

**Trends in chlamydia and gonorrhoea testing and positivity  
in Western Australian Aboriginal and non-Aboriginal women  
2001–2013: a population-based cohort study**

*Joanne Reekie<sup>A,I</sup>, Basil Donovan<sup>A,B</sup>, Rebecca Guy<sup>A</sup>, Jane S. Hocking<sup>C</sup>,  
John M. Kaldor<sup>A</sup>, Donna B. Mak<sup>D</sup>, Sallie Pearson<sup>E</sup>, David Preen<sup>F</sup>,  
Handan Wand<sup>A</sup>, James Ward<sup>G</sup> and Bette Liu<sup>H</sup>, on behalf of the Chlamydia  
and Reproductive Health Outcome Investigators*

<sup>A</sup>Kirby Institute, UNSW Sydney, High Street, Sydney, NSW 2052, Australia.

<sup>B</sup>Sydney Sexual Health Centre, Sydney Hospital, Macquarie Street, Sydney, NSW 2000, Australia.

<sup>C</sup>School of Population and Global Health, University of Melbourne, Bouverie Street, Melbourne, Vic. 3053, Australia.

<sup>D</sup>School of Medicine, The University of Notre Dame, Henry Street, Fremantle, WA 6160, Australia.

<sup>E</sup>Faculty of Pharmacy and School of Public Health, University of Sydney, Sydney, NSW 2006, Australia.

<sup>F</sup>Centre for Health Services Research, Stirling Highway, University of Western Australia, Perth, WA 6009, Australia.

<sup>G</sup>South Australian Health and Medical Research Institute, North Terrace, Adelaide, SA 5000, Australia.

<sup>H</sup>School of Public Health and Community Medicine, UNSW Sydney, Samuels Avenue, Sydney, NSW 2052, Australia

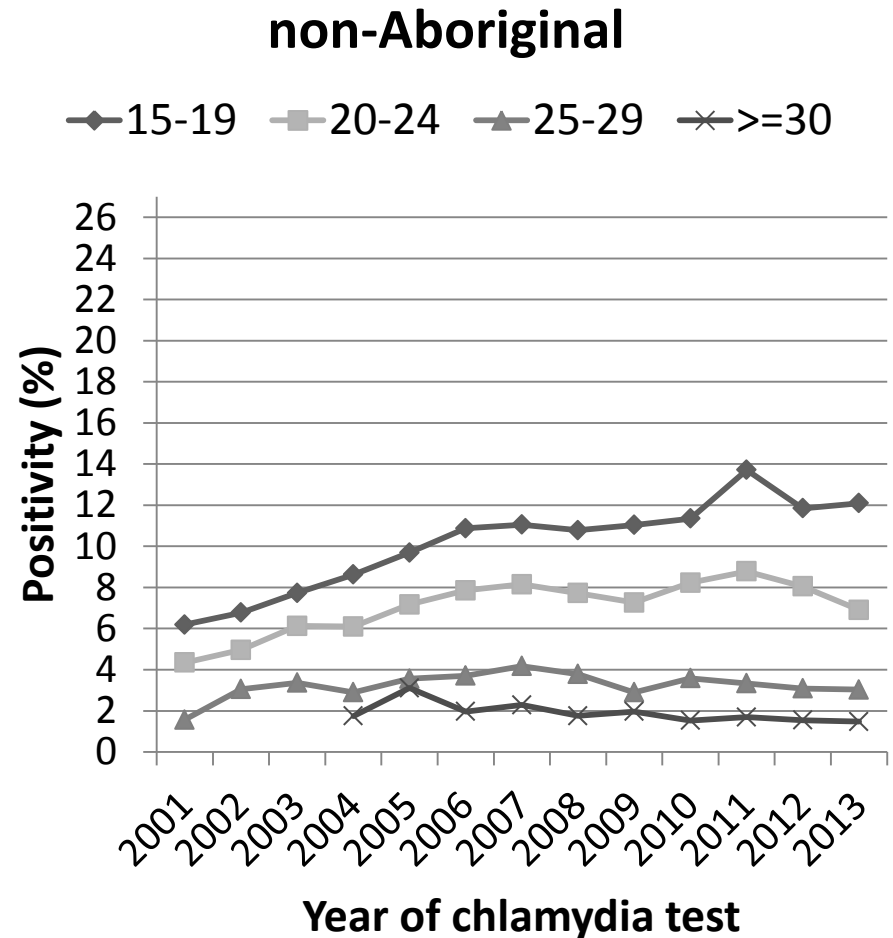
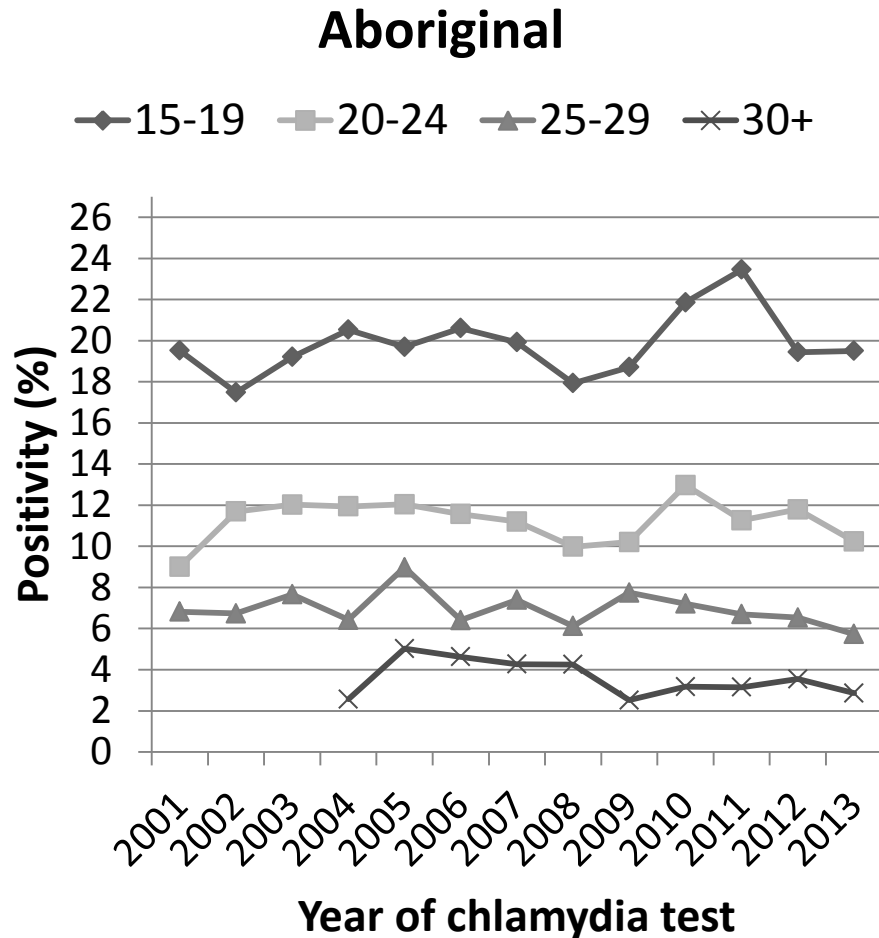
<sup>I</sup>Corresponding author. Email: [jreekie@kirby.unsw.edu.au](mailto:jreekie@kirby.unsw.edu.au)

## Appendix S1

To investigate if changes in the frequency of retesting could potentially bias the positivity trends, analyses were repeated with positivity calculated using only the first positive test from a woman in a particular year and excluding all subsequent tests in that year, and also from the only first test ever recorded for a woman

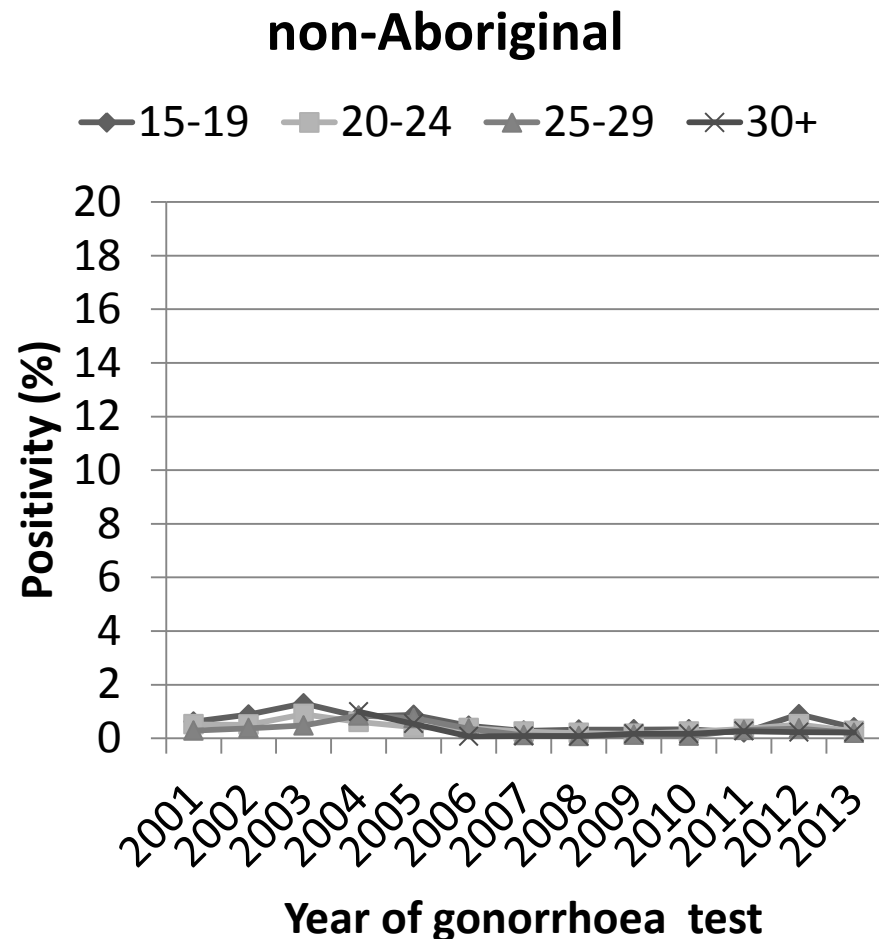
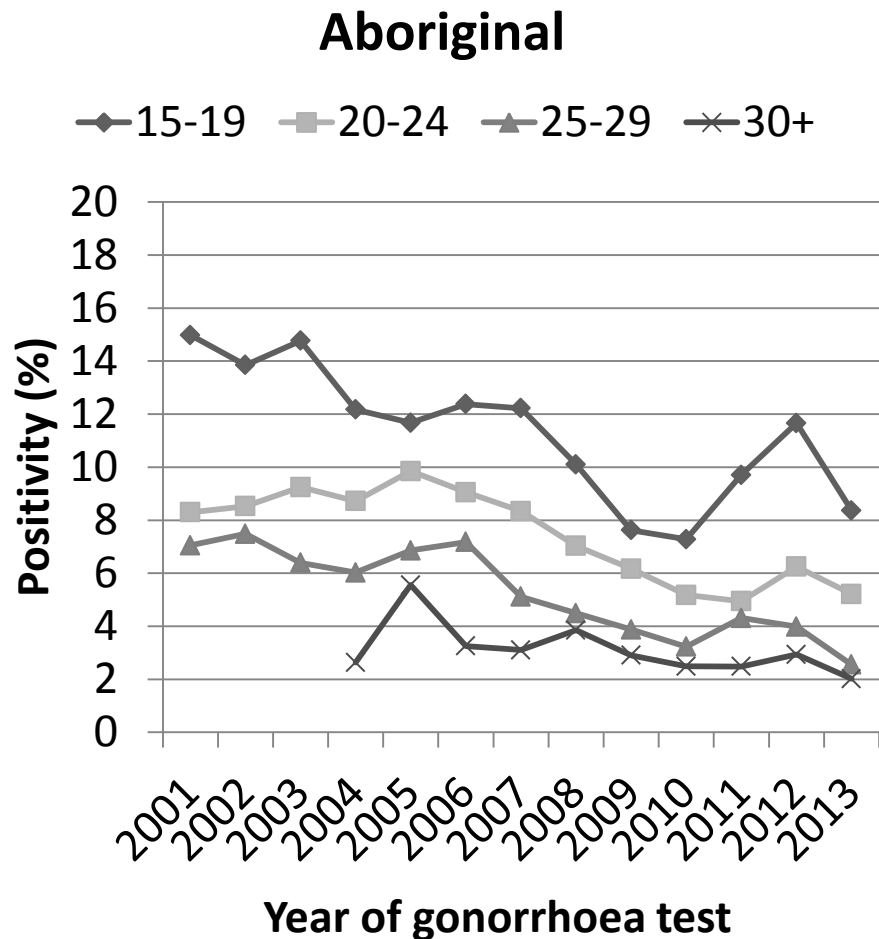
Figures S1 and S2 show the trends in chlamydia and gonorrhoea positivity when only the first test recorded each year was included and Figures S3 and S4 when only the first ever test recorded was included. Among Aboriginal women a similar trend in chlamydia positivity was seen when only the first test recorded each year was included, although overall positivity was higher (Figure S1) than in the main analysis (Figure 1). When analyses were restricted to only the first test ever recorded there was a small but significant increase in positivity among young Aboriginal women (IRR 1.02, 95%CI 1.01-1.04,  $p=0.003$  and IRR 1.05, 1.02-1.07,  $p=0.003$  among 15-19 and 20-24 year olds respectively) (Figure S3). Among non-Aboriginal women the trends in chlamydia positivity were consistent when the different definitions of positivity were used suggesting that it is unlikely that the increase in positivity among young non-Aboriginal women is being driven by higher frequency of repeat testing in the later years. For gonorrhoea positivity, consistent trends in decreasing positivity were seen irrespective of the way positivity was calculated, in both Aboriginal and non-Aboriginal women (Figures S2 and S4).

# Figure S1: Chlamydia positivity\* in women by year, age group and Aboriginality, 2001-2013



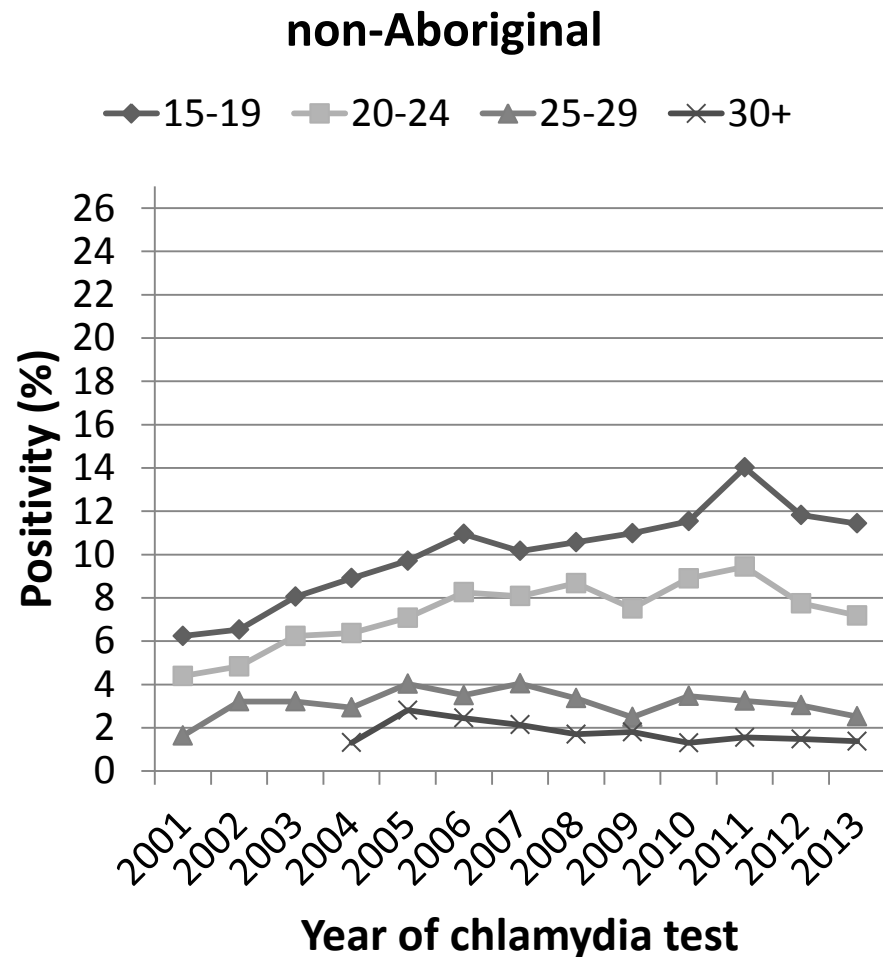
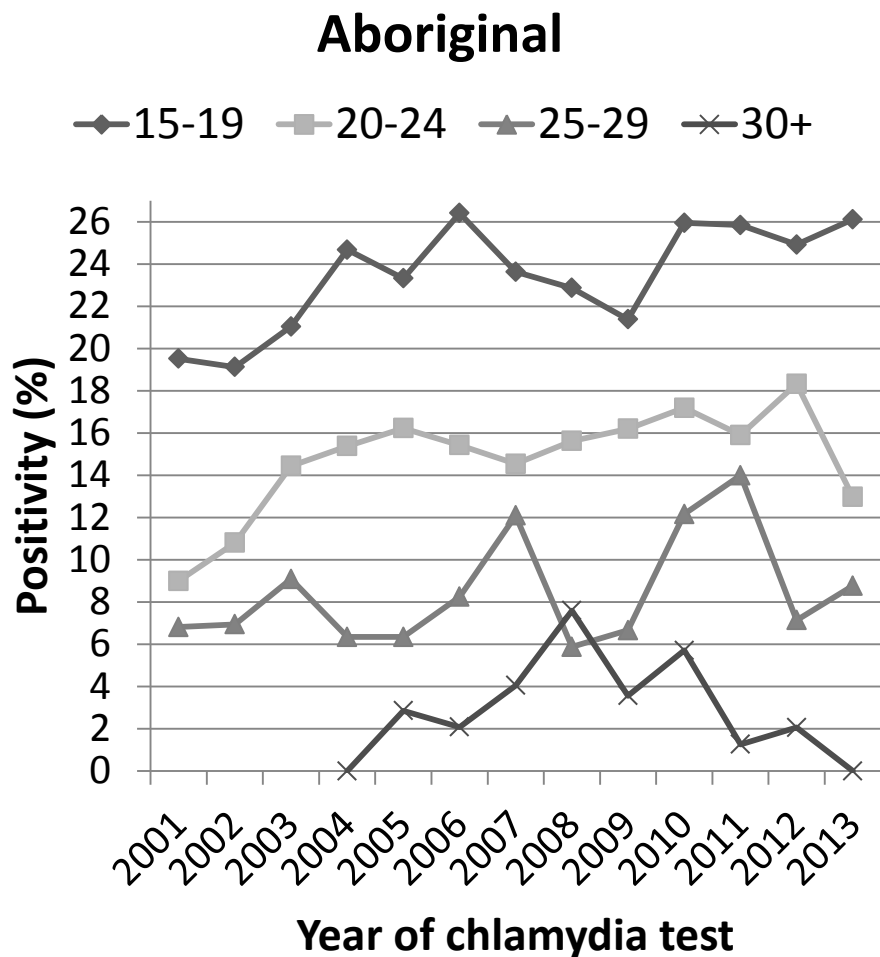
\*Positivity calculated from the first test recorded each year for each woman (a woman may contribute only one entry per year but multiple entries to the analysis)

# Figure S2: Gonorrhoea positivity\* in women by year, age group and Aboriginality, 2001-2013



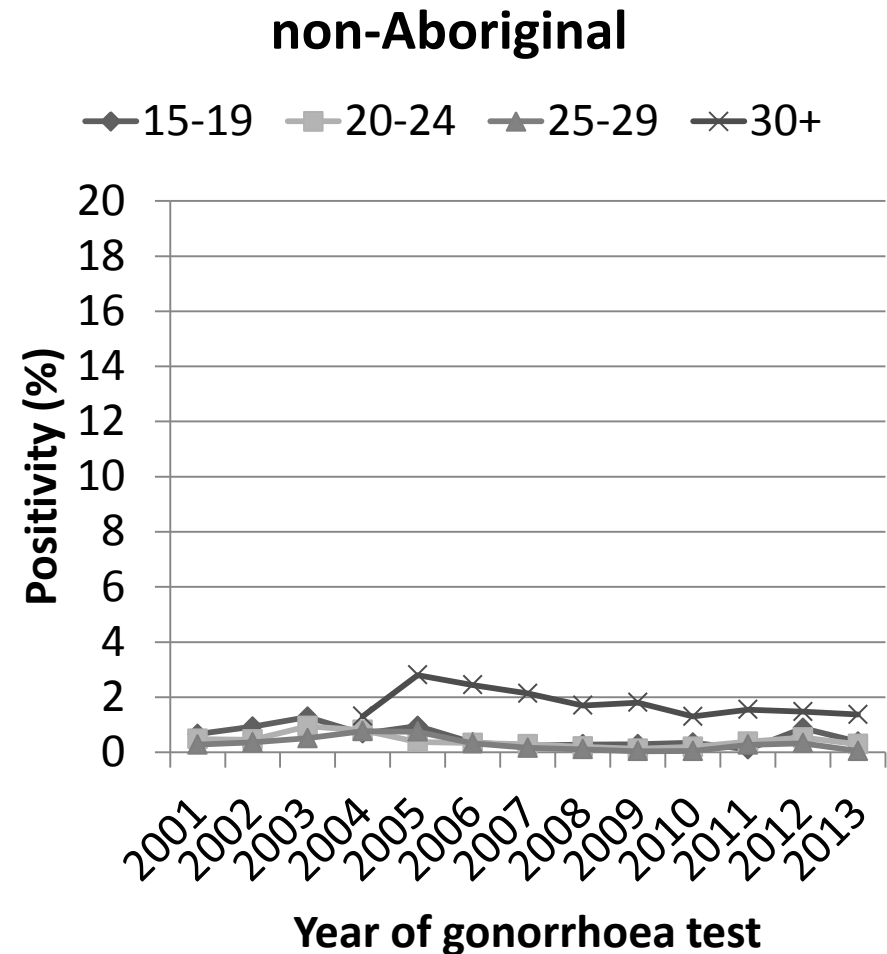
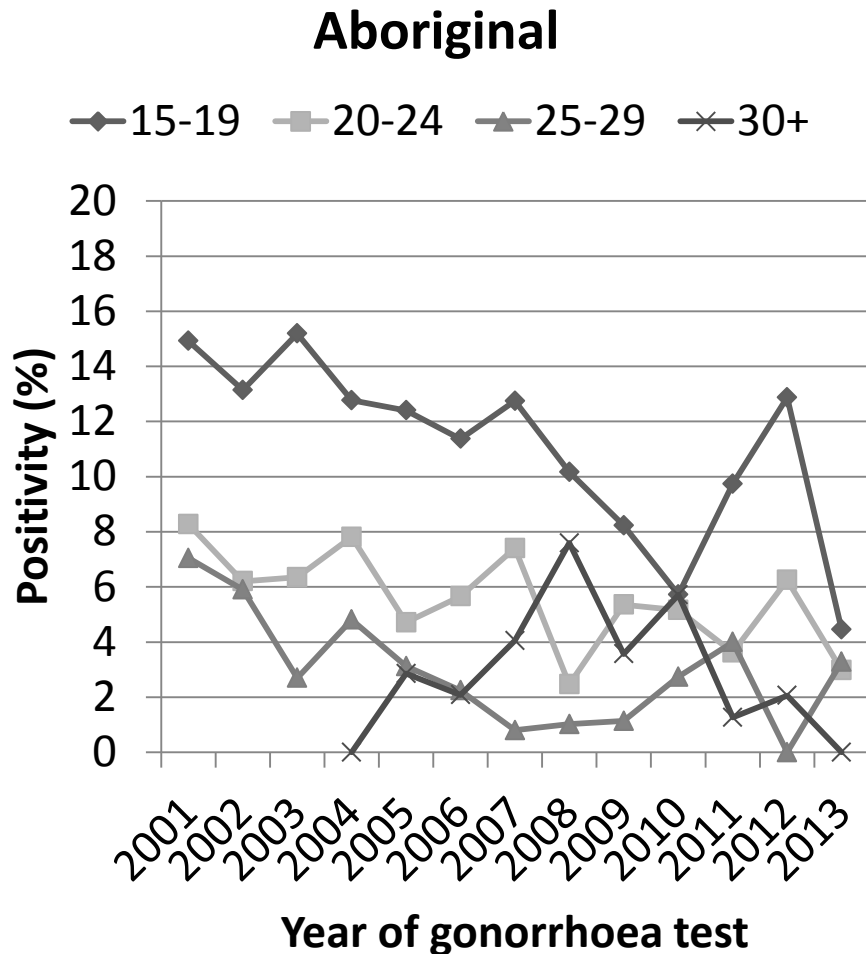
\*Positivity calculated from the first test recorded each year for each woman (a woman may contribute 6 only one entry per year but multiple entries to the analysis)

# Figure S3: Chlamydia positivity\* in women by year, age group and Aboriginality, 2001-2013



\*Positivity calculated from the first test recorded for each woman (each woman only contributes once to the analysis)

# Figure S4: Gonorrhoea positivity\* in women by year, age group and Aboriginality, 2001-2013



\*Positivity calculated from the first test recorded for each woman (each woman only contributes once to the analysis)