

A sexual health quality improvement intervention  
in  
Aboriginal Community Controlled Health Services  
in New South Wales  
(SHIMMER)

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Funded by the NSW Ministry of Health

Kirby Institute Symposium

27<sup>th</sup> June 2013



# Acknowledgements



- Rebecca Guy
- Handan Wand
- John Kaldor
- Janet Knox
- Basil Donovan
- James Ward
- Debbie McCowen
- Chris O'Brien
- Cheryl Soderlund
- Patricia Bullen

# What is SHIMMER?



A quality improvement project

Aims to improve screening and management of:

1. Sexually transmitted infections (STIs)
2. Bloodborne viruses (BBVs)

Four regional Aboriginal Community Controlled Health Services in NSW

# Aboriginal Community Controlled Health Services

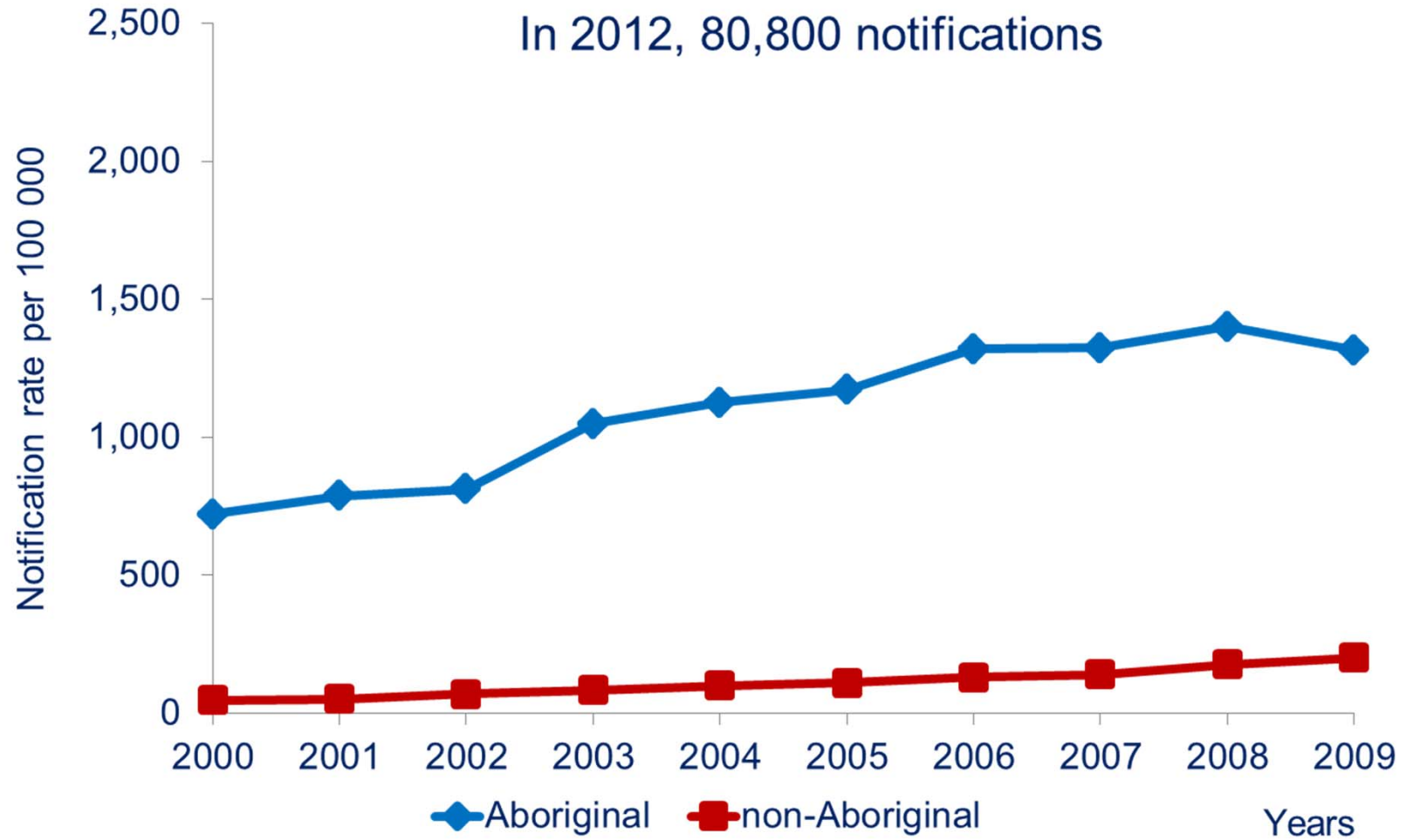
## Australia=143, NSW=42



# Aboriginal Community Controlled Health Services

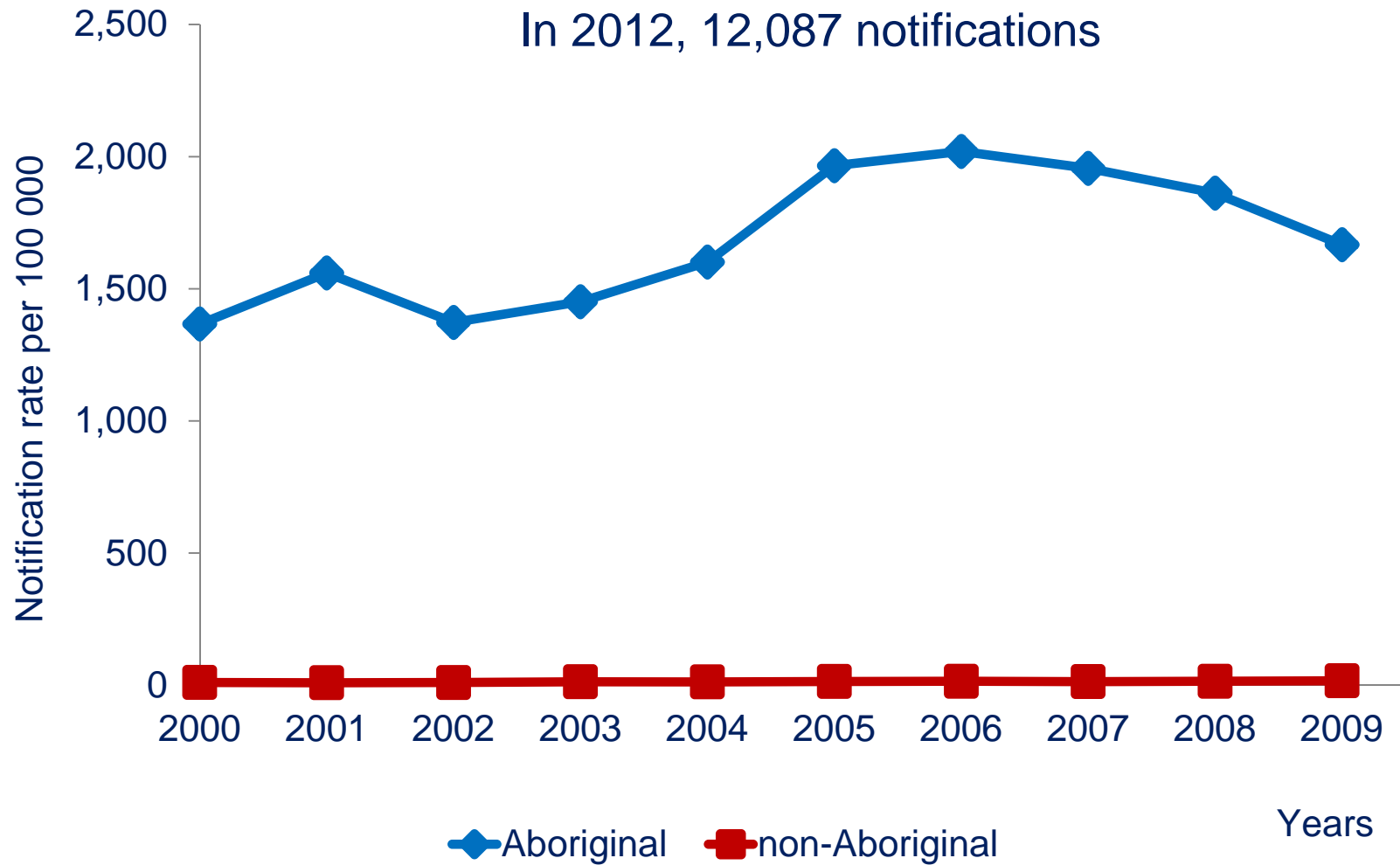


# Chlamydia by Aboriginal status, 2000-2009<sup>1</sup>



<sup>1</sup> Graham S, Guy R, Donovan B et al. Epidemiology of chlamydia and gonorrhoea among Indigenous and non-Indigenous Australians, 2000-2009. MJA 2012;197(11):642-646.

# Gonorrhoea by Aboriginal status, 2000-2009<sup>1</sup>



<sup>1</sup> Graham S, Guy R, Donovan B et al. Epidemiology of chlamydia and gonorrhoea among Indigenous and non-Indigenous Australians, 2000-2009. MJA 2012;197(11):642-646.

# Public health significance



- Chlamydia prevalence among 16-29 year olds in regional NSW is approximately 5%<sup>2</sup>
- Approximately 25% of those who have tested positive are likely to test positive again<sup>3</sup>
  - Re-infection is common

<sup>2</sup> Yeung A, Tenple-Smith M, Fairley CK, et al. Is this ACCEPttable? High chlamydia Prevalence Among Young Men in Australia – Results from the Australian Chlamydia Control Effectiveness Pilot (ACCEPt). International Union Against Sexually Transmitted Infections (IUSTI) Conference, Melbourne 2012

<sup>3</sup> LAMontagne DS, Baster K, Emmett L et al. Incidence and reinfection rates of genital chlamydial infection among women aged 15-24 years attending general practice, family planning and genitourinary medicine clinics in England: a prospective cohort study by the Chlamydia Recall Study Advisory Group. BMJ; 2007;83:292-303.



# Morbidities



- Untreated chlamydia and gonorrhoea can lead to:<sup>4,5,6</sup>
  - Pelvic inflammatory disease
  - Ectopic pregnancy
  - Miscarriage
  - Infertility
  - Poorer pregnancy and neonatal outcomes
  
- 10% of women with untreated chlamydia developed pelvic inflammatory disease within 12 months<sup>7</sup>

4 Westrom L., Br Med J (Clin Res Ed). 1981;282(6257):15-8.

5 Haggerty CL J Infect Dis. 2010;201 Suppl 2:S134-55

6 Blas MM, Pregnancy outcomes in women with Chlamydia trachomatis: a population-based cohort in Washington State. Sex Transm Infect. 2007; 83:314-318

7 Oakeshott P. Randomised controlled trial of screening for Chlamydia trachomatis to prevent pelvic inflammatory disease: the POPI (prevention of pelvic infection) trial. BMJ, 2010;340:c1642.

# Importance of testing



- Chlamydia can be asymptomatic in 80-90% of females and males<sup>8</sup>
  - Most cases are undiagnosed
  
- Chlamydia and gonorrhoea are easily treated
  
- National STI guidelines recommend annual screening of:<sup>9</sup>
  - 15-29 year olds for chlamydia
  - 15-39 year olds for gonorrhoea (where prevalence is high)

8 Khaw C, Li B, Waddell R. Epidemiological Treatment for Chlamydia Co-Infection in MSM with a Presumptive Diagnosis of Urethral Gonorrhoea in S.Australia. Sexually Transmitted Infections. 2012;88:A18-A.

9 NACCHO/RACGP. National guide to a preventive health assessment for Aboriginal and Torres Strait Islander people. 2nd edition. South Melbourne: The RACGP, 2012.

# Population benefit of screening



- Over 10 years a screening program in remote Aboriginal communities in South Australia reduced the prevalence of:<sup>10</sup>
  - Chlamydia from 10% to 5% (58%)
  - Gonorrhoea from 15% to 5% (67%)
- Similar results in the Tiwi Islands in the NT<sup>11</sup>
- Modelling suggests annual screening of 30% of 15-24 year old women can reduce prevalence by 70%.<sup>12</sup>

<sup>10</sup> Huang RL, Torzillo PJ, Hammond VA et al. Epidemiology of sexually transmitted infections on the Anangy Pitjantjatjara Yankunytjatjara Lands: results of a comprehensive control program. MJA, 2008;189(422-445)

<sup>11</sup> Su JY, Skov S. An assessment of the effectiveness of the Tiwi Sexual Health Program 2002-2005. Aust NZ J Public Health, 2008;32(6):554-558.

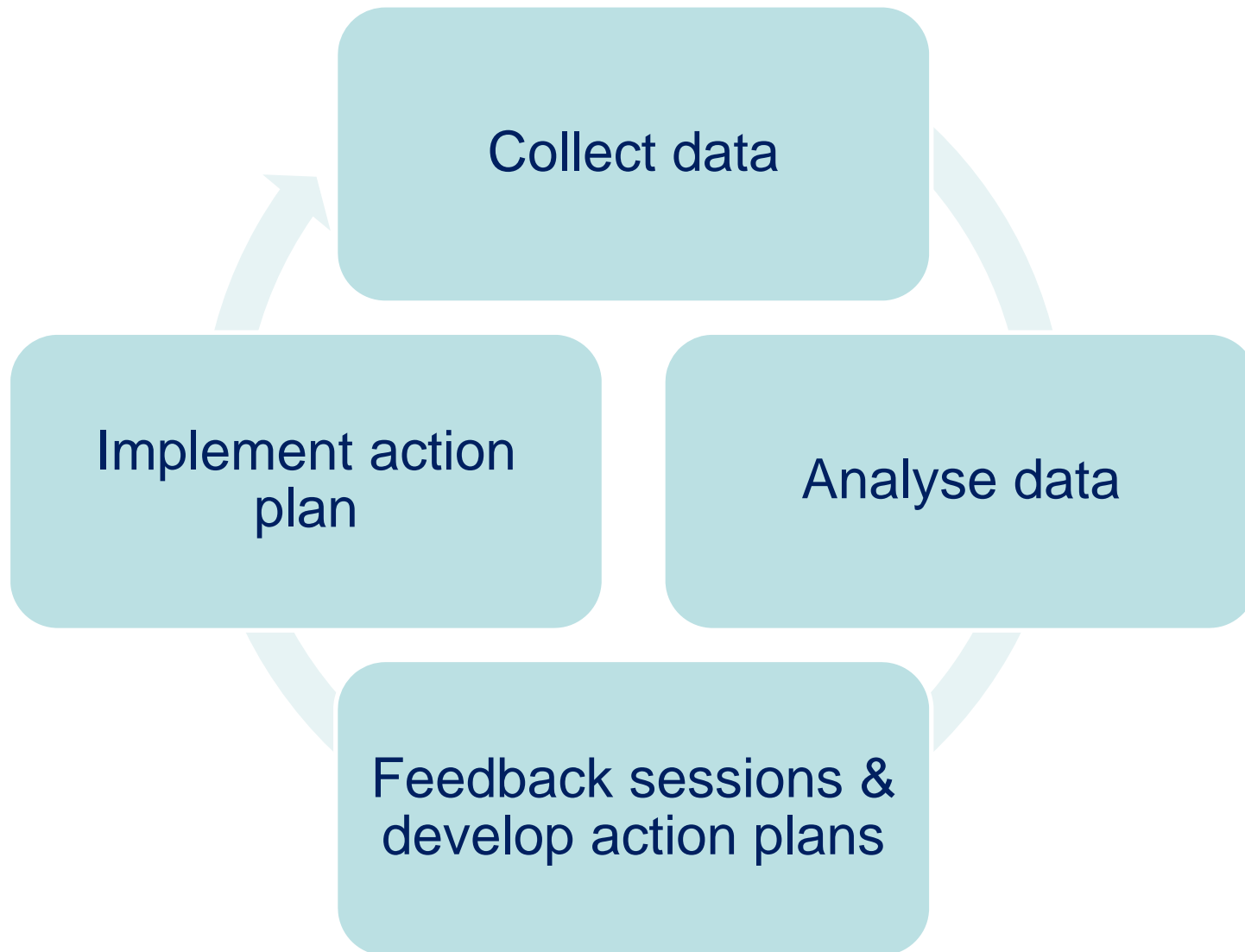
<sup>12</sup> Regan DG, Wilson DP & Hocking JS. Coverage Is the Key for Effective Screening of Chlamydia trachomatis in Australia. Journal of Infectious Diseases. 2008;198, 349-358.

# Aim



To examine if a sexual health intervention can increase chlamydia and gonorrhoea testing in 15-29 year olds attending the SHIMMER sites

# The SHIMMER process



# Clinic-driven strategies



1. All clinic staff are involved (routine practice)
2. How to offer STI testing (wording & during consult types)
3. Testing for chlamydia and gonorrhoea together
4. Enter recalls into the patient information system
5. Strategies for re-testing & STI screening after a diagnosis
6. Increased access to medications with pharmacies
7. Clinical STI/BBV training

# Analysis



**Primary outcome:** % of 15-29 year olds tested for chlamydia and gonorrhoea

**Secondary outcome:** Number of infections

Time periods:

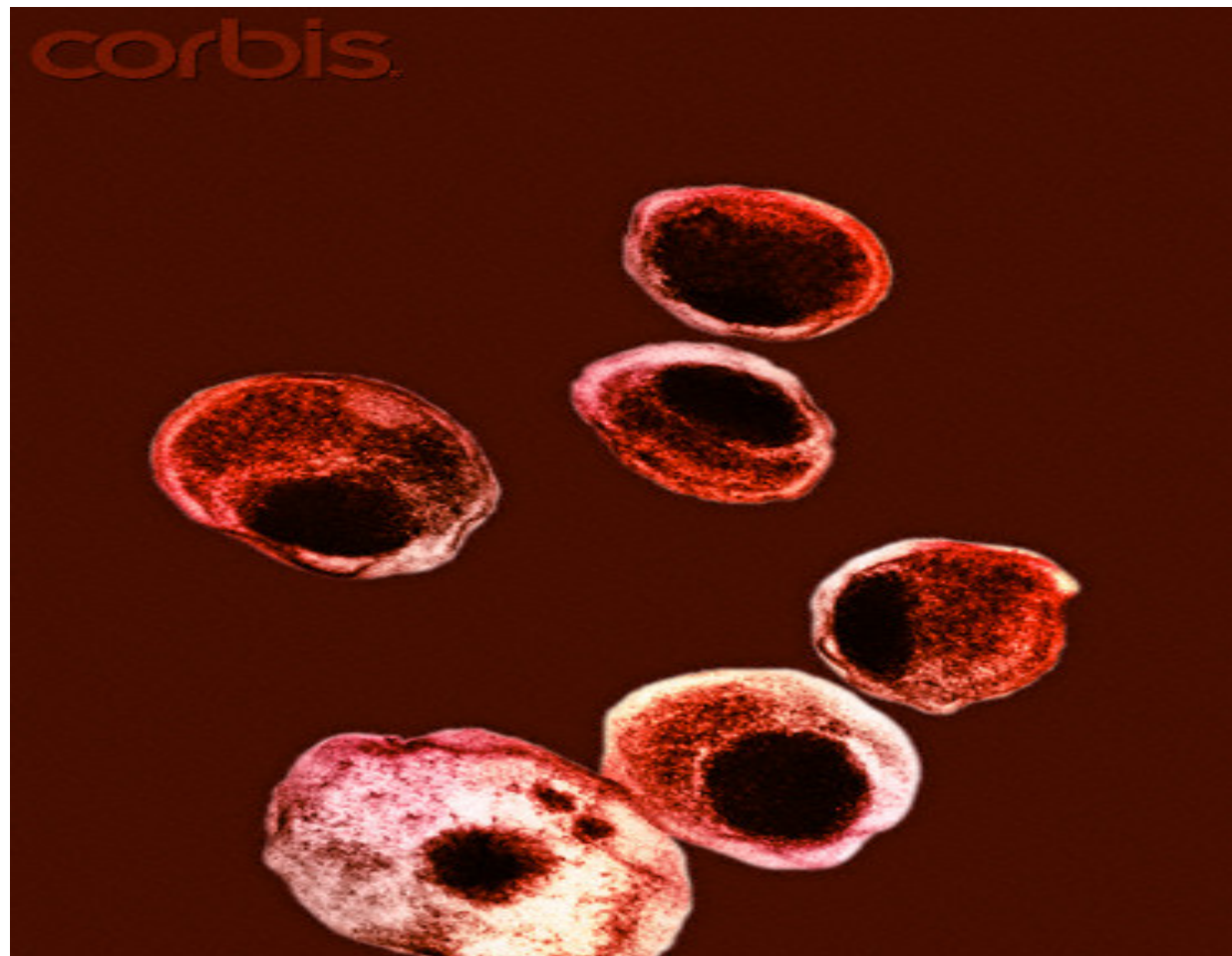
- **Baseline:** March 2011 to February 2012
- **Intervention:** March 2012 to February 2013
  
- Chi-square test used to assess if proportion tested was significant different in the two time periods

# Aboriginal Community Controlled Health Services staff

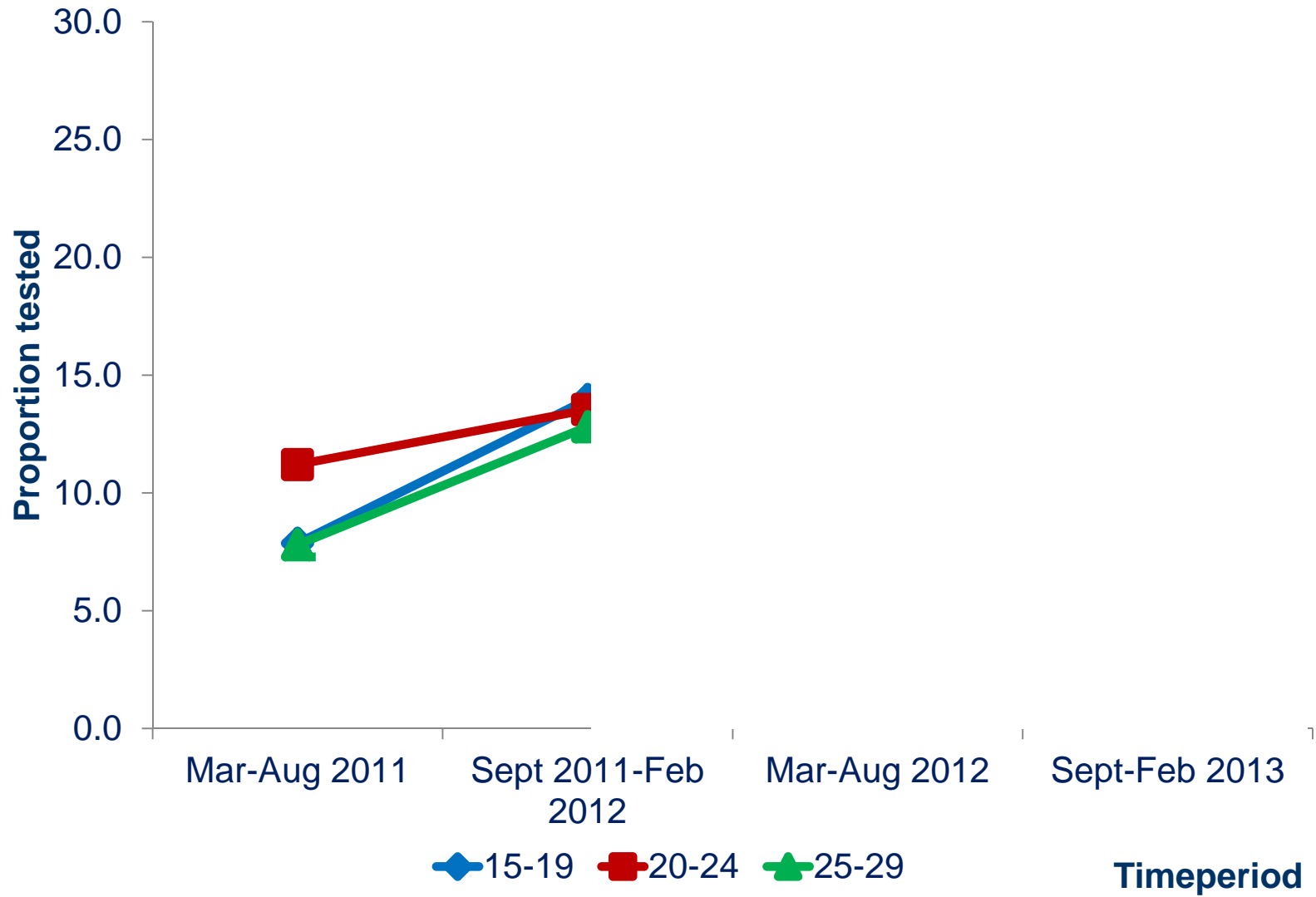




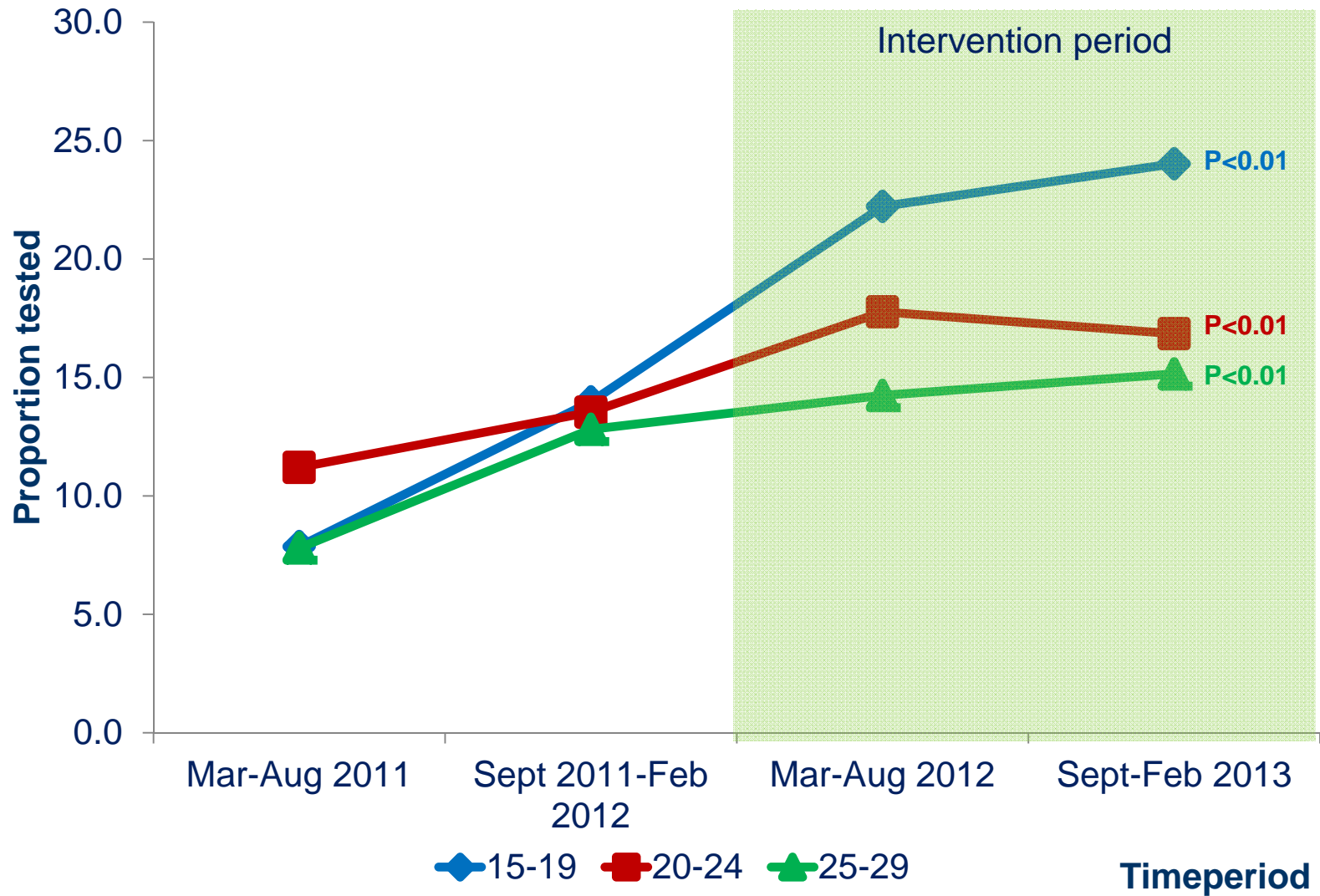
# Chlamydia testing



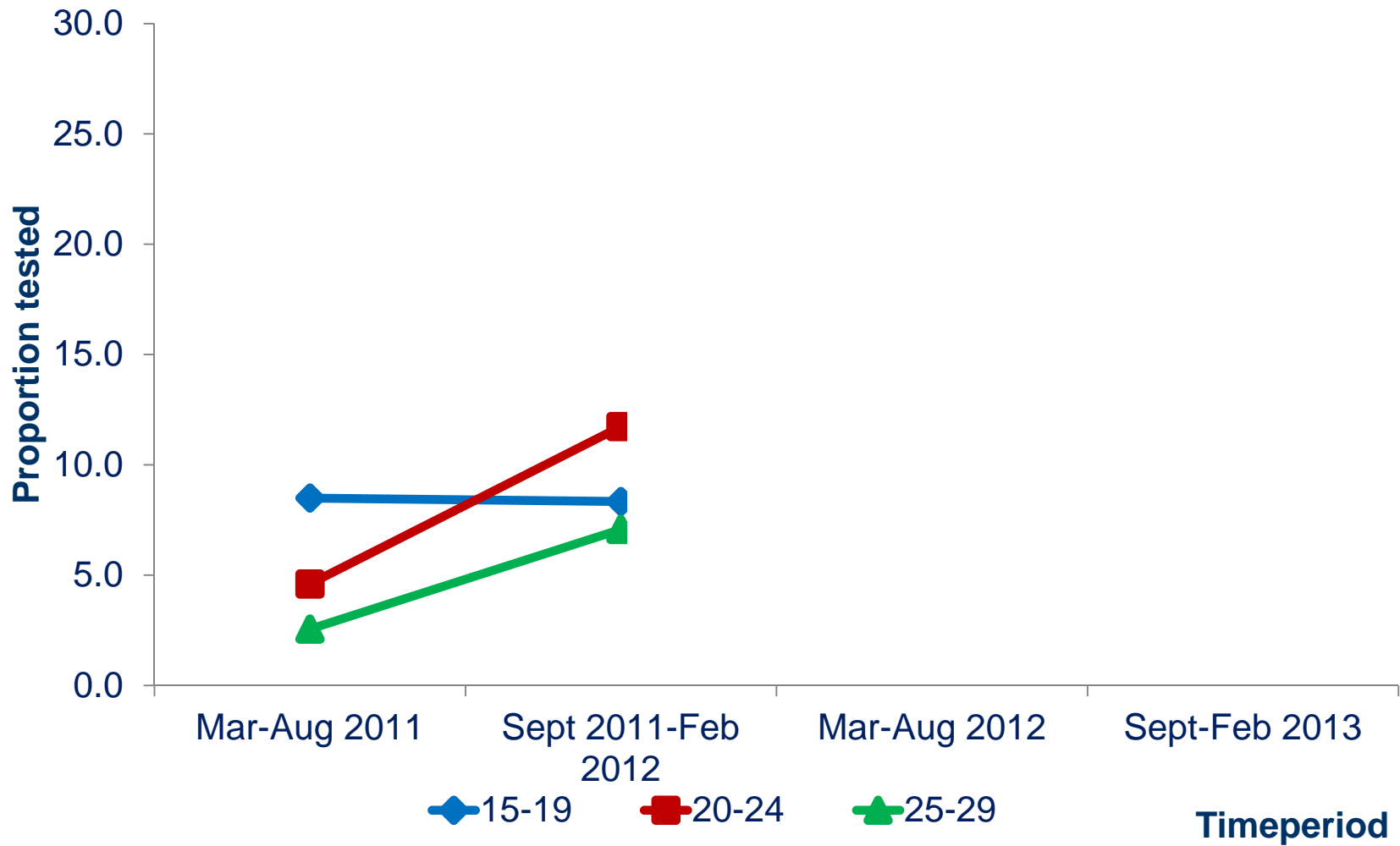
# Chlamydia testing in women



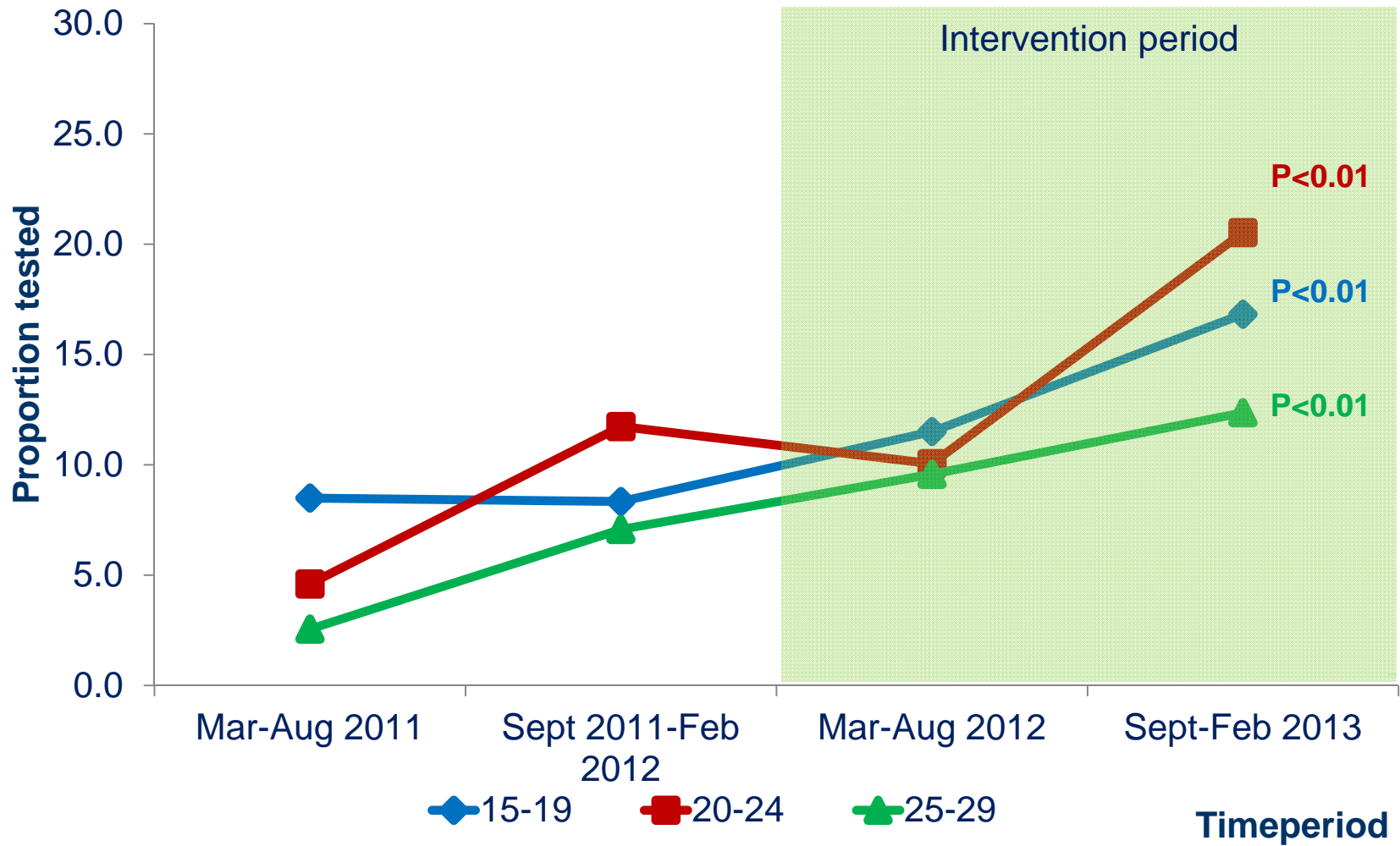
# Chlamydia testing in women



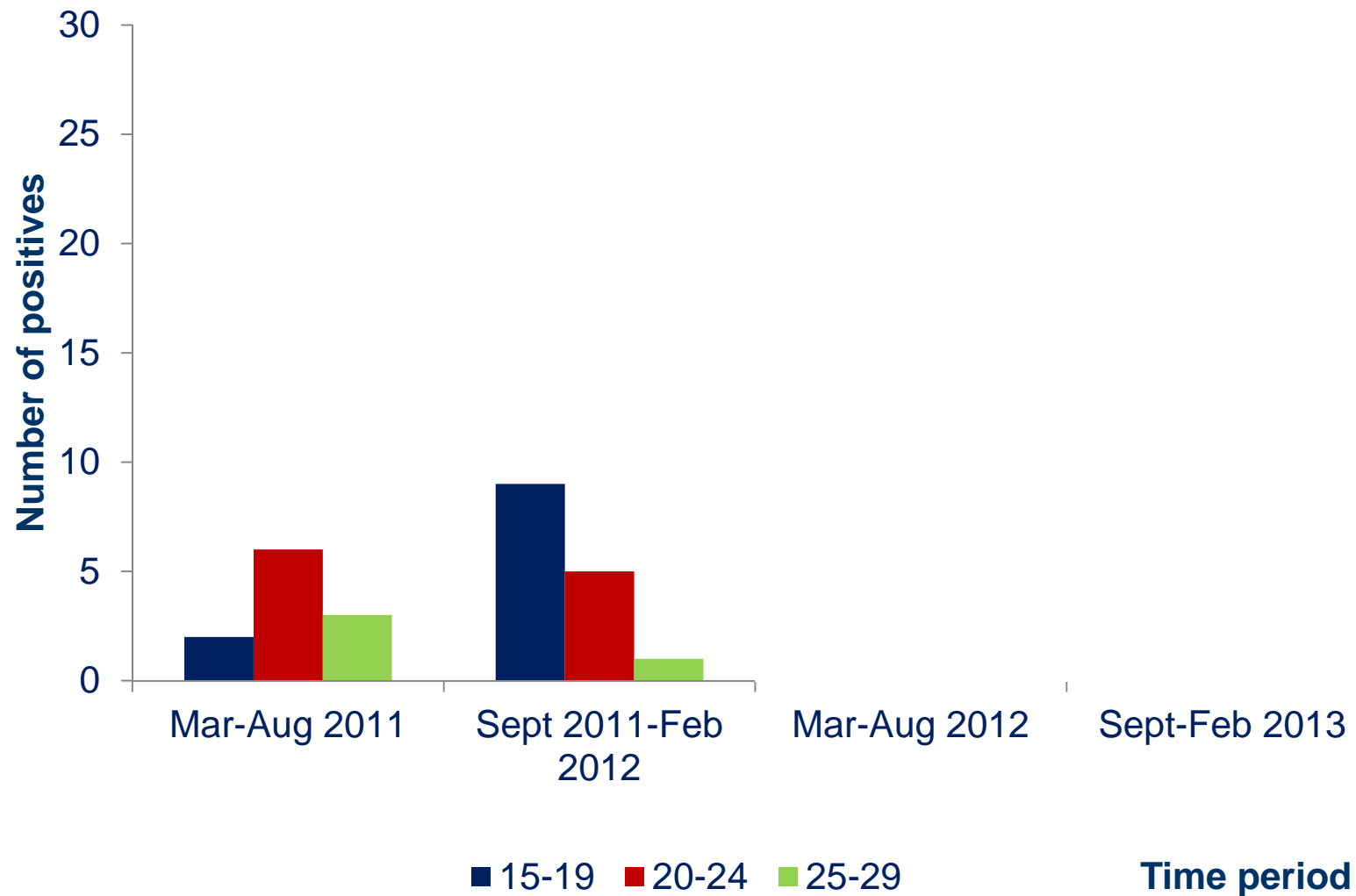
# Chlamydia testing in men



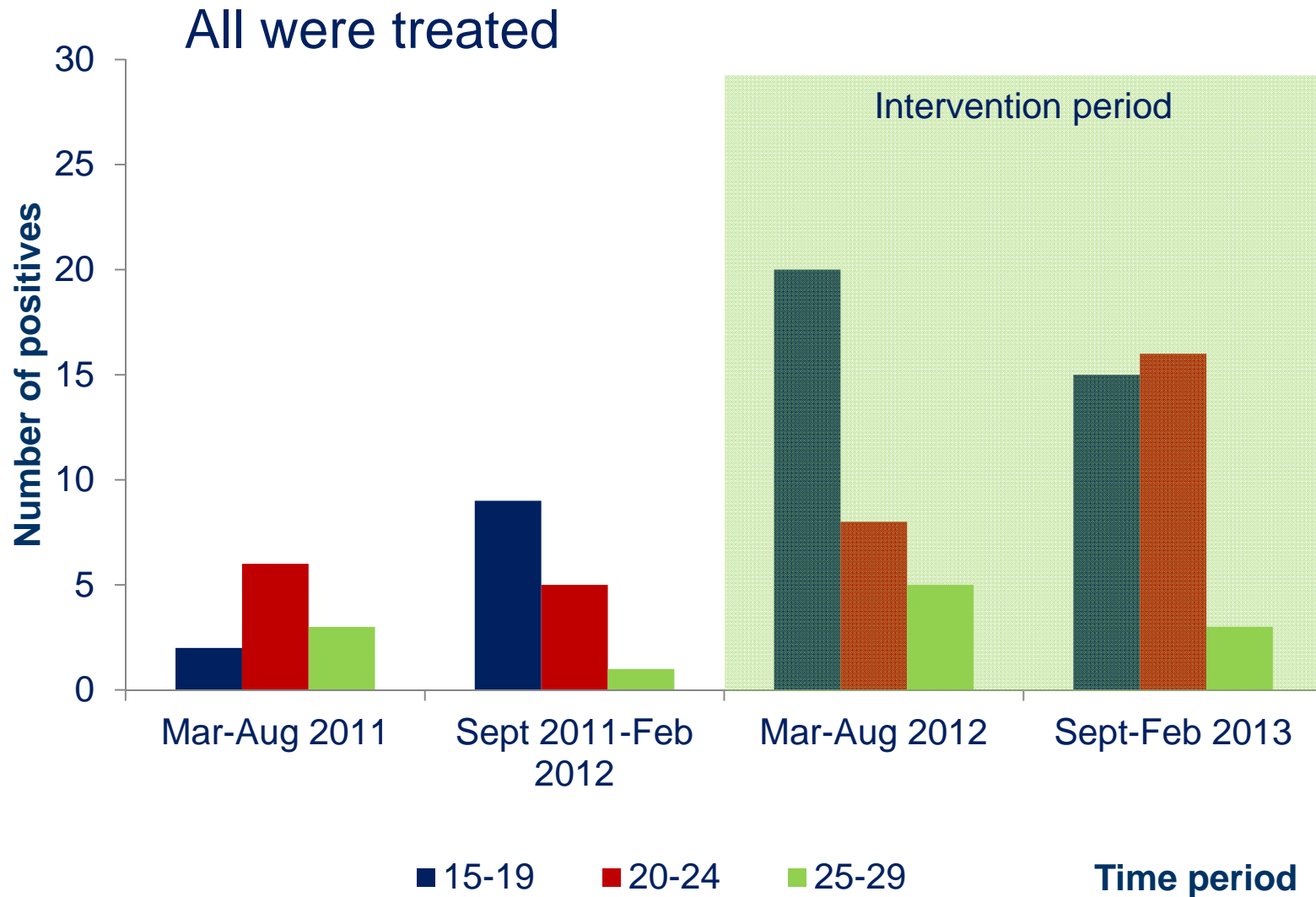
# Chlamydia testing in men



# Number of chlamydia infections



# Number of chlamydia infections

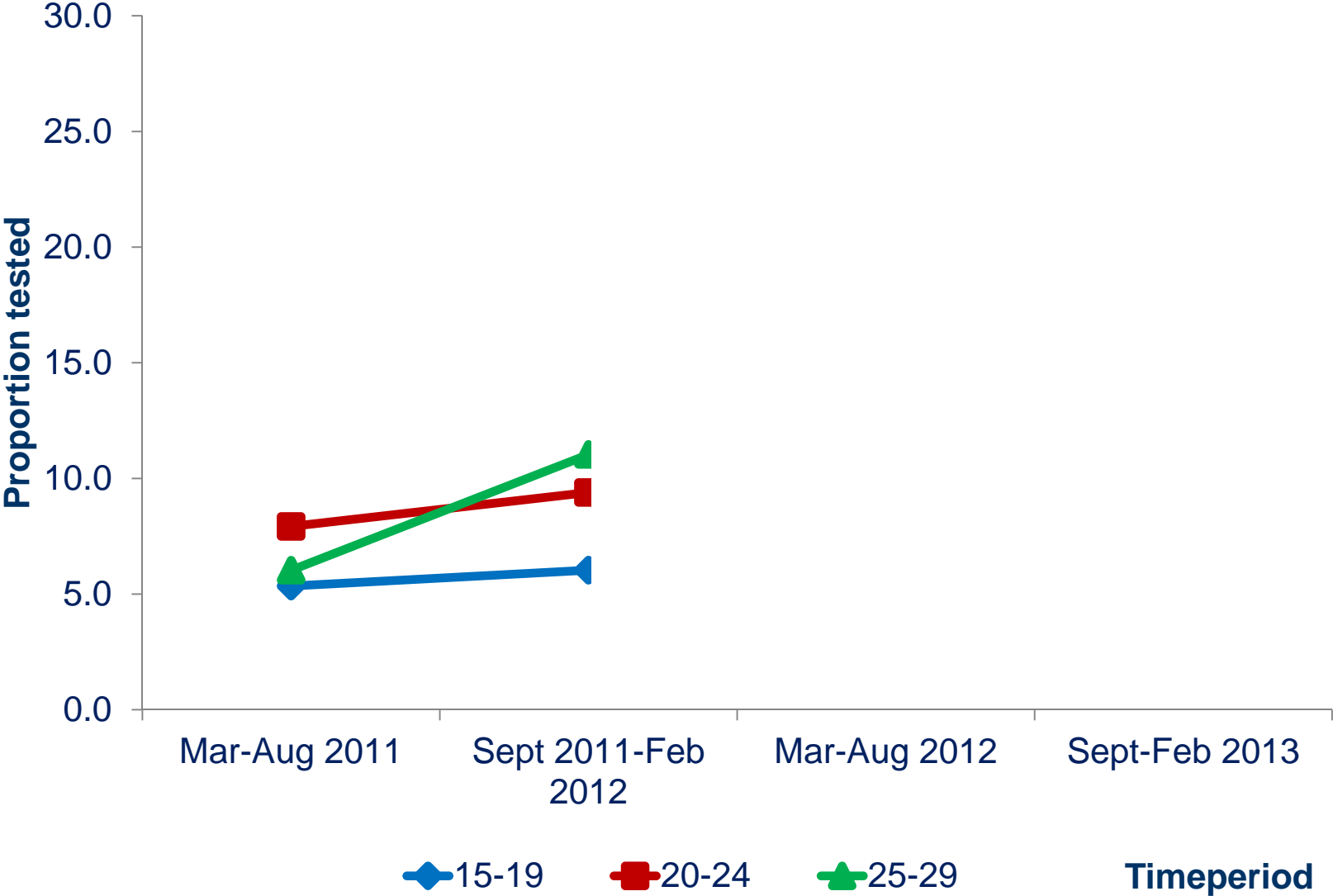


# Gonorrhoea testing

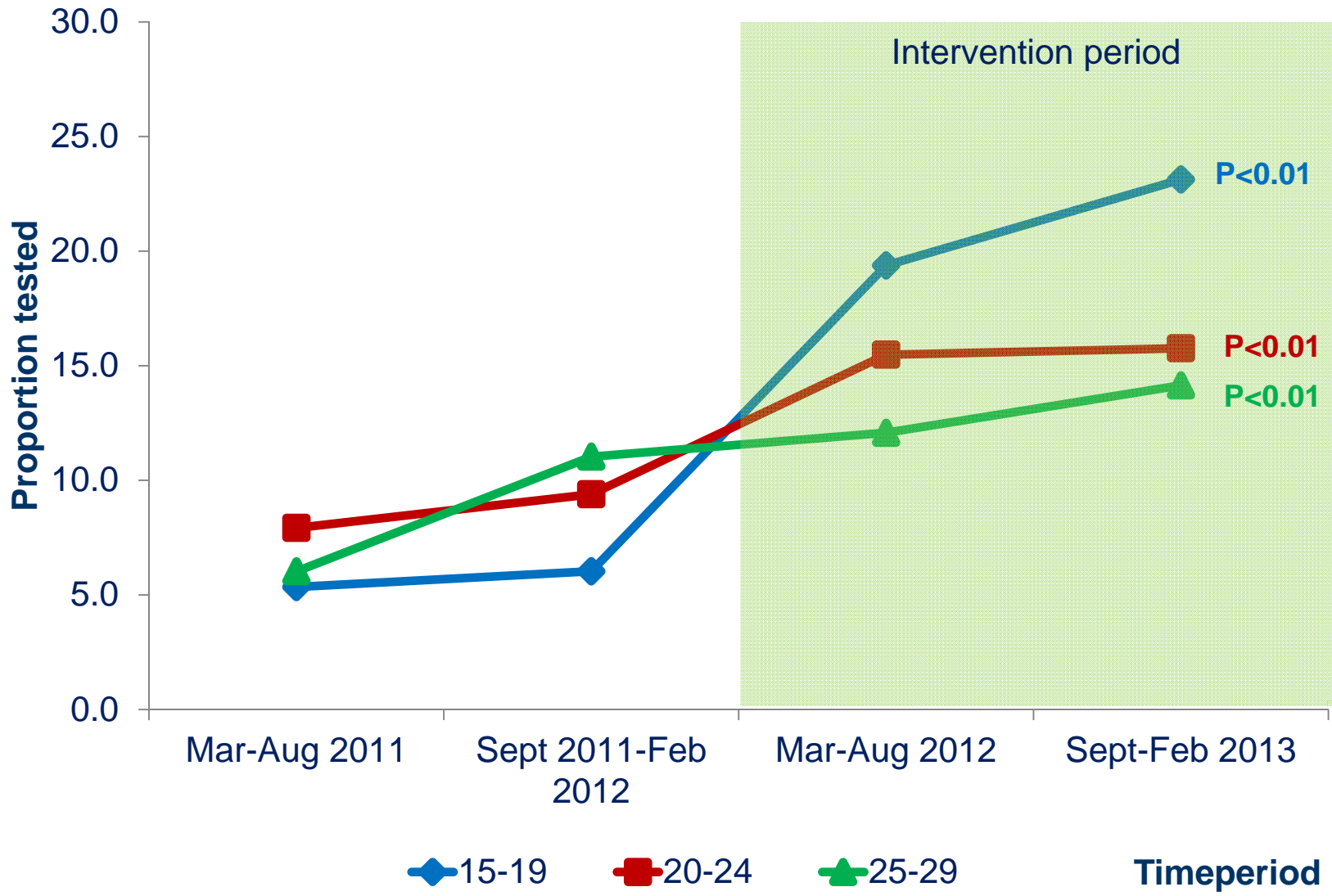




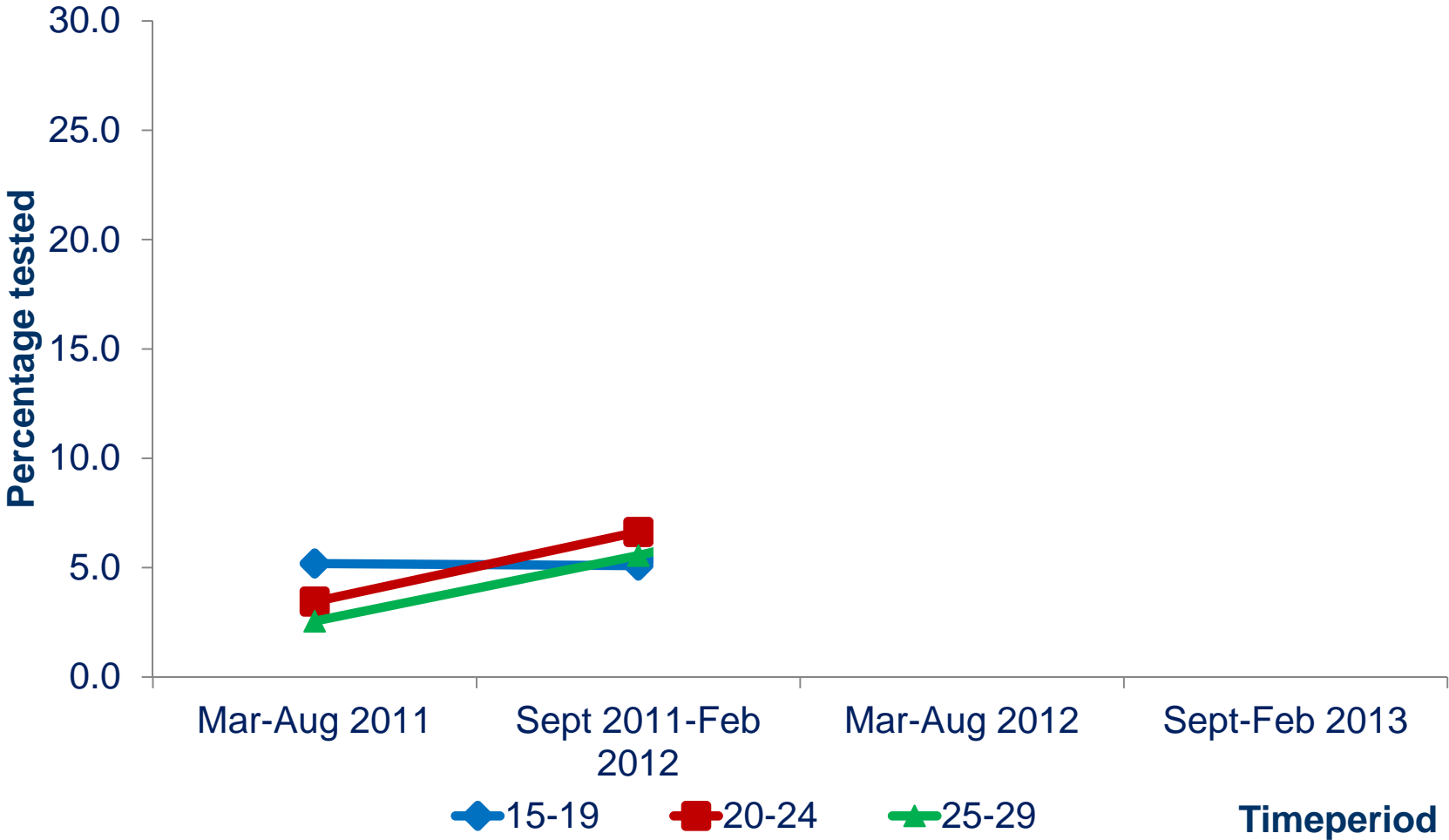
# Gonorrhoea testing in women



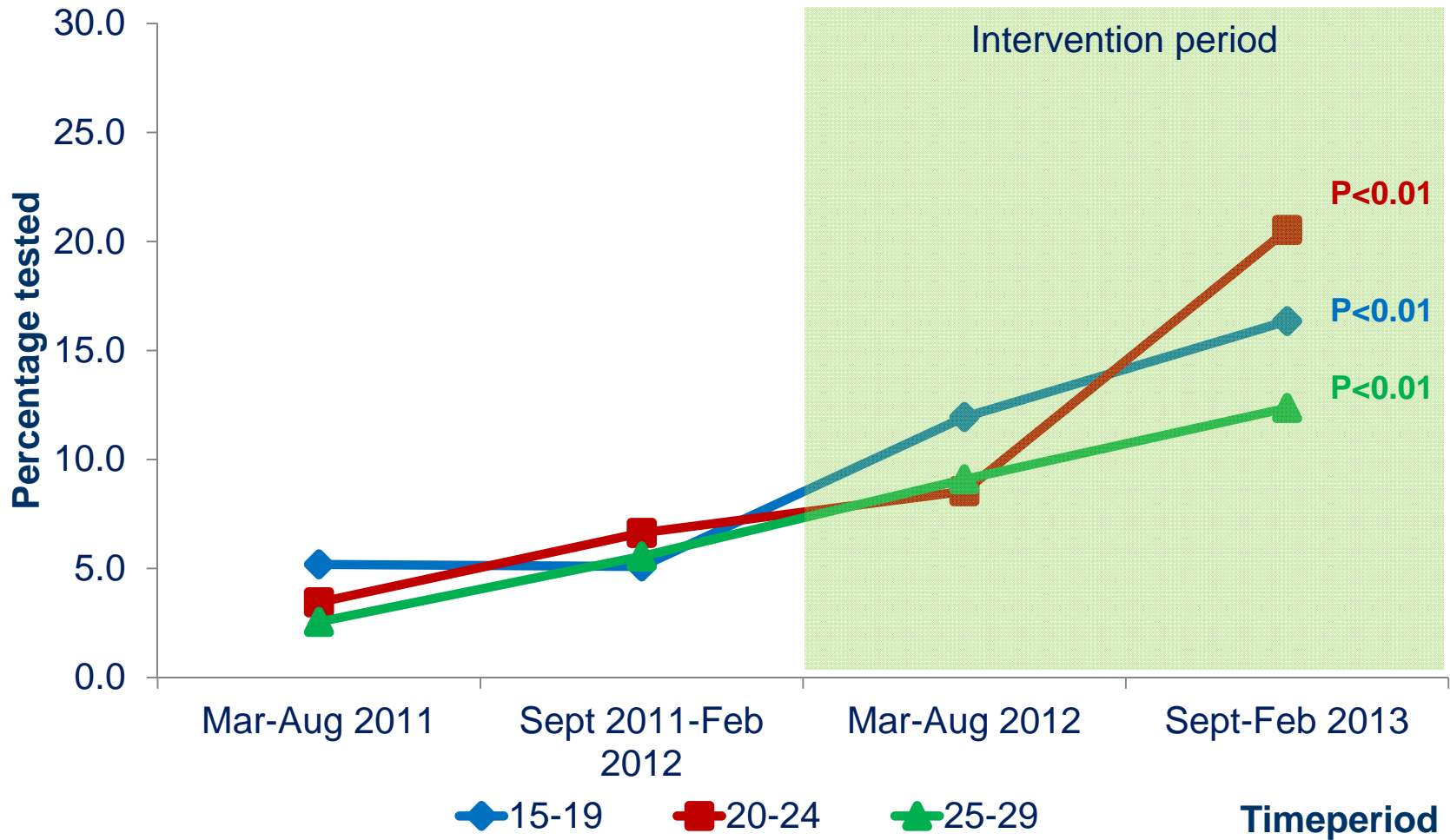
# Gonorrhoea testing in women



# Gonorrhoea testing in men



# Gonorrhoea testing in men



One 15-19 year old tested positive for gonorrhoea in 2012.

# Discussion



- SHIMMER more than doubled chlamydia testing rates in only 12 months to 25% (15-19 years)
- Increases in testing varied by site (highest 50%)
- 3 times greater than in general practice (6-8%)<sup>13</sup>
- Increased testing lead to detecting more infections
- Strategies integrated into routine clinical practice
- The SHIMMER model is being expanded

<sup>13</sup> Kong FY, Guy RJ, Hocking JS et al. Australian general practitioner chlamydia testing rates among young people. MJA. 2011;194(5):249-52

# Acknowledgements



- Staff at each of the participating Aboriginal Community Controlled Health Services in SHIMMER
- SHIMMER investigators
- NSW Ministry of Health



Thank you

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