Improving Aboriginal & Remote STI rates in WA: Worth the Effort

2003-2013

By Dr Mithilesh Dronavalli MBBS BMedSc MBios MPhil

Public Health Medicine Registrar

Western Australian Centre for Rural Health,

The University of Western Australia

Background

- Aboriginal STI rates are high and above non-Aboriginal STI rates.
- Intensive Policy and Investment directed at Aboriginal people to reduce STIs.

Research Questions:

- Aboriginal vs non-Aboriginal STI Rates?
- Young vs Old or Male vs Female STI Rates?
- Regional STI Rates?

Methods

- Notification data from Department of Health
- Growth or Decay in Notification rates modelled using Poisson Regression (using Stata v12.0)
  - Numerator: Notification Data.
  - Denominator: Rates Calculator (DoHWA)

Chlamydia

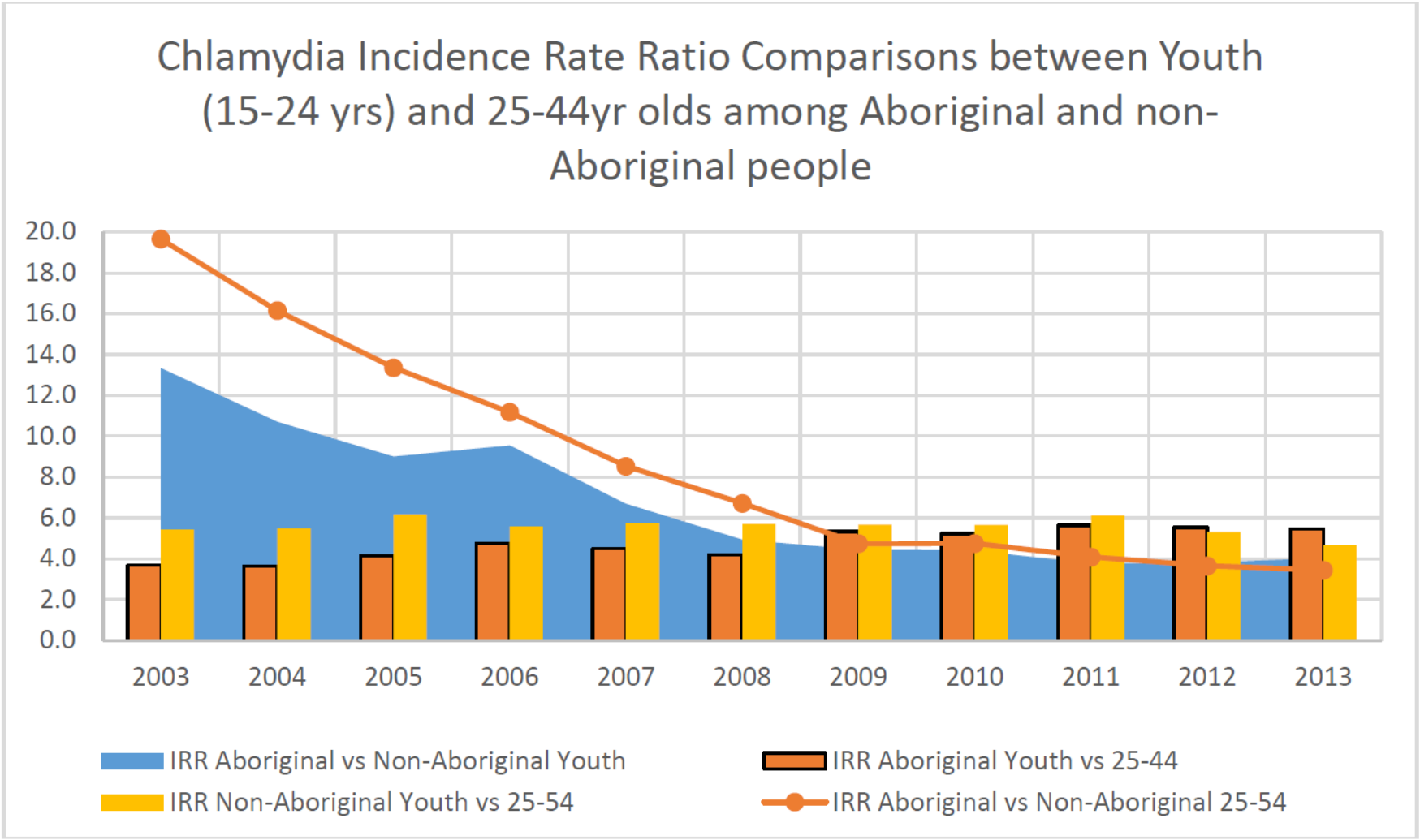


Figure 1: Incidence Rate Ratios between Aboriginals and non-Aboriginals aged 15-24 and aged 25-54.

- Youth vs Older Adults stable in both groups.
- Sharp decline in Aboriginal vs non-Aboriginal.

Chlamydia Growth Rates

Table 1: Chlamydia growth rates between 2003-2014

Chlamydia	Yearly Growth Rate	P Value	L95%CI	U95%CI
Female Aboriginal youth 15-24y	1.0474	P<0.001	1.045	1.050
Male Aboriginal youth 15-24y	1.0397	P<0.001	1.036	1.043
Female Aboriginal 25-54y	0.9727	P<0.001	0.966	0.979
Male Aboriginal 25-54y	0.9971	P=0.329	0.991	1.003
Female non-Aboriginal youth 15-24y	1.1687	P<0.001	1.162	1.176
Male non-Aboriginal youth 15-24y	1.1764	P<0.001	1.166	1.187
Female non-Aboriginal 25-54y	1.1928	P<0.001	1.172	1.214
Male non-Aboriginal 25-54y	1.1825	P<0.001	1.164	1.201

Gonorrhoea – Aborginal People - Steady

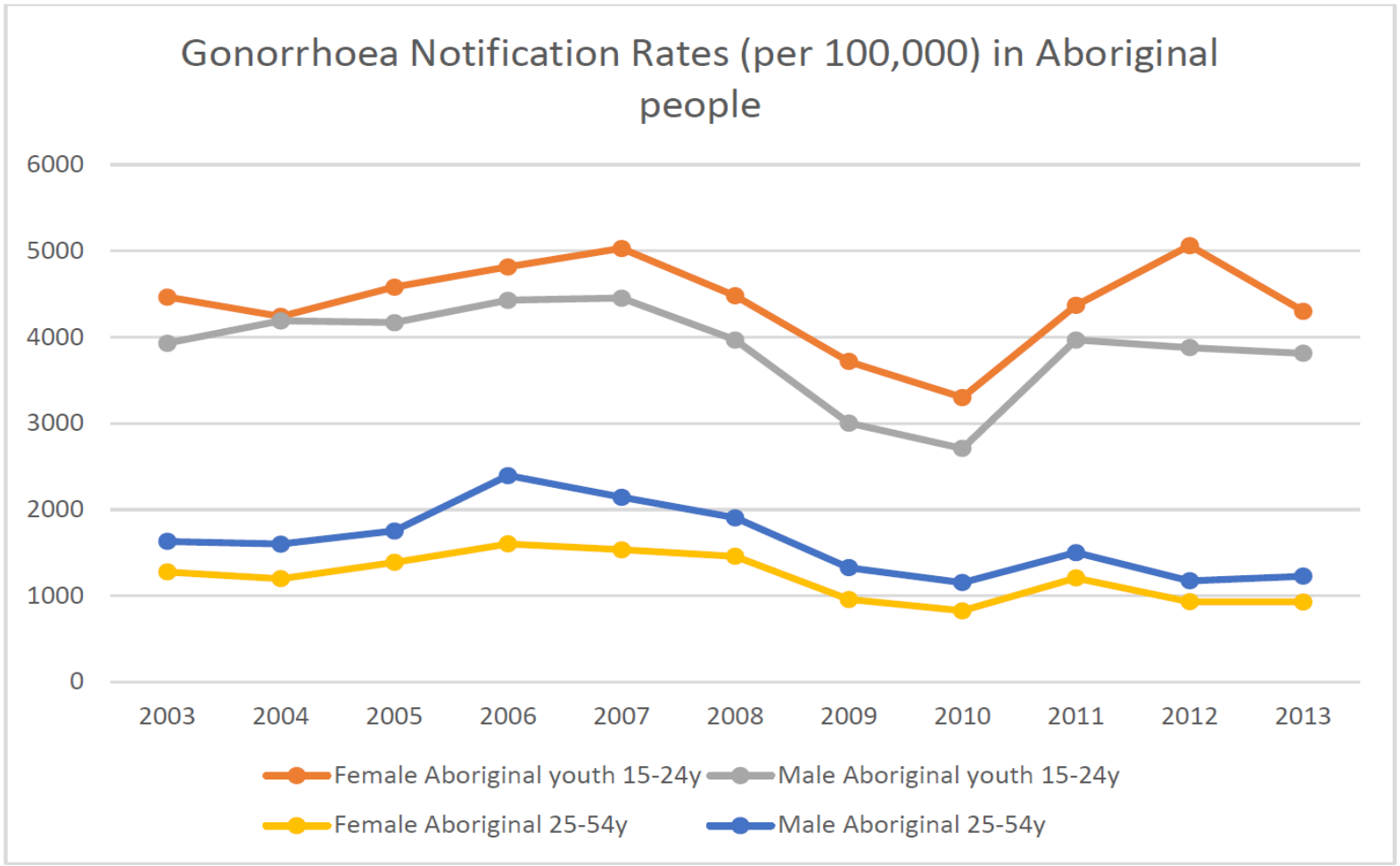


Figure 3: Aboriginal Male and Female Gonorrhoea notification rates for ages 15-24 and 25-54

Gonorrhoea – non-Aboriginal people – Rise post 2010

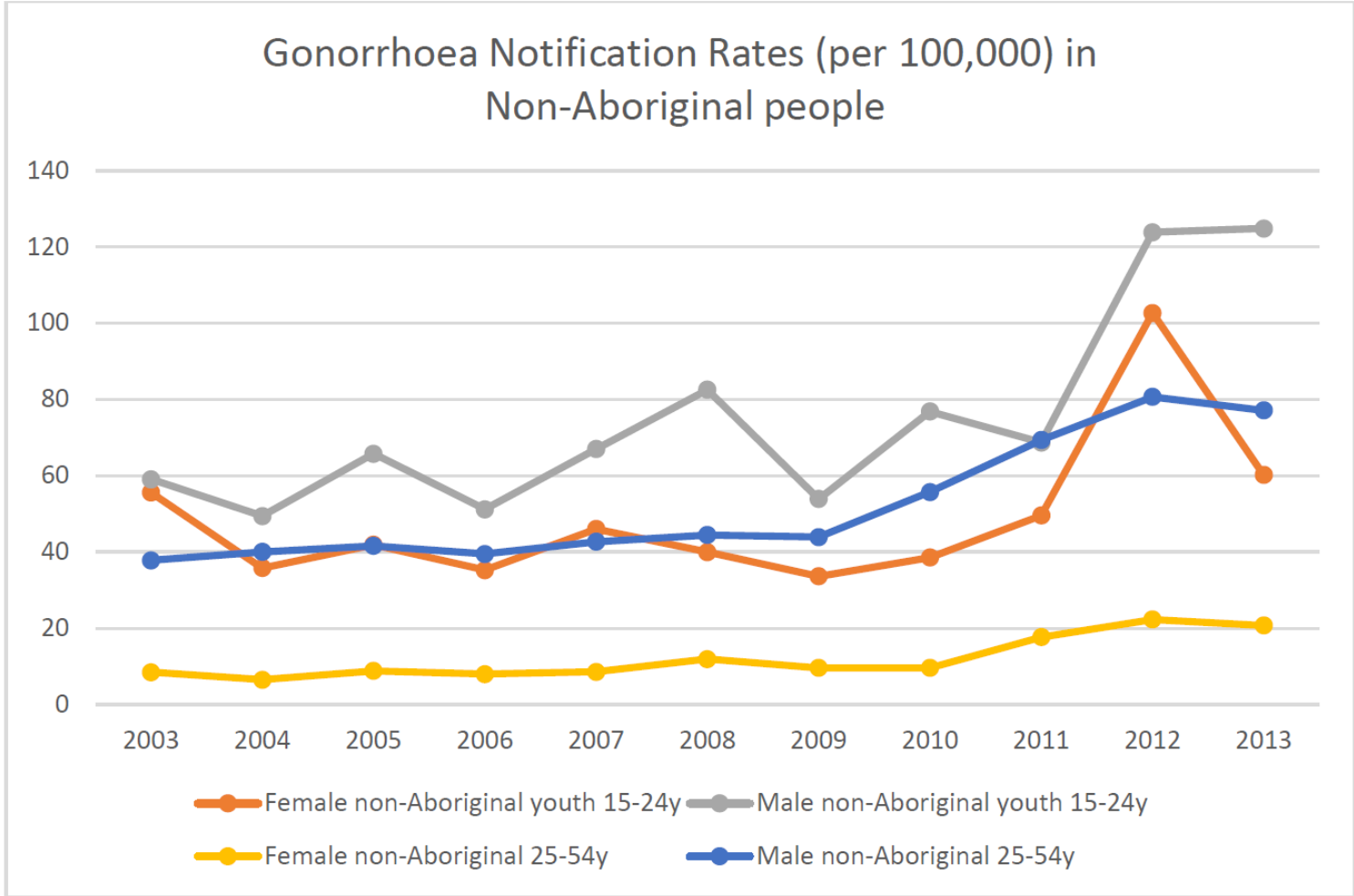


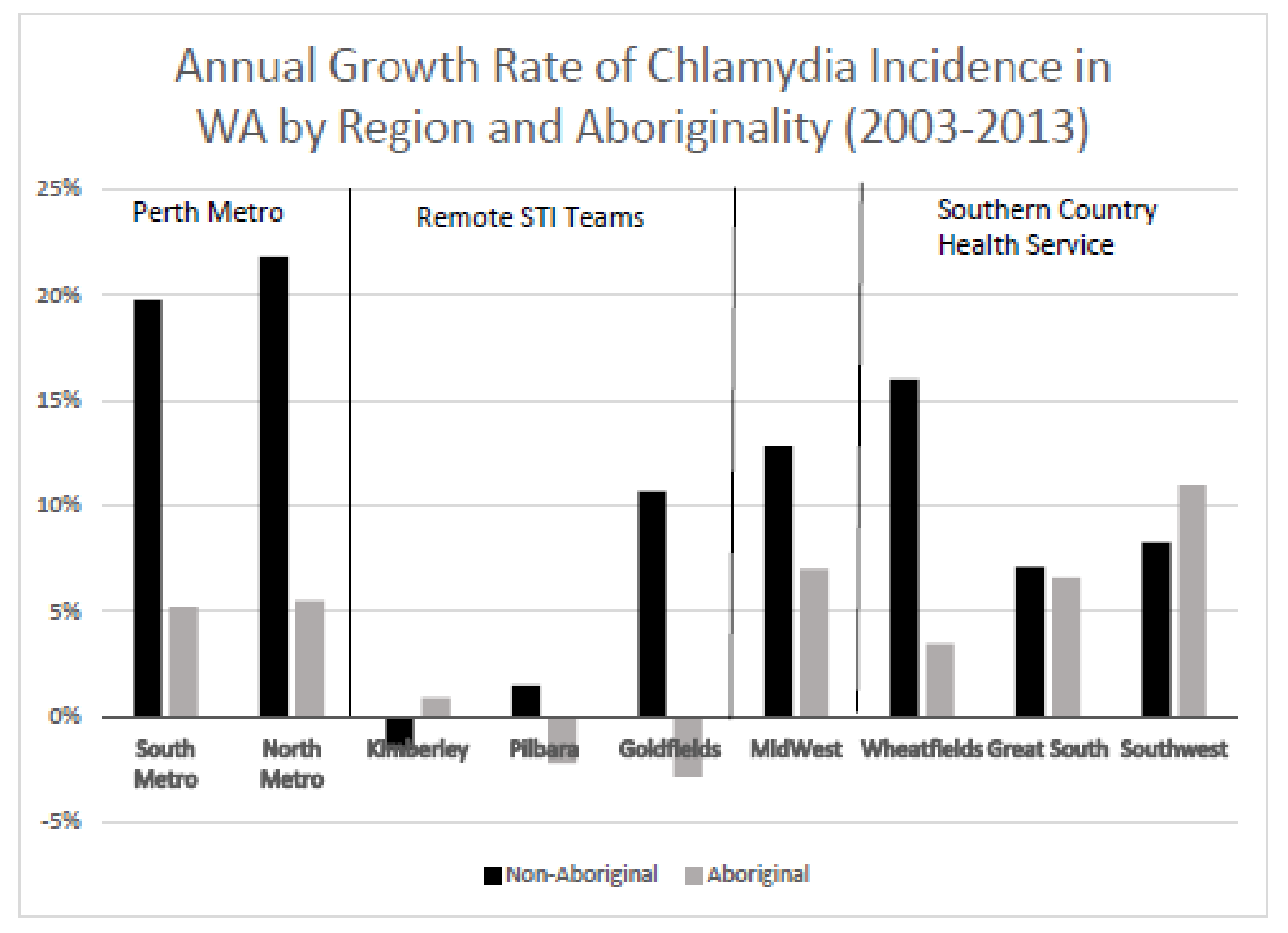
Figure 4: Non-Aboriginal Male and Female Gonorrhoea notification rates for ages 15-24 and 25-54

Gonorrhoea Growth Rates

Table 2: Gonorrhoea growth rates between 2003-2014

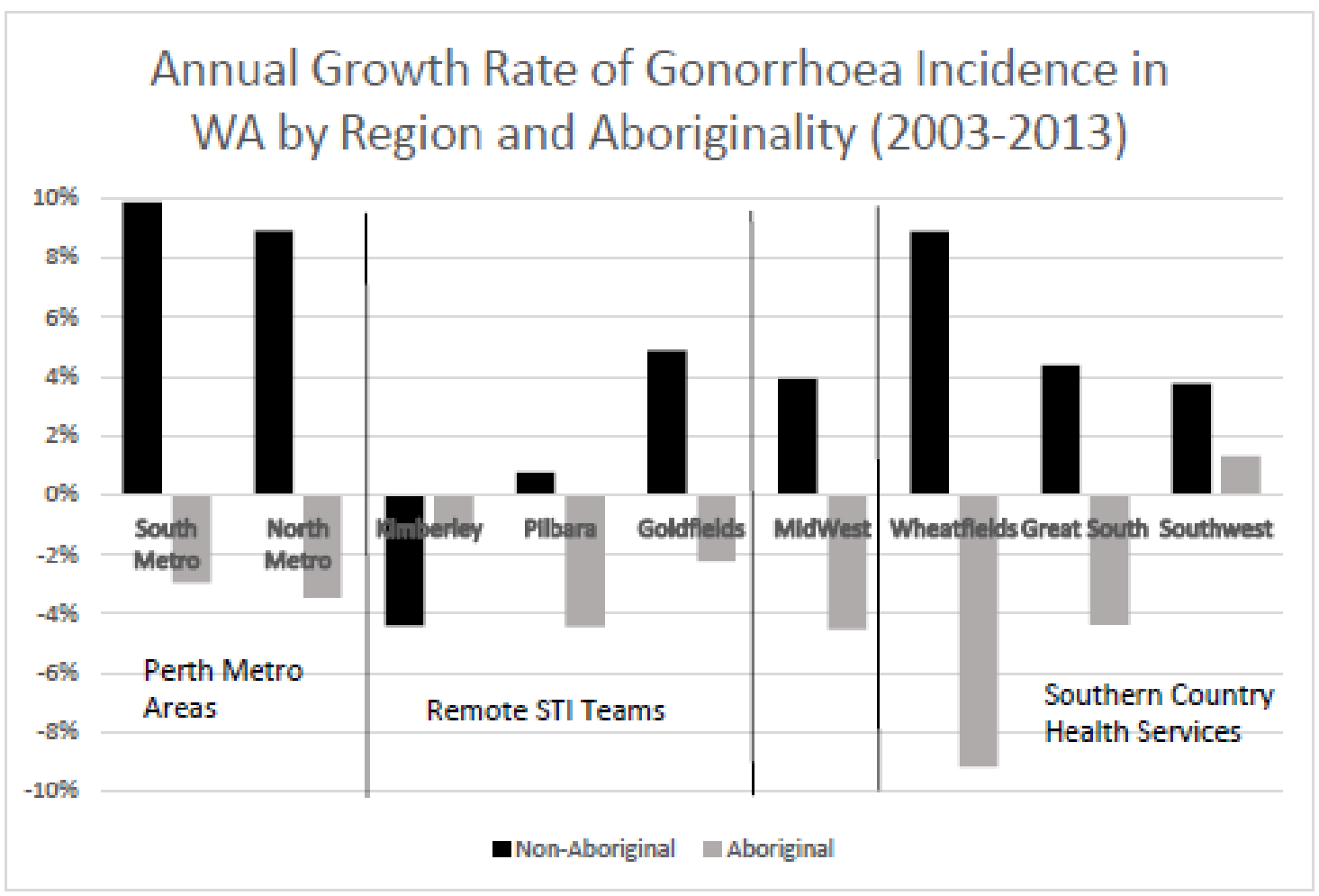
Gonorrhoea	Yearly Growth Rate	P Value	L95CI%	U95CI%
Female Aboriginal youth 15-24y	0.983	P<0.001	0.980	0.986
Male Aboriginal youth 15-24y	0.967	P<0.001	0.964	0.971
Female Aboriginal 25-54y	0.938	P<0.001	0.933	0.944
Male Aboriginal 25-54y	0.932	P<0.001	0.927	0.937
Female non-Aboriginal youth 15-24y	1.043	P=0.007	1.012	1.076
Male non-Aboriginal youth 15-24y	1.072	P<0.001	1.045	1.099
Female non-Aboriginal 25-54y	1.119	P=0.001	1.050	1.193
Male non-Aboriginal 25-54y	1.070	P<0.001	1.038	1.103

Chlamydia Growth Rates by Region and Aboriginality



- High growth rates for non-Aboriginals in metro areas.
- Low growth rates in remotes areas: (Kimberley, Pilbara & Goldfields), where regional STI teams have been implemented.

Gonorrhoea Growth Rates by Region and Aboriginality



- Aboriginal STI rates for Gonorrhoea on decline in most areas.
- Non-aboriginal rates of Gonorrhoea are low or in decline in Kimberley and Pilbara.
- Other non-Aboriginal areas have high growth rates of Gonorrhoea of upto 10%.
- Highest growth rates in Metro areas and for Wheatfields for non-aboirignal people

Policy Implementation in WA from Evaluation Studies

- Remote STI Teams and increased testing and treating in Kimberley, Pilbara and Goldfields.
- Training of Aboriginal Health Workers
- Increased Community Awareness and Health Promotion
- Nurse initiated ZAP Packs.
- Increased Testing in Improved Primary Health Care response
- Online training of health workers (ECU funded by SHBBVP: 113GPs,423 Nurses, 137 Health Professionals, 66% from WA)

Limitations

- Policies discussed were implemented with results seen in Evaluation Studies.
- An increase in testing numbers were recorded along with outcomes.
- **But** difficult to know which policy changed the outcome the most.
- Did Sub-studies by Aboriginality, age, gender and region.
- **But** other confounders exist that are not recorded in mandatory reporting notification data.

Conclusion

- Focussed Policy and intensive intervention does help and is responsible for negative growth rates in the Kimberley, Pilbara and Goldfields.
- Still a long way to go.
- Aboriginal vs Non-Aboriginal (Chlamydia IRR 4, Gonorrhoea IRR 22)
- Problematic increasing burden of STIs in non-aboriginals.
- DOUBLE BURDEN
- RECOMMENDATION:

Controlling STIs requires continual effort, policy and resources in both Rural and Remote areas and metro areas for Aboriginal and non-Aboriginal people.