and 92% in QLD (Table 1.2, Figure 1.5).

Trachoma prevalence

- The overall prevalence of active trachoma in children aged 5-9 years was 4.7%, with 0% in QLD, 2.8% in SA, 3.5% in WA and 6.1% in the NT (Table 1.2).
- No trachoma was reported in children aged between 5-9 years in 65 (46%) at-risk communities (Table 1.3)
- Trachoma was at endemic levels (prevalence above 5% in 5-9 year olds) in 56 (39%) of the at-risk communities (Table 1.3)
- Hyperendemic levels of trachoma (>20%) were detected in 15 (11%) of the at-risk communities (Table 1.3)
- In 2016, QLD undertook a trachoma survey in three communities in the Torres Strait Islands in which a clinical condition meeting the trachoma case definition had been observed. Follicles that met the WHO simplified grading scheme were present in 9.2% of screened children aged 5-9 years. However, no other clinical signs characteristic of trachoma were found by the ophthalmologist performing the screening, and conjunctival swabs taken on children with follicles were all negative for *Chlamydia trachomatis* by PCR. On the basis of these findings, QLD Health authorities assessed these children as not having trachoma. As a precautionary measure, treatment was nevertheless given according to the CDNA Guidelines.

Antibiotic distribution and coverage

- Antibiotic distribution took place in 76 communities, 95% of those requiring antibiotics according to the Guidelines (Table 1.4).
- Of the children found on screening to have trachoma, 98% (223/227) received azithromycin (Table 1.5).
- A total of 11,671 people received azithromycin through the activities of the jurisdictional trachoma programs (Table 1.5).

Trichiasis

- Overall 10 318 adults aged 15 years and over were screened for trichiasis (Table 1.6).
- The prevalence of trichiasis in screened adults aged 15 years and over was 0.6% and 1.1% in adults aged 40 years and over with 65 cases of trichiasis detected (Table 1.6).
- Surgery for trichiasis was reported to have been undertaken for 17 people over 15 years in 2016 (Table 1.6).

Health promotion activities

- Health promotion activities were reported by jurisdictions to have occurred in 108 communities, including 105 at-risk communities.

Background

Trachoma is a disease of the eye, caused by infection with the *Chlamydia trachomatis* bacteria, particularly its serotypes A, B, Ba and C. It is the world's leading infectious cause of preventable blindness. Based on reporting by WHO in July 2017, trachoma remains endemic in 41 countries in which more than 21 million people are affected and approximately 1.9 million have visual impairment due to trachoma. Transmission of ocular *C. trachomatis* occurs through close facial contact, hand-to-eye contact, via contamination of personal items such as towels, clothing and bedding and possibly by flies. Trachoma generally occurs in dry, dusty environments and is strongly associated with poor living conditions and sanitation. Crowding of households, limited water supply for bathing and general hygiene, poor waste disposal systems and high numbers of flies have all been associated with trachoma prevalence. Children have more frequent and longer-lasting episodes of infection than adults and are believed to be the main community reservoirs of infection.^{2,3,4}

Infection with *C. trachomatis* causes inflammation of the conjunctival tissue in the eye, leading to clinically recognisable trachoma. Diagnosis is by visual inspection, and the detection of follicles (white spots) and papillae (red spots) on the inner upper eyelid. Repeated infections with *C. trachomatis*, especially during childhood, may lead to scarring of the eyelid, causing it to contract and distort, leading to the eyelashes turning inwards, trichiasis, and scratching of the outer surface of the cornea. The resulting damage to the cornea by trichiasis is the main pathway by which trachoma leads to vision loss and blindness.^{1, 5, 6} Trichiasis scarring is irreversible but if early signs of in-turned eyelashes are found, surgery to the eyelid is usually effective in preventing further damage to the cornea.

WHO, through the Global Alliance for the Elimination of Trachoma by 2020 (GET 2020), advocates the SAFE strategy for trachoma control. Key components of the strategy are Surgery (to correct trichiasis), Antibiotic treatment, via the mass distribution of azithromycin, Facial cleanliness and Environmental improvements. The strategy is designed to be implemented within a community health framework, to ensure consistency and continuity of approach in the required screening, control measures, data collection and reporting, as well as the building of community capacity.^{7,8,9}

WHO guidelines recommend that clinical trachoma is treated by a single dose of the antibiotic azithromycin. When prevalence exceeds 5% in children aged 1-9, guidelines recommend mass drug administration to the entire community on a regional or district basis. Australian guidelines differ slightly from WHO's recommendation to treat the whole community^{10,11} in that they provide for treatment at the household level at lower prevalences, and define community coverage based on households with at least one child aged 14 or under.

Trachoma control in Australia

Australia is the only high-income country with endemic trachoma. It occurs primarily in remote and very remote Indigenous communities in the Northern Territory (NT), South Australia (SA) and Western Australia (WA). In 2008, cases were also found in New South Wales (NSW) and Queensland (QLD), where trachoma was believed to have been eliminated. People with trichiasis are believed to be present in all jurisdictions.^{10, 12} The National Trachoma Management Program was initiated in 2006. In 2009, the Australian Government's *Closing the Gap - Improving Eye and Ear Health Services for Indigenous Australians* initiative committed \$16 million over a 4-year period towards eliminating trachoma in Australia. In 2013, a further \$16.5 million and in 2017 a further \$20.8 million to continue, improve and expand trachoma control and health promotion initiatives in jurisdictions with endemic trachoma were committed by the Australian Government. Funding was also provided to jurisdictions with a previous history of trachoma to ascertain the need for control programs. Since 2006 the Australian Government has funded the National Trachoma Surveillance and Report Unit to provide a national mechanism for monitoring and evaluating trachoma control.¹³

The surveillance and management of trachoma in 2016 in all jurisdictions was guided by the CDNA 2014 *National Guidelines for the Public Health Management of Trachoma in Australia*.¹ The 2014 guidelines were an update to the 2006 version,¹⁴ with one of the main changes being the option of not screening all endemic communities every year, so that jurisdictions could use resources for antibiotic distribution and health promotion activities. The guidelines were developed in the context of the WHO SAFE strategy and cover control strategies as well as data collection, reporting and analysis.

The National Trachoma Surveillance and Reporting Unit

The National Trachoma Surveillance and Reporting Unit (NTSRU) is responsible for data collection, analysis and reporting related to the ongoing evaluation of trachoma control strategies in Australia. The NTSRU has been managed by The Kirby Institute, UNSW Sydney since 2010,¹⁵⁻¹⁹ with the Centre for Eye Research Australia²⁰⁻²² and the Centre for Molecular, Environmental, Genetic and Analytic Epidemiology, the University of Melbourne,²³ responsible for earlier years. The NTSRU operates under a contract between UNSW Sydney and the Australian Government Department of Health.

Methodology

Each jurisdiction undertook screening and antibiotic distribution for trachoma under the guidance of the 2014 *National Guidelines*, which recommend specific treatment strategies depending on the prevalence of trachoma detected through screening.¹

In 2006, when the National Trachoma Management Program was initiated, each jurisdiction identified communities determined to be at risk for trachoma based on historical prevalence data and other sources of knowledge. Over time, additional communities have been classified as being at risk, while some others have been reclassified as not at risk. Trachoma control activities focus on the communities designated at risk, but a small number of other communities designated as not at risk have also been included in screening activities, generally if there is anecdotal information suggesting the presence of active trachoma, or close geographic or cultural proximity to endemic communities.

The WHO Simplified Trachoma Grading criteria (see http://www.who.int/trachoma/resources/SAFE_documents/en/) were used to diagnose and classify individual cases of trachoma in all jurisdictions. Data collection forms for use at the community level were developed by the NTSRU, based on the CDNA guidelines. Completed forms were forwarded by jurisdictional coordinators to the NTSRU for checking and analysis. Information provided to the NTSRU at the community level for each calendar year included:

- Number of Indigenous children aged 1-14 years screened for clean faces and the number with clean faces, by age group
- Number of Indigenous children aged 1-14 years screened for trachoma and the number with trachoma, by age group
- Number of episodes of treatment for active trachoma, household contacts and other community members, by age group
- Number of Indigenous adults screened for trichiasis, number with trichiasis, and the number who had surgery for trichiasis
- Community-level implementation of health promotion activities.

The target group for screening activities in all regions is Indigenous children aged 5-9 years. This age group was chosen because of ready accessibility through schools, feasibility of eye examination and a presumption of similar levels of trachoma compared to younger age groups. Screening in communities has also included children 1-4 and 10-14, but efforts have not been made to achieve substantial coverage in these age groups.

Northern Territory

From 2013 the NT followed the screening and treatment schedule recommended in the 2014 CDNA *National Guidelines*. Trachoma screening and management in the NT was undertaken through collaboration between the Department of Health [Centre for Disease Control and Primary Health Care (Outreach/Remote)]; Department of Education (Remote Schools) and Aboriginal Community Controlled Health Services (ACCHS). Trachoma screening was often incorporated into the Healthy School-Age Kids program annual check and was conducted by the trachoma team and program partners supported by either local primary health-care centres or community controlled services. However, a large proportion of screening is undertaken as a stand-alone exercise by the trachoma team and program partners. The NT uses school enrolment lists, electronic health records and local knowledge to best determine the number of children aged 5-9 years present in the community at the time of screening. Following screening, treatment is undertaken by the trachoma team and program partners with support from primary health-care services.

In 2016, screening for trichiasis was undertaken opportunistically primarily by clinic staff during adult health checks, or by optometrists or ophthalmologists from the regional eye health services.

South Australia

In South Australia, Country Health SA works collaboratively with Aboriginal Community Controlled Organisations, community health services and the Aboriginal Health Council of South Australia (AHCSA) to ensure that trachoma screening and treatment is undertaken in all at-risk communities. An interagency State Trachoma Reference Group provides guidance to the project. Country Health SA enters into contracts with services for the provision of both trachoma and trichiasis screening and treatment services. From 2014 Anangu Pitjantjatjara Yankunytjatjara (APY) Lands aggregated its nine communities and reported the results as a single community for the purpose of trachoma surveillance because of the small populations of each community and kinship links resulting in frequent mobility between these communities. Additional trichiasis screening activities were undertaken by the Eye Health and Chronic Disease Specialist Support Program (EH&CDSSP), coordinated by the AHCSA. This program provides regular visits to SA remote Indigenous communities by optometrists and ophthalmologists. Trichiasis screening was undertaken opportunistically for adults by the contracted trachoma screening service providers, the EH&CDSSP team and also routinely as part of the Adult Annual Health Checks. In 2016 there was heightened focus on the promotion of the clean faces health message in the at-risk communities. With support from the University of Melbourne Indigenous Eye Health Unit the Imparja television characters Yamba and Milpa undertook a health promotion road show, visiting five schools on the APY Lands to emphasise the importance of clean faces and other hygiene measures. The Country Health SA Trachoma Control team engaged in ongoing conversations with stakeholders with regard to the delivery of healthy housing. Overcrowding and inadequate maintenance of health-related hardware in housing were noted as an ongoing concern in some communities.

Western Australia

Trachoma screening and management in WA is the responsibility of the WA Country Health Service (WACHS) Population Health Units in the Kimberley, Goldfields, Pilbara and Midwest health regions. An interagency State Trachoma Reference Group has been established to provide program oversight. The WA State Trachoma Reference Group has established a set of operational principles which guide the program and provide consistent practice across the four endemic regions.

In collaboration with the local primary health-care providers, the Population Health Units screened communities in each region within a 2-week period, in August and September. People identified with active trachoma were treated at the time of screening. In 2016 each region determined the screening denominator based on the school register, which was updated by removing names of children known to be out of the community at the time of the screen and by adding names of children who were present in the community at the time of the screen.

In WA, trichiasis screening was undertaken opportunistically in conjunction with adult influenza vaccinations. Screening of the target population also occurs with the Visiting Optometrist Scheme (VOS) in the Kimberley region. The Goldfields region also undertook additional trichiasis screening during the trachoma screening period, where in some communities, trichiasis screening is offered to all people over the age of 40 years. In addition, trichiasis screening may have occurred as part of the adult health checks provided through the Medicare Benefits Scheme (MBS), but is not separately recorded in MBS data.

In 2011, 2014 to 2016, WA Health amalgamated 10 previously distinct communities and reported them as a single community in the Goldfields region for the purpose of trachoma surveillance, because of the small populations of each community and kinship links resulting in frequent mobility between these communities. In 2016 four communities in the Pilbara region were similarly reported as one. This definition affects the interpretation trends presented in reports from 2010-2016.

New South Wales

In 2014, NSW Health expanded the trachoma screening project to include a further nine potentially at-risk communities in north western and far western NSW. Repeat screening was also undertaken in the one affected community that was identified in 2013. Screening was conducted by the Bathurst Population Health Unit with support from NSW Ministry of Health. No trichiasis screening was undertaken in NSW.

Queensland

The Communicable Diseases Branch within the Queensland Department of Health coordinates trachoma prevention and control activities across Queensland in collaboration with Hospital and Health Services. The trachoma team consists of an ophthalmologist, a public health clinical nurse consultant, and an ophthalmology clinical nurse consultant.

In 2016 the trachoma team undertook a mapping exercise in three communities in the Torres Strait. This consisted of examining and classifying eyes according to the WHO simplified grading scale. The ophthalmologist performing the screen also examined each child for corneal pannus, Herbert's pits, and inflammatory thickening of the upper tarsal conjunctiva. Conjunctival swabs for chlamydia PCR testing were collected from each child found to have five or more follicles consistent with the WHO criteria for TF.

The optometrist who services the Torres Strait visits most communities twice a year performing a comprehensive eye exam on residents of the Torres Strait. Communities of the Torres Strait have had an uninterrupted specialist ophthalmic service for the last 30 years.

Data analysis

For the purpose of this report, a community is defined as a geographic location where people reside and where there is at least one school. Community coverage is defined as the number of communities screened for trachoma as a proportion of those that were identified as at risk. Individual screening coverage is the proportion of resident children in the target age group who were screened.

Data on resident population numbers were derived by each jurisdiction using enrolment lists from schools and health clinics and from local advice. This method has been used since 2012. For 2007 to 2011 estimates were projected from the 2006 Australian census using Australian Bureau of Statistics (ABS) standard estimates of population increase (1.6%, 1.8% and 2.1% in the NT, WA and SA, respectively). The prevalence of active trachoma was calculated using the number of children screened as the denominator.

Trachoma data were analysed in the age groups 1-4, 5-9 and 10-14 years. Comparisons over time were limited to the group aged 5-9 years. Data from 2006 were excluded from assessment of time trends as collection methods in this first year differed substantially from those subsequently adopted.

Calculations for trachoma prevalence

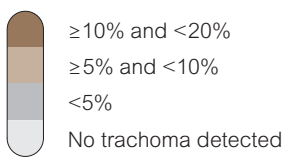
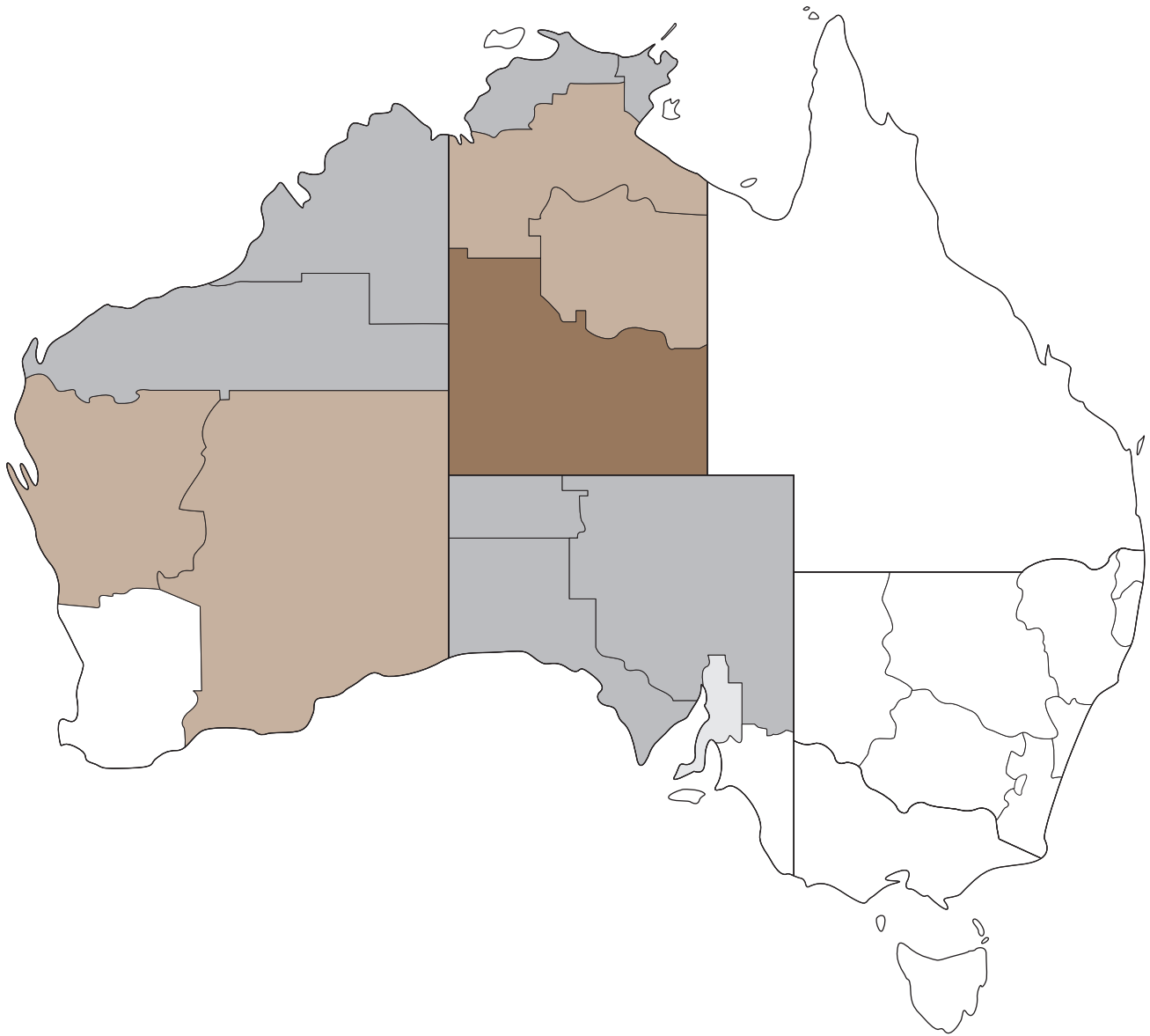
Three distinct methods were used to calculate trachoma prevalence. The 'observed prevalence', 'estimated prevalence' and 'overall prevalence' reported in the subsequent sections of the report were calculated as follows. The *observed prevalence* of active trachoma was calculated using only the data from screening activities undertaken during the reporting year. Since implementation of the 2014 National Guidelines, at-risk communities have not been required to undertake annual screening for trachoma. Therefore, for communities not screened in 2016 an *estimated prevalence* of active trachoma was calculated by carrying forward the most recent prevalence data, following a method endorsed by the NTSCRG. This method is likely to result in an over-estimate of current prevalence, particularly for communities in which antibiotic distribution has been taking place. Finally, the *overall prevalence* of active trachoma was calculated by combining data from at-risk communities screened during 2016, the most recent prevalence from at-risk communities that did not screen in 2016 and the most recent prevalence carried forward from communities that were judged by jurisdictions to have eliminated trachoma and were therefore removed from the at-risk register. Community specific data for communities amalgamated for reporting purposes were used or carried forward until the year of amalgamation.

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Results

National results 2016

Figure 1.1 Trachoma prevalence in children aged 5-9 years in all at-risk communities by region, Australia 2016*



White: No data/Not screened/Not at-risk

*Most recent estimates carried forward in communities that did not screen in 2016.

Figure 1.2 Number of communities designated to be at risk by jurisdiction, Australia 2007 – 2016



* In 2012 and 2016 QLD communities and in 2013 & 2014 NSW communities were designated as “potentially at-risk” for the purposes of prevalence surveys.

Figure 1.3 Number of at-risk communities according to trachoma control strategy implemented by jurisdiction, Australia 2016

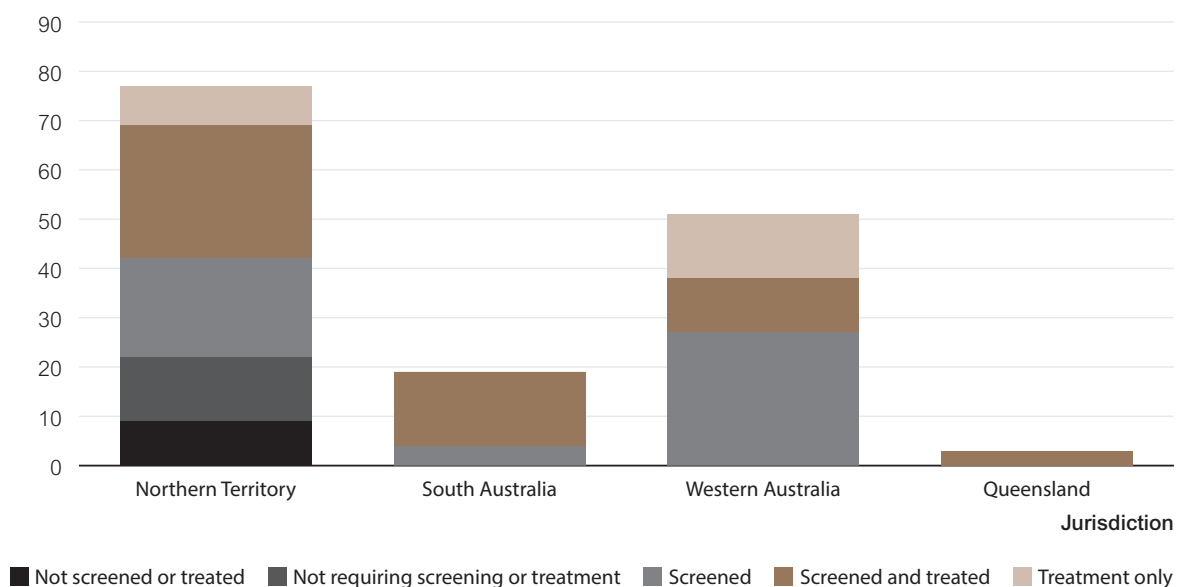


Figure 1.4 Population screening coverage in children aged 5-9 years in communities that were screened for trachoma by jurisdiction, Australia 2016

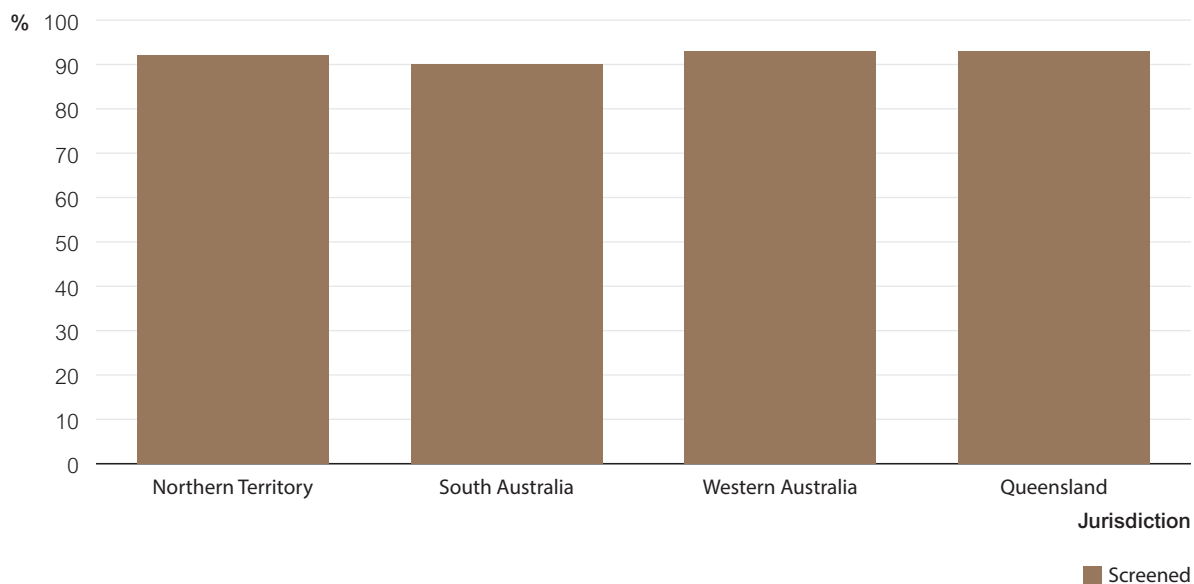


Figure 1.5 Proportion of screened children aged 5-9 years who had a clean face by jurisdiction, Australia 2007 – 2016



Figure 1.6a. Observed prevalence of active trachoma among screened children aged 5-9 years by jurisdiction, Australia 2007 – 2016

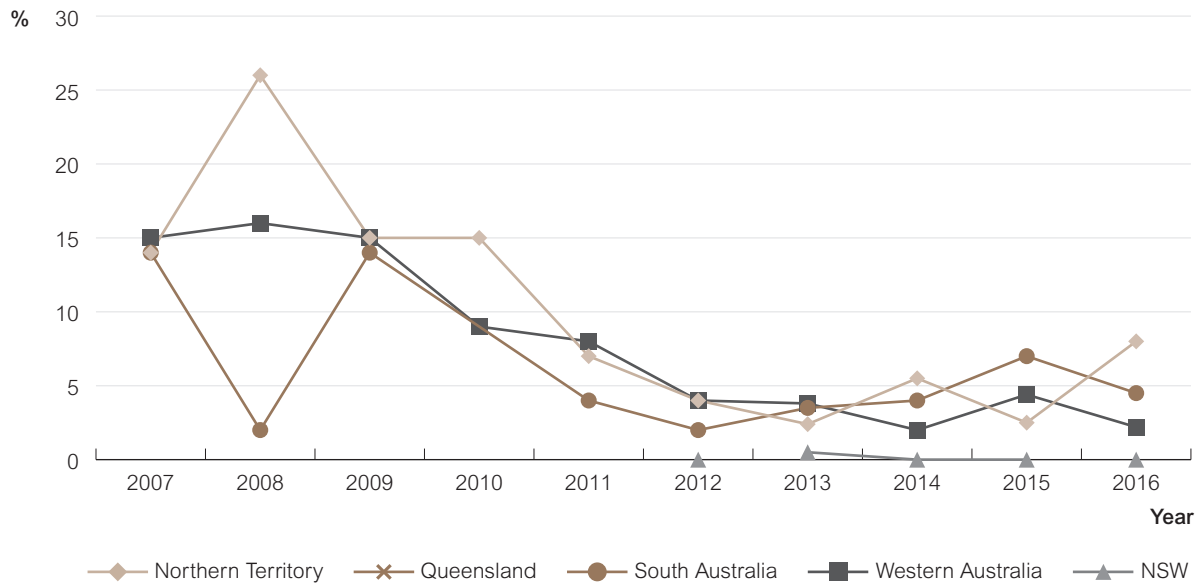


Figure 1.6b. Estimated prevalence of active trachoma among children aged 5-9 years by jurisdiction, Australia* 2007 – 2016



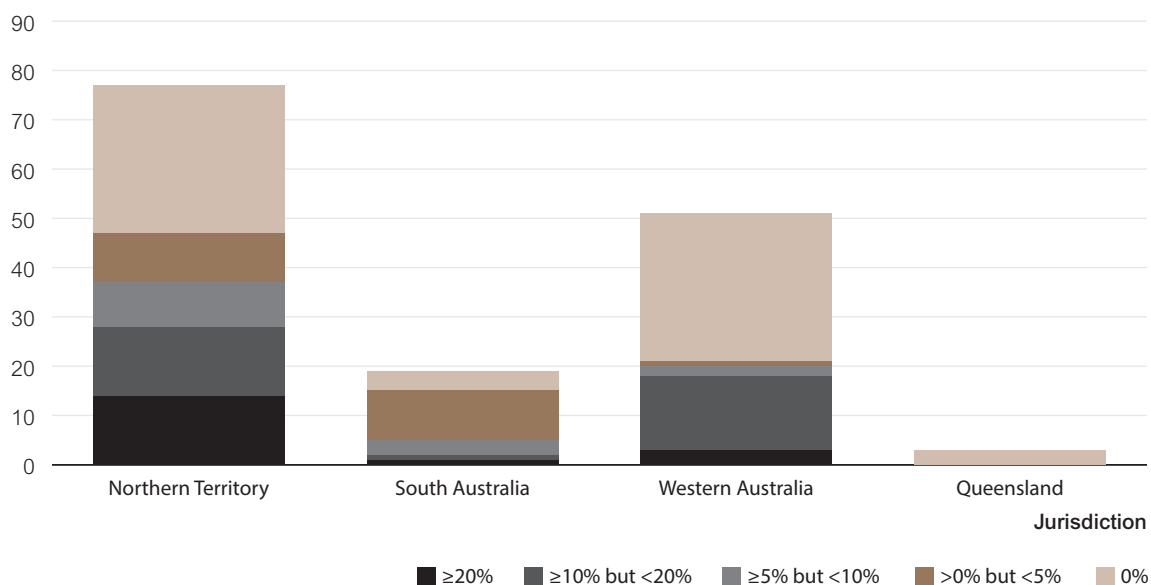
* Most recent estimates carried forward in communities that did not screen in 2016.

Figure 1.6c. Overall prevalence of active trachoma among children aged 5-9 years by jurisdiction, Australia* 2007 – 2016



* Most recent estimates carried forward in all communities that were considered at risk at some time since 2007.

Figure 1.7 Number of at-risk communities* according to level of trachoma prevalence in children aged 5-9 years by jurisdiction, Australia 2016



* Including at-risk communities that did and did not screen in 2016.

Figure 1.8 Proportion of communities with zero prevalence of trachoma by jurisdiction, Australia 2007 – 2016

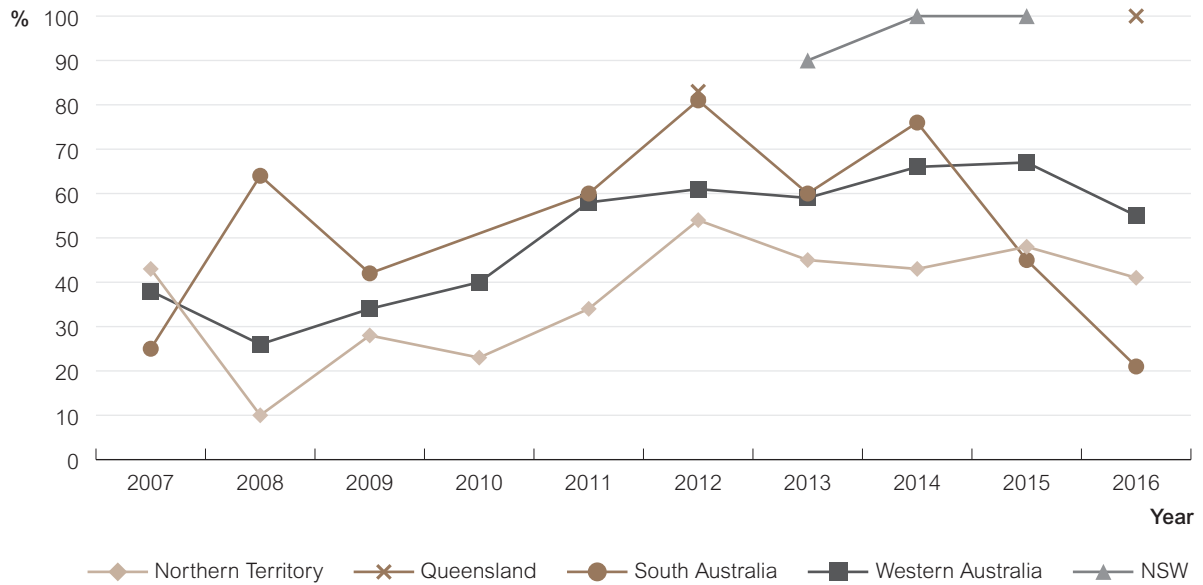


Figure 1.9 Proportion of communities with endemic (>5%) levels of trachoma by jurisdiction, Australia 2007 – 2016

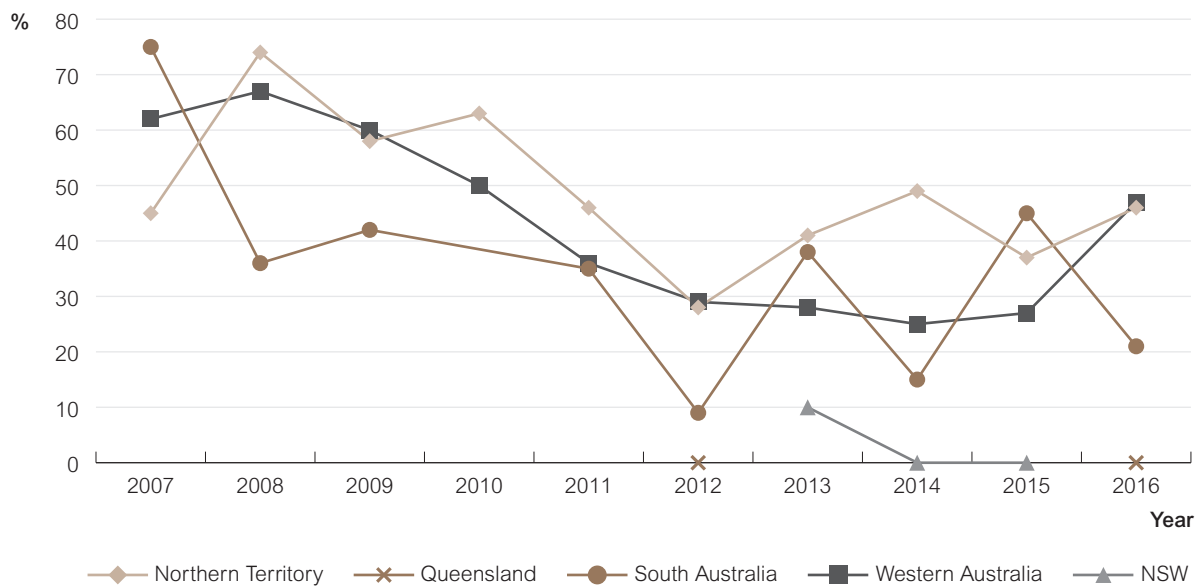


Figure 1.10 Number of doses of azithromycin administered for the treatment of trachoma by jurisdiction, Australia 2007 – 2016



Table 1.1 Trachoma control delivery in at-risk* communities by jurisdiction, Australia 2016

Number of communities	Northern Territory	South Australia	Western Australia	Queensland	Total
At risk* (A)	77	19	51	3	150
Requiring screening for trachoma (B)	52	19	37	3	111
Screened for trachoma (C)	47‡	19	37	3	106
Requiring treatment without screening† (D)	12	0	13	0	25
Received treatment without screening† (E)	8‡	0	13	0	21
Screened and/or treated for trachoma (F = C+E)	55	19	50	3	127
Requiring neither screening or treatment for trachoma (G=A-B-D)	13	0	1	0	14

* As defined by each jurisdiction.

† As per Guidelines.

‡ See Table 2.4.

Table 1.2 Trachoma screening coverage, trachoma prevalence and clean face prevalence in children aged 5-9 years by jurisdiction, Australia 2016

	Northern Territory	South Australia	Western Australia	Queensland	Total
Number of communities screened	47	19	37	3	106
Age group (years)	5-9	5-9	5-9	5-9	5-9
Children examined for clean face	1,689	637	890	153	3,369
Children with clean face	1,179	480	659	141	2,459
Clean face prevalence (%)	70	75	74	92	73
Estimated number* of Indigenous children in communities†	1,774	706	781	165	3,426
Children screened for trachoma	1,628	637	725	153	3,143
Trachoma screening coverage (%)	92	90	93	93	92
Children with active trachoma	130	29	16	0	175
Observed prevalence of active trachoma (%)	8.0	4.6	2.2	0	5.6
Estimated prevalence of active trachoma (%)	6.5	4.5	5.7	0	6.6
Overall prevalence of active trachoma (%)	6.1	2.8	3.5	0	4.7

* Jurisdictional estimate.

† Communities that were screened for trachoma in 2016.

‡ Methods of calculating prevalence rates on page 14.

§ 14 children in QLD were identified with follicles meeting WHO simplified grading scheme for TF. Ophthalmologist review identified no corneal pannus or Herbert's pits. These children were assessed as not having active trachoma.

Table 1.3 Number and proportion* of at-risk communities according to level of trachoma prevalence in children aged 5-9 years, Australia 2007 – 2016

	2007		2008		2009		2010		2011		2012		2013		2014		2015		2016	
Communities at-risk†	229		233		232		244		203		196		183		177		157		150	
Communities not screened‡	102		107		116		89		53		9		20		0		8		8	
Number of communities §	123		121		116		152		152		187		163		177		149		142	
≥20%	32	26%	54	45%	26	22%	44	29%	21	14%	15	8%	14	9%	17	10%	16	11%	15	11%
≥10% but <20%	22	18%	14	12%	13	11%	23	15%	20	13%	13	7%	20	12%	36	20%	27	18%	29	20%
≥5% but <10%	11	9%	14	12%	12	10%	15	10%	20	13%	20	11%	21	13%	12	7%	16	11%	12	8%
>0% but <5%	7	6%	12	10%	24	21%	16	11%	19	13%	24	13%	17	10%	13	7%	16	11%	21	15%
0%	51	41%	27	22%	41	35%	54	36%	72	47%	115	61%	91	56%	99	56%	74	50%	65	46%

* Based on current or most recent year.

† As defined annually by each jurisdiction.

‡ Or treated as required per Guidelines.

§ Screened or receiving ongoing annual treatment as per Guidelines.

Table 1.4 Treatment strategies by jurisdiction, Australia 2016

Number of communities	Northern Territory	South Australia	Western Australia	Queensland	Total
Required treatment for trachoma	40	15	22	3	80
Treated for trachoma	36	15	22	3	76
Screened and treated	28	15	8	3	54
Received treatment without screening	8	0	13	0	21
Received 6-monthly treatment	9	1	1	0	11
Did not require treatment	43	4	29	0	76
Treated active cases and households	10	14	6	3	33
Treated the whole of community	26	1	16	0	43
Not treated according to CDNA guidelines	4	0	0	0	4

* Four communities not treated according to Guidelines due to road conditions, cultural ceremonies and contracted local service program disruption in one region.

† While no children in QLD were identified as having active trachoma, children and their contacts were treated based on WHO simplified grading scheme and CDNA National guidelines for the public health management of trachoma.

Table 1.5 Trachoma treatment coverage, Australia 2016

Age group (years)	Northern Territory				South Australia				Western Australia				Queensland †				Total								
	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All					
Requiring treatment for active trachoma	10	130	11	N/A	151	3	29	8	N/A	40	1	16	4	N/A	21	0	14	1	N/A	15	14	189	24	N/A	227
Received treatment for active trachoma	10	128	11	N/A	149	3	28	8	N/A	39	1	15	4	N/A	20	0	14	1	N/A	15	14	185	24	N/A	223
Received treatment for active trachoma (%)	100	99	100	N/A	99	100	97	100	N/A	98	100	94	100	N/A	95	N/A	100	100	N/A	100	100	98	100	N/A	98
Estimated community members* requiring treatment	1,053	1,309	1,108	6,677	10,147	43	55	53	259	410	269	329	324	1,717	2,639	10	21	11	34	76	1,375	1,714	1,496	8,687	13,272
Number of community members* who received treatment	906	1,196	966	5,449	8,517	42	53	50	241	386	253	298	299	1,619	2,469	10	21	11	34	76	1,211	1,568	1,326	7,343	11,448
Estimated community members who received treatment (%)	86	91	87	82	84	98	96	94	93	94	94	91	92	94	94	100	100	100	100	100	88	91	89	85	86
Total number of doses of azithromycin delivered	916	1,324	977	5,449	8,666	45	81	58	241	425	254	313	303	1,619	2,489	10	35	12	34	91	1,225	1,753	1,350	7,343	11,671
Doses administered in communities that were treated without screening*	255	347	297	1,640	2,539	0	0	0	0	0	217	246	254	1,430	2,147	0	0	0	0	0	472	593	551	3,070	4,686
Doses administered six-monthly*	381	486	378	2,427	3,672	26	23	18	86	153	39	69	80	229	417	0	0	0	0	0	446	578	476	2,742	4,242
Estimated overall treatment coverage (%)	86	92	87	82	84	98	98	95	93	95	94	91	92	94	94	100	100	100	100	100	88	92	89	85	86

* As per Guidelines

† While no children in QLD were identified as having active trachoma, children and their contacts were treated based on WHO simplified grading scheme and CDNA National guidelines for the public health management of trachoma.

Table 1.6 Trichiasis screening coverage, prevalence and treatment among Indigenous adults, Australia 2016

	Northern Territory		South Australia		Western Australia		Total		
Number of communities screened for trichiasis	76		19		51		146		
Age group	15-39	40+	15-39	40+	15-39	40+	15-39	40+	15+
Estimated population in region	16,548	9,481	2,983	2,001	5,340	3,158	24,871	14,640	39,511
Adults examined	3,459	3,056	645	1,174	440	1,544	4,544	5,774	10,318
With trichiasis	3	37	0	7	0	18	3	62	65
With trichiasis (%)	0.1	1.2	0.0	0.6	0.0	1.2	0.1	1.1	0.6
Offered ophthalmic consultation	1	22	0	7	0	16	1	45	46
Declined ophthalmic consultation	0	0	0	0	0	8	0	8	8
Surgery in past 12 months	5	5	0	4	0	3	5	12	17

* Population estimate limited to trachoma endemic regions and does not take into account changing endemic regions over time and transiency between regions.

† Number of adults examined limited to numbers reported. This number may not account for adults who have been examined in routine adult health checks, and may also include multiple screening.

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Northern Territory results

Trachoma program coverage

- In 2016, the NT identified 77 communities in five regions as being at risk of trachoma (Table 2.1, Figure 2.1).
- Of these at-risk communities 83% (64/77) required screening or treatment for trachoma according to current guidelines, with 12/64 requiring treatment but not screening (Table 2.1, Figure 2.3).
- Of the communities that required screening and/or treatment, 86% (55/64) received the required service (Table 2.1).
- The remaining 13 at-risk communities did not require screening or treatment as their previous year's prevalence was under 5% (see methodology) (Table 2.1, Figure 2.3).

Screening coverage

- In 2016, the NT identified 52 communities in the five regions requiring screening for trachoma with 47 of those screened (Table 2.1).
- Four at-risk communities were not screened due to disruptions in contracted local service programs in one region (Table 2.4).
- The proportion of children aged 5-9 years screened in the 47 communities was 92%, ranging from 73% in the Barkly region to 96% in Katherine region (Table 2.2, Figure 2.4).

Clean face prevalence

- Clean face prevalence was assessed in all communities that were screened and in most communities that only received treatment.
- The overall prevalence of clean faces among children aged 5-9 years in the communities assessed was 70%, ranging from 61% in Alice Springs Remote region, to 88% in the Darwin Rural region (Table 2.2, Figure 2.5).

Trachoma prevalence

- The observed prevalence of active trachoma in those aged 5-9 years in 47 communities that were screened in 2016 was 8%. Prevalence ranged from 1.6% in Darwin Rural region to 13.7% in Alice Springs Remote region (Table 2.2, Figure 2.6 a.).
- The estimated prevalence of active trachoma using most recent data carried forward in all 77 at-risk communities was 6.5%, ranging from 1.2 % in East Arnhem region to 15.9% in Alice Springs Remote region (Table 2.2, Figure 2.6b).
- The overall prevalence of active trachoma was 6.1%, ranging from 1.1% in East Arnhem to 13.9% in Alice Springs Remote region (Table 2.2, Figure 2.6c).
- No trachoma was reported in 28 of the at-risk communities (Table 2.3)
- Endemic levels of trachoma (> 5%) were reported in 32 of the at-risk communities (Table 2.3)
- Hyperendemic levels of trachoma (> 20%) were reported in 11 of the at-risk communities (Table 2.3)

Treatment delivery and coverage

- Trachoma treatment strategies were applied in 36 communities (Table 2.4, Figure 2.3).
- Treatment was delivered to those with active trachoma and households in 10 communities, and community wide in 26 communities as per Guidelines (Table 2.4).
- Four communities did not receive the treatment which was required by the CDNA Guidelines due to contracted local service program disruption in one region. Trachoma control activities resumed in this region in early 2017 (Table 2.4).
- Total treatment coverage for those with active trachoma and community members, and community-wide treatment in all regions requiring treatment was 84% with 8,666 doses of azithromycin delivered (Table 2.5, Figure 2.8).

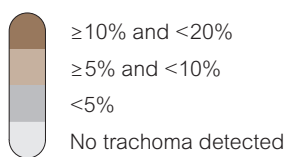
Trichiasis

- Reporting for trichiasis screening was available for 76 communities (Table 2.6).
- Overall 6,515 adults aged 15 years and older were reported to be screened (Table 2.6).
- The prevalence of trichiasis in adults aged 15 years and over was 0.6%, and 1.2% in adults aged 40 years and over (Table 2.6).
- Surgery for trichiasis was reported to be undertaken for 10 adults, with 23 remaining cases awaiting further review (Table 2.6).

Health promotion

- Health promotion activities were reported to have occurred in 31 communities in the Alice Springs Remote, Barkly, Darwin Rural, East Arnhem, and Katherine regions (Table 2.7).
- A total of 148 health promotion activities were reported (Table 2.7).
- The majority of the health promotion activities were delivered to children, teachers and childcare or preschool staff members, caregivers/parents and community members (Table 2.7)

Figure 2.1 Trachoma prevalence in children aged 5-9 years in all at-risk communities by region, Northern Territory, 2016



□ No data/Not screened/Not at-risk



Figure 2.2 Number of communities at risk by region, Northern Territory 2007 – 2016

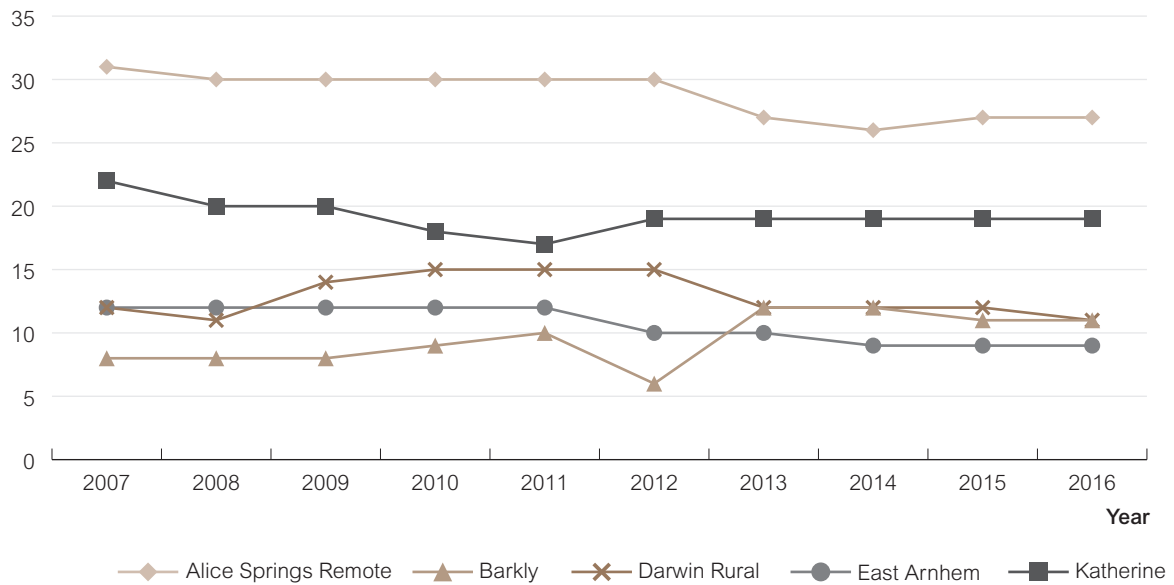


Figure 2.3 Number of at-risk communities according to trachoma control strategy implemented by region, Northern Territory 2016

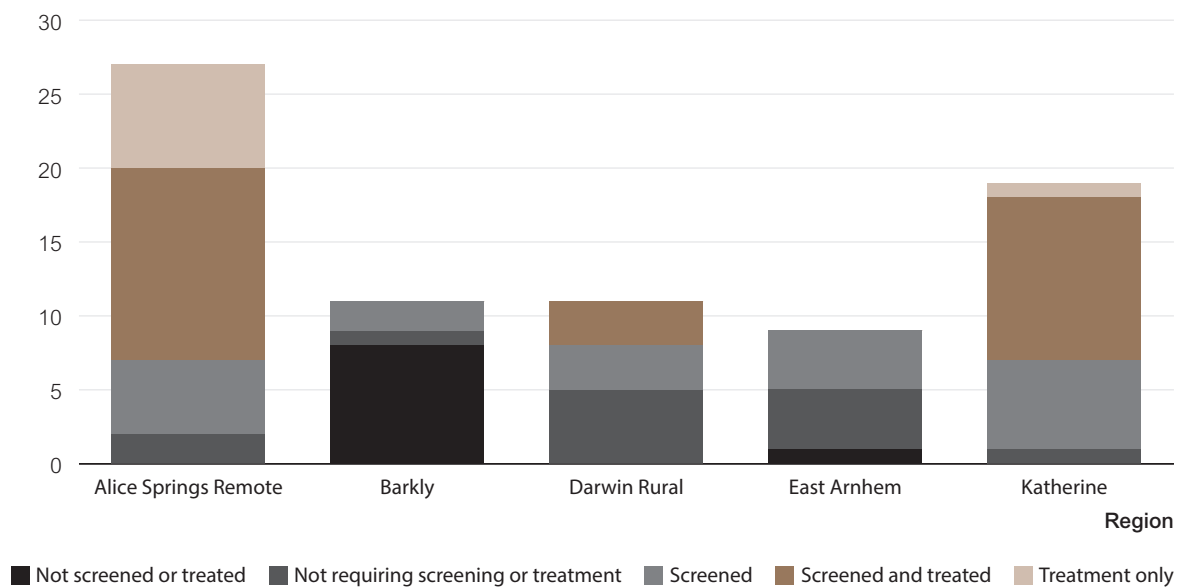


Figure 2.4 Population screening coverage of children aged 5-9 years in communities that required screening for trachoma by region, Northern Territory 2016

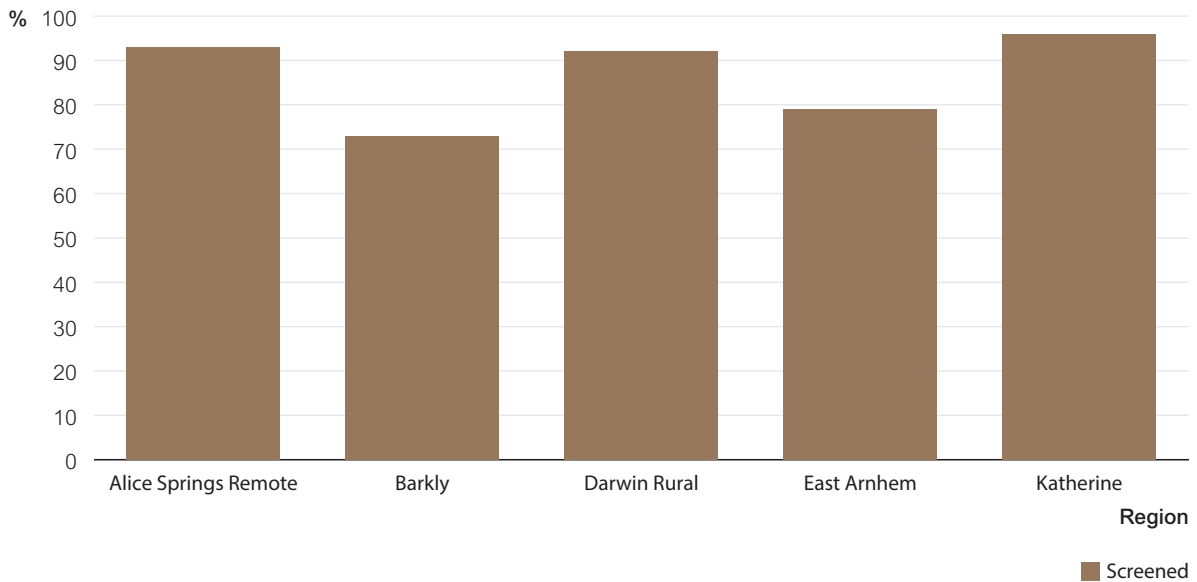


Figure 2.5 Proportion of screened children aged 5-9 years who had a clean face by region, Northern Territory 2007 – 2016

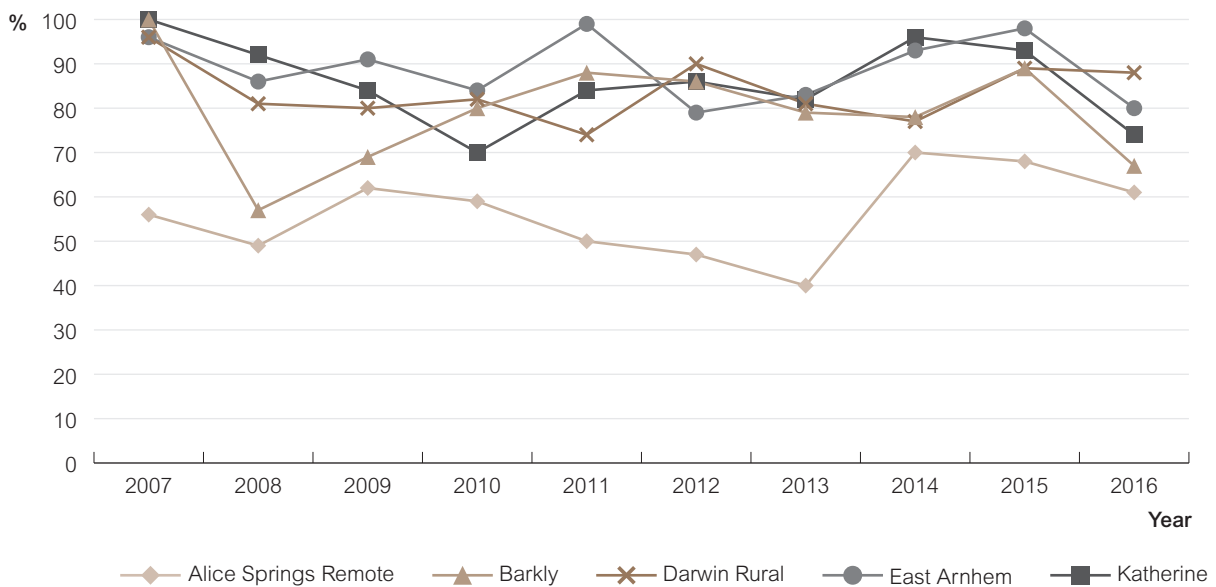


Figure 2.6a. Observed prevalence of active trachoma among children aged 5-9 years in communities that were screened by region, Northern Territory 2007 – 2016

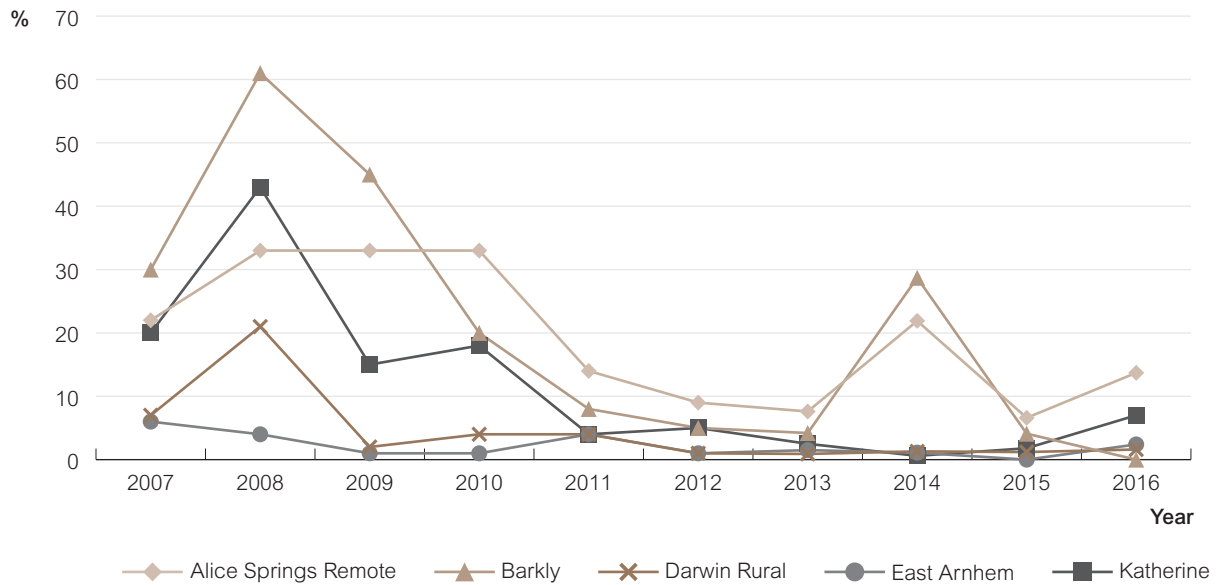
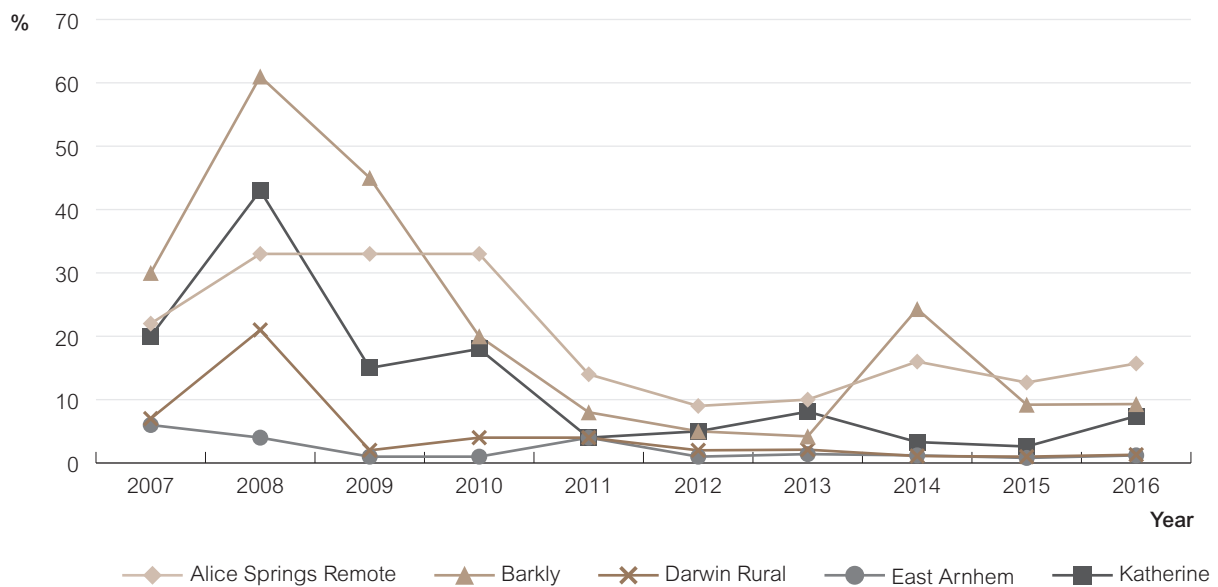
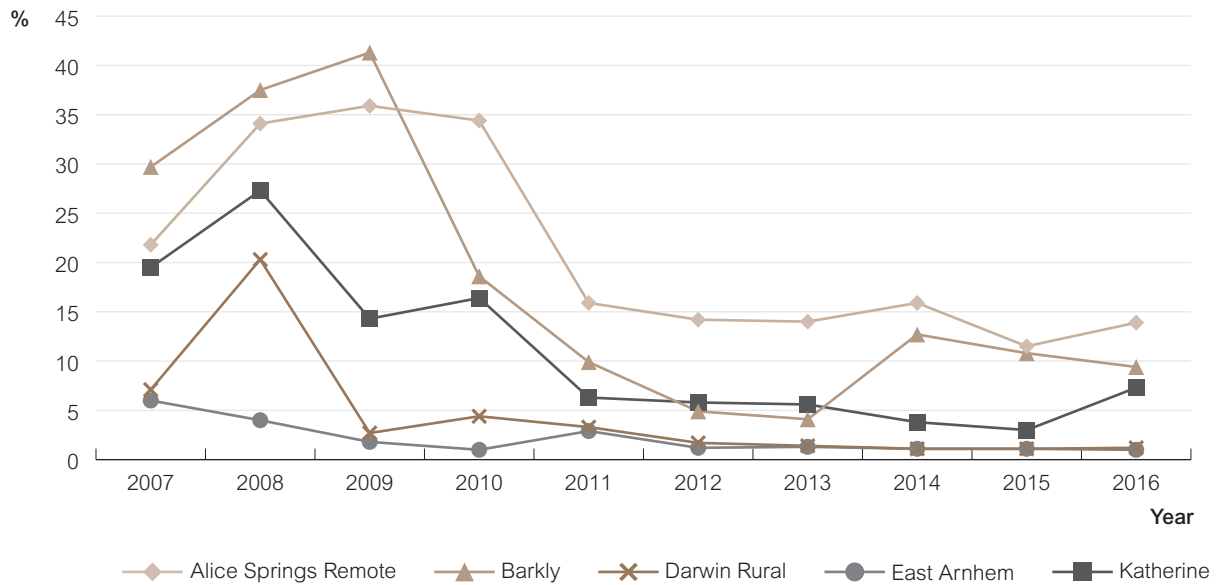


Figure 2.6b. Active trachoma prevalence among children aged 5-9 years in all at-risk communities* by region, Northern Territory 2007 – 2016



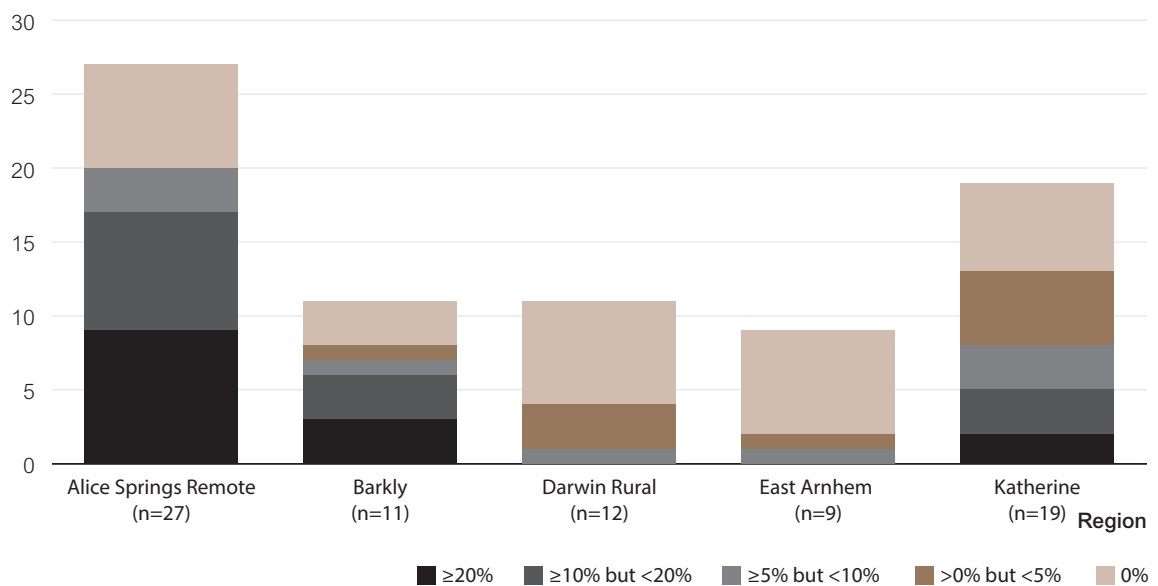
* Most recent estimates carried forward in communities that did not screen in 2016.

Figure 2.6c. Overall prevalence of active trachoma* among children aged 5-9 years by region, Northern Territory 2007 – 2016



* Calculated carrying forward most recent data in all communities considered at risk of trachoma at some time since 2007.

Figure 2.7 Number of at-risk communities* according to level of trachoma prevalence in children aged 5-9 years by region, Northern Territory 2016



* Including at-risk communities that did and did not screen in 2016.

Figure 2.8 Number of doses of azithromycin administered for the treatment of trachoma by region, Northern Territory 2007 – 2016

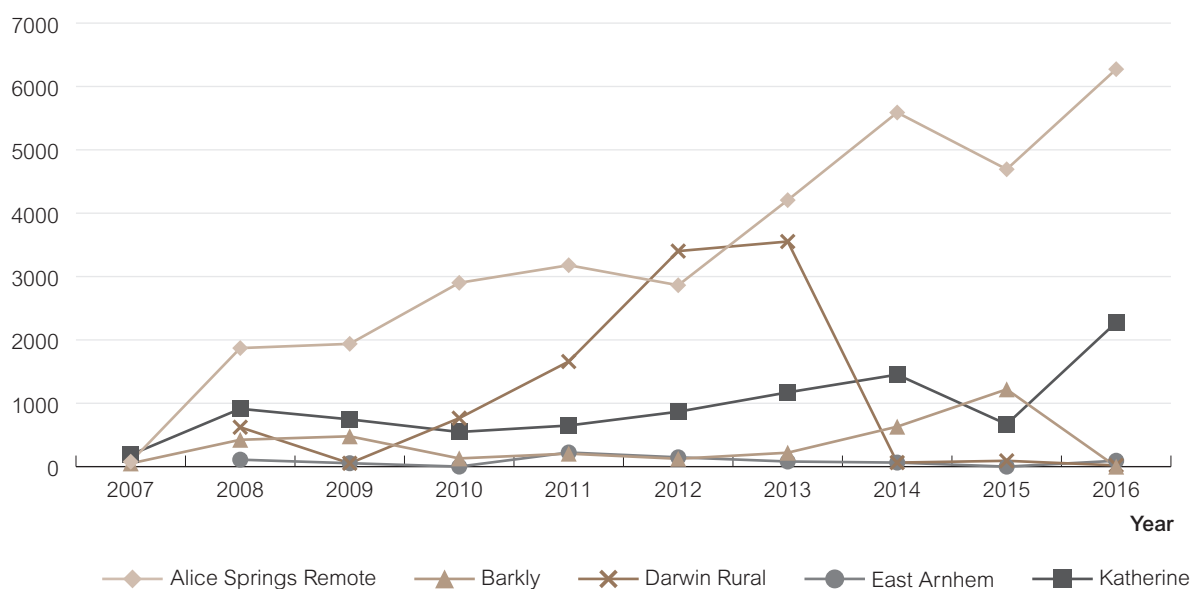


Table 2.1 Trachoma control delivery in at-risk* communities by region, Northern Territory 2016

Number of communities	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	Total
At risk† (A)	27	11	11	9	19	77
Requiring screening for trachoma (B)	18	6	6	5	17	52
Screened for trachoma (C)	18	2	6	4	17	47
Requiring treatment without screening† (D)	7	4	0	0	1	12
Received treatment without screening† (E)	7	0	0	0	1	8
Screened and/or treated for trachoma (F = C+E)	25	2	6	4	18	55
Requiring neither screening or treatment for trachoma (G=A-B-D)	2	1	5	4	1	13

* As defined by each jurisdiction.

† As per Guidelines.

Table 2.2 Trachoma screening coverage, trachoma prevalence and clean face prevalence by region, Northern Territory 2016

Number of communities screened Age group (years)	Alice Springs Remote				Barkly				Darwin Rural				East Arnhem				Katherine				Total			
	18				2				6				4				17				47			
	0-4	5-9	10-14	0-14	0-4	5-9	10-14	0-14	0-4	5-9	10-14	0-14	0-4	5-9	10-14	0-14	0-4	5-9	10-14	0-14	0-4	5-9	10-14	0-14
Children examined for clean face	171	716	206	1,093	1	3	1	5	25	151	61	237	3	136	15	154	164	683	78	925	364	1,689	361	2,414
Children with clean face	71	436	187	694	0	2	1	3	16	133	60	209	1	100	14	176	122	508	75	705	210	1,179	337	1,787
Clean face prevalence (%)	42	61	91	63	0	67	100	60	64	88	98	88	33	74	93	114	74	74	96	76	58	70	93	74
Estimated number of Aboriginal children in communities†	409	593	421	1,423	27	55	46	128	181	210	224	615	195	214	247	656	523	702	764	1,989	1,335	1,774	1,702	4,811
Children screened for trachoma	11	554	63	628	3	40	33	76	31	193	88	312	9	168	41	218	89	673	69	831	143	1,628	294	2,065
Trachoma screening coverage (%)	3	93	15	44	11	73	72	59	17	92	39	51	5	79	17	33	17	96	9	42	11	92	17	43
Children with active trachoma‡	4	76	8	88	0	0	0	0	0	3	0	3	0	4	1	5	6	47	2	55	10	130	11	151
Observed prevalence of active trachoma‡ (%)	36.4	13.7	12.7	14.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	1.0	0.0	2.4	2.4	2.3	6.7	7.0	2.9	6.6	7.0	8.0	3.7	7.3
Estimated prevalence of active trachoma‡ (%)	N/A	15.9	N/A	N/A	N/A	9.3	N/A	N/A	N/A	1.3	N/A	N/A	N/A	1.2	N/A	N/A	N/A	7.4	N/A	N/A	N/A	6.5	N/A	N/A
Overall prevalence of active trachoma‡ (%)	N/A	13.9	N/A	N/A	N/A	9.4	N/A	N/A	N/A	1.2	N/A	N/A	N/A	1.1	N/A	N/A	N/A	7.1	N/A	N/A	N/A	6.1	N/A	N/A

* Jurisdiction provides estimate for children aged 5-9 years only; number of children in communities aged 0-4 and 10-14 years are based on convenience sampling.

† In communities that were screened for trachoma in 2016.

‡ Methods of calculating the different prevalence figures on page 14.

Table 2.3 Number and proportion of at-risk communities according to level of trachoma prevalence* in children aged 5-9 years, Northern Territory 2007 – 2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Communities at-risk†	89	87	86	86	86	82	80	78	78	77
Communities not screened‡	25	25	33	21	19	4	12	0	8	8
Number of communities §	60	43	53	64	65	76	68	78	70	69
≥20%	12	20%	19	27	9	5	5	14	11	11
≥10% but <20%	8	13%	8	4	9	9	14	14	11	13
≥5% but <10%	4	7%	3	9	11	9	9	10	7	8
>0% but <5%	7	12%	9	9	14	13	9	6	10	9
0%	29	48%	14	15	22	40	31	34	31	28
				23%	34%	53%	46%	44%	44%	41%
			26%							
			36%							
			42%							
			58%							
			14%							
			9%							
			17%							
			9%							
			17%							
			9%							
			14%							
			26%							
			36%							
			42%							
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			26%							
			36%							
			42%							
			58%							
			14%							
			9%							
			17%							
			9%							
			14%							
			26%							
			36%							
			42%							
			58%							

* Based on current or most recent year.
 † As defined annually by each jurisdiction.
 ‡ Or treated as required per Guidelines.
 § Screened or receiving ongoing annual treatment as per Guidelines.

Table 2.4 Treatment strategies by region, Northern Territory 2016

	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	Total
Required treatment for trachoma	20	4	3	1	12	40
Treated for trachoma*	20	0	3	1	12	36
Screened and treated	13	0	3	1	11	28
Received treatment only	7	0	0	0	1	8
Received 6-monthly treatment	7	0	0	0	2	9
Did not require treatment	7	7	11	9	9	43
Treated active trachoma and households	0	0	3	1	6	10
Community wide treatment	20	0	0	0	6	26
Not treated according to CDNA Guidelines*	0	4	0	0	0	4

* Four communities not treated according to the Guidelines due to road conditions, cultural ceremonies and contracted local service program disruption in one region.

Table 2.5 Trachoma treatment coverage by region,* Northern Territory 2016

	Alice Springs Remote					Barkly					Darwin Rural					East Arnhem					Katherine					Total				
	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All
Requiring treatment for active trachoma	4	76	8	N/A	88	0	0	0	N/A	0	0	3	0	N/A	3	0	4	1	N/A	5	6	47	2	N/A	55	10	130	11	N/A	151
Received treatment for active trachoma	4	75	8	N/A	87	0	0	0	N/A	0	0	3	0	N/A	3	0	4	1	N/A	5	6	46	2	N/A	54	10	128	11	N/A	149
Received treatment for active trachoma (%)	100	99	100	N/A	99	0	0	0	N/A	0	0	100	0	N/A	100	0	100	100	N/A	100	100	98	100	N/A	98	100	99	100	N/A	99
Estimated community members* requiring treatment	774	932	789	4,875	7,370	0	0	0	0	0	2	5	2	10	19	10	9	9	63	91	267	363	308	1,729	2,667	1,053	1,309	1,108	6,677	10,147
Number of community members who received treatment	661	867	696	3,962	6,186	0	0	2	4	1	10	17	9	9	88	234	316	260	1,416	2,226	906	1,196	966	5,449	8,517					
Estimated community members who received treatment (%)	85	93	88	81	84	N/A	N/A	N/A	N/A	N/A	100	80	50	100	89	90	100	100	97	97	88	87	84	82	83	86	91	87	82	84
Total number of doses of azithromycin delivered	665	942	704	3,962	6,273	0	0	2	7	1	10	20	13	61	93	240	362	262	1,416	2,280	916	1,324	977	5,449	8,666					
Estimated overall treatment coverage (%)	85	93	88	81	84	N/A	N/A	N/A	N/A	N/A	100	88	50	100	91	90	100	100	97	97	88	88	85	82	84	86	92	87	82	84

* Includes household contacts and community members requiring and receiving mass drug administration (MDA).

Table 2.6 Trichiasis screening coverage, prevalence and treatment among Indigenous adults by region, Northern Territory 2016

Number of communities screened for trichiasis	Alice Springs Remote			Barkly			Darwin Rural			East Arnhem			Katherine			Total		
	21		40+	11		40+	16		10	18		76		15+		15+		
	15-39	40+	15-39	40+	15-39	40+	15-39	40+	15-39	40+	15-39	40+	15-39	40+	15-39	40+	15+	
Estimated population in region*	2,065	1,148	2,309	1,487	4,790	2,457	4,431	2,670	2,953	1,719	16,548	9,481	26,029					
Adults examined†	602	563	367	301	944	759	1,080	664	466	769	3,459	3,056	6,515					
With trichiasis	2	20	1	1	0	0	0	2	0	14	3	37	40					
With trichiasis (%)	0.3	3.6	0.3	0.3	0	0	0	0.3	0	1.8	0.1	1.2	0.6					
Offered ophthalmic consultation	0	10	1	0	0	0	0	2	0	10	1	22	23					
Declined ophthalmic consultation	0	0	0	0	0	0	0	0	0	0	0	0	0					
Surgery in past 12 months‡§	5	3	0	0	0	0	0	1	0	1	5	5	10					

* Population estimate limited to trachoma endemic regions and does not take into account changing endemic regions over time and transiency between regions.

† Number of adults examined limited to numbers reported. This number may not account for all adults who may be examined in routine adult health checks, and may also include multiple screening.

‡ Surgery cases may include cases identified in previous years.

§ Two further surgeries for patients from other jurisdictions were undertaken in the NT in 2016.

Table 2.7 Health promotion activities by region, Northern Territory 2016

	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	Total
Number of communities that reported health promotion activities	15	1	3	1	11	31
Total number of programs reported	61	1	27	21	38	148
Methods of health promotion						
One-on-one discussion	37	1	14	10	23	85
Presentation to group	26	0	15	12	18	71
Interactive group session	16	0	8	6	11	41
Social marketing	7	0	5	3	7	22
Print material/mass media	23	1	10	5	18	57
Sporting/community events	1	0	1	1	1	4
Other	30	1	12	8	20	71
Target audience						
Health professionals/staff	21	0	9	6	15	51
Children	40	1	21	16	30	108
Youth	22	0	11	7	14	54
Teachers/childcare/preschool staff	39	1	19	14	28	101
Caregivers/parents	27	1	10	7	17	62
Community members	25	0	10	8	15	58
Community educators/health promoters	19	0	11	9	15	54
Interagency members	16	0	8	6	11	41
Frequency of health promotion activities						
Once	1	1	0	0	0	2
Occasional*	55	0	26	20	35	136
Regular†	0	0	0	0	0	0
Ongoing/routine	1	0	0	0	0	1

* 2-4 times per year.

† 5-12 times per year.

Northern Territory Trachoma Health Promotion

Partnerships with several organisations provided health promotion in the Northern Territory in 2016, delivering broad messages relevant to the prevention of several hygiene-related diseases, including trachoma, and infections of the skin, ear and respiratory tract.

Road shows involving the television characters Yamba, the honey ant, and Milpa, the trachoma goanna, took place in the Barkly Region and Central Australia. Sean Choolburra worked with several communities in the Katherine region, and Indigenous Hip Hop visited Central Australia to improve understanding of community antibiotic distribution for trachoma. Donated hygiene bags were distributed during these events. Community service announcements on local radio and television continued to provide a broad reach for the 'Clean Face, Strong Eyes' message using Melbourne Football Club ambassadors. The Melbourne football club made two visits to the NT in 2016, which provided opportunities for health promotion at sports days, as well as heightened media coverage of the trachoma program and Milpa.

Collaboration between NT Department of Health and NT Department of Education led to the development of the 'Clean Faces, Strong Eyes' project. The project's aim is to support teachers in remote schools to establish a regular hygiene routine in line with the national curriculum in all schools. The project will be implemented in 2017.

Several information flyers, which are provided to people through clinics, stores and council offices during screening and treatment trips, have been translated into two local languages in collaboration with local language centres. Work will continue in 2017 to have these and other resources translated into more local languages.

Health Education sessions using broad hygiene messages were delivered at schools, Families as First Teachers facilities and child-care facilities. Information sessions were provided to teachers, clinic staff, local authority committees and other service providers working in communities. In 2016 engagement commenced with several local Indigenous organisations to ensure culturally appropriate delivery of hygiene messages.

South Australia results

Trachoma program coverage

- In 2016 SA identified 19 communities in three regions as being at risk of trachoma (Table 3.1, Figure 3.1).
- Due to no evidence of active trachoma, Yorke and Mid North Region are no longer considered at risk of trachoma.
- All 19 at-risk communities were screened for trachoma (Table 3.1, Figure 3.1).

Screening coverage

- Trachoma screening coverage of children aged 5-9 years in the 19 at-risk communities screened was 90%, ranging from 89% in the Eyre and Western region to 91% in the APY Lands (Table 3.2, Figure 3.4).

Clean face prevalence

- Clean face prevalence was assessed in all communities that were screened.
- The overall prevalence of clean faces among children aged 5-9 years in the screened communities was 75%, ranging from 52% in the APY Lands, to 92% in the Eyre and Western region (Table 3.2, Figure 3.5).

Trachoma prevalence

- The observed prevalence of active trachoma in children aged 5-9 years screened was 4.6%, which decreased from 7% in 2015. Prevalence ranged from 2.3% in the Eyre and Western region to 5.8% in Far North region (Table 3.2, Figure 3.6a).
- The overall prevalence of active trachoma was 2.8%, ranging from 1.1% in the Eyre and Western region and 4.5% in the Far North region (Table 3.2, Figure 3.6b)
- No trachoma was reported in four communities (Table 3.3, Figure 3.7).
- Endemic levels of trachoma (5% or more) were reported in four communities (Table 3.3, Figure 3.7).

Treatment delivery and coverage

- Trachoma treatment strategies were applied in 15 communities (Table 3.4).
- Treatment was delivered for active trachoma and households in 15 communities and community-wide treatment in one community (Table 3.4).
- Total treatment coverage for active trachoma and community members, and community-wide treatment in all regions requiring treatment was 94% with 425 doses of azithromycin delivered (Table 3.5, Figure 3.8).

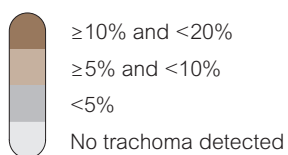
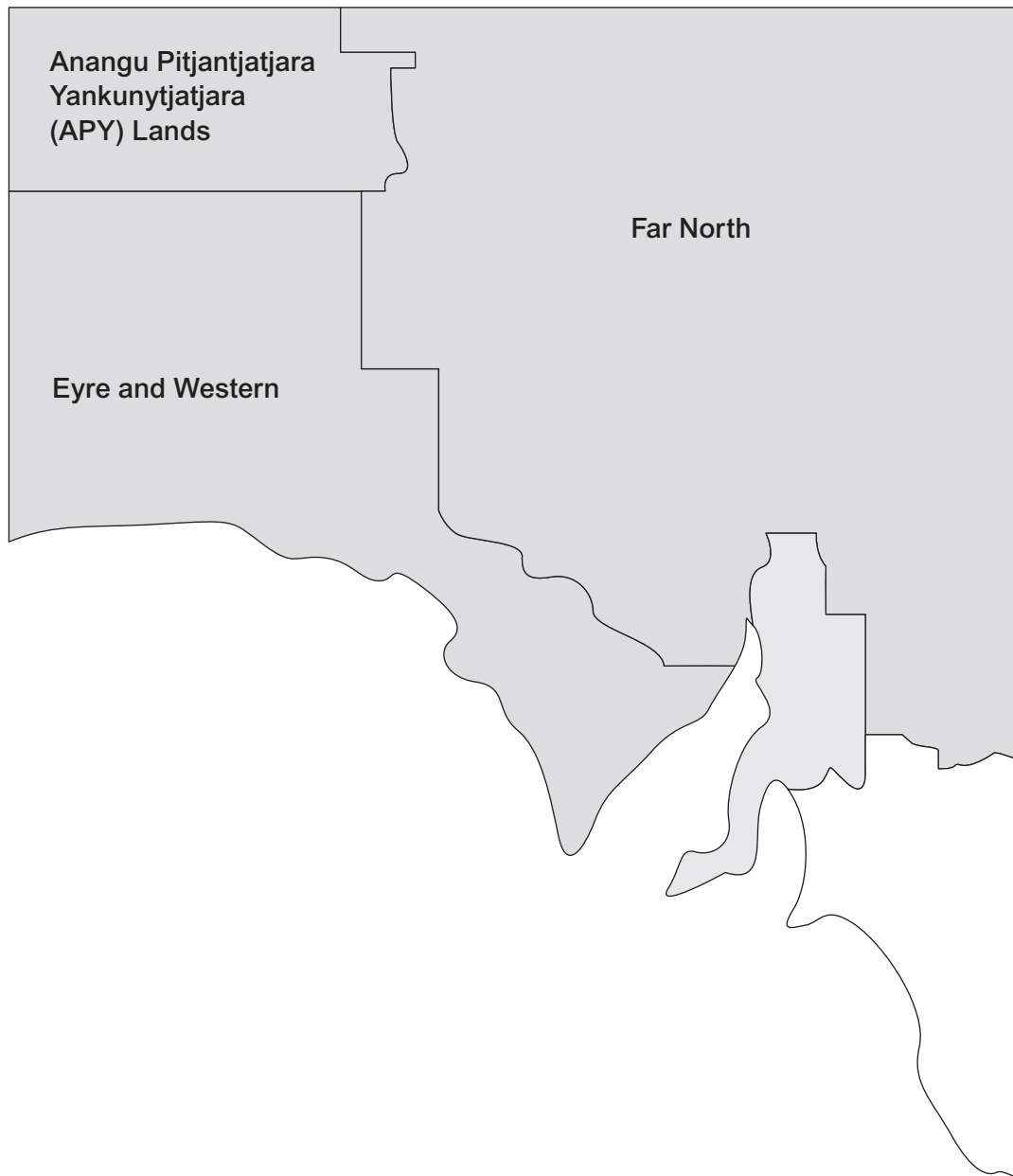
Trichiasis

- Screening for trichiasis was undertaken in 19 communities (Table 3.6).
- Overall 1,819 adults aged 15 years and over were screened (Table 3.6).
- The prevalence of trichiasis in adults aged 15 years and over was 0.4%, and 0.6% in adults aged 40 years with seven cases of trichiasis detected (Table 3.6).
- Surgery for trichiasis was reported to be undertaken for four adults (Table 3.6).

Health promotion

- Health promotion activities were reported to have occurred in 19 communities in the APY Lands, Eyre and Western, and Far North regions (Table 3.7).
- A total of 26 health promotion activities were reported in SA (Table 3.7).
- The majority of the health promotion activities were delivered to children, caregivers/parents, and youth (Table 3.7).

Figure 3.1 Trachoma prevalence in children aged 5-9 years in all at-risk communities by region, South Australia, 2016




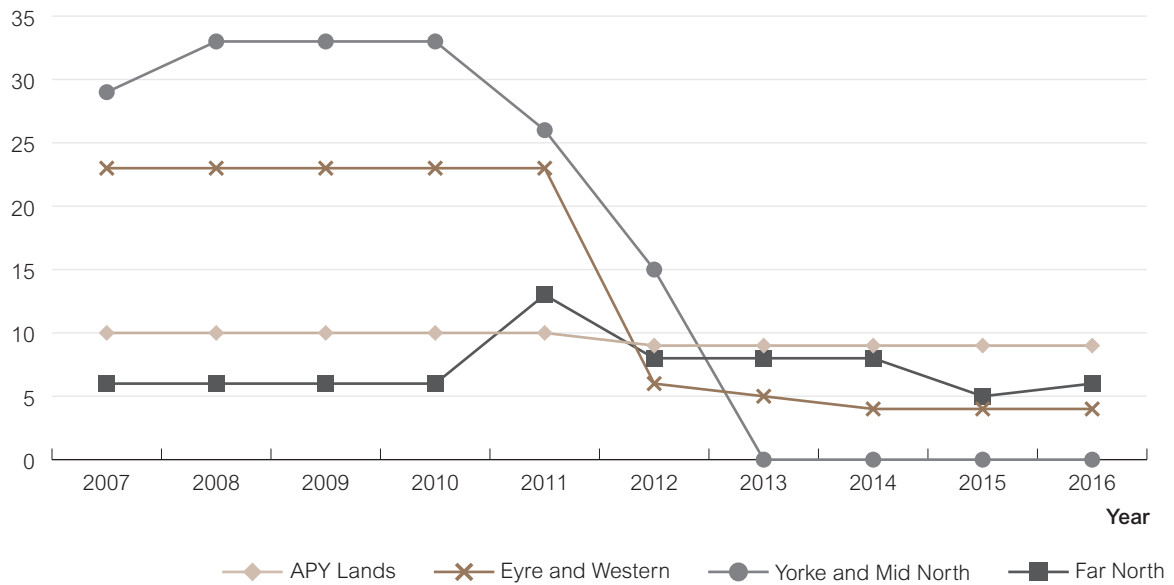
 No data/Not screened/Not at-risk

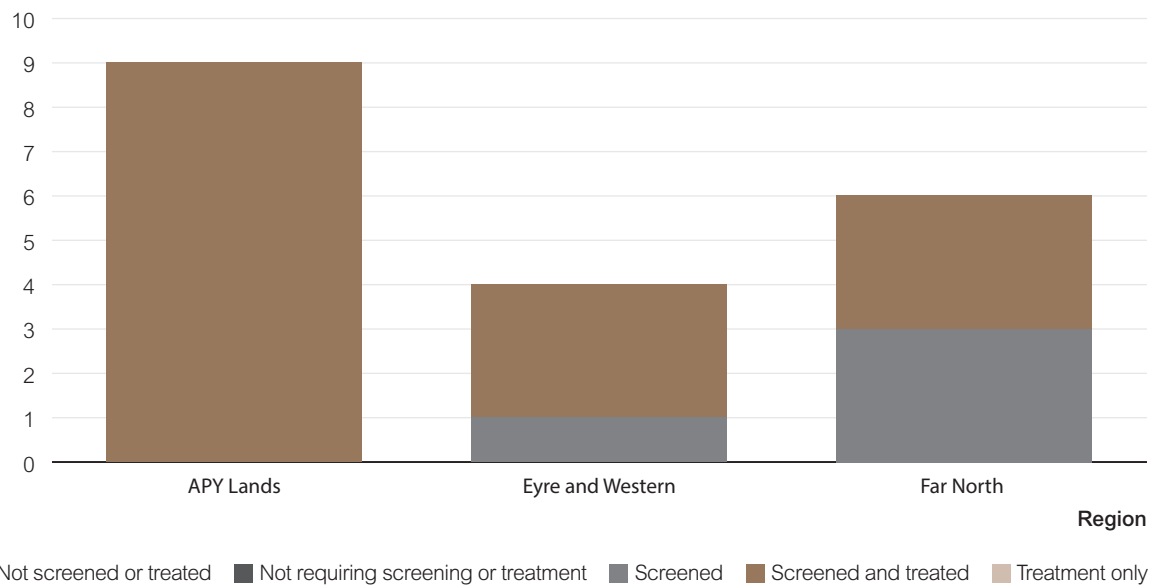


Figure 3.2 Number of communities at risk by region, South Australia 2007 – 2016



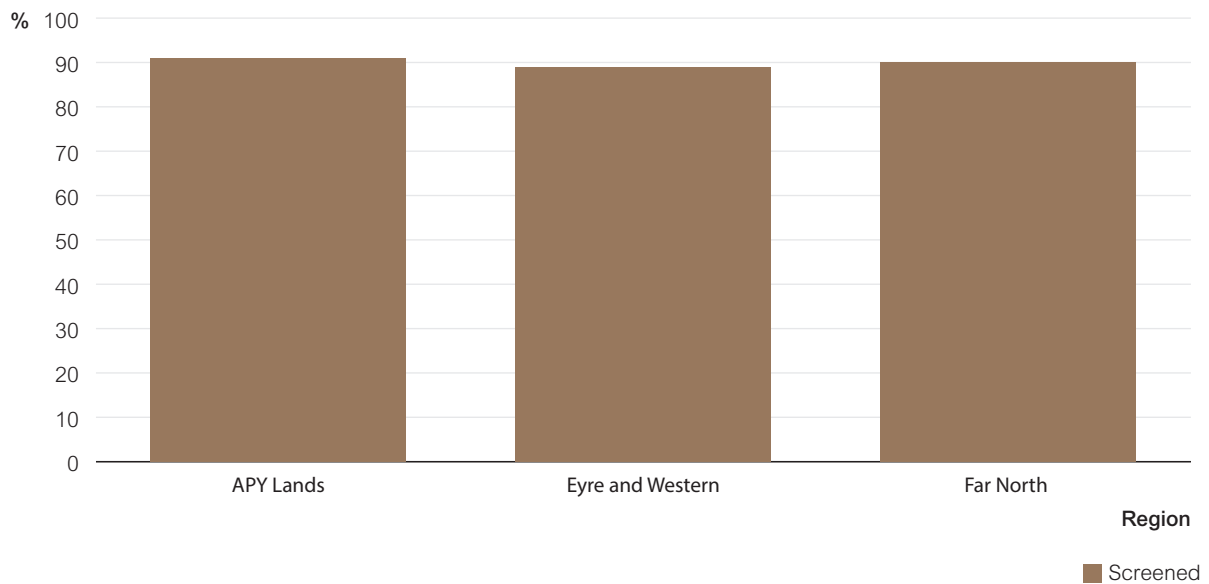
APY: Anangu Pitjantjatjara Yankunytjatjara.

Figure 3.3 Number of at-risk communities according to trachoma control strategy implemented by region, South Australia 2016



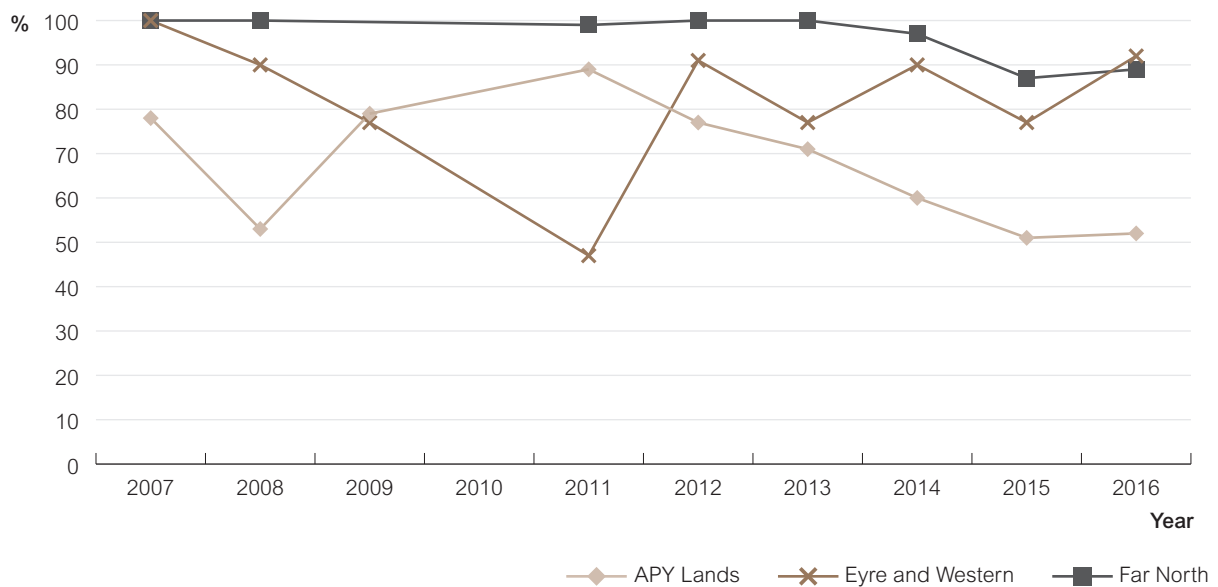
APY: Anangu Pitjantjatjara Yankunytjatjara.

Figure 3.4 Population screening coverage of children aged 5-9 years in at-risk communities that required screening for trachoma by region, South Australia 2016



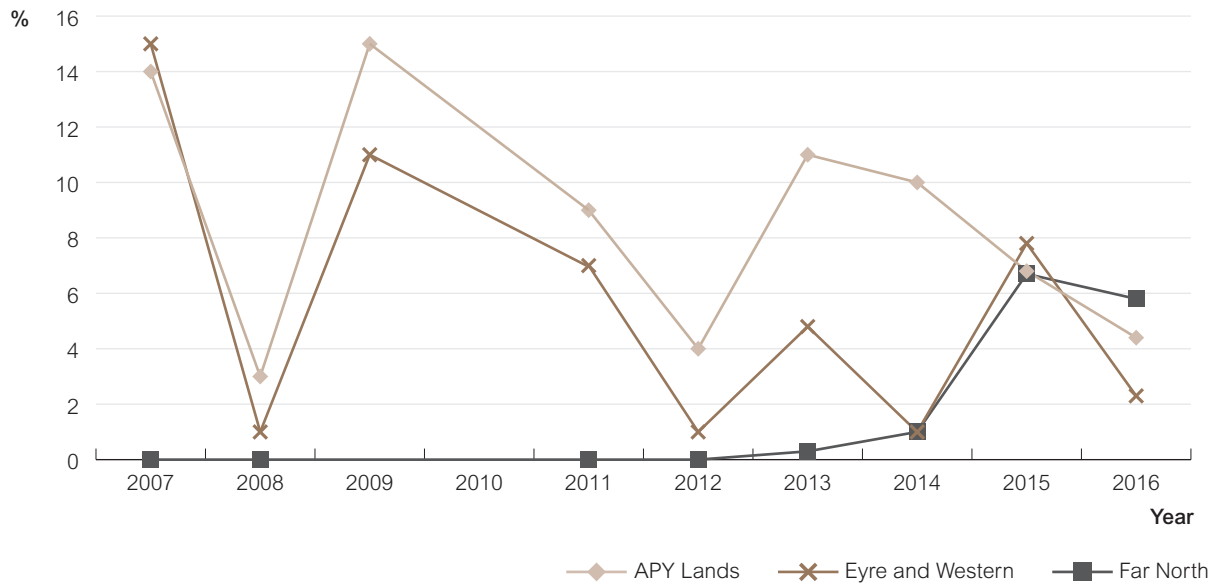
APY: Anangu Pitjantjatjara Yankunytjatjara.

Figure 3.5 Proportion of screened children* aged 5-9 years who had a clean face by region, South Australia 2007 – 2016



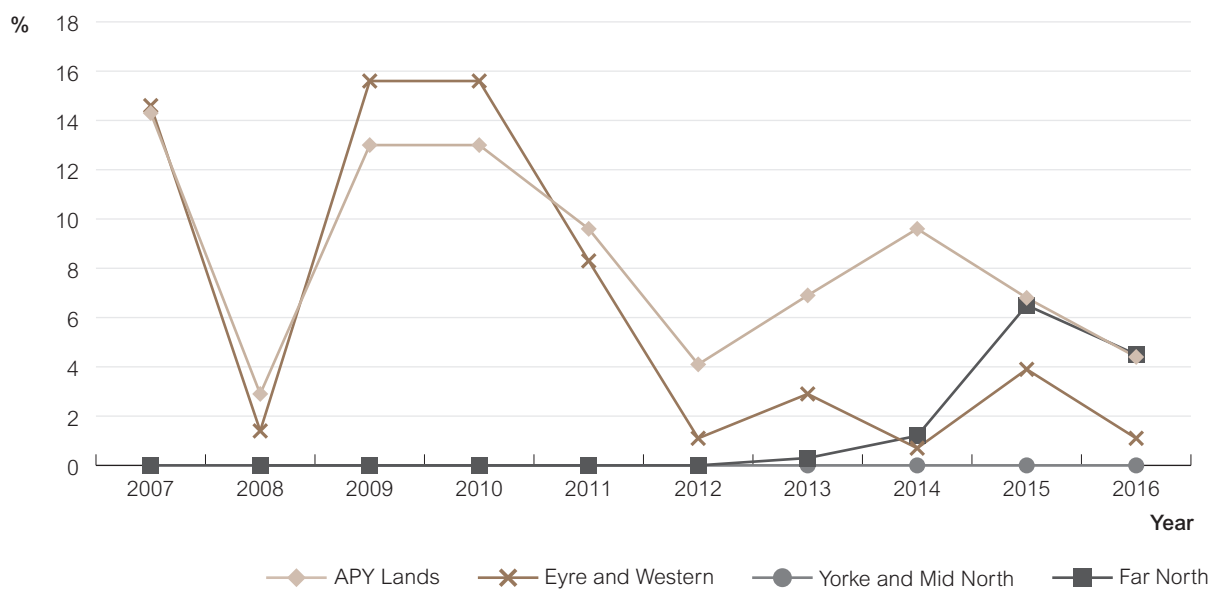
* In at-risk communities.
APY: Anangu Pitjantjatjara Yankunytjatjara.

Figure 3.6a. Observed prevalence of active trachoma among children aged 5-9 years in at-risk communities by region,* South Australia 2007 – 2016



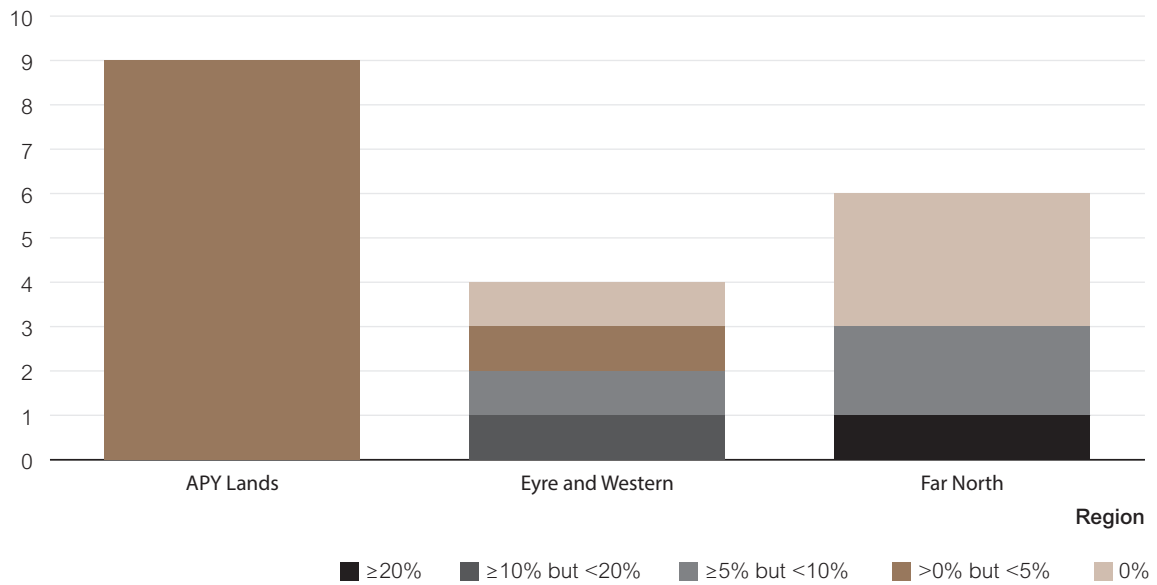
* Population sizes in all regions are small; therefore fluctuations in rates should be interpreted cautiously.
 APY: Anangu Pitjantjatjara Yankunytjatjara.

Figure 3.6b. Overall prevalence of active trachoma among children aged 5-9 years in all communities* by region, South Australia 2007 – 2016



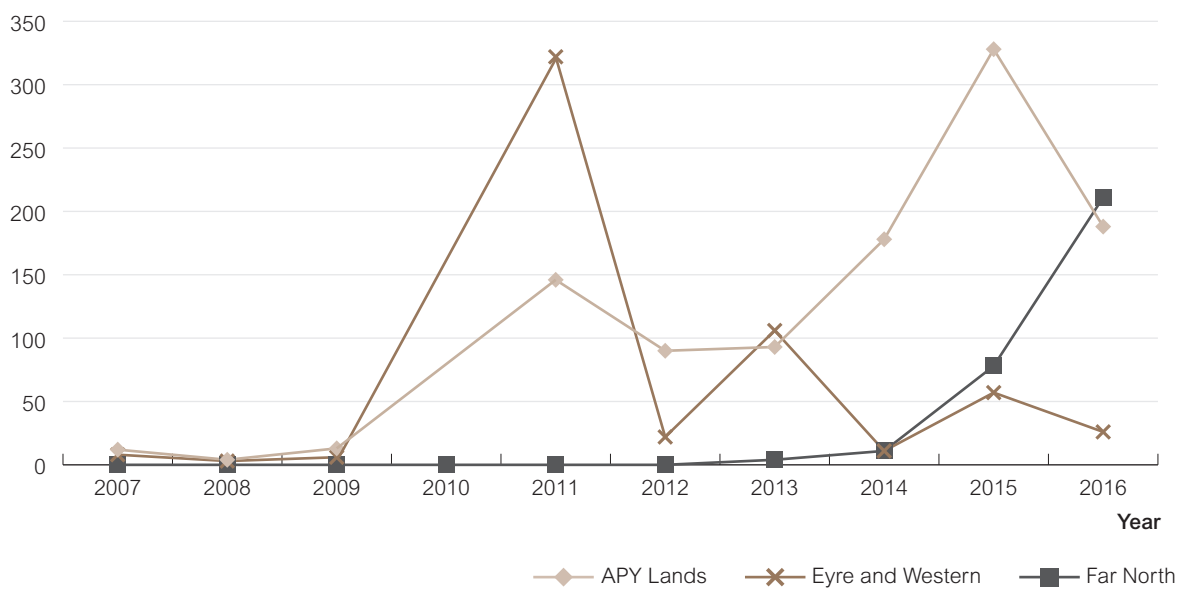
* Calculated carrying forward most recent data in all communities considered at risk of trachoma at some time since 2007.

Figure 3.7 Number of at-risk communities according to level of trachoma prevalence in children aged 5-9 years by region, South Australia 2016



APY: Anangu Pitjantjatjara Yankunytjatjara.

Figure 3.8 Number of doses of azithromycin administered for the treatment of trachoma by region, South Australia 2007 – 2016



APY: Anangu Pitjantjatjara Yankunytjatjara.

Table 3.1 Trachoma control delivery in at-risk* communities by region, South Australia 2016

Number of communities	APY Lands	Eyre and Western	Far North	Total
At risk* (A)	9	4	6	19
Requiring screening for trachoma (B)	9	4	6	19
Screened for trachoma (C)	9	4	6	19
Requiring treatment without screening† (D)	0	0	0	0
Received treatment without screening† (E)	0	0	0	0
Screened and/or treated for trachoma (F = C+E)	9	4	6	19
Requiring neither screening or treatment for trachoma (G=A-B-D)	0	0	0	0

* As defined by each jurisdiction.

† As per guidelines.

APY: Anangu Pitjantjatjara Yankunytjatjara.

Table 3.2 Trachoma screening coverage, trachoma prevalence and clean face prevalence by region, South Australia 2016

Number of communities screened	APY Lands				Eyre and Western				Far North				Total		
	0-4	5-9	10-14	0-14	0-4	5-9	10-14	0-14	0-4	5-9	10-14	0-4	5-9	10-14	0-14
Children examined for clean face	213	249	233	695	21	128	110	259	154	260	185	599	388	637	1,553
Children with clean face	118	130	226	474	15	118	107	240	131	232	174	537	264	480	1,251
Clean face prevalence (%)	55	52	97	68	71	92	97	93	85	89	94	90	68	75	81
Estimated number [†] of Aboriginal children in communities [†]	249	273	244	766	175	144	137	456	312	289	295	896	736	706	2,118
Children screened for trachoma	213	249	233	695	21	128	110	259	154	260	185	599	388	637	1,553
Trachoma screening coverage (%)	86	91	95	91	12	89	80	57	49	90	63	67	53	90	73
Children with active trachoma	3	11	2	16	0	3	1	4	0	15	5	20	3	29	40
Observed prevalence of active trachoma [‡] (%)	1.4	4.4	0.9	2.3	0.0	2.3	0.9	1.5	0.0	5.8	2.7	3.3	0.8	4.6	2.6
Estimated prevalence of active trachoma [‡] (%)	N/A	4.4	N/A	N/A	N/A	2.3	N/A	N/A	N/A	5.8	N/A	N/A	N/A	4.6	N/A
Overall prevalence of active trachoma [‡] (%)	N/A	4.4	N/A	N/A	N/A	1.1	N/A	N/A	N/A	4.5	N/A	N/A	N/A	2.8	N/A

* ABS estimate.

[†] Communities that were screened for trachoma in 2016.

[‡] Methods of calculating the different prevalence rates on page 14.

APY: Anangu Pitjantjatjara Yankunytjatjara.

Table 3.3 Number and proportion* of at-risk communities according to level of trachoma prevalence in children aged 5-9 years, South Australia 2007 – 2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Communities at-risk [†]	68	72	72	72	46	38	22	21	19	19
Communities not screened [†]	60	61	60	60	27	2	6	0	0	0
Number of communities [§]	8	11	12	11	19	36	16	21	19	19
≥20%	2	0	3	3	2	1	2	1	2	1
≥10% but <20%	2	1	2	1	3	1	3	9	3	1
≥5% but <10%	2	2	1	0	2	1	1	0	9	2
>0% but <5%	0	1	1	0	1	4	0	1	1	11
0%	2	7	5	7	11	29	10	10	4	4

* Based on current or most recent year.

[†] As defined annually by each jurisdiction.

[‡] Or treated as required per Guidelines.

[§] Screened or receiving ongoing annual treatment as per Guidelines.

Table 3.4 Treatment strategies by region, South Australia 2016

	APY Lands		Eyre and Western		Far North		Total
Required treatment for trachoma*	9	3	3	3	3	3	15
Treated for trachoma*	9	3	3	3	3	3	15
Screened and treated	9	3	3	3	3	3	15
Received treatment without screening	0	0	0	0	0	0	0
Received 6-monthly treatment	0	0	0	0	1	1	1
Did not require treatment	0	1	1	3	3	3	4
Treated active trachoma and households	9	3	3	2	2	2	14
Community-wide treatment	0	0	0	1	1	1	1
Not treated according to CDNA guidelines	0	0	0	0	0	0	0

* In 2016 APY Lands aggregated 9 communities into one community for presentation of data; details of the specific number of communities requiring treatment or treated were not supplied.
 APY: Anangu Pitjantjatjara Yankunytjatjara.

Table 3.5 Trachoma treatment coverage by region, South Australia 2016

	APY Lands					Eyre and Western					Far North					Total				
	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All
Requiring treatment for active trachoma	3	11	2	N/A	16	0	3	1	N/A	4	0	15	5	N/A	20	3	29	8	N/A	40
Received treatment for active trachoma	3	11	2	N/A	16	0	3	1	N/A	4	0	14	5	N/A	19	3	28	8	N/A	39
Received treatment for active trachoma (%)	100	100	100	N/A	100	0	100	100	N/A	100	0	93	100	N/A	95	100	97	100	N/A	98
Estimated community members* requiring treatment	16	19	19	134	188	0	5	4	13	22	27	31	30	112	200	43	55	53	259	410
Number of community members* who received treatment	16	19	16	121	172	0	5	4	13	22	26	29	30	107	192	42	53	50	241	386
Estimated community members who received treatment (%)	100	100	84	90	91	0	100	100	100	100	96	94	100	96	96	98	96	94	93	94
Total number of doses of azithromycin delivered	19	30	18	121	188	0	8	5	13	26	26	43	35	107	211	45	81	58	241	425
Estimated overall treatment coverage (%)	100	100	86	90	92	0	100	100	100	100	96	93	100	96	96	98	96	95	93	94

APY: Anangu Pitjantjatjara Yankunytjatjara.

Table 3.6 Trichiasis screening coverage, prevalence and treatment among Indigenous adults by region, South Australia 2016

	APY Lands		Eyre and Western		Far North		Total		
Number of communities screened for trichiasis	9		4		6		19		
Age group (years)	15-39	40+	15-39	40+	15-39	40+	15-39	40+	15+
Estimated population in region	1,112	605	551	408	1,320	988	2,983	2,001	4,984
Adults examined	535	431	0	225	110	518	645	1,174	1,819
With trichiasis	0	4	0	2	0	1	0	7	7
With trichiasis (%)	0.0	0.9	N/A	0.9	0.0	0.2	0.0	0.6	0.4
Offered ophthalmic consultation	0	4	0	2	0	1	0	7	7
Declined ophthalmic consultation	0	0	0	0	0	0	0	0	0
Surgery in past 12 months	0	2	0	0	0	2	0	4	4

* In 2016 APY Lands aggregated nine communities into one community for presentation of data.

† Population estimate limited to trachoma endemic regions and does not take into account changing endemic regions over time and transiency between regions.

‡ Number of adults examined limited to numbers reported. This number may not account for adults who may be examined in routine adult health checks, and may also include multiple screening.

Table 3.7 Health promotion activities by region, South Australia 2016

	APY Lands	Eyre and Western	Far North	Total
Number of communities that reported health promotion activities	9	4	6	19
Total number of programs reported	4	10	12	26
Methods of health promotion				
One-on-one discussion	3	10	12	25
Presentation to group	2	1	4	7
Interactive group session	0	2	6	8
Social marketing	0	2	5	7
Print material/mass media	1	10	11	22
Sporting/community events	0	6	4	10
Other	3	10	15	28
Target audience				
Health professionals/staff	1	2	9	12
Children	2	7	12	21
Youth	1	8	12	21
Teachers/childcare/preschool staff	1	6	12	19
Caregivers/parents	3	9	11	23
Community members	1	10	9	20
Community educators/health promoters	0	3	8	11
Interagency members	1	3	4	8
Frequency of health promotion activities				
Once	0	2	0	2
Occasional*	3	5	12	20
Regular†	0	1	0	1
Ongoing/routine	2	2	0	4

* 2-4 times per year.

† 5-12 times per year.

South Australia Trachoma Health Promotion

In 2016, the trachoma health promotion activities in South Australia were carried out in all Aboriginal communities classified as being at high risk of trachoma. Working with partners such as the Indigenous Eye Health Unit (University of Melbourne), Aboriginal Health Council of South Australia, Nganampa Health Services, Aboriginal Community Controlled Health Organisations and the housing and education sectors enabled the delivery of a range of activities focused on health education, nutrition and hygiene-related messages.

The Jimmy Little Foundation delivered hygiene and nutrition health promotion activities through Uncle Jimmy's Thumbs Up! School program in five communities on the APY Lands and worked with community members to write and produce a song, *Let's get rid of trachoma from the APY Lands*, which appeared on the Australian Government Health Website, NITV and SBS.

The Indigenous Hip Hop Project visited the Oak Valley community. They worked with the Indigenous Eye Health Unit and the Oak Valley Anangu School. Pitjantjatjara adults and kids prepared a Hip Hop Music Video *Kuru Payla – Anangu Tjutaku* (Good eyes for all our people). This video won the best community film award at the 2016 RANZCO Conference.

Milpa the trachoma goanna and the Clean Faces, Strong Eyes program visited several communities. Good hygiene bags were delivered and safety mirrors were installed. The trachoma health promotion activities supported the Spinifex Schools Sports Carnival held in Tjuntjuntjara, Western Australia. This event brings together the Yalata Anangu School, Oak Valley Anangu School and Tjuntjuntjara Anangu School every year.

Television and radio community advertising focused on trachoma health promotion and education activities, as well as the launch of the Clean Face, Strong Eyes Facebook page by the Indigenous Eye Health Unit. Individual education regarding trachoma was given to health professionals, teachers, preschool staff, care givers, community members and all children and adults screened for trachoma and trichiasis.

Western Australia results

Trachoma program coverage

- In 2016 WA identified 51 communities in four regions as being at risk of trachoma (Table 4.1, Figure 4.1).
- Thirteen communities required treatment only and 37 communities required and were screened for trachoma (Table 4.1).
- All 50 communities requiring screening or treatment, received the screening or treatment required (Table 4.1).

Screening coverage

- Population screening coverage of children aged 5-9 years in the 37 at-risk communities that required screening was 93%, ranging from 90% in the Kimberley region to 100% in the Pilbara region (Table 4.2).

Clean face prevalence

- Clean face prevalence was assessed in all communities that were screened and in communities that required treatment only.
- The overall prevalence of clean faces among children aged 5-9 years was 74%, ranging from 48% in the Goldfields region to 99% in the Midwest region (Table 4.2, Figure 4.5).

Trachoma prevalence

- The observed prevalence of active trachoma in children aged 5-9 years in 37 communities that screened in 2016 was 2.2%. Prevalence ranged from 0.7% in the Kimberley region to 4.8% in the Pilbara region (Table 4.2, Figure 4.6a).
- The estimated prevalence of active trachoma using most recent data carried forward in all 37 at-risk communities was 5.7%, ranging from 1.7% in the Kimberley region to 10.7% in the Midwest region (Table 4.2, Figure 4.6b).
- The overall prevalence of active trachoma was 3.5% ranging from 1.9% in the Kimberley region to 8.5% in the Midwest region (Table 4.2, Figure 4.6c).
- No trachoma was reported in 30 at-risk communities including communities that did and did not screen in 2016 (Table 4.3, Figure 4.7).
- Endemic levels of trachoma (5% or more) were reported in 20 communities (Table 4.3, Figure 4.7).

Treatment delivery and coverage

- Trachoma treatment strategies were required in 22 communities (Table 4.4).
- Treatment was delivered for active trachoma and households in six communities, and community wide in 16 communities as per Guidelines (Table 4.4).
- Total treatment coverage for active trachoma and community members, and community-wide treatment in all regions requiring treatment was 94% with 2,489 doses of azithromycin delivered (Table 4.5, Figure 4.8).

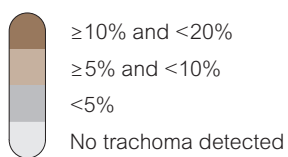
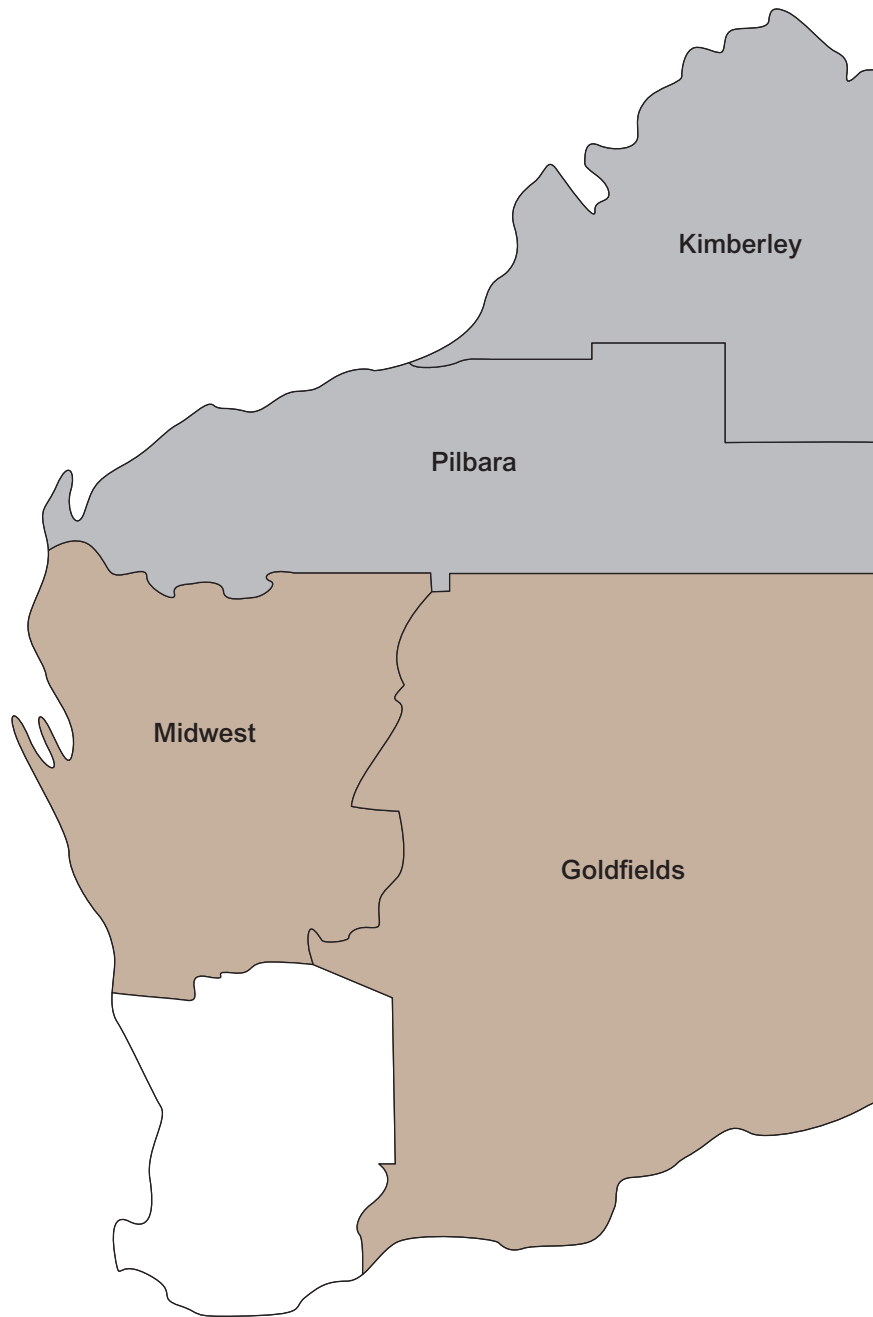
Trichiasis

- Screening for trichiasis was undertaken in 51 communities (Table 4.6).
- Overall, 1,984 adults 15 years and over were reported to be screened (Table 4.6).
- The prevalence of trichiasis in adults aged 15 years and over was 0.9%, and 1.2% in adults aged 40 years with 18 cases of trichiasis reported (Table 4.6).
- Surgery for trichiasis was reported to be undertaken for three adults (Table 4.6).
- A large volume of trichiasis screening in WA is likely to be undertaken within the Medicare Aboriginal and Torres Strait Islander Health Assessment (MBS Item 715). MBS data does not include an indication of whether an examination for trichiasis has been undertaken.

Health promotion

- Health promotion activities were reported to have occurred in 55 communities in the Goldfields, Kimberley, Midwest, and Pilbara regions, including two communities no longer considered at risk of trachoma (Table 4.7).
- A total of 70 health promotion activities were reported in WA as part of the WA Trachoma Program (Table 4.7).
- The majority of the health promotion activities were delivered to children (Table 4.7).

Figure 4.1 Trachoma prevalence in children aged 5-9 years in all at-risk communities by region, Western Australia 2016



□ No data/Not screened/Not at-risk



Figure 4.2 Number of communities at risk by region, Western Australia 2007 – 2016

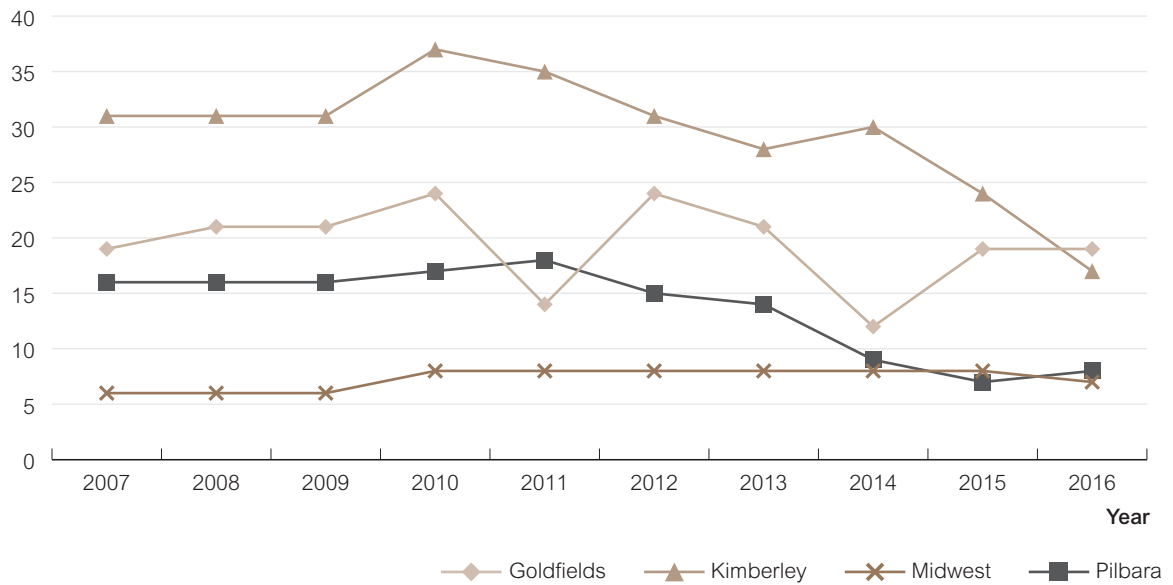


Figure 4.3 Number of at-risk communities according to trachoma control strategy implemented by region, Western Australia 2016

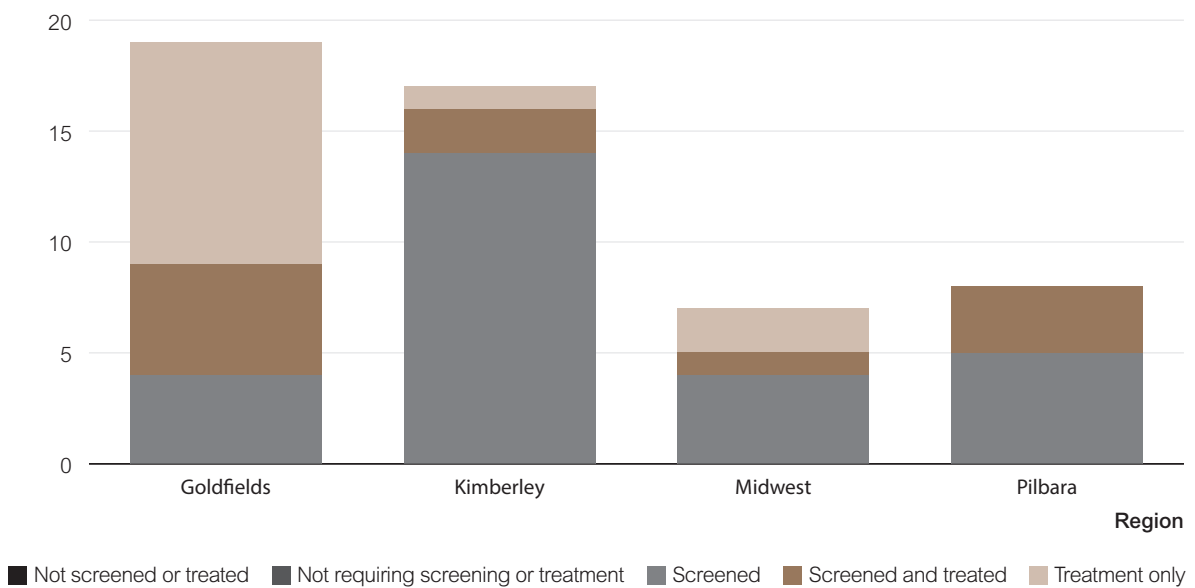


Figure 4.4 Population screening coverage in children aged 5-9 years in communities that required screening for trachoma by region, Western Australia 2016

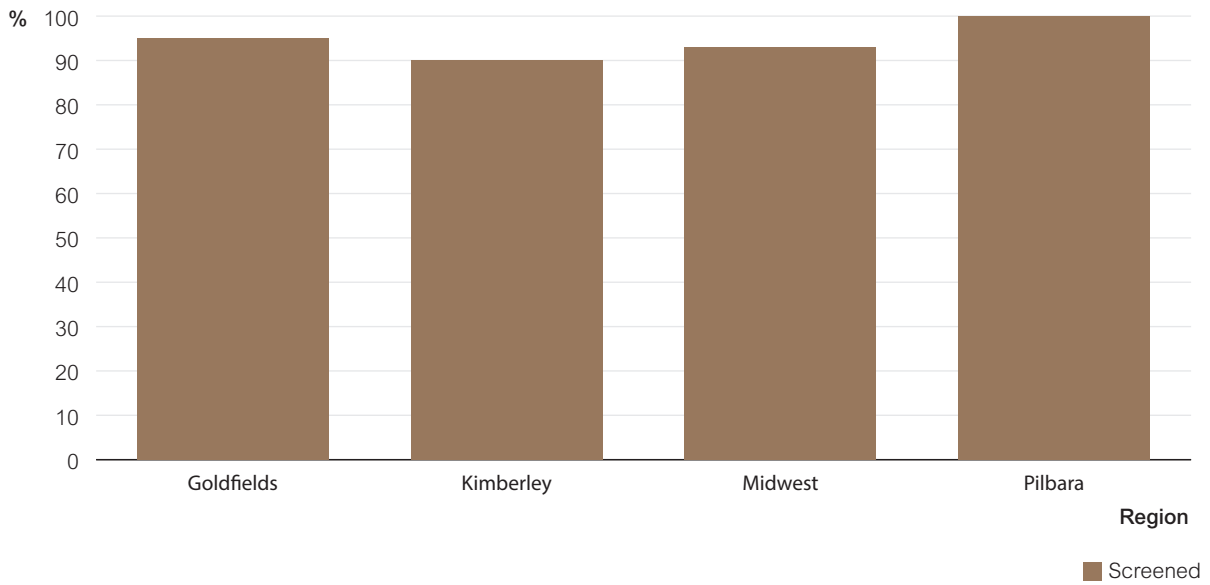


Figure 4.5 Proportion of screened children aged 5-9 years who had a clean face by region, Western Australia 2007 – 2016

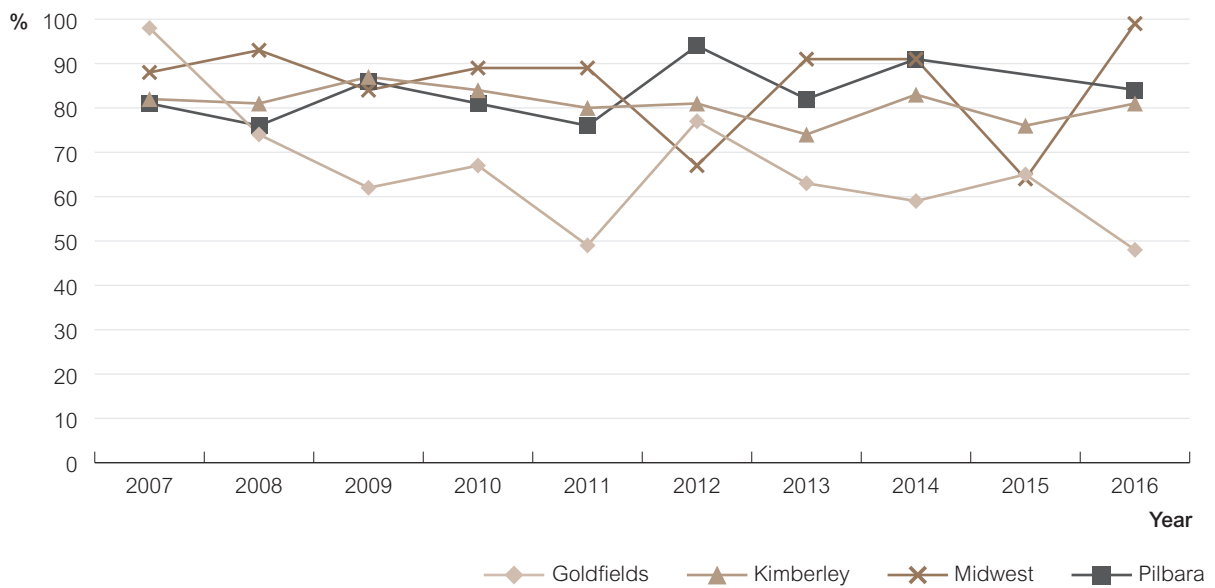


Figure 4.6a. Observed prevalence of active trachoma among children aged 5-9 years in communities that were screened by region, Western Australia 2007 – 2016

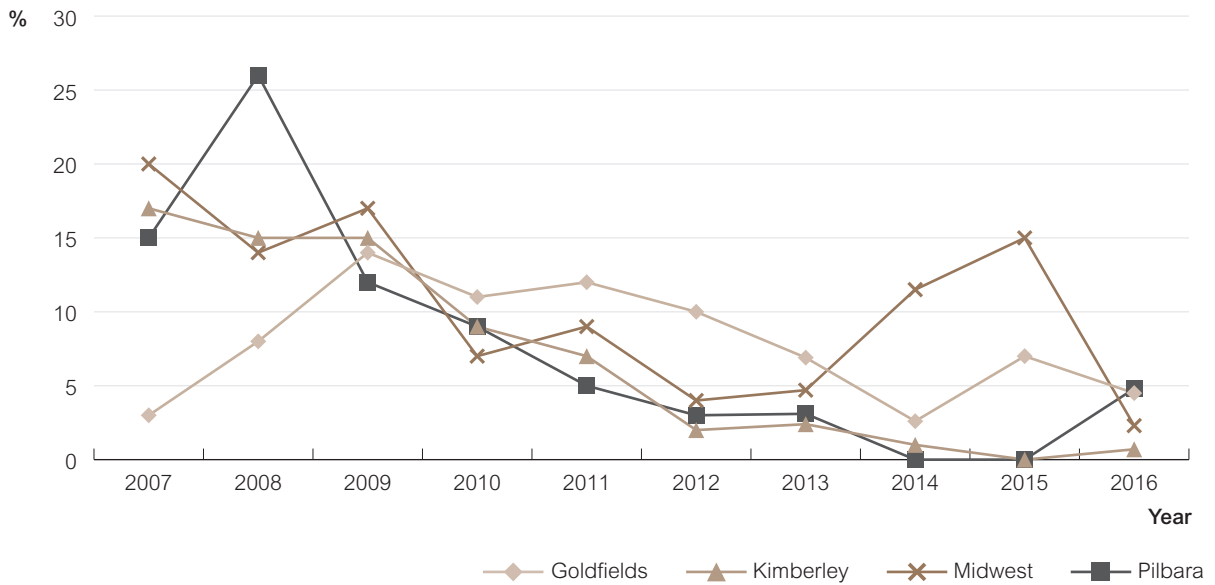
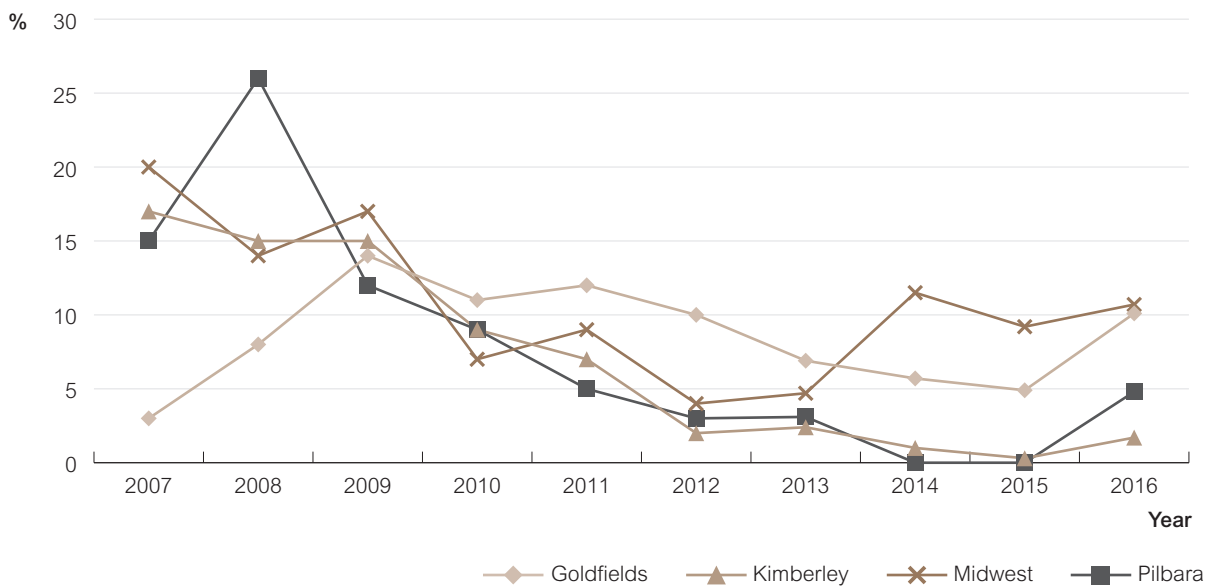
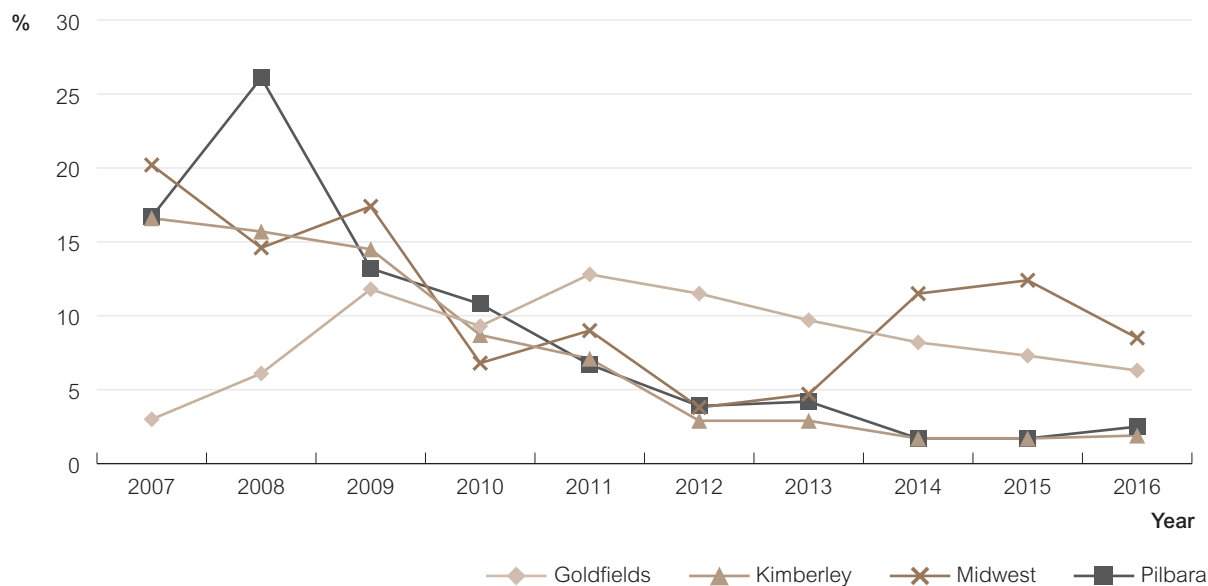


Figure 4.6b. Estimated prevalence* of active trachoma among children aged 5-9 years in all at-risk communities by region, Western Australia 2007 – 2016



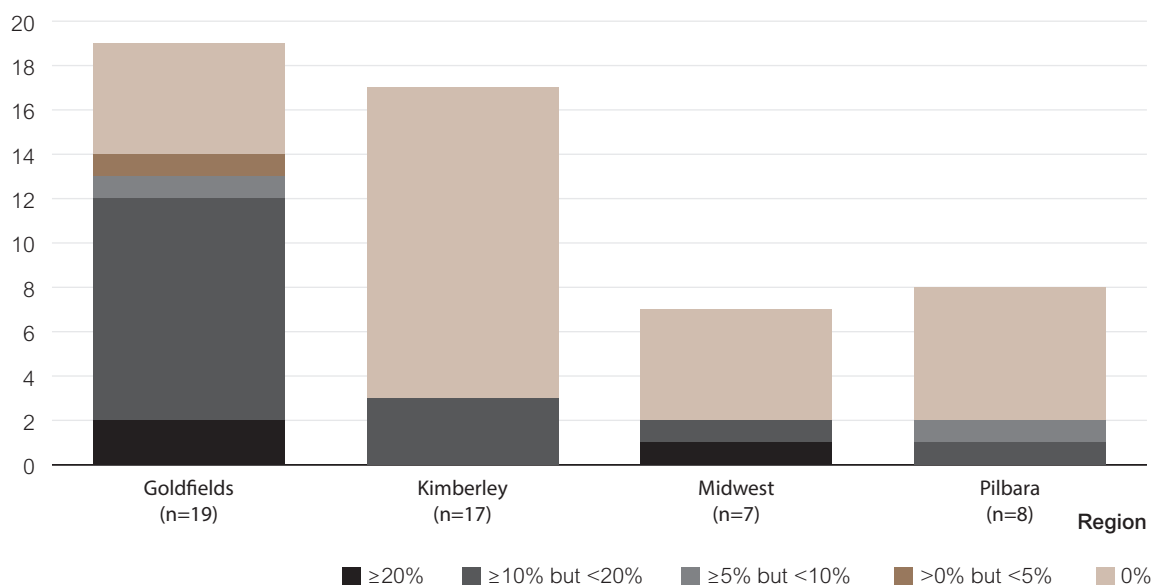
* Most recent estimates carried forward in at-risk communities that did not screen in 2016.

Figure 4.6c. Overall prevalence of active trachoma among children aged 5-9 years in all communities* by region, Western Australia 2007 – 2016



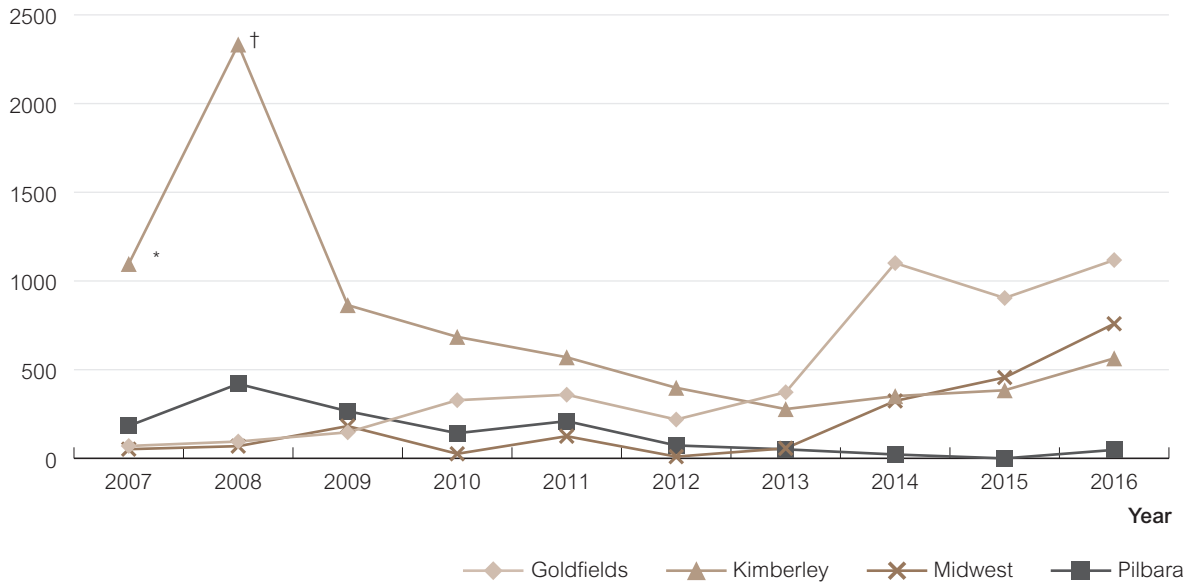
* Calculated carrying forward most recent data in all communities considered at risk of trachoma at some time since 2007.

Figure 4.7 Number of at-risk communities* according to level of trachoma prevalence in children aged 5-9 years by region, Western Australia 2016



* Including at-risk communities that did and did not screen in 2016.

Figure 4.8 Number of doses of azithromycin administered for the treatment of trachoma by region, Western Australia 2007 – 2016



* Treatments administered in the Kimberley in 2007 are likely to have been under-reported, as treatment data were not received from several communities.
 † In the Kimberley in 2008, 17 communities were reported to have received 'community-based treatment', compared with only seven in 2009.

Table 4.1 Trachoma control delivery by region, Western Australia 2016

Number of communities	Goldfields*	Kimberley	Midwest	Pilbara†	Total
At risk [‡] (A)	19	17	7	8	51
Requiring screening for trachoma (B)	9	16	4	8	37
Screened for trachoma (C)	9	16	4	8	37
Requiring treatment without screening (D)	10	1	2	0	13
Received treatment without screening [‡] (E)	10	1	2	0	13
Screened and/or treated for trachoma (F = C+E)	19	17	6	8	50
Requiring neither screening or treatment for trachoma (G=A-B-D)	0	0	1	0	1

* WA aggregated 10 communities in the Goldfields region into one community.

† WA aggregated four communities in the Pilbara region into one community.

‡ Communities treated without screening in 2016 as per Guidelines.

Table 4.2 Trachoma screening coverage, trachoma prevalence and clean face prevalence by region, Western Australia 2016

Number of communities screened Age group (years)	Goldfields				Kimberley				Midwest				Pilbara				Total			
	9				16				4				8				37			
	0-4	5-9	10-14	0-14	0-4	5-9	10-14	0-14	0-4	5-9	10-14	0-14	0-4	5-9	10-14	0-14	0-4	5-9	10-14	0-14
Children examined for clean face	121	250	132	503	0	421	37	458	43	114	53	210	25	105	80	210	189	890	302	1,381
Children with clean face	21	119	91	231	0	339	37	376	43	113	53	209	15	88	80	183	79	659	261	999
Clean face prevalence (%)	17	48	69	46	0	81	100	82	100	99	100	100	60	84	100	87	42	74	86	72
Estimated number of Aboriginal children in communities†	13	164	22	199	0	466	63	529	3	46	21	70	25	105	80	210	41	781	186	1,008
Children screened for trachoma	29	156	55	240	0	421	37	458	3	43	21	67	25	105	80	210	57	725	193	975
Trachoma screening coverage (%)	223	95	250	121	0	90	59	87	100	93	100	96	100	100	100	100	139	93	104	97
Children with active trachoma	1	7	2	10	0	3	0	3	0	1	0	1	0	5	2	7	1	16	4	21
Observed prevalence of active trachoma‡ (%)	3.4	4.5	3.6	4.2	0.0	0.7	0.0	0.7	0.0	2.3	0.0	1.5	0.0	4.8	2.5	3.3	1.8	2.2	2.1	2.2
Estimated prevalence of active trachoma‡ (%)	N/A	10.1	N/A	N/A	N/A	1.7	N/A	N/A	N/A	10.7	N/A	N/A	N/A	4.8	N/A	N/A	N/A	5.7	N/A	N/A
Overall prevalence of active trachoma‡ (%)	N/A	6.3	N/A	N/A	N/A	1.9	N/A	N/A	N/A	8.5	N/A	N/A	N/A	2.5	N/A	N/A	N/A	3.5	N/A	N/A

* Jurisdiction provides estimate for children aged 5-9 years only; number of children in communities aged 0-4 and 10-14 years are based on convenience sampling.

† In communities that were screened for trachoma in 2016.

‡ Methods of calculating the different prevalence rates on page 14.

Table 4.3 Number and proportion of at-risk communities* according to level of trachoma prevalence in children aged 5-9 years, Western Australia 2007 – 2016

	2007		2008		2009		2010		2011		2012		2013		2014		2015		2016	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Communities at-risk†	72		74		74		86		75		78		71		59		49		51	
Communities not screened‡	17		7		5		8		7		3		2		0		0		0	
Number of communities §	55		67		69		78		68		75		69		59		49		51	
≥20%	18	33%	29	43%	22	32%	14	18%	10	15%	9	12%	7	10%	2	3%	3	6%	3	6%
≥10% but <20%	12	22%	7	10%	3	4%	18	23%	8	12%	3	4%	3	4%	4	7%	2	4%	15	29%
≥5% but <10%	5	9%	8	12%	8	12%	7	9%	7	10%	10	13%	10	14%	2	3%	0	0%	2	4%
>0% but <5%	0	0%	7	10%	14	20%	7	9%	4	6%	7	9%	8	12%	6	10%	5	11%	1	2%
0%	20	36%	16	24%	22	32%	32	41%	39	57%	46	61%	41	59%	45	76%	39	79%	30	59%

* Based on current or most recent year.

† As defined annually by each jurisdiction.

‡ Or treated as required per Guidelines.

§ Screened or receiving ongoing annual treatment as per Guidelines.

Table 4.4 Treatment strategies by region, Western Australia 2016

	Goldfields		Kimberley		Midwest		Pilbara		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Required treatment for trachoma	13		3		3		3		22	
Treated for trachoma	13		3		3		3		22	
Screened and treated	3		2		0		3		8	
Received treatment without screening	10		1		2		0		13	
Received 6-monthly treatment	0		0		1		0		1	
Did not require treatment	6		14		4		5		29	
Treated active trachoma and households	3		0		1		2		6	
Community-wide treatment	10		3		2		1		16	
Not treated according to CDNA guidelines	0		0		0		0		0	

Table 4.5 Trachoma treatment coverage by region, Western Australia 2016

Age group (years)	Goldfields				Kimberley				Midwest				Pilbara				Total								
	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All	0-4	5-9	10-14	15+	All					
Requiring treatment for active trachoma	1	7	2	N/A	10	0	3	0	N/A	3	0	0	1	0	5	2	N/A	7	7	1	16	4	N/A	21	
Received treatment for active trachoma	1	7	2	N/A	10	0	3	0	N/A	3	0	0	0	0	5	2	N/A	7	7	1	15	4	N/A	20	
Received treatment for active trachoma (%)	100	100	100	N/A	100	0	100	0	N/A	100	0	0	0	0	100	100	N/A	100	100	100	94	100	N/A	95	
Estimated community members* requiring treatment	115	119	120	800	1,154	68	80	80	408	636	81	118	118	491	808	5	12	6	18	41	269	324	1,717	2,639	
Number of community members* who received treatment	113	114	116	765	1,108	56	66	64	375	561	79	106	113	461	759	5	12	6	18	41	253	298	1,619	2,469	
Estimated community members who received treatment (%)	98	96	97	96	96	82	82	80	92	88	98	90	96	94	94	100	100	100	100	100	94	91	92	94	
Total number of doses of azithromycin delivered	114	121	118	765	1,118	56	69	64	375	564	79	106	113	461	759	5	17	8	18	48	254	313	303	1,619	2,489
Estimated overall treatment coverage (%)	98	96	97	96	96	82	83	80	92	88	98	89	96	94	94	100	100	100	100	100	94	91	92	94	

* Includes household contacts and community members requiring/receiving mass drug administration (MDA).

Table 4.6 Trichiasis screening coverage, prevalence and treatment among Indigenous adults by region, Western Australia 2016

Age group	Goldfields			Kimberley			Midwest			Pilbara			Total		
	15-39	40+	All	15-39	40+	All	15-39	40+	All	15-39	40+	All	15-39	40+	All
Number of communities screened for trichiasis	19			17			8			7			51		
Estimated population in region	429	335	40+	3,066	1,760	289	376	289	40+	1,469	774	40+	5,340	3,158	8,498
Number of adults examined	281	280	47	533	427	427	0	427	304	112	304	440	440	1,544	1,984
With trichiasis	0	4	0	0	12	1	0	1	1	0	1	0	0	18	18
With trichiasis (%)	0.0	1.4	0.0	0.0	2.3	0.2	0.0	0.2	0.3	0.0	0.3	0.0	0.0	1.2	0.9
Offered ophthalmic consultation	0	4	0	0	10	1	0	1	1	0	1	0	0	16	16
Declined ophthalmic consultation	0	0	0	0	7	1	0	1	0	0	0	0	0	8	8
Surgery in past 12 months	0	0	0	0	3	0	0	0	0	0	0	0	0	3	3

* Population estimate limited to trachoma endemic regions and does not take into account changing endemic regions over time and transiency between regions.

† Number of adults examined limited to numbers reported. This number may not account for adults who may be examined in routine adult health checks, and may also include multiple screening.

Table 4.7 Health promotion activities by region, Western Australia 2016

	Goldfields	Kimberley	Midwest	Pilbara	Total
Number of communities that reported health promotion activities	19	17	6	13	55
Total number of programs reported	19	27	15	9	70
Methods of health promotion					
One-on-one discussion	18	19	8	4	49
Presentation to group	6	7	5	4	22
Interactive group session	5	8	3	40	56
Social marketing	4	2	0	4	10
Print material/mass media	15	12	4	26	57
Sporting/community events	9	0	0	0	9
Other	20	17	6	13	56
Target audience					
Health professionals/staff	8	9	3	9	29
Children	14	16	7	65	102
Youth	14	14	6	12	46
Teachers/childcare/preschool staff	12	17	8	11	48
Caregivers/parents	16	16	6	28	66
Community members	16	13	7	17	53
Community educators/health promoters	8	7	3	13	31
Interagency members	7	6	4	10	27
Frequency of health promotion activities					
Once	2	1	1	0	4
Occasional*	13	24	13	61	111
Regular†	1	0	0	6	7
Ongoing/routine	4	1	0	3	8

* 2-4 times per year.

† 5-12 times per year.

Western Australian Trachoma Health Promotion

The promotion of facial cleanliness is a major strategy for health promotion activity across the WA trachoma endemic regions. Health promotion activities include one-on-one provision of health messages or talks to small groups. School education sessions are conducted using the No Germs on Me trachoma resources, the Clean Faces, Strong Eyes story kits and interactive displays to demonstrate trachoma transmission and the importance of clean faces and hands in preventing trachoma infection. Some regions conduct community-wide activities promoting face washing, drawing people together over a barbeque lunch to discuss screening results and increase engagement with the program messages. Health promotion is generally conducted at the time of the trachoma screening or treatment activities, when schools are visited and talks and face-washing demonstrations are conducted in the classroom.

In 2016, the WA Trachoma Reference Group embarked on a new health promotion strategy, called Squeaky Clean Kids. The strategy has three components: provision of free soap to all trachoma at-risk communities; provision of health education material about face and hand washing; and support to the program by environmental health workers living and working in the communities. The WA Trachoma Program has partnered with the Aboriginal Health Council of WA for Aboriginal and not-for-profit organisation SoapAid through two community grants. The grants provide Aboriginal community and cultural liaison, consultancy and brokerage and provision of soap products free of charge, transport costs and logistics support. Additionally, working with the Environmental Health organisations has continued to raise the profile of environmental risk factors and has contributed to success in trachoma control in 2016. The program will target 15,000 people living in communities across all four regions in WA and will commence towards the end of 2016 or early 2017.

Queensland Results

Trachoma program coverage

- In 2016 QLD undertook a mapping exercise in three communities in the Torres Strait Islands identified as being potentially at risk of trachoma (Table 5.1).

Screening coverage

- Population screening coverage of children aged 5-9 years in the three at-risk communities that required screening was 93% (Table 5.1).

Clean face prevalence

- Clean face prevalence was assessed in all communities that were screened.
- The overall prevalence of clean faces among children aged 5-9 years was 92% (Table 5.1).

Trachoma prevalence

- Follicles that met the WHO simplified grading scheme for TF were observed in 9.2% of screened children aged 5-9 years.
- Herbert's pits, corneal pannus, and inflammatory thickening of the upper tarsal conjunctiva were not observed in these children by the ophthalmologist performing the eye examination. Conjunctival swabs collected from these children were negative for *Chlamydia trachomatis* using PCR.
- These children were assessed as not having trachoma (Table 5.1).

Treatment delivery and coverage

- Treatment was applied in accordance with the *CDNA National Guidelines for the Public Health management of Trachoma*.
- Treatment was delivered to 100% of children who met the WHO simplified grading scheme for active trachoma and their households within these communities, with 91 doses of azithromycin delivered (Table 5.2).

Trichiasis

- Trichiasis data was not able to be extracted from QLD health information systems in 2016.
- The optometrist that services the Torres Strait Islands visits most communities twice a year performing comprehensive eye exams, including trichiasis evaluation.
- In his 10 years visiting the Torres Strait, the visiting optometrist has reviewed approximately 4,500 adults and 1,500 children. He reports that he has never seen a case of trachoma-related trichiasis in an individual who spent their childhood in the Torres Strait Islands.
- The ophthalmologist who conducts clinics in the Torres Strait reports he has performed no operations for trachoma-related trichiasis. Nor has he seen any corneal scarring or blindness caused by trachoma. This includes individuals who spent their childhood in the Torres Strait Islands and elsewhere.

Health promotion

- Health promotion activities were reported to have occurred in three communities (Table 5.3).
- A total of 10 health promotion activities were reported in QLD (Table 5.3).

Table 5.1 Trachoma screening coverage, trachoma prevalence and clean face prevalence, Queensland 2016

	Queensland			
Number of communities screened	3			
Age group (years)	0-4	5-9	10-14	0-14
Children examined for clean face	0	153	2	155
Children with clean face	0	141	2	143
Clean face prevalence (%)	0	92	100	92
Estimated number* of Indigenous children in communities	120	165	163	448
Children screened for trachoma	0	153	2	155
Trachoma screening coverage (%)	0	93	1	35
Children with active trachoma	0	0	0	0
Observed trachoma prevalence (%)	0	0	0	0

* Jurisdiction provides estimate for children aged 5-9 years only; number of children in communities aged 0-4 and 10-14 years are based on convenience sampling.

Table 5.2 Trachoma treatment strategy and coverage, Queensland 2016

	Queensland				
Age group (years)	0-4	5-9	10-14	15+	all
Requiring treatment for active trachoma	0	14	1	N/A	15
Received treatment for active trachoma	0	14	1	N/A	15
Received treatment for active trachoma (%)		100	100	N/A	100
Estimated community members requiring treatment	10	21	11	34	76
Number of community members who received treatment	10	21	11	34	76
Estimated community members who received treatment (%)	100	100	100	100	100
Total number of doses of azithromycin delivered	10	35	12	34	91
Estimated overall treatment coverage (%)	100	100	100	100	100

Table 5.3 Health promotion activities in Queensland 2016

Number of communities that reported health promotion activities	3
Total number of programs reported	10
Methods of health promotion	
One-on-one discussion	2
Presentation to group	4
Interactive group session	3
Social marketing	
Print material/mass media	2
Sporting/community events	
Other	
Target audience	
Health professional/staff	3
Children	
Youth	
Teachers/childcare/preschool staff	3
Caregivers/parents	4
Community members	4
Community educators/health promoters	
Interagency members	1
Frequency of health promotion activities	
Once	
2-4 times per year	8
5-12 times per year	2
Ongoing/routine	

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Interpretation and discussion of findings

The 2016 Trachoma Surveillance Report shows continuing progress towards Australia's goal of elimination of trachoma as a public health problem by 2020. The level of program activity has increased and in many communities prevalence has continued to fall. However, upturns in the prevalence of active trachoma in some communities emphasises the need for comprehensively implementing all aspects of the SAFE strategy, with the hygiene and environmental health components as important as the distribution of antibiotics to eliminate trachoma.

Screening coverage

Screening coverage has been presented in this report as both the proportion of at-risk communities screened, and the proportion of children aged 5-9 years screened in these communities. Prior to the revision of the guidelines in 2014, jurisdictions were encouraged to screen all at-risk communities annually, so the proportion of communities screened provided an indication of how well this goal had been achieved. Under the revised guidelines, jurisdictions can choose to focus resources on control activities, including antibiotic distribution, rather than repeated annual screening in high prevalence communities. At the other end of the spectrum, communities with low levels of trachoma do not require annual screening. Therefore the proportion of communities screened should be viewed as an indicator of process, and not of the quality or success of the program. In contrast, the proportion of children aged 5-9 years assessed for trachoma in communities that have undertaken screening is an important performance measure, with the guidelines aiming for coverage of at least 85%. In 2016 overall coverage in screened communities was 92%, and at least 85% coverage was achieved in 86% of the communities. Furthermore, screening was implemented in 95% of communities for which screening was required on the basis of the Guidelines.

Trachoma prevalence

Trachoma prevalence at a regional and jurisdictional level was calculated by including the most recent prevalence estimates from all communities considered at risk at any time since 2007. Across all four jurisdictions, the estimated prevalence of trachoma among children 5-9 years in at-risk communities in 2016 was 4.7%, a slight increase from 4.6% in 2015. At a regional level, the prevalence of trachoma in children aged 5-9 years ranged from 0% to 13.9%.

Endemic trachoma is defined by WHO as prevalence of active trachoma at 5% or higher in children aged 1-9 years. With very limited screening coverage of the children aged 1-4 years in Australia, the data obtained for this age group cannot be assumed to be representative, so they have not been incorporated in the estimate. For the purpose of demonstrating elimination according to WHO criteria, the jurisdictional teams will undertake more comprehensive assessments in 1-4 year olds in a limited number of communities, to allow the prevalence in 1-9 year olds to be calculated.

Monitoring of health promotion and environmental health activities

As shown in this report, jurisdictions have continued to support and document health promotion activities that focus on improving hygiene-related practices, particularly the need for clean faces in children. A sustained effort in health promotion will be crucial in achieving the goal of trachoma elimination. Equally important is the need for a greater focus on environmental health improvements, to ensure that people have access to running water, safe bathrooms and effective waste disposal in homes and communities. So far, there has not been a mechanism for systematically documenting and reporting on progress in environmental health improvement activities to the national level. The new Project Agreements for Australian Government funding of jurisdictional trachoma control activities for 2017-18 to 2020-21 require the monitoring of all of the SAFE strategy elements including environmental health improvement activities. The NTSCRG will continue to provide advice and guidance on surveillance and monitoring issues related to both health promotion and environmental health, with the goal of presenting information on environmental health in the 2017 report.

Trichiasis

The number of adults aged 40 years and older reported to be screened for trichiasis increased in 2016, with 5,774 adults reported to be screened in 2016 compared to 4,544 in 2015. Among those screened in 2016, 64 were found to have trichiasis, but only 17 episodes of trichiasis surgery were reported. The apparent discrepancy may be due to issues with reporting of trichiasis referral pathways and outcomes rather than the service delivery itself. The NTSCRG has reviewed reporting methods and will implement alternative processes for monitoring trichiasis screening and detection. This issue will need to be addressed if Australia is to achieve validation by WHO of its trichiasis management practices within the context of assessing whether trachoma elimination has been achieved.

Facial cleanliness

The proportion of screened children aged 5-9 years who had clean faces increased marginally in SA and WA. For sustainable trachoma control, greater focus and effort are required in environmental improvements and health promotion to increase facial cleanliness and decrease the risk of transmission of disease. Although much has been done to promote normalisation of facial cleanliness in communities, more work is needed to ensure that children have access to safe and functional washing facilities.

Progress towards Australia's elimination target

The Australian Government's commitment to eliminate trachoma is demonstrated by renewed funding to jurisdictions for the delivery of enhanced trachoma control programs, and the embedding of practices aimed at sustainable elimination in health policy and programs. Australia has made steady progress towards the goal of eliminating trachoma as a public health problem by 2020. The current focus on screening and treatment will need to continue to ensure that prevalence decreases across all affected communities. In addition, the NTSCRG has highlighted the need for enhanced activity in the health hygiene promotion and environmental health components of the SAFE strategy. These activities are essential to achieve elimination of trachoma by 2020 and receive WHO validation.

Particular attention needs to be given to communities and households with high levels of trachoma and in the lower prevalence communities to the households with children with trachoma. More attention must be directed to the detection and treatment of trichiasis.

The National Trachoma Surveillance and Reporting Unit (NTSRU) will continue to work with jurisdictional service providers to monitor the impact of trachoma control activity and progress toward elimination, as well as to develop a framework for long-term surveillance once elimination has been achieved.

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