NATIONAL TRACHOMA SURVEILLANCE AND REPORTING UNIT

TRACHOMA SURVEILLANCE REPORT 2007

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STATE AND TERRITORY CONTRIBUTIONS

NORTHERN TERRITORY

- Australian Government Emergency Intervention (AGEI)
- Aboriginal Community Controlled Health Services (ACCHS)
- Centre for Disease Control, Northern Territory Department of Health and Community Services, Northern Territory
- Healthy School Age Kids (HSAK) program: Top End
- HSAK: Central Australia

SOUTH AUSTRALIA

- Aboriginal Health Council of South Australia, Eye Health and Chronic Disease Specialist Support Program (EH&CDSSP)
- Country Health South Australia
- Ceduna/Koonibba Health Service
- Nganampa Health Council
- Oak Valley (Maralinga Tjarutja) Health Service
- Tullawon Health Service
- Umoona Tjutagku Health Service

WESTERN AUSTRALIA

- Communicable Diseases Control Directorate, Department of Health, Western Australia
- Population Health Units and Aboriginal Community Controlled Health Services staff in the Goldfields, Kimberley, Midwest and Pilbara regions

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GLOSSARY

Active trachoma: The presence of chronic inflammation of the conjunctiva caused by infection with *Chlamydia trachomatis*; includes World Health Organization grades Trachomatous inflammation follicular (TF) and/or Trachomatous inflammation intense (TI).

Community: For the purpose of this report a community is defined as an area where there is a school.

Community-based treatment: Treatment of all children in the community aged 6 months to 14 years and all household contacts aged 6 months and over.

Community coverage: Calculated using the number of communities that were screened as a proportion of those communities/schools that were identified by each jurisdiction to 'possibly have trachoma'. The communities 'believed not to have trachoma' and those that had zero prevalence in both 2006 and 2007 were not included in this calculation. Community/school lists were provided by the Department of Education from each jurisdiction.

Corneal opacity (CO): Easily visible corneal opacity over the pupil.

Household treatment: If contacts are clustered in several households in the community and all households contacts are easily identified, then treat all household contacts aged 6 months and over (community-wide treatment not required).

Not reported: Indicates that data were not reported for communities but it is not known whether screening was conducted or not or treatment was given.

Not screened: Communities that were not screened and so could not provide data.

Prevalence of active trachoma: Includes active trachoma detected by trachoma screening programs and, in some instances, cases detected in clinics.

Prevalence of clean faces: Includes clean faces detected by trachoma screening programs and, in some instances, cases detected in clinics.

Screening coverage: Calculated using the number of children who were examined for active trachoma as a proportion of those that were reported to be currently in the community/school by the population health units. Where the reported number of children in the community was not provided (NT and SA) the ABS school enrolment numbers reported in the 2006 Census were used.

Trachomatous inflammation follicular (TF): Presence of five or more follicles in the upper tarsal conjunctiva of at least 0.5 mm.

Trachomatous inflammation intense (TI): Pronounced inflammatory thickening of the tarsal conjunctiva that obscures more than half of the normal deep tarsal vessels.

Trachomatous scarring (TS): Presence of scarring in the tarsal conjunctiva.

Trachomatous trichiasis (TT): At least one eyelash rubs on the eyeball or there is evidence of the recent removal of inturned eyelashes.

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACCHO	Aboriginal Community Controlled Health Organisation
ACCHS	Aboriginal Community Controlled Health Service(s)
AGAR	Australian Group on Antimicrobial Resistance
AGEI	Australian Government Emergency Intervention
AHCSA	Aboriginal Health Council of South Australia
AMS	Aboriginal Medical Service
BNT	believed not to have trachoma
CDNA	Communicable Diseases Network Australia
CERA	Centre for Eye Research Australia
CI	confidence interval
CO	corneal opacity
DHCS	Department of Health and Community Services
EH&CDSSP	Eye Health and Chronic Disease Specialist Support Program
ERP	estimated resident population
HSAK	Healthy School Age Kids program
IMVS	Institute of Medical Veterinary Science
NA	not available
NACCHO	National Aboriginal Community Controlled Health Organisation
NR	not reported
NS	not screened
NT	Northern Territory
NTGPS	Northern Territory Government Pathology Service
NTSRU	National Trachoma Surveillance and Reporting Unit
OATSIH	Office for Aboriginal and Torres Strait Islander Health
PHLN	Public Health Laboratory Network
PWPS	Path West Pathology Service
SA	South Australia
SAFE	Surgery, Antibiotics, Facial cleanliness, and Environmental improvement
SDNP	Communities were reported as screened but data were not provided
TF	Trachomatous inflammation – follicular

TI	Trachomatous inflammation – intense
TS	Trachomatous scarring
TT	Trachomatous trichiasis
WA	Western Australia
WDPS	Western Diagnostics Pathology Service
WHO	World Health Organization

EXECUTIVE SUMMARY

In 2006 the Australian Government awarded the tender to the Centre for Eye Research Australia (CERA) to establish the National Trachoma Surveillance Unit (NTSRU) with the responsibility of providing high quality national information on trachoma prevalence based on data received from state and territory jurisdictions. Government funding was also allocated to the jurisdictions for the training of health workers in the implementation of consistent trachoma screening and control measures.[1]

METHODS

This report presents data collected from screening during 2007 by regions in the Northern Territory (NT), South Australia (SA) and Western Australia (WA) where trachoma was thought to be present. It compares 2007 data with results from the screening in 2006. The report comments on the jurisdictions' implementation of the CDNA guidelines 'minimum best-practice approach' and makes recommendations regarding future reporting for screening and management of trachoma.

The CDNA guidelines recommend that each state and territory take responsibility for trachoma management through their regional population health units. CDNA guidelines further recommend that the regional population health units report data on trachoma and trichiasis to a national trachoma database to allow consistency in data collection and reporting so meaningful comparisons can be made between regions and states of Australia.[2]

Data collection forms (Appendix 1) based on the CDNA guidelines and endorsed by the Trachoma Reference Group (Appendix 2) were developed by the NTSRU to improve the quality and consistency of data collection of trachoma and trichiasis data in each state or territory. The forms were used to gather information regarding:

- trachoma screening of Aboriginal children aged 1 to 14
- treatment with azithromycin for household and community contacts
- trichiasis and trichiasis surgery in Aboriginal people
- implementation of SAFE trachoma control activities in the communities

In the NT, the Healthy School Age Kids (HSAK) program conducted most of the screening in collaboration with primary health care staff from the Aboriginal Community Controlled Health Services (ACCHS); screening was also conducted by the Australian Government Emergency Intervention (AGEI). In SA, data were collected by the project coordinator of the Eye Health and Chronic Disease Specialist Support Program (EH&CDSSP) and a screening team of ophthalmologists and optometrists. In WA, population health unit and primary health care staff conducted trachoma screening.

Screening was conducted annually in the NT and WA, and twice a year in SA for three out of the five Aboriginal Community Controlled Health Services (ACCHS). All jurisdictions used the World Health Organization's (WHO) Trachoma Grading criteria to detect and grade trachoma.[3] Where the WHO simplified grading system was used it is important to note that signs of trachoma are <u>not</u> mutually exclusive and should be graded independently, and that people should be classified by their worse eye.

This report focuses on Aboriginal children aged 1 to 9, although many of the communities collected data on children aged 1 to 14 years. According to the CDNA guidelines children aged 5 to 9 years are the minimum target group to be examined in communities where trachoma is endemic; children

aged 1 to 4 and 10 to 14 years should be examined where there is community consent.[2] As active trachoma is highest in young children,[4] those aged <5 have been included in the analysis. In most regions children were examined for clean faces when they were examined for trachoma.

The recommendation is that children found to have active trachoma (TF and/or TI) and family members should be treated with a single-dose of azithromycin. Treatment strategies for household and community contacts are outlined in the CDNA guidelines[2] and the NTSRU data collection form (Appendix 1, Form 2). The CDNA guidelines state that antibiotic treatment should be completed within two weeks of screening. In regions where population mobility was high, treatment is recommended to be completed in as short a timeframe as possible to minimise the likelihood of reinfection.[2]

In areas where trachoma and/or trichiasis are endemic the CDNA guidelines recommend that all Aboriginal people aged 40 to 54 years should be examined every two years and those aged 55 years and over should be examined annually for trichiasis as part of an adult health check (part of the Medical Benefits Schedule for Aboriginal people).[2] It is the responsibility of the regional population health units, primary health care services and specialist eye health services to decide on the best way to identify patients with trichiasis and to ensure that they have access to surgical referral and treatment.[2]

Communities were also required to report the trachoma control activities implemented for each component of the SAFE strategy (Surgery for trichiasis, Antibiotic treatment, Facial cleanliness and Environmental improvement). Data reported for 2007 will assist the NTSRU to compile a list of activities and categories to report 2008 data.

A method to assess the bacterial resistance to azithromycin has been implemented and baseline data have been collected (see Antibiotic Resistance section for more details on methods and results, page 74).

DATA ANALYSIS AND REPORTING

A community was defined as an area which has a school. The denominator of communities within each region or area serviced by an ACCHS was provided by school lists from each state and territory Department of Education.[5-7] Special education schools, schools of the air and senior schools with children from Year 8 onwards were excluded from the WA and NT lists. Urban schools were also excluded from the NT list. For SA, information on the number of schools was reported by the Department of Education under the school districts and these did not directly correspond with the zoning of the ACCHS regions. For this reason the number of schools in areas serviced by the Nganampa, Oak Valley (Maralinga Tjarutja) and Tullawon ACCHS were grouped together by the NTSRU. Key representatives from each state and territory were asked to distinguish between those communities that were believed not to have trachoma, those that had been screened, and those that should have been screened but were not.

Community coverage was calculated using the number of communities that were screened as a proportion of those that were identified by each jurisdiction to 'possibly have trachoma'. Communities that were reported as 'believed not to have trachoma' and those that had zero prevalence in both 2006 and 2007 were not included in this calculation. Community coverage for 2006 was also calculated using the Department of Education community/school lists.

Where data were reported for communities that had been screened in 2006 the same code was used so that comparisons could be made across the two years. Chi square tests were used to measure and compare prevalences/proportions of active trachoma for communities that examined 10 or more children in both 2006 and 2007. Where numbers were less than five in any cell, a Fishers exact test was used. Comparisons for the Pilbara region could not be made because in 2006 trachoma was graded as the presence of one or more follicles under the upper eyelid and data were reported for children aged 1 to 14 years.

The Australian Bureau of Statistics (ABS) collects data on key characteristics of Aboriginal and Torres Strait Islander people in Australia. The ABS 2006 Census data regarding the number of Aboriginal people resident in a region or enrolled in pre- and primary schools were used to calculate 2007 population projections.[8] Indigenous population projections are difficult due to the quality of data regarding births, deaths and migration; however, the ABS has calculated high and low series population growth projections for each state and territory.[9] Both growth projections are presented in the results section for each jurisdiction for the 2007 population and the ABS school enrolment numbers. The high series growth rate projection was not calculated for the regional data as there was little difference between the numbers at this level of reporting. The low projection estimates are referred to in the report to provide a conservative estimate and a way of calculating the coverage of children examined in these jurisdictions. The next surveillance report will use the final estimated resident population (ERP) by Indigenous status which is conventionally used for the reporting of Aboriginal population information. The ERP data were not available while this report was being completed.

The reported number of children in the community came from enrolment lists from the schools or population data from the community where screening was conducted. These data were provided to give an indication of the percentage of children examined within the communities that were targeted for screening (screening coverage). For 25 communities (42%) in the NT, and all communities in areas serviced by the ACCHS in SA, the number of children in these communities was not provided. The Department of Education school enrolment data were assessed as a substitute to calculate the coverage of children 1 to 9 years in targeted communities; however, this was not possible as these data could not be broken down into age categories. The ABS 2007 projections of school enrolment numbers were used to estimate screening coverage; however, in many cases the reported number of children in the community was either higher or lower than the ABS enrolment numbers. Screening coverage for 2006 was calculated using the ABS enrolment numbers from the 2006 Census.

Active trachoma prevalence data for communities were reported using the number of children examined in the community as the denominator. Detailed community data on prevalence of trachoma and clean faces for each region can be found in Appendix 3. Trachoma at 10% or greater is considered to be endemic, hence the use of this threshold.[2] Communities that were screened in 2006 but did not report data in 2007 have been included in tables in Appendix 3.

The NT provided trachoma and clean face data for many communities after the submission deadline for data agreed upon by the jurisdictions and the NTSRU. After this date, data were included for children aged 1 to 9 years only, because the report focuses on this age group.

RESULTS

Northern Territory

Data for active trachoma were reported for 60 communities in the five trachoma-endemic regions: Alice Springs Remote, Barkly, Darwin Rural, East Arnhem and Katherine.

Overall, 1703 Aboriginal children aged 1 to 9 years were examined for trachoma by the Healthy School Age Kids (HSAK) program, and 216 had active trachoma (prevalence = 13%, 95% CI, 11%–15%).

A total of 376 (22%) of the children examined for trachoma were reported to have been examined for facial cleanliness and, of these, 296 (79%) had clean faces.

Of the 216 children who were found to have active trachoma at the screening, 11 (5%) were treated with azithromycin within two weeks of being examined. Very little information was reported on treatment strategies and the number of people in households and the community who were treated; these data were not provided in time to be included in the report. For the seven communities where treatment data were reported, 330 people were identified as requiring treatment in households and the community; 317 (96%) were treated, 90 (27%) within two weeks of the screening.

Data for trichiasis screening were reported for five communities (45%) in the Katherine region only.

Information about trachoma control activities was reported for six communities (32%) in the Alice Springs Remote region and two communities (33%) in the Barkly region.

South Australia

Data for active trachoma were reported for eight communities for the first screening in the five trachoma-endemic areas serviced by the ACCHS: Ceduna/Koonibba, Nganampa, Oak Valley (Maralinga Tjaratja), Tullawon and Umoona Tjutagku. Data were reported for six communities in areas serviced by three ACCHS (Nganampa, Tullawon and Umoona Tjutagku) for the second screening. Data were reported from a sixth ACCHS (Pika Wiya) in 2006 but screening was not conducted in 2007 by the EH&CDSSP because another program was offering similar services in that area.

Overall, 128 Aboriginal children aged 1 to 9 years were examined for trachoma during the first screening, and 18 had active trachoma (prevalence = 14%, 95% CI, 8%–20%). Of the 59 children examined during the second screening, and nine had active trachoma (prevalence = 15%, 95% CI, 6%–24%). In the areas where two screening rounds were conducted it was unclear how many children were examined twice; therefore, summary data will focus on the first screening. The trachoma screening conducted in 2007 did not examine very many children; the screening planned for 2008 aims to obtain a better response.

All the children who were examined for trachoma – 128 at the first screening and 59 at the second – were reported to have also been examined for facial cleanliness. From the first screening, 110 children (86%) had clean faces, and 49 (83%) from the second screening had clean faces.

All the children who were found to have active trachoma at the screening – 18 at the first screening and nine at the second – were treated with azithromycin within two weeks of being examined. People in households and the community were not treated in 2007.

Aboriginal adults were examined for trichiasis when the screening team visited the ACCHS clinics (twice during the year). Most people saw an ophthalmologist at the time of screening and this was reported as being offered an ophthalmic consultation within six months of the previous screening.

Information on the implementation of trachoma control activities was not reported for any of the communities.

Western Australia

Data for active trachoma were reported for 58 communities in the four trachoma-endemic regions: Goldfields, Kimberley, Midwest and Pilbara. Six of these communities were reported as three pairs. Overall, 1666 Aboriginal children aged 1 to 9 years were examined for trachoma and 250 had active trachoma (prevalence = 15%, 95% CI, 13%–17%).

Children from the Kimberley, Pilbara and Midwest regions were examined for both trachoma and facial cleanliness. Communities from the Goldfields region, with one exception, examined children for facial cleanliness when active trachoma was reported only. A total of 1543 (93%) of the children examined for trachoma were reported to have been examined for facial cleanliness and, of these, 1266 (82%) had clean faces.

Of the 378 children who were identified as requiring treatment at the screening, and some children from a community where screening data were not provided, 274 (72%) were treated with azithromycin within two weeks of being examined. For the 29 communities where treatment data were reported, 1706 people were identified as requiring treatment in households and the community; 1401 (82%) were treated, 1371 (80%) within two weeks of the screening.

Information on treatment strategies and the number of people in households and the community who were treated have been reported.

Data for trichiasis were collected during an influenza vaccination program from eight communities (100%) in the Goldfields region only.

Information about trachoma control activities was reported for all regions, but not for every community.

Summary data

The NT and WA were able to define communities from the Department of Education school lists into one of three categories: believed not to have trachoma, screened for trachoma, and should have been screened but were not. Of the 375 communities from all jurisdictions, 124 (33%) have been identified by their respective jurisdictions as having no active trachoma; this included 15 communities that were screened and found to have zero prevalence of active trachoma for both 2006 and 2007. A total of 36 communities (10%) that were screened were found not to have active trachoma. Overall, 75 (20%) of the identified communities were found to have active trachoma and a further 46 (12%) should have been screened or reported but were not. Eight communities (2%)

were reported as screened but no data were provided, and a total of 86 (23%) were classified in the uncertain category. Communities that had no previous reports of screening in 2006, because they were either reported as 'believed not to have trachoma' or 'uncertain', were not included in the rest of the tables of this report.

Communities that were identified as 'believed not to have trachoma' were reported as BNT in the tables. Some communities were reported as having conducted screening but these data were not provided (SDNP); for example, KIM_07, KIM_10, and KIM_23. In other communities no data were reported and it was not known whether screening was conducted or not; these missing data were reported as (--) in the tables. Where zero is reported for no data, for example – no communities had a prevalence of clean faces of 11 to 20% in the Barkly region – there were no percentages. Where there was no symbol or number reported, this indicated that the information was not applicable.

Overall, 3497 children 1 to 9 years old were examined for trachoma; this includes the children from Oak Valley and Tullawon. A total of 11,415 were reported by the ABS to be enrolled in schools in these communities (31% coverage); or 15,461 children resided in the region (23% coverage). In most regions, the number of children examined did not reflect the number of children estimated to be in the community. Without better precision about the denominator, and therefore the coverage rate, it is difficult to be precise about the estimates of prevalence.

Overall, 2047 children were examined for facial cleanliness and 1672 (82%) were found to have clean faces.

In all, 75 out of 124 communities indicated the necessity for the distribution of antibiotics; two of these communities had no active trachoma in children aged 1 to 9 years but households were treated because active trachoma was found in children aged 10 to 14, and children and households were treated in one community where screening data was not provided. Of the 75 communities, 12 (16%) were treated using a community-based approach, and in 24 communities (32%) people in affected households were treated. In 13 communities (17%) only the affected children were treated; however, in 26 (35%) no treatment was given or at least none were reported to have been given. This shows a clear lapse in best practice adherence to the National Guidelines.

Data for trachoma were reported for 103 communities for both 2006 and 2007: 52 from NT, eight from the first screening in SA, and 43 from WA. Of the 56 communities where sufficient children (10 or more) were examined to compare 2006 and 2007 active trachoma data, a statistically significant increase in prevalence was found in seven, and a statistically significant decrease was found in seven, the rest with no significant change.

A comparison of 2006 and 2007 regional data found one region with a statistically significant increase in prevalence, and four with a statistically significant decrease in prevalence, the rest with no significant change (Executive Summary Table 1). Community coverage between 2006 and 2007 varied between jurisdictions, with higher coverage in WA and consistently low coverage in SA.

Executive Summary Table 1 Community coverage, screening coverage and active trachoma prevalence of Aboriginal children aged 1 to 9 years in 2006 and 2007 in remote areas of NT, SA and WA.

State/territory and region	2006 data			2007 data		
	Community coverage	Screening coverage	Active trachoma (%)	Community coverage	Screening coverage	Active trachoma (%)
Northern Territory						
Alice Springs Remote	23/31 (74%)	530/1382 (38%)	94 (18%)	15/31 (48%)	231/1402 (16%)	46 (20%)
Barkly	4/7 (57%)	105/437 (24%)	22 (21%)	4/7 (57%)	68/443 (15%)	18 (26%)
Darwin Rural**	15/25 (60%)	522/1407 (37%)	84 (16%)	11/25 (44%)	377/1427 (26%)	25 (7%)
East Arnhem*	7/8 (88%)	879/1187 (73%)	22 (3%)	7/8 (88%)	465/1204 (39%)	23 (5%)
Katherine**	11/22 (50%)	218/1344 (16%)	65 (30%)	10/22 (45%)	562/1363 (41%)	104 (19%)
Subtotal	***60/93 (65%)***	***2254/5757 (39%)***	**287 (13%)**	***47/93 (51%)***	***1703/5839 (29%)***	***216 (13%)***
South Australia (Screening 1)						
Ceduna/Koonibba	1/26 (4%)	18/131 (14%)	1 (6%)	1/26 (4%)	16/134 (12%)	1 (6%)
Nganampa	10/11 (91%)	27/255 (11%)	5 (19%)	6/11 (55%)	76/260 (29%)	10 (13%)
Oak Valley (Maralinga Tjarutja) & Tullawon	†	28/NA	7 (25%)	†	34/NA	7 (21%)
Pika Wiya	5/29 (17%)	51/77 (66%)	6 (12%)	0/29 (0%)	0/79 (0%)	NS
Umoona Tjutagku	1/25 (4%)	6/49 (12%)	1 (17%)	1/25 (4%)	2/50 (4%)	0 (0%)
Subtotal	***17/91 (19%)***	***102/512***	***20 (15%)***	***8/91 (9%)***	***94/523***	***18 (14%)***
Western Australia						
Goldfields**	6/14 (43%)	231/873 (26%)	43 (19%)	10/14 (71%)	227/1047 (22%)	8 (4%)
Kimberley**	30/33 (91%)	1048/1586 (66%)	192 (18%)	27/33 (82%)	1006/1584 (64%)	164 (16%)
Midwest	6/6 (100%)	167/981 (17%)	32 (19%)	5/6 (83%)	127/201 (63%)	28 (22%)
Pilbara	9/15 (60%)	273/935 (29%)	146‡ (53%)	14/15 (93%)	306/545 (56%)	50‡ (16%)
Subtotal	***51/68 (75%)***	***1719/4375 (39%)***	***413 (24%)***	***56/68 (82%)***	***1666/3377 (49%)***	**250 (15%)**
Australia	**128/252 (51%)**	**4075/10644 (38%)**	**720 (18%)**	**111/252 (44%)**	**3463/9739 (36%)**	**484 (14%)**

NA = Not available, NS = Not screened

* p<0.05, ** p<0.01 = statistical significance between 2006 and 2007 active trachoma prevalence

† Communities in areas serviced by these ACCHS were reported with communities from the Nganampa ACCHS

‡ Change in grading

Source: Data were collected by the HSAK program in NT, the EH&CDSSP in SA and population health units in WA

Of the 27,171 Aboriginal people 30 years and over resident in these jurisdictions, only 987 (4%) were examined for trichiasis and 17 (2%) had trichiasis.

DISCUSSION

This report confirms that trachoma still exists in many Aboriginal communities in outback Australia.

The use of CDNA guidelines standardised-screening methodology has enabled more comparisons to be made both within and between regions. However, there are still gaps and limitations in the conclusions that can be drawn from these results. For example, there are many gaps in data regarding clean faces, antibiotic treatment, trichiasis and trichiasis surgery, and trachoma management. When these data were not reported, it is unclear whether screening was conducted or not. While the systematic collection of data was important, the process of forwarding these data to the NTSRU is crucial. Without this information the surveillance reports do not accurately reflect national trachoma data and management interventions.

More information is required about the number of communities within regions that were believed not to have active trachoma or that may have active trachoma and were not screened. This denominator is important to assess the adequacy of data reporting and for the ability to have definitive national reports/statements on trachoma and its eradication. The NTSRU aims to address this problem by including an inbuilt list of schools in the NTSRU database (based on information provided by each jurisdiction's Department of Education). By having this information in the database the NTSRU hopes to be able to accurately monitor the presence or absence of trachoma within regions for each jurisdiction.

Although the screening methodology has been standardised, the screening coverage of children in targeted communities was low in many communities (<10 children examined). This presents a problem for comparisons between 2006 and 2007 data but it also raises concerns regarding children in these targeted communities who are not being examined. For some regions there was also a lack of reporting regarding treatment of these children and any household or community members. Screening all children and also providing treatment to household and community members (as required) is a necessary component for monitoring trachoma and also managing reinfection in the community.

The lack of data regarding trichiasis and surgery for trichiasis leaves an incomplete picture of what is happening at the end stages of this disease. Without this information it is impossible to report on whether people who have trichiasis have been given appropriate referrals for an ophthalmic consultation and whether this consultation has been followed up with surgery.

This was the first surveillance report which looked at the implementation of trachoma control activities for each component of the SAFE strategy and there was an overall lack of reporting. The reported data present a poor picture of trachoma management but it is difficult to ascertain whether this is an issue regarding the implementation or reporting of activities or both. The NTSRU proposes to provide a choice of activities for the Surgery for trichiasis, Antibiotic treatment and Facial cleanliness components in the database to assist with the reporting of these data. Based on the variation of responses received from the 2007 data it was decided that the Environmental improvement activities would remain a free text option in the database.

Results from the laboratories that assisted the NTSRU with monitoring antibiotic resistance were comparable to those collected by the *Streptococcus pneumoniae* survey 2005 conducted by the Australian Group on Antimicrobial Resistance (AGAR).

CONLCLUSION

Each jurisdiction should be able to identify all communities that are in need of screening for trachoma and ideally all children aged 1 to 9 years from these targeted communities should be examined. The monitoring of these communities can be successful only if meaningful data are collected in each community and data collection and reporting in all include high examination rates of eligible children, communities and jurisdictions. With collaboration and cooperation from each jurisdiction the NTSRU hopes to be building a sustainable and effective monitoring system by which the elimination of trachoma can be documented.

INTRODUCTION

Trachoma is the most common cause of infectious blindness worldwide.[10] It is caused by specific strains of the bacteria *Chlamydia trachomatis* that causes scarring of the eyelid, inturned eyelashes (trichiasis) and blindness if left untreated.[2] Trachoma occurs predominantly in developing countries where living conditions are crowded and hygiene is poor.[11] Australia is the only developed country where trachoma still exists.[2] The report published in 2007 showed findings consistent with other data that trachoma remains endemic in remote Aboriginal communities in the NT, SA and WA.[12,13]

In its resolve to eliminate blinding trachoma by 2020, the World Health Organization (WHO) recommends the adoption of a four component strategy: Surgery (for trichiasis), Antibiotic treatment (with azithromycin), Facial cleanliness and Environmental improvement (SAFE).[14] Based on the SAFE strategy, the Communicable Disease Network Australia (CDNA) in 2006 developed the 'Guidelines for the Public Health Management of Trachoma in Australia'.[2]

The CDNA guidelines recommend that each state and territory take responsibility for trachoma management through their regional population health units. CDNA guidelines further recommend that the regional population health units report trachoma data to a national trachoma database to allow consistency in data collection and reporting, so meaningful comparisons can be made between regions and states of Australia.

In 2006 the Australian Government awarded the tender to establish the National Trachoma Surveillance Unit (NTSRU) to the Centre for Eye Research Australia (CERA). The NTSRU is responsible for providing high quality national information on trachoma prevalence based on data received from state and territory jurisdictions. Government funding has also been allocated to the jurisdictions for the training of health workers in the implementation of consistent trachoma screening and control measures.[1]

This report presents data collected from screening conducted during 2007 and compares those data with results from the screening in 2006. The report comments on the jurisdictions' implementation of the CDNA guidelines 'minimum best-practice approach' and makes recommendations regarding future reporting.

Comparisons between jurisdictions and regions are made where there were sufficient data to do so. Information regarding trachoma prevention and management activities that are currently being implemented are reported. A method to assess the bacterial resistance to azithromycin has been implemented and baseline data have been collected.

METHODS

SCREENING

This is the second surveillance report compiled by the NTSRU. Data were collected in 2007 after the uniform adoption of the CDNA guidelines and the establishment of the NTSRU. The reporting of trachoma and trichiasis in Australia were based on information provided by the NT, SA and WA.

Directors from the Centre for Disease Control in the NT and the Communicable Disease Control Directorate in SA and WA signed formal agreements with the NTSRU for the use of de-identified trachoma data collected from Aboriginal communities from 2006 to 2009.

Representatives from each state or territory determined the communities targeted for screening based on historical reports of trachoma in their regions for NT and WA and areas serviced by Aboriginal Community Controlled Health Services (ACCHS) in SA. In most cases this did not include the large urban regions. Screening was completed annually in the NT and WA, and twice a year in SA for three out of the five ACCHS.

Four summary data collection forms (Appendix 1) based on the CDNA guidelines and endorsed by the Trachoma Reference Group (Appendix 2) were developed by the NTSRU to improve the quality and consistency of data collection of trachoma and trichiasis in each state or territory.

An additional two data collection forms were developed to assist primary health care staff during screening of children for trachoma or where adults were examined for trichiasis. Only information from the four summary forms was entered by the states and territory into an Access database created by the NTSRU. Data were sent to the NTSRU after which they were stored in a locked filing cabinet and in a database protected by a password.

All jurisdictions used the World Health Organization's (WHO) Trachoma Grading criteria.[3] When using the WHO simplified grading system for diagnosing trachoma, it is important to note that signs of trachoma are not mutually exclusive and should be graded independently, and that people should be classified by their worse eye.

Trachoma at ≥10% is considered to be endemic, hence the use of this threshold.[2]

➢ NORTHERN TERRITORY

Screening for trachoma was conducted between March and October 2007 in five Population Health regions where active trachoma is endemic: Alice Springs Remote, Barkly, Darwin Rural, East Arnhem and Katherine. The Population Health Clinics informed the Health Department of proposed school screening dates and requested staffing assistance from the department to assist the Healthy School Age Kids (HSAK) program in the Top End and in Central Australia to conduct school screening. Screening was conducted by two main groups, the District Health Units and the Aboriginal Community Controlled Health Organisations (ACCHOs).

The HSAK program, coordinated by the Childhood and Youth Program of the NT Department of Health and Community Services, worked with the Trachoma Coordinator from the Centre for Disease Control to identify communities targeted for screening; communities targeted for screening were based on the reports of historical prevalence in these communities and the number of years since their last screening.

In July 2007, the Australian Government Emergency Intervention (AGEI) conducted Child Health Checks in the Northern Territory. Trachoma was screened for in four central Australian communities. Three of these communities (AS_14, AS_20, and AS_28) were screened by a practitioner skilled in trachoma screening. Community AS_04 was screened by inexperienced service providers who did not use loupes or torches; therefore, results are unreliable. A decision was made by the AGEI clinical advisory panel that trachoma screening was only to be conducted where members of the intervention teams had appropriate skills and training to do so. Communities that were visited by the AGEI were not revisited by the HSAK program and this contributed to the smaller number of communities reporting active trachoma for 2007.

The ACCHS use the same methods as the Department of Health and Community Services (DHCS) as they do trachoma screening as part of school screening; however, what equipment is available is unclear. All Aboriginal Medical Services (AMS) and DHCS clinics now have trachoma kits with loupes and torches etc.

- **SOUTH AUSTRALIA**

Screening for trachoma was conducted twice in 2007, from February to July and again from July to December. The Eye Health and Chronic Disease Specialist Support Program (EH&CDSSP) visited some areas serviced by an ACCHS: Ceduna/Koonibba, Nganampa, Oak Valley (Maralinga Tjarutja), Tullawon and Umoona Tjutagku. Ceduna/Koonibba and Maralinga Tjarutja were visited only once. Data from a sixth ACCHS, Pika Wiya, were reported in 2006 but were not provided in 2007 due to another program providing services in this area. Data from the Oak Valley ACCHS were reported with the Tullawon ACCHS in 2006; similarly, data for some communities were combined or pooled together in 2006. In 2007 data for all ACCHS and communities were reported separately, making comparisons difficult.

The project coordinator of the EH&CDSSP assisted a screening team of ophthalmologists and optometrists in recording information on active trachoma when they visited communities. Some Aboriginal children who were identified for screening were seen in schools while others were brought to the clinics by family members, Aboriginal health workers and other clinic staff. The 2008 trachoma screening will aim to see more children in the areas serviced by the ACCHS in 2007 and will also include screening in the Pika Wiya and Port Lincoln ACCHS.

- **WESTERN AUSTRALIA**

Screening for trachoma was conducted between August and September 2007 in four Population Health regions where active trachoma is endemic: Goldfields, Kimberley, Midwest and the Pilbara. Population Health Units collected data in partnership with primary health care staff from state government ACCHS. In most regions letters were sent to parents in order to gain permission for the screening of their children.

The Population Health Units determined the communities to be targeted for trachoma screening based on the reports of historical prevalence in these communities.

DATA ANALYSIS AND REPORTING

A community was defined as an area which is large enough to have a school. The denominator of communities within each region or area serviced by an ACCHS was provided by school lists from each state and territory.[5-7] Special education schools, schools of the air and senior schools with children from Year 8 onwards, were excluded from the NT and WA lists as the children targeted for screening would not be attending these schools. In SA information on the number of schools were reported under the school districts and these did not directly correspond with the zoning of the ACCHS regions. For this reason the number of schools in areas serviced by the Nganampa, Oak Valley and Tullawon ACCHS were grouped together. For the NT, schools from urban areas in Alice Springs and Darwin were excluded because they were identified as having no trachoma and the HSAK program targets remote areas only. Key representatives from each state and territory were asked to distinguish between those communities that were believed not to have trachoma and those that 'possibly have trachoma'; the latter included those that had been screened, and those that should have been screened but were not.

Community coverage was calculated using the number of communities that were screened as a proportion of those that were identified by each jurisdiction to 'possibly have trachoma'. Communities 'believed not to have trachoma' by their jurisdiction and those that reported zero prevalence in both 2006 and 2007 were not included in this calculation. Community coverage for 2006 was also calculated using the Department of Education community/school lists.

Each state and territory reported data for screened communities within a Population Health Region or ACCHS. The NTSRU replaced the community names with individual codes so that data from individual communities could not be identified in this report. Where data were reported for communities that had been screened in 2006 the same code was used so that comparisons could be made across the two years, unless the data were reported differently in 2007. In some cases data for communities were reported with other communities in 2006 and were reported separately in 2007 or vice versa (SA community combinations). Where two communities had data reported as a pair in 2007, the pair has been counted as one community in tables reporting prevalence of active trachoma and clean faces, treatment, trichiasis and SAFE strategies (Goldfields community combinations). Chi square tests were used to measure and compare prevalences/proportions of active trachoma for communities where 10 or more children were examined in both 2006 and 2007. Where numbers were less than five in any cell, a Fishers exact test was used. Comparisons for the Pilbara region could not be made because in 2006 active trachoma was graded as the presence of one or more follicles under the upper eyelid and data were reported for children aged 1 to 14 years. Comparisons between jurisdictions need to be interpreted with caution because of the variation in data collection and reporting.

The Australian Bureau of Statistics (ABS) collects data on key characteristics of Aboriginal and Torres Strait Islander people in Australia. The ABS 2006 Census data regarding the number of Aboriginal people resident in a region or enrolled in pre- and primary schools, were used to calculate 2007 population projections.[8] Indigenous population projections are difficult due to the quality of data regarding births, deaths and migration; however, the ABS have calculated high and low series population growth projections for each state and territory (NT: low 1.4% and high 1.6%; SA: low 1.9% and high 2.9%; WA: low 1.8% and high 3.1%).[9] Both growth projections are presented in summary tables in the results section for each jurisdiction for the 2007 population and the enrolment numbers. The high series growth rate projection was not calculated for the regional data as there was little difference between the numbers at this level of reporting. The low projection estimates are referred to in the report to provide a conservative estimate. The next surveillance report will use the final estimated resident population (ERP) by Indigenous status which is

conventionally used for the reporting of Aboriginal population information. The ERP data were not available while this report was being completed.

The reported number of children in the community came from enrolment lists from the schools or population data from the community where screenings were conducted. These data were provided to give an indication of the coverage of children examined within the communities that were targeted for screening. For many communities in the NT and all communities in areas serviced by SA ACCHS the reported number of children currently in the community/school was not provided. For the NT data, the number of communities where the number of children currently in the community/school was reported was presented in the table. For the NT and SA the ABS 2007 projected school enrolment numbers were used to estimate screening coverage of children aged 1 to 9 years. However, in many cases the reported number of children in the community was either higher or lower than the ABS enrolment numbers.

In most regions, the number of children examined did not reflect the number of children estimated to be in the community. Children in primary school are likely to range in age from 5 to 12 years, thus those in primary school are represented in both 5 to 9 and 10 to 14 age groups. The effect of this is underestimating the percentage of children 5 to 9 who were examined and overestimating the percentage of the 10 to 14 year old children examined. Both figures are reported as: data collected for age groups (<5, 5 to 9, 10 to 14), but also the percentage of children in school who are examined.

This report focuses on children aged 1 to 9, although data for many of the communities were collected for Aboriginal children aged 1 to 14 years. According to the CDNA guidelines, children aged 5 to 9 years are the minimum target group to be examined in communities where trachoma is endemic, and children aged 1 to 4 and 10 to 14 years should be examined where there is community consent.[2] As active trachoma is highest in young children[4] those aged <5 have been included in the analysis.

Active trachoma prevalence data for communities were reported using the number of children examined in the community as the denominator. Regional prevalence figures of active trachoma were calculated by aggregating reported community data of the number of children who were examined and those who had active trachoma in each region or ACCHS. The number of children examined for trachoma, those with active trachoma (regional prevalence), and the number of communities that had data reported within each region or ACCHS were reported on maps of the NT, SA and WA. In SA, the prevalence of active trachoma from the first round of screening has been included on the map; summary data in the Executive Summary and the Discussion also focus on data from the first screening because it was unclear how many children were examined twice. The state and territory maps used to present prevalence by region and ACCHS were created in Adobe illustrator version 10.

Detailed community data on prevalence of active trachoma and clean faces for each region can be found in Appendix 3. Communities that were screened in 2006 but data were not reported in 2007 have also been included in tables in Appendix 3. Some communities were identified as believed not to have trachoma (BNT), while some communities were reported as having conducted screening but data were not provided (SDNP); for example, KIM_07, KIM_10, and KIM_23. In other communities no data were reported and it was not known whether screening was conducted or not; these missing data were reported as (--) in the tables. Where zero is reported for no data – for example, no communities had a prevalence of clean faces of 11 to 20% in the Barkly region – there are no percentages. Where there was no symbol or number reported this indicated that the information was not applicable. Communities that had no previous reports of screening in 2006, because they

were either reported as 'believed not to have trachoma' or 'uncertain', were not included in the rest of the tables of this report.

In the NT, trachoma and clean face data for many communities were received after the submission deadline for data agreed upon by the jurisdictions and the NTSRU. After this date, data were included for children aged 1 to 9 years only, because the report focuses on this age group. Communities where children aged 10 to 14 years were screened have been reported as having missing data (--) because it was not clear whether data for children 1 to 9 years were collected.

Using the prevalence of active trachoma and the number of children examined, 95% confidence intervals (CI) for reported prevalence were calculated, and these are included in figures in this report. For communities with ≤5 children examined, 95% CI were very large and have not been included in the figure.

The percentage of communities with a prevalence of 0%, 1 to <5%, 5 to <10%, 10 to <20%, 20 to <50% and ≥50%, were reported in tables.

Treatment within two weeks of screening of those with active trachoma and their household and community contacts has been reported to monitor compliance to CDNA guidelines management of trachoma.

Data have also been reported for the number of children examined for clean faces.

Aboriginal people examined for trichiasis are reported for comparison with ABS projected population statistics for 2007 based on the same calculations mentioned earlier. The percentage of referrals for an ophthalmic consultation and the number of people who had trichiasis surgery were calculated where this information was provided.

Reports of trachoma control activities that have been implemented in 2007 are presented alongside active trachoma prevalence for each community to give an indication of the current trachoma control initiatives that have been implemented. Data reported for 2007 will assist the NTSRU to compile a list of activities and categories for reporting of 2008 data.

RESULTS

1. NORTHERN TERRITORY

Trachoma data were provided for five trachoma-endemic regions: Alice Springs Remote, Barkly, Darwin Rural, East Arnhem and Katherine (Figure 1.1). For details of data from each population health region see Appendix 3: Northern Territory (pages 89 to 125).

Of the 117 communities in the five regions, 92 (79%) were identified as possibly having trachoma, of which 51 (55%) were screened in 2007; data were not provided for four communities (Table 1.1). Data were reported from 47 communities and an additional 13 that were screened but were identified as believed not to have trachoma.

Fifty-two of the 60 communities where active trachoma data were reported in 2007 were also reported in 2006 (Table 1.2). However, for 20 communities where data were reported in 2006, no data were provided for 2007; eight of these communities (40%) had a prevalence ≥10% in 2006 (Table 1.3).

Using the ABS low series population growth estimates, 8413 children 1 to 9 years old are resident in the five regions (Table 1.4); the high series population growth estimates are also in Table 1.4. In 35 of the 60 communities where screening was conducted 5143 children were reported by the HSAK to be attending school at the time of screening (Table 1.4). The total coverage of children screened could not be calculated because data for the number of children reported to be in their community/school were not reported for 25 out of 60 communities, so coverage was calculated using the school enrolment numbers reported by the ABS. Communities where the numbers currently in the communities were reported are given with the enrolment numbers. For example, 834 children were reported to be in 14 of the 19 communities in the Alice Springs Remote region. This relates to Table 1.4 and Appendix Table 1.3, Appendix Table 1.14, Appendix Table 1.25, Appendix Table 1.34 and Appendix Table 1.43 in Appendix 3.

Of the children reported by the ABS to be enrolled in schools, 1703 (29%) out of 5839 were examined for trachoma, and 216 were found to have active trachoma (prevalence = 13%, 95% CI, 11%–15%) (Table 1.4).

Facial cleanliness data were reported for 34 out of 60 communities (57%); of these 34 communities 27 (79%) had clean faces in >80% of the children (Table 1.5). Of the 376 children examined, 296 (79%) were reported to have clean faces (Table 1.4).

Overall, 29 out of 60 communities (48%) that had data reported had no active trachoma whereas 20 (33%) had a prevalence ≥10% and, of these, one community had a prevalence of 64% (Table 1.6 and Appendix Table 1.4).

Treatment was required in 32 of the 60 communities. One of these communities had no active trachoma for children aged 1 to 9 years but households were treated because active trachoma was found in children aged 10 to 14 (Table 1.7). Of the 32 communities, one community (3%) was treated using a community-based approach, and in six communities (19%), people in affected households were treated. Two communities (6%) had affected children treated only and, for 23 (72%), treatment interventions were not reported. From a total of 330 people identified in households and the community as requiring treatment, 317 (96%) received treatment and 90 (27%) were treated within two weeks of the screening (Table 1.7).

A comparison between 2006 and 2007 regional prevalence data found a statistically significant increase in prevalence for one region and a statistically significant decrease in prevalence for two regions (Table 1.8). In total, data for both 2006 and 2007 were provided for 52 communities (Table 1.2). Of the 20 where sufficient children (10 or more) were examined for a comparison, active trachoma prevalence was found to have increased significantly ($p<0.05$) in six communities and decreased significantly in four (Figure 1.2 to Figure 1.6).

Data on trichiasis were reported for five communities in the Katherine region only (Table 1.9). Overall, 719 Aboriginal people were examined for trichiasis, and there were no reported cases found. However, a community-wide treatment survey of trachoma was conducted in five communities in this region by an independent team for the Centre for Eye Research Australia and The Fred Hollows Foundation. Of the 1316 people examined, six people were found to have trichiasis and an additional person was reported to have undergone surgery.[15]

Reviewing the components of the SAFE Strategy used in each community, none were reported to have programs to detect trichiasis, and the distribution of antibiotics was reported for seven communities (12%) (Table 1.10). Facial cleanliness resources were available in one community but health education programs were implemented in five (8%). Environmental activities were reported for one community only.

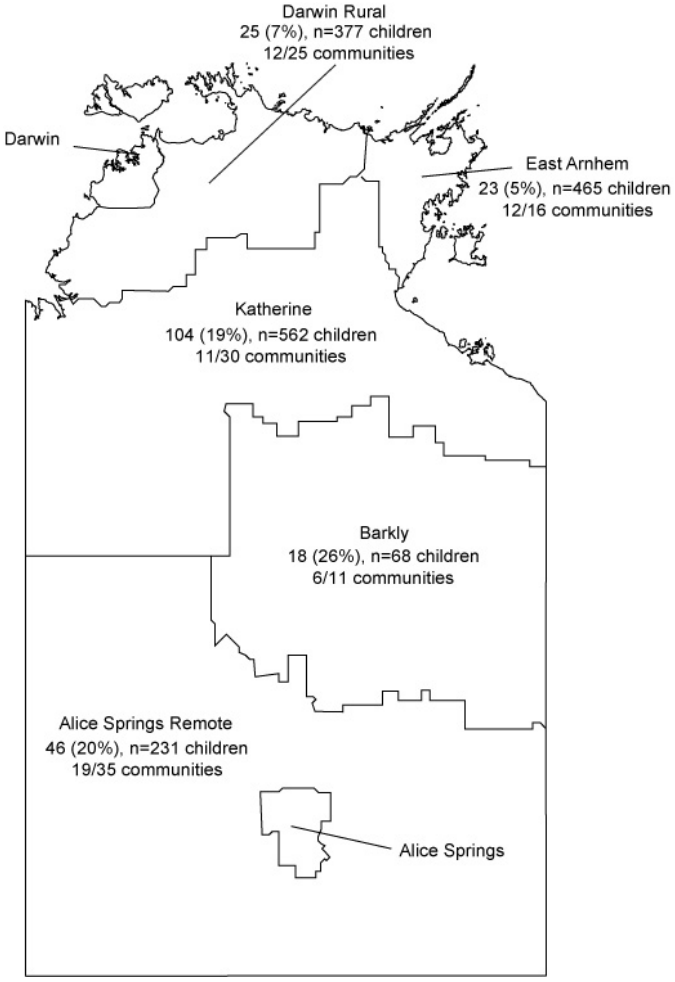

Figure 1.1 The number of Aboriginal children with active trachoma (regional prevalence) aged 1 to 9 years, number examined, and the number of communities where trachoma data were reported in NT regions, 2007.
Source: Data were collected by the Healthy School Age Kids program

SCREENING FOR ACTIVE TRACHOMA

Table 1.1 Screening in communities believed not to have trachoma and those that possibly have trachoma for NT regions, 2007.

Communities	Number of communities					Total
	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	
Believed not to have trachoma						
Screened	4	2	1	5	1	13
Not screened	0	2	0	3	7	12
Subtotal	*4*	*4*	*1*	*8*	*8*	*25*
Possibly have trachoma						
Screened with no trachoma found	6	2	4	2	2	16
Screened with trachoma found	9	2	7	5	8	31
Reported screened but no data received	3	0	1	0	0	4
Should have been screened but were not	12	1	8	0	10	31
Uncertain	1	2	4	1	2	10
Subtotal	*31*	*7*	*24*	*8*	*22*	*92*
Total*	35	11	25	16	30	117

* Based on the number of schools provided by the Northern Territory Department of Education[5]

Table 1.2 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in 2006 and 2007 in NT regions.

Community prevalence	Number (%) of communities where active trachoma data were reported					Total
	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	
2006 Data						
No data reported in 2006	0	0	0	0	0	0
Not screened in 2006	0	0	0	0	0	0
0%	11 (41%)	3 (50%)	7 (44%)	4 (33%)	5 (45%)	30 (42%)
1 to <5%	2 (7%)	1 (17%)	0	4 (33%)	0	7 (10%)
5 to <10%	1 (4%)	0	2 (13%)	4 (33%)	0	7 (10%)
≥10%	13 (48%)	2 (33%)	7 (44%)	0	6 (55%)	28 (39%)
Total	27 (100%)	6 (100%)	16 (101%)*	12 (99%)*	11 (100%)	72 (101%)*
2007 Data						
No data reported in 2007	9 (30%)	1 (14%)	3 (19%)	0	2 (13%)	15 (19%)
Not screened in 2007	2 (7%)	0	1 (6%)	0	2 (13%)	5 (6%)
0%	10 (33%)	4 (57%)	5 (31%)	7 (58%)	3 (20%)	29 (36%)
1 to <5%	1 (3%)	0	2 (13%)	3 (25%)	1 (7%)	7 (9%)
5 to <10%	1 (3%)	0	2 (13%)	0	1 (7%)	4 (5%)
≥10%	7 (23%)	2 (29%)	3 (19%)	2 (17%)	6 (40%)	20 (25%)
Total	30 (99%)*	7 (100%)	16 (101%)*	12 (100%)	15 (100%)	80 (100%)
Number of communities where data were reported						
Both 2006 and 2007	16	5	12	12	7	52
2006 only	11	1	4	0	4	20
2007 only	3	1	0	0	4	8
Total	30	7	16	12	15	80

* Total does not equal 100% due to rounding
Source: Data were collected by the Healthy School Age Kids program

Table 1.3 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years for communities in NT regions that were screened only in 2006.

Community prevalence	Number (%) of communities where active trachoma data were reported					Total
	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	
2006 Only						
0%	4 (36%)	1 (100%)	2 (50%)	0	3 (75%)	10 (50%)
1 to <5%	1 (9%)	0	0	0	0	1 (5%)
5 to <10%	1 (9%)	0	0	0	0	1 (5%)
≥10%	5 (45%)	0	2 (50%)	0	1 (25%)	8 (40%)
Total	11 (99%)*	1 (100%)	4 (100%)	0	4 (100%)	20 (100%)

* Total does not equal 100% due to rounding
Source: Data were collected by the Healthy School Age Kids program

Table 1.4 Number of resident Aboriginal children aged 1 to 9 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in NT regions, 2007.

	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	Total
Regional population (ABS)						
Resident children*	1792 (1796)	652 (653)	2116 (2120)	1889 (1893)	1964 (1968)	8413 (8430)
Children enrolled in schools†	1402 (1405)	443 (444)	1427 (1430)	1204 (1206)	1363 (1366)	5839 (5851)
Active trachoma						
Communities screened and that had data reported	19	6	12	12	11	60
Reported number of children currently in the community/school‡ [number of communities reporting] (percentage of the resident children - ABS)‖	834 [14/19] (47%)	163 [2/6] (25%)	2168 [9/12] (102%)	1849 [9/12] (98%)	129 [1/11] (7%)	5143 [35/60] (61%)
Children examined (percentage of children enrolled in schools) ‖	231 (16%)	68 (15%)	377 (26%)	465 (39%)	562 (41%)	1703 (29%)
Active trachoma (%)	46 (20%)	18 (26%)	25 (7%)	23 (5%)	104 (19%)	216 (13%)
Facial cleanliness						
Communities screened	13	6	9	4	2	34
Children examined	135	53	94	59	35	376
Clean faces (%)	66 (49%)	52 (98%)	86 (91%)	57 (97%)	35 (100%)	296 (79%)

* Projected 2007 population data based on the ABS 1.4% low series (and 1.6% high series) population growth rate in NT

† Projected 2007 ABS enrolment data for pre- and primary school children based on the ABS 1.4% low series (and 1.6% high series) population growth rate in NT

‡ Estimates provided by the Healthy School Age Kids program

‖ These percentages reflect the number of children reported to be in the community

Source: Data were collected by the Healthy School Age Kids program

Table 1.5 Community prevalence of clean faces in Aboriginal children aged 1 to 9 years in NT regions, 2007.

Community prevalence	Number (%) of communities with children with clean faces					Total
	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	
No data reported in 2007	15 (50%)	1 (14%)	6 (38%)	8 (75%)	11 (73%)	41 (51%)
Not screened in 2007	2 (7%)	0	1 (6%)	0	2 (13%)	5 (6%)
0 to 10%	2 (7%)	0	0	0	0	2 (3%)
11 to 20%	0	0	0	0	0	0
21 to 40%	0	0	0	0	0	0
41 to 60%	2 (7%)	0	0	0	0	2 (3%)
61 to 80%	2 (7%)	1 (14%)	0	0	0	3 (4%)
81 to 90%	0	0	1 (6%)	0	0	1 (1%)
91 to 100%	7 (23%)	5 (71%)	8 (50%)	4 (25%)	2 (13%)	26 (33%)
Total	30 (101%)*	7 (99%)*	16 (100%)	12 (100%)	15 (100%)	80 (101%)*

* Total does not equal 100% due to rounding
Source: Data were collected by the Healthy School Age Kids program

Table 1.6 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in NT regions, 2007.

Community prevalence	Number (%) of communities with children with active trachoma					Total
	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	
No data reported in 2007	9 (30%)	1 (14%)	3 (19%)	0	2 (13%)	15 (19%)
Not screened in 2007	2 (7%)	0	1 (6%)	0	2 (13%)	5 (6%)
0%	10 (33%)	4 (57%)	5 (31%)	7 (58%)	3 (20%)	29 (36%)
1 to <5%	1 (3%)	0	2 (13%)	3 (25%)	1 (7%)	7 (9%)
5 to <10%	1 (3%)	0	2 (13%)	0	1 (7%)	4 (5%)
10 to <20%	1 (3%)	0	2 (13%)	2 (17%)	3 20%)	8 (10%)
20 to <50%	5 (17%)	2 (29%)	1 (6%)	0	3 (20%)	11 (14%)
≥50%	1 (3%)	0	0	0	0	1 (1%)
Total	30 (99%)*	7 (100%)	16 (101%)*	12 (100%)	15 (100%)	80 (100%)

* Total does not equal 100% due to rounding
Source: Data were collected by the Healthy School Age Kids program

TREATMENT

Table 1.7 Treatment strategies reported for communities and the number treated in NT regions, 2007.

	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	Total
Treatment strategy						
Communities	0	0	0	0	1 (9%)	1 (2%)
Households	5* (26%)	1 (17%)	0	0	0	6 (10%)
Affected children only	0	0	0	1 (8%)	1 (9%)	2 (3%)
Not reported	5 (26%)	1 (17%)	7 (58%)	4 (33%)	6 (55%)	23 (38%)
No treatment required	9 (47%)	4 (67%)	5 (42%)	7 (58%)	3 (27%)	28 (47%)
Total communities	19 (99%)†	6 (101%)†	12 (100%)	12 (99%)†	11 (100%)	60 (100%)
Total number of people to be treated	86	51	--	--	193	330
Treated within 2 weeks	39 (45%)	51 (100%)	--	--	0 (0%)	90 (27%)
Total treated (%)	78 (91%)	51 (100%)	--	--	188 (97%)	317 (96%)

(--) Data not reported but it is not known whether it was collected or not

* Includes a community that had no active trachoma in children aged 1 to 9 years but household contacts were treated because children aged 10 to 14 were found to have active trachoma

† Total does not equal 100% because of rounding

Source: Data were collected by the Healthy School Age Kids program

COMPARISON OF 2006 AND 2007 ACTIVE TRACHOMA DATA

Table 1.8 Comparison of 2006 and 2007 regional prevalence of active trachoma in Aboriginal children aged 1 to 9 years, NT.

Region	Trachoma prevalence		Test, p value
	2006	2007	
Alice Springs Remote	18%	20%	X^2=0.67, p=0.414
Barkly	21%	26%	X^2=0.71, p=0.400
Darwin Rural	16%	7%	X^2=17.82, p<0.001
East Arnhem	3%	5%	X^2=5.61, p=0.018
Katherine	30%	18%	X^2=12.03, p=0.001

Source: Data collected by the Healthy School Age Kids program

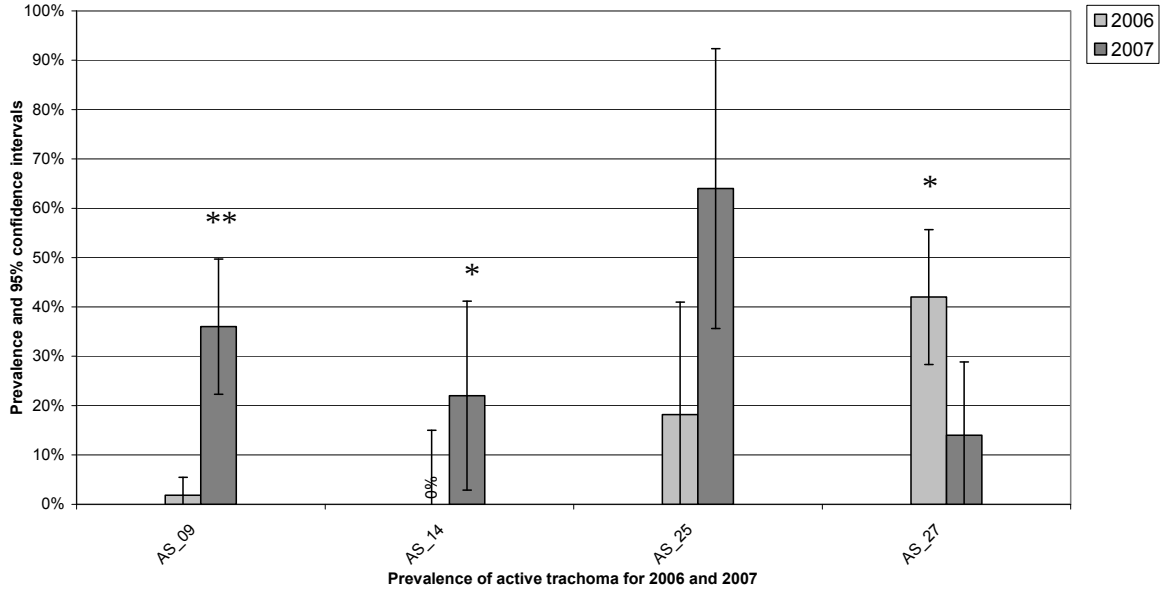

Figure 1.2 Comparison of 2006 and 2007 active trachoma data for communities in the Alice Springs Remote region where ≥10 children aged 1 to 9 years were examined.
* p<0.05, ** p<0.01 = statistically significant difference between 2006 and 2007 active trachoma prevalence
Source: Data collected by the Healthy School Age Kids program

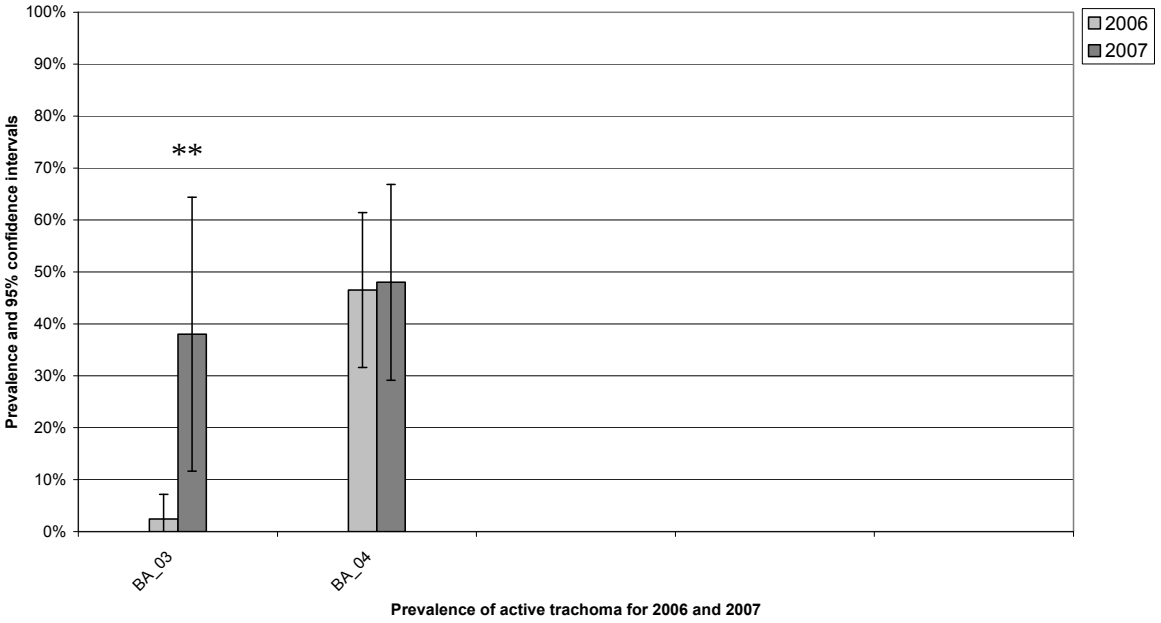

Figure 1.3 Comparison of 2006 and 2007 active trachoma data for communities in the Barkly region where ≥10 children aged 1 to 9 years were examined.
** p<0.01 = statistically significant difference between 2006 and 2007 active trachoma prevalence
Source: Data collected by the Healthy School Age Kids program

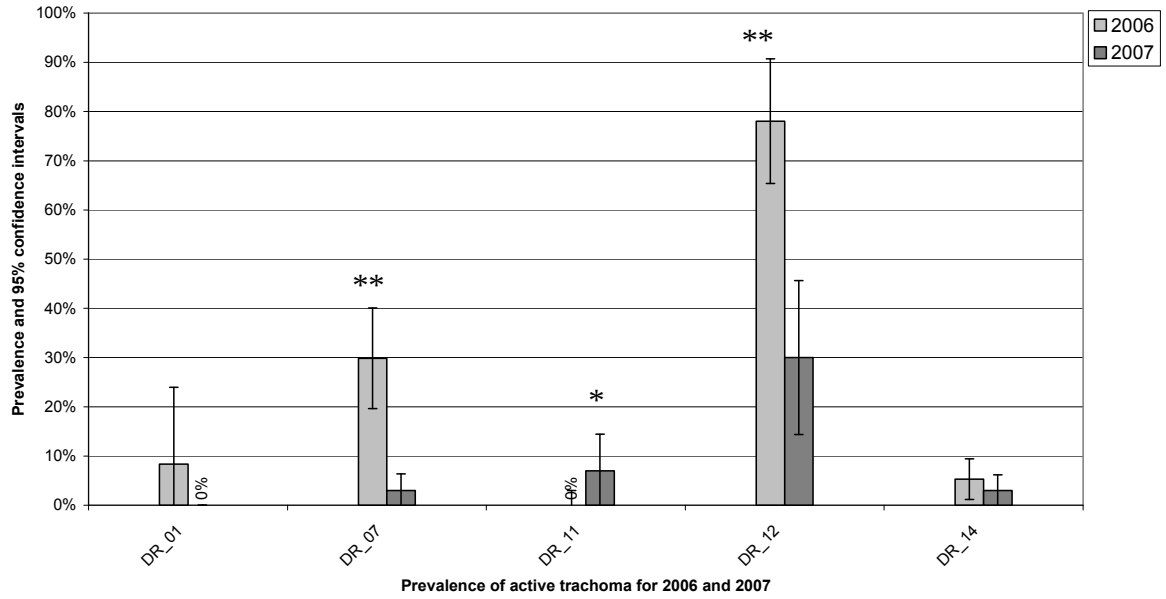

Figure 1.4 Comparison of 2006 and 2007 active trachoma data for communities in the Darwin Rural region where ≥10 children aged 1 to 9 years were examined.
* p<0.05, ** p<0.01 = statistically significant difference between 2006 and 2007 active trachoma prevalence
Source: Data collected by the Healthy School Age Kids program

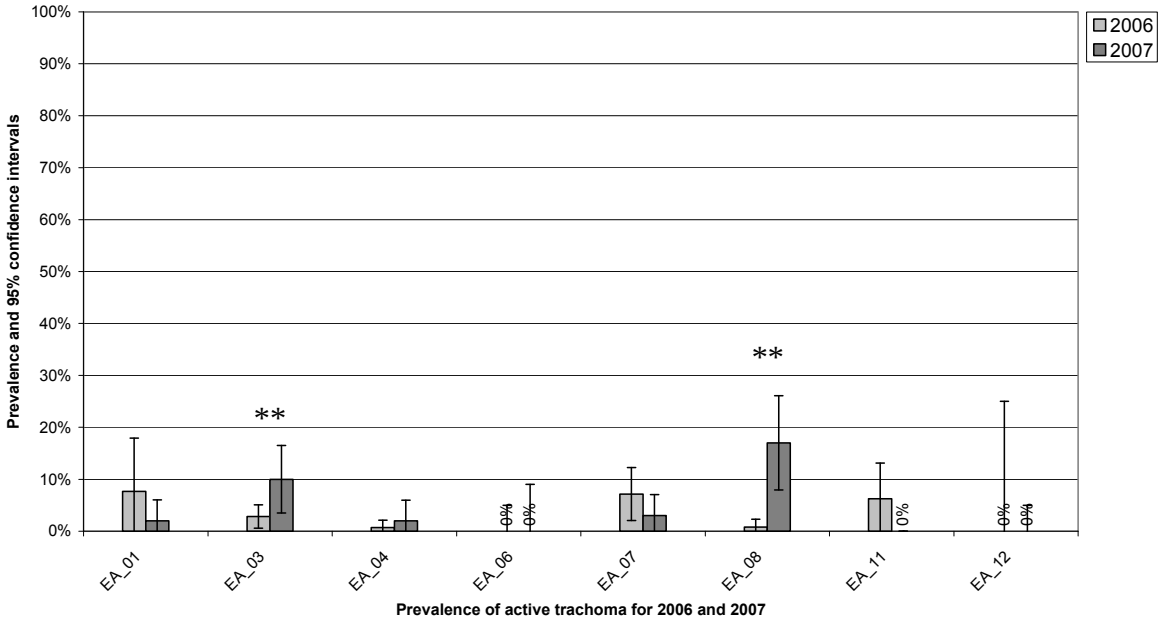

Figure 1.5 Comparison of 2006 and 2007 active trachoma data for communities in the East Arnhem region where ≥10 children aged 1 to 9 years were examined.
** p<0.01 = statistically significant difference between 2006 and 2007 active trachoma prevalence
Source: Data collected by the Healthy School Age Kids program

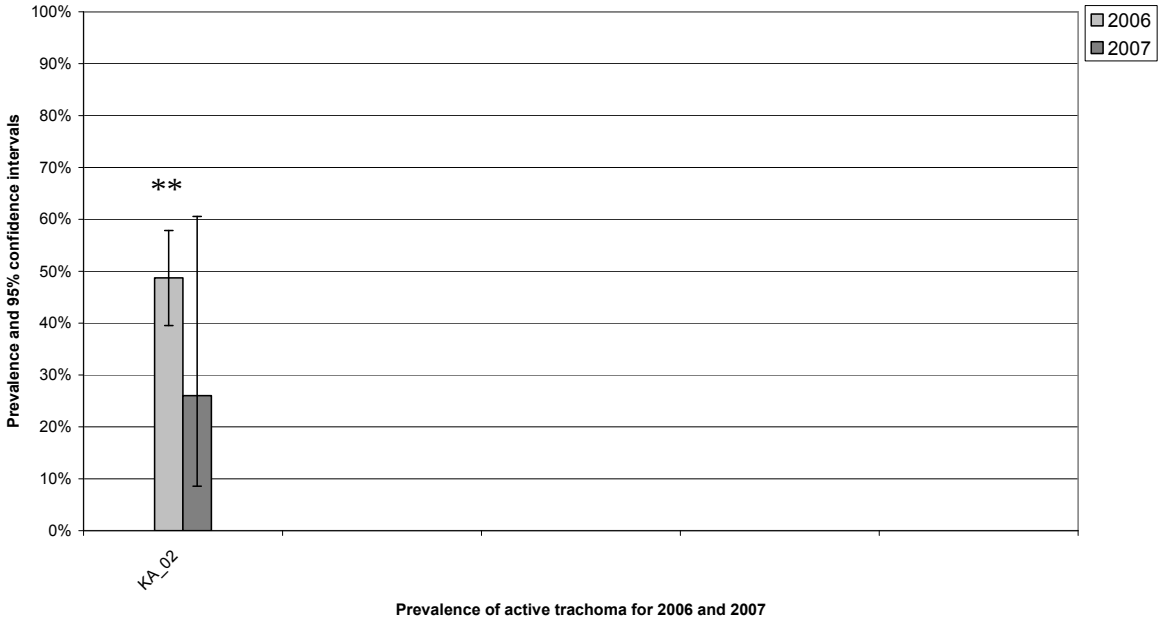

Figure 1.6 Comparison of 2006 and 2007 active trachoma data for one community in the Katherine region where ≥10 children aged 1 to 9 years were examined.
** p<0.01 = statistically significant difference between 2006 and 2007 active trachoma prevalence
Source: Data collected by the Healthy School Age Kids program

TRICHIASIS

Table 1.9 Trichiasis screening data reported for communities in NT regions, 2007.

	Alice Springs Remote	Barkly	Darwin Rural	East Arnhem	Katherine	Total
	n = 19	n = 6	n = 12	n = 12	n = 11	n = 60
Number of communities where screening data were reported (percentage of communities)	0	0	0	0	5 (45%)	5 (8%)
ABS Projection						
Resident Aboriginal people*	9156 (9174)	3301 (3308)	9280 (9299)	8655 (8672)	8385 (8402)	38,777 (38,855)
Trichiasis						
People examined (percentage of the resident Aboriginal people)	--	--	--	--	719 (9%)	719 (2%)
Trichiasis (%)	--	--	--	--	0 (0%)	0 (0%)
Ophthalmic consultation						
Offered an ophthalmic consultation within 6 months of previous screening (percentage examined for trichiasis)	--	--	--	--	--	--

n = number of communities where data were reported for trachoma screening
(--) Data not reported but it is not known whether it was collected or not
* Projected 2007 population data based on the ABS 1.4% low series (and 1.6% high series) population growth rate in NT
Source: Data were collected by the Healthy School Age Kids program

TRACHOMA CONTROL ACTIVITIES

Table 1.10 Number of communities where SAFE trachoma control activities were reported in NT regions, 2007.

SAFE trachoma control activities	Number (%) of communities where activities were reported					
	Alice Springs Remote n = 19	Barkly n = 6	Darwin Rural n = 12	East Arnhem n = 12	Katherine n = 11	Total n = 60
Surgery	--	--	--	--	--	--
Antibiotics	5 (26%)	2 (33%)	--	--	--	7 (12%)
Facial cleanliness resources	1 (5%)	--	--	--	--	1 (2%)
Facial cleanliness programs	3 (16%)	2 (33%)	--	--	--	5 (8%)
Environmental health	--	1 (17%)	--	--	--	1 (2%)
Other	3 (16%)	1 (17%)	--	--	--	4 (7%)

n = number of communities that reported trachoma screening data
(--) Data not reported but it is not known whether it was collected or not
Source: Data were collected by the Healthy School Age Kids program

2. SOUTH AUSTRALIA

Data from South Australia present a number of difficulties as these data were not collected as part of a trachoma screening program. For both 2006 and 2007, data were reported for a relatively small number of children, there is variation with the combination or pooling of community data in 2006 and 2007, and in many areas two screening rounds were held each year and it is unclear how many children were examined twice.

Trachoma data were provided for five trachoma-endemic areas serviced by an ACCHS and funded by the EH&CDSSP (Figure 2.1):

- Ceduna/Koonibba
- Nganampa
- Oak Valley (Maralinga Tjarutja)
- Tullawon
- Umoona Tjutagku.

For details of data from each area serviced by an ACCHS see Appendix 3: South Australia (pages 126 to 142).

Of the 91 communities in the six ACCHS areas (including the ACCHS where data were not reported for 2007), all were identified as possibly having trachoma, of which eight communities were screened during the first round of screening and six during the second (Table 2.1).

Reports came from 12 communities in 2007. Communities SA_14, SA_15, SA_16 and SA_17 were included in this report because, although data for active trachoma screening were not reported, data for trichiasis were reported (Table 2.3 and Table 2.4). Of the eight communities that provided trachoma data in 2007, all reported trachoma data in 2006 (Table 2.2), although some reported as part of a group of communities in 2007 (see Table 2.4 for combinations). Four that reported combined data in 2006 did not report in 2007; these had a prevalence of active trachoma ≥10% in 2006 (Table 2.5).

Using the ABS low series population growth estimates 590 children aged 1 to 9 years are resident in the Ceduna/Koonibba, Nganampa, and Umoona Tjutagku ACCHS areas (Table 2.6). Data were not available for the Oak Valley and Tullawon areas. The high series population growth estimates are also in Table 2.6. The total coverage of children screened could not be calculated because data for the number of children reported to be in their community/school were not reported, so coverage was calculated using the school enrolment numbers reported by the ABS.

Of the children reported by the ABS to be enrolled in schools 128 (24%) out of 444 were examined for trachoma during the first screening and 18 were found to have active trachoma (prevalence = 14%, 95% CI, 8%–20%). Fifty-nine children (11%) were examined during the second screening and nine were found to have active trachoma (prevalence = 15%, 95% CI, 6%–24%).

Facial cleanliness data were reported for all eight communities in screening one and all six communities in screening two; of these communities, six (75%) from screening one and four (67%) from screening two had clean faces in >80% of the children (Table 2.7). Facial cleanliness data were provided for all the children examined during both of the screenings. Overall, 110 (86%) of the children from the first screening and 49 (83%) from the second screening were reported to have clean faces (Table 2.6 and Appendix Table 2.1, page 126).

From the first screening, two communities (25%) had no active trachoma whereas four (50%) had a prevalence ≥10% (Table 2.8 and Figure 2.2). During the second screening two (33%) had no active trachoma whereas four (75%) had a prevalence ≥10% and, of these, one had a prevalence of ≥50%.

All of the children who were found to have active trachoma, 18 from the first screening and 11 from the second, were treated within two weeks of being examined. Household and community contacts were not treated in 2007; therefore there are no tables for treatment in SA.

A comparison between 2006 and 2007 regional prevalence data of active trachoma found no significant change for any of the ACCHS (Table 2.9). In total, eight communities provided trachoma data for both 2006 and 2007 during the first screening and six for the second screening (Table 2.2). Three examined sufficient children (10 or more) from the first screening for a comparison of the 2006 and 2007 data, and no change was found (Figure 2.3).

Data on trichiasis were provided for 11 communities during the first screening and 10 during the second screening (Table 2.10). Adults were examined for trichiasis while they were at the ACCHS clinics for a diabetes check up. Overall, 329 Aboriginal people were examined for trichiasis during the first screening, and 277 were examined during the second screening. There were no reported cases of trichiasis.

Most people saw an ophthalmologist at the time of screening regardless of whether they had trichiasis and this was reported as being offered an ophthalmic consultation within six months of the previous screening; 200 people (62%) from the first screening and 178 people (64%) from the second screening.

Information on the implementation of trachoma control activities was not reported.

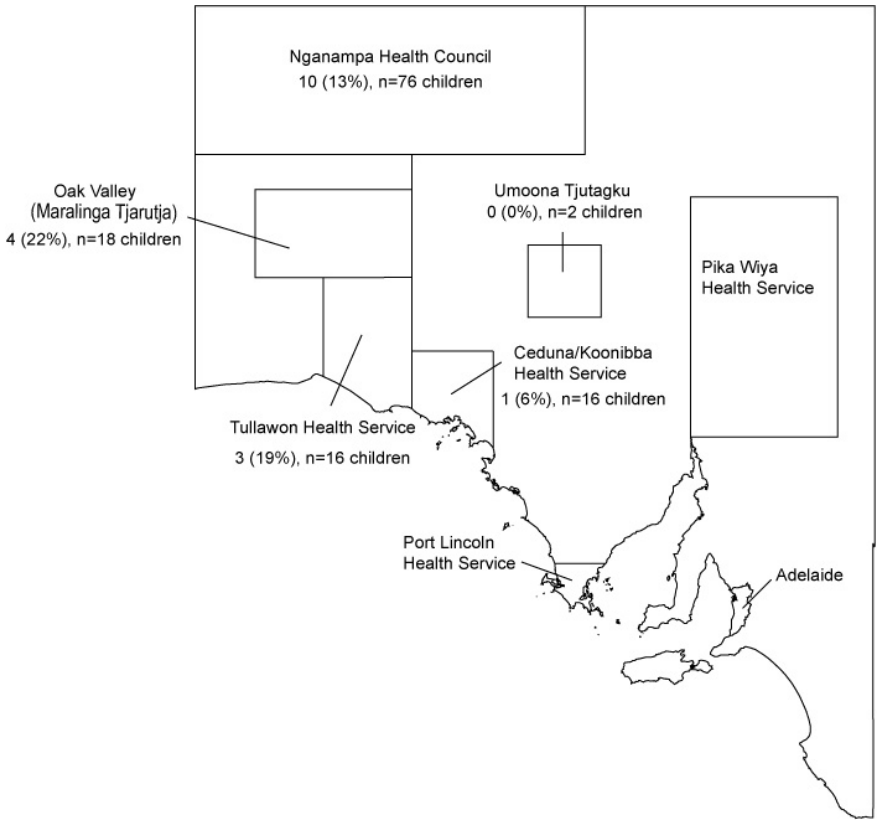

Figure 2.1 The number of Aboriginal children with active trachoma (regional prevalence) aged 1 to 9 years and examined for trachoma in areas serviced by an ACCHS, SA, 2007.
Source: Data collected by the EH&CDSSP coordinator and the screening team
Nganampa, Oak Valley and Tullawon = 6/11 communities
Ceduna/Koonibba = 1/26 communities (denominator also includes communities in Port Lincoln)
Umoona Tjutagku = 1/25 communities
Pika Wiya = 0/29 communities

SCREENING FOR ACTIVE TRACHOMA

Table 2.1 Screening in communities believed not to have trachoma and those that possibly have trachoma in areas serviced by SA ACCHS, 2007.

Communities	Number of communities				Total
	Ceduna/ Koonibba	Nganampa, Oak Valley and Tullawon*	Pika Wiya	Umoona Tjutagku	
SCREENING 1					
Believed not to have trachoma					
Screened	0	0	0	0	0
Not screened	0	0	0	0	0
Subtotal	*0*	*0*	*0*	*0*	*0*
Possibly have trachoma					
Screened with no trachoma found	0	1	0	1	2
Screened with trachoma found	1	5	0	0	6
Reported screened but no data received	0	0	0	0	0
Should have been screened but were not	0	4	5	0	9
Uncertain	25	1	24	24	74
Subtotal	*26*	*11*	*29*	*25*	*91*
Total†	26	11	29	25	91
SCREENING 2					
Believed not to have trachoma					
Screened	0	0	0	1	1
Not screened	0	0	0	0	0
Subtotal	*0*	*0*	*0*	*1*	*1*
Possibly have trachoma					
Screened with no trachoma found	0	1	0	0	1
Screened with trachoma found	0	4	0	0	4
Reported screened but no data received	0	0	0	0	0
Should have been screened but were not	1	5	5	0	11
Uncertain	25	1	24	24	74
Subtotal	*26*	*11*	*29*	*24*	*90*
Total†	26	11	29	25	91

* These areas have been grouped together because they fall within the same school district classified by the South Australian Department of Education

† Based on the number of schools provided by the South Australian Department of Education[3]

Table 2.2 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in 2006 and 2007 for both first (S1) and second (S2) screenings in areas serviced by SA ACCHS.

Community prevalence	Number (%) of communities where active trachoma data were reported												Total	
	Ceduna/ Koonibba		Nganampa*		Oak Valley†		Pika Wiya*		Tullawon		Umoona Tjutagku			
	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
2006 Data														
No data reported in 2006	0	0	0	0			0	0	0	0	0	0	0	0
Not screened in 2006	0	1 (100%)	0	0			0	1 (50%)	0	0	0	0	0	2 (25%)
0%	0	0	0	1 (33%)			0	0	0	0	0	1 (100%)	0	2 (25%)
1 to <5%	0	0	0	0			0	0	0	0	0	0	0	0
5 to 10%	1 (100%)	0	0	0			1 (50%)	1 (50%)	0	0	0	0	2 (25%)	1 (13%)
>10%	0	0	3 (100%)	2 (67%)			1 (50%)	0	1 (100%)	1 (100%)	1 (100%)	0	6 (75%)	3 (38%)
Total	1 (100%)	1 (100%)	3 (100%)	3 (100%)			2 (100%)	2 (100%)	1 (100%)	1 (100%)	1 (100%)	1 (100%)	8 (100%)	8 (100%)
2007 Data														
No data reported in 2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Not screened in 2007	0	1 (100%)	4 (50%)	4 (50%)	0	1 (100%)	5 (100%)	5 (100%)	0	0	0	0	9 (53%)	11 (65%)
0%	0	0	1 (13%)	1 (23%)	0	0	0	0	0	0	1 (100%)	1 (100%)	2 (12%)	2 (12%)
1 to <5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 to 10%	1 (100%)	0	1 (13%)	0	0	0	0	0	0	0	0	0	2 (12%)	0
>10%	0	0	2 (25%)	3 (38%)	1 (100%)	0	0	0	1 (100%)	1 (100%)	0	0	4 (24%)	4 (24%)
Total	1 (100%)	1 (100%)	8 (101%)‡	8 (101%)‡	1 (100%)	1 (100%)	5 (100%)	5 (100%)	1 (100%)	1 (100%)	1 (100%)	1 (100%)	17 (101%)‡	17 (101%)‡
Number of communities where data were reported														
Both 2006 and 2007	1	0	4	4	1	0	0	0	1	1	1	1	8	6
2006 only	0	0	4	4	0	1	5	5	0	0	0	0	9	11
2007 only	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	8	8	1	1	5	1	1	1	1	1	17	0

* Combined data for several communities were reported in 2006 (see Table 2.4 for combinations)

† Data from Oak Valley ACCHS were reported with Tullawon data in 2006

‡ Total does not equal 100% because of rounding

Source: Data were collected by the EH&CDSSP coordinator and the screening team

Table 2.3 Communities that reported trachoma data during the first screening in 2006 and 2007 in areas serviced by the SA ACCHS.

	2007		
2006	Reported	Not reported	
Reported	8	9	17
Not reported	0	74	74
	8	83	91

Source: Data collected by the EH&CDSSP coordinator and the screening team

Table 2.4 Prevalence of active trachoma in communities screened in 2006 and 2007 in areas serviced by SA ACCHS.

Aboriginal Community Controlled Health Service	Community code	Number of children examined (Active trachoma prevalence %)			
		2006		2007	
		Screening 1	Screening 2	Screening 1	Screening 2
Ceduna/Koonibba	SA_01	18 (6%)	NS	16 (6%)	NS
Tullawon	SA_02	28 (25%)	39 (13%)		
	SA_22	*	*	16 (19%)	23 (13%)
Oak Valley	SA_09	*	*	18 (22%)	NS
Umoona Tjutagku	SA_03	6 (17%)	9 (0%)	2 (0%)	2 (0%)
Nganampa	SA_04	4 (25%)	5 (20%)		
	SA_10	*	*	22 (14%)	16 (12%)
	SA_11	*	*	7 (0%)	4 (0%)
	SA_12	*	*	33 (9%)	4 (50%)
	SA_05	17 (18%)	28 (21%)		
	SA_13	*	*	14 (29%)	10 (20%)
	†SA_14	*	*	NS	NS
	†SA_15	*	*	NS	NS
	SA_06	6 (17%)	7 (0%)		
	†SA_16	*	*	NS	NS
	†SA_17	*	*	NS	NS
Pika Wiya	‡SA_07	13 (31%)	NS	NS	NS
	SA_08	38 (5%)	33 (6%)	NS	NS
		130 (15%)	121 (12%)	128 (14%)	59 (19%)

NS = Not screened

* 2006 data were reported with another community

† Data were not reported for trachoma screening but were reported for trichiasis

‡ This code refers to a group of four communities; data for these communities were not reported in 2007

Source: Data collected by the EH&CDSSP coordinator and the screening team

Table 2.5 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years for communities in areas serviced by SA ACCHS that were screened only in 2006.

Community prevalence	Number (%) of communities where active trachoma data were reported						Total
	Ceduna/ Koonibba	Nganampa*	Oak Valley	Pika Wiya*	Tullawon	Umoona Tjutagku	
2006 Only							
0%	0	0	0	0	0	0	0
1 to <5%	0	0	0	0	0	0	0
5 to 10%	0	0	0	1 (50%)	0	0	1 (25%)
>10%	0	2 (100%)	0	1 (50%)	0	0	3 (75%)
Total	0	2 (100%)	0	2 (100%)	0	0	4 (100%)

* Includes reporting of combined communities (see Table 2.3 for combinations)
Source: Data were collected by the EH&CDSSP coordinator and the screening team

Table 2.6 Number of resident Aboriginal children aged 1 to 9 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in areas serviced by SA ACCHS, 2007.

	Ceduna/ Koonibba	Nganampa	Oak Valley	Pika Wiya	Tullawon	Umoona Tjutagku	Total
Regional population							
Resident children (ABS)*	165 (167)	349 (352)	NA	75 (76)	NA	76 (77)	665 (672)
Children enrolled in schools (ABS)†	134 (135)	260 (263)	NA	79 (80)	NA	50 (51)	523 (529)
Reported number of children currently in the community/school‡	--	--	--	--	--	--	--
SCREENING 1							
Active trachoma							
Communities screened	1	4	1	0	1	1	8
Children examined	16	76	18	0	16	2	128
Active trachoma (%)	1 (6%)	10 (13%)	4 (22%)		3 (19%)	0 (0%)	18 (14%)
Facial cleanliness							
Communities screened	1	4	1	0	1	1	8
Children examined	16	76	18	0	16	2	128
Clean faces (%)	16 (100%)	58 (76%)	18 (100%)		16 (100%)	2 (100%)	110 (86%)
SCREENING 2							
Active trachoma							
Communities screened	0	4	0	0	1	1	6
Children examined	0	34	0	0	23	2	59
Active trachoma (%)		6 (18%)			3 (13%)	0 (0%)	9 (15%)
Facial cleanliness							
Communities screened	0	4	0	0	1	1	6
Children examined	0	34	0	0	23	2	59
Clean faces (%)		24 (71%)			23 (100%)	2 (100%)	49 (83%)

NA = there are no data available from the ABS for these locations because they had a very low population count
(--) Data not reported but it is not known whether it was collected or not

* Projected 2007 population data for the whole region based on the ABS 1.9% low series and (2.9% high series) population growth rate in SA

† Projected 2007 ABS enrolment data for the whole region for pre- and primary school children based on the ABS 1.9% low series and (2.9% high series) population growth rate in SA

‡ Reports were not provided by the EH&CDSSP coordinator and the screening team

Source: Data were collected by the EH&CDSSP coordinator and the screening team

Table 2.7 Community prevalence of clean faces in Aboriginal children aged 1 to 9 years in areas serviced by SA ACCHS, 2007.

Community prevalence	Number (%) of communities with children with clean faces						Total
	Ceduna/ Koonibba	Nganampa	Oak Valley	Pika Wiya	Tullawon	Umoona Tjutagku	
SCREENING 1							
No data reported in 2007	0	0	0	0	0	0	0
Not screened in 2007	0	4 (50%)	0	5 (100%)	0	0	9 (53%)
0 to 10%	0	1 (13%)	0	0	0	0	1 (6%)
11 to 20%	0	0	0	0	0	0	0
21 to 40%	0	0	0	0	0	0	0
41 to 60%	0	1 (13%)	0	0	0	0	1 (6%)
61 to 80%	0	0	0	0	0	0	0
81 to 90%	0	0	0	0	0	0	0
91 to 100%	1 (100%)	2 (25%)	1 (100%)	0	1 (100%)	1 (100%)	6 (35%)
Total	1 (100%)	8 (101%)*	1 (100%)	5 (100%)	1 (100%)	1 (100%)	17 (100%)
SCREENING 2							
No data reported in 2007	0	0	0	0	0	0	0
Not screened in 2007	1 (100%)	4 (50%)	1 (100%)	5 (100%)	0	0	11 (65%)
0 to 10%	0	0	0	0	0	0	0
11 to 20%	0	0	0	0	0	0	0
21 to 40%	0	0	0	0	0	0	0
41 to 60%	0	2 (25%)	0	0	0	0	2 (12%)
61 to 80%	0	0	0	0	0	0	0
81 to 90%	0	0	0	0	0	0	0
91 to 100%	0	2 (25%)	0	0	1 (100%)	1 (100%)	4 (24%)
Total	1 (100%)	8 (100%)	1 (100%)	5 (100%)	1 (100%)	1 (100%)	17 (101%)*

* Total does not equal 100% because of rounding

Source: Data were collected by the EH&CDSSP coordinator and the screening team

Table 2.8 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in areas serviced by SA ACCHS, 2007.

Community prevalence	Number (%) of communities with children with active trachoma						Total
	Ceduna/ Koonibba	Nganampa	Oak Valley	Pika Wiya	Tullawon	Umoona Tjutagku	
SCREENING 1							
No data reported in 2007	0	0	0	0	0	0	0
Not screened in 2007	0	4 (50%)	0	5 (100%)	0	0	9 (53%)
0%	0	1 (13%)	0	0	0	1 (100%)	2 (12%)
1 to <5%	0	0	0	0	0	0	0
5 to <10%	1 (100%)	1 (13%)	0	0	0	0	2 (12%)
10 to <20%	0	1 (13%)	0	0	1 (100%)	0	2 (12%)
20 to <50%	0	1 (13%)	1 (100%)	0	0	0	2 (12%)
≥50%	0	0	0	0	0	0	0
Total	1 (100%)	8 (102%)*	1 (100%)	5 (100%)	1 (100%)	1 (100%)	17 (101%)*
SCREENING 2							
No data reported in 2007	0	0	0	0	0	0	0
Not screened in 2007	1 (100%)	4 (50%)	1 (100%)	5 (100%)	0	0	11 (65%)
0%	0	1 (13%)	0	0	0	1 (100%)	2 (12%)
1 to <5%	0	0	0	0	0	0	0
5 to <10%	0	0	0	0	0	0	0
10 to <20%	0	1 (13%)	0	0	1 (100%)	0	2 (12%)
20 to <50%	0	1 (13%)	0	0	0	0	1 (6%)
≥50%	0	1 (13%)	0	0	0	0	1 (6%)
Total	1 (100%)	8 (102%)*	1 (100%)	5 (100%)	1 (100%)	1 (100%)	17 (101%)*

* Total does not equal 100% because of rounding

Source: Data were collected by the EH&CDSSP coordinator and the screening team

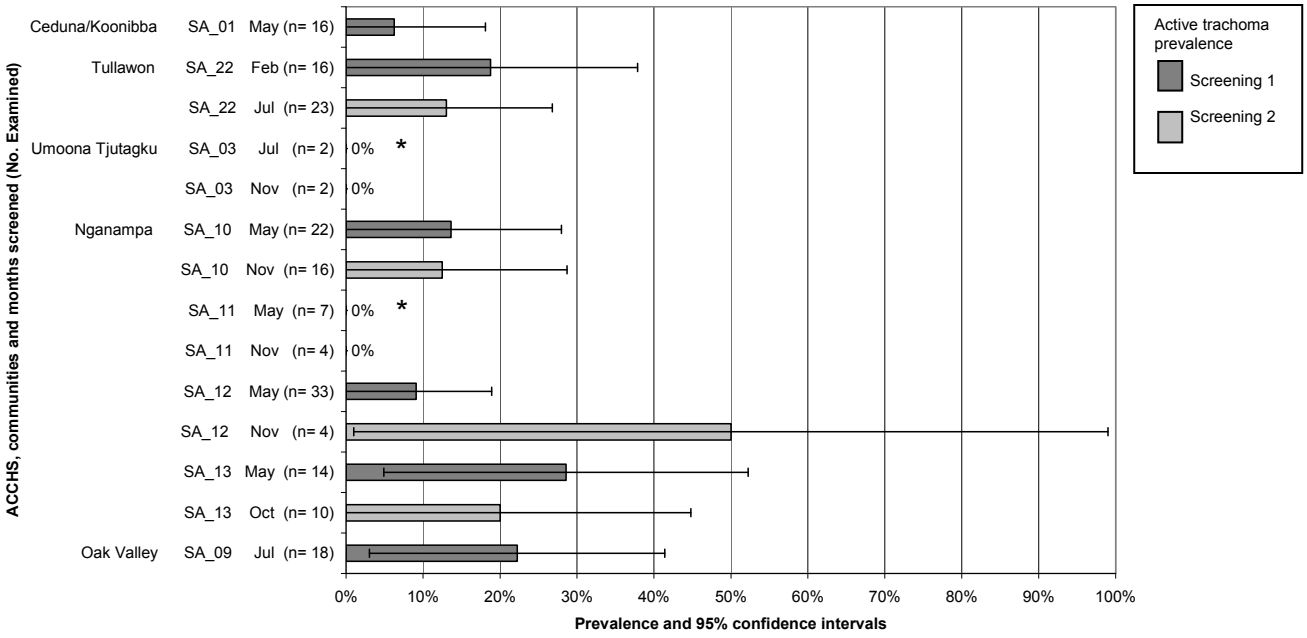

Figure 2.2 Community prevalence and 95% confidence intervals of active trachoma in Aboriginal children aged 1 to 9 years in areas serviced by an ACCHS, SA, 2007.

* Communities that reported zero prevalence during Screening 1

For communities with ≤5 children examined 95% CI were very large and have not been included in the figure.

Source: Data collected by the EH&CDSSP coordinator and the screening team

COMPARISON OF 2006 AND 2007 ACTIVE TRACHOMA DATA

Table 2.9 Comparison of 2006 and 2007 regional prevalence of Aboriginal children aged 1 to 9 years with active trachoma, SA.

Region	Trachoma prevalence		Test, p value
	2006	2007	
Ceduna/Koonibba	6%	6%	Fisher's exact, p=0.727
Nganampa	18%*	13%	
Oak Valley & Tullawon†	25%	21%	X^2= 0.17, p=0.679
Pika Wiya	12%	NS	
Umoona Tjutagku	3%‡	0%‡	

NS = Not screened

* Examined too few children (<10) for some communities and other communities had pooled data

† 2007 data for Tullawon and Oak Valley were combined in this figure so they could be compared with the 2006 data where both ACCHS were reported together

‡ Examined too few children (<10) to provide a meaningful comparison

Source: Data were collected by the EH&CDSSP coordinator and the screening team

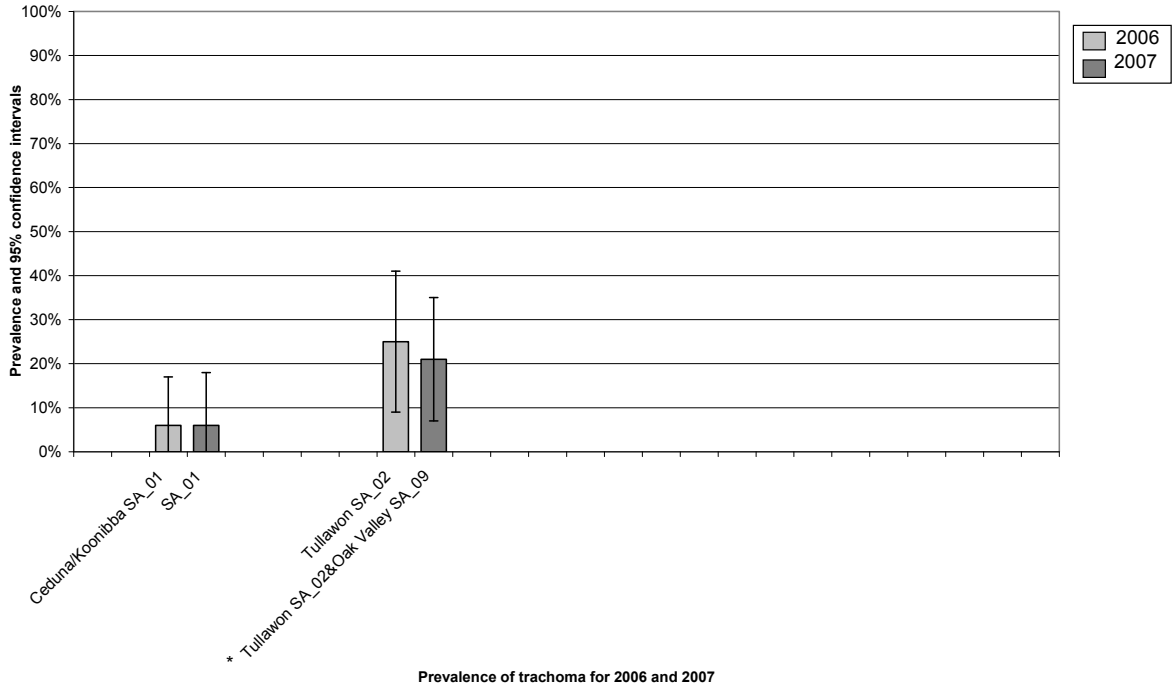

Figure 2.3 Comparison of 2006 and 2007 active trachoma data from Screening 1 for communities in SA ACCHS areas where ≥10 children aged 1 to 9 years were examined.

* 2007 data for Tullawon and Oak Valley were combined in this figure so they could be compared with the 2006 data where both ACCHS were reported together

Source: Data were collected by the EH&CDSSP coordinator and the screening team

TRICHIASIS

Table 2.10 Trichiasis screening data reported for communities in areas serviced by SA ACCHS, 2007.

	Ceduna/ Koonibba	Nganampa	Oak Valley	Pika Wiya	Tullawon	Umoona Tjutagku	Total
ABS Projection							
Resident Aboriginal people*	749 (756)	1921 (1940)	NA	464 (469)	NA	275 (278)	3409 (3443)
SCREENING 1							
Trichiasis							
Number of communities where screening data were reported	1	7	1	0	1	1	11
People examined (percentage of the resident Aboriginal people)	26 (3%)	222 (12%)	17	0	27	37 (13%)	329†
Trichiasis (%)	0 (0%)	0 (0%)	0 (0%)		0 (0%)	0 (0%)	0 (0%)
Ophthalmic consultation							
Offered an ophthalmic consultation within 6 months of previous screening (percentage examined for trichiasis)	18 (69%)	130 (60%)	16 (94%)		15 (56%)	21 (57%)	200 (62%)
SCREENING 2							
Trichiasis							
Number of communities where screening data were reported	0	7	1	0	1	1	10
People examined (percentage of the resident Aboriginal people)	0	205 (11%)	19	0	22	31 (11%)	277 (8%)
Trichiasis (%)		0 (0%)	0 (0%)		0 (0%)	0 (0%)	0 (0%)
Ophthalmic consultation							
Offered an ophthalmic consultation within 6 months of previous screening (percentage examined for trichiasis)		137 (67%)	12 (63%)		12 (55%)	17 (55%)	178 (64%)

NA = there are no data available from the ABS for these locations because they had a very low population count

* Projected 2007 population data based on the ABS 1.9% low series and (2.9% high series) population growth rate in SA

† Proportion of people examined for the four ACCHS where ABS projection data were reported was 285/3409 = 8%

Source: Data were collected by the EH&CDSSP coordinator and the screening team

TRACHOMA CONTROL ACTIVITIES

Information on the resources or activities implemented for components of the SAFE strategy was not reported for any of the communities.

3. WESTERN AUSTRALIA

Trachoma data were provided for four trachoma-endemic regions: Goldfields, Kimberley, Midwest and the Pilbara (Figure 3.1). For details of data from each population health region see Appendix 3: Western Australia (pages 143 to 174).

Of the 167 communities in the four regions, 68 (41%) were identified as possibly having trachoma (Table 3.1), of which 56 (82%) were screened in 2007 (Table 3.2). Data were reported from those 56 communities and an additional two that were screened but were identified as believed not to have trachoma (Table 3.1).

Forty-three of the 58 communities where active trachoma data were reported in 2007 were also reported in 2006 (Table 3.2); six of these communities were reported as three pairs in 2007. Results for trachoma prevalence, clean faces, treatment, trichiasis and SAFE strategies counted each pair as one community. However, for 10 of the communities where data were reported in 2006, no data were provided for 2007; eight of these had a prevalence ≥10% in 2006 (Table 3.3). For some communities that were listed as 'believed not to have trachoma' and therefore did not provide data in 2007, 2006 data indicated that trachoma had been present; for example, PIL_07 had a high of 64% (Appendix Table 3.35, page 167).

Using the ABS low series population growth estimates 6383 children 1 to 9 years old are resident in the four regions (Table 3.4); the high series population growth estimates are also in Table 3.4.

In communities where screening was conducted, 1666 (49%) of the 3377 children believed to be attending school at the time of the trachoma screening were examined for trachoma, and 250 were found to have active trachoma (prevalence = 15%, 95% CI, 13%–17%) (Table 3.4).

Facial cleanliness data were provided for 51 out of 55 communities (93%); of these 51 communities, 43 (84%) had clean faces in >80% of the children (Table 3.5). Of the 1543 children examined, 1266 (82%) were reported to have clean faces (Table 3.4).

Overall, 20 out of 55 communities (36%) had no active trachoma whereas 29 (53%) had a prevalence of trachoma ≥10% and, of these, two communities (4%) had a prevalence ≥50% (Table 3.6).

Treatment was required in 37 out of 56 communities. One of these communities had no trachoma for children aged 1 to 9 years but households were treated because active trachoma was found in children aged 10 to 14, and for one community data were provided for treatment but not screening (Table 3.7). Of the 37 communities, 11 (30%) were treated using a community-based approach, and in 18 communities (49%) people in affected households were treated. Five communities (14%) had affected children treated only, and for three (8%) treatment interventions were not reported (Table 3.7). From a total of 1706 people identified in households and the community as requiring treatment, 1401 (82%) received treatment and 1371 (80%) were treated within two weeks of the screening (Table 3.7).

A comparison between 2006 and 2007 regional prevalence data found a statistically significant decrease in prevalence for two regions (Table 3.8). An accurate comparison could not be calculated for the Pilbara because in 2006 active trachoma was graded as the presence of one or more follicles under the upper eyelid. In total, active trachoma data for both 2006 and 2007 were provided for 43 communities (Table 3.2). Of the 32 communities where sufficient children (10 or more) were examined for a comparison (Figure 3.2 to Figure 3.5), active trachoma prevalence was found to

have increased significantly ($p<0.05$) in one community and decreased significantly in three (Figure 3.2 and Figure 3.4). Analysis could not be done for the Kimberley due to missing data for the number of children examined in 2006. Although 2007 rates appeared to decrease consistently in the Pilbara, this is almost certainly due to a change in the grading criterion used for screening in the Pilbara in 2007 (Figure 3.5).

Data on trichiasis were reported for eight communities in the Goldfields region only (Table 3.9). Adults were examined during an influenza vaccination program. This was an innovative way to examine adults for trichiasis and could be taken as a model for other regions. Overall, 275 Aboriginal people were examined for trichiasis, and there were 17 reported cases found (6%).

Reviewing the components of the SAFE Strategy used in each community, very few (9%) had a program to detect trichiasis, while the distribution of antibiotics was reported for most communities (77%) (Table 3.10). Facial cleanliness resources were available in 24 communities (42%) but health education programs were implemented in 21 (37%). Environmental activities were reported to be undertaken in six communities only (11%). Three communities were reported to have swimming pools PIL_03, PIL_02 and MUR_06; these communities had prevalence of 38%, 31% and 33% respectively.

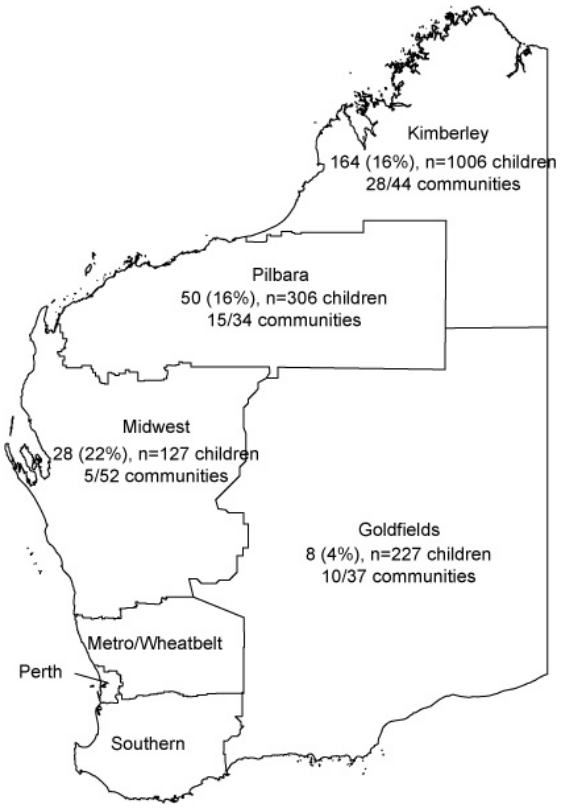

Figure 3.1 The number of Aboriginal children aged 1 to 9 years with active trachoma (regional prevalence), examined for trachoma, and the number of communities that reported trachoma data in WA regions, 2007.
Source: Data collected by Population Health Units and staff from ACCHS in WA.

SCREENING FOR ACTIVE TRACHOMA

Table 3.1 Screening in communities believed not to have trachoma and those that possibly have trachoma in WA regions, 2007.

Communities	Number of communities				Total
	Goldfields	Kimberley	Midwest	Pilbara	
Believed not to have trachoma					
Screened	0	1	0	1	2
Not screened	23	10	46	18	97
Subtotal	*23*	*11*	*46*	*19*	*99*
Possibly have trachoma					
Screened with no trachoma found	5	8	0	6	19
Screened with trachoma found	5	19	5	8	37
Reported screened but no data received	0	3	1	0	4
Should have been screened but were not	3	3	0	1	7
Uncertain	1	0	0	0	1
Subtotal	*14*	*33*	*6*	*15*	*68*
Total*	37	44	52	34	167

* List of WA schools provided by the Western Australian Department of Education[7]

Table 3.2 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in 2006 and 2007 for WA regions.

Community prevalence	Number (%) of communities where active trachoma data were reported				Total
	Goldfields	Kimberley	Midwest	Pilbara	
2006 Data					
No data reported in 2006	0	0	0	0	0
Not screened in 2006	0	0	0	0	0
0%	2 (33%)	1 (3%)	1 (17%)	1 (10%)	5 (9%)
1 to <5%	0	3 (10%)	0	0	3 (6%)
5 to <10%	1 (17%)	5 (16%)	1 (17%)	1 (10%)	8 (15%)
≥10%	3 (50%)	22 (71%)	4 (64%)	8 (80%)	37 (70%)
Total	6 (100%)	31 (100%)	6 (101%)*	10 (100%)	53 (100%)
2007 Data					
No data reported in 2007	0	6† (17%)	1 (17%)	2‡ (12%)	9 (14%)
Not screened in 2007	1 (13%)	1 (3%)	0	0	2 (3%)
0%	4 (50%)	9 (31%)	0	7 (41%)	20 (30%)
1 to <5%	0	0	0	0	0
5 to <10%	1 (13%)	4 (17%)	0	0	5 (8%)
≥10%	2 (25%)	15 (48%)	5 (83%)	8 (47%)	30 (45%)
Total	8‖§ (100%)	35‖ (99%)*	6 (100%)	17 (100%)	66 (100%)
Number of communities where data were reported ¶					
Both 2006 and 2007	6¶	24	5	8	43
2006 only	0	7	1	2	10
2007 only	4¶	4	0	8	16
Total	10	35	6	18	69

* Total does not equal 100% because of rounding

† Includes two communities that were identified as 'believed not to have trachoma' by the population health unit

‡ Includes one community that was identified as 'believed not to have trachoma' by the population health unit

‖ Includes data for communities that were not screened for trachoma

§ Includes the three paired communities

¶ Communities that provided data in pairs in 2007 have been reported separately in 'Number of communities reporting by year'

Source: Data were collected by the Population Health Units from each region

Table 3.3 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years for communities in WA regions that were screened only in 2006.

Community prevalence	Number (%) of communities where active trachoma data were reported				Total
	Goldfields	Kimberley	Midwest	Pilbara	
2006 Only					
0%	0	0	0	0	0
1 to <5%	0	0	0	0	0
5 to 10%	0	2 (29%)	0	0	2 (20%)
>10%	0	5 (71%)	1 (100%)	2 (100%)	8 (80%)
Total	0	7 (100%)	1 (100%)	2 (100%)	10 (100%)

Source: Data were collected by the Population Health Units from each region

Table 3.4 Number of resident Aboriginal children aged 1 to 9 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness for WA regions, 2007.

	Goldfields	Kimberley	Midwest	Pilbara	Total
Regional population (ABS)					
Resident children*	1163 (1178)	2824 (2861)	1218 (1234)	1178 (1193)	6383 (6466)
Children enrolled in schools†	889 (901)	2213 (2242)	999 (1012)	952 (964)	5053 (5119)
Active trachoma					
Communities screened	7‡	28‖	5	15	55
Reported number of children currently in the community/school§ (percentage of the resident children - ABS)	1047 (90%)	1584 (56%)	201 (17%)	545 (46%)	3377 (53%)
Children examined (percentage of those currently in the community/school)	227 (22%)	1006 (64%)	127 (63%)	306 (56%)	1666 (49%)
Active trachoma (%)	8 (4%)	164 (16%)	28 (22%)	50 (16%)	250 (15%)
Facial cleanliness					
Communities screened	3	28‖	5	15	51
Children examined	104	1006	127	306	1543
Clean faces (%)	100 (96%)	817 (81%)	111 (87%)	238 (78%)	1266 (82%)

* Projected 2007 population data for the whole region based on the ABS 1.8% low series and (3.1% high series) population growth rate in WA

† Projected 2007 ABS enrolment data for the whole region for pre- and primary school children based on the ABS 1.8% low series and (3.1% high series) population growth rate in WA

‡ Includes the three paired communities

‖ KIM_29 has not been reported in this total because data was not provided for trachoma or clean faces

§ Numbers provided by the Population Health Units

Source: Data were collected by the Population Health Units from each region

Table 3.5 Community prevalence of Aboriginal children aged 1 to 9 with clean faces by WA regions, 2007.

Community prevalence	Number (%) of communities with children with clean faces				Total
	Goldfields	Kimberley	Midwest	Pilbara	
No data reported in 2007	0	6* (17%)	1 (17%)	2† (12%)	9 (14%)
Not screened in 2007	5 (63%)	1 (3%)	0	0	6 (9%)
0 to 10%	0	0	0	1 (6%)	1 (2%)
11 to 20%	0	0	0	0	0
21 to 40%	0	0	0	2 (12%)	2 (3%)
41 to 60%	0	2 (6%)	0	1 (6%)	3 (5%)
61 to 80%	0	7 (20%)	2 (33%)	3 (18%)	12 (18%)
81 to 90%	1 (13%)	9 (26%)	0	0	10 (15%)
91 to 100%	2 (25%)	10 (29%)	3 (50%)	8 (47%)	23 (35%)
Total	8‡‖ (101%)§	35 (101%)§	6 (100%)	17 (100%)§	66 (101%)§

* Includes two communities that were identified as 'believed not to have trachoma' by the population health unit

† Includes one community that was identified as 'believed not to have trachoma' by the population health unit

‡ Includes communities where data for active trachoma or clean faces were not provided

‖ Includes the three paired communities

§ Total does not equal 100% because of rounding

Source: Data collected by the Population Health Units from each region

Table 3.6 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years by WA regions, 2007.

Community prevalence	Number (%) of communities with children with active trachoma				Total
	Goldfields	Kimberley	Midwest	Pilbara	
No data reported in 2007	0	6* (17%)	1 (17%)	2† (12%)	9 (14%)
Not screened in 2007	1 (13%)	1 (3%)	0	0	2 (3%)
0%	4 (50%)	9 (26%)	0	7 (41%)	20 (30%)
1 to <5%	0	0	0	0	0
5 to <10%	1 (13%)	4 (11%)	0	0	6 (9%)
10 to <20%	2 (25%)	5 (14%)	3 (50%)	2 (12%)	11 (17%)
20 to <50%	0	10 (29%)	2 (33%)	4 (24%)	16 (24%)
≥50%	0	0	0	2 (12%)	2 (3%)
Total	8‡‖ (101%)§	35‡ (100%)§	6 (100%)	17 (101%)§	66 (100%)

* Includes two communities that were identified as 'believed not to have trachoma' by the population health unit

† Includes one community that was identified as 'believed not to have trachoma' by the population health unit

‡ Includes communities where data for active trachoma or clean faces were not provided

‖ Includes the three paired communities

§ Total does not equal 100% because of rounding

Source: Data collected by the Population Health Units from each region

TREATMENT

Table 3.7 Treatment strategies reported for communities and the number treated by WA regions, 2007.

	Goldfields	Kimberley	Midwest	Pilbara	Total
Treatment strategy					
Communities	0	6 (21%)	0	5* (33%)	11 (20%)
Households	3 (43%)	9† (31%)	3 (60%)	3 (20%)	18 (32%)
Affected children only	0	4 (14%)	1 (20%)	0	5 (9%)
Not reported	0	2 (7%)	1 (20%)	0	3 (5%)
No treatment required	4 (57%)	8 (28%)	0	7 (47%)	19 (34%)
Total communities	7‡ (100%)	29‖ (101%)¶	5 (100%)	15 (100%)	56 (100%)
Total number of people to be treated	70	1311	100	225	1706
Treated within 2 weeks (%)	62 (89%)	1089 (83%)	37 (37%)	183 (81%)	1371 (80%)
Total treated (%)	70 (100%)	1096 (84%)	52 (52%)	183 (81%)	1401 (82%)

* One community provided data for the number of community contacts treated but not for those requiring treatment

† Includes a community that had no active trachoma in children aged 1 to 9 years but treated household contacts because children aged 10 to 14 were found to have active trachoma

‡ Includes the three paired communities

‖ KIM_29 is included in this total because data were reported for the treatment of household contacts

¶ Total does not equal 100% because of rounding

Source: Data were collected by the Population Health Units from each region

COMPARISON OF 2006 AND 2007 ACTIVE TRACHOMA DATA

Table 3.8 Comparison of 2006 and 2007 regional prevalence of Aboriginal children aged 1 to 9 years with active trachoma, WA.

Region	Trachoma prevalence		Test, p value
	2006	2007	
Goldfields	19%	4%	X^2=19.28, p<0.001
Kimberley	18%	16%	X^2 = 877.59, p<0.001
Midwest	19%	22%	X^2=0.369, p=0.543
Pilbara	53%*	16%	

* In 2006 active trachoma was graded as the presence of one or more follicles under the upper eyelid

Source: Data collected by the Population Health Units in each region

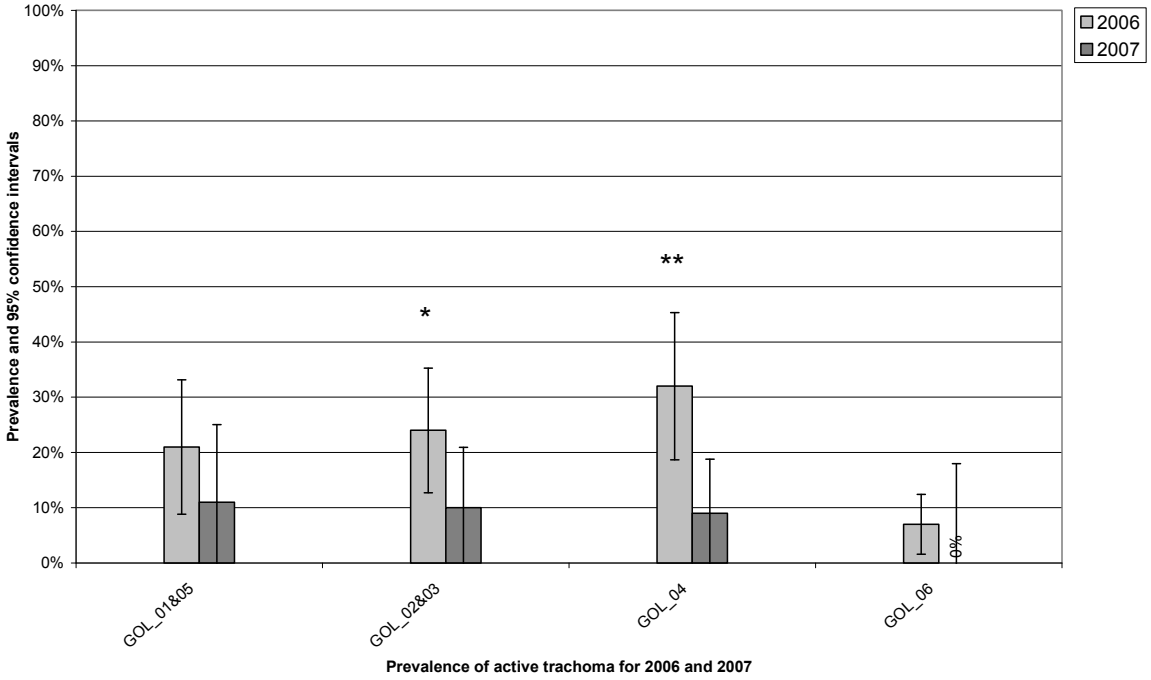

Figure 3.2 Comparison of 2006 and 2007 active trachoma data for communities in the Goldfields region where ≥10 children aged 1 to 9 years were examined.
* p<0.05, ** p<0.01 = statistically significant difference between 2006 and 2007 active trachoma prevalence
Source: Data collected by the Goldfields Population Health Unit

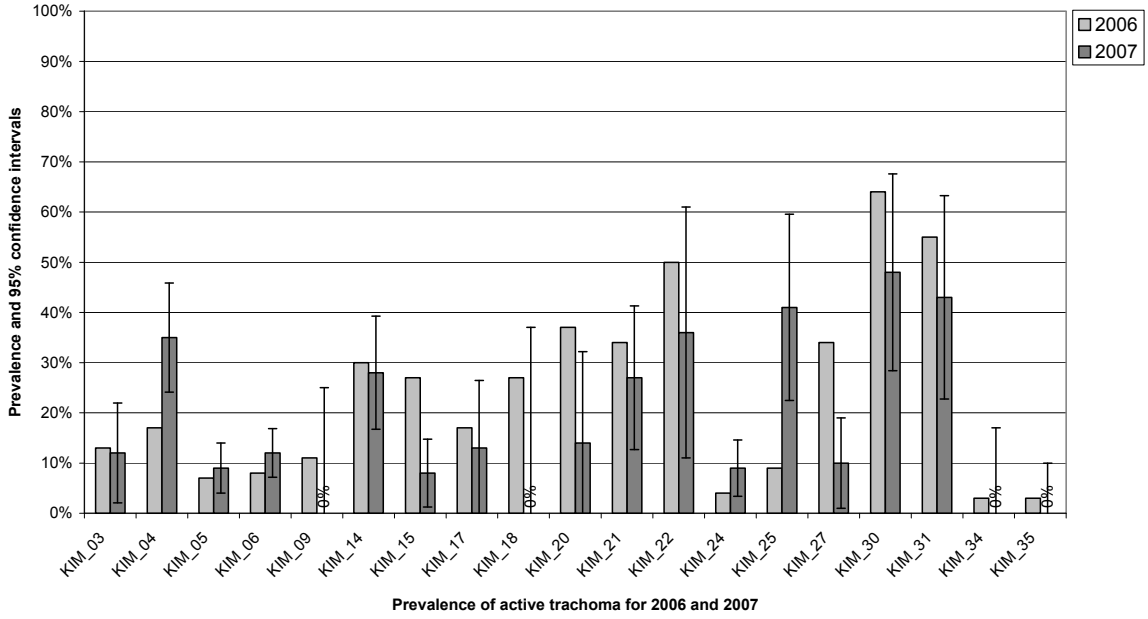

Figure 3.3 Comparison of 2006 and 2007 active trachoma data for communities in the Kimberley region where ≥10 children aged 1 to 9 years were examined.
Confidence intervals could not be provided for 2006 data because the numbers of children examined were not reported; similarly, statistical significance for the difference between the reported prevalence could not be calculated because of this reason.
Source: Data collected by the Kimberley Population Health Unit

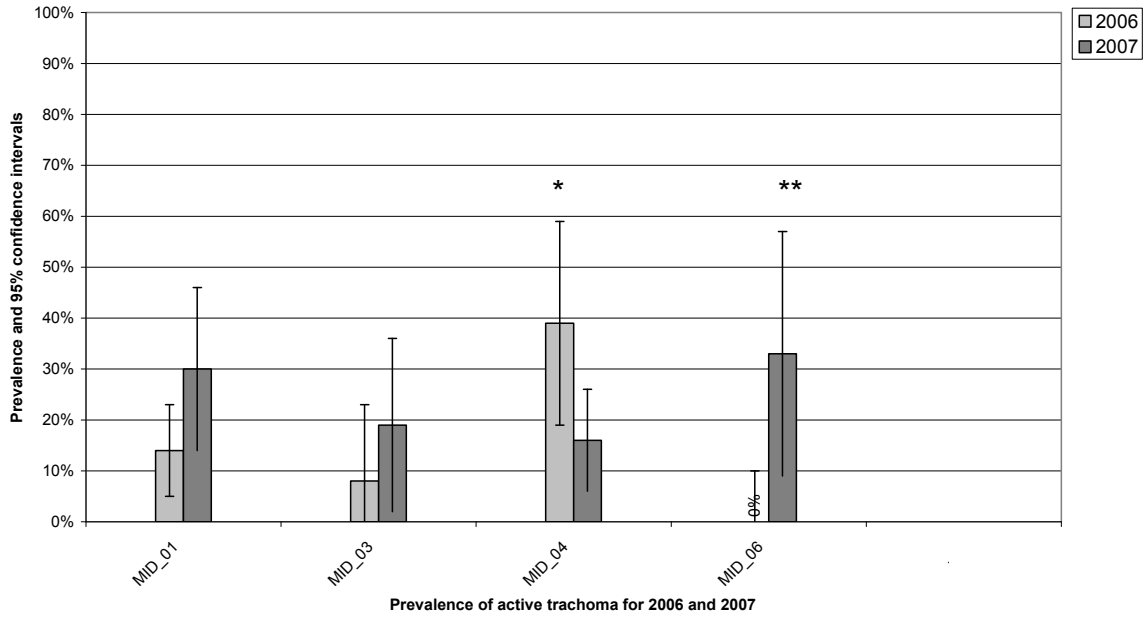

Figure 3.4 Comparison of 2006 and 2007 active trachoma data for communities in the Midwest region where ≥10 children aged 1 to 9 years were examined.
* p<0.05, ** p<0.01 = statistically significant difference between 2006 and 2007 active trachoma prevalence
Source: Data collected by the Midwest Population Health Unit

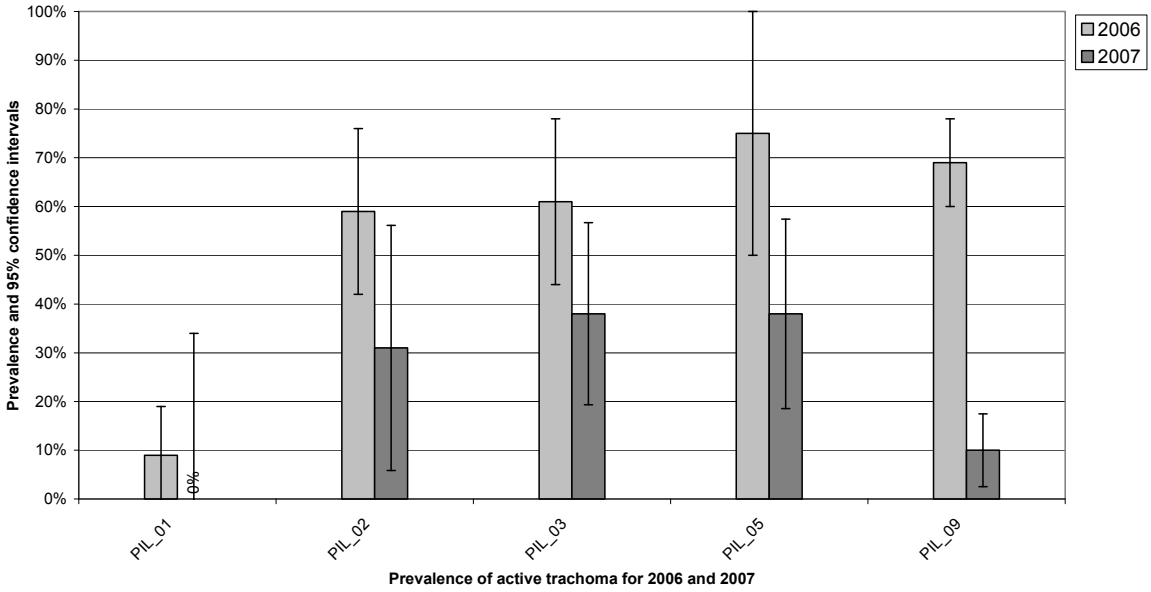

Figure 3.5 Comparison of 2006 and 2007 active trachoma data for communities in the Pilbara region where ≥10 children aged 1 to 9 years were examined.
Statistical significance for the difference between the reported prevalence could not be calculated because in 2006 the communities graded trachoma as the presence of one or more follicles under the upper eyelid.
Source: Data collected by the Pilbara Population Health Unit

TRICHIASIS

Table 3.9 Trichiasis screening reported by communities from WA regions, 2007.

	Goldfields n = 8*†	Kimberley n = 28	Midwest n = 5	Pilbara n = 15	Total n = 56
Number of communities where screening data were reported	8 (100%)	0	0	0	8
ABS projection					
Resident Aboriginal people‡	5313 (5382)	9194 (9314)	5598 (5671)	5767 (5842)	20,559 (26,209)
Trichiasis					
People examined (percentage of the resident Aboriginal people)	275 (5%)	--	--	--	275 (1%)
Trichiasis (%)	17 (6%)	--	--	--	17 (6%)
Ophthalmic consultation					
Offered an ophthalmic consultation within 6 months of previous screening (percentage examined for trichiasis)	17 (100%)	--	--	--	17 (100%)

n = number of communities that reported trachoma screening data
(--) Data not reported but it is not known whether it was collected or not
* Includes the three paired communities
† GOL_12 is included in this total because it had data reported for trichiasis but not for active trachoma or clean faces
‡ Projected 2007 population data based on the ABS 1.8% low series and (3.1% high series) population growth rate in WA
Source: Data regarding trichiasis collected by the Population Health Units from each region

TRACHOMA CONTROL ACTIVITIES

Table 3.10 Communities where SAFE trachoma control activities were reported by WA regions, 2007.

SAFE trachoma control activities	Number (%) of communities where activities were reported				
	Goldfields n = 8*	Kimberley n = 29†	Midwest n = 5	Pilbara n = 15	Total n = 57
Surgery	5 (63%)	--	--	--	5 (9%)
Antibiotics	5 (63%)	20 (69%)	4 (80%)	15 (100%)	44 (77%)
Facial cleanliness resources	--	21 (72%)	1 (20%)	2 (13%)	24 (42%)
Facial cleanliness programs	4 (50%)	10 (34%)	2 (40%)	5 (33%)	21 (37%)
Environmental health	4 (50%)	--	2 (40%)	--	6 (11%)
Other	1 (13%)	2 (7%)	1 (20%)	4 (27%)	8 (14%)

n = number of communities that reported trachoma screening data
(--) Data not reported but it is not known whether it was collected or not
* Includes the three paired communities
† Includes KIM_29 which did not report screening data but reported treatment data
Source: Data were collected by the Population Health Units from each region

ANTIBIOTIC RESISTANCE

A key role of the NTSRU is to monitor antibiotic resistance in Indigenous communities.

The Communicable Diseases Network Australia (CDNA) 'Guidelines for the public health management of trachoma in Australia' recommend that all children with active trachoma and family contacts should be treated with azithromycin and, in hyperendemic communities, community-based treatment should be considered.[2]

Although *Chlamydia* remains sensitive to azithromycin, some studies have shown antibiotic resistance developing in other bacteria following community-based azithromycin treatment.[16,17] For these reasons CDNA recommended that some monitoring of azithromycin resistance in other bacteria be conducted. The organism usually monitored for this purpose is *Streptococcus pneumoniae*. Resistance to azithromycin can be predicted by testing resistance to erythromycin and this is the recommended method.[18]

The NTSRU has contracted four pathology services to monitor azithromycin resistance to *S. pneumoniae* from specimens collected from Indigenous people in trachoma endemic regions.

DATA SOURCES

The following pathology services have agreed to assist with the monitoring of antibiotic resistance in Indigenous communities:

- Institute of Medical Veterinary Science (IMVS) (SA)
- Northern Territory Government Pathology Service (NTGPS)
- PathWest Pathology Service (PWPS) (WA)
- Western Diagnostics Pathology Service (WDPS) (NT).

PathWest was unable to provide data for 2007 but will participate from 2008 onwards.

Following the IMVS requirements, the NTSRU obtained consent from the four services that collected specimens from Indigenous people in SA and Central Australia: Ngaanyatjarra Health Service, Nganampa Health Council, Pika Wiya Health Service and the Royal Flying Doctors Service (SA). A fifth service, the Central Australian Aboriginal Congress, declined to participate. The NTGPS reported specimens collected from outpatients or those in the emergency room of the Alice Springs hospital.

Information on Aboriginality was only reported from the NTGPS. This information is not routinely collected by the other two pathology services. For this reason IMVS and WDPS have collected data for specimens from those regions or health services that serve predominately Aboriginal people.

SAMPLING FRAMEWORK

The participating laboratories and health services reported erythromycin resistance (defined as both intermediate and high level resistance) for any invasive and non-invasive *S. pneumoniae* isolates collected from all specimen sites within the specified three month period (1st July to 30th September 2007). Western Diagnostics laboratories collected data from 1st October to 31st December in 2007 but will use the same timeframe as the other laboratories in 2008.

Data on patients' age, gender, region of residence, and specimen source were reported by each pathology service when available. Isolates were de-identified for

personal data and community data; this is why regional information has been reported in the tables.

DATA ANALYSIS

The collection period was selected to overlap with the collection of the Advisory Group on Antibiotic Resistance (AGAR) data and the same methodology testing was used.[19] Each participating laboratory performed antimicrobial susceptibility tests according to their routine standardised methodology (CDS, CLSI, agar dilution or MIC testing methods are identified in other sources).[20,21]

RESULTS

IMVS reported on 13 specimens from Aboriginal Health Services. NTGPS reported on 22 specimens from Indigenous people, and WDPS reported on 27 specimens from laboratories that serve predominately Aboriginal people (Tables 1 and 2).

Overall, 17 of 62 isolates (27%) were reported to be resistant or have intermediate resistance (Table 3). The numbers are too small to explore any regional variation in susceptibility rates.

Antibiotic resistance Table 1 Age of patients that *S. pneumoniae* isolates were collected from and reported to various pathology services, 2007.

Age range (years)	Number of isolates (%)			
	IMVS	NTGPS	WDPS	Total
0 to 4	0	6 (27%)	2 (7%)	8 (13%)
5 to 9	0	1 (5%)	0	1 (2%)
10 to 14	0	0	0	0
15 to 29	3 (23%)	4 (18%)	4 (15%)	11 (18%)
30 to 64	8 (62%)	11 (50%)	18 (67%)	37 (59%)
≥ 65	2 (15%)	0	3 (11%)	5 (8%)
Total	13 (100%)	22 (100%)	27 (100%)	62 (100%)

Source: Data provided by the Institute of Medical Veterinary Science (IMVS), Northern Territory Government Pathology Service (NTGPS) and Western Diagnostics Pathology Service (WDPS)

Antibiotic resistance Table 2 Specimen source of *S. pneumoniae* isolates reported to various pathology services, 2007.

Specimen source	Number of isolates (%)			
	IMVS	NTGPS	WDPS	Total
Ear swab	0	0	1 (4%)	1 (2%)
Eye swab	0	6 (27%)	1 (4%)	7 (11%)
Nose swab	0	0	1 (4%)	1 (2%)
Sputum	13 (100%)	14 (62%)	22 (80%)	49 (78%)
Throat swab	0	0	1 (4%)	1 (2%)
Vaginal swab	0	1 (5%)	1 (4%)	2 (3%)
Wound swab	0	1 (5%)	0	1 (2%)
Total	13 (100%)	22 (100%)	27 (100%)	62 (100%)

Source: Data provided by the Institute of Medical Veterinary Science (IMVS), Northern Territory Government Pathology Service (NTGPS) and Western Diagnostics Pathology Service (WDPS)

Antibiotic resistance Table 3 Erythromycin resistance and susceptibility to *S. pneumoniae* isolates collected from various pathology services, 2007.

	Number of isolates (%)			Total
	Resistant	Intermediate	Susceptible	
Institute of Medical Veterinary Science				
Nganampa	5 (50%)	0	5 (50%)	10 (100%)
Ngaanyatjarra	0	0	2 (100%)	2 (100%)
Pika Wiya	0	0	1 (100%)	1 (100%)
Subtotal	*5 (38%)*	*0*	*8 (62%)*	*13 (100%)*
Northern Territory Government Pathology Service				
Alice Springs	1 (17%)	1 (17%)	4 (66%)	6 (100%)
Alice Springs Remote	3 (27%)	0	8 (73%)	11 (100%)
Barkly	0	0	2 (100%)	2 (100%)
Darwin	0	0	1 (100%)	1 (100%)
Nganampa	0	1 (50%)	1 (50%)	2 (100%)
Subtotal	*4 (18%)*	*2 (9%)*	*16 (73%)*	*22 (100%)*
Western Diagnostics Pathology Service				
Alice Springs	0	0	1 (100%)	1 (100%)
Alice Springs Remote	1 (33%)	0	2 (67%)	3 (100%)
Darwin	1 (11%)	0	8 (89%)	9 (100%)
Darwin Rural	2 (29%)	0	5 (71%)	7 (100%)
East Arnhem	1 (33%)	0	2 (67%)	3 (100%)
Katherine	1 (25%)	0	3 (75%)	4 (100%)
Subtotal	*6 (22%)*	*0*	*21 (78%)*	*27 (100%)*
Total	15 (24%)	2 (3%)	45 (73%)	62 (100%)

Source: Data provided by the Institute of Medical Veterinary Science (IMVS), Northern Territory Government Pathology Service (NTGPS) and Western Diagnostics Pathology Service (WDPS)

DISCUSSION

For a three month period, only a small number of specimens were able to be identified as from Aboriginal people or communities. For this reason it has been proposed that specimens should be identified and reported over a six month period for 2008. For future reports the NTSRU will investigate with IMVS the possibility of reporting the 'intermediate' category. Western Diagnostics only report results as resistant or susceptible.

As part of the NTSRU monitoring of treatment of Aboriginal people with azithromycin in endemic areas, few data were reported in 2006 and the timing of administration of antibiotics was not specified as this was not a requirement of the 2006 report. No data were reported from the Northern Territory but 36 were reported to be treated in South Australia and 305 were reported to be treated in Western Australia. Reporting of treatment in 2007, when the antibiotic resistance data were collected, revealed that 536 people were reported to be treated in the Northern Territory from March to October, 18 in South Australia from February to July and 11 from July to December, and 1681 in Western Australia between August and September.

The 2005 AGAR *S. Pneumoniae* Survey reported antibiotic resistance to erythromycin for invasive and non-invasive isolates from 20 institutions around Australia. Laboratories collected up to 100 consecutive significant isolates starting from 1st

January 2005.[19] South Australia reported 20.9% resistance in 392 isolates (12.3% in the 73 invasive strains and 22.9% in the 319 non-invasive strains). Western Australia reported 16.2% resistance in 296 isolates (11.1% in the 54 invasive strains and 17.4% in the 242 non-invasive strains). No data were reported for the Northern Territory. The 27% resistance (95% CI, 16%–39%) that was found in 62 isolates in this study is comparable to the 22.7% resistance (95% CI, 20%–25%) found in 1776 isolates in Australia reported in the AGAR survey (15.1% in the 351 invasive strains and 24.6% in the non-invasive strains).

DISCUSSION

This report presents collated data on trachoma for 2007 provided by state and territory jurisdictions. The report is dependent on the quality and comprehensiveness of data reported to it. Although this report aims to provide high quality national information on trachoma prevalence, the ability to do this is limited by the gaps in these data.

Of the 375 communities in the Department of Education school lists, 124 (33%) have been identified by their respective jurisdictions as being free from trachoma; this included 15 communities that were screened and found to have zero prevalence of active trachoma for both 2006 and 2007. An additional 37 communities (10%) that were screened were found to have no active trachoma. Overall, 74 (20%) of the identified communities were found to have active trachoma and a further 46 (12%) should have been screened or reported but were not. Eight communities (2%) were reported as having conducted screening but no data were provided, and a total of 86 (23%) where classified in the uncertain category.

For 2007, data on trachoma were provided for 126 communities; six of these had data reported as three pairs. Of the 123 reported in the tables, 54 of these had a prevalence of active trachoma of 10% or more in children aged 1 to 9 years. However, these data cannot give an accurate reflection of the extent of active trachoma as there are an unknown number of communities for which no data are available. For example, there were 34 communities that provided data in 2006 that did not provide data for 2007. Although 10 (29%) had no active trachoma in 2006, 19 of these 34 communities (56%) had a prevalence of 10% or more in 2006. A concerted effort to delineate which communities have trachoma and those which do not is required before a reasonable estimate can be made of the extent of trachoma in Australia.

However, it is difficult to define the denominator that should be used to calculate this rate. A total of 3497 children 1 to 9 years old were examined. The coverage of children reported to be in these communities could not be calculated because this information was not provided by many of the communities; 11,415 were estimated by ABS to be enrolled in schools in these communities (31% coverage); or 15,461 children resided in the region (23% coverage). Without better precision about the denominator and therefore the coverage rate it is difficult to be precise about the estimates of prevalence.

The number of children reported from each community varies greatly. Although the average number reported is 34, the number ranges from one child to 173 children. With many communities with less than 10 children examined this also gives a great deal of imprecision in community prevalence estimates.

Poor facial hygiene is an important risk factor for trachoma and the promotion of facial cleanliness is a key component of the SAFE strategy. Reporting of facial cleanliness data have improved since 2006, although the 2007 data still have many gaps. Jurisdictional means range between 34% and 86% of children having clean faces. Facial cleanliness data for only 34 out of 60 communities (57%) were provided from the NT as it was considered a sensitive issue by some and data were not provided to the NTSRU. Moreover, resources and programs for promoting facial cleanliness have not been reported for many communities. Such programs are important in order to integrate behavioural change regarding hygiene.

Only one state reported the systematic screening for trichiasis. Although seen relatively infrequently in communities, age specific prevalence rates of 5% to 10% are reported for Aboriginal communities.[11,15] The routine screening and reporting of

trichiasis in endemic areas needs to be strengthened. This is starting to occur, with more regions examining adults for trichiasis during an annual influenza vaccination program for 2008 data collection.

In all, 75 out of 124 communities indicated the necessity for the distribution of antibiotics; two of these communities had no active trachoma in children aged 1 to 9 years, but people in affected households were treated because active trachoma was found in children aged 10 to 14, and in one community children and households were treated but data for trachoma screening were not provided. Of the 75 communities, 12 communities (16%) were treated using a community-based approach, and in 24 communities (32%) people in affected households were treated. In 13 communities (17%) only the affected children were treated; however, in 26 (35%) no treatment was given or at least none were reported to have been given. This shows a clear lapse in best practice adherence to the National Guidelines.

The implementation of the four components of the SAFE strategy recommended by the CDNA Guidelines is reported partly, but it is apparent that trachoma control measures are not being formally or comprehensively implemented. Government funding has been allocated to the jurisdictions for the training of health workers in the implementation of consistent trachoma screening and control measures.[1]

There were statistically significant changes in active trachoma prevalences in five of the 14 regions where data were reported, a decrease in four and a statistically significant increase in one. Comparisons have been made of the prevalence of active trachoma reported in 2006 and 2007 for those communities that have reported the examination results of a sufficient number of children (taken as 10 or more). Prevalence showed a statistically significant decrease in seven communities and a statistically significant increase in seven communities. In the other communities there has been no significant change.

Baseline data have been collected to assess antibiotic resistance using an indicator bacteria *S. pneumoniae*. The rates reported for Aboriginal communities or individuals in the three jurisdictions did not differ significantly from that reported for all isolates from these areas or for the country as a whole.[19]

CONCLUSION

This report confirms that trachoma still exists in many Aboriginal communities in outback Australia. Although the consistency of data collection methods has improved, the quality and comprehensiveness of these data were still limited. This limits the accuracy of the surveillance report in presenting national trachoma data and management interventions.

Although the screening methodology has been standardised, the screening coverage of children in many communities was low (<10 children examined). This presents a problem because it makes comparisons between 2006 and 2007 data difficult and it also raises concerns regarding children in these targeted communities who are not being examined. For some regions there was also a lack of reporting regarding treatment of these children and household or community contacts. Examining all children and also providing appropriate treatment to their household and community contacts is a necessary component for monitoring and managing trachoma.

More information is also required about the number of communities within regions that were believed not to have active trachoma or that may have active trachoma and were not screened. This denominator is important to assess the adequacy of data reporting and to generate definitive national reports/statements on trachoma and its elimination. The NTSRU aims to address this problem by including an inbuilt list of schools in the NTSRU database (based on information provided by each jurisdiction's Department of Education). By having this information in the database the NTSRU hopes to be able to more accurately monitor the presence or absence of trachoma within regions for each jurisdiction.

The lack of data regarding trichiasis and surgery for trichiasis leaves an incomplete picture of what is happening at the end stages of this disease. Without this information it is impossible to report on whether people who have trichiasis have been given referrals for an ophthalmic consultation and whether this consultation has been followed up with surgery. This information is required before one could claim the elimination of blinding trachoma.

This was the first NTSRU surveillance report that looked at the implementation of trachoma control activities for each component of the SAFE strategy. Data that were reported indicated inadequate trachoma management, but it is difficult to ascertain whether this is an issue regarding the implementation or reporting of activities or a combination of both. The NTSRU proposes to provide a choice of activities for the Surgery for trichiasis, Antibiotic treatment and Facial cleanliness components in the database to assist with the reporting of these data. Based on the variation of responses received from the 2006 data it was decided that the Environmental improvement activities would remain a free text option in the database.

Each jurisdiction should identify all communities that are in need of screening for trachoma and ideally all children aged 1 to 9 years from these targeted communities should be examined. The monitoring of these communities can be successful only if meaningful data are collected with high rates of screening (80+%) in each community and data are being collected consistently by all communities and jurisdictions. It is especially important to forward all data to the NTSRU so that this valuable information can be included in national reports. With collaboration and cooperation from each jurisdiction the NTSRU hopes to build a sustainable and effective monitoring system by which the elimination of blinding trachoma can be documented.

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APPENDICES

APPENDIX 1. DATA COLLECTION FORMS

Form 1
Community/school summary form for screening of children for active trachoma

Form 2
Community/school summary form for treatment of household and community/school contacts with azithromycin

Form 3
Community/school summary form for trachoma control activities implemented

Form 4
Community/school summary form for trichiasis in Aboriginal adults

FORM 1
COMMUNITY/SCHOOL SUMMARY FORM FOR SCREENING OF CHILDREN FOR ACTIVE TRACHOMA

State/Territory _____

Population Health Unit Region _____

Community/school _____

Screening Strategy **School** ☐ **Community** ☐

Date(s) of Screening _____

Form completed by **Name** _____ **Date** _____

Number of Aboriginal children:	1-4 years	5-9 years	10-14 years
Total number in community/school			
Total number enrolled in school			
Examined for trachoma and clean face*			
With TF			
With active trachoma (TF and/or TI)			
With TS			
With clean face*			
Requiring azithromycin for active trachoma (TF and/or TI)			
Received azithromycin for active trachoma (TF and/or TI) within 2 weeks of screening			

* Defined as the absence of dirt, dust or crusting on the cheeks and forehead

TF:Trachomatous inflammation – FOLLICULAR
TI:Trachomatous inflammation – INTENSE
TS:Trachomatous SCARRING
Based on World Health Organization simplified grading classification system, Source: World Health Organization, 1987

FORM 2
COMMUNITY/SCHOOL SUMMARY FORM FOR TREATMENT OF HOUSEHOLD AND COMMUNITY CONTACTS WITH AZITHROMYCIN

State/Territory _____

Population Health Unit Region _____

Community/school _____

Date(s) of Screening _____

Form completed by **Name** _____ **Date** _____

Date of first treatment _____

TREATMENT STRATEGY (Tick one box only)
The treatment strategies are based on CDNA Guidelines recommendations.

Prevalence ≥10% in children

☐ NO obvious clustering in the community
Treatment Strategy: Treat all Aboriginal children in the community aged 6 months–14 years and all household contacts aged 6 months and over

☐ Cases obviously clustered in several households in the community and all household contacts are easily identified
Treatment Strategy: Treat all household contacts aged 6 months and over (community wide treatment not required)

Prevalence < 10% in children

☐ Prevalence <10% but ≥5%
Treatment Strategy: Treat all household contacts aged 6 months and over

☐ Prevalence <5%
Treatment Strategy: Treat all household contacts aged 6 months and over

Number of contacts	<1 Year	1-4 Years	5-9 years	10-14 years	15+ years
Requiring treatment with azithromycin					
Treated with azithromycin within two weeks of starting distribution of treatment					
Total treated with azithromycin					

Completion date of last treatment _____

FORM 3
COMMUNITY/SCHOOL SUMMARY FORM FOR TRACHOMA CONTROL ACTIVITIES IMPLEMENTED

State/Territory _____

Population Health Unit Region _____

Community/school _____

Date(s) of Screening _____

Form completed by **Name** _____ **Date** _____

	Description of activity	Completeness of implementation	Intersectoral partnerships
'S' Surgery			
'A' Antibiotics			
'F' Facial cleanliness			
'E' Environmental health			
Other			

FORM 4
COMMUNITY/SCHOOL SUMMARY FORM FOR TRICHIASIS IN ABORIGINAL ADULTS

State/Territory _____

Population Health Unit Region _____

Community/school _____

Date(s) of Screening _____

Form completed by **Name** _____ **Date** _____

Number of Aboriginal adults:	<30 years		30-49 years		50+ years	
	male	female	male	female	male	female
Examined for trichiasis						
With trichiasis						
In the screening target group (i.e. number of Aboriginal adults in the screened age group in communities/towns targeted for screening)						
In the community/school in the screened age group (from census data)						
With trichiasis who were offered an ophthalmological consultation within 6 months of the previous screening						

Please report the number of Aboriginal adults who underwent trichiasis surgery in the previous year

<30 years		30-49 years		50 + years	
male	female	male	female	male	female

APPENDIX 2. TRACHOMA REFERENCE GROUP MEMBERSHIP

Reference Group Table 1 Trachoma Reference Group members, 2007.

Organisation/State/Territory	Name	Position
Chair	Dr John Walker	Acting Assistant Secretary, Health Strategies Branch
Secretariat	Ms Ange Hart	Health Strategies Branch
Office for Aboriginal and Torres Strait Islander Health (OATSIH)	Mr Rajan Martin	Director, Communicable Diseases and Targeted Interventions
	Dr Geitha Isaac-Toua	Medical Adviser Unit
Office of Health Protection	Rhonda Owen	Assistant Director, Surveillance Policy and Systems Section
National Aboriginal Community Controlled Health Organisation (NACCHO)	Dr Sophie Couzos	Public Health Officer, NACCHO
Northern Territory (NT)	Dr Keith Edwards	Community Paediatrician, Centre for Disease Control, Darwin
	Dr Rosalie Schultz	Public Health Medical Officer, Centre for Disease Control, Alice Springs
	Ms Cate Coffey	Trachoma Coordinator, Centre for Disease Control, Alice Springs
	Dr Kerryn Coleman	CDC Medical Officer/Coordinator, Katherine
South Australia (SA)	Dr Peter Chapman	Chief Medical Advisor, Country Health SA
	Ms Jackie AhKit	Director Aboriginal Health, Country Health SA
	Ms Desley Culpin	Eye Health Coordinator, Eye Health and Chronic Disease Specialist Support Program, Aboriginal Health Council, SA
Western Australia (WA)	Dr Donna Mak	Communicable Disease Control Directorate, Health Department of WA

Dr Gary Lum is a co-opted member representing the Public Health Laboratory Network (PHLN)

Past members:

Ms Rachel Balmanno	Chair (Nov 06–Jun 07)
Ms Claire Brady	Secretariat (Nov 06–Mar 07)
Dr Ana Herceg	Medical Adviser Unit, OATSIH (Nov 06–Jan 07)
Dr Anne Mahony	Director, Kimberley Population Health Unit, WA (Nov 06–Sep 07)
Dr Paul Roche	Project officer, Surveillance Policy and Systems Section (Nov 06–Jan 08)
Mr Shaun Tatipata	Eye Health Program Coordinator, NACCHO (Nov 06 – Sep 07)

The Trachoma Reference Group provides advice on and approves the annual Trachoma Surveillance Reports. Staff from the NTSRU also attend the Trachoma Reference Group meetings.

APPENDIX 3. SUPPLEMENTARY REGIONAL DATA

1. NORTHERN TERRITORY

1.1 ALICE SPRINGS REMOTE

SCREENING FOR ACTIVE TRACHOMA

Of the 35 communities in the Alice Springs Remote region (Figure 1.1 and Table 1.1), data for 30 of these were reported to the NTSRU in either 2006 or 2007 or both years (Appendix Table 1.1). Five of the eleven communities that had data reported in 2006, but not in 2007, had a prevalence of active trachoma ≥10% in 2006 (Appendix Table 1.2).

Appendix Table 1.1 Number of communities where active trachoma data were reported in the Alice Springs Remote region in 2006 and 2007, NT.

	2007		
2006	Reported	Not reported	
Reported	16	11	27
Not reported	3	5	8
	19	16	35

Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.2 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Alice Springs Remote region in 2006 and 2007, NT.

Community code	Number of children examined (Active trachoma prevalence %)	
	2006 Communities = 27	2007 Communities = 19
AS_01	25 (40%)	SNDP
AS_02	1 (100%)	7 (0%)
AS_03	4 (25%)	4 (25%)
AS_04*	2 (0%)	15 (7%)
AS_05	1 (0%)	5 (0%)
AS_06	1 (0%)	NS
AS_07	15 (27%)	--
AS_08	30 (13%)	1 (0%)
AS_09	54 (2%)	47 (36%)
AS_10	10 (30%)	--
AS_11	39 (5%)	NS
AS_12	1 (0%)	--
AS_13	8 (13%)	1 (0%)
AS_14*	24 (0%)	18 (22%)
AS_15	23 (35%)	SNDP
AS_16	8 (13%)	1 (0%)
AS_17	8 (0%)	1 (0%)
AS_18	2 (0%)	27 (37%)
AS_19	1 (0%)	--
AS_20*	64 (20%)	SNDP
AS_21	1 (0%)	10 (0%)
AS_22	2 (0%)	--
AS_23	1 (0%)	1 (0%)
AS_24	103 (1%)	--
AS_25	11 (18%)	11 (64%)
AS_26	41 (51%)	7 (29%)
AS_27	50 (42%)	21 (14%)
AS_28*	--	45 (2%)
AS_29	--	3 (0%)
AS_30	--	6 (0%)
Total communities n=30	530 (18%)	231 (20%)

SNDP = Reported as screened but no data were provided
NS = Not screened
(--) Data not reported but it is not known whether it was collected or not
* Screening conducted by AGEI and may be unreliable
Source: Data were collected by the Healthy School Age Kids program

ABS data indicate that 1792 children aged 1 to 9 years reside in the Alice Springs Remote region. Screening coverage could not be calculated because data for the number of children reported in communities where screening was conducted were provided for 14 out of 19 communities only (834 children) (Appendix Table 1.3). The ABS data indicate that 1402 children were enrolled in schools. A total of 231 children (16%) were examined for trachoma and 46 were found to have active trachoma (prevalence = 20%, 95% CI, 15%–25%).

Facial cleanliness data were provided for 135 children aged 1 to 9 years and 66 (49%) were reported to have clean faces (Appendix Table 1.4). Of the thirteen communities where data for facial cleanliness were reported, seven (23%) had clean faces in >80% of the children (Appendix Table 1.5).

Overall, 10 of the 19 communities (53%) had no active trachoma and seven (37%) had a prevalence ≥10% (Appendix Table 1.6 and Appendix Figure 1.1).

Appendix Table 1.3 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in the Alice Springs Remote region, NT, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population (ABS)				
Resident children†	778	1014	990	2782
Children enrolled in schools‡	120	1282	320	1722
Active trachoma				
Reported number of children currently in the community/school‖ (percentage of the resident children - ABS)	488 (63%)	346 (34%)	299 (30%)	1133 (41%)
Children examined (percentage of those currently enrolled in schools)	39 (33%)	192 (15%)	175 (55%)	406 (24%)
Active trachoma (%)	6 (15%)	40 (21%)	17 (10%)	63 (16%)
Facial cleanliness				
Children examined	27	108	63	198
Clean faces (%)	4 (15%)	62 (57%)	35 (56%)	101 (54%)

* Children in the 1 to 4 age group were less likely to be examined because they were less likely to be at school

† Conservative projected 2007 population data based on the ABS 1.4% low series population growth rate in NT

‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.4% low series population growth rate in NT

‖ The reported number of children currently in the community/school was provided by the Healthy School Age Kids program for 14/19 communities

Source: Data regarding active trachoma and clean faces were collected by the Healthy School Age Kids program

Appendix Table 1.4 Aboriginal children aged 1 to 9 years examined for active trachoma and facial cleanliness in communities in the Alice Springs Remote region, NT, 2007.

Community code	Trachoma		Clean faces	
	Examined	Active trachoma (%)	Examined	Clean face (%)
AS_02	7	0 (0%)	1	1 (100%)
AS_03	4	1 (25%)	4	4 (100%)
AS_04	15	1 (7%)	12	6 (50%)
AS_05	5	0 (0%)	--	--
AS_08	1	0 (0%)	1	1 (100%)
AS_09	47	17 (36%)	2	1 (50%)
AS_13	1	0 (0%)	1	1 (100%)
AS_14	18	4 (22%)	19	14 (74%)
AS_16	1	0 (0%)	--	--
AS_17	1	0 (0%)	--	--
AS_18	27	10 (37%)	37	26 (70%)
AS_21	10	0 (0%)	--	--
AS_23	1	0 (0%)	--	--
AS_25	11	7 (64%)	1	1 (100%)
AS_26	7	2 (29%)	8	8 (100%)
AS_27	21	3 (14%)	1	0 (0%)
AS_28	45	1 (2%)	45	0 (0%)
AS_29	3	0 (0%)	3	3 (100%)
AS_30	6	0 (0%)	--	--
Total communities n=19	231	46 (20%)	135	66 (49%)

(--) Data not reported but it is not known whether it was collected or not
Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.5 Community prevalence of clean faces in Aboriginal children aged 1 to 9 years in the Alice Springs Remote region, NT, 2007.

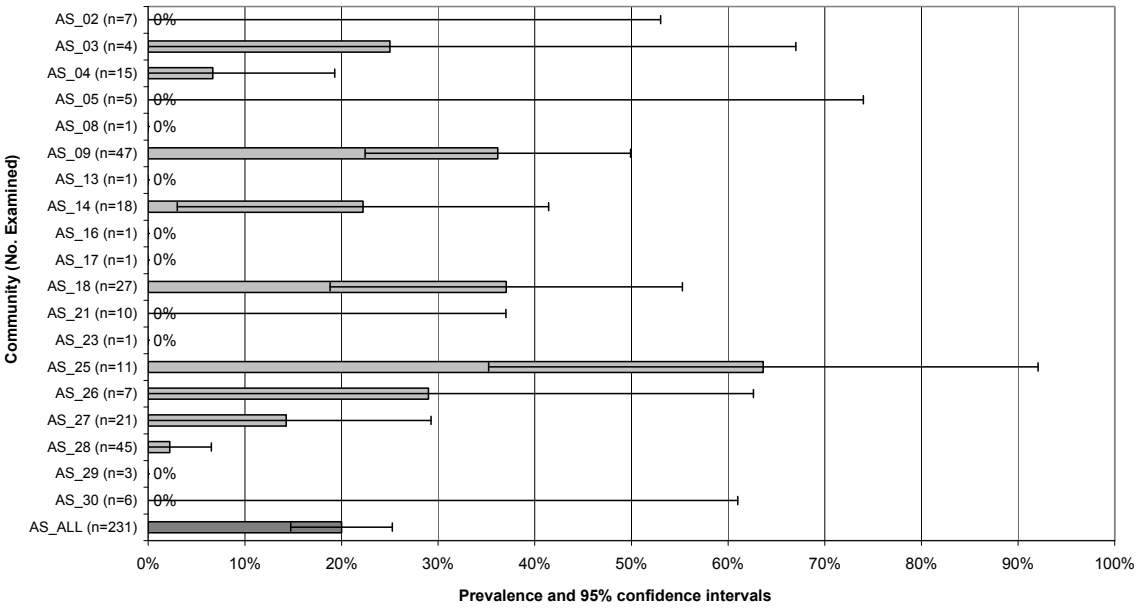
Community prevalence of clean faces	Number (%) of communities
No data reported in 2007	15 (50%)
Not screened in 2007	2 (7%)
0 to 10%	2 (7%)
11 to 20%	0
21 to 40%	0
41 to 60%	2 (7%)
61 to 80%	2 (7%)
81 to 90%	0
91 to 100%	7 (23%)
Total	30 (101%)*

* Total does not equal 100% because of rounding
Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.6 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Alice Springs Remote region, NT, 2007.

Community prevalence of active trachoma	Number (%) of communities
No data reported in 2007	9 (30%)
Not screened in 2007	2 (7%)
0%	10 (33%)
1 to <5%	1 (3%)
5 to <10%	1 (3%)
10 to <20%	1 (3%)
20 to <50%	5 (17%)
≥50%	1 (3%)
Total	30 (99%)*

* Total does not equal 100% because of rounding
Source: Data collected by the Healthy School Age Kids program



Appendix Figure 1.1 Community prevalence and 95% confidence intervals of active trachoma in Aboriginal children aged 1 to 9 years in the Alice Springs Remote region, NT, 2007.
AS_ALL = prevalence for the region
For communities with ≤5 children examined 95% CI were very large and have not been included in the figure.
Source: Data collected by the Healthy School Age Kids program

TREATMENT

Of the 46 children found to have active trachoma at the screening, four (9%) were treated within two weeks of being examined (Appendix Table 1.7).

Of the 10 out of 19 communities where treatment was required, in five communities (50%) people in affected households were treated; one of these communities (AS_29) had no active trachoma for children aged 1 to 9 years but households were treated because active trachoma was found in children aged 10 to 14 (Appendix Table 1.7 and Appendix Table 1.8). Treatment interventions were not reported for five communities (50%); although in two of these communities information regarding the treatment strategy was reported, no data were provided for the other communities.

From a total of 86 people in households and the community who were identified as requiring treatment, 78 (91%) received treatment and 39 (45%) were treated within two weeks of the screening (Appendix Table 1.9).

Appendix Table 1.7 Treatment strategies reported for communities in the Alice Springs Remote region, NT, 2007.

Community code	Prevalence of active trachoma %	Treatment strategy	Treatment of children with active trachoma		Treatment of household and community contacts		
			Number to treat	Treated within 2 weeks (%)	Required	Treated within 2 weeks (%)	Total treated (%)
AS_02	0%	Not required	0				
AS_03	25%	--	1	--	--	--	--
AS_04	7%	Household	1	1 (100%)	9	9 (100%)	9 (100%)
AS_05	0%	Not required	0				
AS_08	0%	Not required	0				
AS_09	36%	Community	17	0 (0%)	--	--	--
AS_13	0%	Not required	0				
AS_14	22%	Community	4	0 (0%)	--	--	--
AS_16	0%	Not required	0				
AS_17	0%	Not required	0				
AS_18	37%	Household	10	0 (0%)	47	0 (0%)	39 (83%)
AS_21	0%	Not required	0				
AS_23	0%	Not required	0				
AS_25	64%	--	7	0 (0%)	--	--	--
AS_26	29%	Household	2	2 (100%)	6	6 (100%)	6 (100%)
AS_27	14%	--	3	0 (0%)	--	--	--
AS_28	2%	Household	1	1 (100%)	18	18 (100%)	18 (100%)
AS_29*	0%	Household	0		6	6 (100%)	6 (100%)
AS_30	0%	Not required	0				
Total communities n=19			46	4 (9%)	86	39 (45%)	78 (91%)

(--) Data not reported but it is not known whether it was collected or not

* No active trachoma was found in children aged 1 to 9 years but households were treated because active trachoma was found in children aged 10 to 14

Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.8 Treatment strategies reported for communities and the number treated in the Alice Springs Remote region, NT, 2007.

	Number of communities	Number of people treated within 2 weeks	Total number of people treated	Total targeted for treatment
Prevalence ≥10%				
Community	0			
Household	2	6 (11%)	45 (85%)	53
Not reported	5	--	--	--
Subtotal	*7*	*6 (11%)*	*45 (85%)*	*53*
Prevalence <10% but >5%				
Community	0			
Household	1	9 (100%)	9 (100%)	9
Not reported	0			
Subtotal	*1*	*9 (100%)*	*9 (100%)*	*9*
Prevalence 1% to <5%				
Community	0			
Household	1	18 (100%)	18 (100%)	18
Not reported	0			
Subtotal	*1*	*18 (100%)*	*18 (100%)*	*18*
Prevalence of 0%				
Community	0			
Household*	1	6 (100%)	6 (100%)	6
No treatment required	9			
Subtotal	*10*	*6 (100%)*	*6 (100%)*	*6*
Total	19	39 (45%)	78 (91%)	86

(--) Data not reported but it is not known whether it was collected or not

* No active trachoma was found in children aged 1 to 9 years but households were treated because active trachoma was found in children aged 10 to 14

Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.9 Age groups, numbers and percentages of contacts requiring treatment and treated within 2 weeks of screening in the Alice Springs Remote region, NT, 2007.

Treatment	<1 yr	1-4 yrs	5-9 yrs	10-14 yrs	15+ yrs	Total
Requiring treatment	1	14	24	12	35	86
Treated within 2 weeks (%)	1 (100%)	6 (43%)	12 (50%)	7 (58%)	13 (37%)	39 (45%)
Total treated (%)	1 (100%)	14 (100%)	22 (92%)	12 (100%)	29 (83%)	78 (91%)

Source: Data collected by the Healthy School Age Kids program

COMPARISON OF 2006 AND 2007 ACTIVE TRACHOMA DATA

In total, active trachoma prevalence data for 2006 and 2007 were provided for 11 communities and, of these, sufficient children (10 or more) were examined for a comparison in four communities (Figure 1.2, page 45). A significant increase in prevalence was found for AS_09 (χ^2 20.21; p<0.001) and AS_14 (Fisher's exact; p=0.03) whereas the prevalence of AS_27 decreased significantly (χ^2 4.84; p=0.02).

TRICHIASIS

Data on trichiasis were not provided for any of the 9156 Aboriginal people reported by the ABS to be resident in the Alice Springs Remote region (Appendix Table 1.10). Future activities for trichiasis screening were not reported for any of the communities.

Appendix Table 1.10 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in the Alice Springs Remote region, NT, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS Projection							
Resident Aboriginal people*	2770	1169	674	2912	1174	457	9156
Trichiasis							
People examined (percentage of the resident Aboriginal people)	--	--	--	--	--	--	--
Trichiasis (%)	--	--	--	--	--	--	--
Ophthalmic consultation							
Consultation offered within 6 months of previous screening	--	--	--	--	--	--	--

(--) Data not reported but it is not known whether it was collected or not

* Projected 2007 population data based on the ABS 1.4% low series population growth rate in NT

TRACHOMA CONTROL ACTIVITIES

When reporting the components of the SAFE Strategy available in each community, no communities had a program to detect trichiasis; however, the distribution of antibiotics was reported for five communities (26%) (Appendix Table 1.11). Facial cleanliness resources were available in one community (5%), but health education programs were implemented in three communities (16%). Environmental activities were not reported for any of the communities. Communities AS_04, AS_14 and AS_28 were screened for active trachoma as part of the AGEI.

Appendix Table 1.11 Communities where SAFE trachoma control activities were reported in the Alice Springs Remote region, NT, 2007.

Community code	Prevalence of active trachoma %	Communities where activities were reported					
		Surgery	Antibiotics	Facial cleanliness		Environmental health	Other*
				Resources	Program		
AS_02	0%	--	--	--	--	--	--
AS_03	25%	--	--	--	--	--	--
AS_04	7%	--	--	--	--	--	✔
AS_05	0%	--	--	--	--	--	--
AS_08	0%	--	--	--	--	--	--
AS_09	36%	--	--	--	--	--	--
AS_13	0%	--	--	--	--	--	--
AS_14	22%	--	✔	--	--	--	✔
AS_16	0%	--	--	--	--	--	--
AS_17	0%	--	--	--	--	--	--
AS_18	37%	--	✔	--	--	--	--
AS_21	0%	--	--	--	--	--	--
AS_23	0%	--	--	--	--	--	--
AS_25	64%	--	--	--	--	--	--
AS_26	29%	--	✔	✔	✔	--	--
AS_27	14%	--	--	--	--	--	--
AS_28	2%	--	✔	--	✔	--	✔
AS_29	0%	--	✔	--	✔	--	--
AS_30	0%	--	--	--	--	--	--
Total communities n=19		0	5 (26%)	1 (5%)	3 (16%)	0	3 (16%)

(--) Data not reported but it is not known whether it was collected or not

* Accurate data collection and health promotion were impeded in these communities due to the Australian Government Emergency Intervention

Source: Data collected by the Healthy School Age Kids program

1.2 BARKLY

SCREENING FOR ACTIVE TRACHOMA

Of the 11 communities in the Barkly region (Figure 1.1 and Table 1.1), data for seven of these were reported to the NTSRU in either 2006 or 2007 or both years (Appendix Table 1.12 and Appendix Table 1.13).

Appendix Table 1.12 Number of communities where active trachoma data were reported in the Barkly region in 2006 and 2007, NT.

	2007		
2006	Reported	Not reported	
Reported	5	1	6
Not reported	1	4	5
	6	5	11

Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.13 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Barkly region in 2006 and 2007, NT.

Community code	Number of children examined (Active trachoma prevalence %)	
	2006 Communities = 6	2007 Communities = 6
BA_01	1 (0%)	2 (0%)
BA_02	2 (0%)	--
BA_03	41 (2%)	13 (38%)
BA_04	43 (47%)	27 (48%)
BA_05	16 (0%)	2 (0%)
BA_06	2 (50%)	4 (0%)
BA_07	--	20 (0%)
Total communities n=7	105 (21%)	68 (26%)

(--) Data not reported but it is not known whether it was collected or not
Source: Data collected by the Healthy School Age Kids program

ABS data indicate that 652 children aged 1 to 9 years reside in the Barkly region. Screening coverage could not be calculated because data for the number of children reported in communities where screening was conducted were provided for two out of seven communities only (163 children) (Appendix Table 1.14). The ABS data indicate that 443 children were enrolled in schools. A total of 68 children (15%) were examined for trachoma and 18 were found to have active trachoma (prevalence = 26%, 95% CI, 16%–36%).

Facial cleanliness data were provided for 53 children aged 1 to 9 years and 52 (98%) were reported to have clean faces (Appendix Table 1.15). Of the six communities where data for facial cleanliness were reported, five (83%) had clean faces in >80% of the children (Appendix Table 1.16).

Overall, four (67%) of the six communities had no active trachoma, and two (33%) had a prevalence ≥10% (Appendix Table 1.17 and Appendix Figure 1.2).

Appendix Table 1.14 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in the Barkly region, NT, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population (ABS)				
Resident children†	279	373	386	1038
Children enrolled in schools‡	43	400	129	572
Active trachoma				
Reported number of children currently in the community/school‖ (percentage of the resident children - ABS)	87 (31%)	76 (20%)	62 (16%)	225 (22%)
Children examined (percentage of those enrolled in schools - ABS)	8 (19%)	60 (15%)	38 (29%)	106 (19%)
Active trachoma (%)	0 (0%)	18 (45%)	13 (34%)	31 (40%)
Facial cleanliness				
Children examined	5	48	--	53
Clean faces (%)	4 (80%)	48 (100%)	--	52 (98%)

(--) Data not reported but it is not known whether it was collected or not

* Children in the 1 to 4 age group were less likely to be examined because they were less likely to be at school

† Conservative projected 2007 population data based on the ABS 1.4% low series population growth rate in NT

‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.4% low series population growth rate in NT

‖ The reported number of children currently in the community/school was provided by the Healthy School Age Kids program for 2/7 communities

Source: Data regarding active trachoma and clean faces collected by the Healthy School Age Kids program

Appendix Table 1.15 Aboriginal children aged 1 to 9 years examined for active trachoma and facial cleanliness in communities of the Barkly region, NT, 2007.

Community code	Trachoma		Clean faces	
	Examined	Active trachoma (%)	Examined	Clean face (%)
BA_01	2	0 (0%)	1	1 (100%)
BA_03	13	5 (38%)	19	19 (100%)
BA_04	27	13 (48%)	26	26 (100%)
BA_05	2	0 (0%)	2	2 (100%)
BA_06	4	0 (0%)	2	2 (100%)
BA_07	20	0 (0%)	3	2 (67%)
Total communities n=6	68	18 (26%)	53	52 (98%)

Source: Data were collected by the Healthy School Age Kids program

Appendix Table 1.16 Community prevalence of clean faces in Aboriginal children aged 1 to 9 years in the Barkly region, NT, 2007.

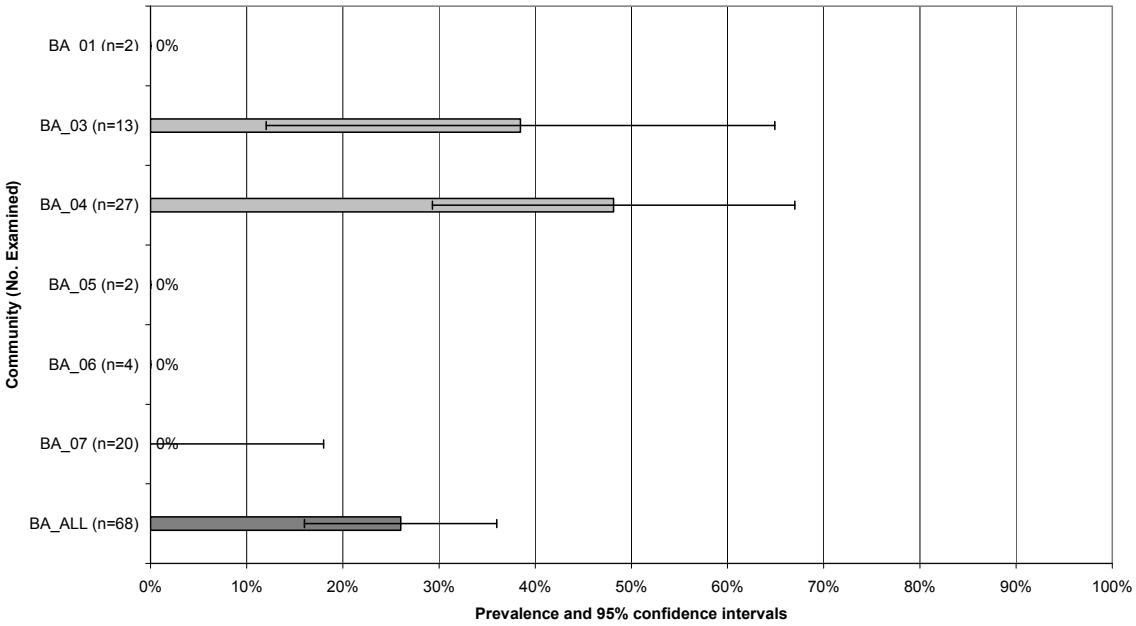
Community prevalence of children with clean faces	Number (%) of communities
No data reported in 2007	1 (14%)
Not screened in 2007	0
0 to 10%	0
11 to 20%	0
21 to 40%	0
41 to 60%	0
61 to 80%	1 (14%)
81 to 90%	0
91 to 100%	5 (71%)
Total	7 (99%)*

* Total does not equal 100% due to rounding
Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.17 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Barkly region, NT, 2007.

Community prevalence of children with active trachoma	Number (%) of communities
No data reported in 2007	1 (14%)
Not screened in 2007	0
0%	4 (57%)
1 to <5%	0
5 to <10%	0
10 to <20%	0
20 to <50%	2 (29%)
≥50%	0
Total	7 (100%)

Source: Data collected by the Healthy School Age Kids program



Appendix Figure 1.2 Community prevalence and 95% confidence intervals of active trachoma in Aboriginal children aged 1 to 9 years in the Barkly region, NT, 2007.
BA_ALL = prevalence for the region
For communities with ≤5 children examined 95% CI were very large and have not been included in the figure
Source: Data collected by the Healthy School Age Kids program

TREATMENT

Of the 18 children found to have active trachoma at the screening, five (28%) were treated within two weeks of being examined (Appendix Table 1.18).

Of the two out of six communities where treatment was required, people in affected households were treated in one community (Appendix Table 1.18 and Appendix Table 1.19). No treatment interventions were reported for the other community; although the treatment strategy was reported, no data were provided.

From a total of 51 people in households who were identified as requiring treatment, all (100%) received treatment within two weeks of the screening (Appendix Table 1.20).

Appendix Table 1.18 Treatment strategies reported for communities in the Barkly region, NT, 2007.

Community code	Prevalence of active trachoma %	Treatment strategy	Treatment of children with active trachoma		Treatment of household and community contacts		
			Number to treat	Treated within 2 weeks (%)	Required	Treated within 2 weeks (%)	Total treated (%)
BA_01	0%	Not required	0				
BA_03	38%	Household	5	5 (100%)	51	51 (100%)	51 (100%)
BA_04	48%	Community	13	0 (0%)	--	--	--
BA_05	0%	Not required	0				
BA_06	0%	Not required	0				
BA_07	0%	Not required	0				
Total communities n=6			18	5 (28%)	51	51 (100%)	51 (100%)

(--) Data not reported but it is not known whether it was collected or not
Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.19 Treatment strategies reported for communities and the number treated in the Barkly region, NT, 2007.

	Number of communities	Number of people treated within 2 weeks	Total number of people treated	Total targeted for treatment
Prevalence ≥10%				
Community	0			
Household	1	51 (100%)	51 (100%)	51
Not reported	1	--	--	--
Subtotal	*2*	*51 (100%)*	*51 (100%)*	*51*
Prevalence <10% but >5%				
Community	0			
Household	0			
Not reported	0			
Subtotal	*0*			
Prevalence 1% to <5%				
Community	0			
Household	0			
Not reported	0			
Subtotal	*0*			
Prevalence of 0%				
Community	0			
Household	0			
No treatment required	4			
Subtotal	*4*			
Total	6	51 (100%)	51 (100%)	51

(--) Data not reported but it is not known whether it was collected or not
Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.20 Age groups, numbers and percentages of contacts requiring treatment and treated within 2 weeks of screening in the Barkly region, NT, 2007.

Treatment	<1 yr	1-4 yrs	5-9 yrs	10-14 yrs	15+ yrs	Total
Requiring treatment	--	10	20	21	--	51
Treated within 2 weeks (%)	--	10 (100%)	20 (100%)	21 (100%)	--	51(100%)
Total treated (%)	--	10 (100%)	20 (100%)	21 (100%)	--	51 (100%)

(--) Data not reported but it is not known whether it was collected or not
Source: Data collected by the Healthy School Age Kids program

COMPARISON OF 2006 AND 2007 ACTIVE TRACHOMA DATA

In total, active trachoma data for 2006 and 2007 were provided for six communities and, of these, sufficient children (10 or more) were examined for a comparison in two communities (Figure 1.3, page 46). A significant increase in prevalence was found for BA_03 only (Fisher's exact; p=0.02).

TRICHIASIS

Data on trichiasis were not provided for any of the 3301 Aboriginal people reported by the ABS to be resident in the Barkly region (Appendix Table 1.21). Future activities for trichiasis screening were not reported for any of the communities.

Appendix Table 1.21 Age and gender distribution of Aboriginal people resident and the number with trichiasis in the Barkly region, NT, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS Projection							
Resident Aboriginal people*	957	449	232	1061	418	184	3301
Trichiasis							
People examined (percentage of the resident Aboriginal people)	--	--	--	--	--	--	--
Trichiasis (%)	--	--	--	--	--	--	--
Ophthalmic consultation							
Consultation offered within 6 months of previous screening	--	--	--	--	--	--	--

(--) Data not reported but it is not known whether it was collected or not

* Projected 2007 population data based on the ABS 1.4% low series population growth rate in NT

TRACHOMA CONTROL ACTIVITIES

When reporting the components of the SAFE Strategy available in each community, no communities had a program to detect trichiasis; however, the distribution of antibiotics was reported for the two communities that required treatment (33%) (Appendix Table 1.22). Facial cleanliness resources were not reported for any of the communities, but health education programs were implemented in two communities (33%). Environmental activities were reported for one community only.

Appendix Table 1.22 Communities where SAFE trachoma control activities were reported in the Barkly region, NT.

Community code	Active trachoma %	Communities where activities were reported					
		Surgery	Antibiotics	Facial cleanliness		Environmental health	Other*
				Resources	Program		
BA_01	0%	--	--	--	--	--	--
BA_03	38%	--	✓	--	✓	--	--
BA_04	48%	--	✓	--	✓	✓	✓
BA_05	0%	--	--	--	--	--	--
BA_06	0%	--	--	--	--	--	--
BA_07	0%	--	--	--	--	--	--
Total communities n=6		--	2 (33%)	--	2 (33%)	1 (17%)	1 (17%)

(--) Data not reported but it is not known whether it was collected or not

* Trained health staff collected data

Source: Data regarding active trachoma and clean faces were collected by the Healthy School Age Kids program

1.3 DARWIN RURAL

SCREENING FOR ACTIVE TRACHOMA

Of the 25 communities in the Darwin Rural region (Figure 1.1 and Table 1.3), data for 16 of these were reported to the NTSRU in either 2006 or 2007 or both years (Appendix Table 1.23). Two of the four communities that reported in 2006, but not in 2007, had a prevalence of active trachoma ≥10% in 2006 (Appendix Table 1.24).

Appendix Table 1.23 Number of communities where active trachoma data were reported in 2006 and 2007 in the Darwin Rural region, NT.

	2007		
2006	Reported	Not reported	
Reported	12	4	16
Not reported	0	9	9
	12	13	25

Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.24 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Darwin Rural region in 2006 and 2007, NT.

Community code	Number of children examined (Active trachoma prevalence %)	
	2006 Communities = 16	2007 Communities = 12
DR_01	12 (8%)	13 (0%)
DR_02	1 (0%)	2 (0%)
DR_03	17 (0%)	NS
DR_04	3 (33%)	6 (0%)
DR_05	2 (100%)	--
DR_06	3 (0%)	SNDP
DR_07	77 (30%)	99 (3%)
DR_08	1 (0%)	41 (7%)
DR_09	1 (0%)	16 (13%)
DR_10	137 (12%)	2 (0%)
DR_11	107 (0%)	45 (7%)
DR_12	41 (78%)	33 (30%)
DR_13	5 (20%)	1 (0%)
DR_14	113 (5%)	110 (3%)
DR_15	1 (0%)	9 (11%)
DR_16	1 (100%)	--
Total communities n=16	522 (16%)	377 (7%)

NS = Not screened
SNDP = Reported as screened but no data were provided
(--) Data not reported but it is not known whether it was collected or not
Source: Data were collected by the Healthy School Age Kids program

ABS data indicate that 2116 children aged 1 to 9 years reside in the Darwin Rural region. Screening coverage could not be calculated because data for the number of children reported in communities where screening was conducted were provided for nine out of 12 communities only (2168 children) (Appendix Table 1.25). The ABS data indicate that 1427 children were enrolled in schools. A total of 377 children (26%) were examined for trachoma and 25 were found to have active trachoma (prevalence = 7%, 95% CI, 4%–10%).

Facial cleanliness data were provided for 94 children aged 1 to 9 years and 86 (91%) were reported to have clean faces (Appendix Table 1.26). Of the nine communities where data for facial cleanliness were reported, all (100%) reported clean faces in >80% of the children (Appendix Table 1.27).

Overall, five (42%) of the 12 communities had no active trachoma and three (25%) had a prevalence ≥10% (Appendix Table 1.28 and Appendix Figure 1.3).

Appendix Table 1.25 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in the Darwin Rural region, NT, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population (ABS)				
Resident children†	929	1187	1073	3189
Children enrolled in schools‡	145	1282	322	1749
Active trachoma				
Reported number of children currently in the community/school‖ (percentage of the resident children - ABS)	1098 (118%)	1070 (90%)	1025 (96%)	3193 (100%)
Children examined (percentage of those enrolled in schools - ABS)	40 (28%)	337 (26%)	294 (91%)	671 (38%)
Active trachoma (%)	2 (5%)	23 (7%)	17 (6%)	42 (6%)
Facial cleanliness				
Children examined	12	82	--	94
Clean faces (%)	7 (58%)	79 (96%)	--	86 (91%)

(--) Data not reported but it is not known whether it was collected or not

* Children in the 1 to 4 age group were less likely to be examined because they were in the community

† Projected 2007 population data based on the ABS 1.4% low series population growth rate in NT

‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.4% low series population growth rate in NT

‖ The reported number of children currently in the community/school was provided by the Healthy School Age Kids program for 9/12 communities

Source: Data regarding active trachoma and clean faces collected by the Healthy School Age Kids program

Appendix Table 1.26 Aboriginal children aged 1 to 9 years examined for active trachoma and facial cleanliness in communities of the Darwin Rural region, NT, 2007.

Community code	Trachoma		Clean faces	
	Examined	Active trachoma (%)	Examined	Clean face (%)
DR_01	13	0 (0%)	1	1 (100%)
DR_02	2	0 (0%)	--	--
DR_04	6	0 (0%)	7	7 (100%)
DR_07	99	3 (3%)	1	1 (100%)
DR_08	41	3 (7%)	45	37 (82%)
DR_09	16	2 (12%)	--	--
DR_10	2	0 (0%)	1	1 (100%)
DR_11	45	3 (7%)	--	--
DR_12	33	10 (30%)	34	34 (100%)
DR_13	1	0 (0%)	1	1 (100%)
DR_14	110	3 (3%)	3	3 (100%)
DR_15	9	1 (11%)	1	1 (100%)
Total communities n=12	377	25 (7%)	94	86 (91%)

(--) Data not reported but it is not known whether it was collected or not
Source: Data were collected by the Healthy School Age Kids program

Appendix Table 1.27 Community prevalence of clean faces in Aboriginal children aged 1 to 9 years in the Darwin Rural region, NT, 2007.

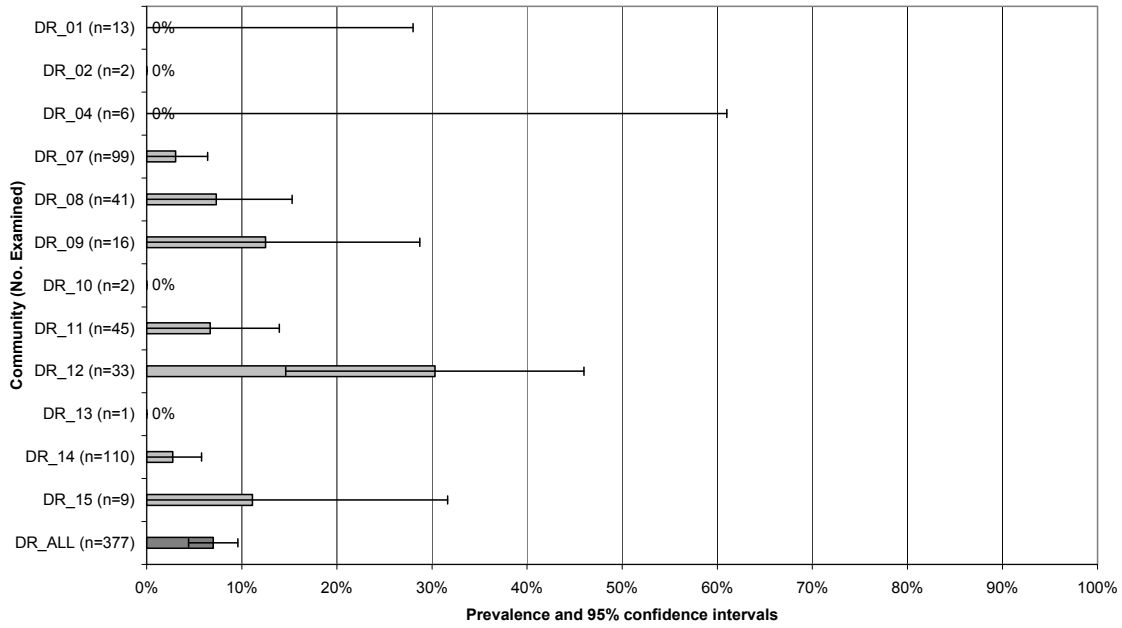
Community prevalence of children with clean faces	Number (%) of communities
No data reported in 2007	6 (38%)
Not screened in 2007	1 (6%)
0 to 10%	0
11 to 20%	0
21 to 40%	0
41 to 60%	0
61 to 80%	0
81 to 90%	1 (6%)
91 to 100%	8 (50%)
Total	16 (100%)

Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.28 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Darwin Rural region, NT, 2007.

Community prevalence of children with active trachoma	Number (%) of communities
No data reported in 2007	3 (19%)
Not screened in 2007	1 (6%)
0%	5 (31%)
1 to <5%	2 (13%)
5 to <10%	2 (13%)
10 to <20%	2 (13%)
20 to <50%	1 (6%)
≥50%	0
Total	16 (101%)*

* Total does not equal 100% due to rounding
Source: Data collected by the Healthy School Age Kids program



Appendix Figure 1.3 Community prevalence and 95% confidence intervals of active trachoma in Aboriginal children aged 1 to 9 years in the Darwin Rural region, NT, 2007.
DR_ALL = prevalence for the region
For communities with ≤5 children examined 95% CI were very large and have not been included in the figure
Source: Data collected by the Healthy School Age Kids program

TREATMENT

Of the 25 children found to have active trachoma at the screening, none (0%) were treated within two weeks of being examined (Appendix Table 1.29).

Of the seven out of 12 communities where treatment was required, treatment interventions were not reported for any of the communities (Appendix Table 1.29, and Appendix Table 1.30).

Appendix Table 1.29 Treatment strategies reported for communities in the Darwin Rural region, NT, 2007.

Community code	Prevalence of active trachoma %	Treatment strategy	Treatment of children with active trachoma		Treatment of household and community contacts		
			Number to treat	Treated within 2 weeks (%)	Required	Treated within 2 weeks (%)	Total treated (%)
DR_01	0%	Not required	0				
DR_02	0%	Not required	0				
DR_04	0%	Not required	0				
DR_07	3%	--	3	0 (0%)	--	--	--
DR_08	7%	--	3	0 (0%)	--	--	--
DR_09	13%	--	2	0 (0%)	--	--	--
DR_10	0%	Not required	0				
DR_11	7%	--	3	0 (0%)	--	--	--
DR_12	30%	--	10	0 (0%)	--	--	--
DR_13	0%	Not required	0				
DR_14	3%	--	3	0 (0%)	--	--	--
DR_15	11%	--	1	0 (0%)	--	--	--
Total communities n=12			25	0 (0%)	--	--	--

(--) Data not reported but it is not known whether it was collected or not
Source: Data were collected by the Healthy School Age Kids program

Appendix Table 1.30 Treatment strategies reported for communities and the number treated in the Darwin Rural region, NT, 2007.

	Number of communities	Number of people treated within 2 weeks	Total number of people treated	Total targeted for treatment
Prevalence ≥10%				
Community	0			
Household	0			
Not reported	3	--	--	--
Subtotal	*3*	--	--	--
Prevalence <10% but >5%				
Community	0			
Household	0			
Not reported	2	--	--	--
Subtotal	*2*	--	--	--
Prevalence 1% to <5%				
Community	0			
Household	0			
Not reported	2	--	--	--
Subtotal	*2*	--	--	--
Prevalence of 0%				
Community	0			
Household	0			
No treatment required	5			
Subtotal	*5*			
Total	12	--	--	--

(--) Data not reported but it is not known whether it was collected or not
Source: Data collected by the Healthy School Age Kids program

COMPARISON OF 2006 AND 2007 ACTIVE TRACHOMA DATA

In total, active trachoma prevalence data for 2006 and 2007 were provided for all 12 communities and, of these, sufficient children (10 or more) were examined for a comparison in five communities (Figure 1.4 page 46). A significant increase in prevalence was found for DR_11 (Fisher's exact; p=0.03) whereas a significant decrease in prevalence was reported for DR_07 (χ^2 24.78; p<0.001) and DR_12 (χ^2 25.70; p<0.001).

TRICHIASIS

Data on trichiasis were not provided for any of the 9280 Aboriginal people reported by the ABS to be resident in the Darwin Rural region (Appendix Table 1.31). Future activities for trichiasis screening were not reported for any of the communities.

Appendix Table 1.31 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in the Darwin Rural region, NT, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS Projection							
Resident Aboriginal people*	2994	1162	506	3035	1179	404	9280
Trichiasis							
People examined (percentage of the resident Aboriginal people)	--	--	--	--	--	--	--
Trichiasis (%)	--	--	--	--	--	--	--
Ophthalmic consultation							
Consultation offered within 6 months of previous screening	--	--	--	--	--	--	--

(--) Data not reported but it is not known whether it was collected or not

* Projected 2007 population data based on the ABS 1.4% low series population growth rate in NT

TRACHOMA CONTROL ACTIVITIES

Information on implementation of trachoma control activities was not reported.

1.4 EAST ARNHEM

SCREENING FOR ACTIVE TRACHOMA

Of the 16 communities in the East Arnhem region (Figure 1.1 and Table 1.3), data for 12 of these were reported to the NTSRU in both 2006 and 2007 (Appendix Table 1.32 and Appendix Table 1.33).

Appendix Table 1.32 Number of communities where active trachoma data were reported in 2006 and 2007 in the East Arnhem region, NT.

	2007		
2006	Reported	Not reported	
Reported	12	0	12
Not reported	0	4	4
	12	4	16

Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.33 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the East Arnhem region in 2006 and 2007, NT.

Community code	Number of children examined (Active trachoma prevalence %)	
	2006 Communities= 12	2007 Communities= 12
EA_01	26 (8%)	46 (2%)
EA_02	13 (8%)	7 (0%)
EA_03	212 (3%)	82 (10%)
EA_04	140 (1%)	48 (2%)
EA_05	48 (2%)	2 (0%)
EA_06	70 (0%)	42 (0%)
EA_07	98 (7%)	68 (3%)
EA_08	127 (1%)	66 (17%)
EA_09	81 (0%)	1 (0%)
EA_10	1 (0%)	3 (0%)
EA_11	48 (6%)	28 (0%)
EA_12	15 (0%)	72 (0%)
Total communities n=12	879 (2.5%)	465 (5%)

Source: Data collected by the Healthy School Age Kids program

ABS data indicate that 1889 children aged 1 to 9 years reside in the East Arnhem region. Screening coverage could not be calculated because data for the number of children reported in communities where screening was conducted were provided for nine out of 12 communities only (1849 children) (Appendix Table 1.34). The ABS data indicate that 1204 children were enrolled in schools. A total of 465 children (39%) were examined for trachoma and 23 were found to have active trachoma (prevalence = 5%, 95% CI, 3%–7%).

Facial cleanliness data were provided for 59 children aged 1 to 9 years and 57 (97%) were reported to have clean faces (Appendix Table 1.35). Of the four communities where data for facial cleanliness were reported, all had clean faces in >80% of the children (Appendix Table 1.36).

Overall, seven (58%) of the 12 communities had no active trachoma and two (17%) had a prevalence ≥10% (Appendix Table 1.37 and Appendix Figure 1.4).

Appendix Table 1.34 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in the East Arnhem region, NT, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population (ABS)				
Resident children†	781	1108	858	2747
Children enrolled in schools‡	172	1032	447	1651
Active trachoma				
Reported number of children currently in the community/school‖ (percentage of the resident children - ABS)	870 (111%)	979 (88%)	712 (83%)	2561 (93%)
Children examined (percentage of those enrolled in schools - ABS)	96 (56%)	369 (36%)	307 (69%)	772 (47%)
Active trachoma (%)	1 (1%)	22 (6%)	22 (7%)	45 (6%)
Facial cleanliness				
Children examined	4	55	--	59
Clean faces (%)	4 (100%)	53 (96%)	--	57 (97%)

(--) Data not reported but it is not known whether it was collected or not

* Children in the 1 to 4 age group were less likely to be examined because they were in the community

† Projected 2007 population data based on the ABS 1.4% low series population growth rate in NT

‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.4% low series population growth rate in NT

‖ The reported number of children currently in the community/school was provided by the Healthy School Age Kids program for 9/12 communities

Source: Data regarding active trachoma and clean faces collected by the Healthy School Age Kids program

Appendix Table 1.35 Aboriginal children aged 1 to 9 years examined for active trachoma and facial cleanliness in communities of the East Arnhem region, NT, 2007.

Community code	Trachoma		Clean faces	
	Examined	Active trachoma (%)	Examined	Clean face (%)
EA_01	46	1 (2%)	--	--
EA_02	7	0 (0%)	--	--
EA_03	82	8 (10%)	44	42 (95%)
EA_04	48	1 (2%)	--	--
EA_05	2	0 (0%)	--	--
EA_06	42	0 (0%)	4	4 (100%)
EA_07	68	2 (3%)	--	--
EA_08	66	11 (17%)	--	--
EA_09	1	0 (0%)	--	--
EA_10	3	0 (0%)	1	1 (100%)
EA_11	28	0 (0%)	--	--
EA_12	72	0 (0%)	10	10 (100%)
Total communities n=12	465	23 (5%)	59	57 (97%)

(--) Data not reported but it is not known whether it was collected or not
Source: Data were collected by the Healthy School Age Kids program

Appendix Table 1.36 Community prevalence of clean faces in Aboriginal children aged 1 to 9 years in the East Arnhem region, NT, 2007.

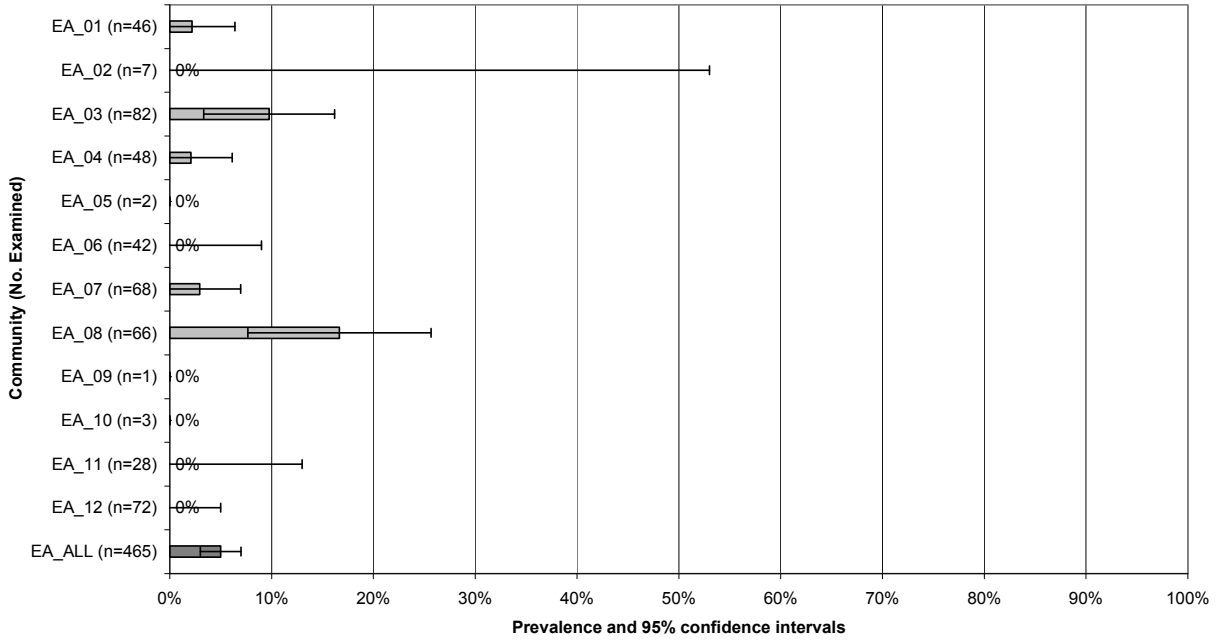
Community prevalence of children with clean faces	Number (%) of communities
No data reported in 2007	8 (75%)
Not screened in 2007	0
0 to 10%	0
11 to 20%	0
21 to 40%	0
41 to 60%	0
61 to 80%	0
81 to 90%	0
91 to 100%	4 (25%)
Total	12 (100%)

Source: Data were collected by the Healthy School Age Kids program

Appendix Table 1.37 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the East Arnhem region, NT, 2007.

Community prevalence of children with active trachoma	Number (%) of communities
No data reported in 2007	0
Not screened in 2007	0
0%	7 (58%)
1 to <5%	3 (25%)
5 to <10%	0
10 to <20%	2 (17%)
20 to <50%	0
≥50%	0
Total	12 (100%)

Source: Data were collected by the Healthy School Age Kids program



Appendix Figure 1.4 Community prevalence and 95% confidence intervals of active trachoma in Aboriginal children aged 1 to 9 years in the East Arnhem region, NT, 2007.
EA_ALL = prevalence for the region
For communities with ≤5 children examined 95% CI were very large and have not been included in the figure
Source: Data were collected by the Healthy School Age Kids program

TREATMENT

Of the 23 children found to have active trachoma at the screening, one child (4%) was treated within two weeks of being examined (Appendix Table 1.38).

Of the five out of 12 communities where treatment was required, treatment interventions were not reported for any of these communities; although information regarding the treatment strategy was reported for two communities, and in one (EA_01), the child who was found to have active trachoma at the screening was treated, no data were provided for the other communities (Appendix Table 1.38 and Appendix Table 1.39).

Appendix Table 1.38 Treatment strategies reported for communities in the East Arnhem region, NT, 2007.

Community code	Prevalence of active trachoma %	Treatment strategy	Treatment of children with active trachoma		Treatment of household and community contacts		
			Number to treat	Treated within 2 weeks (%)	Required	Treated within 2 weeks (%)	Total treated (%)
EA_01	2%	Household	1	1 (100%)	--	--	--
EA_02	0%	Not required	0				
EA_03	10%	Household	8	0 (0%)	--	--	--
EA_04	2%	--	1	0 (0%)	--	--	--
EA_05	0%	Not required	0				
EA_06	0%	Not required	0				
EA_07	3%	--	2	0 (0%)	--	--	--
EA_08	17%	--	11	0 (0%)	--	--	--
EA_09	0%	Not required	0				
EA_10	0%	Not required	0				
EA_11	0%	Not required	0				
EA_12	0%	Not required	0				
Total communities n=12			23	1 (4%)	--	--	--

(--) Data not reported but it is not known whether it was collected or not
Source: Data were collected by the Healthy School Age Kids program

Appendix Table 1.39 Treatment strategies reported for communities and the number treated in the East Arnhem region, NT, 2007.

	Number of communities	Number of people treated within 2 weeks	Total number of people treated	Total targeted for treatment
Prevalence ≥10%				
Community	0			
Household	0			
Not reported	2	--	--	--
Subtotal	*2*	--	--	--
Prevalence <10% but >5%				
Community	0			
Household	0			
Not reported	0			
Subtotal	*0*			
Prevalence 1% to <5%				
Community	0			
Household	0			
Not reported	3*	--	--	--
Subtotal	*3*	--	--	--
Prevalence of 0%				
Community	0			
Household	0			
No treatment required	7			
Subtotal	*7*			
Total	12	--	--	--

(--) Data not reported but it is not known whether it was collected or not

* One of these communities did not report treating any household contacts but treated one child who was found to have active trachoma during the screening

Source: Data were collected by the Healthy School Age Kids program

COMPARISON OF 2006 AND 2007 ACTIVE TRACHOMA DATA

In total, active trachoma prevalence data for 2006 and 2007 were provided for all 12 communities and, of these, sufficient children (10 or more) were examined for a comparison in eight communities (Figure 1.5, page 47). A significant increase in prevalence was found for EA_03 (χ^2 6.25; p=0.01) and EA_08 (χ^2 18.78; (p<0.001).

TRICHIASIS

Data on trichiasis were not provided for any of the 8655 Aboriginal people reported by the ABS to be resident in the East Arnhem region (Appendix Table 1.40). Future activities for trichiasis screening were not reported for any of the communities.

Appendix Table 1.40 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in the East Arnhem region, NT, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS Projection							
Resident Aboriginal people*	2645	1251	504	2747	1103	405	8655
Trichiasis							
People examined (percentage of the resident Aboriginal people)	--	--	--	--	--	--	--
Trichiasis (%)	--	--	--	--	--	--	--
Ophthalmic consultation							
Consultation offered within 6 months of previous screening	--	--	--	--	--	--	--

(--) Data not reported but it is not known whether it was collected or not

* Projected 2007 population data based on the ABS 1.4% low series population growth rate in NT

TRACHOMA CONTROL ACTIVITIES

Information on implementation of trachoma control activities was not reported.

1.5 KATHERINE

SCREENING FOR ACTIVE TRACHOMA

Of the 30 communities in the Katherine region (Figure 1.1 and Table 1.3), data for 15 of these were reported to the NTSRU in either 2006 or 2007 or both years (Appendix Table 1.41). One of the four communities that had data reported in 2006, but not in 2007, had a prevalence of 100% in 2006 (Appendix Table 1.42).

Appendix Table 1.41 Number of communities where active trachoma data were reported in 2006 and 2007 in the Katherine region, NT.

	2007		
2006	Reported	Not reported	
Reported	7	4	11
Not reported	4	15	19
	11	19	30

Source: Data collected by the Healthy School Age Kids program

Appendix Table 1.42 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Katherine region in 2006 and 2007, NT.

Community code	Number of children examined (Active trachoma prevalence %)	
	2006 Communities = 11	2007 Communities = 11
KA_01	3 (0%)	--
KA_02	115 (49%)	101 (26%)
KA_03	1 (0%)	50 (2%)
KA_04	4 (50%)	6 (33%)
KA_05	3 (0%)	2 (0%)
KA_06	1 (100%)	NS
KA_07	3 (67%)	117 (15%)
KA_08	12 (17%)	6 (0%)
KA_09	1 (0%)	--
KA_10	2 (100%)	36 (6%)
KA_11	73 (0%)	NS
KA_12	--	24 (0%)
KA_13	--	97 (35%)
KA_14	--	41 (17%)
KA_15	--	82 (18%)
Total communities n=15	218 (30%)	562 (19%)

NS = Not screened
(--) Data not reported but it is not known whether it was collected or not
Source: Data collected by the Healthy School Age Kids program

ABS data indicate that 1964 children aged 1 to 9 years reside in the Katherine region. Screening coverage could not be calculated because data for the number of children reported in communities where screening was conducted were provided for one out of 11 communities only (129 children) (Appendix Table 1.43). The ABS data indicate that 1363 children were enrolled in schools. A total of 562 children (41%) were examined for trachoma and 104 were found to have active trachoma (prevalence = 19%, 95% CI, 16%–22%) (Appendix Table 1.43).

Facial cleanliness data were provided for 35 children aged 1 to 9 years and all (100%) were reported to have clean faces (Appendix Table 1.44). Of the two communities where data for facial cleanliness were reported, both had clean faces in >80% of the children (Appendix Table 1.45).

Overall, three (27%) of the 11 communities had no active trachoma and six (55%) had a prevalence ≥10% (Appendix Table 1.46 and Appendix Figure 1.5).

Data for active trachoma in the Katherine region are comparable to a community-wide treatment survey of trachoma that was conducted in five communities in this region by an independent team for the Centre for Eye Research Australia and The Fred Hollows Foundation in 2007.[15] Overall, 415 children aged 1 to 9 years were examined for trachoma and 82 (20%) were found to have active trachoma.[15]

Appendix Table 1.43 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in the Katherine region, NT, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population (ABS)				
Resident children†	882	1082	950	2914
Children enrolled in schools‡	154	1209	399	1762
Active trachoma				
Reported number of children currently in the community/school‖ (percentage of the resident children - ABS)	56 (6%)	73 (7%)	52 (5%)	181 (6%)
Children examined (percentage of those enrolled in schools - ABS)	162 (105%)	400 (33%)	239 (60%)	801 (45%)
Active trachoma (%)	26 (16%)	78 (20%)	31 (13%)	135 (17%)
Facial cleanliness				
Children examined	--	35	--	35
Clean faces (%)	--	35 (100%)	--	35 (100%)

(--) Data not reported but it is not known whether it was collected or not

* Children in the 1 to 4 age group were less likely to be examined because they were in the community

† Projected 2007 population data based on the ABS 1.4% low series population growth rate in NT

‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.4% low series population growth rate in NT

‖ The reported number of children in the community/school was provided by the Healthy School Age Kids program for 1/11 communities

Source: Data regarding active trachoma and clean faces were collected by the Healthy School Age Kids program

Appendix Table 1.44 Aboriginal children aged 1 to 9 years examined for active trachoma and facial cleanliness in communities of the Katherine region, NT, 2007.

Community code	Trachoma		Clean faces	
	Examined	Active trachoma (%)	Examined	Clean face (%)
KA_02	101	26 (26%)	3	3 (100%)
KA_03	50	1 (2%)	--	--
KA_04	6	2 (33%)	--	--
KA_05	2	0 (0%)	--	--
KA_07	117	17 (15%)	--	--
KA_08	6	0 (0%)	--	--
KA_10	36	2 (6%)	32	32 (100%)
KA_12	24	0 (0%)	--	--
KA_13	97	34 (35%)	--	--
KA_14	41	7 (17%)	--	--
KA_15	82	15 (18%)	--	--
Total communities n=11	562	104 (19%)	35	35 (100%)

(--) Data not reported but it is not known whether it was collected or not
Source: Data were collected by the Healthy School Age Kids program

Appendix Table 1.45 Community prevalence of clean faces in Aboriginal children aged 1 to 9 years in the Katherine region, NT, 2007.

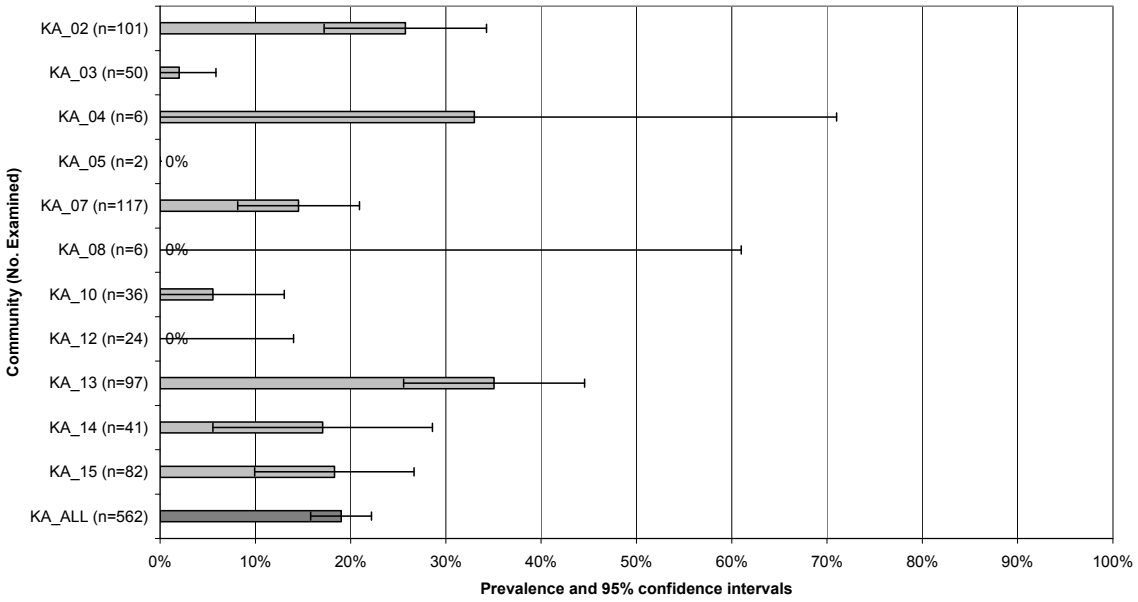
Community prevalence of children with clean faces	Number (%) of communities
No data reported in 2007	11 (73%)
Not screened in 2007	2 (13%)
0 to 10%	0
11 to 20%	0
21 to 40%	0
41 to 60%	0
61 to 80%	0
81 to 90%	0
91 to 100%	2 (13%)
Total	15 (99%)

* Total does not equal 100% because of rounding
Source: Data were collected by the Healthy School Age Kids program

Appendix Table 1.46 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Katherine region, NT, 2007.

Community prevalence of children with active trachoma	Number (%) of communities
No data reported in 2007	2 (13%)
Not screened in 2007	2 (13%)
0%	3 (20%)
1 to <5%	1 (7%)
5 to <10%	1 (7%)
10 to <20%	3 (20%)
20 to <50%	3 (20%)
≥50%	0
Total	15 (100%)

Source: Data were collected by the Healthy School Age Kids program



Appendix Figure 1.5 Community prevalence and 95% confidence intervals of active trachoma in Aboriginal children aged 1 to 9 years in the Katherine region, NT, 2007.
KA_ALL = prevalence for the region
For communities with ≤5 children examined 95% CI were very large and have not been included in the figure
Source: Data were collected by the Healthy School Age Kids program

TREATMENT

Of the 104 children found to have active trachoma at the screening, one child (1%) was treated within two weeks of being examined (Appendix Table 1.47).

Of the eight out of 11 communities where treatment was required, one community (9%) was treated using a community-based approach (Appendix Table 1.47 and Appendix Table 1.48). Treatment interventions were not reported for seven communities (88%); although in three of these communities information regarding the treatment strategy was reported, and in one (KIM_03) the child found to have active trachoma at the screening was treated; no data were provided for the other communities.

From a total of 193 people in households and the community identified as requiring treatment, 188 (97%) received treatment but none were treated within two weeks of the screening (Appendix Table 1.49).

Appendix Table 1.47 Treatment strategies reported for communities in the Katherine region, NT, 2007.

Community code	Prevalence of active trachoma %	Treatment strategy	Treatment of children with active trachoma		Treatment of household and community contacts		
			Number to treat	Treated within 2 weeks (%)	Required	Treated within 2 weeks (%)	Total treated (%)
KA_02	26%	--	26	0 (0%)	--	--	--
KA_03	2%	Household	1	1 (100%)	--	--	--
KA_04	33%	--	2	0 (100%)	--	--	--
KA_05	0%	Not required	0				
KA_07	15%	Community	17	0 (0%)	193	0 (0%)	188 (97%)
KA_08	0%	Not required	0				
KA_10	6%	--	2	0 (0%)	--	--	--
KA_12	0%	Not required	0				
KA_13	35%	Community	34	0 (0%)	--	--	--
KA_14	17%	Community	7	0 (0%)	--	--	--
KA_15	18%	--	15	0 (0%)	--	--	--
Total communities n=11			104	1 (1%)	193	0 (0%)	188 (97%)

(--) Data not reported but it is not known whether it was collected or not
Source: Data were collected by the Healthy School Age Kids program

Appendix Table 1.48 Treatment strategies reported for communities and the number treated in the Katherine region, NT, 2007.

	Number of communities	Number of people treated within 2 weeks	Total number of people treated	Total targeted for treatment
Prevalence ≥10%				
Community	1	0 (0%)	188 (97%)	193
Household	0			
Not reported	5	--	--	--
Subtotal	*6*	*0 (0%)*	*188 (97%)*	*193*
Prevalence <10% but >5%				
Community	0			
Household	0			
Not reported	1	--	--	--
Subtotal	*1*	--	--	--
Prevalence 1% to <5%				
Community	0			
Household	0			
Not reported	1*	--	--	--
Subtotal	*1*	--	--	--
Prevalence of 0%				
Community	0			
Household	0			
No treatment required	3			
Subtotal	*3*			
Total	11	0 (0%)	188 (97%)	193

(--) Data not reported but it is not known whether it was collected or not

* This community did not report treating any household contacts but treated one child who was found to have active trachoma during the screening

Source: Data were collected by the Healthy School Age Kids program

Appendix Table 1.49 Age groups, numbers and percentages of contacts requiring treatment and treated within 2 weeks of screening in the Katherine region, NT, 2007.

Treatment	<1 yr	1-4 yrs	5-9 yrs	10-14 yrs	15+ yrs	Total
Requiring treatment	12	56	73	52	--	193
Treated within 2 weeks (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	--	0 (0%)
Total treated (%)	7 (58%)	56 (100%)	73 (100%)	52 (100%)	--	188 (97%)

(--) Data not reported but it is not known whether it was collected or not

Source: Data were collected by the Healthy School Age Kids program

COMPARISON OF 2006 AND 2007 ACTIVE TRACHOMA DATA

In total, seven communities provided data for a comparison of active trachoma prevalence rates in 2006 and 2007. One community examined sufficient children (10 or more) for a comparison (Figure 1.6, page 47). A significant increase in prevalence was found for KA_02 (χ^2 12.03; p=0.0005).

TRICHIASIS

In the Katherine region, people were examined for trichiasis during an eye health examination. Data on trichiasis were provided for 719 (9%) of the 8385 Aboriginal people reported by the ABS to be resident in this region (Appendix Table 1.50). Of those examined none (0%) were reported to have trichiasis.

A community-wide treatment survey of trachoma was conducted in five communities in this region in 2007 by an independent team for the Centre for Eye Research Australia and The Fred Hollows Foundation.[15] It found six people with trichiasis and reported one person to have undergone surgery. Two people aged 45 to 54 years, two aged 55 to 64 years and two aged 75 years and over were from community KA_13.[15]

Appendix Table 1.50 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in the Katherine region, NT, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS Projection							
Resident Aboriginal people*	2659	1114	468	2728	977	439	8385
Trichiasis							
People examined (percentage of the resident Aboriginal people)	194 (7%)	134 (12%)	77 (16%)	118 (4%)	123 (13%)	73 (17%)	719 (9%)
Trichiasis (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Ophthalmic consultation							
Consultation offered within 6 months of previous screening	--	--	--	--	--	--	--

(--) Data not reported but it is not known whether it was collected or not

* Projected 2007 population data based on the ABS 1.4% low series population growth rate in NT

Source: Data were collected by the Healthy School Age Kids program

TRACHOMA CONTROL ACTIVITIES

Information on implementation of trachoma control activities was not reported.

2. SOUTH AUSTRALIA

Appendix Table 2.1 Children examined for active trachoma and facial cleanliness in communities of areas serviced by a SA ACCHS, 2007.

ACCHS	Community Code	Trachoma		Clean faces	
		Examined	Active trachoma (%)	Examined	Clean face (%)
SCREENING 1					
Ceduna/Koonibba	SA_01	16	1 (6%)	16	16 (100%)
Umoona Tjutagku	SA_03	2	0 (0%)	2	2 (100%)
Oak Valley	SA_09	18	4 (22%)	18	18 (100%)
Nganampa	SA_10	22	3 (14%)	22	11 (50%)
	SA_11	7	0 (0%)	7	0 (0%)
	SA_12	33	3 (9%)	33	33 (100%)
	SA_13	14	4 (29%)	14	14 (100%)
Tullawon	SA_22	16	3 (19%)	16	16 (100%)
Total ACCHS n= 5		128	18 (14%)	128	110 (86%)
SCREENING 2					
Umoona Tjutagku	SA_03	2	0 (0%)	2	2 (100%)
Nganampa	SA_10	16	2 (12%)	16	8 (50%)
	SA_11	4	0 (0%)	4	4 (100%)
	SA_12	4	2 (50%)	4	2 (50%)
	SA_13	10	2 (20%)	10	10 (100%)
Tullawon	SA_22	23	3 (13%)	23	23 (100%)
Total ACCHS n= 3		59	9 (15%)	59	49 (83%)

Source: Data were collected by the EH&CDSSP coordinator and the screening team

2.1 CEDUNA/KOONIBBA

SCREENING FOR ACTIVE TRACHOMA

Of the 26 communities in the Ceduna/Koonibba ACCHS area (Figure 2.1 and Table 2.1) data for one of these were reported to the NTSRU in both 2006 and 2007. Screening for the one community was conducted once only in 2007.

ABS data indicate that 165 children aged 1 to 9 years reside in areas serviced by the Ceduna/Koonibba ACCHS (Appendix Table 2.2). Screening coverage could not be calculated because data for the number of children reported in the community where screening was conducted were not provided. The ABS data indicate that 134 children were enrolled in schools. A total of 16 children (12%) were examined for trachoma and one was found to have active trachoma (prevalence = 6%, 95% CI, 0%–18%).

Facial cleanliness data were provided for 16 children aged 1 to 9 years and all (100%) were reported to have clean faces (Appendix Table 2.2).

Appendix Table 2.2 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in areas serviced by the Ceduna/Koonibba ACCHS, SA, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population (ABS)				
Resident children†	75	90	96	261
Children enrolled in schools‡	18	116	55	189
Active trachoma				
Reported number of children currently in the community/school‖	--	--	--	--
Children examined (percentage of those currently enrolled in schools - ABS)	--	16 (14%)	4 (7%)	20 (11%)
Active trachoma (%)	--	1 (6%)	0 (0%)	1 (5%)
Facial cleanliness				
Children examined	--	16	4	20
Clean faces (%)	--	16 (100%)	4 (100%)	20 (100%)

(--) Data not reported but it is not known whether it was collected or not

* Children in the 1 to 4 age group were less likely to be examined because they were less likely to be at school

† Projected 2007 population data based on the ABS 1.9% low series population growth rate in SA

‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.9% low series population growth rate in SA

‖ The reported number of children currently in the community was not provided by the EH&CDSSP coordinator and the screening team

Source: Data regarding active trachoma and clean faces were collected by the EH&CDSSP coordinator and the screening team

TREATMENT

The child found to have active trachoma at the screening was treated within two weeks of being examined. No household or community contacts were treated.

TRICHIASIS

Adults were examined for trichiasis at the ACCHS clinic on one occasion while they were having a diabetes check-up. Data on trichiasis were provided for 26 (3%) of the 749 Aboriginal people reported by the ABS to be resident in areas serviced by the Ceduna/Koonibba ACCHS (Appendix Table 2.3). No trichiasis was found, but 18 people (69%) were reported to have been seen by the ophthalmologist in the screening team when they were examined in the clinics.

Appendix Table 2.3 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in areas serviced by the Ceduna/Koonibba ACCHS, SA, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS projection							
Resident Aboriginal people*	254	107	41	229	81	37	749
Trichiasis							
People examined (percentage of the resident Aboriginal people)	2 (1%)	9 (8%)	7 (17%)	1 (0.4%)	6 (75%)	1 (3%)	26 (3%)
Trichiasis (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Ophthalmic consultation							
Consultation offered within 6 months of previous screening† (percentage examined for trichiasis)	1 (50%)	6 (67%)	7 (100%)	1 (100%)	2 (33%)	1 (100%)	18 (69%)

* Projected 2007 population data based on the ABS 1.9% low series population growth rate in SA

† People were seen by the ophthalmologist in the screening team when they were examined in the clinics

Source: Data collected by the EH&CDSSP coordinator and the screening team

2.2 NGANAMPA

SCREENING FOR ACTIVE TRACHOMA

Reports came from four communities all of which were screened twice in 2007 and data for each community were reported separately. All four were screened in 2006 as part of a group of communities (see Table 2.4, page 55 for combinations). Another four communities that were screened in 2006, but not in 2007, had a prevalence of active trachoma ≥10% in 2006.

ABS data indicate that 349 children aged 1 to 9 years reside in areas serviced by the Nganampa ACCHS (Appendix Table 2.4). Screening coverage could not be calculated because data for the number of children reported in the community where screening was conducted were not provided. The ABS data indicate that 260 children were enrolled in schools. A total of 76 children (29%) were examined for trachoma during the first screening, and 10 were found to have active trachoma (prevalence = 13%, 95% CI, 5%–21%). Of the 34 children (13%) examined during the second screening, six were found to have active trachoma (prevalence = 18%, 95% CI, 5%–31%).

Facial cleanliness data were provided for 76 children aged 1 to 9 years from the first screening and 58 (76%) were reported to have clean faces (Appendix Table 2.4). Of the 34 children examined from the second screening, 24 (71%) were reported to have clean faces. Of the four communities where data for facial cleanliness were reported from the first screening, three had clean faces in >80% of the children (Appendix Table 2.5). Of the four communities from the second screening, two had clean faces in >80% of the children.

Overall, two of the four communities from the first screening had a prevalence ≥10% (Appendix Table 2.6). From the second screening, one of the four communities had no active trachoma and three had a prevalence ≥10%.

Appendix Table 2.4 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in areas serviced by the Nganampa ACCHS, SA, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population				
Resident children (ABS)†	160	189	212	561
Children enrolled in schools (ABS)‡	26	234	97	357
Reported number of children currently in the community/school‖	--	--	--	--
SCREENING 1				
Active trachoma				
Children examined (percentage of those currently enrolled in schools - ABS)	13 (50%)	63 (27%)	11 (11%)	87 (24%)
Active trachoma (%)	1 (8%)	9 (14%)	0 (0%)	10 (11%)
Facial cleanliness				
Children examined	13	63	21	97
Clean faces (%)	9 (69%)	49 (78%)	21 (100%)	79 (81%)
SCREENING 2				
Active trachoma				
Children examined (percentage of those currently enrolled in schools - ABS)	1 (4%)	33 (14%)	32 (33%)	66 (18%)
Active trachoma (%)	0 (0%)	6 (18%)	1 (3%)	7 (11%)
Facial cleanliness				
Children examined	1	33	32	66
Clean faces (%)	1 (100%)	23 (69%)	32 (100%)	56 (85%)

(--) Data not reported but it is not known whether it was collected or not

* Children in the 1 to 4 age group were less likely to be examined because they were less likely to be at school

† Projected 2007 population data based on the ABS 1.9% low series population growth rate in SA

‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.9% low series population growth rate in SA

‖ Estimates were not provided by the EH&CDSSP coordinator and the screening team.

Source: Data regarding active trachoma and clean faces were collected by the EH&CDSSP coordinator and the screening team

Appendix Table 2.5 Community prevalence of clean faces in Aboriginal children aged 1 to 9 years in areas serviced by the Nganampa ACCHS, SA, 2007.

Community prevalence of children with clean faces	Number (%) of communities
SCREENING 1	
No data reported in 2007	0
Not screened in 2007	0
0 to 10%	0
11 to 20%	0
21 to 40%	0
41 to 60%	1 (25%)
61 to 80%	0
81 to 90%	0
91 to 100%	3 (75%)
Total	4 (100%)
SCREENING 2	
No data reported in 2007	0
Not screened in 2007	0
0 to 10%	0
11 to 20%	0
21 to 40%	0
41 to 60%	2 (50%)
61 to 80%	0
81 to 90%	0
91 to 100%	2 (50%)
Total	4 (100%)

Source: Data collected by the EH&CDSSP coordinator and the screening team

Appendix Table 2.6 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in areas serviced by the Nganampa ACCHS, SA, 2007.

Community prevalence of children with active trachoma	Number (%) of communities
SCREENING 1	
No data reported in 2007	0
Not screened in 2007	0
0%	1 (25%)
1 to <5%	0
5 to <10%	1 (25%)
10 to <20%	1 (25%)
20 to <50%	1 (25%)
≥50%	0
Total	4 (100%)
SCREENING 2	
No data reported in 2007	0
Not screened in 2007	0
0%	1 (25%)
1 to <5%	0
5 to <10%	0
10 to <20%	1 (25%)
20 to <50%	1 (25%)
≥50%	1 (25%)
Total	4 (100%)

Source: Data collected by the EH&CDSSP coordinator and the screening team

TREATMENT

The children found to have active trachoma were treated within two weeks of the examination. No household or community contacts were treated.

TRICHIASIS

Adults were examined for trichiasis twice a year at the ACCHS clinic while they were having a diabetes check-up. During the first screening, data on trichiasis were provided for 222 (12%) of the 1921 Aboriginal people reported by the ABS to be resident in areas serviced by the Nganampa ACCHS (Appendix Table 2.7). No trichiasis was found, but 130 people (59%) were reported to have been seen by the ophthalmologist in the screening team when they were examined in the clinics. During the second screening, 205 people (11%) were examined with no trichiasis found. Of these people, 137 (67%) were reported to have been seen by the ophthalmologist in the screening team when they were examined in the clinics.

Appendix Table 2.7 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in communities serviced by the Nganampa ACCHS, SA, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS projection							
Resident Aboriginal people*	590	256	137	581	246	111	1921
SCREENING 1							
Trichiasis							
People examined (percentage of the resident Aboriginal people)	14 (2%)	69 (27%)	70 (51%)	8 (1%)	28 (11%)	33 (30%)	222 (12%)
Trichiasis (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Ophthalmic consultation							
Consultation offered within 6 months of previous screening† (percentage examined for trichiasis)	7 (50%)	30 (43%)	40 (57%)	7 (89%)	22 (81%)	24 (83%)	130 (59%)
SCREENING 2							
Trichiasis							
People examined (percentage of the resident Aboriginal people)	24 (4%)	65 (25%)	65 (47%)	7 (1%)	22 (9%)	22 (20%)	205 (11%)
Trichiasis (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Ophthalmic consultation							
Consultation offered within 6 months of previous screening† (percentage examined for trichiasis)	10 (42%)	36 (55%)	45 (69%)	10 (143%)‡	17 (77%)	19 (86%)	137 (67%)

* Projected 2007 population data based on the ABS 1.9% low series population growth rate in SA

† People were seen by the ophthalmologist in the screening team when they were examined in the clinics

‡ More people were reported to have been seen by the ophthalmologist

Source: Data collected by the EH&CDSSP coordinator and the screening team

2.3 OAK VALLEY (MARALINGA TJARUTJA)

SCREENING FOR ACTIVE TRACHOMA

Reports came from one community (SA_09) in this region and one screening only was conducted in 2007. Community SA_09 had data reported with the community from the Tullawon ACCHS in 2006.

ABS data for the children residing in areas serviced by the Oak Valley ACCHS were not available. Screening coverage could not be calculated because data for the number of children reported in the community where screening was conducted were not provided, and the ABS school enrolment data were not available. A total of 18 children aged 1 to 9 years were examined and four were found to have active trachoma (prevalence = 22%, 95% CI, 3%–41%) (Appendix Table 2.8).

Facial cleanliness data were provided for 18 children aged 1 to 9 years and all (100%) were reported to have clean faces (Appendix Table 2.8).

Appendix Table 2.8 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in areas serviced by the Oak Valley (Maralinga Tjarutja) ACCHS, SA, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population (ABS)				
Resident children†	NA	NA	NA	NA
Children enrolled in schools†‡	NA	NA	NA	NA
Active trachoma				
Reported number of children currently in the community/school‖	--	--	--	--
Children examined	1	17	5	23
Active trachoma (%)	1 (100%)	3 (18%)	0 (0%)	4 (17%)
Facial cleanliness				
Children examined	1	17	5	23
Clean faces (%)	1 (100%)	17 (100%)	5 (100%)	23 (100%)

NA = Not available
(--) Data not reported but it is not known whether it was collected or not
* Children in the 1 to 4 age group were less likely to be examined because they were less likely to be at school
† Projected 2007 population data based on the ABS 1.9% low series population growth rate in SA
‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.9% low series population growth rate in SA
‖ Estimates were not provided by the EH&CDSSP coordinator and the screening team
Source: Data regarding active trachoma and clean faces were collected by the EH&CDSSP coordinator and the screening team

TREATMENT

The children found to have active trachoma were treated within two weeks of the examination. No household or community contacts were treated.

TRICHIASIS

Adults were examined for trichiasis twice a year at the ACCHS clinic while they were having a diabetes check-up. ABS data for the number of Aboriginal people resident in areas serviced by the Oak Valley ACCHS were not available. Seventeen people were examined during the first screening and 19 were examined during the second screening (Appendix Table 2.9). No trichiasis was found during either screening; however, 16 people (94%) from the first screening were reported to have been seen by the ophthalmologist in the screening team when they were examined in the clinics, and 12 people (63%) were seen by the ophthalmologist at the second.

Appendix Table 2.9 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in areas serviced by the Oak Valley ACCHS, SA, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS projection							
Resident Aboriginal people*	NA	NA	NA	NA	NA	NA	NA
SCREENING 1							
Trichiasis							
People examined (percentage of the resident Aboriginal people)	0	4	6	0	1	6	17
Trichiasis (%)		0 (0%)	0 (0%)		0 (0%)	0 (0%)	0 (0%)
Ophthalmic consultation							
Consultation offered within 6 months of previous screening† (percentage examined for trichiasis)		3 (75%)	6 (100%)		1 (100%)	6 (100%)	16 (94%)
SCREENING 2							
Trichiasis							
People examined (percentage of the resident Aboriginal people)	1	7	6	0	2	3	19
Trichiasis (%)	0 (0%)	0 (0%)	0 (0%)		0 (0%)	0 (0%)	0 (0%)
Ophthalmic consultation							
Consultation offered within 6 months of previous screening† (percentage examined for trichiasis)	0 (0%)	4 (57%)	4 (67%)		2 (100%)	2 (67%)	12 (63%)

NA = Not available

(--) Data not reported but it is not known whether it was collected or not

* Projected 2007 population data based on the ABS 1.9% low series population growth rate in SA

† People were seen by the ophthalmologist in the screening team when they were examined in the clinics

Source: Data collected by the EH&CDSSP coordinator and the screening team

2.4 TULLAWON

SCREENING FOR ACTIVE TRACHOMA

Reports came from one community (SA_22) in this region and screening was conducted twice in 2007. Community SA_22 had data reported with the community from the Oak Valley ACCHS in 2006.

ABS data for the children residing in areas serviced by the Tullawon ACCHS were not available. Screening coverage could not be calculated because data for the number of children reported in the community where screening was conducted were not provided, and the ABS school enrolment data were not available. A total of 16 children aged 1 to 9 years were examined for trachoma during the first screening and three were found to have active trachoma (prevalence = 19%, 95% CI, 0%–38%) (Appendix Table 2.10). Of the 23 examined during the second screening, three were found to have active trachoma (prevalence = 13%, 95% CI, 0%–27%).

Facial cleanliness data were provided for 16 children during the first screening and 23 children during the second screening and all (100%) were reported to have clean faces (Appendix Table 2.10).

An additional population study was conducted in November 2007 at the request of the Health Service. The Health Service estimated that 43 children aged 1 to 9 years resided in the community based on their clinic database. Of these, 37 children (86%) were examined for trachoma and one child was found to have active trachoma (3%). The child and their household contacts were treated with azithromycin by the clinic. Of the 37 children examined for facial cleanliness, six (16%) had clean faces.

Appendix Table 2.10 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in areas serviced by the Tullawon ACCHS, SA, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population				
Resident children (ABS)†	NA	NA	NA	NA
Children enrolled in schools (ABS)‡	NA	NA	NA	NA
Reported number of children currently in the community/school‖	--	--	--	--
SCREENING 1				
Active trachoma				
Children examined	1	15	2	18
Active trachoma (%)	0 (0%)	3 (20%)	0 (0%)	3 (17%)
Facial cleanliness				
Children examined	1	15	2	18
Clean faces (%)	1 (100%)	15 (100%)	2 (100%)	18 (100%)
SCREENING 2				
Active trachoma				
Children examined	--	23	6	29
Active trachoma (%)	--	3 (13%)	0 (0%)	3 (10%)
Facial cleanliness				
Children examined	--	23	6	29
Clean faces (%)	--	23 (100%)	6 (100%)	29 (100%)

NA = Not available
(--) Data not reported but it is not known whether it was collected or not
* Children in the 1 to 4 age group were less likely to be examined because they were less likely to be at school
† Projected 2007 population data based on the ABS 1.9% low series population growth rate in SA
‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.9% low series population growth rate in SA
‖ Estimates were not provided by the EH&CDSSP coordinator and the screening team
Source: Data regarding active trachoma and clean faces were collected by the EH&CDSSP coordinator and the screening team

TREATMENT

The children found to have active trachoma were treated within two weeks of the examination. No household or community contacts were treated.

TRICHIASIS

Adults were examined for trichiasis twice a year at the ACCHS clinic while they were having a diabetes check-up. ABS data for the number of Aboriginal people resident in areas serviced by the Tullawon ACCHS were not available. Twenty-seven people were examined during the first screening and 22 were examined during the second screening (Appendix Table 2.11). No trichiasis was found during either screening; however, 15 people (56%) from the first screening

were reported to have been seen by the ophthalmologist in the screening team when they were examined in the clinics, and 12 people (55%) were seen by the ophthalmologist at the second.

The November 2007 study conducted at the request of the Health Service also examined adults in this area for trichiasis. The health service estimated that 240 people resided in the community based on their clinic database. Of these, 20 people were examined and none (0%) were found to have trichiasis.

Appendix Table 2.11 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in areas serviced by the Tullawon ACCHS, SA, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS projection							
Resident Aboriginal people*	NA	NA	NA	NA	NA	NA	NA
SCREENING 1							
Trichiasis							
People examined (percentage of the resident Aboriginal people)	1	8	10	2	4	2	27
Trichiasis (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Ophthalmic consultation							
Consultation offered within 6 months of previous screening (percentage examined for trichiasis)	1 (100%)	6 (75%)	4 (40%)	1 (50%)	2 (50%)	1 (50%)	15 (56%)
SCREENING 2							
Trichiasis							
People examined (percentage of the resident Aboriginal people)	1	5	7	1	4	4	22
Trichiasis (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Ophthalmic consultation							
Consultation offered within 6 months of previous screening† (percentage examined for trichiasis)	1 (100%)	2 (40%)	5 (71%)	1 (100%)	2 (50%)	1 (25%)	12 (55%)

NA = Not available

* Projected 2007 population data based on the ABS 1.9% low series population growth rate in SA

† People were seen by the ophthalmologist in the screening team when they were examined in the clinics

Source: Data collected by the EH&CDSSP coordinator and the screening team

2.5 UMOONA TJUTAGKU

SCREENING FOR ACTIVE TRACHOMA

Reports came from one community (SA_03) that conducted screening twice in 2007. Community SA_03 had data reported on its own in 2006 and 2007.

ABS data indicate that 54 children aged 1 to 9 years reside in areas serviced by the Umoona Tjutagku ACCHS (Appendix Table 2.12). Screening coverage could not be calculated because data for the number of children reported in the community where screening was conducted were not provided. The ABS data indicate that 30 children were enrolled in schools. A total of two children (7%) were examined for trachoma during the first screening, and no active trachoma was found (prevalence = 0%, 95% CI, 0%–84%). Two children (7%) were also examined during the second screening, and no active trachoma was found (prevalence = 0%, 95% CI, 0%–84%).

Facial cleanliness data were provided for two children during the first screening and two during the second screening and all (100%) were reported to have clean faces (Appendix Table 2.12).

Appendix Table 2.12 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in areas serviced by the Umoona Tjutagku ACCHS, SA, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population				
Resident children (ABS)†	26	28	22	76
Children enrolled in schools (ABS)‡	7	23	20	50
Reported number of children currently in the community/school‖	--	--	--	--
SCREENING 1				
Active trachoma				
Children examined (percentage of those currently enrolled in schools - ABS)	--	2 (9%)	--	2 (4%)
Active trachoma (%)	--	0 (0%)	--	0 (0%)
Facial cleanliness				
Children examined	--	2	--	2
Clean faces (%)	--	2 (100%)	--	2 (100%)
SCREENING 2				
Active trachoma				
Children examined (percentage of those currently enrolled in schools - ABS)	--	2 (9%)	1 (5%)	3 (6%)
Active trachoma (%)	--	0 (0%)	0 (0%)	0 (0%)
Facial cleanliness				
Children examined	--	2	1	3
Clean faces (%)	--	2 (100%)	1 (100%)	3 (100%)

(--) Data not reported but it is not known whether it was collected or not

* Children in the 1 to 4 age group were less likely to be examined because they were less likely to be at school

† Projected 2007 population data based on the ABS 1.9% low series population growth rate in SA

‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.9% low series population growth rate in SA

‖ Estimates were not provided by the EH&CDSSP coordinator and the screening team

Source: Data regarding active trachoma and clean faces were collected by the EH&CDSSP coordinator and the screening team

TREATMENT

Treatment was not required for any of the children examined for trachoma. No household or community contacts were treated.

TRICHIASIS

Adults were examined for trichiasis twice a year at the ACCHS clinic while they were having a diabetes check-up. During the first screening, data on trichiasis were provided for 37 (13%) of the 275 Aboriginal people reported by the ABS to be resident in areas serviced by the Umoona Tjutagku ACCHS (Appendix Table 2.13). No trichiasis was found, but 21 people (57%) were

reported to have been seen by the ophthalmologist in the screening team when they were examined in the clinics. During the second screening, 31 people (11%) were examined with no trichiasis found. Of these people, 17 (55%) were reported to have been seen by the ophthalmologist in the screening team when they were examined in the clinics.

Appendix Table 2.13 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in areas serviced by the Umoona Tjutagku ACCHS, SA, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS projection							
Resident Aboriginal people*	77	36	20	81	45	16	275
SCREENING 1							
Trichiasis							
People examined (percentage of the resident Aboriginal people)	2 (3%)	12 (33%)	11 (55%)	1 (1%)	7 (16%)	4 (25%)	37 (13%)
Trichiasis (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Ophthalmic consultation							
Consultation offered within 6 months of previous screening† (percentage examined for trichiasis)	1 (50%)	4 (33%)	6 (55%)	1 (100%)	6 (86%)	3 (75%)	21 (57%)
SCREENING 2							
Trichiasis							
People examined (percentage of the resident Aboriginal people)	0	9 (25%)	16 (80%)	0	4 (9%)	2 (13%)	31 (11%)
Trichiasis (%)		0 (0%)	0 (0%)		0 (0%)	0 (0%)	0 (0%)
Ophthalmic consultation							
Consultation offered within 6 months of previous screening† (percentage examined for trichiasis)		2 (22%)	10 (63%)		3 (75%)	2 (100%)	17 (55%)

* Projected 2007 population data based on the ABS 1.9% low series population growth rate in SA

† People were seen by the ophthalmologist in the screening team when they were examined in the clinics

Source: Data collected by the EH&CDSSP coordinator and the screening team

3 WESTERN AUSTRALIA

3.1 GOLDFIELDS

SCREENING FOR ACTIVE TRACHOMA

Of the 37 communities in the Goldfields region (Figure 3.1 and Table 3.1), data for 10 communities were reported to the NTSRU in either 2006 or 2007 or both years (Appendix Table 3.1); six of these communities were reported as three pairs in 2007 (Appendix Table 3.2). All six communities that had data reported in 2006 had data reported in 2007; however, four of these communities that were reported separately in 2006 were reported as two pairs in 2007 (Appendix Table 3.2). Results for trachoma prevalence, clean faces, treatment, trichiasis and SAFE strategies counted each pair as one community. Community GOL_12 was included because, although screening data for children were not reported, data for trichiasis were reported.

Appendix Table 3.1 Number of communities where active trachoma data were reported in 2006 and 2007 in the Goldfields region, WA.

	2007		
2006	Reported	Not reported	
Reported	6	0	6
Not reported	4	27	31
	10	27	37

Source: Data collected by the Goldfields Population Health Unit

Appendix Table 3.2 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Goldfields region in 2006 and 2007, WA.

Community code	Number of children examined (Active trachoma prevalence %)	
	2006 Communities = 6	2007 Communities = 10*
GOL_01	20 (0%)	†
GOL_01&05		19 (11%)
GOL_02	21 (0%)	†
GOL_03	34 (38%)	†
GOL_02&03		29 (10%)
GOL_04	47 (32%)	33 (9%)
GOL_05	23 (39%)	†
GOL_06	86 (7%)	21 (0%)
GOL_07	--	42 (0%)
GOL_08	--	21 (0%)
GOL_09&11	--	62 (0%)
GOL_12	--	--‡
Total communities n=12	231 (19%)	227 (16%)

(--) Data not reported but it is not known whether it was collected or not

* The paired communities were counted as two individual communities in this total

† 2007 data were reported with another community

‡ Data for trichiasis screening were reported only

Source: Data collected by the Goldfields Population Health Unit

ABS data indicate that 1163 children aged 1 to 9 years reside in the Goldfields region. In the communities where screening for trachoma was conducted, 1047 children were reported to be in schools targeted for trachoma screening (Appendix Table 3.3). A total of 227 children (22%) were examined for trachoma and eight were found to have active trachoma (prevalence = 4%, 95% CI, 1%–7%).

Facial cleanliness data were provided for 104 children aged 1 to 9 years and 100 (96%) were reported to have clean faces (Appendix Table 3.4). Of the three communities where data for facial cleanliness were reported, all reported clean faces in >80% of the children (Appendix Table 3.5). The Goldfields examined children for facial cleanliness only when active trachoma was reported except for GOL_01&05 (Appendix Table 3.4).

Overall, four (57%) of the seven communities had no active trachoma and two (29%) had a prevalence ≥10% (Appendix Table 3.6 and Appendix Figure 3.1).

Appendix Table 3.3 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in the Goldfields region, WA, 2007.

	Number of Aboriginal children			
	1-4 yrs*	5-9 yrs	10-14 yrs	Total
Regional population (ABS)				
Resident children†	503	660	599	1762
Children enrolled in schools‡	124	765	411	1300
Active trachoma				
Reported number of children currently in the community/school‖ (percentage of the resident children - ABS)	529 (105%)	518 (78%)	540 (90%)	1587 (90%)
Children examined (percentage of those currently in the community/school)	28 (5%)	199 (38%)	129 (24%)	356 (22%)
Active trachoma (%)	2 (7%)	6 (3%)	5 (4%)	13 (4%)
Facial cleanliness				
Children examined	8	96	104	208
Clean faces (%)	6 (75%)	94 (98%)	104 (100%)	206 (99%)

* Children in the 1 to 4 age group were less likely to be examined because they were less likely to be at school

† Projected 2007 population data based on the ABS 1.8% low series population growth rate in WA

‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children

‖ Estimates provided by the Goldfields Population Health Unit

Source: Data regarding active trachoma and clean faces collected by the Goldfields Population Health Unit

Appendix Table 3.4 Aboriginal children aged 1 to 9 years examined for active trachoma and facial cleanliness in communities of the Goldfields region, WA, 2007.

Community code	Trachoma		Clean faces	
	Examined	Active trachoma (%)	Examined	Clean face (%)
GOL_01&05	19	2 (11%)	--	--
GOL_02&03	29	3 (10%)	29	29 (100%)
GOL_04	33	3 (9%)	33	29 (88%)
GOL_06	21	0 (0%)	--	--
GOL_07	42	0 (0%)	42	42 (100%)
GOL_08	21	0 (0%)	--	--
GOL_09&11	62	0 (0%)	--	--
GOL_12*	--	--	--	--
Total communities n=8	227	8 (4%)	104	100 (96%)

(--) Data not reported but it is not known whether it was collected or not

* GOL_12 had data reported for trichiasis but not for trachoma or clean faces

Source: Data collected by the Goldfields Population Health Unit

Appendix Table 3.5 Community prevalence of clean faces in Aboriginal children aged 1 to 9 years in the Goldfields region, WA, 2007.

Community prevalence of children with clean faces	Number (%) of communities
No data reported in 2007	0
Not screened in 2007	5 (63%)
0 to 10%	0
11 to 20%	0
21 to 40%	0
41 to 60%	0
61 to 80%	0
81 to 90%	1 (13%)
91 to 100%	2 (25%)
Total	8 (101%)*

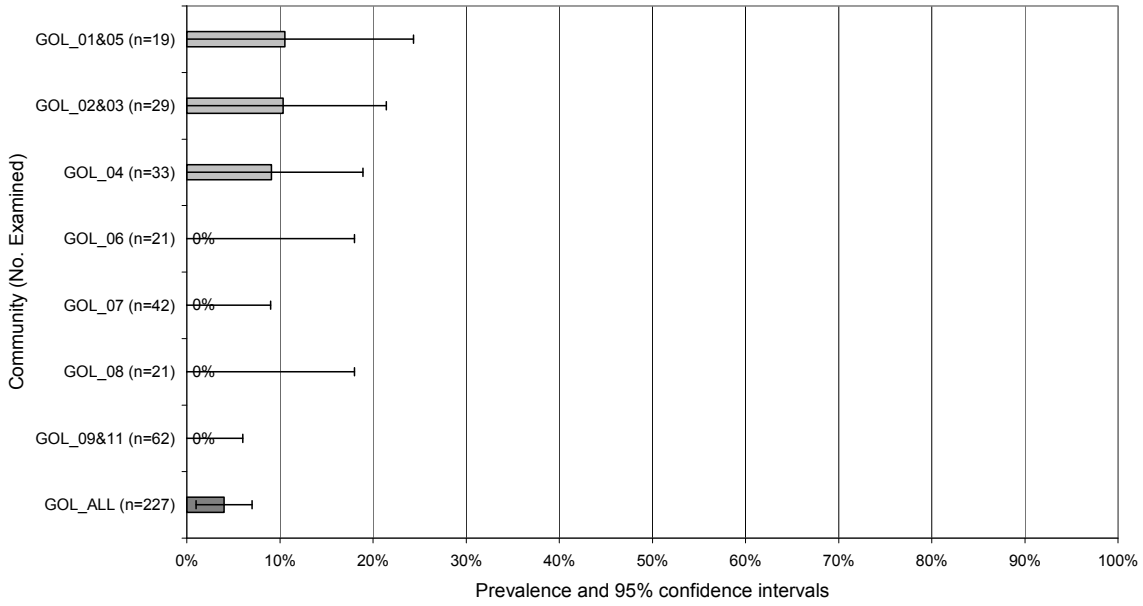
* Total does not equal 100% because of rounding

Source: Data collected by the Goldfields Population Health Unit

Appendix Table 3.6 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Goldfields region, WA, 2007.

Community prevalence of children with active trachoma	Number (%) of communities
No data reported in 2007	1 (13%)
Not screened in 2007	0
0%	4 (50%)
1 to <5%	0
5 to <10%	1 (13%)
10 to <20%	2 (25%)
20 to <50%	0
≥50%	0
Total	8 (100%)

Source: Data collected by the Goldfields Population Health Unit



Appendix Figure 3.1 Community prevalence and 95% confidence intervals of active trachoma in Aboriginal children aged 1 to 9 years in the Goldfields region, WA, 2007.
GOL_ALL = prevalence for the region
Source: Data collected by the Goldfields Population Health Unit

TREATMENT

Of the eight children found to have active trachoma at the screening, five (63%) were treated within two weeks of being examined (Appendix Table 3.7).

Of the four out of seven communities that required treatment, in three communities people in affected households were treated (Appendix Table 3.7 and Appendix Table 3.8).

From a total of 70 people in households and the community who were identified as requiring treatment, all received treatment and 62 (89%) were treated within two weeks of the screening (Appendix Table 3.9).

Appendix Table 3.7 Treatment strategies reported for communities in the Goldfields region, WA, 2007.

Community code	Prevalence of active trachoma %	Treatment strategy	Treatment of children with active trachoma		Treatment of household and community contacts		
			Number to treat	Treated within 2 weeks (%)	Required	Treated within 2 weeks (%)	Total treated (%)
GOL_01&05	11%	Household	2	2 (100%)	13	13 (100%)	13 (100%)
GOL_02&03	10%	Household	3	3 (100%)	16	8 (50%)	16 (100%)
GOL_04	9%	Household	3	0 (0%)	41	41 (100%)	41 (100%)
GOL_06	0%	Not required	0				
GOL_07	0%	Not required	0				
GOL_08	0%	Not required	0				
GOL_09&11	0%	Not required	0				
Total communities n=7			8	5 (63%)	70	62 (89%)	70 (100%)

(--) Data not reported but it is not known whether it was collected or not
Source: Data collected by the Goldfields Population Health Unit.

Appendix Table 3.8 Treatment strategies reported for communities and the number treated in the Goldfields region, WA, 2007.

	Number of communities	Number of people treated within 2 weeks	Total number of people treated	Total targeted for treatment
Prevalence ≥10%				
Community	0			
Household	2	21 (72%)	29 (100%)	29
Not reported	0			
Subtotal	*2*	*21 (72%)*	*29 (100%)*	*29*
Prevalence <10% but >5%				
Community	0			
Household	1	41 (100%)	41 (100%)	41
Not reported	0			
Subtotal	*1*	*41 (100%)*	*41 (100%)*	*41*
Prevalence 1% to <5%				
Community	0			
Household	0			
Not reported	0			
Subtotal	*0*			
Prevalence of 0%				
Community	0			
Household*	0			
No treatment required	4			
Subtotal	*4*	--	--	--
Total	7	62 (89%)	70 (100%)	70

(--) Data not reported but it is not known whether it was collected or not
Source: Data collected by the Goldfields Population Health Unit

Appendix Table 3.9 Age groups, numbers and percentages of contacts requiring treatment and treated within 2 weeks of screening in the Goldfields region, WA, 2007.

Treatment	<1 yr	1-4 yrs	5-9 yrs	10-14 yrs	15+ yrs	Total
Requiring treatment	1	8	9	8	44	70
Treated within 2 weeks (%)	1 (100%)	8 (100%)	9 (100%)	8 (100%)	36 (82%)	62 (89%)
Total treated (%)	1 (100%)	8 (100%)	9 (100%)	8 (100%)	44 (100%)	70 (100%)

Source: Data collected by the Goldfields Population Health Unit

COMPARISON OF 2006 AND 2007 ACTIVE TRACHOMA DATA

In total, active trachoma prevalence data for 2006 and 2007 were provided for six communities and, of these, sufficient children (10 or more) were examined for a comparison in all six communities (Figure 3.2 page 71). Comparisons across the two years were made based on the pairings that were reported in 2007 (see Appendix Table 3.2, page 143 for combinations). A significant decrease in prevalence was found for GOL_02&3 (Fisher's exact; p=0.020) and GOL_04 (χ^2 7.264 p=0.007).

TRICHIASIS

Adults were examined for trichiasis during an annual influenza vaccination program. Data on trichiasis were provided for 275 (5%) of the 5313 Aboriginal people reported by the ABS to be resident in this region (Appendix Table 3.10). Of those examined, 17 people (6%) were found to have trichiasis. All of the seventeen people were reported to have been offered an ophthalmological consultation within six months of the previous screening.

Appendix Table 3.10 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in the Goldfields region, WA, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS projection							
Resident Aboriginal people*	1616	708	358	1670	630	331	5313
Trichiasis							
People examined (percentage of the resident Aboriginal people)	--	76 (11%)	66 (18%)	--	61 (10%)	72 (22%)	275 (5%)
Trichiasis (%)	--	3 (4%)	4 (6%)	--	3 (5%)	7 (10%)	17 (6%)
Ophthalmic consultation							
Consultation offered within 6 months of previous screening (percentage examined for trichiasis)	--	3 (4%)	4 (6%)	--	3 (5%)	7 (10%)	17 (6%)

(--) Data not reported but it is not known whether it was collected or not

* Projected 2007 population data based on the ABS 1.8% low series population growth rate in WA

Source: Data collected by the Goldfields Population Health Unit

TRACHOMA CONTROL ACTIVITIES

When reporting the components of the SAFE Strategy available in each community, five communities (63%) had a program to detect trichiasis and the distribution of antibiotics was also reported for five communities (63%) (Appendix Table 3.11). Facial cleanliness resources were not reported for any of the communities; however, health education programs were implemented in four communities (50%). Environmental activities were reported for four communities (50%). The Goldfields Population Health Unit offered to assist two Aboriginal Community Controlled Health Services to conduct trachoma screening. Screening was not done in these communities in 2007 but assistance will be offered again for 2008.

Appendix Table 3.11 Communities where SAFE trachoma control activities were reported in the Goldfields region, WA, 2007.

Community code	Prevalence of active trachoma %	Communities where activities were reported					
		Surgery	Antibiotics	Facial cleanliness		Environmental health	Other*
				Resources	Program		
GOL_01&05	11%	✓	✓	--	✓	✓	--
GOL_02&03	10%	✓	✓	--	✓	✓	--
GOL_04	9%	✓	✓	--	✓	✓	--
GOL_06	0%	--	--	--	--	--	--
GOL_07	0%	--	--	--	--	--	--
GOL_08	0%	✓	✓	--	--	✓	✓
GOL_09&11	0%	✓	✓	--	✓	--	--
GOL_12	--	--	--	--	--	--	--
Total communities n=8		5 (63%)	5 (63%)	--	4 (50%)	4 (50%)	1 (13%)

(--) Data not reported but it is not known whether it was collected or not

* Comments written by this community reported that it did not have any previous history of trachoma and therefore only pre-primary and kindergarten children were examined to confirm that this was still the case

Source: Data were collected by the Goldfields Population Health Unit

3.2 KIMBERLEY

SCREENING FOR ACTIVE TRACHOMA

Of the 44 communities in the Kimberley region (Figure 3.1 and Table 3.1), data for 35 of these were reported to the NTSRU in either 2006 or 2007 or both years (Appendix Table 3.12). Reports came from 29 communities in 2007; however, only 28 communities had data for trachoma screening (Appendix Table 3.13). KIM_29 has been included in some tables because, although it did not report screening of children, treatment data for children and community contacts were provided.

Data were reported for 24 of these communities in 2006. Five of the seven communities where data were reported in 2006, but not in 2007, had a prevalence of active trachoma >10% in 2006 (Appendix Table 3.13).

Appendix Table 3.12 Number of communities where active trachoma data were reported in 2006 and 2007 in the Kimberley region, WA.

	2007		
2006	Reported	Not reported	
Reported	24	7	31
Not reported	4	9	13
	28*	16	44

* KIM 29 has not been included as a reported community in this table because screening data were not provided
Source: Data collected by the Kimberley Population Health Unit

Appendix Table 3.13 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Kimberley region in 2006 and 2007, WA.

Community code	Number of children examined (Active trachoma prevalence %)	
	2006* Communities = 31	2007 Communities = 28
KIM_01	NR (7%)	BNT
KIM_02	NR (8%)	BNT
KIM_03	NR (13%)	41 (12%)
KIM_04	NR (17%)	74 (35%)
KIM_05	NR (7%)	126 (9%)
KIM_06	NR (8%)	173 (12%)
KIM_07	NR (31%)	SNDP
KIM_08	NR (100%)	4 (0%)
KIM_09	NR (11%)	15 (0%)
KIM_10	NR (42%)	SNDP
KIM_11	NR (37%)	--
KIM_12	NR (33%)	7 (0%)
KIM_13	NR (13%)	2 (0%)
KIM_14	NR (30%)	61 (28%)
KIM_15	NR (27%)	62 (8%)
KIM_16	NR (0%)	4 (0%)
KIM_17	NR (17%)	24 (13%)
KIM_18	NR (27%)	10 (0%)
KIM_19	NR (30%)	8 (0%)
KIM_20	NR (37%)	14 (14%)
KIM_21	NR (34%)	37 (27%)
KIM_22	NR (50%)	14 (36%)
KIM_23	NR (21%)	SNDP
KIM_24	NR (4%)	100 (9%)
KIM_25	NR (9%)	27 (41%)
KIM_27	NR (34%)	41 (10%)
KIM_28	--	18 (6%)
KIM_29	NR (82%)	--
KIM_30	NR (64%)	25 (48%)
KIM_31	NR (55%)	23 (43%)
KIM_32	--	15 (27%)
KIM_33	--	19 (37%)
KIM_34	NR (3%)	22 (0%)
KIM_35	NR (3%)	36 (0%)
KIM_38	--	4 (25%)
Total communities n=35	1048 (18%)	1006 (16%)

BNT= Identified by the population health unit as believed not to have trachoma
SNDP = Reported as screened but no data were provided
(--) Data not reported but it is not known whether it was collected or not
* The number of children examined within each community was not reported (NR) in 2006
Source: Data collected by the Kimberley Population Health Unit

ABS data indicate that 2824 children aged 1 to 9 years reside in the Kimberley region. In the communities where screening for trachoma was conducted, 1584 children were reported to be in schools targeted for trachoma screening (Appendix Table 3.14). A total of 1006 children (64%) were examined for trachoma and 164 were found to have active trachoma (prevalence = 16%, 95% CI, 14%–18%).

Facial cleanliness data were provided for 1006 children aged 1 to 9 years and 817 (81%) were reported to have clean faces (Appendix Table 3.15). Of the 28 communities where data for facial cleanliness were reported, 19 (68%) reported clean faces in >80% of the children (Appendix Table 3.16).

Overall, nine (32%) of the 28 communities had no active trachoma and 15 (54%) had a prevalence ≥10% (Appendix Table 3.17 and Appendix Figure 3.2).

Appendix Table 3.14 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in the Kimberley region, WA, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population (ABS)				
Resident children†	1178	1646	1335	4159
Children enrolled in schools‡	214	1999	675	2888
Active trachoma				
Reported number of children currently in the community/school‖ (percentage of the resident children - ABS)	264 (22%)	1320 (80%)	980 (73%)	2564 (62%)
Children examined (percentage of those currently in the community/school)	118 (45%)	888 (67%)	585 (60%)	1591 (62%)
Active trachoma (%)	17 (14%)	147 (17%)	49 (8%)	213 (13%)
Facial cleanliness				
Children examined	118	888	585	1591
Clean faces (%)	85 (72%)	732 (82%)	567 (97%)	817 (81%)

* Children in the 1 to 4 age group were less likely to be examined because they were less likely to be at school

† Projected 2007 population data based on the ABS 1.8% low series population growth rate in WA

‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.8% low series population growth rate in WA

‖ Estimates provided by the Kimberley Population Health Unit

Source: Data regarding active trachoma and clean faces collected by the Kimberley Population Health Unit

Appendix Table 3.15 Aboriginal children aged 1 to 9 years examined for active trachoma and facial cleanliness in communities of the Kimberley region, WA, 2007.

Community code	Trachoma		Clean faces	
	Examined	Active trachoma (%)	Examined	Clean face (%)
KIM_03	41	5 (12%)	41	36 (88%)
KIM_04	74	26 (35%)	74	46 (62%)
KIM_05	126	11 (9%)	126	126 (100%)
KIM_06	173	21 (12%)	173	144 (83%)
KIM_08	4	0 (0%)	4	4 (100%)
KIM_09	15	0 (0%)	15	13 (87%)
KIM_12	7	0 (0%)	7	7 (100%)
KIM_13	2	0 (0%)	2	2 (100%)
KIM_14	61	17 (28%)	61	40 (66%)
KIM_15	62	5 (8%)	62	40 (65%)
KIM_16	4	0 (0%)	4	4 (100%)
KIM_17	24	3 (13%)	24	21 (88%)
KIM_18	10	0 (0%)	10	10 (100%)
KIM_19	8	0 (0%)	8	6 (75%)
KIM_20	14	2 (14%)	14	6 (43%)
KIM_21	37	10 (27%)	37	23 (62%)
KIM_22	14	5 (36%)	14	10 (71%)
KIM_24	100	9 (9%)	100	82 (82%)
KIM_25	27	11 (41%)	27	24 (89%)
KIM_27	41	4 (10%)	41	37 (90%)
KIM_28	18	1 (6%)	18	18 (100%)
KIM_29*	--	--	--	--
KIM_30	25	12 (48%)	25	21 (84%)
KIM_31	23	10 (43%)	23	12 (52%)
KIM_32	15	4 (27%)	15	11 (73%)
KIM_33	19	7 (37%)	19	18 (95%)
KIM_34	22	0 (0%)	22	22 (100%)
KIM_35	36	0 (0%)	36	30 (83%)
KIM_38	4	1 (25%)	4	4 (100%)
Total communities n=29	1006	164 (16%)	1006	817 (81%)

(--) Data not reported but it is not known whether it was collected or not

* KIM_29 reported treatment but not screening data for active trachoma or clean faces

Source: Data were collected by the Kimberley Population Health Unit

Appendix Table 3.16 Community prevalence of clean faces in Aboriginal children aged 1 to 9 years in the Kimberley region, WA, 2007.

Community prevalence of children with clean faces	Number (%) of communities
No data reported in 2007	6* (17%)
Not screened in 2007	1 (3%)
0 to 10%	0
11 to 20%	0
21 to 40%	0
41 to 60%	2 (6%)
61 to 80%	7 (20%)
81 to 90%	9 (26%)
91 to 100%	10 (29%)
Total	35 (101%)†

* Includes two communities that were identified as 'believed not to have trachoma' by the population health unit

† Total does not equal 100% because of rounding

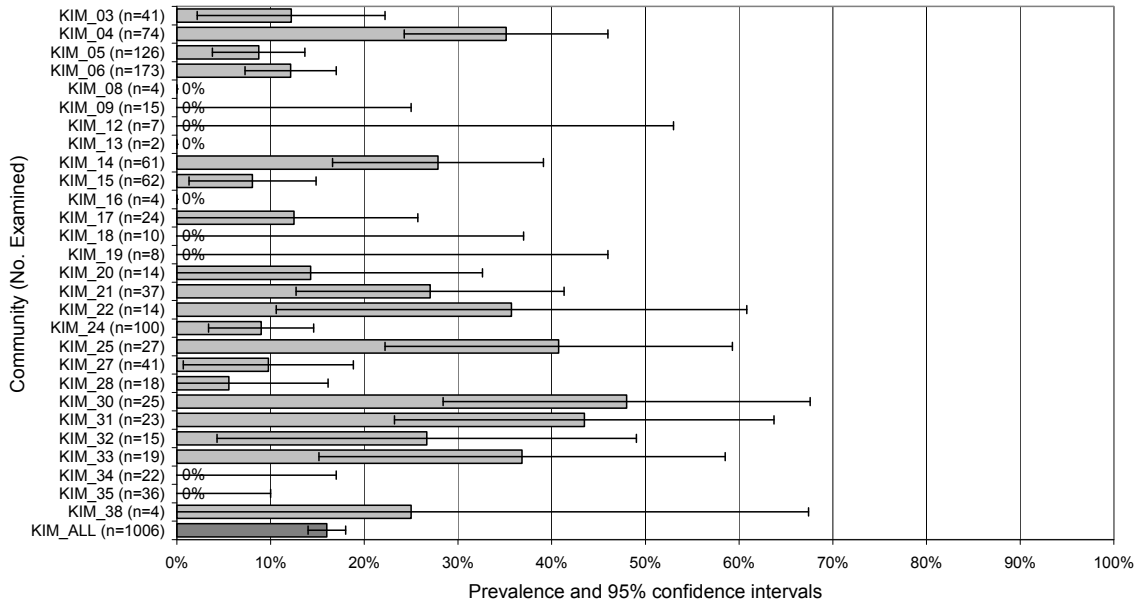
Source: Data collected by the Kimberley Population Health Unit

Appendix Table 3.17 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Kimberley region, WA, 2007.

Community prevalence of children with active trachoma	Number (%) of communities
No data reported in 2007	6* (17%)
Not screened in 2007	1 (3%)
0%	9 (26%)
1 to <5%	0 (0%)
5 to <10%	4 (11%)
10 to <20%	5 (14%)
20 to <50%	10 (29%)
≥50%	0
Total	35 (100%)

* Includes two communities that were identified as 'believed not to have trachoma' by the population health unit

Source: Data collected by the Kimberley Population Health Unit



Appendix Figure 3.2 Community prevalence and 95% confidence intervals of active trachoma in Aboriginal children aged 1 to 9 years in the Kimberley region, WA, 2007.
KIM_ALL = prevalence for the region
For communities with ≤5 children examined, 95% CI were very large and have not been included in the figure
Source: Data collected by the Kimberley Population Health Unit

TREATMENT

Of the 292 children found to have active trachoma at the screening, 202 (69%) were treated within two weeks of being examined (Appendix Table 3.18).

Of the 21 out of 28 communities where treatment was required, six communities (29%) were treated using a community-based approach (Appendix Table 3.18, and Appendix Table 3.19). In nine communities (43%), people in affected households were treated; one of these communities (KIM_35) had no active trachoma in children aged 1 to 9 years, but households were treated because active trachoma was found in children aged 10 to 14 years. Treatment interventions were not reported for six communities (29%); although in four of these communities information regarding the treatment strategy was reported and the children who had active trachoma at the screening were treated; no data were provided for the rest of the communities.

There were several anomalous reports. For the screening data reported for KIM_03, five children were found to have active trachoma from the screening (Appendix Table 3.15); additional children who were not examined were reported as requiring treatment (Appendix Table 3.18). Screening data were not reported for KIM_29; however, 11 out of 62 children (18%) identified as requiring treatment in this community were treated.

From a total of 1311 people identified in households and the community as requiring treatment, 1096 (84%) received treatment and 1089 (83%) were treated within two weeks of the screening (Appendix Table 3.20).

Appendix Table 3.18 Treatment strategies reported for communities in the Kimberley region, WA, 2007.

Community code	Prevalence of active trachoma (%)	Treatment strategy	Treatment of children with active trachoma		Treatment of household and community contacts		
			Number to treat	Treated within 2 weeks (%)	Required	Treated within 2 weeks (%)	Total treated (%)
KIM_03	12%	Household	63	61 (97%)	--	--	--
KIM_04	35%	--	26	0 (0%)	--	--	--
KIM_05	9%	Household	11	10 (91%)	51	51 (100%)	51 (100%)
KIM_06	12%	Household	21	20 (95%)	222	155 (70%)	155 (70%)
KIM_08	0%	Not required	0				
KIM_09	0%	Not required	0				
KIM_12	0%	Not required	0				
KIM_13	0%	Not required	0				
KIM_14	28%	Household	17	17 (100%)	288	288 (100%)	288 (100%)
KIM_15	8%	Household	5	5 (100%)	42	42 (100%)	42 (100%)
KIM_16	0%	Not required	0				
KIM_17	13%	Community	3	0 (0%)	4	4 (100%)	4 (100%)
KIM_18	0%	Not required	0				
KIM_20	14%	Community	2	1 (50%)	3	3 (100%)	3 (100%)
KIM_21	27%	Household	10	10 (100%)	51	50 (98%)	50 (98%)
KIM_22	0%	Not required	0				
KIM_24	9%	Community	9	9 (100%)	--	--	--
KIM_25	41%	Community	11	11 (100%)	--	--	--
KIM_27	10%	--	5	5 (100%)	--	--	--
KIM_28	6%	Household	1	0 (0%)	--	--	--
KIM_29*	--	Household	61	11 (18%)	161	45 (28%)	45 (28%)
KIM_30	48%	Community	12	10 (83%)	142	123 (87%)	123 (87%)
KIM_31	43%	Community	10	10 (100%)	144	130 (90%)	137 (95%)
KIM_32	27%	Household	11	9 (82%)	47	45 (96%)	45 (96%)
KIM_33	37%	Community	7	7 (100%)	78	75 (96%)	75 (96%)
KIM_34	0%	Not required	0				
KIM_35†	0%	Household	0	0 (0%)	19	19 (100%)	19 (100%)
KIM_37	36%	Household	5	5 (100%)	35	35 (100%)	35 (100%)
KIM_38	25%	Community	1	1 (100%)	24	24 (100%)	24 (100%)
Total communities n=29			292	202 (69%)	1311	1089 (83%)	1096 (84%)

(--) Data not reported but it is not known whether it was collected or not

* Reported treatment but did not report prevalence of trachoma

† No active trachoma in children aged 1 to 9 years but treated household contacts because children aged 10 to 14 were found to have active trachoma

Source: Data collected by the Kimberley Population Health Unit

Appendix Table 3.19 Treatment strategies reported for communities and the number treated in the Kimberley region, WA, 2007.

Note: Community KIM_29 did not report trachoma prevalence but treated 45/161 (28%) of household people all within two weeks

	Number of communities	Number of people treated within 2 weeks	Total number of people treated	Total targeted for treatment
Prevalence ≥10%				
Community	6	359 (91%)	366 (93%)	395
Household	5	573 (89%)	573 (89%)	643
Not reported	4*	--	--	--
Subtotal	*15*	*932 (90%)*	*939 (90%)*	*1038*
Prevalence <10% but >5%				
Community	0			
Household	2	93 (100%)	93 (100%)	93
Not reported	2†	--	--	--
Subtotal	*4*	*93 (100%)*	*93 (100%)*	*93*
Prevalence 1% to <5%				
Community	0			
Household	0			
Not reported	0			
Subtotal	*0*			
Prevalence of 0%				
Community	0			
Household‡	1	19 (100%)	19 (100%)	19
No treatment required	8			
Subtotal	*9*	*19 (100%)*	*19 (100%)*	*19*
Total	28	1044 (91%)	1051 (91%)	1150

(--) Data not reported but it is not known whether it was collected or not

* Three of these communities did not report treating any household contacts but treated children found to have active trachoma during the screening

† One of these communities did not report treating any household contacts but treated children found to have active trachoma during the screening

‡ No active trachoma was found in children aged 1 to 9 years but households were treated because active trachoma was found in children aged 10 to 14

Source: Data collected by the Kimberley Population Health Unit

Appendix Table 3.20 Age groups, numbers and percentages of contacts requiring treatment and treated within 2 weeks of screening in the Kimberley region, WA, 2007.

Treatment	<1 yr	1-4 yrs	5-9 yrs	10-14 yrs	15+ yrs	Total
Requiring treatment	35	224	407	239	406	1311
Treated within 2 weeks (%)	27 (77%)	168 (75%)	325 (80%)	179 (75%)	390 (98%)	1089 (83%)
Total treated (%)	27 (77%)	168 (75%)	328 (81%)	183 (77%)	390 (98%)	1096 (84%)

Includes treatment data from community KIM_29

Source: Data collected by the Kimberley Population Health Unit

COMPARISON OF 2006 AND 2007 ACTIVE TRACHOMA DATA

In total, active trachoma prevalence data for 2006 and 2007 were provided for 24 communities and, of these, sufficient children (10 or more) were examined for a comparison in 19 communities (Figure 3.3, page 71). Due to the Kimberley not providing the number of children examined from each community, statistical analysis could not be calculated.

TRICHIASIS

Data on trichiasis were not provided for any of the 9194 Aboriginal people reported by the ABS to be resident in the Kimberley region (Appendix Table 3.21). Trichiasis screening will be conducted in March 2008 along with an annual influenza vaccination program for 27 communities. There were no proposed future activities for trichiasis screening for two communities.

Appendix Table 3.21 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in the Kimberley region, WA, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS projection							
Resident Aboriginal people*	2781	1174	677	2924	1179	459	9194
Trichiasis							
People examined (percentage of the resident Aboriginal people)	--	--	--	--	--	--	--
Trichiasis (%)	--	--	--	--	--	--	--
Ophthalmic consultation							
Consultation offered within 6 months of previous screening	--	--	--	--	--	--	--

(--) Data not reported but it is not known whether it was collected or not

* Projected 2007 population data based on the ABS 1.8% low series population growth rate in WA

TRACHOMA CONTROL ACTIVITIES

When reporting the components of the SAFE Strategy available in each community, no communities had a program to detect trichiasis; however, the distribution of antibiotics was reported for most communities (69%) (Appendix Table 3.22). Facial cleanliness resources were available in 21 communities (72%), but health education programs were implemented in 10 (34%). Environmental activities were not reported for any of the communities. Two communities had a high staff turnover and for KIM_29 this was the reason why information regarding the 'Screen and Treat' program could not be provided.

Appendix Table 3.22 Communities where SAFE trachoma control activities were reported in the Kimberley region, WA, 2007.

Community code	Prevalence of active trachoma (%)	Communities where activities were reported					
		Surgery	Antibiotics	Facial cleanliness		Environmental health	Other*
				Resources	Program		
KIM_03	12%	--	✓	✓	✓	--	--
KIM_04	35%	--	--	✓	✓	--	--
KIM_05	9%	--	✓	✓	✓	--	--
KIM_06	12%	--	✓	✓	✓	--	--
KIM_08	0%	--	--	✓	✓	--	--
KIM_09	0%	--	--	✓	--	--	--
KIM_12	0%	--	--	✓	✓	--	--
KIM_13	0%	--	--	✓	✓	--	--
KIM_14	28%	--	✓	--	--	--	✓
KIM_15	8%	--	✓	✓	--	--	--
KIM_16	0%	--	--	--	--	--	--
KIM_17	13%	--	✓	✓	--	--	--
KIM_18	0%	--	--	✓	--	--	--
KIM_19	0%	--	--	✓	--	--	--
KIM_20	14%	--	✓	✓	--	--	--
KIM_21	27%	--	✓	✓	--	--	--
KIM_22	36%	--	✓	✓	--	--	--
KIM_24	9%	--	✓	✓	✓	--	--
KIM_25	41%	--	✓	✓	✓	--	--
KIM_27	10%	--	✓	--	--	--	--
KIM_28	6%	--	✓	✓	--	--	--
KIM_29‡	--	--	✓	✓	--	--	✓
KIM_30	48%	--	✓	--	--	--	--
KIM_31	43%	--	✓	✓	--	--	--
KIM_32	27%	--	✓	--	--	--	--
KIM_33	37%	--	✓	--	--	--	--
KIM_34	0%	--	--	--	--	--	--
KIM_35	0%	--	✓	✓	✓	--	--
KIM_38	25%	--	✓	--	--	--	--
Total communities n=29			20 (69%)	21 (72%)	10 (34%)		2 (7%)

(--) Data not reported but it is not known whether it was collected or not

* Comments related to high staff turnover which caused barriers to program implementation and/or program reporting

‡ KIM_29 had treatment data reported but data for trachoma screening were not provided

Source: Data collected by the Kimberley Population Health Unit

3.3 MIDWEST

SCREENING FOR ACTIVE TRACHOMA

Of the 52 communities in the Midwest region (Figure 3.1 and Table 3.1), data for six of these were reported to the NTSRU in either 2006 or 2007 or both years (Appendix Table 3.23). The one community that had data reported in 2006, but not in 2007, had a prevalence of 29% for active trachoma in 2006 (Appendix Table 3.24).

Appendix Table 3.23 Number of communities where active trachoma data were reported in 2006 and 2007 in the Midwest region, WA.

	2007		
2006	Reported	Not reported	
Reported	5	1	6
Not reported	0	46	46
	5	47	52

Source: Data collected by the Midwest Population Health Unit

Appendix Table 3.24 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Midwest region in 2006 and 2007, WA.

Community code	Number of children examined (Active trachoma prevalence %)	
	2006 Communities = 6	2007 Communities = 5
MID_01	56 (14%)	33 (30%)
MID_02	16 (50%)	9 (11%)
MID_03	13 (8%)	21 (19%)
MID_04	23 (39%)	49 (16%)
MID_05	21 (29%)	SNDP
MID_06	38 (0%)	15 (33%)
Total communities n=6	167 (19%)	127 (22%)

SNDP = Reported as screened but no data were provided
Source: Data collected by the Midwest Population Health Unit

ABS data indicate that 1218 children aged 1 to 9 years reside in the Midwest region. In the communities where screening for active trachoma was conducted, 201 children were reported to be in schools targeted for trachoma screening (Appendix Table 3.25). A total of 127 children (63%) were examined for trachoma and 28 were found to have active trachoma (prevalence = 22%, 95% CI, 15%–29%).

Facial cleanliness data were provided for 127 children aged 1 to 9 years and 111 (87%) were reported to have clean faces (Appendix Table 3.26). Of the five communities where data for facial cleanliness were reported, three (60%) had clean faces in >80% of the children (Appendix Table 3.27).

All five communities had a prevalence ≥10% (Appendix Table 3.28 and Appendix Figure 3.3).

Appendix Table 3.25 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in the Midwest region, WA, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population (ABS)				
Resident children†	469	749	744	1962
Children enrolled in schools‡	126	873	455	1454
Active trachoma				
Reported number of children currently in the community/school‖ (percentage of the resident children - ABS)	9 (2%)	192 (26%)	183 (25%)	384 (20%)
Children examined (percentage of those currently in the community/school)	3 (33%)	124 (65%)	116 (63%)	243 (63%)
Active trachoma (%)	3 (100%)	25 (20%)	11 (9%)	39 (16%)
Facial cleanliness				
Children examined	3	124	116	243
Clean faces (%)	2 (67%)	109 (88%)	116 (100%)	227 (93%)

* Children in the 1 to 4 age group were less likely to be examined because they were less likely to be at school

† Conservative projected 2007 population data based on the ABS 1.8% low series population growth rate in WA

‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.8% low series population growth rate in WA

‖ Estimates provided by the Midwest Population Health Unit

Source: Data regarding active trachoma and clean faces collected by the Midwest Population Health Unit

Appendix Table 3.26 Aboriginal children aged 1 to 9 years examined for active trachoma and facial cleanliness in communities of the Midwest region, WA, 2007.

Community code	Trachoma		Clean faces	
	Examined	Active trachoma (%)	Examined	Clean face (%)
MID_01	33	10 (30%)	33	23 (70%)
MID_02	9	1 (11%)	9	9 (100%)
MID_03	21	4 (19%)	21	21 (100%)
MID_04	49	8 (16%)	49	48 (98%)
MID_06	15	5 (33%)	15	10 (67%)
Total communities n=5	127	28 (22%)	127	111 (87%)

Source: Data collected by the Midwest Population Health Unit

Appendix Table 3.27 Community prevalence of clean faces in Aboriginal children aged 1 to 9 years in the Midwest region, WA, 2007.

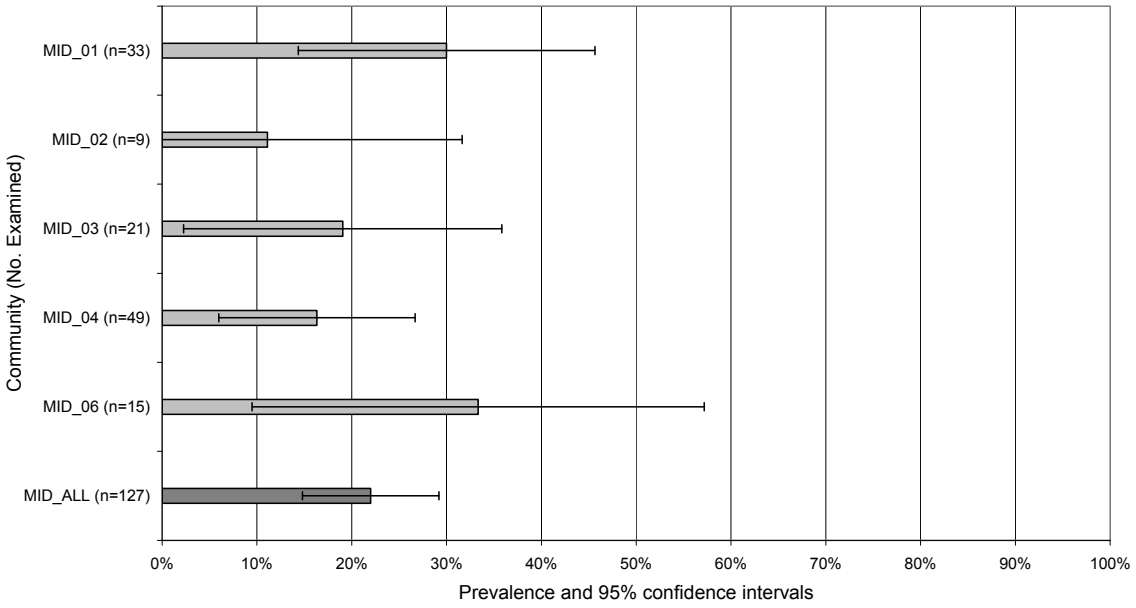
Community prevalence of children with clean faces	Number (%) of communities
No data reported in 2007	1 (17%)
Not screened in 2007	0
0 to 10%	0
11 to 20%	0
21 to 40%	0
41 to 60%	0
61 to 80%	2 (33%)
81 to 90%	0
91 to 100%	3 (50%)
Total	6 (100%)

Source: Data collected by the Midwest Population Health Unit

Appendix Table 3.28 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Midwest region, WA, 2007.

Community prevalence of children with active trachoma	Number (%) of communities
No data reported in 2007	1 (17%)
Not screened in 2007	0
0%	0
1 to <5%	0
5 to <10%	0
10 to <20%	3 (50%)
20 to <50%	2 (33%)
≥50%	0
Total	6 (100%)

Source: Data collected by the Midwest Population Health Unit



Appendix Figure 3.3 Community prevalence and 95% confidence intervals of active trachoma in Aboriginal children aged 1 to 9 years in the Midwest region, WA, 2007.
MID_ALL = prevalence for the region
Source: Data collected by the Midwest Population Health Unit

TREATMENT

Of the 28 children found to have active trachoma at the screening, 17 (61%) were treated within two weeks of being examined (Appendix Table 3.29).

Treatment was required in all five communities; in three communities (60%), people in affected households were treated (Appendix Table 3.29 and Appendix Table 3.30). Treatment interventions were not reported for two communities; although information regarding the treatment strategy was reported for these communities – and in one, the child who was found to have active trachoma at the screening was treated – no data were provided for the other community.

From a total of 100 people identified in households and the community as requiring treatment, 52 (52%) received treatment and 37 (37%) were treated within two weeks of the screening (Appendix Table 3.31).

Appendix Table 3.29 Treatment strategies reported for communities in the Midwest region, WA, 2007.

Community code	Prevalence of active trachoma %	Treatment strategy	Treatment of children with active trachoma		Treatment of household and community contacts		
			Number to treat	Treated within 2 weeks (%)	Required	Treated within 2 weeks (%)	Total treated (%)
MID_01	30%	Household	10	9 (90%)	33	31 (94%)	31 (94%)
MID_02	11%	Household	1	1 (100%)	--	--	--
MID_03	19%	Household	4	0 (0%)	--	--	--
MID_04	16%	Household	8	2 (25%)	61	0 (0%)	15 (25%)
MID_06	33%	Household	5	5 (100%)	6	6 (100%)	6 (100%)
Total communities n=5			28	17 (61%)	100	37 (37%)	52 (52%)

(--) Data not reported but it is not known whether it was collected or not
Source: Data were collected by the Midwest Population Health Unit

Appendix Table 3.30 Treatment strategies reported for communities and the number treated in the Midwest region, WA, 2007.

	Number of communities	Number of people treated within 2 weeks	Total number of people treated	Total targeted for treatment
Prevalence ≥10%				
Community	0			
Household	3	37 (37%)	52 (52%)	100
Not reported	2*	--	--	--
Subtotal	*5*	*37 (37%)*	*52 (52%)*	*100*
Prevalence <10% but >5%				
Community	0			
Household	0			
Not reported	0			
Subtotal	*0*			
Prevalence 1% to <5%				
Community	0			
Household	0			
Not reported	0			
Subtotal	*0*			
Prevalence of 0%				
Community	0			
Household	0			
No treatment required	0			
Subtotal	*0*			
Total	5	37 (37%)	52 (52%)	100

(--) Data not reported but it is not known whether it was collected or not

* One of these communities did not report treating any household contacts but treated one child who was found to have active trachoma during the screening

Source: Data collected by the Midwest Population Health Unit

Appendix Table 3.31 Age groups, numbers and percentages of contacts requiring treatment and treated within 2 weeks of screening in the Midwest region, WA, 2007.

Treatment	<1 yr	1-4 yrs	5-9 yrs	10-14 yrs	15+ yrs	Total
Requiring treatment	2	15	28	17	38	100
Treated within 2 weeks (%)	0 (0%)	6 (40%)	17 (61%)	4 (24%)	10 (26%)	37 (37%)
Total treated (%)	0 (0%)	9 (60%)	19 (68%)	7 (41%)	17 (45%)	52 (52%)

Source: Data were collected by the Midwest Population Health Unit

COMPARISON OF 2006 AND 2007 ACTIVE TRACHOMA DATA

In total, active trachoma prevalence data for 2006 and 2007 were provided for all five communities and, of these, sufficient children (10 or more) were examined for a comparison in four communities (Figure 3.4, page 72). A significant decrease in prevalence was found for MID_04 (χ^2 2.15; p=0.03) whereas a significant increase in prevalence was reported for MID_06 (χ^2 3.72; p<0.0002).

TRICHIASIS

Data on trichiasis were not provided for any of the 5598 Aboriginal people reported by the ABS to be resident in the Midwest region (Appendix Table 3.32). Future activities for trichiasis screening were not reported for any of the communities

Appendix Table 3.32 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in the Midwest region, WA, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS projection							
Resident Aboriginal people*	1771	700	431	1681	677	338	5598
Trichiasis							
People examined (percentage of the resident Aboriginal people)	--	--	--	--	--	--	--
Trichiasis (%)	--	--	--	--	--	--	--
Ophthalmic consultation							
Consultation offered within 6 months of previous screening	--	--	--	--	--	--	--

(--) Data not reported but it is not known whether it was collected or not

* Projected 2007 population data based on the ABS 1.8% low series population growth rate in WA

TRACHOMA CONTROL ACTIVITIES

When reporting the components of the SAFE Strategy available in each community, no communities had a program to detect trichiasis; however, the distribution of antibiotics was reported for most of the communities (80%) (Appendix Table 3.33). Facial cleanliness resources were available in one community, but health education programs were implemented in two communities. Environmental activities were reported for two of the communities. Information in the 'Other' comments section reported MID_06 as having implemented an eye health promotion program for mothers and children using the Kimberley flip chart.

Appendix Table 3.33 Communities where SAFE trachoma control activities were reported in the Midwest region, WA, 2007.

Community code	Prevalence of active trachoma %	Communities where activities were reported					
		Surgery	Antibiotics	Facial cleanliness		Environmental health	Other*
				Resources	Program		
MID_01	30%	--	✓	--	✓	✓	--
MID_02	11%	--	✓	--	--	--	--
MID_03	19%	--	✓	--	--	--	--
MID_04	16%	--	✓	--	--	--	--
MID_06	33%	--	--	✓	✓	✓	✓
Total communities n=5		--	4 (80%)	1 (20%)	2 (40%)	2 (40%)	1 (20%)

(--) Data not reported but it is not known whether it was collected or not

* The community reported implementing an eye health promotion program for mothers and children using the Kimberley flip chart

Source: Data collected by the Midwest Population Health Unit

3.4 PILBARA

SCREENING FOR ACTIVE TRACHOMA

Of the 34 communities in the Pilbara region (Figure 3.1 and Table 3.1), data for 17 of these were reported to the NTSRU in either 2006 or 2007 or both years (Appendix Table 3.34). Both communities that had data reported in 2006, but not in 2007, had a prevalence of active trachoma ≥10% in 2006; one of these communities was believed not to have trachoma by the population health unit (Appendix Table 3.35).

In 2006, active trachoma was graded as the presence of one or more follicles under the upper eyelid.

Appendix Table 3.34 Number of communities where active trachoma data were reported in 2006 and 2007 in the Pilbara region, WA.

	2007		
2006	Reported	Not reported	
Reported	8	2	10
Not reported	7	17	24
	15	19	34

Source: Data collected by the Pilbara Population Health Unit

Appendix Table 3.35 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Pilbara region in 2006 and 2007, WA.

Community code	Number of children examined (Active trachoma prevalence %)	
	2006* Communities = 10	2007 Communities = 15
PIL_01	34 (9%)	11 (0%)
PIL_02	34 (59%)	13 (31%)
PIL_03	33 (61%)	26 (38%)
PIL_04	28 (39%)	36 (17%)
PIL_05	12 (75%)	24 (38%)
PIL_06	4 (0%)	4 (0%)
PIL_07	11 (64%)	BNT
PIL_08	14 (43%)	--
PIL_09	94 (69%)	62 (10%)
PIL_10	9 (56%)	24 (0%)
PIL_11	--	13 (54%)
PIL_12	--	1 (100%)
PIL_13	--	15 (0%)
PIL_14	--	30 (0%)
PIL_15	--	8 (0%)
PIL_17	--	25 (28%)
PIL_18	--	14 (0%)
Total communities n=17	273 (53%)	306 (16%)

BNT= Identified by the population health unit as believed not to have trachoma
(--) Data not reported but it is not known whether it was collected or not
* In 2006 active trachoma was graded as the presence of one or more follicles under the upper eyelid
Source: Data collected by the Pilbara Population Health Unit

ABS data indicate that 1178 children aged 1 to 9 years reside in the Pilbara region. In the communities where screening for active trachoma was conducted 545 children were reported to be in schools targeted for trachoma screening (Appendix Table 3.36). A total of 306 children (56%) were examined for trachoma and 50 were found to have active trachoma (prevalence = 16%, 95% CI, 12%–20%).

Facial cleanliness data were provided for 306 children aged 1 to 9 years and 238 (78%) were reported to have clean faces (Appendix Table 3.37). Of the 15 communities where data for facial cleanliness were reported, eight (53%) had clean faces in >80% of the children (Appendix Table 3.38).

Overall, seven (47%) of the 15 communities had no active trachoma and eight (53%) had a prevalence ≥10% (Appendix Table 3.39 and Appendix Figure 3.4).

Appendix Table 3.36 The number of resident Aboriginal children aged 1 to 14 years, those enrolled in schools, and those examined for active trachoma and facial cleanliness in the Pilbara region, WA, 2007.

	Number of Aboriginal children			Total
	1-4 yrs*	5-9 yrs	10-14 yrs	
Regional population (ABS)				
Resident children†	491	687	648	1826
Children enrolled in schools‡	126	826	401	1353
Active trachoma				
Reported number of children currently in the community/school‖ (percentage of the resident children - ABS)	98 (20%)	447 (65%)	294 (45%)	839 (46%)
Children examined (percentage of those currently in the community/school)	39 (40%)	267 (60%)	147 (70%)	453 (54%)
Active trachoma (%)	9 (23%)	41 (15%)	15 (16%)	65 (14%)
Facial cleanliness				
Children examined	39	267	147	453
Clean faces (%)	22 (56%)	216 (81%)	137 (93%)	375 (83%)

* Children in the 1 to 4 age group were less likely to be examined because they were less likely to be at school

† Conservative projected 2007 population data based on the ABS 1.8% low series population growth rate in WA

‡ Projected 2007 ABS enrolment data for pre-, primary and secondary school children based on the ABS 1.8% low series population growth rate in WA

‖ Estimates provided by the Pilbara Population Health Unit

Source: Data regarding active trachoma and clean faces collected by the Pilbara Population Health Unit

Appendix Table 3.37 Aboriginal children aged 1 to 9 years examined for active trachoma and facial cleanliness in communities of the Pilbara region, WA, 2007.

Community code	Trachoma		Clean faces	
	Examined	Active trachoma (%)	Examined	Clean face (%)
PIL_01	11	0 (0%)	11	11 (100%)
PIL_02	13	4 (31%)	13	12 (92%)
PIL_03	26	10 (38%)	26	7 (27%)
PIL_04	36	6 (17%)	36	22 (61%)
PIL_05	24	9 (38%)	24	18 (75%)
PIL_06	4	0 (0%)	4	4 (100%)
PIL_09	62	6 (10%)	62	60 (97%)
PIL_10	24	0 (0%)	24	24 (100%)
PIL_11	13	7 (54%)	13	6 (46%)
PIL_12	1	1 (100%)	1	0 (0%)
PIL_13	15	0 (0%)	15	15 (100%)
PIL_14	30	0 (0%)	30	30 (100%)
PIL_15	8	0 (0%)	8	8 (100%)
PIL_17	25	7 (28%)	25	10 (40%)
PIL_18	14	0 (0%)	14	11 (79%)
Total communities n=15	306	50 (16%)	306	238 (78%)

Source: Data collected by the Pilbara Population Health Unit

Appendix Table 3.38 Community prevalence of Aboriginal children aged 1 to 9 with clean faces in the Pilbara region, WA, 2007.

Community prevalence of children with clean faces	Number (%) of communities
No data reported in 2007	2† (12%)
Not screened in 2007	0
0 to 10%	1 (6%)
11 to 20%	0
21 to 40%	2 (12%)
41 to 60%	1 (6%)
61 to 80%	3 (18%)
81 to 90%	0
91 to 100%	8 (47%)
Total	17 (101%)*

* Total does not equal 100% because of rounding

† Includes one community that was identified as 'believed not to have trachoma' by the population health unit

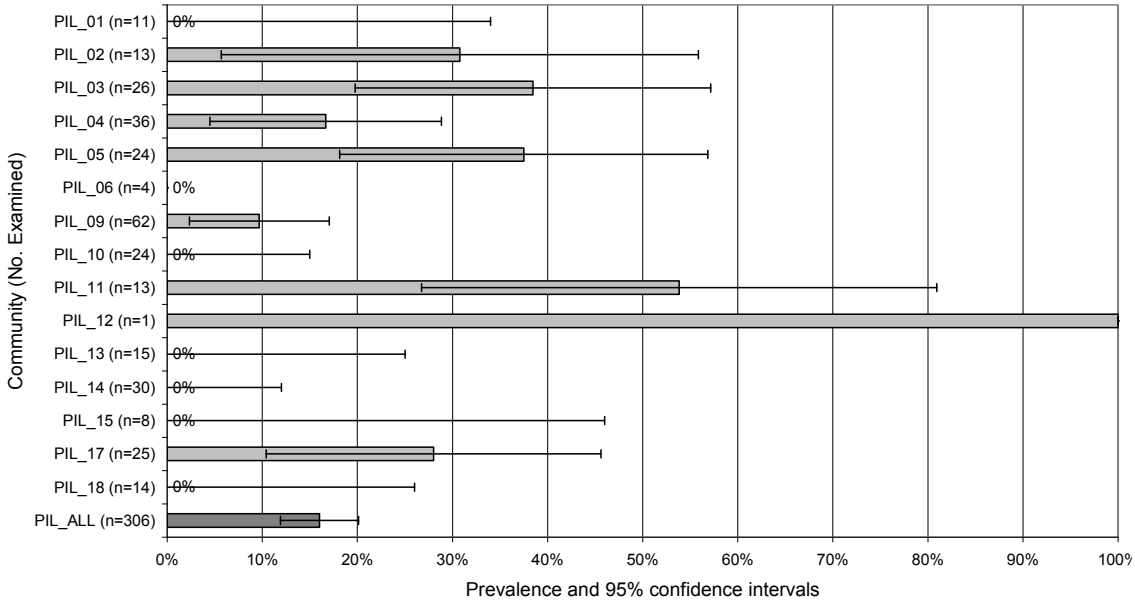
Source: Data were collected by the Pilbara Population Health Unit

Appendix Table 3.39 Community prevalence of active trachoma in Aboriginal children aged 1 to 9 years in the Pilbara region, WA, 2007.

Community prevalence of children with active trachoma	Number (%) of communities
No data reported in 2007	2† (12%)
Not screened in 2007	0
0%	7 (41%)
1 to <5%	0
5 to <10%	0
10 to <20%	2 (12%)
20 to <50%	4 (24%)
≥50%	2 (12%)
Total	17 (101%)*

* Total does not equal 100% because of rounding

† Includes one community that was identified as 'believed not to have trachoma' by the population health unit
Source: Data were collected by the Pilbara Population Health Unit



Appendix Figure 3.4 Community prevalence and 95% confidence intervals of active trachoma in Aboriginal children aged 1 to 9 years in the Pilbara region, WA.
PIL_ALL = prevalence for the region
For communities with ≤5 children examined, 95% CI were very large and have not been included in the figure
Source: Data collected by the Pilbara Population Health Unit

TREATMENT

All 50 of the children found to have active trachoma at the screening were treated within two weeks of being examined (Appendix Table 3.40).

Of the eight out of 15 communities where treatment was required, five communities (63%) were treated using a community-based approach and in three communities (38%) people in affected households were treated (Appendix Table 3.40 and Appendix Table 3.41).

From a total of 225 people in households and the community who were identified as requiring treatment, 147 (65%) received treatment and this was within two weeks of the screening (Appendix Table 3.42). An additional 36 household and community contacts treated in community PIL_03 were not included in the total because the number requiring treatment in this community was not provided.

Appendix Table 3.40 Treatment strategies reported for communities in the Pilbara region, WA, 2007.

Community code	Prevalence of active trachoma %	Treatment strategy	Treatment of children with active trachoma		Treatment of household and community contacts		
			Number to treat	Treated within 2 weeks (%)	Required	Treated within 2 weeks (%)	Total treated (%)
PIL_01	0%	Not required	0				
PIL_02	31%	Household	4	4 (100%)	4	0 (0%)	0 (0%)
PIL_03	38%	Community	10	10 (100%)	--	*	*
PIL_04	17%	Household	6	6 (100%)	25	21 (84%)	21 (84%)
PIL_05	38%	Community	9	9 (100%)	75	30 (40%)	30 (40%)
PIL_06	0%	Not required	0				
PIL_09	10%	Household	6	6 (100%)	45	45 (100%)	45 (100%)
PIL_10	0%	Not required	0				
PIL_11	54%	Community	7	7 (100%)	16	16 (100%)	16 (100%)
PIL_12	100%	Community	1	1 (100%)	15	1 (7%)	1 (7%)
PIL_13	0%	Not required	0				
PIL_14	0%	Not required	0				
PIL_15	0%	Not required	0				
PIL_17	28%	Community	7	7 (100%)	45	34 (76%)	34 (76%)
PIL_18	0%	Not required	0				
Total communities n=15			50	50 (100%)	225	147 (65%)	147 (65%)

(--) Data not reported but it is not known whether it was collected or not

* Thirty-six household and community contacts were treated in community PIL_03 within two weeks. As the number requiring treatment was not provided, these data have not been reported in the table

Source: Data collected by the Pilbara Population Health Unit

Appendix Table 3.41 Treatment strategies reported for communities and the number treated in the Pilbara region, WA, 2007.

	Number of communities	Number of people treated within 2 weeks	Total number of people treated	Total targeted for treatment
Prevalence ≥10%				
Community	5*	117 (77%)	117 (77%)	151
Household	3	66 (89%)	66 (89%)	74
Not reported				
Subtotal	*8*	*183 (81%)*	*183 (81%)*	*225*
Prevalence <10% but >5%				
Community	0			
Household	0			
Not reported	0			
Subtotal	*0*			
Prevalence 1% to <5%				
Community	0			
Household	0			
Not reported	0			
Subtotal	*0*			
Prevalence of 0%				
Community	0			
Household	0			
No treatment required	7			
Subtotal	*7*			
Total	8	183 (81%)	183 (81%)	225

* Community (PIL_03) had data provided for the number of people who received community treatment but not for those requiring treatment, causing a misrepresentation in the proportion of contacts treated
Source: Data collected by the Pilbara Population Health Unit

Appendix Table 3.42 Age groups, numbers and percentages of contacts requiring treatment and treated within 2 weeks of screening in the Pilbara region, WA, 2007.

Treatment	<1 yr	1-4 yrs	5-9 yrs	10-14 yrs	15+ yrs	Total
Requiring treatment*	1	48	76	55	45	225
Treated within 2 weeks (%)	1 (100%)	23 (48%)	59 (78%)	55 (100%)	45 (100%)	183 (81%)
Total treated (%)	1 (100%)	23 (48%)	59 (78%)	55 (100%)	45 (100%)	183 (81%)

* Community (PIL_03) had data provided for the number of people who received community treatment but not for those requiring treatment, causing a misrepresentation in the proportion of contacts treated
Source: Data collected by the Pilbara Population Health Unit

COMPARISON OF 2006 AND 2007 ACTIVE TRACHOMA DATA

In total, active trachoma prevalence data for 2006 and 2007 were provided for seven communities and, of these, sufficient children (10 or more) were examined for a comparison in five communities. Statistical analysis could not be calculated because the Pilbara graded active trachoma differently in 2006 (Figure 3.5, page 72).

TRICHIASIS

Data on trichiasis were not provided for any of the 5767 Aboriginal people reported by the ABS to be resident in the Pilbara region (Appendix Table 3.43). Future activities for trichiasis screening were not reported for any of the communities.

Appendix Table 3.43 Age and gender distribution of Aboriginal people resident in and the number with trichiasis in the Pilbara region, WA, 2007.

	Females			Males			
	<30 yrs	30 to 49 yrs	50+ yrs	<30 yrs	30 to 49 yrs	50+ yrs	Total
ABS projection							
Resident Aboriginal people*	1630	749	437	1795	827	329	5767
Trichiasis							
People examined (percentage of the resident Aboriginal people)	--	--	--	--	--	--	--
Trichiasis (%)	--	--	--	--	--	--	--
Ophthalmic consultation							
Consultation offered within 6 months of previous screening	--	--	--	--	--	--	--

(--) Data not reported but it is not known whether it was collected or not

* Projected 2007 population data based on the ABS 1.8% low series population growth rate in WA

TRACHOMA CONTROL ACTIVITIES

When reporting the components of the SAFE Strategy available in each community, no communities had a program to detect trichiasis; however, the distribution of antibiotics was reported for all communities (Appendix Table 3.44). Facial cleanliness resources were available in two communities (13%), but health education programs were implemented in five communities (33%). Environmental activities were not reported for any of the communities. Information in the 'Other' comments section reported communities PIL_03, PIL_05, PIL_11 and PIL_12 as having no follow-up in the community, and therefore the total number of people requiring treatment could not be provided.

Appendix Table 3.44 Communities where SAFE trachoma control activities were reported in the Pilbara region, WA, 2007.

Community code	Prevalence of active trachoma %	Communities where activities were reported					
		Surgery	Antibiotics	Facial cleanliness		Environmental health	Other*
				Resources	Program		
PIL_01	0%	--	✔	--	✔	--	--
PIL_02	31%	--	✔	✔	✔	--	--
PIL_03	38%	--	✔	--	--	--	✔
PIL_04	17%	--	✔	--	✔	--	--
PIL_05	38%	--	✔	--	--	--	✔
PIL_06	0%	--	✔	--	--	--	--
PIL_09	10%	--	✔	✔	✔	--	--
PIL_10	0%	--	✔	--	--	--	--
PIL_11	54%	--	✔	--	--	--	✔
PIL_12	100%	--	✔	--	--	--	✔
PIL_13	0%	--	✔	--	--	--	--
PIL_14	0%	--	✔	--	--	--	--
PIL_15	0%	--	✔	--	--	--	--
PIL_17	28%	--	✔	--	--	--	--
PIL_18	0%	--	✔	--	✔	--	--
Total communities n=15		--	15 (100%)	2 (13%)	5 (33%)	--	4 (27%)

(--) Data not reported but it is not known whether it was collected or not

* These communities were not followed up for treatment, which explains the missing data for treatment of household and community contacts

Source: Data collected by the Pilbara Population Health Unit