TRACHOMA MASS DRUG ADMINISTRATION AND HEALTH PROMOTION IN THE WESTERN AUSTRALIAN GOLDFIELDS

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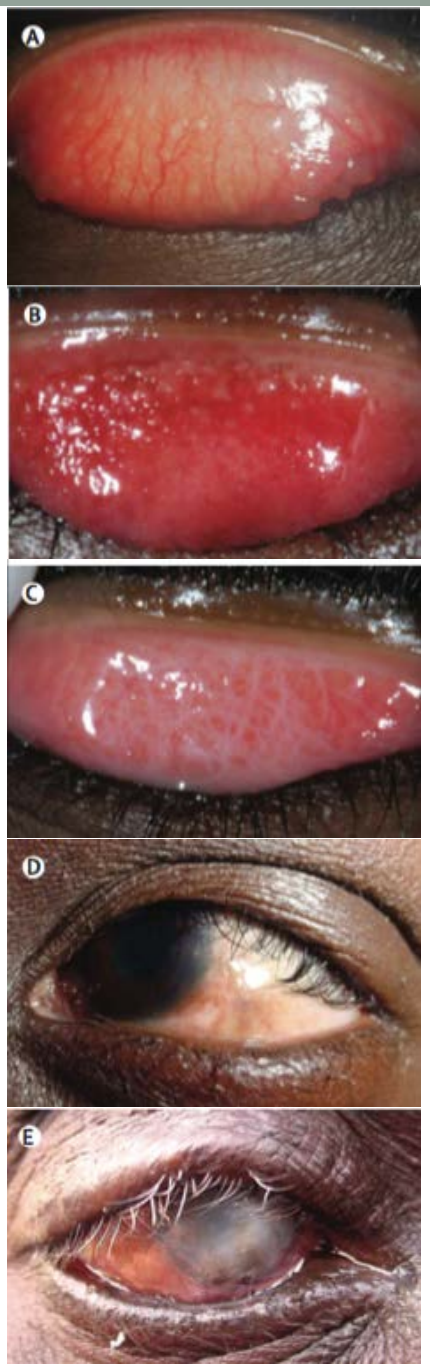
What is Trachoma?

- Contagious eye infection caused by *Chlamydia trachomatis.*
- Leading cause of preventable blindness worldwide.
- Australia is the only trachoma-endemic developed nation.
- Elimination is a public health priority.



Taylor, H. R. *et al.* (2014). Trachoma. *Lancet, 384*, 2142-2152.

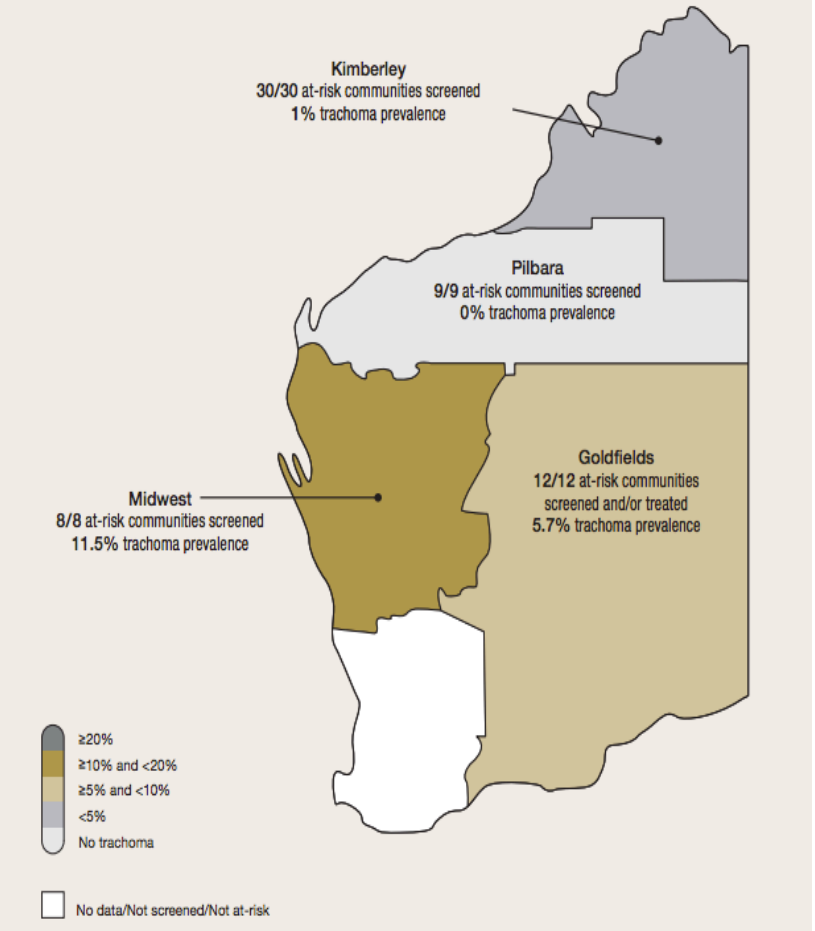
World Health Organisation

- Global Elimination of Trachoma by 2020 (GET2020)
- SAFE Strategy

http://trachoma.org/safe-strategy

Trachoma in the Goldfields

- 12 at-risk Indigenous communities.
- Prevalence 5.7%.
- WACHS-Goldfields Population Health Trachoma Program.
  - Part of state wide program overseen by WA Trachoma Reference Group.
- Aim: eliminate blinding trachoma in the Goldfields region by 2020.
  - WHO GET2020 signatory.



Australian Trachoma Surveillance Report 2014

TRACHOMA SCREENING (TF/TT)

TRACHOMA MASS DRUG ADMINISTRATION (MDA)

HEALTH PROMOTION AND EDUCATION

Images:

- Taylor, H. R. *et al.* (2014). Trachoma. *Lancet, 384*, 2142-2152.
- Huffington Post: 'Australia is the Only Developed Country to Still Have Trachoma'
- University of Melbourne: 'The Trachoma Story Kit'

- **Mass Drug Administration**
  - *Manage Infectious Disease Control Measures (5.3.3)*
- **Health Promotion: proposed ‘soap’ program**
  - *Develop Health Promotion Programs in Response to Public Health Problems (5.1.2)*

1. Mass Drug Administration

- *Administration of drugs to whole populations irrespective of their disease status.*
- Forms part of the WHO S**A**FE strategy.
- Single dose azithromycin.

Huffington Post: ‘Australia is the Only Developed Country to Still Have Trachoma’

Table 2. Screening[#] and treatment schedule of contacts according to prevalence*.

Trachoma prevalence in screened children aged 5-9 years	Treatment	Treatment frequency	Screening frequency
≥20%	Single-dose azithromycin to people >3kg living in houses with children <15 years of age	0,6,12,18 & 24 months	Screen at 36 months after the initial screen (12 months after the 5th treatment)*
≥5 to < 20% and there is no obvious clustering of cases	Single-dose azithromycin to people >3kg living in houses with children <15 years of age	0, 12 & 24 months	Screen at 36 months after the initial screen (12 months after the 3rd treatment)*
≥5 to < 20% and cases are obviously clustered within several households and health staff can easily identify all household contacts of cases	Single-dose azithromycin to people >3kg living in houses with an active trachoma case	Once at 0 months. Further treatment determined by prevalence at next screen	Screen at 1 year to determine prevalence
<5%	Single-dose azithromycin to people >3kg living in houses with an active trachoma case	Once at 0 months and retreat if trachoma is found on further screening	Screen at 1, 3 and 5 years, then cease if prevalence <5% at each screen.

http://www.health.gov.au/internet/main/publishing.nsf/Content/D02F0C1C2AB90509CA257C66001C089C/$File/Trachoma-SoNG.pdf

MDA Requirements

- Sufficient supplies.
- Aboriginal Health Worker support.
- Systematic approach to identifying non-treated individuals / houses.
- Identify azithromycin allergies and prophylaxis.
- Ensure MDA does not clash with other community activities.
- MDA (and screening) occurs during same 2-4 week period statewide.

Potential MDA Improvements

- Avoiding biscuits for side effect minimisation.
- Indelible stamps.
- Consent through permission slips.

Ethical Considerations

- Paternalism of MDA.
- Side effects of medications.
- Drug resistance.
- Cultural sensitivity.

2. Health Promotion

- *The process of enabling people to increase control over, and to improve, their health.*

- Plan to create a new environmental health program in trachoma endemic communities.
  - Environmental Health Advisory Group of WA Trachoma Reference Group

- Literature review ➔ Education and hand washing with soap reduces childhood diarrhoeal illness.
  - McDonald, E. *et al.* BMC Public Health. 2008; 8(153).

Proposed Health Promotion Initiative

Goal

- Reduce incidence of common preventable childhood infections in trachoma endemic communities.

Strategies

1. Increase access of soap (free soap)
2. Increase longevity and utility of soap (free soap holders)
3. Distribute simple hand hygiene messages

WHO SA**FE** strategy

http://aboriginal-hygiene-for-teachers.weebly.com/hand-hygiene.html

Barriers to Soap Usage

- Cost
  - Soap available at community shops at prices similar to Perth.
  - Many community members believed it was too expensive.

- Reduced hygiene education
  - McDonald, E. *et al.* Health Promotion International. 2010; 25(1):42-53.
  - Most participants did not have a good understanding about hygiene.
  - Positive effects of using soap not well recognised.
  - Purchasing soap not a priority.

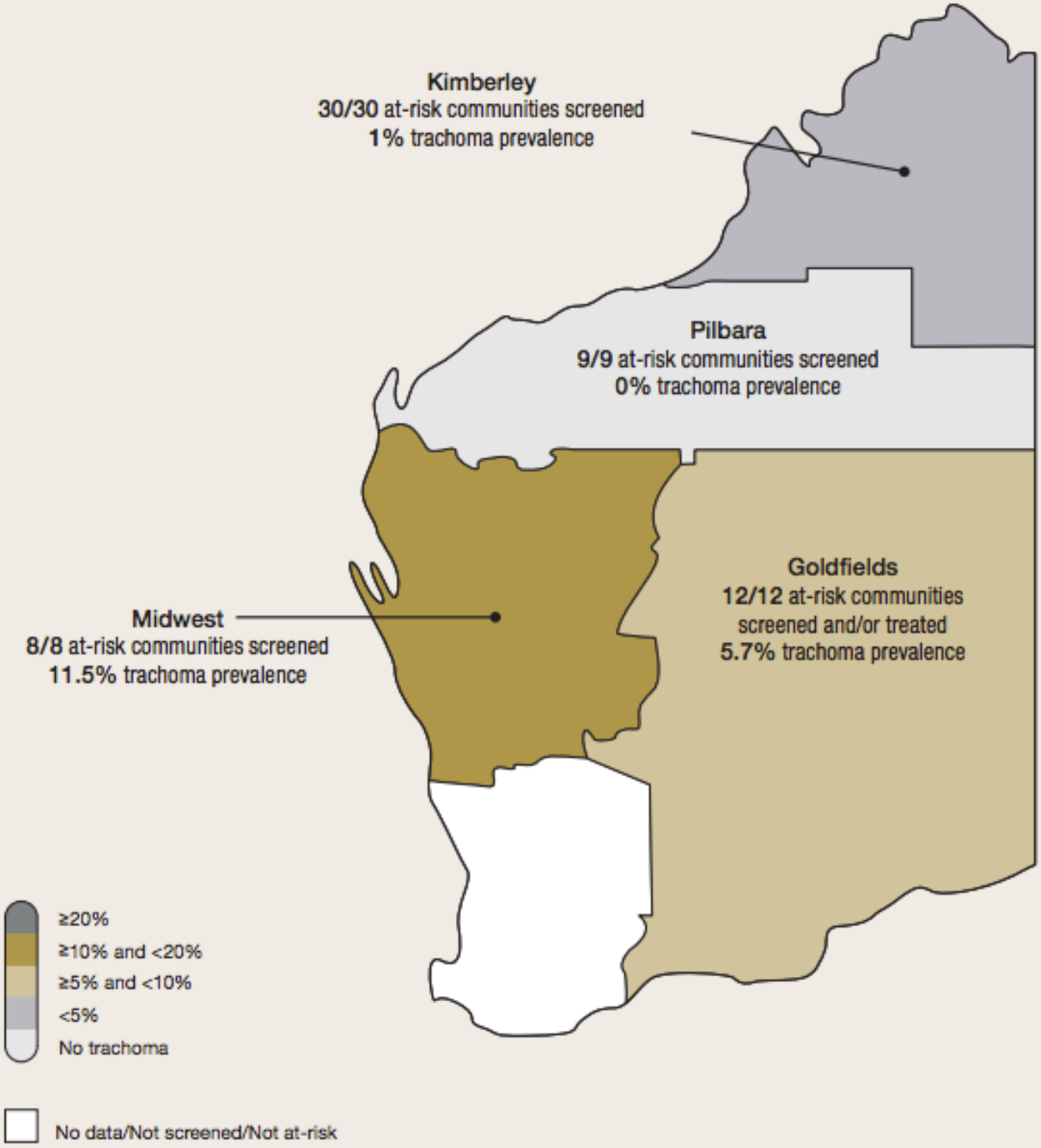
Data Collection

- Data collection tool to assess program acceptability.
- Data obtained by engaging adults during MDA.
- Free soap provided.
- Response: 100% positive.
  - Potential adjunct to current health promotion strategies.
- Successful health promotion program.
  - Evidence-based, simple, cost effective, acceptable.

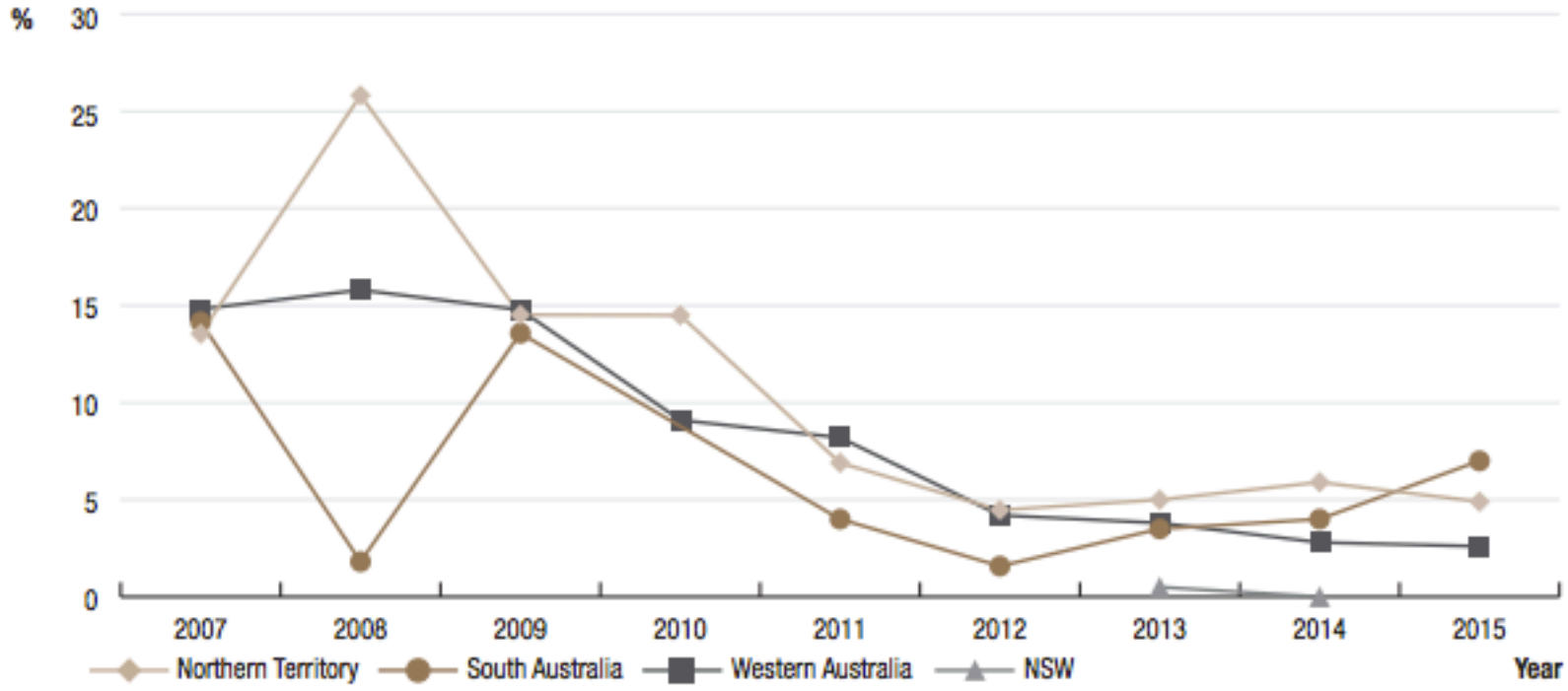
Considerations

- Is giving out soap long term sustainable?
- Impact on local shops?
- Will there be increased wastage?
- Bars vs. soft soap?
- Consistency between home and school?

Data from Australian Trachoma Surveillance Report 2014 (and early data from 2015)


Kimberley
30/30 at-risk communities screened
1% trachoma prevalence
Pilbara
9/9 at-risk communities screened
0% trachoma prevalence
Goldfields
12/12 at-risk communities
screened and/or treated
5.7% trachoma prevalence
Midwest
8/8 at-risk communities screened
11.5% trachoma prevalence
≥20%
≥10% and <20%
≥5% and <10%
<5%
No trachoma
No data/Not screened/Not at-risk

Trachoma prevalence among children aged 5-9 years by jurisdiction, Australia 2007 – 2015*



* Most recent estimates carried forward in communities that did not screen in 2015.

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

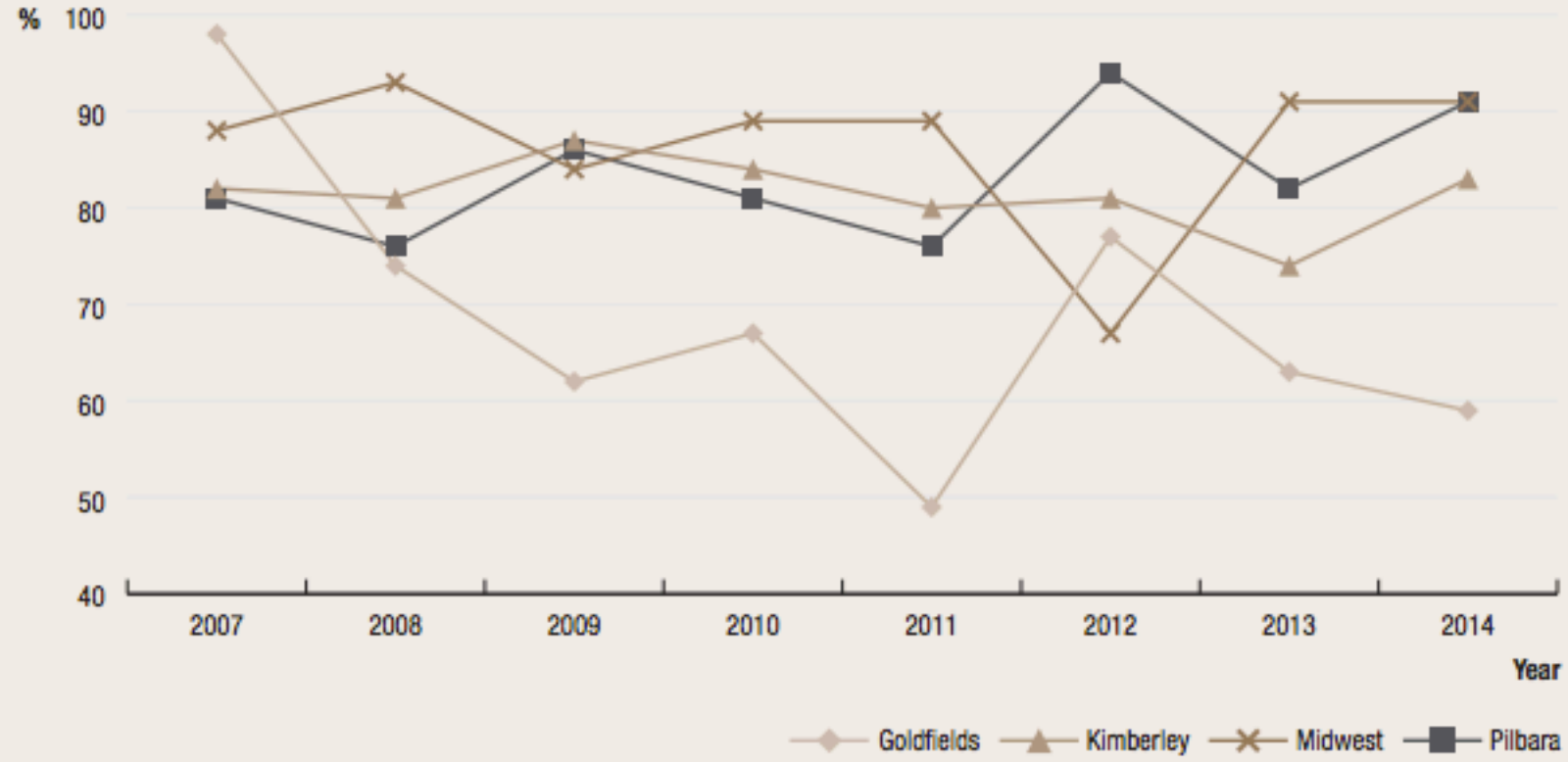


Figure 4.6 a. Trachoma prevalence among children aged 5-9 years in communities that were screened, by region, Western Australia, 2007 – 2014

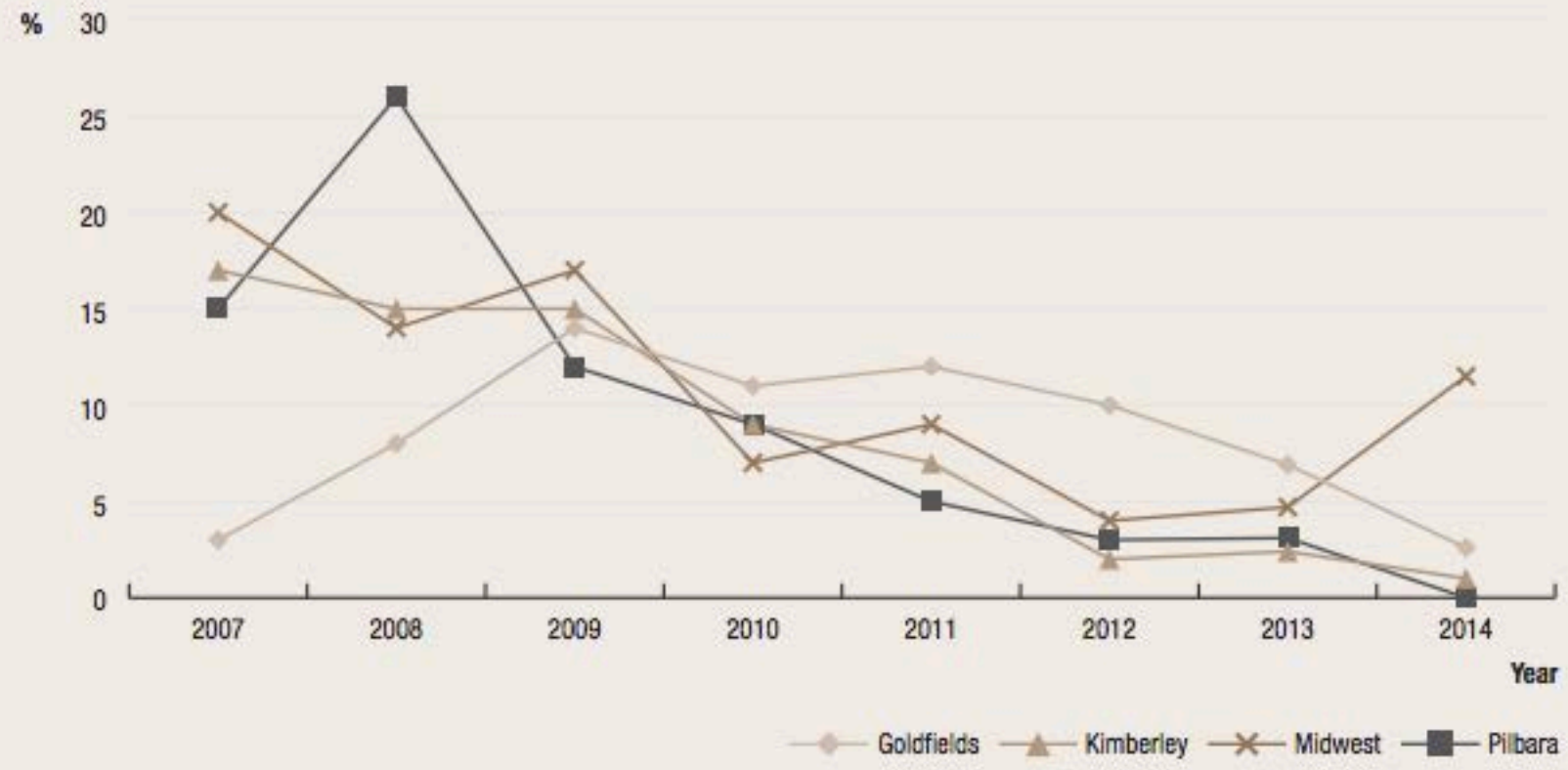
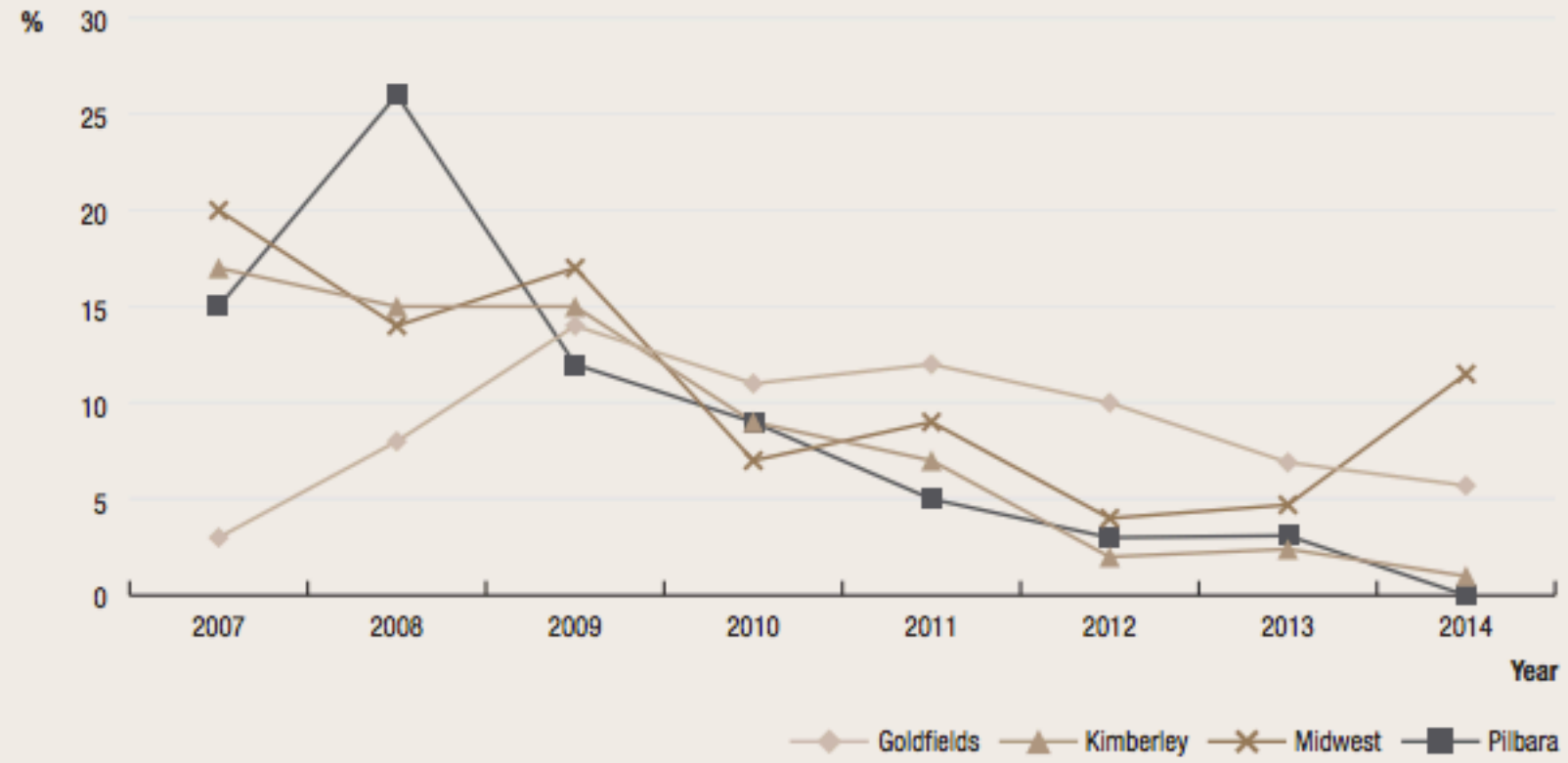


Figure 4.6 b. **Trachoma prevalence among children aged 5-9 years, by region, Western Australia with projected values,* 2007 – 2014**



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