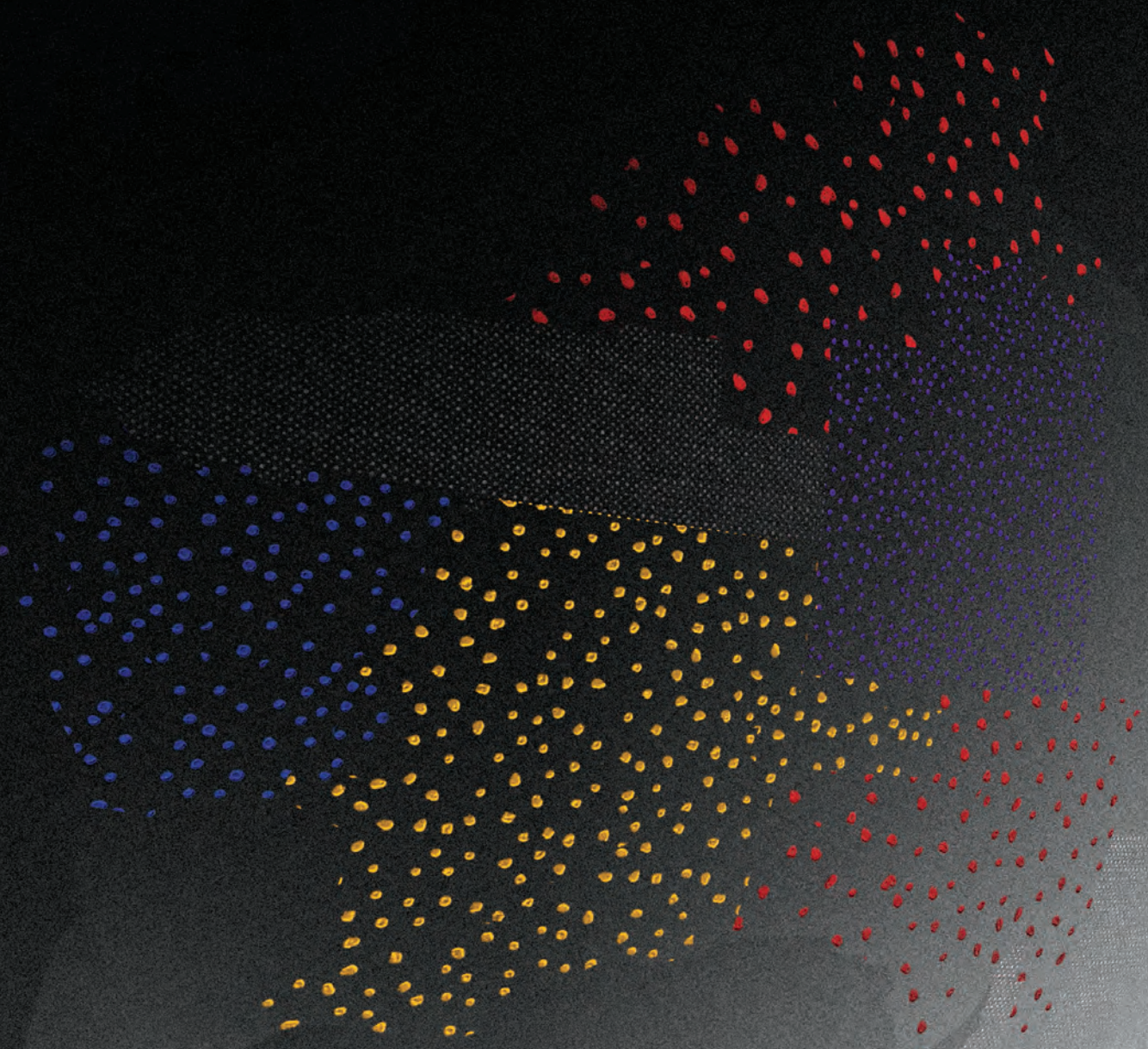
Australian Trachoma Surveillance Report

2014



Edited by National Trachoma Surveillance and Reporting Unit

Australian Government
Department of Health

UNSW AUSTRALIA

Kirby Institute

Australian Trachoma Surveillance Report 2014

ISSN 1839-2210

Suggested citation:
Australian Trachoma Surveillance Report 2014. The Kirby Institute, UNSW Australia, Sydney NSW 2052.

This report has been produced by the National Trachoma Surveillance Unit of The Kirby Institute for infection and immunity in society, UNSW Australia for the Australian Government Department of Health.

This publication is available at Internet address **http://www.kirby.unsw.edu.au/trachoma**

The Kirby Institute
Wallace Wurth Building, UNSW Australia, Sydney NSW 2052

Telephone: **02 9385 0900** Facsimile: **02 9385 0920** International prefix: **61 2** Email: **recept@kirby.unsw.edu.au**

Australian Trachoma Surveillance Report 2014

The Kirby Institute, UNSW Australia

June 2015

Prepared by the National Trachoma Surveillance and Reporting Unit,
The Kirby Institute, UNSW Australia.

Contents

List of Tables

List of Figures

Acknowledgements

The National Trachoma Surveillance and Control Reference Group

Name	Position	Committee role
Meredeth Taylor	Assistant Secretary Rural, Remote and Indigenous Access Branch Indigenous and Rural Health Division, Department of Health	Chair Australian Government Department of Health Representative
Rhonda Stilling	Director Better Access Section Indigenous and Rural Health Division Department of Health	Australian Government Department of Health Representative
Alex Hope	Public Health Medical Officer Aboriginal Medical Services Alliance Northern Territory	National Aboriginal Community Controlled Health Organisation Representative
Daniel Suggit	Eye Health Program Officer National Aboriginal Community Controlled Health Organisation	National Aboriginal Community Controlled Health Organisation Representative
Hugh Taylor	Harold Mitchell Chair of Indigenous Eye Health Melbourne School of Population and Global Health University of Melbourne	Expert
Donna Mak	Professor and Head, Population and Preventive Health University of Notre Dame, Fremantle	Expert
Vicki Krause	Director, Centre for Disease Control Northern Territory Department of Health	Communicable Diseases Network Australia Representative
Stephen Lambert	Senior Medical Officer Communicable Diseases Unit Chief Health Officer Branch Queensland Health	Queensland Health Representative
Sue Turcato	Population Health Unit New South Wales Ministry of Health	New South Wales Ministry of Health Representative
Gabrielle Watt	Trachoma Program Coordinator Centre for Disease Control Northern Territory Department of Health	Northern Territory Department of Health Representative
Lucy Angley	Principal Project Manager Aboriginal Health Country Health SA Local Health Network SA Health	South Australia Department of Health and Ageing Representative
Clare Huppatz	Chair, WA State Trachoma Reference Group Public Health Physician WA Country Health Service	Western Australia Department of Health and WA Country Health Service Representative
Matthew Lester	Environmental Health Directorate WA	Working Group on Aboriginal and Torres Strait Islander Environmental Health Representative
John Kaldor	Professor of Epidemiology, Public Health Interventions Research Group The Kirby Institute UNSW Australia	National Trachoma Surveillance and Reporting Unit Representative
Carleigh Cowling	Senior Surveillance Officer The Kirby Institute UNSW Australia	National Trachoma Surveillance and Reporting Unit Representative

National Trachoma Surveillance and Reporting Unit

Name	Position	Project role
John Kaldor	Professor of Epidemiology, Public Health Interventions Research Group The Kirby Institute UNSW Australia	Chief Investigator
David Wilson	Associate Professor and Head Disease Modelling and Financing Program The Kirby Institute UNSW Australia	Surveillance Expert
Marlene Kong	Program Head Aboriginal and Torres Strait Islander Health Program The Kirby Institute UNSW Australia	Indigenous Expert
Bette Liu	Senior Lecturer, School of Public Health and Community Medicine UNSW Australia Scientific Head of Research Assets The Sax Institute	Epidemiology Expert
Tom Snelling	Princess Margaret Hospital Telethon Institute for Child Health Research UWA Centre for Child Health Research	Paediatric Infectious Diseases Expert
Carleigh Cowling	Senior Surveillance Officer The Kirby Institute UNSW Australia	Surveillance Officer

Jurisdictional contributors to trachoma data collection

Northern Territory

- Aboriginal Community Controlled Health Services
- Aboriginal Medical Services Alliance Northern Territory
- Centre for Disease Control, Northern Territory Department of Health
- Healthy School-Age Kids Program: Top End and Central Australia

South Australia

- Aboriginal Community Controlled Health Services
- Aboriginal Health Council of South Australia
- Country Health SA Local Health Network, SA Health

Western Australia

- WA State Trachoma Reference Group
- Aboriginal Community Controlled Health Services
- Communicable Disease Control Directorate, WA Health
- Goldfields Population Health Unit
- Kimberley Population Health Unit
- Midwest Population Health Unit
- Pilbara Population Health Unit

New South Wales

- Population Health Unit, Western NSW Local Health District

Technical terms and definitions

Definitions are based on the Communicable Diseases Network Australia's 2014 *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 ≥ 5% in children aged 5-9 years in the last five years; or 3) data < 5% active trachoma prevalence but with a recorded prevalence of active trachoma ≥ 5% in the past five years.

Clean face:
Absence of dirt, dust and crusting (nasal and ocular discharge) on cheeks and forehead.

Community-screening coverage:
The number of communities screened for trachoma as a proportion of communities designated by jurisdictions to be at-risk of trachoma.

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:
Defined as the 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:
The 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 and who were treated for trachoma during each episode of community-wide treatment.

Abbreviations

ABS	Australian Bureau of Statistics
ACCHS	Aboriginal Community Controlled Health Service
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
NSW	New South Wales
NT	Northern Territory
NTSRU	National Trachoma Surveillance and Reporting Unit
SA	South Australia
SAFE	Surgery, antibiotics, facial cleanliness and environment
TSCRG	Trachoma Surveillance and Control Reference Group
TF	Trachomatous inflammation – follicular
TI	Trachomatous inflammation – intense
TS	Trachomatous scarring
TT	Trachomatous trichiasis
WA	Western Australia
WACHS	WA Country Health Service
WHO	World Health Organization

Executive summary

Trachoma screening and management data for 2014 were provided to the National Trachoma Surveillance and Reporting Unit by the Northern Territory (NT), South Australia (SA), Western Australia (WA) and New South Wales (NSW). Data were analysed by region in the NT (5 regions), SA (4 regions), WA (4 regions) and NSW (2 regions). Jurisdictional authorities designated 160 remote Aboriginal communities as being at-risk or potentially at-risk of endemic trachoma in 2014. In 2014 all jurisdictions were guided by the revised 2014 CDNA *National guidelines for the public health management of trachoma in Australia*.[1]

Trachoma program coverage

- Jurisdictions identified 160 communities as being at-risk or potentially at-risk of trachoma (Table 1.1).
- The number of communities designated as being at-risk has decreased marginally in the NT, and substantially decreased in SA and WA since 2012 (Figure 1.2).
- Of 160 at-risk or potentially at-risk communities, 125 communities were determined to require screening for trachoma, a further 20 were identified to require treatment without screening (see methodology), leading to 145 communities that were determined to require screening, treatment or both screening and treatment for trachoma (Table 1.1).
- Of these 145 communities, all received screening, treatment or both screening and treatment (Table 1.1).
- The remaining 15 at-risk communities did not require screening or treatment as their previous year's prevalence was under 5% (see methodology).
- Four communities deemed not at-risk were screened for trachoma in 2014 (Table 1.1).
- In WA 10 previously distinct communities were aggregated as one community for the presentation of data due to small population sizes and frequent mobility between communities.
- In SA 9 previously distinct communities were aggregated as one community for the presentation of data due to small population sizes and frequent mobility between communities

Screening coverage

- Jurisdictions identified 125 communities in the four states or territory requiring screening for trachoma in 2014 and all 125 were screened for trachoma in 2014 (Table 1.1, Table 1.2).
- Within these communities, 4,284 (89%) of an estimated 4,840 resident children aged 5-9 years were screened (Table 1.2).
- Screening coverage in children aged 5-9 years in at-risk communities was 92% for the NT, 87% for SA, 91% for WA and 63% for NSW (Table 1.2, Figure 1.4).

Clean face prevalence

- A total of 4,241 children aged 5-9 years in 125 at-risk communities were assessed for clean faces during 2014 (Table 1.2).
- The overall proportion of clean faces in children aged 5-9 years was 83%, with 86% in the NT, 84% in SA , 79% in WA, and 100% NSW (Table 1.2, Figure 1.5).

Trachoma prevalence

- The overall prevalence of active trachoma among children aged 5-9 years in screened communities (using projected data, see methodology) was 4.7%, with 5.9% in the NT, 4% in SA, 2.9% in WA and 0% in NSW (Table 1.2).
- The observed trachoma prevalence in communities that screened in 2014 was 5.5% in the NT, 4% in SA, 2% in WA and 0% in NSW (Table 1.2).
- There has been a small increase in the prevalence of trachoma in children aged 5-9 years in the NT and SA in 2014 after a decreasing trend in all jurisdictions since 2009 (Figure 1.6a, Figure 1.6b).
- From 2013 to 2014 the prevalence of trachoma in children aged 5-9 years decreased in WA and NSW (Figure 1.6a, Figure 1.6b).
- No trachoma was reported or detected in children aged 5-9 years in 99 (62%) communities in 2014, including communities that screened for trachoma in children aged 5-9 years and communities that were not required to screen, in accordance with the guidelines (Figure 1.7).
- Endemic levels of trachoma (> 5%) were reported in 48 (30%) communities in 2014 including communities that screened for trachoma in children aged 5-9 years and communities that were not required to screen, in accordance with the guidelines (Figure 1.7).
- The small increase in trachoma prevalence in Australia from 2013 to 2014, after a number of years of decrease, must be interpreted cautiously, due to the nature of the mechanism of the surveillance procedures. The communities surveyed differ from year to year, and the assessment of trachoma is subject to error, as with any clinical technique. The continued need for improvements in promotion of facial cleanliness and environmental improvements may also be contributing factors. Nevertheless, the increase serves as a timely reminder of the need for all jurisdictions to maintain their commitment to the full implementation of the national guidelines for trachoma control.

Treatment delivery and coverage

- Trachoma treatment strategies were applied in 66 communities, 100% of those requiring treatment, including communities designated as not at-risk of endemic trachoma (Table 1.3).
- One community in the NT did not treat according to CDNA guidelines due to resource limitations (Table 1.3).
- Of all cases detected that required treatment, 92% received treatment (Table 1.4).
- Treatment was delivered to active cases and households in 37 communities, and to the whole of community in 26 communities according to the guidelines (Table 1.3).
- Treatment coverage in all jurisdictions was 90%, with 89% in the NT and 98% in SA and WA (Table 1.4).
- A total of 9,803 doses of azithromycin were delivered for trachoma treatment (Table 1.4).

Trichiasis

- Overall 9,497 adults aged over 15 years were screened (Table 1.5).
- It is acknowledged that the data provided do not include trichiasis screening undertaken as part of the Adult Health Check MBS Item 715. These data are not available to the National Trachoma Surveillance and Reporting Unit.
- The prevalence of trichiasis in adults aged 15 years and over was 0.05% and 0.9% in adults aged 40 years and over (Table 1.5).
- Surgery for trichiasis was reported to be undertaken for 17 adults in 2014 (Table 1.5).

Health promotion activities

- Health promotion activities were reported to have occurred in 123 communities, including at-risk and not at-risk communities.

Background

Trachoma is one of the major causes of preventable blindness globally.[2] It is an eye infection caused by the bacteria *Chlamydia trachomatis* serotypes A, B, Ba and C. The infection can be transmitted through close facial contact, hand-to-eye contact, via fomites (towels, clothing and bedding) or by flies. Trachoma generally occurs in dry, dusty environments and is linked to poor living conditions. Overcrowding 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. Children generally have the highest prevalence of trachoma and are believed to be the main reservoirs of infection, because the infection in children has a longer duration than in adults.[3]

Infection with the relevant *C. trachomatis* serotype causes inflammation of the conjunctiva. Diagnosis of trachoma 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 with contraction and distortion of the eyelid, which may in turn cause the eyelashes to rub against the cornea; this condition is known as trichiasis which leads to gradual vision loss and blindness.[1,4,5] Scarring of the cornea due to trichiasis is irreversible. However, if early signs of in-turned eyelashes are found, then surgery is usually effective in preventing further damage to the cornea.

The Alliance for the Global Elimination of Blinding Trachoma by 2020 (GET 2020) initiative, supported by the World Health Organization (WHO), advocates the implementation of the SAFE strategy, with its key components of Surgery (to correct trichiasis), Antibiotic treatment, Facial cleanliness and Environmental improvements. This strategy is ideally implemented through a primary care model within a community framework, ensuring consistency and continuity in screening, control measures, data collection and reporting, as well as the building of community capacity.[6,7,8]

WHO guidelines recommend that trachoma is treated by a single dose of the antibiotic azithromycin repeated on an annual basis according to trachoma prevalence. Best public health practice involves treatment of all members of the household in which a person with trachoma resides, whether or not they have evidence of trachoma. In hyperendemic communities, it is recommended that treatment is also extended to all to all members of the community over 3 kg in weight.[3,9]

Trachoma control in Australia

Australia is the only high-income country where trachoma is endemic. It occurs primarily in remote and very remote Aboriginal 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), states where trachoma was believed to have been eliminated. However, cases of trachomatous scarring are believed to be present in all jurisdictions and sub-jurisdictional regions of Australia.[3,10] In 2009, the Australian Government invested in the *Closing the Gap - Improving Eye and Ear Health Services for Indigenous Australians* measure which included committing $16 million over a 4-year period towards eliminating trachoma in Australia. In 2013, the Australian Government committed a further $16.5 million to continue, improve and expand trachoma control initiatives in jurisdictions with known endemic levels of trachoma. Funding was also provided to jurisdictions with a previous history of trachoma for screening activities to ascertain whether control programs were also required. These funds were also committed to establishing a strong framework for monitoring and evaluation.[11]

The surveillance and management of trachoma in 2014 in all jurisdictions was guided by the Communicable Disease Network Australia (CDNA) 2014 *National guidelines for the public health management of trachoma in Australia*.[1] The guidelines underwent review in 2013 and were revised in 2014. One of the main changes to the guidelines was the option of not screening all endemic communities every year, enabling jurisdictions to use resources for antibiotic distribution and health promotion activities. The guidelines were developed in the context of the WHO SAFE strategy and make recommendations for improving data collection, collation and reporting systems in relation to trachoma control in Australia.

The National Trachoma Surveillance and Reporting Unit

The National Trachoma Surveillance and Reporting Unit (NTSRU) is responsible for data collation, analysis and reporting related to the ongoing evaluation of trachoma control strategies in Australia. From the end of 2010, the NTSRU has been managed by the Kirby Institute, UNSW Australia.[12-14] For previous reports from 2006 to 2008, the NTSRU was managed by The Centre for Eye Research Australia[15-17] and the 2009 report was managed by the Centre for Molecular, Environmental, Genetic and Analytic Epidemiology, the University of Melbourne.[18]

The NTSRU operates under contract with the Australian Government Department of Health. The primary focus of reporting by the NTSRU from 2006 – 2011 was on trachoma levels and trends in the three jurisdictions (NT, SA and WA) funded by the Australian Government to undertake trachoma control activities.

In 2013 and 2014, the NSW Ministry of Health was funded to undertake a baseline screening of selected remote communities to establish whether trachoma was a public health concern in NSW. These data are included in the 2013 and 2014 reports along with NT, SA and WA data.

Methodology

Each jurisdiction undertook screening and treatment for trachoma according to its respective protocols, and in the context of the 2014 CDNA *National guidelines for the public health management of trachoma in Australia* that 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 at-risk communities from historical prevalence data and other knowledge. Over time, additional communities have been reclassified as being at-risk or removed from the at-risk category. Screening for trachoma focuses on the at-risk communities, but a small number of other communities designated as not at-risk have also been screened, generally if there is anecdotal information suggesting the presence of active trachoma.

The WHO trachoma grading criteria (Appendix 1) were used to diagnose and classify individual cases of trachoma in all jurisdictions. Data collection forms for data collection at the community level were developed by the National Trachoma Surveillance and Control Reference Group, based on the CDNA guidelines (Appendix 2). Completed forms were forwarded from the 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 Aboriginal children aged 1-14 years screened for clean faces and the number with clean faces, by age group
- Number of Aboriginal 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 Aboriginal adults screened for trichiasis, number with trichiasis, and the number who had surgery for trichiasis
- Community-level implementation of WHO SAFE strategies.

While data may be collected for Aboriginal children aged 0-14 years, the focus age group in all regions is the 5-9-year age group as required by jurisdictional Project Agreements.

Northern Territory

In 2013 and 2014, the NT followed the screening and treatment schedule recommended in the 2014 CDNA *National guidelines for the public health management of trachoma in Australia*. Trachoma screening and management in the NT was undertaken through collaboration between the Department of Health (Centre for Disease Control (CDC) and Health Development) and Aboriginal Community Controlled Health Services (ACCHS). Trachoma screening was incorporated into the Healthy School-Age Kids program annual check and conducted by either local primary health-care services or community-controlled services, with support from the CDC trachoma team. The NT uses school enrolment lists, electronic health records and local knowledge to best determine the number of children aged 5-9 in the community that were present at the time of screening. Following screening, treatment was generally undertaken by primary health-care services with support from the CDC trachoma team, particularly where community-wide treatments were required.

In 2014, screening for trichiasis was undertaken primarily by clinic staff during adult health checks, or by optometrists or ophthalmologists from the Regional Eye Health Service based in Alice Springs.

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. In 2014 Anangu Pitjantjatjara Yankunytjatjara (APY) Lands aggregated all nine previously distinct communities into one 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. This definition alters trends presented in reports from 2013 and 2014. Additional trichiasis screening activities were undertaken by the Eye Health and Chronic Disease Specialist Support Program (EH&CDSSP), coordinated by the Aboriginal Health Council of South Australia. This program provides regular visits to SA remote Aboriginal 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 2014 there was extra focus on the promotion of the clean faces health message in the at-risk communities. With the support from the University of Melbourne Indigenous Eye Health Unit the Imparja television characters Yamba and Milpa undertook a successful Health Promotion road show visiting five schools on the APY Lands emphasising the importance of clean faces. The Country Health SA Trachoma Control team engaged in ongoing conversations with stakeholders with regard to the delivery of healthy housing. It is believed that overcrowding and adequate maintenance of hardware in housing remain a 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 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 two-week period, in August and September. People identified with active trachoma were treated at the time of screening. In 2014 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 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. In addition, screening occurs as part of the adult health checks provided through the Medicare Benefits Scheme. The total volume of screening is not able to be determined at this time as the level of data is not available through the MBS information system.

In 2011 and 2014, WA Health aggregated several previously distinct communities into one 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. This definition alters trends presented in reports from 2010 – 2014.

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 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

In 2012, Queensland Health was funded to undertake a baseline screening of remote communities to establish whether trachoma was a public health concern in Queensland. Findings from this exercise were reported in the Australian Trachoma Surveillance report 2012. In one community in the Torres Strait, follicles were observed in eight children. PCR swabs were taken from the eight children and household contacts. Results from the PCR test were all negative for *C. trachomatis*. Azithromycin was administered to the eight children and household contacts before the results of the PCR test were available. Planning for future screening in this community and a limited number of neighbouring communities in the Torres Strait is underway.

Data analysis

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

In 2014, population data for trachoma screening coverage were provided by each jurisdiction. The population for communities in years 2007 to 2011 was derived from projected data 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). Population estimates based on ABS census data do not account for population movements within communities, regions and jurisdictions. Prevalence of active trachoma was calculated using the number of children screened as the denominator.

Trachoma data were analysed in the age groups 0-4, 5-9 and 10-14 years. Comparisons over time were limited to those children aged 5-9, which is the target age group for the trachoma screening programs in all regions. Data from 2006 were excluded from assessment of time trends as collection methods in this first year differed from those subsequently adopted.

Projected data for trachoma prevalence

In 2014 all jurisdictions undertook trachoma control activities according to the revised 2014 CDNA *National guidelines for the public health management of trachoma in Australia*.[1] Under these guidelines not all at-risk communities were required to undertake screening for trachoma in 2014. For reporting purposes, the NTSRU has carried the most recent prevalence data forward in those communities that did not screen in the 2014 calendar year as a direct program decision, providing what is believed to be a conservative upper-bound on average levels of trachoma. This principle applies to all tables and figures relating to trachoma prevalence data. This method of projecting data was approved by the Trachoma Surveillance and Control Reference Group on 26 November 2013.

National results 2014

Figure 1.1 **Trachoma prevalence in children aged 5-9 years in at-risk communities, Australia, 2014**

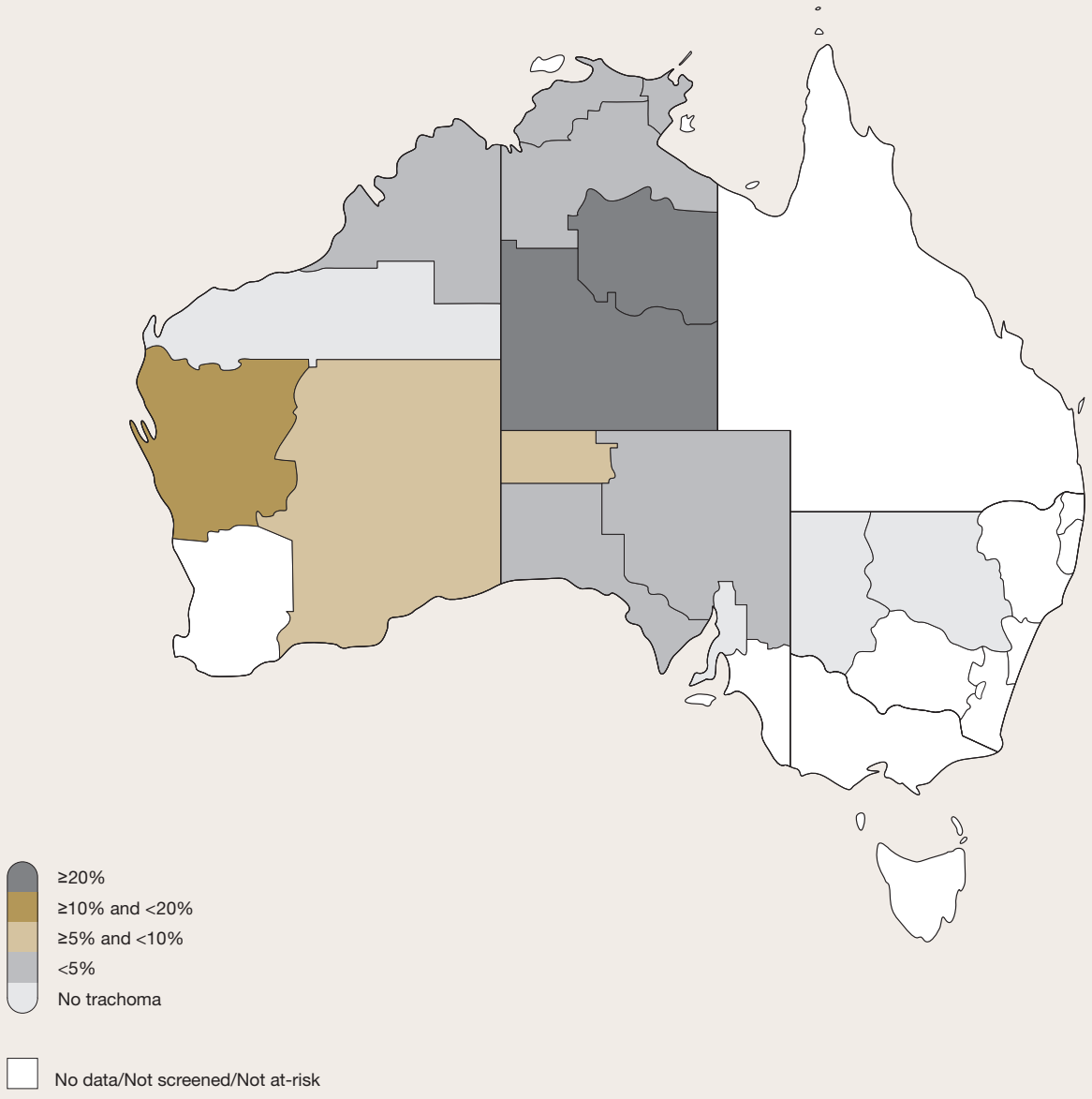


Figure 1.2 Number of at-risk communities, by year and jurisdiction, Australia, 2007 – 2014

* In 2014 NSW communities have been designated as "potentially at-risk" for the purposes of a mapping exercise

Figure 1.3 Number of at-risk communities by jurisdiction, according to trachoma control strategy implemented, Australia, 2014

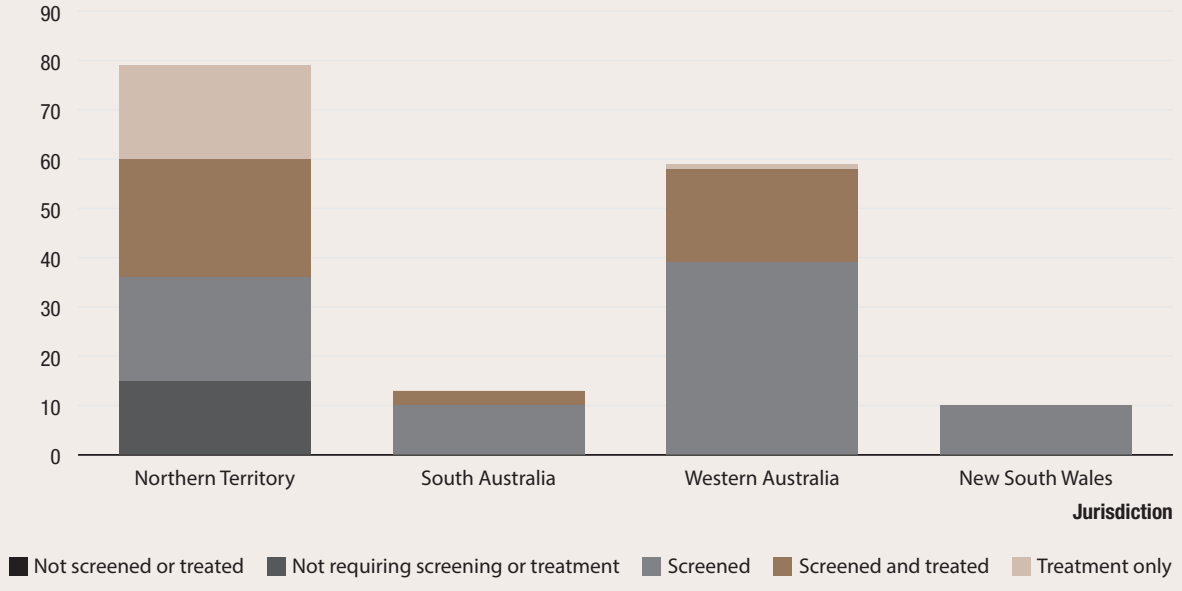


Figure 1.4 Population screening coverage in children aged 5-9 years in communities that were screened for trachoma, by jurisdiction, Australia, 2014

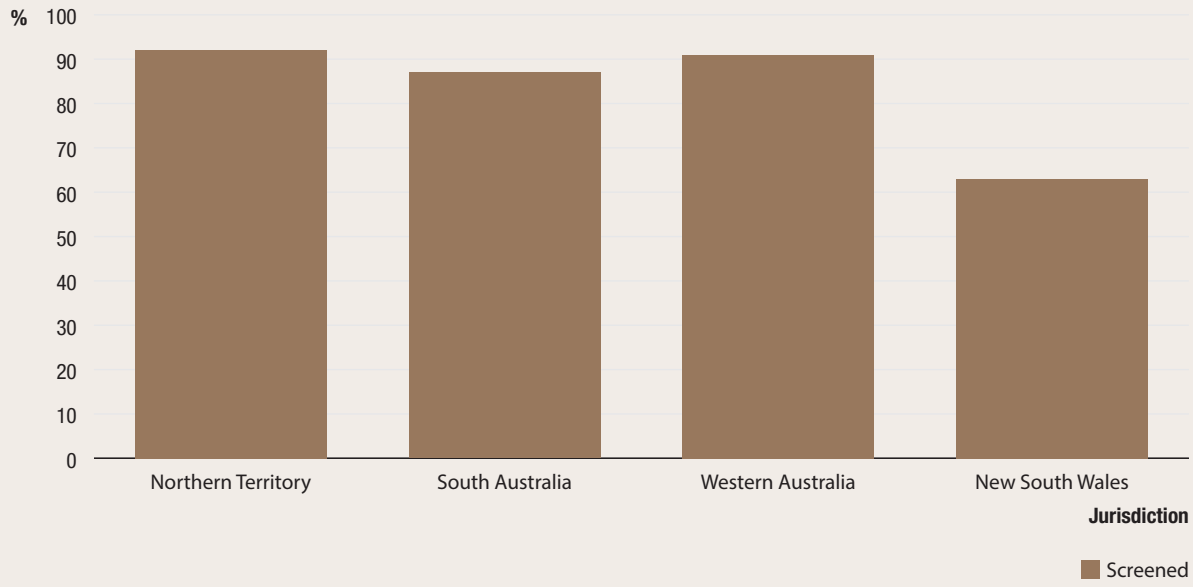


Figure 1.5 Proportion of screened children aged 5-9 years who had a clean face, by year and jurisdiction, Australia, 2007 – 2014

Figure 1.6 a. **Observed trachoma prevalence among screened children aged 5-9 years, by year and jurisdiction, Australia, 2007 – 2014**

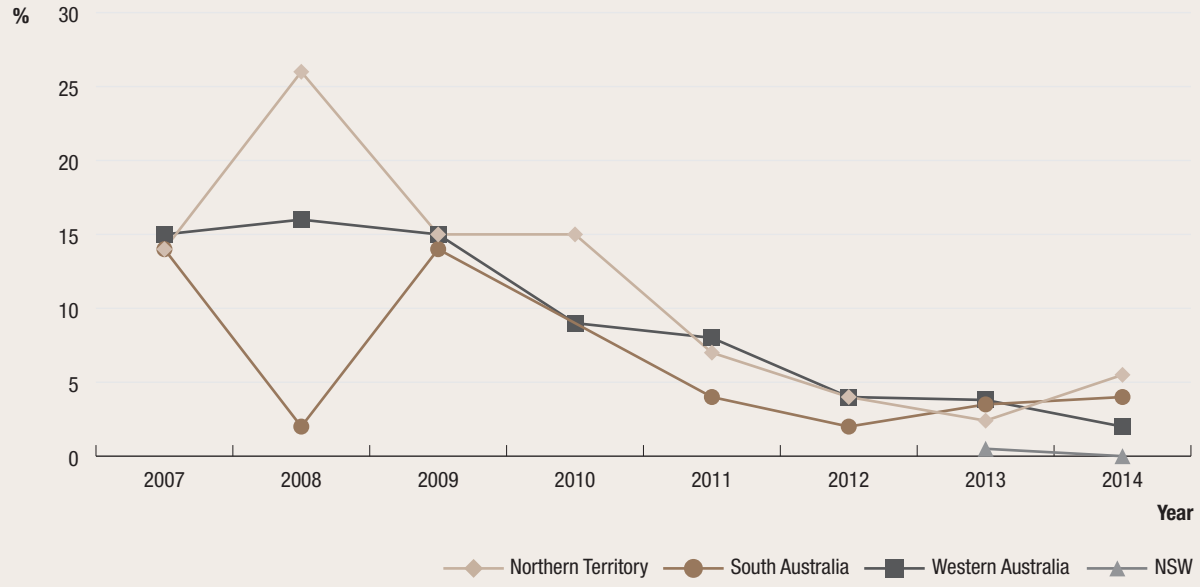
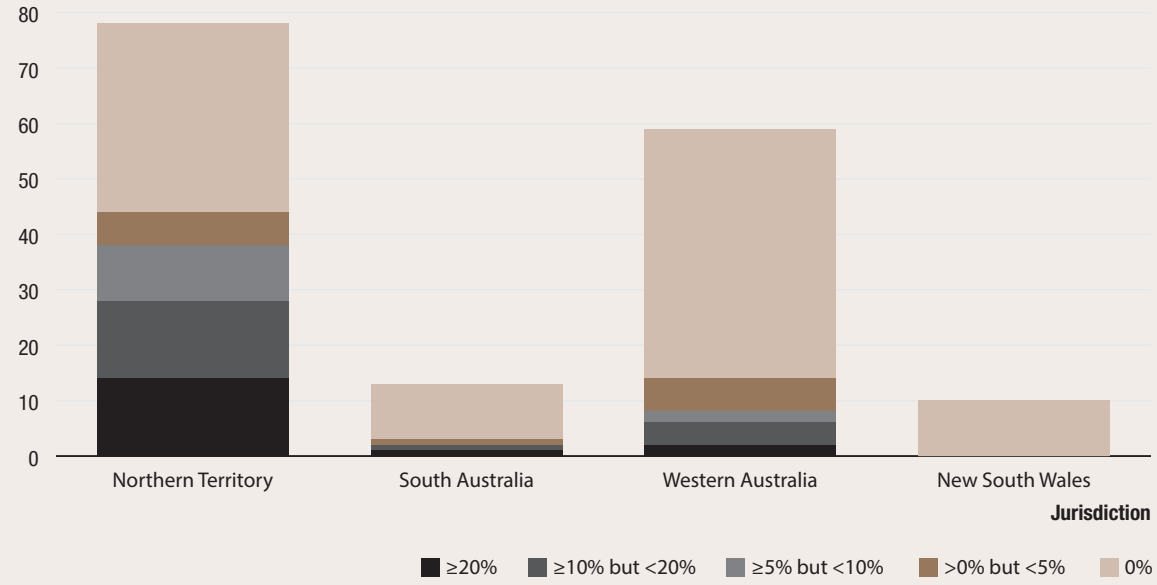


Figure 1.6 b. **Trachoma prevalence among children aged 5-9 years, by year and jurisdiction, Australia, with projected values,* 2007 – 2014**

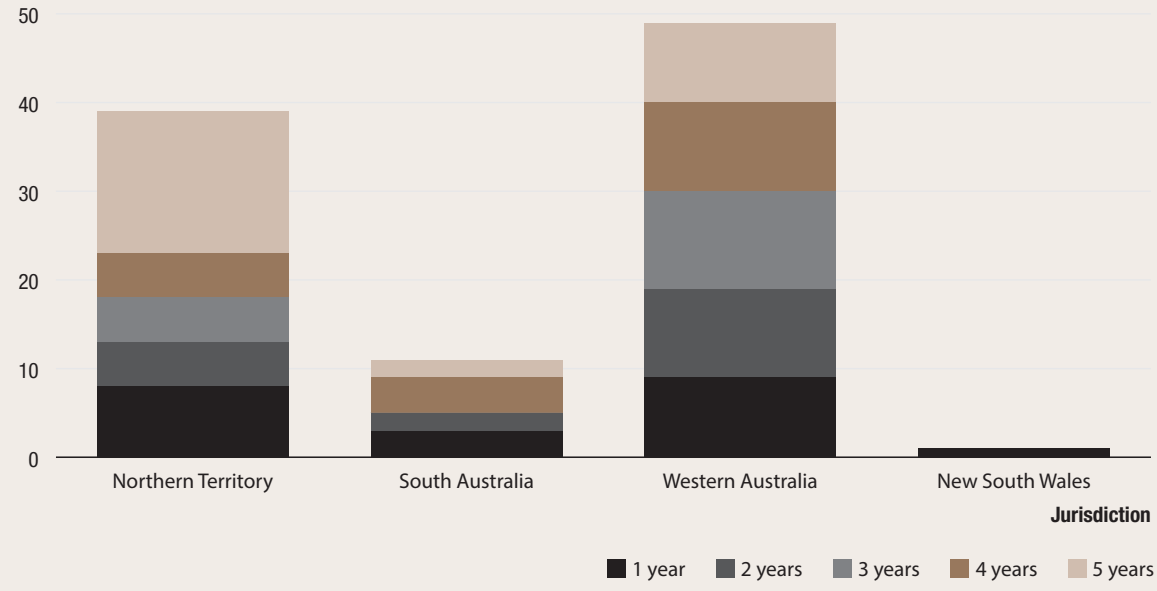
* Including communities that screened in 2014 and those that were not required to screen in 2014, in accordance with guidelines (see methodology)

Figure 1.7 Number of screened at-risk communities* according to level of trachoma prevalence in 5-9-year-old children, by jurisdiction, Australia, 2014



* Including communities in the NT that screened in 2014 and those that were not required to screen in 2014, in accordance with guidelines (see methodology)

Figure 1.8 Number of communities according to number of years* of trachoma prevalence under 5%, by jurisdiction,*† Australia, 2014



* Five years with a prevalence below 5% classifies a community as not at-risk of trachoma

† Including communities that screened in 2014 and those that were not required to screen in 2014, in accordance with guidelines (see methodology)

Figure 1.9 Number of doses of azithromycin administered for the treatment of trachoma by jurisdiction, Australia, 2007 – 2014

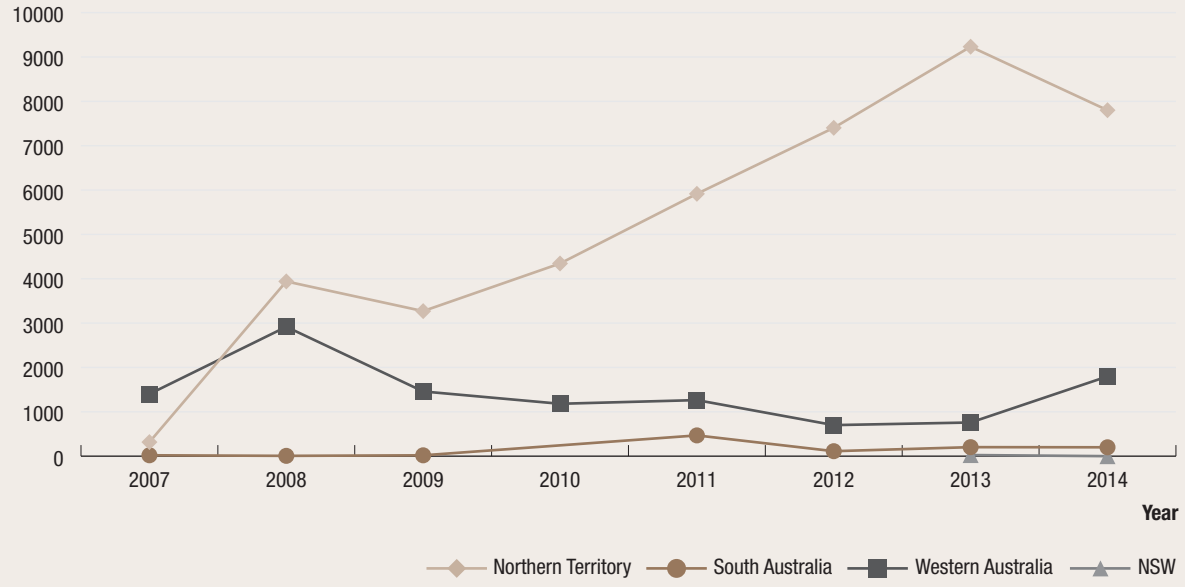


Table 1.1 Trachoma control delivery, Australia, 2014

Number of communities	Northern Territory	South Australia	Western Australia	New South Wales	Total	Not at-risk
At-risk* (A)	78	13	59	10	160	0
Requiring screening for trachoma (B)	44	13	58	10	125	0
Screened for trachoma (C)	44	13	58	10	125	4
Requiring treatment only (D)	19	0	1	0	20	0
Treated † (E)	19	0	1	0	20	0
Screened and/or treated for trachoma (F = C+E)	63	13	59	10	145	4
Requiring neither screening or treatment for trachoma (G=A-B-D)	15	0	0	0	15	0

* In 2014 NSW communities have been designated as "potentially at-risk" for the purposes of a mapping exercise

† Communities treated without screening in 2014 as per revised guideline instructions

Table 1.2 Trachoma screening coverage, trachoma prevalence and clean face prevalence, Australia, 2014

	Northern Territory	South Australia	Western Australia	New South Wales	Total	Not at-risk
Number of communities screened	**44**	**13**	**58**	**10**	**125**	**4**
Age group (years)	***5-9***	***5-9***	***5-9***	***5-9***	***5-9***	***5-9***
Children examined for clean face	1,804	681	1,685	71	4,241	370
Children with clean face	1,545	569	1,333	71	3,518	324
Clean face prevalence (%)	86	84	79	100	83	88
Estimated number* of Aboriginal children in communities†	1,937	783	1,724	396	4,840	402
Children screened for trachoma	1,789	681	1,565	249	4,284	367
Trachoma screening coverage (%)	92	87	91	63	89	91
Children with active trachoma	99	27	32	0	158	12
Observed trachoma prevalence (%)	5.5	4.0	2.0	0.0	3.7	3.3
Observed trachoma prevalence using projected data (%)	5.9	4.0	2.9	0.0	4.7	

* Jurisdictional estimate

† In communities that were screened for trachoma

Table 1.3 Treatment strategies, by jurisdiction, Australia, 2014

Number of communities	Northern Territory	South Australia	Western Australia	New South Wales	Total
Required treatment for trachoma	43	3	20	0	66
Treated for trachoma	43	3	20	0	66
Screened and treated	24	3	19	0	46
Received treatment only	19	0	1	0	20
Received 6-monthly treatment	6	0	0	0	6
Did not require treatment	38	10	39	10	97
Treated active cases and households	17	3	17	0	37
Treated the whole of community	26	0	3	0	29
Not treated according to CDNA guidelines*	1	0	0	0	1

* Due to time limitations

Table 1.4 Trachoma treatment coverage, Australia, 2014

	Northern Territory					South Australia					Western Australia					Total				
Age group (years)	*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*
Active cases requiring treatment	11	110	25		146	1	27	1		29	9	32	12		53	21	169	38		228
Active cases who received treatment	11	102	21		134	1	27	1		29	5	31	10		46	17	160	32		209
Active cases who received treatment (%)	100	93	84		92	100	100	100		100	56	97	83		87	81	95	84		92
Estimated contacts requiring treatment	926	1,104	1,002	5,622	8,654	16	15	26	118	175	193	220	207	1,160	1,780	1,135	1,339	1,235	6,900	10,609
Number of contacts who received treatment	822	1,028	907	4,914	7,671	16	15	26	114	171	191	218	201	1,142	1,752	1,029	1,261	1,134	6,170	9,594
Estimated contacts who received treatment (%)	89	93	91	87	89	100	100	100	97	98	99	99	97	98	98	91	94	92	89	90
Number of doses of azithromycin delivered	833	1,130	928	4,914	7,805	17	42	27	114	200	196	249	211	1,142	1,798	1,046	1,421	1,166	6,170	9,803
Estimated overall treatment coverage (%)	89	93	90	87	89	100	100	100	97	98	97	99	96	98	98	90	94	92	89	90
Doses administered in communities that were treated without screening*	566	722	614	3,426	5,328						98	115	95	743	1,051	664	837	709	4,169	6,379
Doses administered six-monthly*	120	137	123	644	1,024											120	137	123	644	1,024

* As per guidelines

Table 1.5 Trichiasis screening coverage, prevalence and treatment among Aboriginal adults, Australia, 2014

	Northern Territory		South Australia		Western Australia		Total		
Number of communities screened for trichiasis	**67**		**13**		**No data**				
Age groups	*15-39*	*40+*	*15-39*	*40+*	*15-39*	*40+*	*15-39*	*40+*	*15+*
Estimated population in region*	25,483	7,231	5,084	1,827	10,712	3,538	41,279	12,596	53,875
Adults examined	2,573	2,279	717	1,092	1,056	1,780	4,346	5,151	9,497
With trichiasis (% of adults examined)	2 (0.08)	25 (1.1)	1 (0.1)	11 (1)	0	11 (0.1)	3 (0.08)	47 (0.9)	50 (0.5)
Offered ophthalmic consultation	1	13	1	11	0	11	2	35	37
Declined ophthalmic consultation	1	7	0	1	0	3	1	11	12
Surgery in past 12 months	0	12	1	3	0	1	1	16	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 does not account for adults who may be examined in routine adult health checks, and may also include multiple screening

This page left blank intentionally

Northern Territory results 2014

Trachoma program coverage

- In 2014, the NT identified 78 communities in five regions as being at-risk of trachoma (Table 2.1).
- Of 78 at-risk communities, 44 communities were determined to require screening for trachoma and a further 19 communities were identified as requiring treatment without screening (see methodology) leading to 63 communities determined to require screening, treatment or both screening and treatment for trachoma (Table 2.1).
- Of these 63 communities, 62 received screening, treatment or both screening and treatment according to the guidelines (Table 2.1).
- The remaining 15 at-risk communities did not require screening or treatment as their previous year's prevalence was under 5% (see methodology).

Screening coverage

- In 2014, the NT identified 44 communities in the five regions requiring screening for trachoma and all of these received screening (Table 2.1).
- The proportion of children aged 5-9 years screened in the 44 communities was 92%, ranging from 79% in Alice Springs Remote region, to 100% in Katherine region (Table 2.2, Figure 2.4).

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 86%, ranging from 70% in Alice Springs Remote region, to 96% in the Katherine region (Table 2.2, Figure 2.5).

Trachoma prevalence

- The observed prevalence of trachoma in children aged 5-9 years screened in 2014 was 5.5%. Prevalence ranged from 0.6% in Katherine region to 28.7% in Barkly region (Table 2.2, Figure 2.6a).
- Projecting from the previous year's data in communities that did not screen due to new guideline implementation (see methodology), the prevalence of trachoma was 5.9%, ranging from 1.1 % in Darwin Rural region to 24.3% in Barkly region (Table 2.2, Figure 2.6b).
- No trachoma was reported in 34 communities in 2014, including communities that screened for trachoma in children aged 5-9 years and that did not screen in accordance with guidelines (Figure 2.7).
- Endemic levels of trachoma were reported in 38 communities in 2014 including communities that screened for trachoma in children aged 5-9 years and those that did not screen in 2014 in accordance with guidelines (Figure 2.7).
- Non-endemic levels of trachoma have been reported for 16 communities over a period of five years which may reclassify these communities as being not at-risk for trachoma (Figure 2.8).

Treatment delivery and coverage

- Trachoma treatment strategies were applied in 43 communities (Table 2.3).
- Treatment was delivered to active cases and households in 17 communities, and to the whole of community in 26 communities as per guidelines (Table 2.3).
- The overall treatment coverage in all regions was 89% with 7,805 doses of azithromycin delivered (Table 2.4).
- One community did not treat according to CDNA guidelines. This community treated active cases and household contacts when whole of community treatment was required, due to resource limitations (Table 2.3).

Trichiasis

- Reporting for trichiasis screening was available for 67 communities (Table 2.5).
- Overall 4,852 adults aged over 15 years were reported to be screened (Table 2.5).
- The prevalence of trichiasis in adults aged 15 years and over was 0.6%, and 1.1% in adults aged 40 years and over.
- Surgery for trichiasis was reported to be undertaken for 12 adults in 2014 (Table 2.5).

Health promotion

- Health promotion activities were reported to have occurred in 50 communities in the Alice Springs Remote, Barkly, Darwin Rural, East Arnhem and Katherine regions (Table 2.6).
- A total of 123 health promotion activities were reported (Table 2.6).
- The majority of the health promotion activities were delivered to children, teachers and childcare or preschool staff members (Table 2.6).

Figure 2.1 **Trachoma prevalence in children aged 5-9 years, number of communities that were screened, treated or both for trachoma and number of at-risk communities, Northern Territory, 2014**

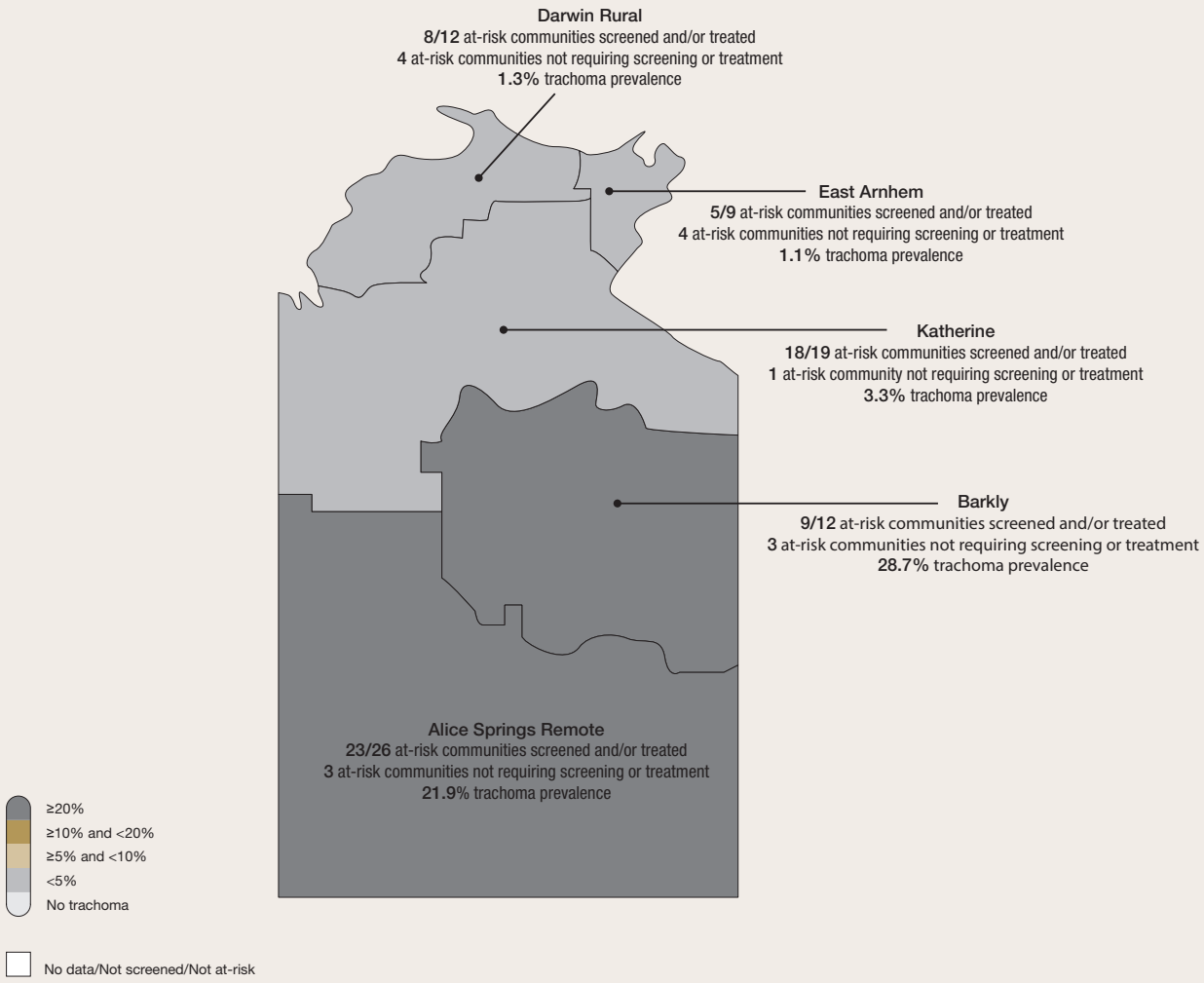


Figure 2.2 Number of at-risk communities, by region, Northern Territory, 2007 – 2014

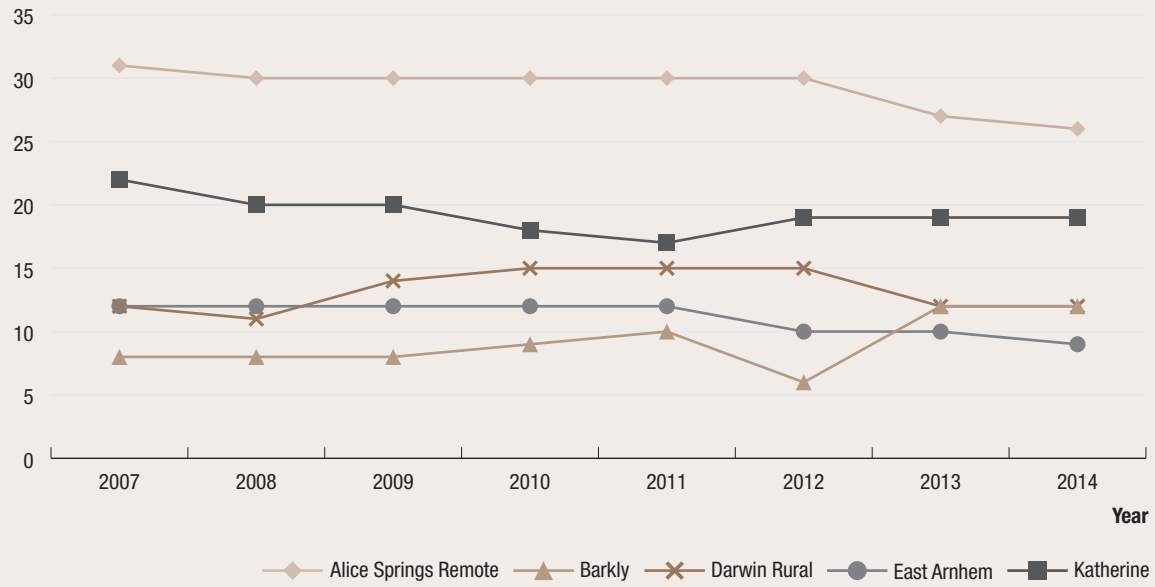


Figure 2.3 Number of at-risk communities by region, according to trachoma control strategy implemented, Northern Territory, 2014

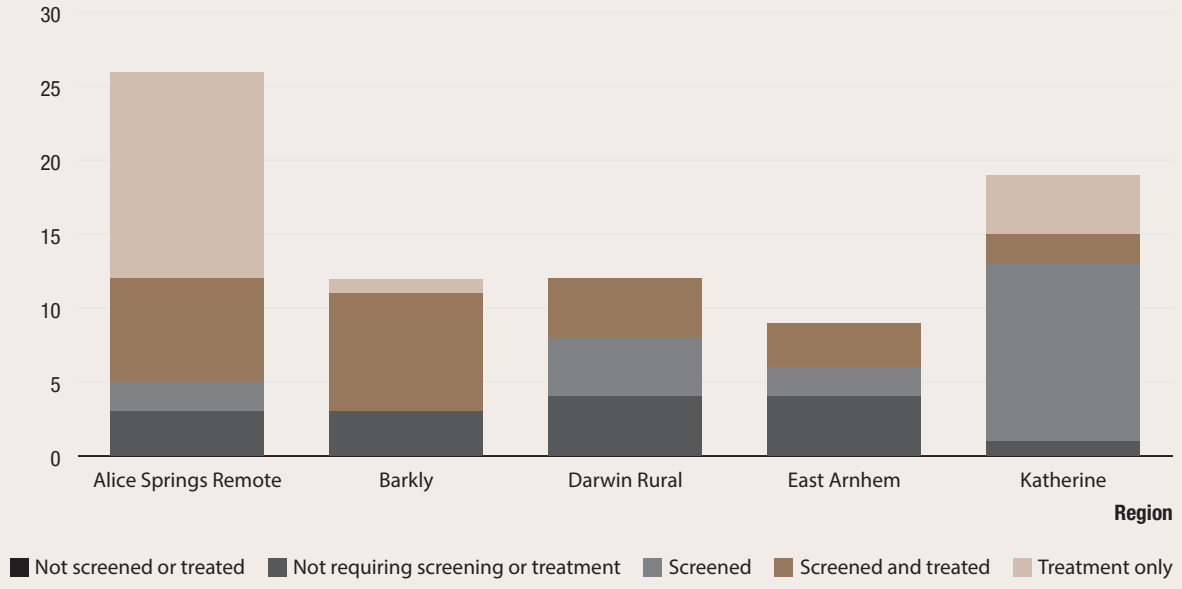


Figure 2.4 Population screening coverage of children aged 5-9 years in communities that required screening for trachoma, by region, Northern Territory, 2014

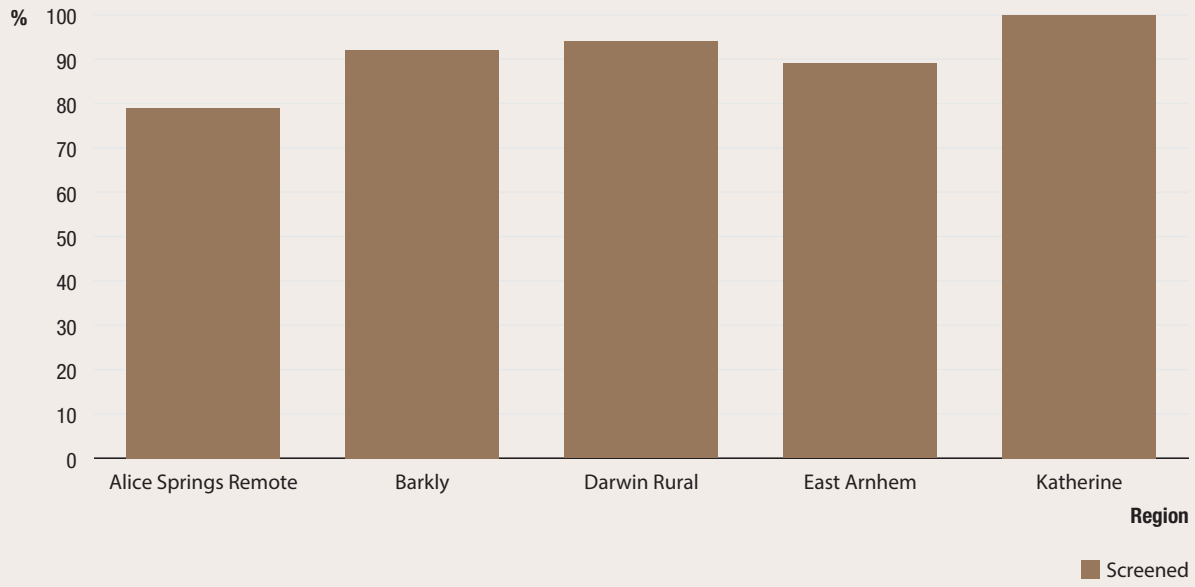


Figure 2.5 Proportion of screened children aged 5-9 years who had a clean face, by region, Northern Territory, 2007 – 2014

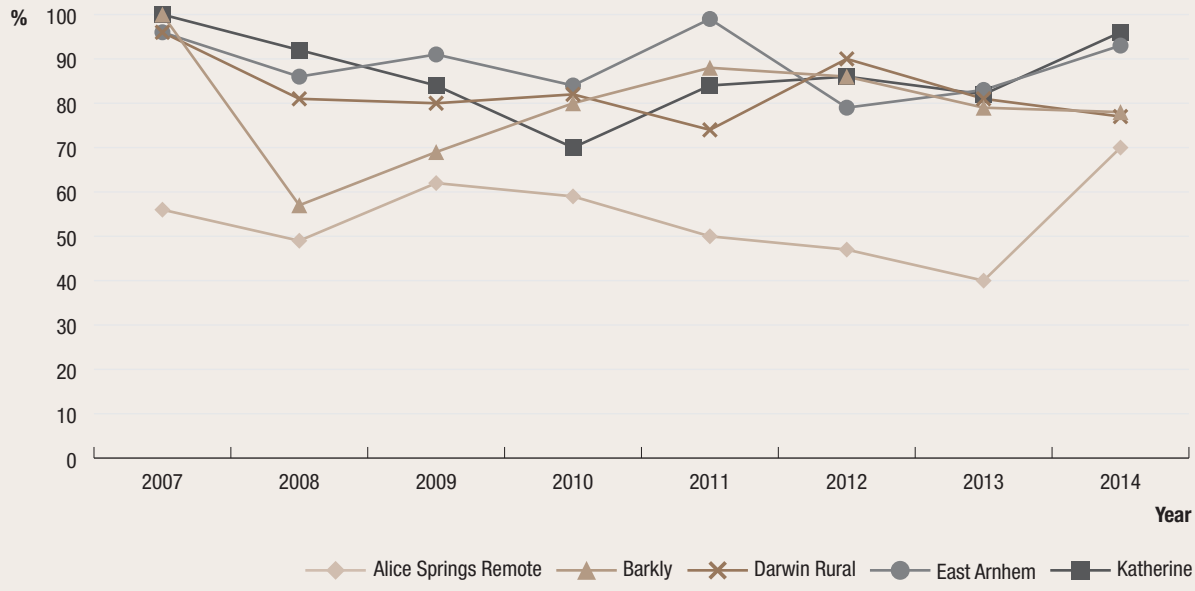


Figure 2.6 a. **Trachoma prevalence among children aged 5-9 years in communities that were screened, by region, Northern Territory, 2007 – 2014**

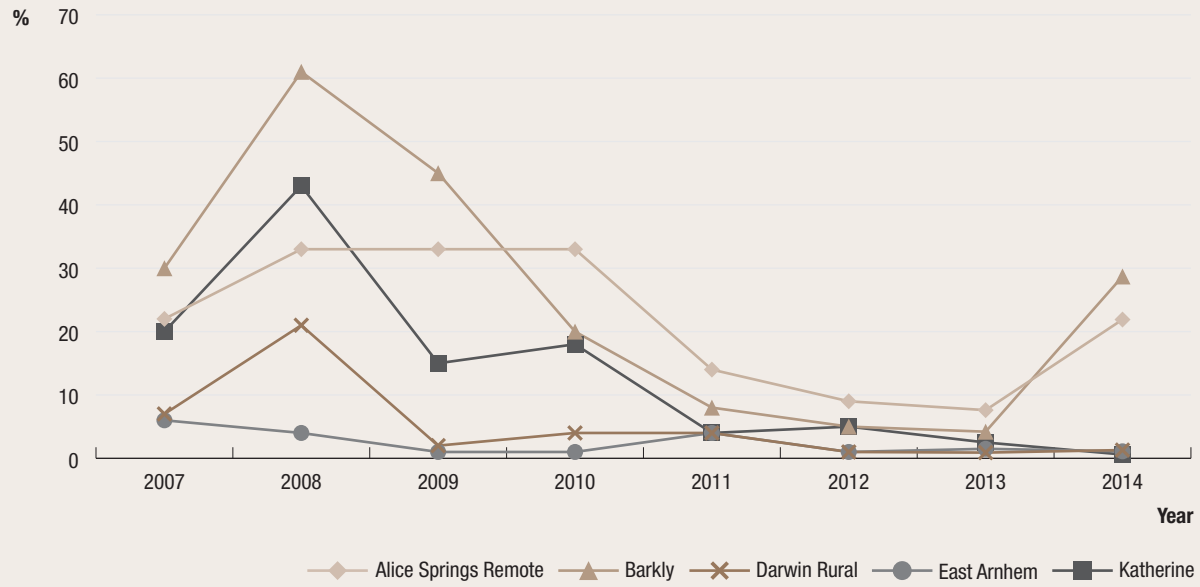
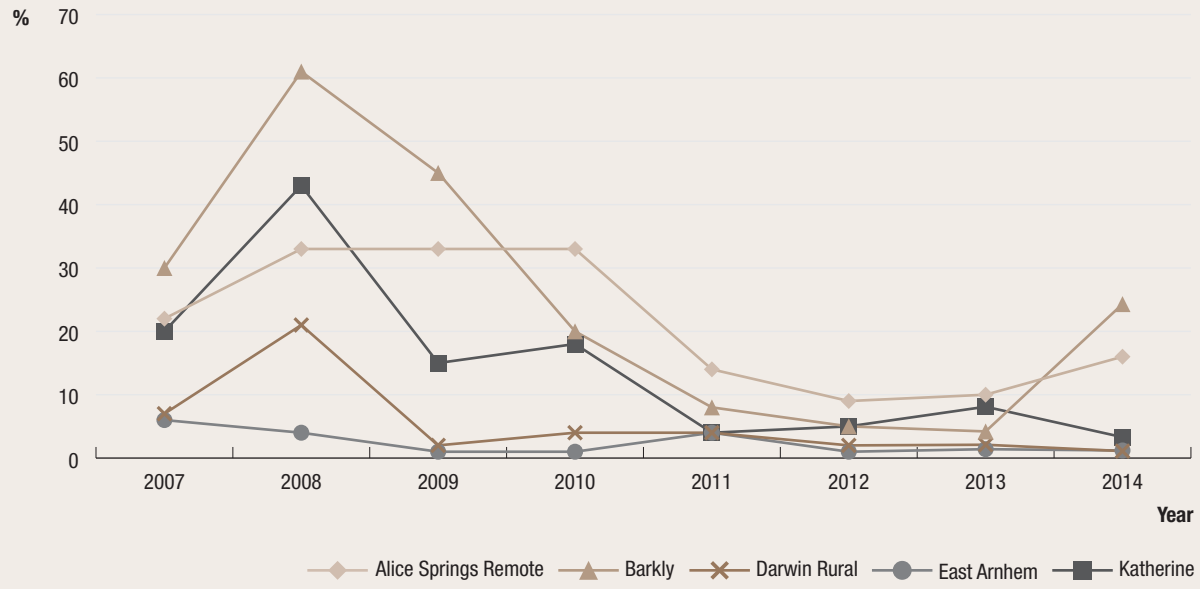
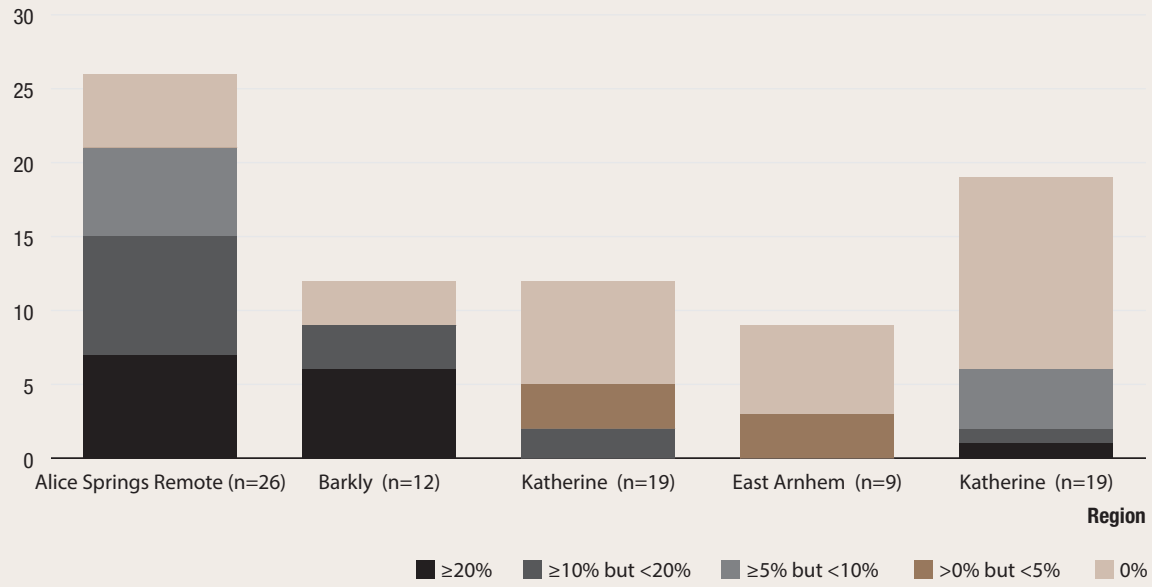


Figure 2.6 b. **Trachoma prevalence among children aged 5-9 years, by region, Northern Territory with projected values,* 2007 – 2014**



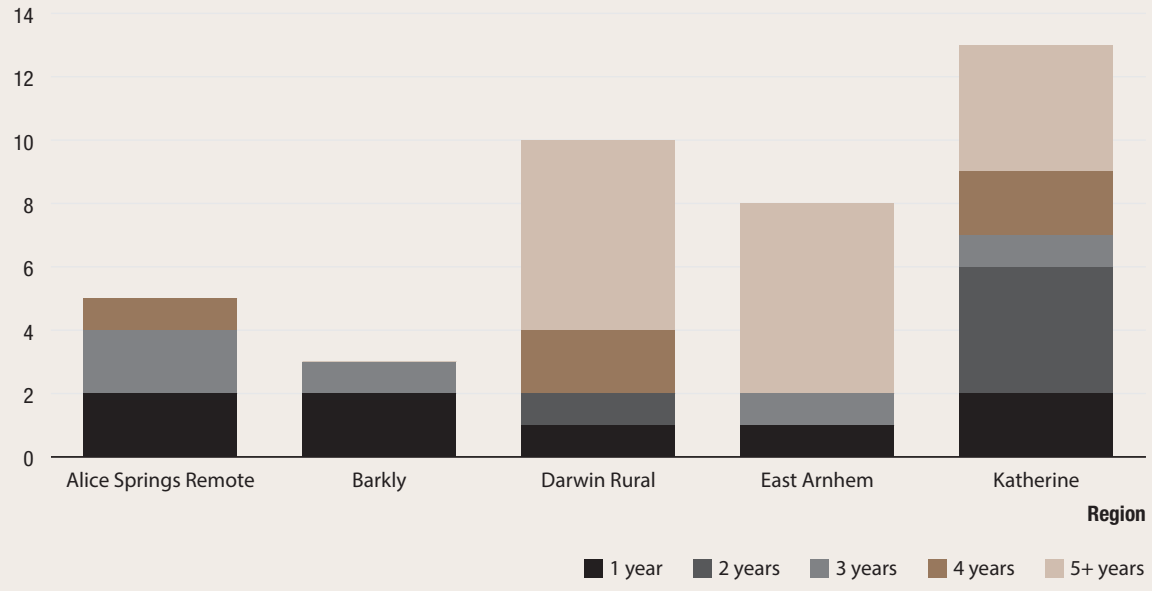
* Including communities that screened in 2014 and those that were not required to screen in 2014, in accordance with guidelines (see methodology)

Figure 2.7 Number of at-risk communities according to level of trachoma prevalence* in children aged 5-9, by region, Northern Territory, 2014



* Including communities that screened in 2014 and those that were not required to screen in 2014, in accordance with guidelines (see methodology)

Figure 2.8 Communities according to number of years* of trachoma prevalence under 5%, by region,† Northern Territory, 2014



* Five years with a prevalence below 5% classifies a community as not at-risk of trachoma

† Including communities that screened in 2014 and those that were not required to screen in 2014, in accordance with guideline instructions (see methodology)

Figure 2.9 **Number of doses of azithromycin administered for the treatment of trachoma, by region, Northern Territory, 2007 – 2014**

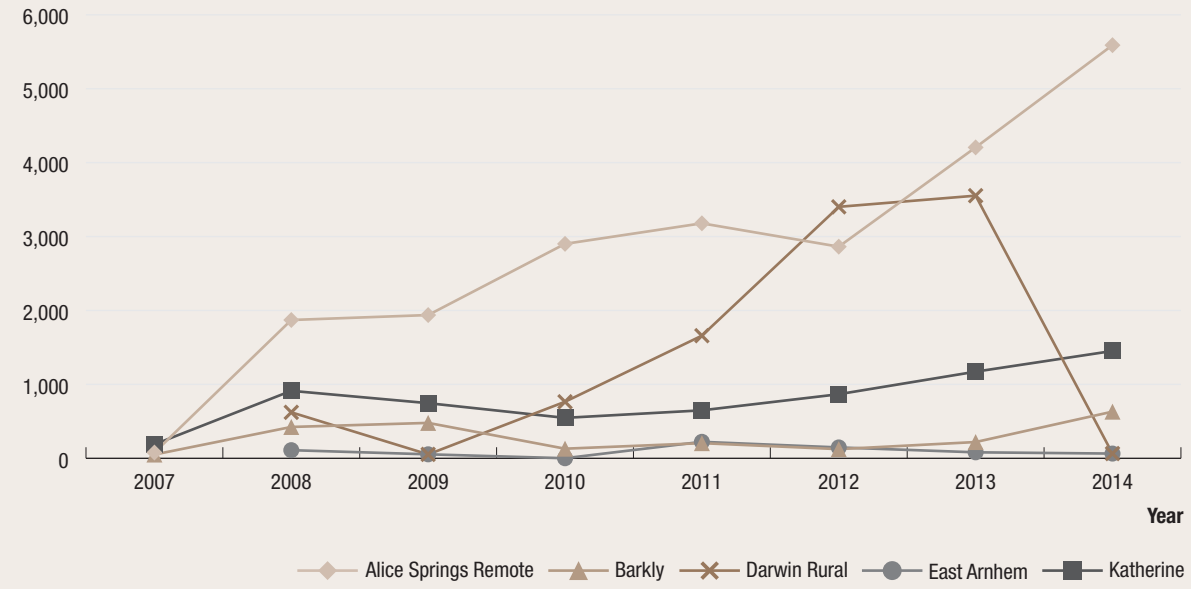


Table 2.1 Trachoma control delivery, Northern Territory, 2014

Number of communities	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	Total	Not at-risk
At-risk (A)	26	12	12	9	19	78	3
Requiring screening for trachoma (B)	9	8	8	5	14	44	N/A
Screened for trachoma (C)	9	8	8	5	14	44	3
Requiring treatment only (D)	14	1	0	0	4	19	N/A
Treated * (E)	14	1	0	0	4	19	N/A
Screened and/or treated for trachoma (F = C+E)	23	9	8	5	18	63	3
Requiring neither screening or treatment for trachoma (G=A-B-D)	3	3	4	4	1	15	N/A

* Communities treated without screening in 2014 according to guideline instructions

Table 2.2 Trachoma screening coverage, trachoma prevalence and clean face prevalence in children, by age group, Northern Territory, 2014

	Alice Springs Remote				Barkly				Darwin Rural				East Arnhem				Katherine				Total				Not at-risk			
Number of communities screened	9				8				8				5				14				44				3			
Age group (years)	***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***	***0-4***	***5-9***	***10-14***	***0-14***
Children examined for clean face	47	197	133	377	21	169	123	313	60	463	132	655	36	452	83	571	18	523	59	600	182	1,804	530	2,516	13	312	96	421
Children with clean face	20	138	121	279	17	131	118	266	49	356	129	534	30	420	81	531	14	500	59	573	130	1,545	508	2,183	6	266	94	366
Clean face prevalence (%)	43	70	91	74	81	78	96	85	82	77	98	82	83	93	98	93	78	96	100	96	71	86	96	87	46	85	98	87
Estimated number* of Aboriginal children in communities†	132	215	172	519	31	181	185	397	420	489	629	1,538	403	505	694	1,602	456	547	593	1,596	1,442	1,937	2,273	5,652	48	317	122	487
Children examined for trachoma	16	169	113	298	21	167	122	310	51	459	125	635	30	449	83	562	17	545	59	621	135	1,789	502	2,426	11	309	96	416
Trachoma screening coverage (%)	12	79	66	57	68	92	66	78	12	94	20	41	7	89	12	35	4	100	10	39	9	92	22	43	23	97	79	85
Children with active trachoma	7	37	6	50	4	48	15	67	0	6	0	6	0	5	3	8	0	3	0	3	11	99	24	134	0	12	1	13
Observed trachoma prevalence (%)	43.8	21.9	5.3	16.8	19.0	28.7	12.3	21.6	0.0	1.3	0.0	0.9	0.0	1.1	3.6	1.4	0.0	0.6	0.0	0.5	8.1	5.5	4.8	5.5	0.0	3.9	1.0	3.1
Observed trachoma prevalence using projected data		16.0				24.3				1.1				1.2				3.3				5.9						

* Jurisdictional estimate

† In communities that were screened for trachoma

Table 2.3 Treatment strategies, by region, Northern Territory, 2014

Number of communities	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	Total
Required treatment for trachoma*	21	9	4	3	6	43
Treated for trachoma*	21	9	4	3	6	43
Screened and treated	7	8	4	3	2	24
Received treatment only	14	1	0	0	4	19
Received 6-monthly treatment	3	1	0	0	2	6
Did not require treatment	6	4	9	6	13	38
Treated active cases and households	4	4	4	3	2	17
Treated the whole of community	17	5	0	0	4	26
Not treated according to CDNA guidelines	0	1	0	0	0	1

* Including communities designated as not at-risk

Table 2.4 Trachoma treatment coverage,* by age group, Northern Territory, 2014

	Alice Springs Remote					Barkly					Darwin Rural					East Arnhem					Katherine					Total				
Age group (years)	*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*
Active cases requiring treatment	7	40	6		53	4	57	16		77	0	6	0		6	0	5	3		8	0	2	0		2	11	110	25		146
Active cases who received treatment	7	37	6		50	4	52	15		71	0	6	0		6	0	5	0		5	0	2	0		2	11	102	21		134
Active cases who received treatment (%)	100	93	100		94	100	91	94		92		100			100		100	0		63		100			100	100	93	84		92
Estimated contacts requiring treatment	648	814	657	4,171	6,290	67	65	93	367	592	10	4	11	38	63	1	6	12	40	59	200	215	229	1,006	1,650	926	1,104	1,002	5,622	8,654
Number of contacts who received treatment	573	760	590	3,616	5,539	66	61	85	353	565	9	4	11	34	58	1	6	12	40	59	173	197	209	871	1,450	822	1,028	907	4,914	7,671
Estimated contacts who received treatment (%)	88	93	90	87	88	99	94	91	96	95	90	100	100	89	92	100	100	100	100	100	87	92	91	87	88	89	93	91	87	89
Number of doses of azithromycin delivered	580	797	596	3,616	5,589	70	113	100	353	636	9	10	11	34	64	1	11	12	40	64	173	199	209	871	1,452	833	1,130	928	4,914	7,805
Estimated overall treatment coverage (%)	89	93	90	87	88	99	93	92	96	95	90	100	100	89	93	100	100	80	100	96	87	92	91	87	88	89	93	90	87	89

* Including in communities designated as not at-risk

Table 2.5 Trichiasis screening coverage, prevalence and treatment among Aboriginal adults, Northern Territory, 2014

	Alice Springs Remote		Barkly		Darwin Rural		East Arnhem		Katherine		Total		
Number of communities screened for trichiasis	**21**		**4**		**15**		**8**		**19**		**67**		
Age group (years)	*15-39*	*40+*	*15-39*	*40+*	*15-39*	*40+*	*15-39*	*40+*	*15-39*	*40+*	*15-39*	*40+*	*15+*
Estimated population in region*	5,893	1,801	1,206	285	7,686	2,158	6,289	1,868	4,409	1,119	25,483	7,231	32,714
Adults examined	491	431	59	82	886	475	419	206	718	1,085	2,573	2,279	4,852
With trichiasis (% of adults examined)	1 (0.2)	14 (3.2)	0	0	0	0	0	1 (0.5)	1 (0.1)	11 (1)	2 (0.08)	25 (1.1)	27 (0.6)
Offered ophthalmic consultation	0	5	0	0	0	0	0	0	1	8	1	13	14
Declined ophthalmic consultation	0	4	0	0	0	0	0	0	1	3	1	7	8
Surgery in past 12 months	0	10	0	2	0	0	0	0	0	0	0	12	12

* 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 does not account for adults who may be examined in routine adult health checks, and may also include multiple screening

Table 2.6 Health promotion activities, by region, Northern Territory, 2014

	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	Total
Number of communities at-risk	**26**	**12**	**12**	**9**	**19**	**78**
Number of communities that reported health promotion activities	**23**	**7**	**4**	**3**	**13**	**50**
Number of programs reported	**65**	**7**	**11**	**13**	**27**	**123**
Methods of health promotion						
One-on-one discussion	46	7	6	7	23	89
Presentation to group	25	5	4	2	19	55
Interactive group session	15	4	1	1	9	30
Social marketing	4	0	0	0	8	12
Print material/mass media	18	4	0	0	18	40
Sporting/community events	0	0	0	0	1	1
Other	0	2	0	0	2	4
Target audience						
Health professionals/staff	18	2	2	3	6	31
Children	20	9	5	4	20	58
Youth	6	2	0	0	17	25
Teachers/childcare/preschool staff	16	4	2	1	12	35
Caregivers/parents	9	2	1	2	19	33
Community members	19	8	0	0	15	42
Community educators/health promoters	2	0	0	0	8	10
Interagency members	3	1	0	1	0	5
Frequency of health promotion activities						
Once	0	1	2	3	2	8
Occasional *	56	6	9	10	23	104
Regular†	0	0	0	0	0	0
Ongoing/routine	9	0	0	0	2	11

* 2-4 times per year

† 5-12 times per year

Health promotion summary

In 2014, trachoma health promotion in the Northern Territory focused on broad, hygiene-related messages. Working with partners on messages that were relevant to all hygiene-related illnesses (such as skin, ear and respiratory illnesses) allowed the trachoma program greater reach in spreading the 'clean faces' message. As in previous years, strong support for trachoma health promotion was provided by the Indigenous Eye Health Unit based at the University of Melbourne, the Fred Hollows Foundation and Central Australian Aboriginal Congress.

A new 'No Germs on Me' campaign was launched by the Environmental Health Branch, in 2014. The new campaign included animated facial germs (nasal discharge) in its advertisements, in conjunction with hand germs. This inclusion of facial germs ties in very closely with the 'Clean Faces, Strong Eyes' focus of the Northern Territory trachoma program.

A '4 Step Hygiene' poster was developed in 2014. This poster depicts nose blowing, hand washing, face washing and drying either with paper towels or air drying. The poster has been very well received by communities in 2014, with requests for additional posters and print material to be made available to schools and early childhood settings. Early childhood settings have reported the visual prompts that incorporate all aspects of daily hygiene as beneficial in promoting hygiene practices in children.

The Melbourne Football Club made two visits to the Northern Territory in 2014. Both visits allowed an opportunity for trachoma health promotion at football clinics, and resulted in media coverage for the trachoma program and Milpa, the trachoma goanna, who was present at all events. Television advertising and radio community service announcements focusing on trachoma elimination messages were also conducted in 2014.

Community members who received screening or treatment for trachoma were also given individual education regarding trachoma at the time of screening or treatment. Although resource intensive, anecdotally this approach leads to a greater understanding of trachoma awareness and education. Communities receiving community-wide treatments have requested further information to help them understand the treatment cycles. Work on a poster to provide visual information regarding treatment cycles has begun in 2014, and will continue to be refined in 2015.

South Australia results 2014

Trachoma program coverage

- In 2014 SA identified 13 communities in three regions as being at-risk of trachoma (Table 3.1).
- All 13 at-risk communities were screened for trachoma (Table 3.1).
- In 2014 the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands aggregated nine communities into one single community to simplify surveillance due to small population size of communities and high mobility between communities.
- SA also screened one not at-risk community in the Yorke and Mid North region.

Screening coverage

- Population screening coverage of children aged 5-9 years in the 13 at-risk communities screened was 87%, ranging from 85% in the APY Lands to 89% in the Far North region (Table 3.2, Figure 3.4)

Clean face prevalence

- Clean face prevalence was assessed in all communities that were screened.
- The overall proportion of clean faces among children aged 5-9 years in the screened communities was 84%, ranging from 60% in the APY Lands, to 100% in the Yorke and Mid North region (Table 3.2, Figure 3.5).

Trachoma prevalence

- The prevalence of trachoma in children aged 5-9 years screened was 4%. Prevalence ranged from 0% in the Yorke and Mid North region to 9.6% in the APY Lands (Table 3.2, Figure 3.6).
- No trachoma was reported in 10 communities (Figure 3.7).
- Endemic levels of trachoma were reported in two communities (Figure 3.7).
- Non-endemic levels of trachoma have been reported for two communities over a period of five years which may reclassify these communities as being not at-risk for trachoma (Figure 3.8).

Treatment delivery and coverage

- Trachoma treatment strategies were applied in three communities (Table 3.3).
- Treatment was delivered to active cases and households in three communities (Table 3.3).
- The overall treatment coverage in all regions was 98% with 200 doses of azithromycin delivered (Table 3.4).

Trichiasis

- Screening for trichiasis was undertaken in 13 communities (Table 3.5).
- Overall 1,809 adults aged 15 years and over were screened (Table 3.5).
- The prevalence of trichiasis in adults aged 15 years and over was 0.7%, and 1% in adults aged 40 years and over (Table 3.5).
- Surgery for trichiasis was reported to be undertaken for 4 adults (Table 3.5).

Health promotion

- Health promotion activities were reported to have occurred in 14 communities in APY Lands, Eyre and Western, Far North and Yorke and Mid North regions of SA (Table 3.6).
- A total of 30 health promotion activities were reported (Table 3.6).
- The majority of the health promotion activities were delivered to children, teachers, childcare or preschool staff members and care givers (Table 3.6).

Figure 3.1 **Trachoma prevalence in children aged 5-9 years, number of communities that were screened, treated or both for trachoma and number of at-risk communities, South Australia, 2014**

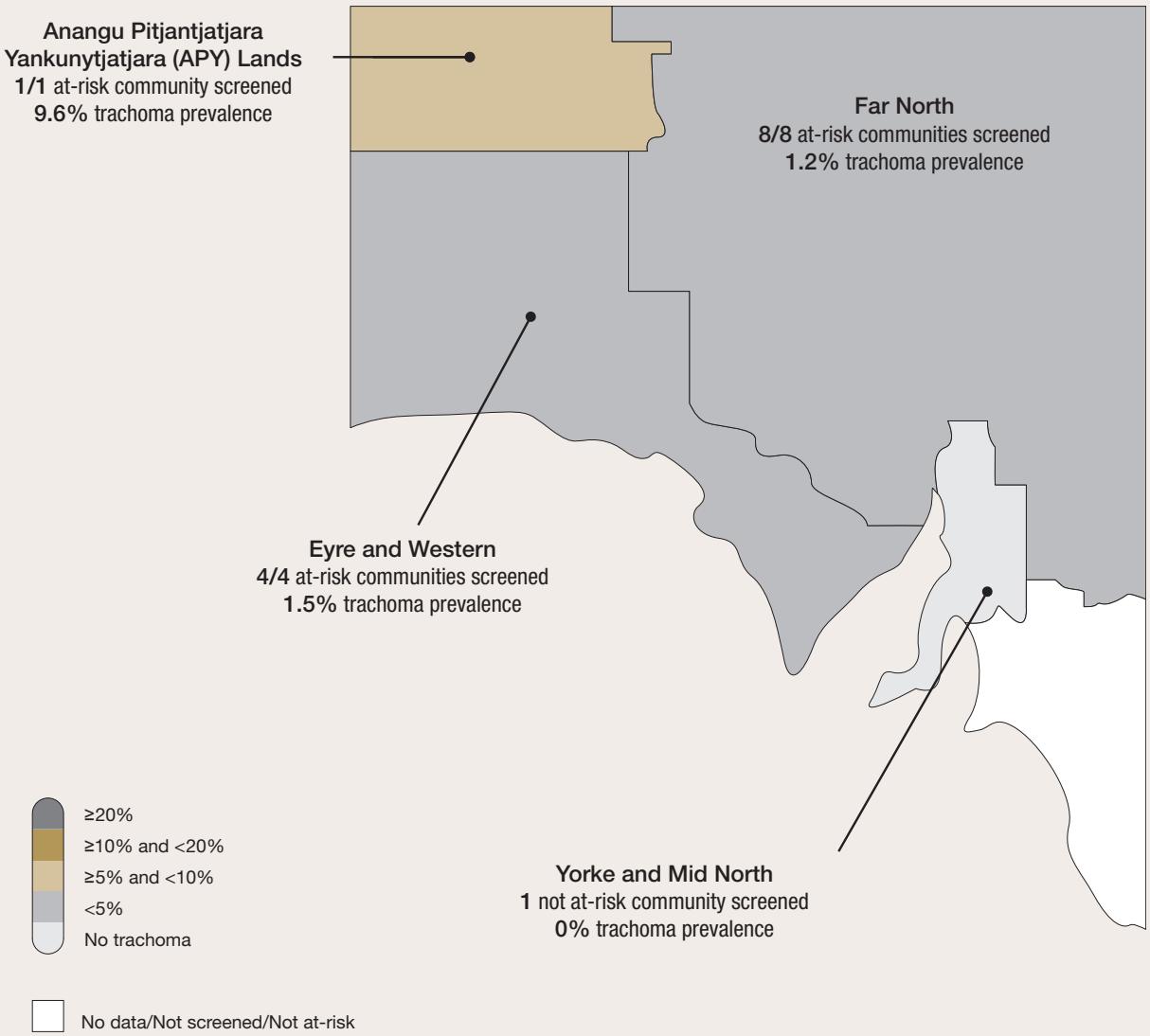
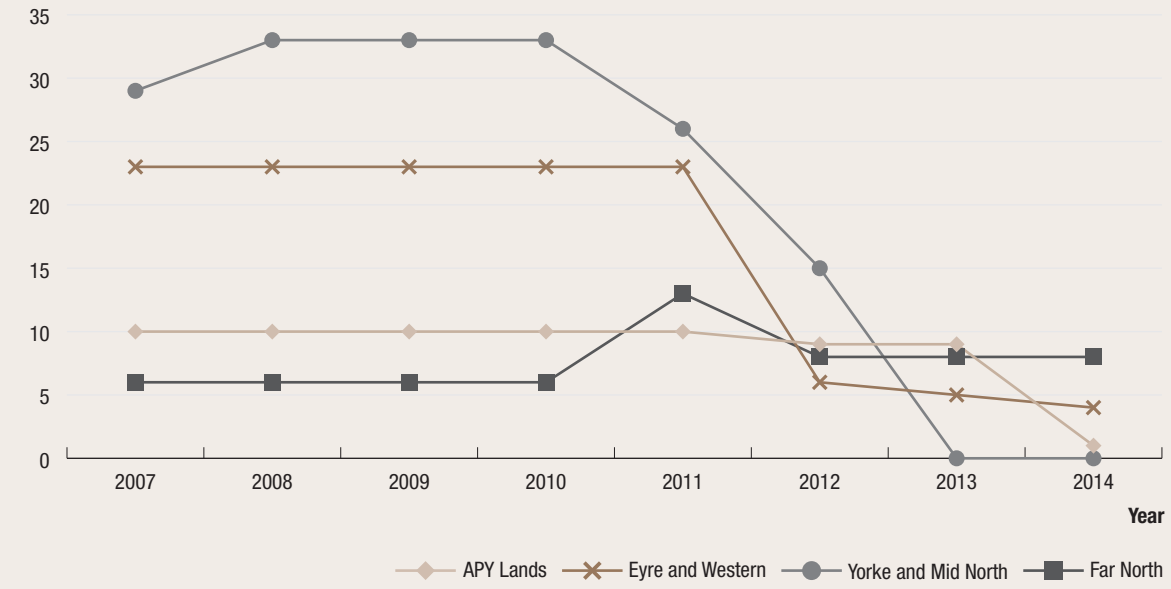
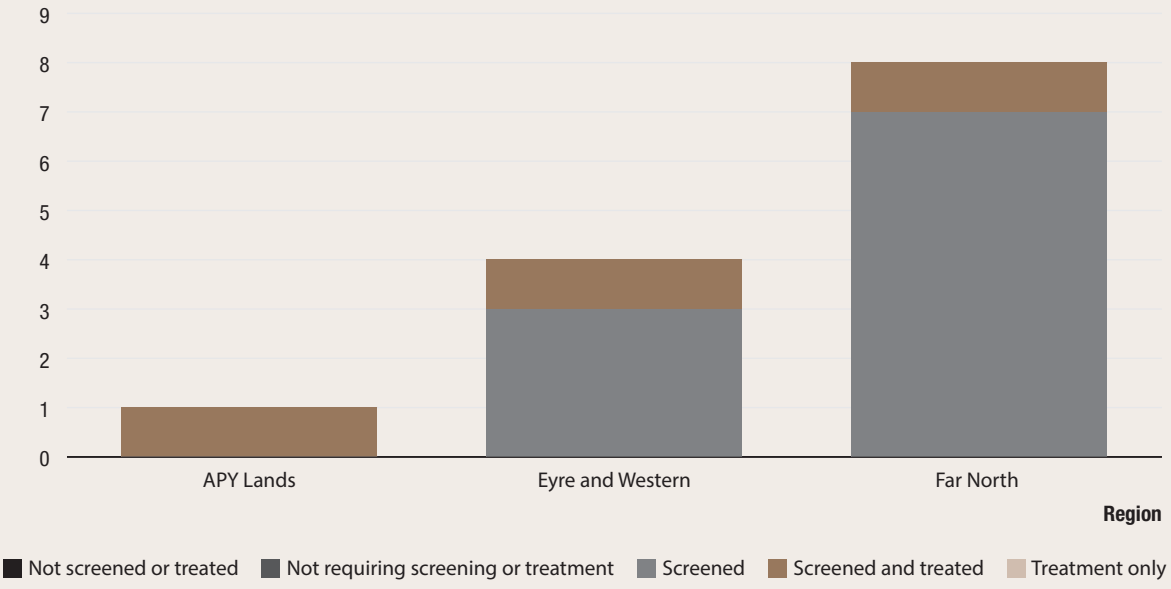


Figure 3.2 Number of at-risk communities, by region, South Australia, 2007 – 2014



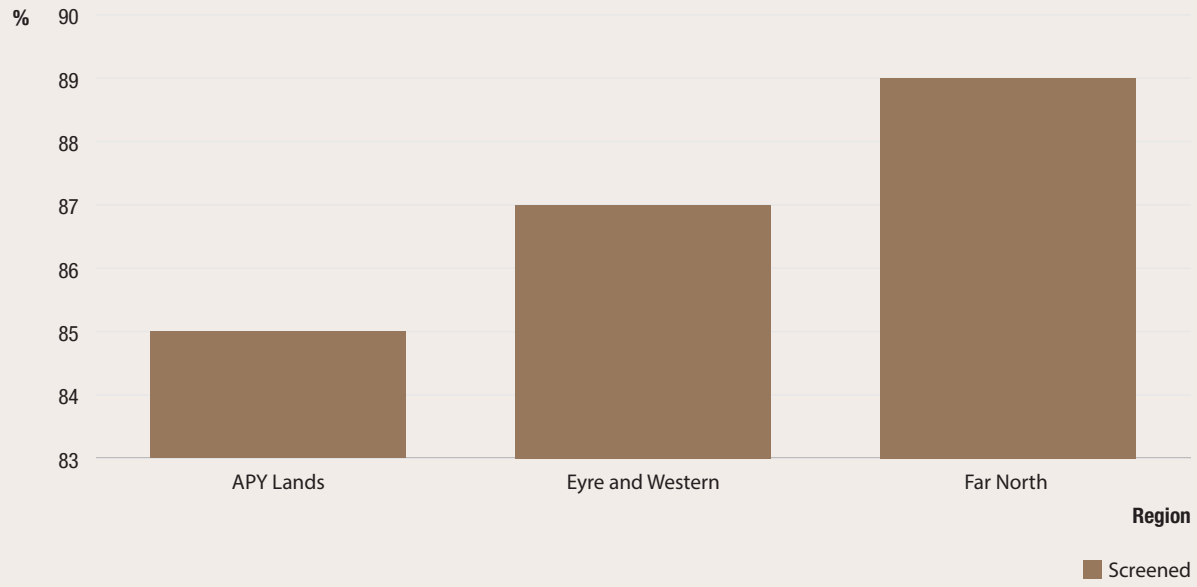
APY: Anangu Pitjantjatjara Yankunytjatjara

Figure 3.3 Number of at-risk communities, by region, according to trachoma control strategy implemented, South Australia, 2014



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, 2014



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 – 2014

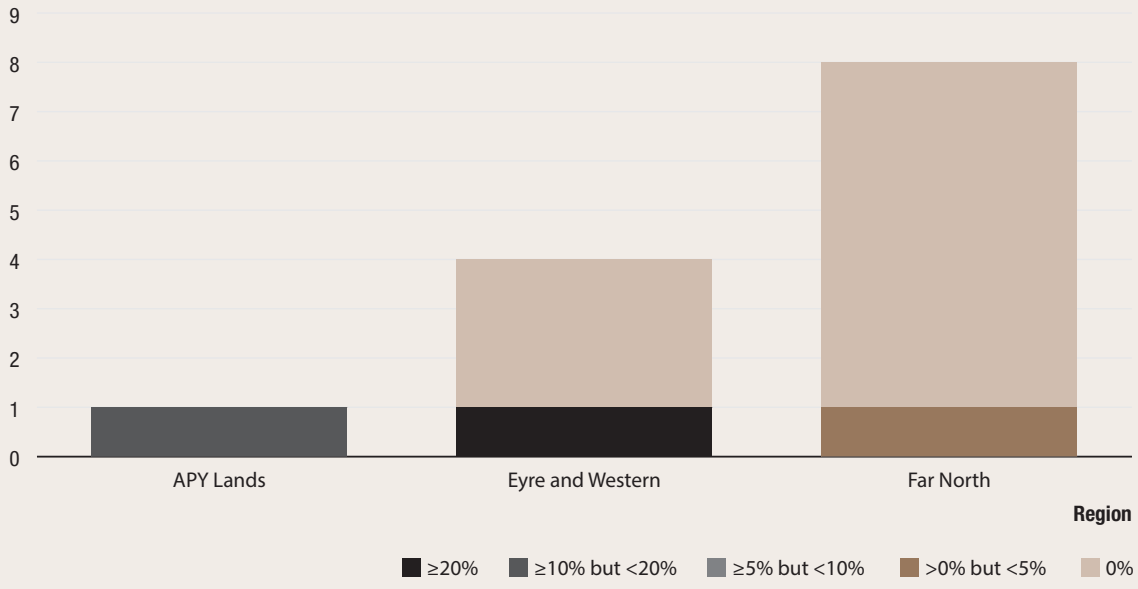
* In at-risk communities

APY: Anangu Pitjantjatjara Yankunytjatjara

Figure 3.6 Trachoma prevalence among children aged 5-9 years in at-risk communities that were screened, by region, South Australia, 2007 – 2014

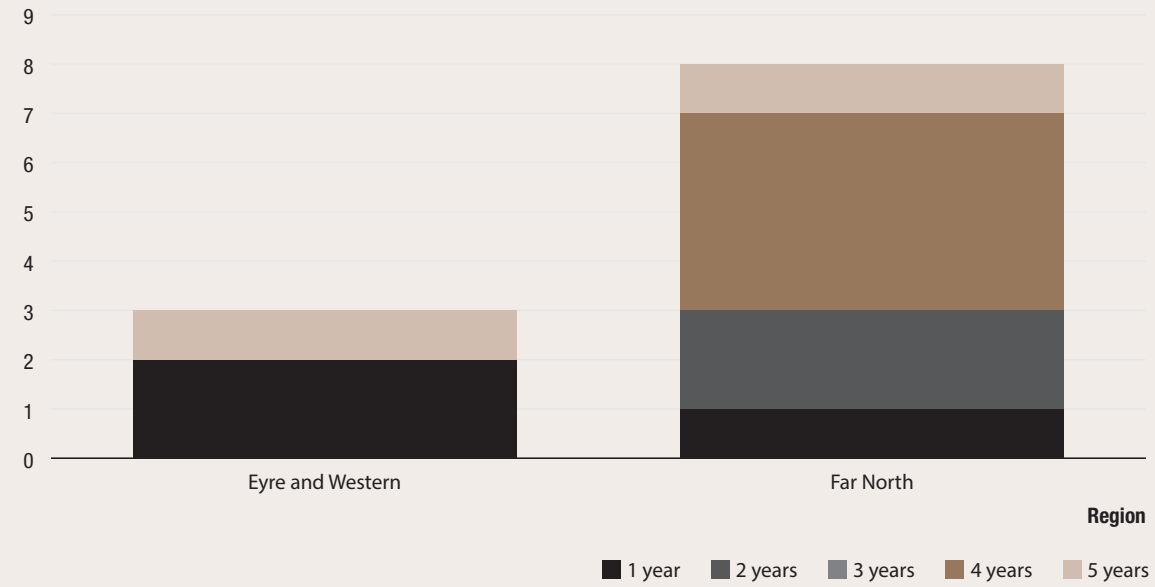
APY: Anangu Pitjantjatjara Yankunytjatjara

Figure 3.7 Number of at-risk communities according to level of trachoma prevalence in children aged 5-9, by region, South Australia, 2014



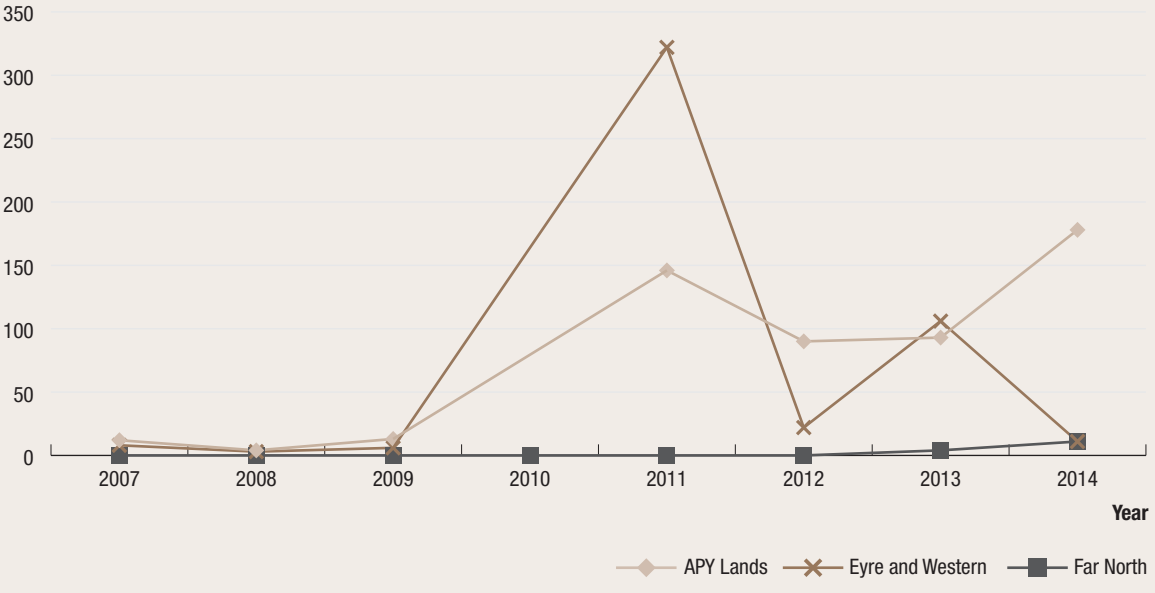
APY: Anangu Pitjantjatjara Yankunytjatjara

Figure 3.8 At-risk communities according to number of years* of trachoma prevalence under 5%, by region, South Australia, 2014



* Five years with a prevalence below 5% classifies a community as not at-risk of trachoma

Figure 3.9 Number of doses of azithromycin administered for the treatment of trachoma, by region, South Australia, 2007 – 2014



APY: Anangu Pitjantjatjara Yankunytjatjara

Table 3.1 Trachoma control delivery, South Australia, 2014

	At-risk				Not at-risk
Number of communities	APY Lands	Eyre and Western	Far North	Total	Yorke and Mid North
At-risk* (A)	1†	4	8	13	0
Requiring screening for trachoma (B)	1	4	8	13	0
Screened for trachoma (C)	1	4	8	13	1
Requiring treatment only (D)	0	0	0	0	0
Treated† (E)	0	0	0	0	0
Screened and/or treated for trachoma (F = C+E)	1	4	8	13	1
Requiring neither screening or treatment for trachoma (G=A-B-D)	0	0	0	0	0

* In 2014 APY Lands aggregated 9 communities into one community for presentation of data

† Communities treated without screening in 2014 as per guideline instructions

APY: Anangu Pitjantjatjara Yankunytjatjara

Table 3.2 Trachoma screening coverage, trachoma prevalence and clean face prevalence in children, by age group, by region, South Australia, 2014

	At-risk																Not at-risk			
	APY Lands				Eyre and Western				Far North				Total				Yorke and Mid North			
Number of communities screened	1*				4				8				13				1			
Age group (years)	***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	0	219	0	219	5	135	57	197	50	327	210	587	55	681	267	1,003	0	58	60	118
Children with clean face		132		132	3	121	51	175	49	316	207	572	52	569	258	879		58	60	118
Clean face prevalence (%)		60			60	90	89	89	98	97	99	97	95	84	97	88		100	100	100
Estimated number† of Aboriginal children in communities‡		258		258	114	156	146	416	88	369	283	740	202	783	429	1,414		85	75	160
Children examined for trachoma	0	219	0	219	5	135	57	197	50	327	210	587	55	681	267	1,003	0	58	60	118
Trachoma screening coverage (%)		85		85	4	87	39	47	57	89	74	79	27	87	62	71		68	80	74
Children with active trachoma		21		21	0	2	0	2	1	4	1	6	1	27	1	29		0	0	0
Observed trachoma prevalence (%)		9.6		9.6	0.0	1.5	0.0	1.0	2.0	1.2	0.5	1.0	1.8	4.0	0.4	2.9		0.0	0.0	0.0

* In 2014 APY Lands aggregated 9 communities into one community for presentation of data

† ABS estimate

‡ In communities that were screened for trachoma

APY: Anangu Pitjantjatjara Yankunytjatjara

Table 3.3 Treatment strategies, by region, South Australia, 2014

Number of communities	APY Lands	Eyre and Western	Far North	Yorke and Mid North	Total *
Required treatment for trachoma	1*	1	1	0	3
Treated for trachoma	1	1	1	0	3
Screened and treated	1	1	1	0	3
Received treatment only	0	0	0	0	0
Received 6-monthly treatment	0	0	0	0	0
Did not require treatment	0	3	7	0	10
Treated active cases and households	1	1	1	0	3
Treated the whole of community	0	0	0	0	0
Not treated according to CDNA guidelines	0	0	0	0	0

* In 2014 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 3.4 Trachoma treatment coverage, by region, South Australia, 2014

	APY Lands					Eyre and Western					Far North					Total				
Age group (years)	*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*
Active cases requiring treatment	0	21	0		21	0	2	0		2	1	4	1		6	1	27	1		29
Active cases who received treatment	0	21	0		21	0	2	0		2	1	4	1		6	1	27	1		29
Active cases who received treatment (%)		100			100		100			100	100	100	100		100	100	100	100		100
Estimated contacts requiring treatment	15	12	25	109	161	1	3	1	4	9	0	0	0	5	5	16	15	26	118	175
Number of contacts who received treatment	15	12	25	105	157	1	3	1	4	9	0	0	0	5	5	16	15	26	114	171
Estimated contacts who received treatment (%)	100	100	100	96	98	100	100	100	100	100				100	100	100	100	100	97	98
Number of doses of azithromycin delivered	15	33	25	105	178	1	5	1	4	11	1	4	1	5	11	17	42	27	114	200
Estimated overall treatment coverage (%)	100	100	100	96	98	100	100	100	100	100	100	100	100	100	100	100	100	100	97	98

APY: Anangu Pitjantjatjara Yankunytjatjara

Table 3.5 Trichiasis screening coverage, prevalence and treatment among Aboriginal adults, by region, South Australia, 2014

	APY Lands		Eyre and Western		Far North		Total		
Number of communities screened for trichiasis	**1***		**4**		**8**		**13**		
Age group (years)	*15-39*	*40+*	*15-39*	*40+*	*15-39*	*40+*	*15-39*	*40+*	*15+*
Estimated population†	1,656	506	1,256	454	2,172	867	5,084	1,827	6,911
Adults examined‡	520	433	132	245	65	414	717	1,092	1,809
With trichiasis (% of adults examined)	1 (0.2)	11 (2.5)	0	0	0	0	1 (0.1)	11 (1)	12 (0.7)
Offered ophthalmic consultation	1	11	0	0	0	0	1	11	12
Declined ophthalmic consultation	0	0	0	0	0	0	0	0	0
Surgery in past 12 months	1	3	0	0	0	0	1	3	4

* In 2014 APY Lands aggregated 9 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 does not account for adults who may be examined in routine adult health checks, and may also include multiple screening

APY: Anangu Pitjantjatjara Yankunytjatjara

Table 3.6 Health promotion activities, by region, South Australia, 2014

	APY Lands	Eyre and Western	Far North	Yorke and Mid North	Total
Number of communities at-risk	**1**	**4**	**8**	**0**	**13**
Number of communities that reported health promotion activities	**1**	**4**	**8**	**1**	**14**
Number of programs reported	**2**	**10**	**13**	**5**	**30**
Methods of health promotion					
One-on-one discussion	1	2	13	4	20
Presentation to group	1	6	2	5	14
Interactive group session	0	8	0	0	8
Social marketing	0	6	4	0	10
Print material/mass media	0	8	13	5	26
Sporting/community events	0	5	2	0	7
Other	0	0	2	0	2
Target audience					
Health professionals/staff	1	4	2	0	7
Children	1	10	13	5	29
Youth	0	10	6	0	16
Teachers/childcare/preschool staff	0	10	13	0	23
Care givers/parents	1	7	13	5	26
Community members	0	7	7	0	14
Community educators/health promoters	0	8	4	0	12
Interagency members	1	7	3	1	12
Frequency of health promotion activities					
Once	0	0	0	0	0
Occasional*	1	3	11	5	20
Regular†	1	2	1	0	4
Ongoing/routine	0	5	1	0	6

*2 - 4 times per year

† 5 - 12 times per year

APY: Anangu Pitjantjatjara Yankunytjatjara

Western Australia results 2014

Trachoma program coverage

- In 2014 WA identified 59 communities in four regions as being at-risk of trachoma (Table 4.1).
- Of the 59 at-risk communities, 58 communities required screening for trachoma and one community was identified as requiring treatment without screening (see methodology).
- Of the 59 at-risk communities, all received screening and treatment or both for trachoma according to the guidelines.
- In 2014 WA aggregated 10 communities in the Goldfields region into one community due to small population size of communities and high mobility between communities.

Screening coverage

- Population screening coverage of children aged 5-9 years in the 58 at-risk communities screened was 91%, ranging from 85% in the Midwest 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 the community that required treatment only.
- The overall proportion of clean faces among children aged 5-9 years was 79%, ranging from 59% in the Goldfields region to 91% in the Midwest and Pilbara regions (Table 4.2, Figure 4.5).

Trachoma prevalence

- The observed prevalence of trachoma in children aged 5-9 years screened was 2%. Prevalence ranged from 0% in the Pilbara region to 11.5% in the Midwest region (Table 4.2, Figure 4.6a, Figure 4.6b).
- No trachoma was reported in 45 communities (Figure 4.7).
- Endemic levels of trachoma were reported in eight communities, including communities that screened for trachoma in children aged 5-9 years and that did not screen in accordance with guidelines (Figure 4.7).
- Non-endemic levels of trachoma have been reported for nine communities over a period of five years which may reclassify these communities as being not at-risk for trachoma (Figure 4.8).

Treatment delivery and coverage

- Trachoma treatment strategies were applied in 20 communities (Table 4.3).
- Treatment was delivered to active cases and households in 17 communities, and to the whole of community in three communities as per guidelines (Table 4.3).
- The overall treatment coverage in all regions was 98% with 1,798 doses of azithromycin delivered (Table 4.4, Figure 4.9).

Trichiasis

- Overall 2,836 adults aged over 15 years were reported to be screened, with 11 cases of trichiasis reported (Table 4.5).
- A large volume of trichiasis screening in WA is undertaken within the Medicare Health Assessment for Aboriginal and Torres Strait Islander People (MBS Item 715). These data are not made available to the NTSRU.

Health promotion

- Health promotion activities were reported to have occurred in 59 at-risk communities across all regions.
- A total of 179 health promotion activities were reported (Table 4.6).
- The majority of the health promotion activities were delivered to children, teachers, childcare or preschool staff members (Table 4.6).

Figure 4.1 **Trachoma prevalence in children aged 5-9 years, number of communities that were screened, treated or both for trachoma and number of at-risk communities, Western Australia, 2014**

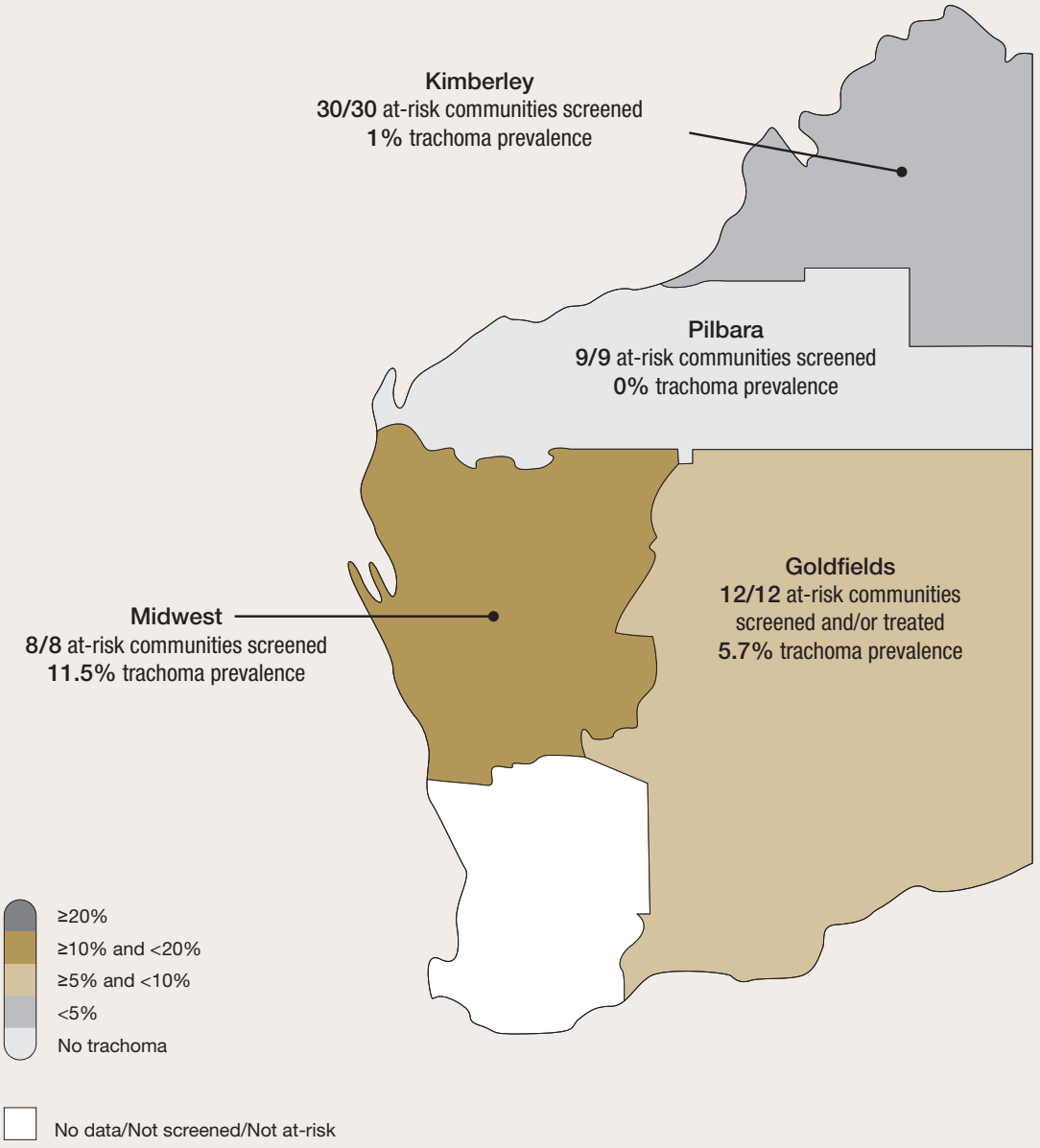


Figure 4.2 Number of at-risk communities, by region, Western Australia, 2007 – 2014

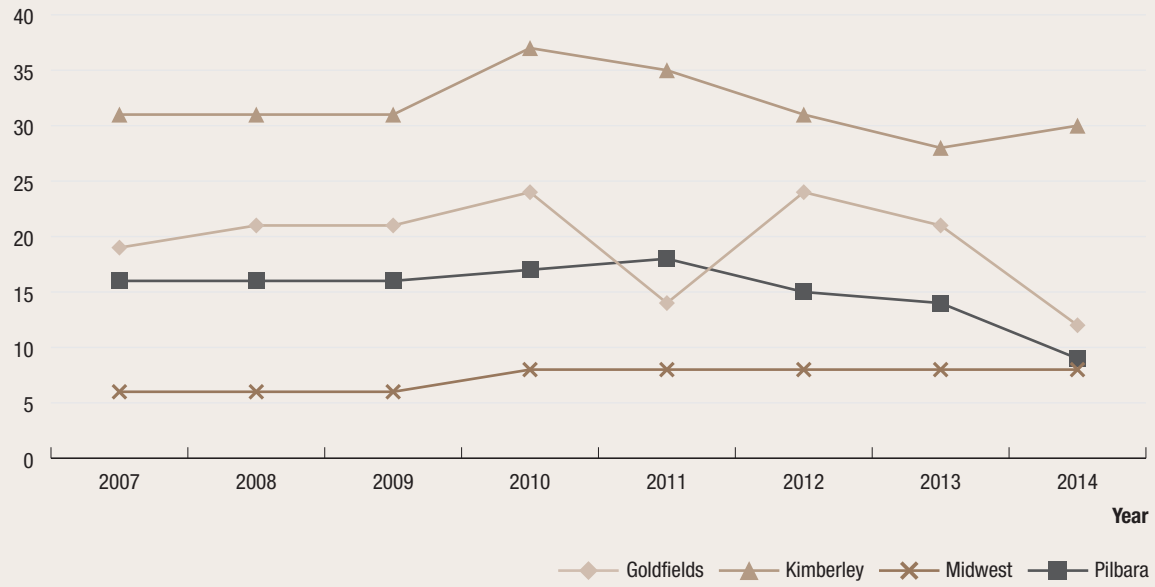


Figure 4.3 Number of at-risk communities, by region, according to trachoma control strategy implemented, Western Australia, 2014

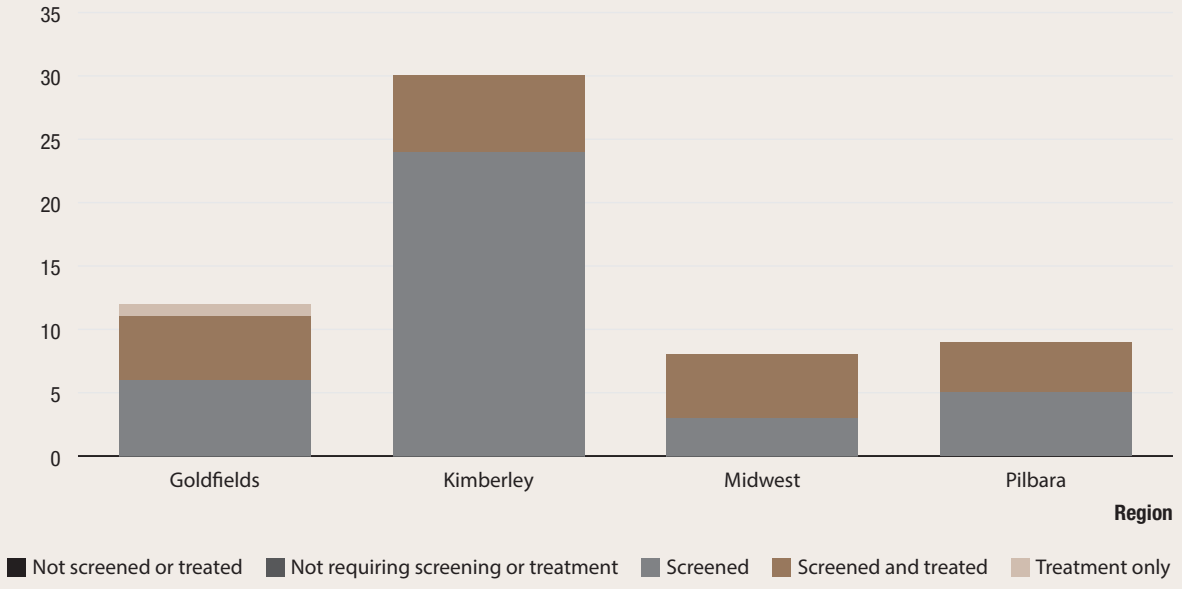


Figure 4.4 Population screening coverage in children aged 5-9 years in communities that required screening for trachoma, by region, Western Australia, 2014

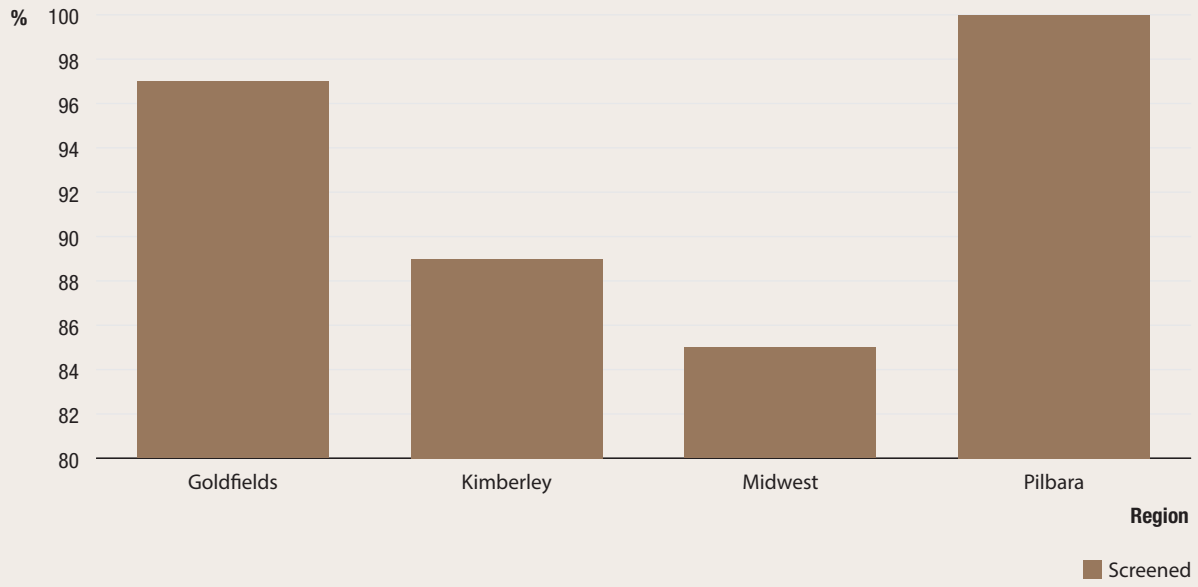


Figure 4.5 Prevalence of screened children aged 5-9 years who had a clean face, by region, Western Australia, 2007 – 2014

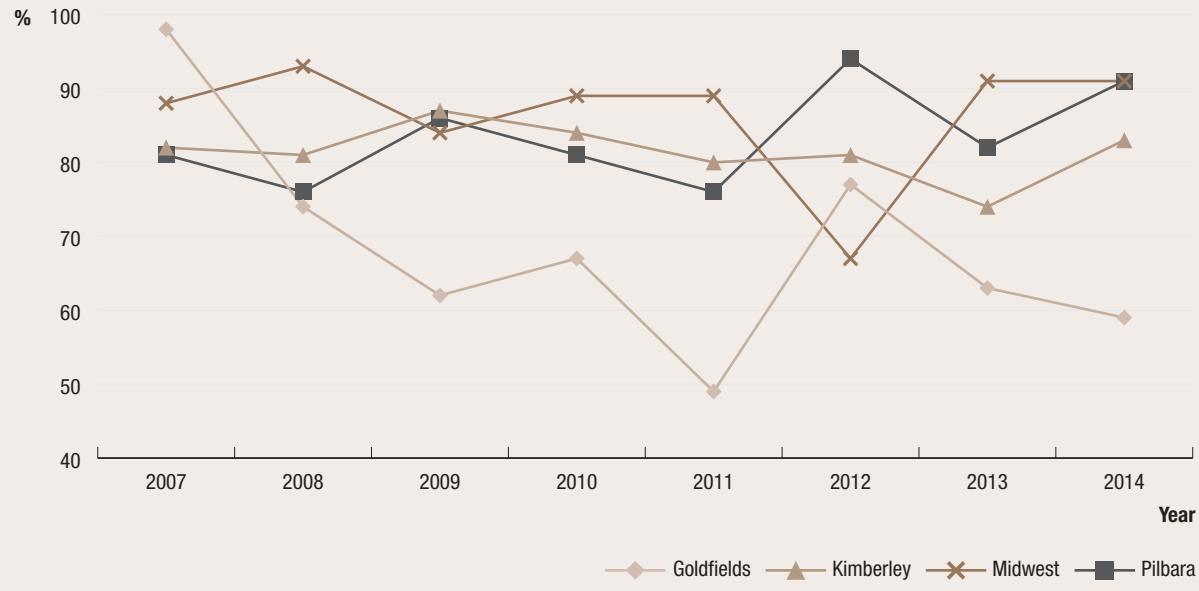


Figure 4.6 a. **Trachoma prevalence among children aged 5-9 years in communities that were screened, by region, Western Australia, 2007 – 2014**

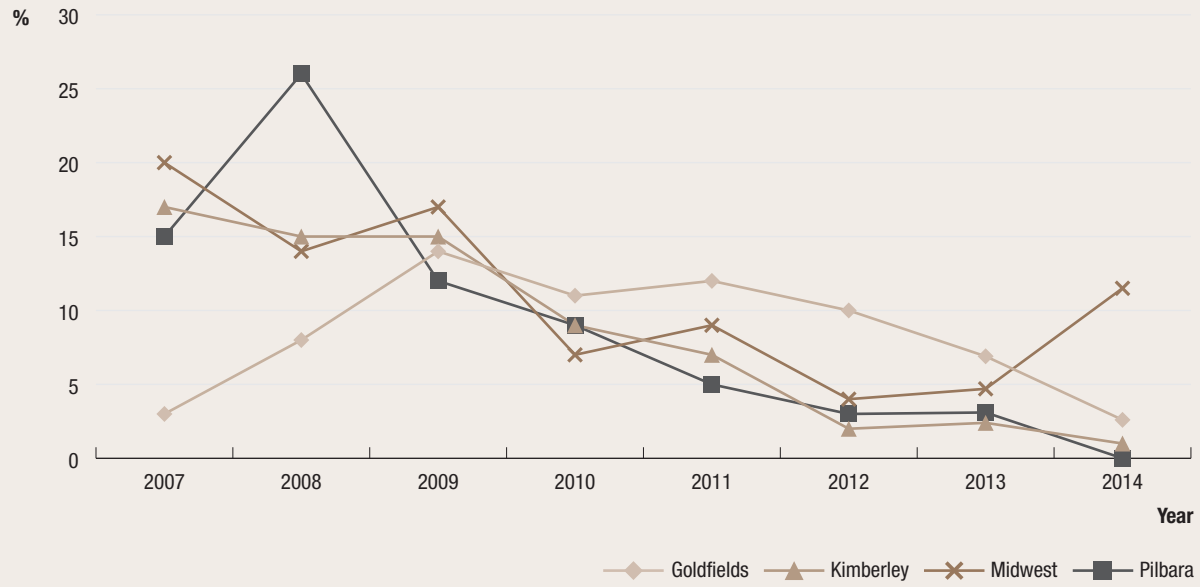
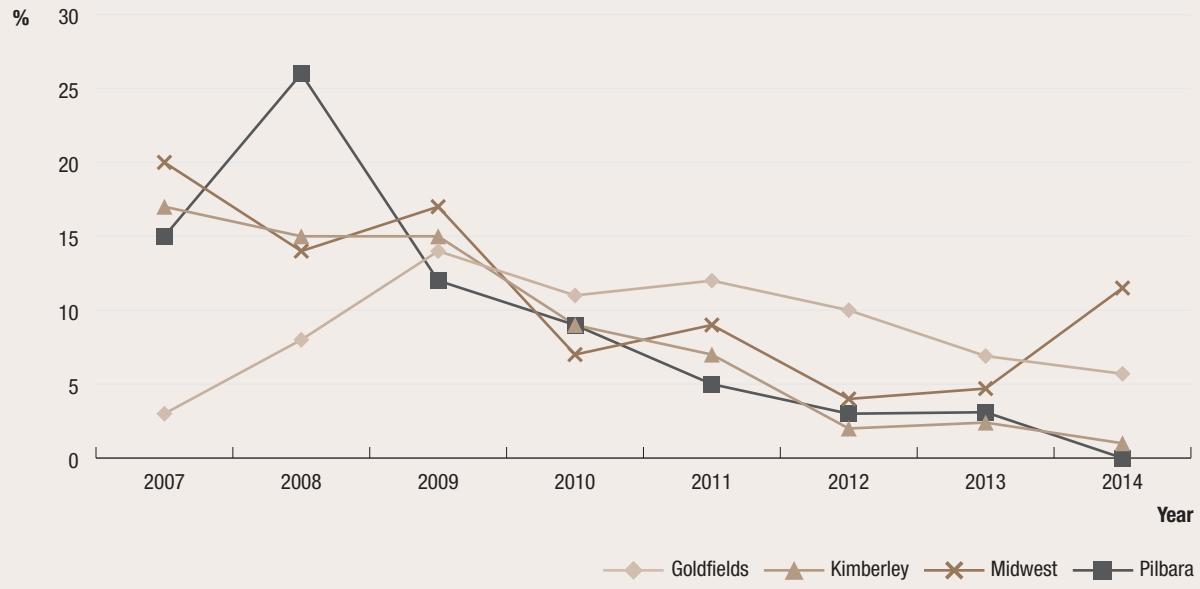
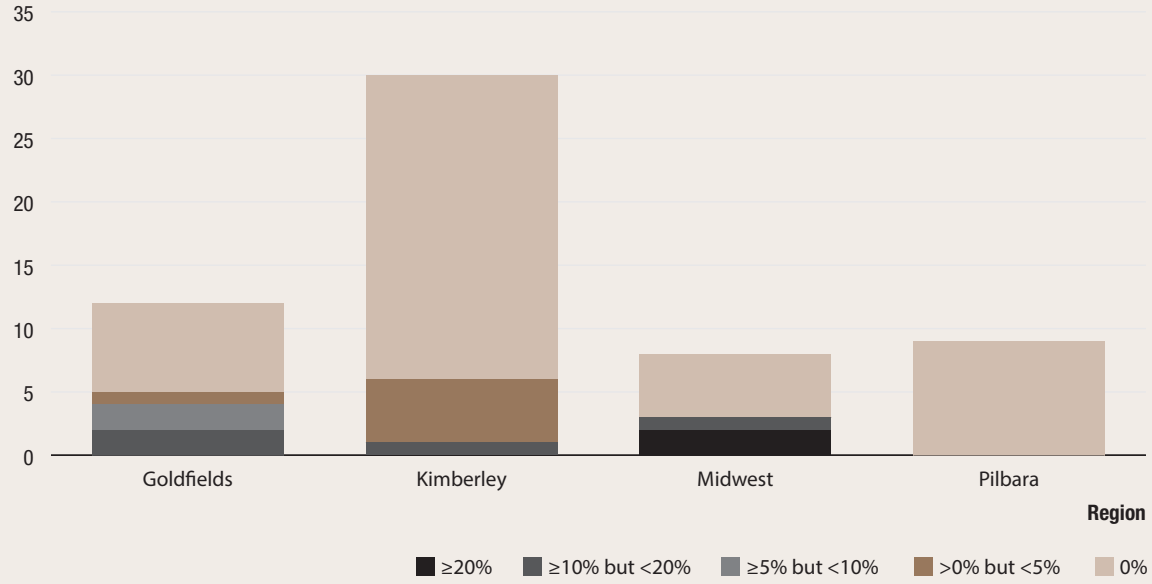


Figure 4.6 b. **Trachoma prevalence among children aged 5-9 years, by region, Western Australia with projected values,* 2007 – 2014**



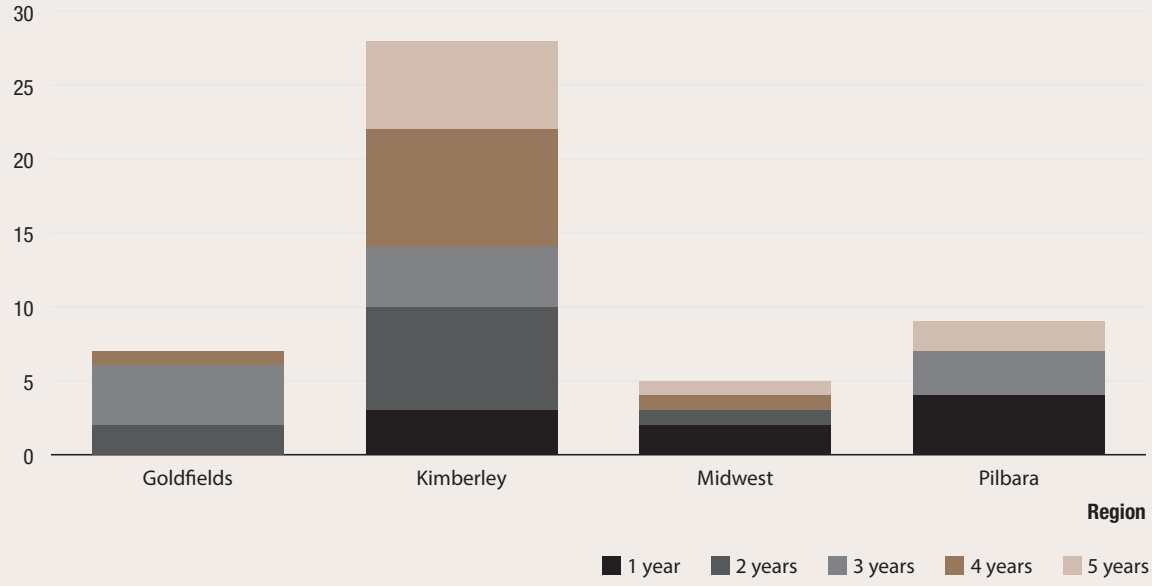
* Including communities that screened in 2014 and those that were not required to screen in 2014, in accordance with 2014 guideline instructions (see methodology)

Figure 4.7 Number of at-risk communities* according to level of trachoma prevalence in children aged 5-9, by region, Western Australia, 2014



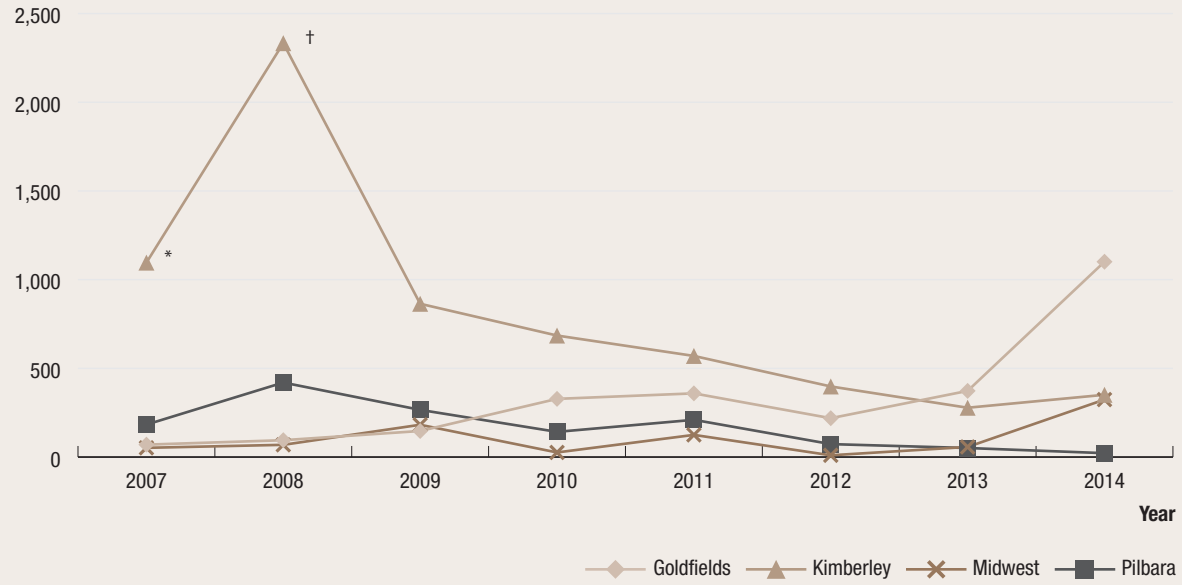
* Including communities that screened in 2014 and those that were not required to screen in 2014, in accordance with 2014 guideline instructions (see methodology)

Figure 4.8 Communities according to number of years* of trachoma prevalence under 5%, by region, Western Australia, 2014



* Five years with a prevalence below 5% may classify a community as being not at-risk of trachoma

Figure 4.9 Number of doses of azithromycin administered for the treatment of trachoma, by region, Western Australia, 2007 – 2014



* 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, Western Australia, 2014

Number of communities	Goldfields*	Kimberley	Midwest	Pilbara	Total
At-risk* (A)	12	30	8	9	59
Requiring screening for trachoma (B)	11	30	8	9	58
Screened for trachoma (C)	11	30	8	9	58
Requiring treatment only (D)	1	0	0	0	1
Treated † (E)	1	0	0	0	1
Screened and/or treated for trachoma (F = C+E)	12	30	8	9	59
Requiring neither screening or treatment for trachoma (G=A-B-D)	0	0	0	0	0

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

† Communities treated without screening in 2014 as per guideline instructions

Table 4.2 Trachoma screening coverage, trachoma prevalence and clean face prevalence in children, by age group, by region, Western Australia, 2014

	Goldfields				Kimberley				Midwest				Pilbara				Total			
Number of communities screened	11				30				8				9				58			
Age group (years)	***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	174	344	277	795	61	1,073	287	1,421	28	131	106	265	39	137	94	270	302	1,685	764	2,751
Children with clean face	58	203	212	473	42	886	273	1,201	26	119	105	250	26	125	80	231	152	1,333	670	2,155
Clean face prevalence (%)	33	59	77	59	69	83	95	85	93	91	99	94	67	91	85	86	50	79	88	78
Estimated number* of Aboriginal children in communities†	80	238	201	519	96	1,195	461	1,752	41	154	145	340	39	137	94	270	256	1,724	901	2,881
Children examined for trachoma	78	231	187	496	60	1,066	288	1,414	28	131	106	265	39	137	94	270	205	1,565	675	2,445
Trachoma screening coverage (%)	98	97	93	96	63	89	62	81	68	85	73	78	100	100	100	100	80	91	75	85
Children with active trachoma	1	6	4	11	1	11	2	14	7	15	4	26	0	0	2	2	9	32	12	53
Observed trachoma prevalence (%)	1.3	2.6	2.1	2.2	1.7	1.0	0.7	1.0	25.0	11.5	3.8	9.8	0.0	0.0	2.1	0.7	4.4	2.0	1.8	2.2
Observed trachoma prevalence using projected data		5.7				1.0				11.5				0.0				2.9		

* Jurisdictional estimate

† In communities that were screened for trachoma

Table 4.3 Treatment strategies, by region, Western Australia, 2014

Number of communities	Goldfields	Kimberley	Midwest	Pilbara	Total
Required treatment for trachoma	6	6	4	4	20
Treated for trachoma	6	6	4	4	20
Screened and treated	5	6	4	4	19
Received treatment only	1	0	0	0	1
Received 6-monthly treatment	0	0	0	0	0
Did not require treatment	6	24	4	5	39
Treated active cases and households	5	5	3	4	17
Treated the whole of community	1	1	1	0	3
Not treated according to CDNA guidelines	0	0	0	0	0

Table 4.4 Trachoma treatment coverage, by region, Western Australia, 2014

	Goldfields					Kimberley					Midwest					Pilbara					Total				
Age group (years)	*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*
Active cases requiring treatment	1	6	4		11	1	11	2		14	7	15	4		26	0	0	2		2	9	32	12		53
Active cases who received treatment	1	6	3		10	1	11	2		14	3	14	3		20	0	0	2		2	5	31	10		46
Active cases who received treatment (%)	100	100	75		91	100	100	100		100	43	93	75		77			100		100	56	97	83		87
Estimated contacts requiring treatment	109	126	105	777	1,117	47	49	45	196	337	36	43	51	174	304	1	2	6	13	22	193	220	207	1,160	1,780
Number of contacts who received treatment	107	124	100	760	1,091	47	49	45	196	337	36	43	51	174	304	1	2	5	12	20	191	218	201	1,142	1,752
Estimated contacts who received treatment (%)	98	98	95	98	98	100	100	100	100	100	100	100	100	100	100	100	100	83	92	91	99	99	97	98	98
Number of doses of azithromycin delivered	108	130	103	760	1,101	48	60	47	196	351	39	57	54	174	324	1	2	7	12	22	196	249	211	1,142	1,798
Estimated overall treatment coverage (%)	98	98	94	98	98	100	100	100	100	100	91	98	98	100	98	100	100	88	92	92	97	99	96	98	98

Table 4.5 Trichiasis screening coverage, prevalence and treatment among Aboriginal adults, by region, Western Australia, 2014

	Goldfields		Kimberley		Midwest		Pilbara		Total		
Number of communities screened for trichiasis	11		No data		No data		No data				
Age groups	*15-39*	*40+*	*15-39*	*40+*	*15-39*	*40+*	*15-39*	*40+*	*15-39*	*40+*	*15+*
Estimated population in region*	2,248	818	5,591	1,699	356	274	2,517	747	10,712	3,538	14,250
Adults examined†	569	412	No data	1,159	487	101	No data	108	1,056	1,780	2,836
With trichiasis (% of adults examined)	0	1 (0.2)	No data	9 (0.7)	0	0	No data	1 (0.9)	0	11 (0.6)	11(0.4)
Offered ophthalmic consultation	0	1	No data	9	0	0	No data	1	0	11	11
Declined ophthalmic consultation	0	1	No data	1	0	0	No data	1	0	3	3
Surgery in past 12 months	0	0	No data	1	0	0	No data	0	0	1	1

* 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 does not account for adults who may be examined in routine adult health checks, and may also include multiple screening

Table 4.6 Health promotion activities, by region, Western Australia, 2014

	Goldfields	Kimberley	Midwest	Pilbara	Total
Number of communities at-risk	**12**	**30**	**8**	**9**	**59**
Number of communities that reported health promotion activities	**12**	**30**	**8**	**9**	**59**
Number of programs reported	**63**	**92**	**8**	**16**	**179**
Methods of health promotion					
One-on-one discussion	20	15	0	5	40
Presentation to group	4	76	0	4	84
Interactive group session	15	40	0	4	59
Social marketing	0	1	0	0	1
Print material/mass media	22	82	0	9	113
Sporting/community events	10	9	0	4	23
Other	22	0	0	0	22
Target audience					
Health professionals/staff	12	4	4	9	29
Children	53	80	8	9	150
Youth	38	1	0	2	41
Teachers/childcare/preschool staff	53	73	8	9	143
Caregivers/parents	50	2	0	9	61
Community members	3	71	0	9	83
Community educators/health promoters	0	1	0	9	10
Interagency members	0	2	0	9	11
Frequency of health promotion activities					
Once	0	7	0	0	7
Occasional *	61	74	8	5	148
Regular†	0	1	0	3	4
Ongoing/routine	2	10	0	8	20

* 2 -4 times per year

† 5-12 times per year

Health promotion summary

The promotion of facial cleanliness is an important strategy for health promotion activity across the WA endemic regions. School education sessions were 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. Health promotion resources such as stickers, water bottles, wrist bands and pamphlets were developed in collaboration between Aboriginal Medical Services, Environmental Health Officers and WA Country Health Service (WACHS) to promote the trachoma prevention message. In addition to health promotion materials, a range of interactive education sessions were used including:

- soap making
- face washing demonstrations
- creating personalised pillow cases and fridge magnets
- a puppet show illustrating transmission vectors

The school sessions incorporated community education in a number of communities to further reinforce the prevention messages, where parents and carers were provided with information about trachoma prevention. Health-care workers including Aboriginal Health Workers and Community Health Nurses were also supported to deliver regular hand and face washing promotions throughout the year.

Local media and Aboriginal media outlets have successfully been used to deliver culturally appropriate messages targeting communities across the Kimberley. Key messages were provided to local radio stations to produce prevention messages, and regular community announcements were played on local radio stations to complement related health and environmental health promotion messages and raise awareness in the community in the lead up to screening.

New South Wales results 2014

Trachoma program coverage

- NSW undertook a mapping exercise in the Far Western NSW and Western NSW regions and follow-up screening in the Western NSW region.
- Ten communities were identified by expert advice and local knowledge as being potentially at-risk of trachoma and therefore screened (Table 5.1).

Screening coverage

- Population screening coverage for trachoma in children aged 5-9 years was 63% (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 in the screened communities was 100% (Table 5.1).

Trachoma prevalence

- The prevalence of trachoma in children aged 5-9 years screened was 0% (Table 5.1)

Treatment delivery and coverage

- No treatment was required in 2014.

Trichiasis

- Trichiasis screening was not required to be undertaken in 2014.

Health Promotion

- Health promotion activities were not provided in 2014 as part of the NSW trachoma mapping exercise.

Figure 5.1 **Trachoma prevalence in children aged 5-9 years, number of communities that were screened, treated or both for trachoma and number of potentially at-risk communities, New South Wales, 2014**

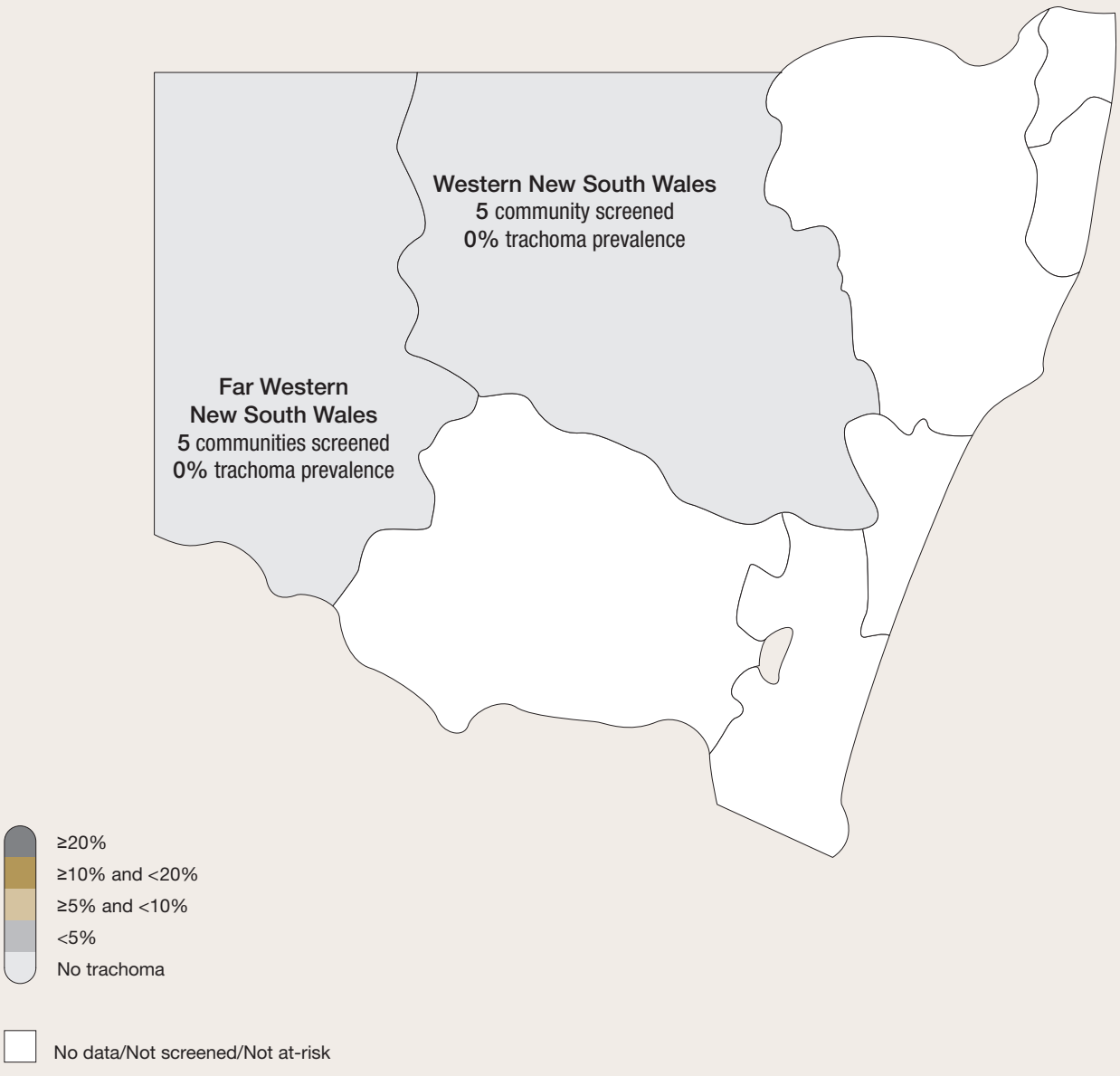


Table 5.1 Trachoma screening coverage, trachoma prevalence and clean face prevalence in children (5-14 years old), Western New South Wales, 2014

	Far Western NSW				Western NSW				Total			
Number of communities screened	**9**				**1**				**10**			
Age group (years)	***0-4***	***5-9***	***10-14***	***5-14***	***0-4***	***5-9***	***10-14***	***5-14***	***0-4***	***5-9***	***10-14***	***5-14***
Children examined for clean face		82	41	123		176	30	206		258	71	329
Children with clean face		82	41	123		175	30	205		257	71	328
Clean face prevalence (%)		100	100	100		99	100	100		100	100	100
Estimated number* of Aboriginal children in communities		127	93	220		269	65	334		396	158	554
Children examined for trachoma		76	40	116		173	30	203		249	70	319
Trachoma screening coverage (%)		60	43	53		64	46	61		63	44	58
Children with active trachoma		0	0	0		0	0	0		0	0	0
Observed trachoma prevalence (%)		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0

* Jurisdictional estimate

This page left blank intentionally

Discussion

Screening coverage

Screening coverage was measured as both the proportion of at-risk communities screened and the proportion of children aged 5-9 years screened in at-risk communities. A higher screening coverage provides confidence that those screened are representative of the community at-risk therefore providing a more accurate reflection of the prevalence of disease within the community. The revised *Guidelines for the public health management of trachoma in Australia*[1] guide communities to focus resources on treatment without annual screening where trachoma prevalence is already well established. Communities with non-endemic levels of trachoma are not required to screen annually, unless resources are available to do so. In response to the 2014 revised guidelines, the annual report has shifted focus from screening coverage to the extent of implementation of the guidelines with respect to screening, treatment and health promotion activities. For communities that undertake screening for trachoma, the guidelines recommend screening coverage of 85%. Screening for trachoma is predominantly undertaken through primary school-based initiatives where the focus is on children aged 5-9 years. Screening of older (10-14 years) and younger (0-4 years) children also takes place, but less consistently, and treatment strategies are informed by the prevalence in the 5-9-year age group. In 2014, population estimates provided by jurisdictions were used to calculate proportions.

In 2014, all communities in all regions that required screening for trachoma received screening. All regions except Alice Springs Remote and the two NSW regions achieved 85% or over in screening coverage, with a national coverage level of 89%.

The number of at-risk communities screened has decreased marginally in the NT, and decreased seemingly more substantially in SA and WA. However, taking into consideration both SA and WA aggregated nine and 10 previously distinct communities respectively into one single reporting community, the actual decrease in SA and WA is also marginal. Figure 1.8 illustrates that some communities in all jurisdictions have reached the threshold for being considered no longer at-risk for trachoma. Jurisdictions will assess other factors including known travel exchange of the population with areas that are hyperendemic to establish if these communities should be removed from the at-risk register. It is expected that this decreasing trend will continue in future years. The Trachoma Surveillance and Control Reference Group will formulate advice on the ongoing monitoring of communities that were previously at-risk. A number of NSW communities screened for the first time in 2014 did not have trachoma, and therefore will not be considered as being at-risk for future years.

Trachoma prevalence

Endemic trachoma is defined by the WHO as a prevalence of active trachoma of 5% or greater in children aged 1-9 years. In past years, the National Trachoma Surveillance and Reporting Unit (NTSRU) had been able to estimate the prevalence using population weights. Due to the limited screening coverage of the 1-4-year age group, it was considered that the results reported were not representative of that age group.

Across all four jurisdictions in 2014, the prevalence of trachoma in 5-9-year-old children was 4.7%, which includes data projected forward in communities that did not screen due to implementation of the revised guidelines (see methodology, data analysis). This percentage is a slight increase from the 2013 national prevalence of trachoma in children aged 5-9 years of 4%. The observed trachoma prevalence in communities that were screened in 2014 was 3.7%. At a regional level in 2014, the prevalence of trachoma in children aged 5-9 years ranged from 0% in Western and Far Western NSW to 24.3% in the Barkly region of the NT.

Trachoma prevalence in 2014 has slightly increased in SA and the NT and decreased in WA and NSW. At the regional level, large increases in prevalence were recorded in Alice Springs Remote, Barkly and Midwest regions. Of some concern is the increase in trachoma prevalence in several communities that had previous prevalence rates under 5%, and the consequent increase in the number of communities recording endemic levels of trachoma. In interpreting these changes it is important to keep in mind that many of the communities have small populations and are not monitored on an annual basis. Therefore, fluctuations in rates at the community level can occur for statistical reasons. Another factor may be the inevitable variation in diagnostic accuracy between individuals, as trachoma detection depends on a clinical judgment. The continued need for health promotion programs that focus on facial cleanliness and environmental improvements may also be a contributing factor. The Trachoma Surveillance and Control Reference Group (TSCRG) will continue to monitor changes in trachoma prevalence and consider the impact of possible variables. Nevertheless, the ongoing presence of trachoma in many communities is a timely reminder of the need for all jurisdictions to maintain their commitment to national control strategies in all aspects. Advice will be sought from the Trachoma Surveillance and Control Reference Group on whether treatment strategies decisions should take more account of regional groupings of communities, given the potential for re-infection to occur through movement between communities. The target set by WHO for the elimination of blinding trachoma is defined as a community prevalence of trachoma in children aged 1-9 years of less than 5% over a period of five years. In Australia, the Communicable Diseases Network Australia (CDNA) target is defined as a prevalence in children aged 5-9 years of less than 5% over a period of five years. Several communities designated as at-risk have reported a prevalence of

less than 5% over the past five years, or have a baseline prevalence of 0% and are therefore designated not at-risk. The NTSRU will be working closely with jurisdictions to appropriately designate at-risk status for communities for future program delivery.

Trachoma treatment

The 2014 CDNA guidelines recommend the treatment of active cases and their household contacts when trachoma prevalence is under 5% (not endemic levels). When prevalence is greater than 5% in children aged 5-9 years and cases are not clustered within a few households, community-wide treatment is recommended. This approach includes treatment to all people living in households with children younger than 15 years of age annually for a period of three years. The guidelines also recommend six-monthly treatments over a period of three years for all people living in households with children younger than 15 years of age in hyperendemic communities (prevalence in 5-9-year olds at least 20%).

Nationally, 92% of active cases that were identified in 2014 were treated for trachoma. Contact and community-treatment coverage using estimates provided by the jurisdictions was 90%. Total doses of azithromycin administered in 66 communities were 9,803.

Trichiasis

Previous annual trachoma reports have described trichiasis screening coverage. The previous at-risk population was estimated using the current year's trachoma at-risk community adult population, which does not account for changing endemic areas that have occurred over time, and transiency into non-endemic regions. It was therefore decided that estimating an at-risk population for trichiasis is not feasible as it cannot capture the actual potential risk for trichiasis.

The number of adults aged 40 years and older reported to be screened for trichiasis increased in 2014 with 5,151 reported in 2014, and 3,856 screened in 2013. Screening for trichiasis is believed to be greatly under-reported. Of the adults aged older than 40 years who were screened, 0.9% (47/5,151) prevalence levels of trichiasis were reported. In 2014, 17 cases of trichiasis surgery were reported, from NT (12), SA (4) and WA (1). These cases may have been identified from previous years' screening activities. The reporting of trichiasis data regarding referral and surgery undertaken is limited due to incomplete data collection and compilation.

Facial cleanliness

Promoting facial cleanliness is a component of the SAFE strategy, recognising that the presence of nasal and ocular discharge is significantly associated with the risk for acquiring, transmitting and potential presence of trachoma. The proportion of children aged 5-9 years screened who had clean faces increased in all jurisdictions except in SA.

Program delivery and monitoring

Improvements in program delivery have been reported in 2014, with increased coverage of screening and treatment delivery and health promotion activities in all jurisdictions. Data quality also improved in all jurisdictions. One issue that will need to be considered when Australia comes to assess trachoma elimination against international standards is the lack of information on children aged 1-4 years, who are considered in many populations to be at higher risk than children aged 5-9 years.

The revised CDNA guidelines have strengthened the trachoma control program planning in all jurisdictions by reducing ambiguity experienced in previous guidelines and providing clear guidance on screening and treatment methods. The impact of the new strategies, in particular treatment and screening schedules, may not be evident for several years.

Progress towards Australia's elimination target

The Australian Government's commitment to the WHO Alliance of the Global Elimination of Blinding Trachoma by the year 2020 (GET 2020) continues with funding provided to jurisdictions to deliver rigorous trachoma screening and treatment programs. Ongoing efforts are required to ensure high quality control in diagnosing active cases, and that all intervention systems are being applied appropriately. The small increases in trachoma prevalence in 2014 are a timely reminder that trachoma trends and elimination may be unpredictable, especially in small local populations, and that local outbreaks must be managed under close adherence to the guidelines.

The Trachoma Surveillance and Control Reference Group has a significant role in the near future in reviewing surveillance procedures under the 2014 guidelines, considering the next phase of monitoring communities that are no longer considered at-risk, and advising on strengthening elimination monitoring systems and future surveillance once blinding trachoma has been eliminated from Australia.

Reference list

1 Communicable Diseases Network Australia. National guidelines for the public health management of trachoma in Australia. January 2014. Canberra: Commonwealth of Australia; 2014. Available at: http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-trachoma.htm.

2 World Health Organization. Global WHO Alliance for the Elimination of Blinding Trachoma by 2020. Wkly Epidemiol Rec 2012;87(17):161-8.

3 Taylor HR. Trachoma: a blinding scourge from the Bronze Age to the Twenty First Century. Melbourne: Centre for Eye Research Australia; 2008.

4 Polack S, Brooker S, Kuper K, Mariotti S, Mabey D, Foster A. Mapping the global distribution of trachoma. Bull World Health Organization 2005;80(12):913-9.

5 World Health Organization. Trichiasis surgery for trachoma. Geneva: WHO; 2013. Available at: http://apps.who.int/iris/bitstream/10665/101430/1/9789241548670_eng.pdf.

6 World Health Organization. Future approaches to trachoma control – report of a global scientific meeting. 17-20 June 1996. Geneva: WHO; 1997.

7 Mariotti SP, Pararajasegaram R, Resnikoff S. Trachoma: looking forward to global elimination of trachoma by 2020 (GET 2020). Am J Trop Med Hyg 2003;69(5 Suppl):33-5.

8 World Health Organization. Report of the 2nd global scientific meeting on trachoma. 25-27 August 2003. Geneva: WHO; 2003.

9 World Health Organization. Trachoma control: a guide for programme managers. Geneva: WHO; 2008.

10 Taylor HR, Fox SS, Xie J, Dunn RA, Arnold AL, Keeffe JE. The prevalence of trachoma in Australia: the National Indigenous Eye Health Survey. Med J Aust 2010;192(5):248-53.

11 Australian Government. Budget 2013-14. Budget Paper No. 3 [Internet]. Canberra: Commonwealth of Australia; 2013. Available at: http://www.budget.gov.au/2013-14/content/bp3/html/bp3_03_part_2b.htm.

12 Cowling CS, Liu BC, Ward JS, Snelling TL, Kaldor JM, Wilson DP for the National Trachoma Surveillance and Reporting Unit. Australian Trachoma Surveillance Report 2011. Sydney: The Kirby Institute, UNSW Australia; 2012.

13 Cowling CS, Liu BC, Snelling TL, Ward JS, Kaldor JM, Wilson DP for the National Trachoma Surveillance and Reporting Unit. Australian Trachoma Surveillance Report 2012. Sydney: The Kirby Institute, UNSW Australia; 2013.

14 Cowling CS, Liu BC, Snelling TL, Ward JS, Kaldor JM, Wilson DP for the National Trachoma Surveillance and Reporting Unit. Australian Trachoma Surveillance Report 2013. Sydney: The Kirby Institute, UNSW Australia; 2014. Available at: http://www.health.gov.au/internet/publications/publishing.nsf/Content/2013-trachoma-toc.

15 Tellis B, Dunn R, Keeffe JE for the National Trachoma Surveillance and Reporting Unit: Trachoma Surveillance Report 2006. Commun Dis Intell 2007;31:366–74.

16 Tellis B, Dunn R, Keeffe JE, Taylor HR for the National Trachoma Surveillance and Reporting Unit. Trachoma Surveillance Annual Report, 2007. Commun Dis Intell 2008;32:388–99.

17 Tellis B, Fotis K, Dunn R, Keeffe JE, Taylor HR for the National Trachoma Surveillance and Reporting Unit. Trachoma Surveillance Report 2008. Melbourne: Centre for Eye Research Australia; 2009.

18 Adams K, Burgess J, Dharmage S for the National Trachoma Surveillance and Reporting Unit. National Trachoma Surveillance Report 2009. Melbourne: Centre for Molecular, Environmental, Genetic and Analytic Epidemiology, University of Melbourne; 2010.

This page left blank intentionally.

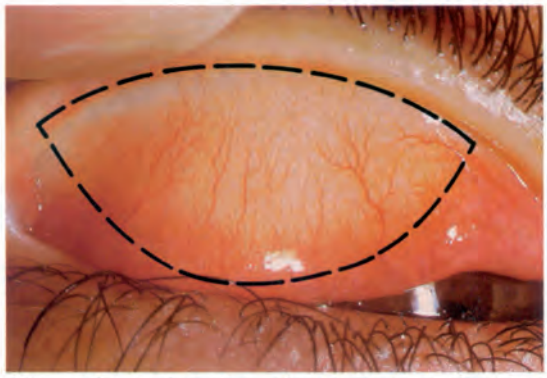
Appendix 1: World Health Organization trachoma grading card

TRACHOMA GRADING CARD

– Each eye must be examined and assessed separately.
– Use binocular loupes (x 2.5) and adequate lighting (either daylight or a torch).
– Signs must be clearly seen in order to be considered present.

The eyelids and cornea are observed first for inturned eyelashes and any corneal opacity. The upper eyelid is then turned over (everted) to examine the conjunctiva over the stiffer part of the upper lid (tarsal conjunctiva).

The normal conjunctiva is pink, smooth, thin and transparent. Over the whole area of the tarsal conjunctiva there are normally large deep-lying blood vessels that run vertically.



Normal tarsal conjunctiva (x 2 magnification). The dotted line shows the area to be examined.

***TRACHOMATOUS INFLAMMATION – FOLLICULAR (TF)**: the presence of five or more follicles in the upper tarsal conjunctiva.*

Follicles are round swellings that are paler than the surrounding conjunctiva, appearing white, grey or yellow. Follicles must be at least 0.5mm in diameter, i.e., at least as large as the dots shown below, to be considered.

Trachomatous inflammation – follicular (TF).

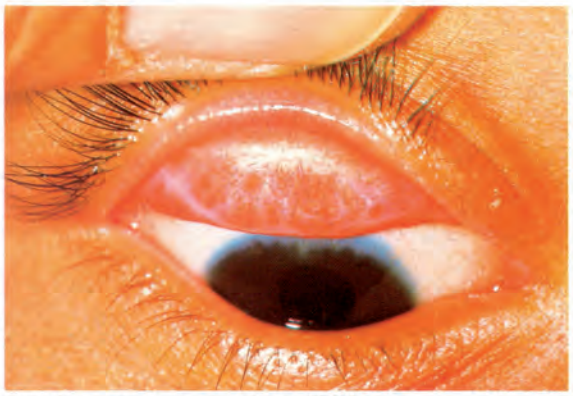
***TRACHOMATOUS INFLAMMATION – INTENSE (TI)**: pronounced inflammatory thickening of the tarsal conjunctiva that obscures more than half of the normal deep tarsal vessels.*

The tarsal conjunctiva appears red, rough and thickened. There are usually numerous follicles, which may be partially or totally covered by the thickened conjunctiva.

Trachomatous inflammation – follicular and intense (TF + TI).

***TRACHOMATOUS SCARRING (TS)**: the presence of scarring in the tarsal conjunctiva.*

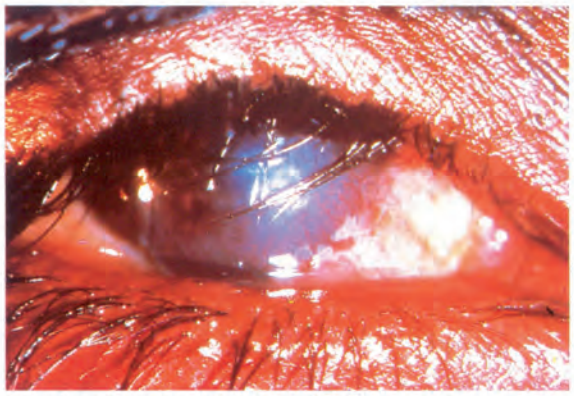
Scars are easily visible as white lines, bands, or sheets in the tarsal conjunctiva. They are glistening and fibrous in appearance. Scarring, especially diffuse fibrosis, may obscure the tarsal blood vessels.



Trachomatous scarring (TS)

***TRACHOMATOUS TRICHIASIS (TT)**: at least one eyelash rubs on the eyeball.*

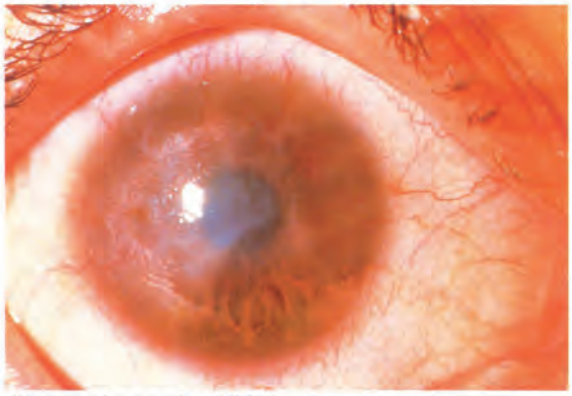
Evidence of recent removal of inturned eyelashes should also be graded as trichiasis.



Trachomatous trichiasis (TT)

***CORNEAL OPACITY (CO)**: easily visible corneal opacity over the pupil.*

The pupil margin is blurred viewed through the opacity. Such corneal opacities cause significant visual impairment (less than 6/18 or 0.3 vision), and therefore visual acuity should be measured if possible.



Corneal opacity (CO)

TREATMENT FOR TF AND TI IS SINGLE DOSE AZITHROMYCIN.

WORLD HEALTH ORGANIZATION
PREVENTION OF BLINDNESS AND DEAFNESS

Support from the partners of the WHO Alliance for the Global Elimination of Trachoma is acknowledged.

Appendix 2:
Trachoma surveillance summary forms

Summary form 1:
Screening for and treatment of active cases of trachoma

State/Territory		
Region		
Community		
School		
Dates of screening (Commenced -> Completed)		

	Age (in years)		
	0-4	**5-9**	**10-14**
Number of Aboriginal children in the community			
Number of children examined for Trachoma			
Number of children with TI			
Number of children with TF			
Number of children with TF / TI			
Number of children with TS			
Number of children screened for clean face			
Number of children with clean face			
Number of active cases requiring treatment with azithromycin			
Number of active cases who received treatment with azithromycin			
Number of active cases who received treatment with azithromycin within 1 week of commencement of treatment			
Trachoma Prevalence (%)			

TI: Trachomatous inflammation - intense
TF: Trachomatous inflammation - follicular
TS: Trachomatous scarring

Summary form 2:
Treatment of household contacts or community members

State/Territory	
Region	
Community	

Trachoma prevalence (%) informing treatment strategy					
Treatment strategy (select one)	☐ Community wide treatment ☐ Case and household contacts ☐ Case/s only (Not supported by National Guidelines)				
Treatment frequency (Community wide treatment only) select one:	☐ Six monthly ☐ Twelve monthly				
Treatment number (Community wide treatment only)					
Were cases obviously clustered within several households	☐ Yes ☐ No				
Date treatment started:					
Date treatment completed:					
Number of households requiring treatment					
Number of households that received treatment					
	Age (in years)				
	0 – 4	**5 – 9**	**10 – 14**	**15+**	**Total**
Number of household contacts or community members requiring treatment with azithromycin					
Number of household contacts or community members who received treatment with azithromycin					
Number of household contacts or community members who received treatment with azithromycin within one or two weeks of commencement of treatment distribution according to guideline recommendations					
Treatment coverage (%)					
Number of children screened for clean face (in communities that did not undertake trachoma screening in current year)					
Number of children with a clean face					
Comments					

Summary form 3:
Trichiasis

State/Territory	
Region	
Community	
Year of screening	

	Sex/Age (in years)							
	15-39		40-49		50+		Total	
	M	F	M	F	M	F	M	F
Number of Aboriginal people in age group								
Number of Aboriginal people examined for trichiasis								
Number of Aboriginal people with trichiasis								
Number of Aboriginal people with trichiasis who were referred to ophthalmologist within 6 months of screening								
Number of Aboriginal people with trichiasis who were seen by ophthalmologist within 6 months of screening								
Number of Aboriginal adults with trichiasis who declined ophthalmological consultation								
Number of Aboriginal adults who underwent trichiasis surgery in the last year								

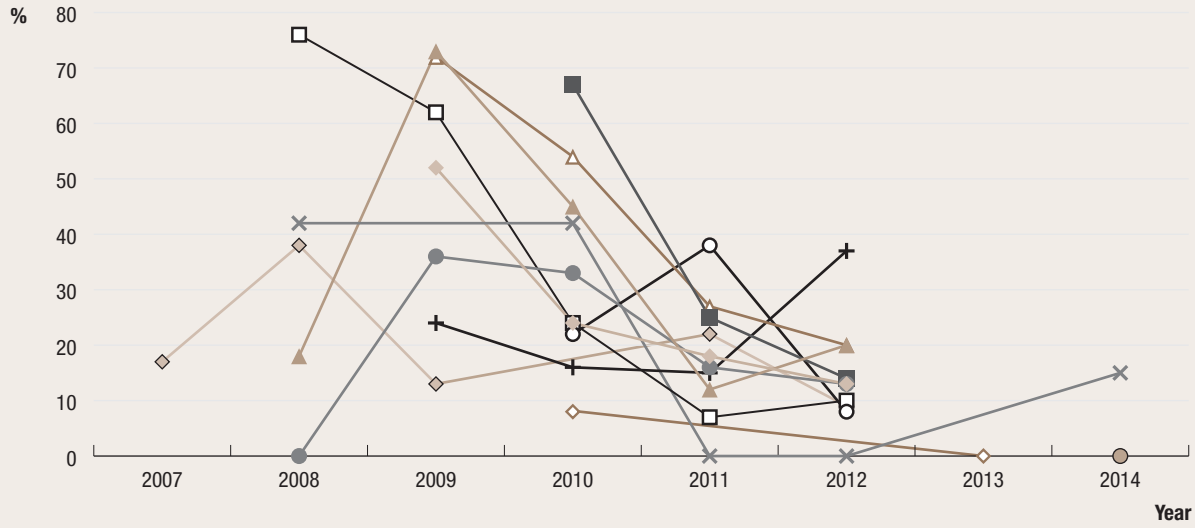
Summary form 4a: Health Promotion

State/Territory		**Community**	
Region		**School**	

Program Name						
Method	☐ One-on-one ☐ Presentation to group ☐ Interactive group session ☐ Social marketing/internet ☐ Print Material ☐ Mass media ☐ Sporting/ community events ☐ Other	☐ One-on-one ☐ Presentation to group ☐ Interactive group session ☐ Social marketing/internet ☐ Print Material ☐ Mass media ☐ Sporting/ community events ☐ Other	☐ One-on-one ☐ Presentation to group ☐ Interactive group session ☐ Social marketing/internet ☐ Print Material ☐ Mass media ☐ Sporting/ community events ☐ Other	☐ One-on-one ☐ Presentation to group ☐ Interactive group session ☐ Social marketing/internet ☐ Print Material ☐ Mass media ☐ Sporting/ community events ☐ Other	☐ One-on-one ☐ Presentation to group ☐ Interactive group session ☐ Social marketing/internet ☐ Print Material ☐ Mass media ☐ Sporting/ community events ☐ Other	☐ One-on-one ☐ Presentation to group ☐ Interactive group session ☐ Social marketing/internet ☐ Print Material ☐ Mass media ☐ Sporting/ community events ☐ Other
Target Audience	☐ Health professional staff ☐ Children/school students ☐ Youth ☐ Teachers/childcare or preschool staff ☐ Care givers - e.g. Mothers ☐ Community members ☐ Community educators or health promoters ☐ Interagency members	☐ Health professional staff ☐ Children/school students ☐ Youth ☐ Teachers/childcare or preschool staff ☐ Care givers - e.g. Mothers ☐ Community members ☐ Community educators or health promoters ☐ Interagency members	☐ Health professional staff ☐ Children/school students ☐ Youth ☐ Teachers/childcare or preschool staff ☐ Care givers - e.g. Mothers ☐ Community members ☐ Community educators or health promoters ☐ Interagency members	☐ Health professional staff ☐ Children/school students ☐ Youth ☐ Teachers/childcare or preschool staff ☐ Care givers - e.g. Mothers ☐ Community members ☐ Community educators or health promoters ☐ Interagency members	☐ Health professional staff ☐ Children/school students ☐ Youth ☐ Teachers/childcare or preschool staff ☐ Care givers - e.g. Mothers ☐ Community members ☐ Community educators or health promoters ☐ Interagency members	☐ Health professional staff ☐ Children/school students ☐ Youth ☐ Teachers/childcare or preschool staff ☐ Care givers - e.g. Mothers ☐ Community members ☐ Community educators or health promoters ☐ Interagency members
Estimated Coverage %						
Frequency	☐ Occasional (2-4 times/year) ☐ Regular (5-12 times/year) ☐ Ongoing/routine (daily/weekly) ☐ please specify duration	☐ Occasional (2-4 times/year) ☐ Regular (5-12 times/year) ☐ Ongoing/routine (daily/weekly) ☐ please specify duration	☐ Occasional (2-4 times/year) ☐ Regular (5-12 times/year) ☐ Ongoing/routine (daily/weekly) ☐ please specify duration	☐ Occasional (2-4 times/year) ☐ Regular (5-12 times/year) ☐ Ongoing/routine (daily/weekly) ☐ please specify duration	☐ Occasional (2-4 times/year) ☐ Regular (5-12 times/year) ☐ Ongoing/routine (daily/weekly) ☐ please specify duration	☐ Occasional (2-4 times/year) ☐ Regular (5-12 times/year) ☐ Ongoing/routine (daily/weekly) ☐ please specify duration
Comments						

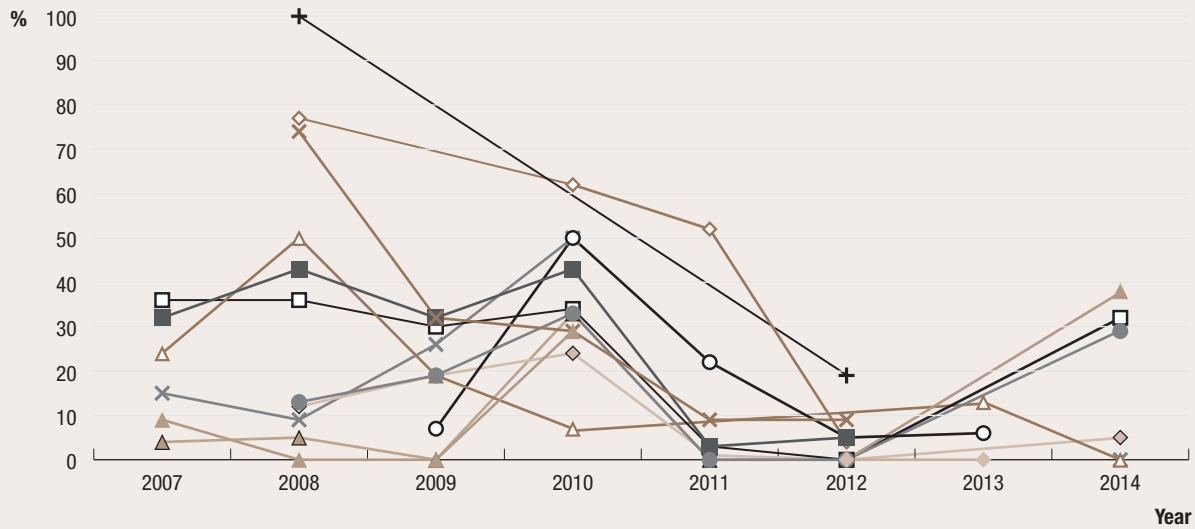
Appendix 3: De-identified community trachoma prevalence trends by regions, Australia, 2007 – 2014

Figure A.1 Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in North Alice Springs Remote region, Northern Territory, 2007 – 2014



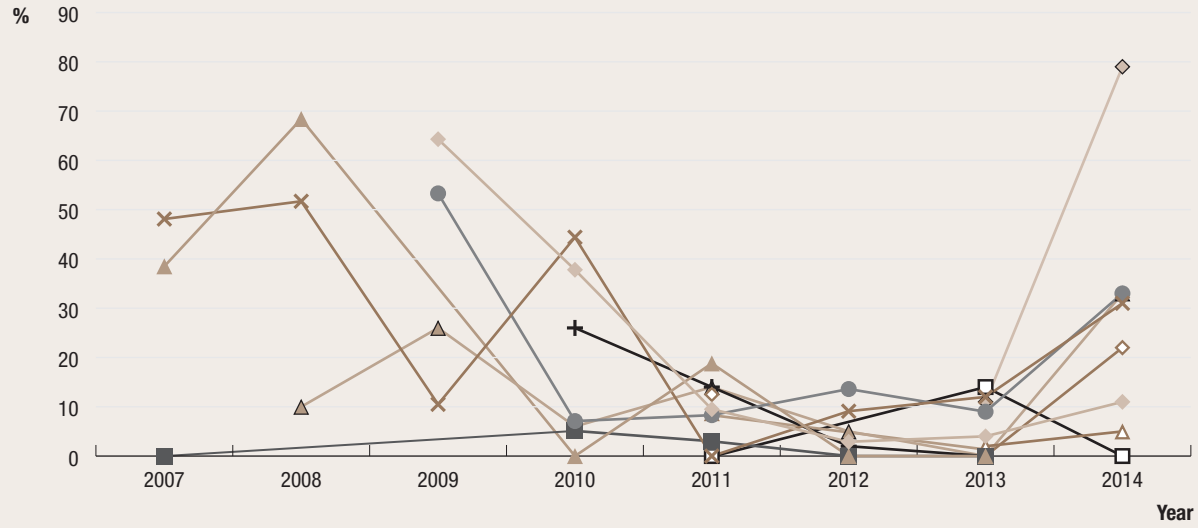
* Where more than 5 children were screened

Figure A.2 Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in South Alice Springs Remote region, Northern Territory, 2007 – 2014



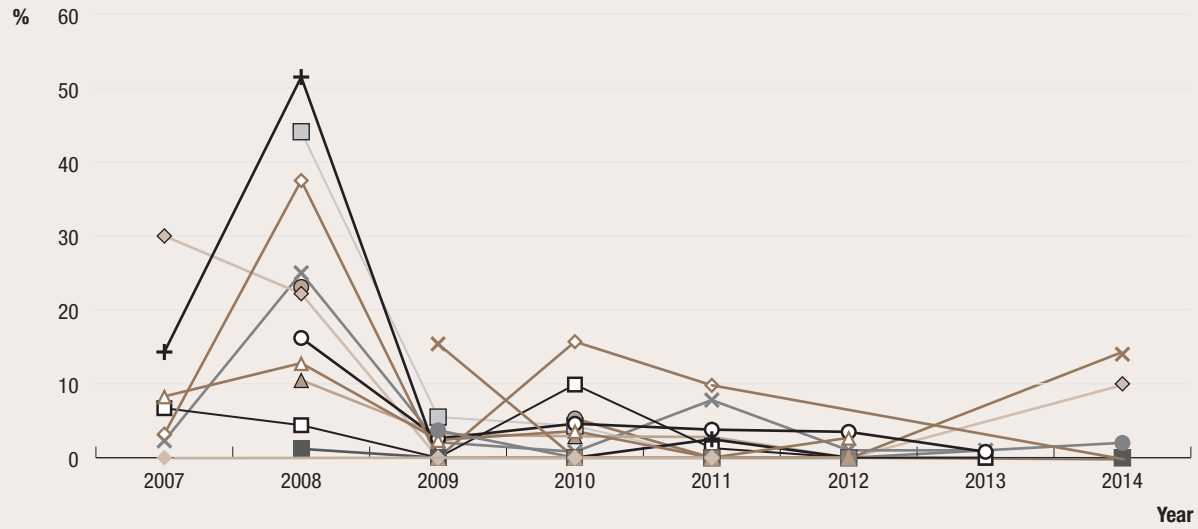
* Where more than 5 children were screened

Figure A.3 Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in Barkly region, Northern Territory, 2007 – 2014



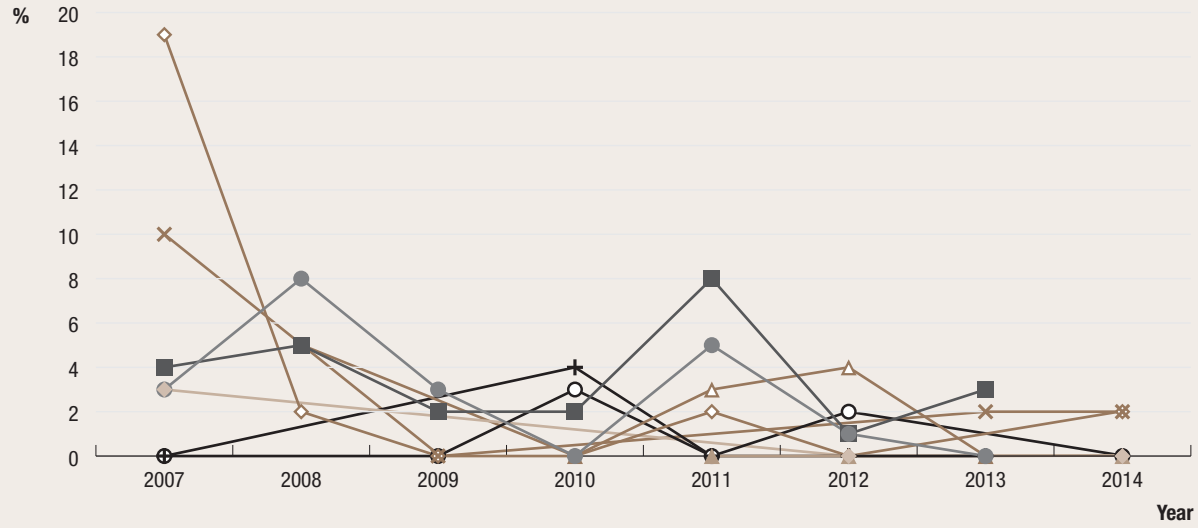
* Where more than 5 children were screened

Figure A.4 Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in Darwin Rural region, Northern Territory, 2007 – 2014



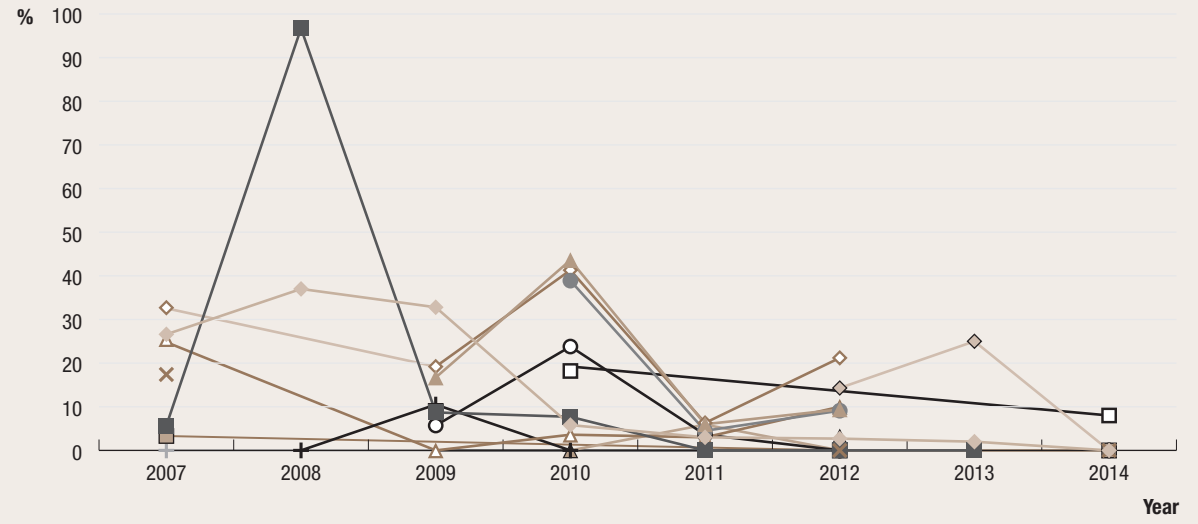
* Where more than 5 children were screened

Figure A.5 Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in East Arnhem region, Northern Territory, 2007 – 2014



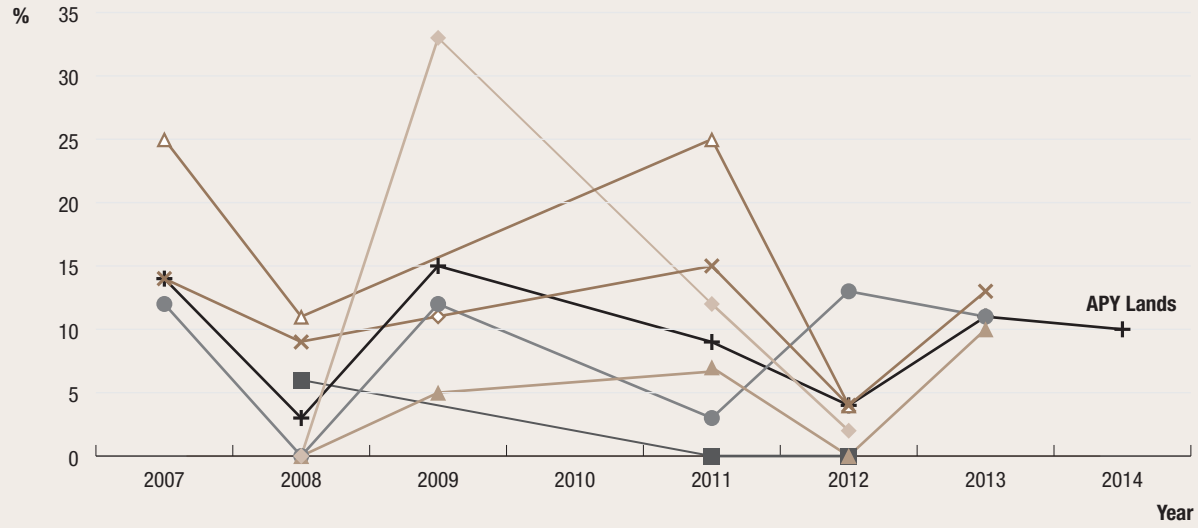
* Where more than 5 children were screened

Figure A.6 Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in Katherine region, Northern Territory, 2007 – 2014



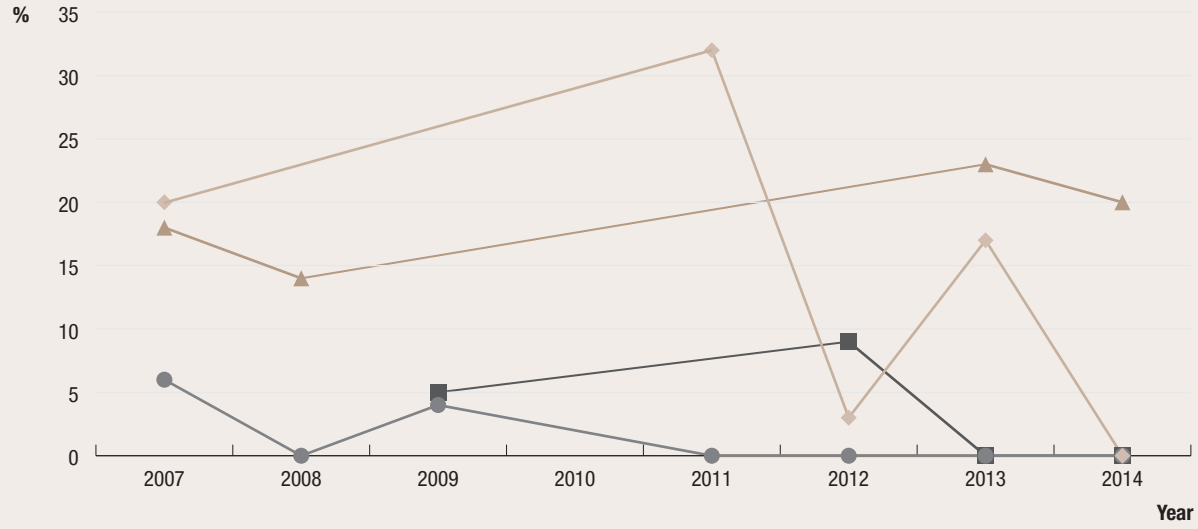
* Where more than 5 children were screened

Figure A.7 Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in APY Lands region, South Australia, 2007 – 2014



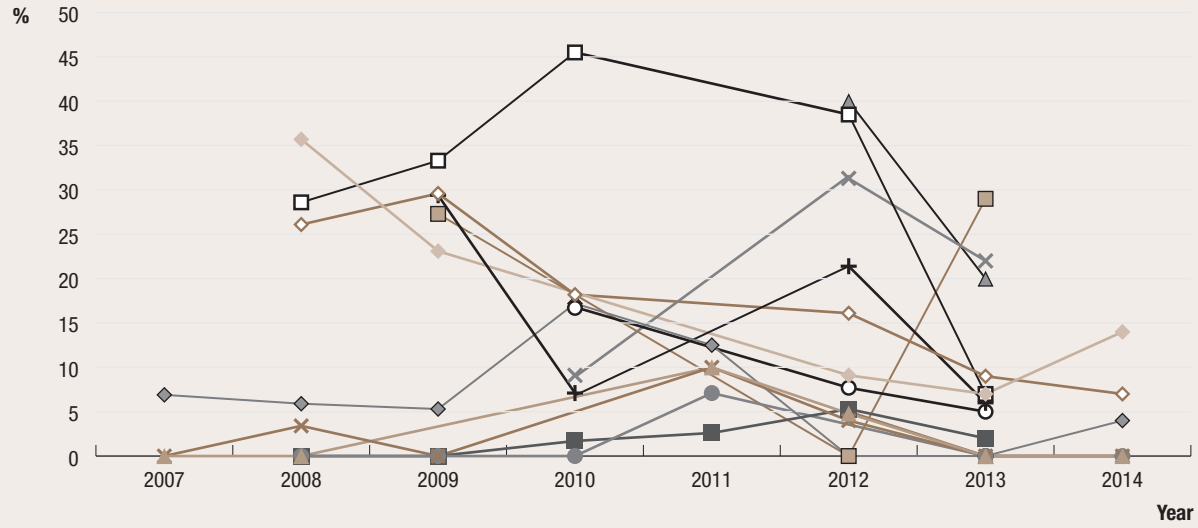
* Where more than 5 children were screened

Figure A.8 Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in Eyre and Western region, South Australia, 2007 – 2014



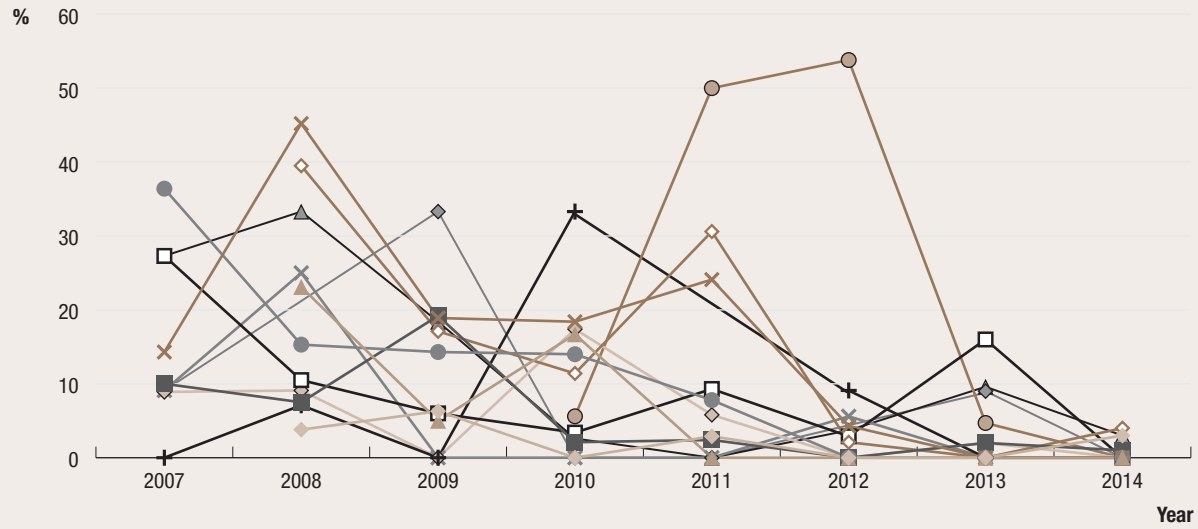
* Where more than 5 children were screened

Figure A.9 Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in Goldfields region, Western Australia, 2014



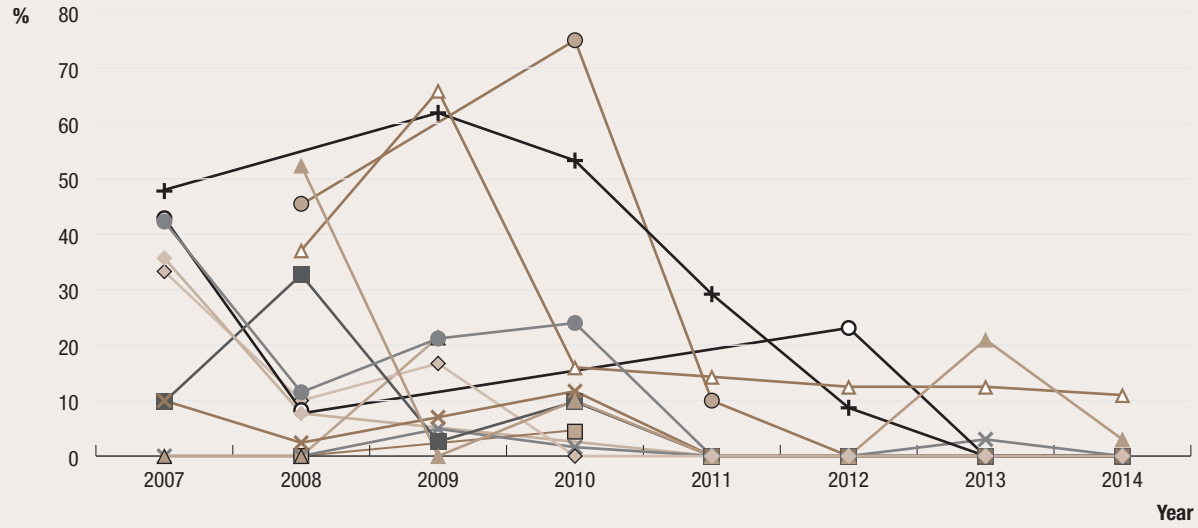
* Where more than 5 children were screened

Figure A.10 Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in West Kimberly region, Western Australia, 2014



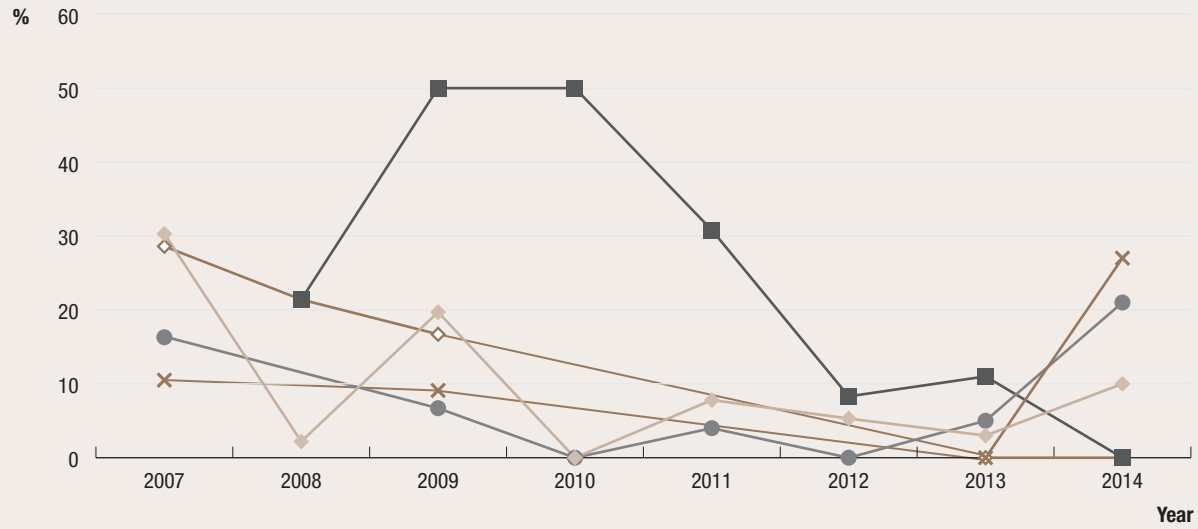
* Where more than 5 children were screened

Figure A.11 Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in East Kimberly region, Western Australia, 2014



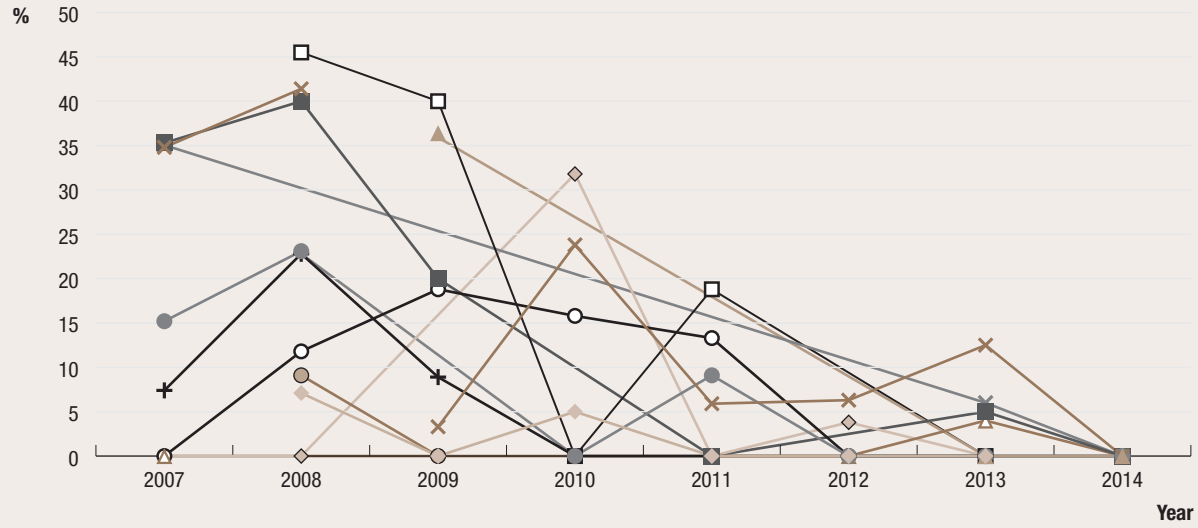
* Where more than 5 children were screened

Figure A.12 Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in Midwest region, Western Australia, 2014



* Where more than 5 children were screened

Figure A.13 **Trachoma prevalence of screened children aged 5-9 years by year and de-identified community* in Pilbara region, Western Australia, 2007 – 2014**



* Where more than 5 children were screened

www.health.gov.au

All information in this publication is correct as at November 2015

11317 November 2015