The outbreak cases exhibited significantly different epidemiology compared to previous NT cases; male 44 vs 23, intensive 25 vs 108, 9% vs 89, 17.5 vs 19, combined 3 vs 52%.

Due to evidenced by the highest prevalence of infectious syphilis case (94 vs 83, 92 vs 92, 54% vs 46%, 34 vs 23%)

More effort is required to improve and sustain community engagement in the outbreak response, especially in enhancing community education to screen 12-30 year olds in high prevalence communities using a Point of Care Test (PoCT).

Outcomes of Community-Wide Screening Results

- In 2014-15 there were initial community screens were conducted in 3 communities classified as high priority due to high number of new infections and unidentified contacts
- Intensive community engagement was conducted to gain consent
- Remote clinicians were educated in syphilis testing and management
- Due to ongoing detection of new cases, in 2015, re-screens were conducted in 2 communities, previously screened in 2014

Results: Initial screens in 3 communities (Table 2)

- 44 diagnosed with infectious syphilis (22 males, 22 females)
- Combined total prevalence of 7% in those aged 12-30 years
- Highest prevalence (13%) in females aged 12-19 years

Results: Comparison of testing coverage in 2 communities screened twice (Fig 2)

- Population coverage of the combined 2 communities decreased from 64% to 52%
- Combine infectious syphilis case prevalence decreased from 7% to 4%

Conclusion

- The outbreak cases exhibited significantly different epidemiology compared to previous NT cases; the outbreak cases were younger, with multiple contacts, many of whom were untraceable.
- As evidenced by the epicurve, despite a considerable response, the outbreak is large and ongoing. Outbreak response indicators demonstrate that more needs to be done. An NT-wide audit on antenatal STI testing, 5 times during pregnancy, is underway.
- Community-wide screens achieved relatively low coverage rates (64% in initial screens, and 52% in re-screens) below the CDNA target of >70%. Further screens, may be more difficult particularly with PoCT unavailable from mid-2015 due to a TGA ruling.
- More effort is required to improve and sustain community engagement in the outbreak response, especially in enhancing community awareness of the outbreak, increasing testing rates and improving contact tracing completeness. This places additional burdens on already busy remote clinicians.
- The inter-jurisdictional outbreak response committee formed in April 2015 to guide and enhance a coordinated approach to managing the syphilis outbreak affecting Northern and Central Australia will hopefully assist and strengthen the response in the affected regions.