Update on STIs in Victoria –
current issues

Jane Hocking
Centre for Epidemiology and Biostatistics, Melbourne School of Population and Global Health, University of Melbourne
jhocking@unimelb.edu.au
Today

• Update on STI epidemiology in Australia and Victoria
  – Chlamydia
  – Gonorrhoea
  – Syphilis

• Ongoing threats/barriers to STI control
  – Chlamydia
  – STIs
Chlamydia

- Most commonly diagnosed bacterial STI in Australia
- >80% of cases will be asymptomatic
  - Unless there is screening, most cases will go undetected
- ~80% of cases are diagnosed among 16 to 29 year olds
- Key risk groups for chlamydia in Australia are:
  - 16 to 29 year old men and women
  - Gay/bisexual men
  - Aboriginal and/or Torres Strait Islander peoples
Chlamydia notifications in Australia

Over 80,000 cases in 2014
Chlamydia notification rate by state

Source: National Notifiable Diseases Surveillance System
Chlamydia notifications in Victoria

~20,000 cases in 2014
Chlamydia prevalence among 16 to 29 year olds

Source: Australian Chlamydia Effectiveness Pilot (ACCEPT)
Chlamydia prevalence among 16 to 29 year olds

Source: Australian Chlamydia Effectiveness Pilot (ACCEPT)
Chlamydia prevalence among 16 to 29 year olds

Source: Australian Chlamydia Effectiveness Pilot (ACCEPT)
Chlamydia prevalence by age

Source: Australian Chlamydia Effectiveness Pilot (ACCEPT)
Prevalence by number of partners

Source: Australian Chlamydia Effectiveness Pilot (ACCEPT)
What’s driving chlamydia increases?

Over 80,000 cases in 2014

Source: National Notifiable Diseases Surveillance System; Medicare

Faculty of Medicine, Dentistry and Health Sciences
Melbourne School of Population and Global Health
What’s driving chlamydia increases?

Source: National Notifiable Diseases Surveillance System; Medicare
Gonorrhoea notification rate by year across Australia

Figure 114: Gonorrhoea notification rate per 100,000 population, 2005-2014, by year and sex

16,000 cases across Australia in 2014

Source: Australian National Notifiable Diseases Surveillance System
Faculty of Medicine, Dentistry and Health Sciences
Melbourne School of Population and Global Health
Gonorrhoea notification rate by state

Source: National Notifiable Diseases Surveillance System
Number gonorrhoea notifications - Victoria

Over 3,300 cases in 2014
What’s driving gonorrhoea increases? (1)

• Diagnoses have increased 6-fold over last decade in Australia
• Increases mainly among gay/bisexual men, but increases also among women
• Data from sexual health clinics show:
  – 2-3% urethral gonorrhoea positivity
  – 8-10% rectal gonorrhoea positivity
  – <0.5% positivity among women
• Condom use among gay/bisexual men has decreased
  – 39% of gay men report condomless sex with casual partners in the last 12 mths
• Increased use of more sensitive NAAT tests.
What’s driving gonorrhoea increases? (2)

• Why has it increased among women?
  – dual NAAT for the detection of chlamydia and gonorrhoea infection was introduced in Australia in 2007
  – Number of tests done has increased dramatically as chlamydia testing increases
  – Gonorrhoea prevalence among women is low (<0.5%)
  – NAAT tests don’t perform as well when prevalence of the condition is low
  – False positive diagnoses likely (>20%)
Syphilis notification rate by year

Figure 124: Infectious syphilis notification rate per 100 000, 2005-2014, by year and sex

Over 2000 cases across Australia in 2014

Source: Australian National Notifiable Diseases Surveillance System
Syphilis notifications by state

![Graph showing syphilis notifications by state from 2002 to 2014.](image)
Number of syphilis notifications in Victoria (<2 yr duration)

Nearly 700 cases in 2014
Barriers/threats to chlamydia control

• Guidelines recommend annual chlamydia testing for <30 year old men and women
• BUT - testing rates remain low and given >80% asymptomatic, testing is the only way to detect cases
  – ~15% per year among women aged 16 to 29 years
  – 8% per year among men aged 16 to 29 years
  – Modelling suggests we need to get testing up to >30% per year to have an impact on transmission.
Strategies to increase chlamydia testing in general practice

- As part of a chlamydia screening trial in general practice, we provided GPs with the following:
  - Incentive payments for each test done
  - Computer prompts to remind GP to test
  - Recall register for follow up
  - Practice nurse incentives including comprehensive practice nurse training program
  - Quarterly updates on testing rates
  - Educational package
  - Partner notification support
Resources

- Partner notification resources
- Patient information
- Posters
Further threats to chlamydia control (1)

- Patient knowledge
  - 95% of patients knew that chlamydia can make women infertile
  - 94% of patients knew that chlamydia is often asymptomatic
  - **BUT**
    - 57% of patients believed that the Pap smear also tests for chlamydia
    - 39% of patients believed that you could be tested for all STIs with just a blood test

Source: ACCEPt
Further threats to chlamydia control (2)

• 20% of men and women aged 16 to 29 years who are prescribed a chlamydia test at the GP will not test

• The following groups are more likely NOT to test:
  – 16 to 19 year olds compared with 25 to 29 year olds
  – Men compared with women
  – Those living in areas of increasing socio-economic disadvantage
  – Those attending clinics that did not allow for specimen collection on site

• Any change to the Medicare rebate for testing will impact on chlamydia testing rates

Source: Lau et al. MJA 2016
Threats to STI control among gay men

• Pre-Exposure Prophylaxis for HIV:
  – Trials have demonstrated significant protection against HIV
  – But anecdotal reports and evidence from NSW PrEP Demonstration Study have shown increased condomless sex and increased rectal STIs
  – Concern is that STIs will dramatically increase among those on PrEP.
  – PrEP is likely to have widespread roll out in Vic, NSW, QLD
    • Healthcare providers need to think about how to manage the potential increase in STIs
    • Issues with resistance.
Summary

• STIs continue to increase across Victoria and Australia
• Important to monitor ongoing diagnoses and testing practices
• Gaps in STI knowledge
• Remove barriers to testing within primary care
  – Clearly explain what is involved with testing including costs
  – Allow for specimen collection onsite
  – Any changes to Medicare rebate will be detrimental
• Widespread implementation of PrEP will have big implications for clinical services provision across Australia