Sexually Transmissible Infections and Blood Borne Viruses in Western Australia – current and emerging issues

Presented by Dr Jenny McCloskey Sexual Health Physician; Head of Service Sexual Health Royal Perth Hospital

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Funded by:



Government of Western Australia Department of Health

Co-ordinated by:



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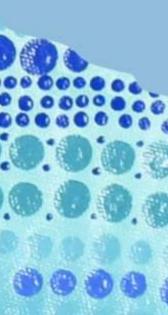
Acknowledgement of Country





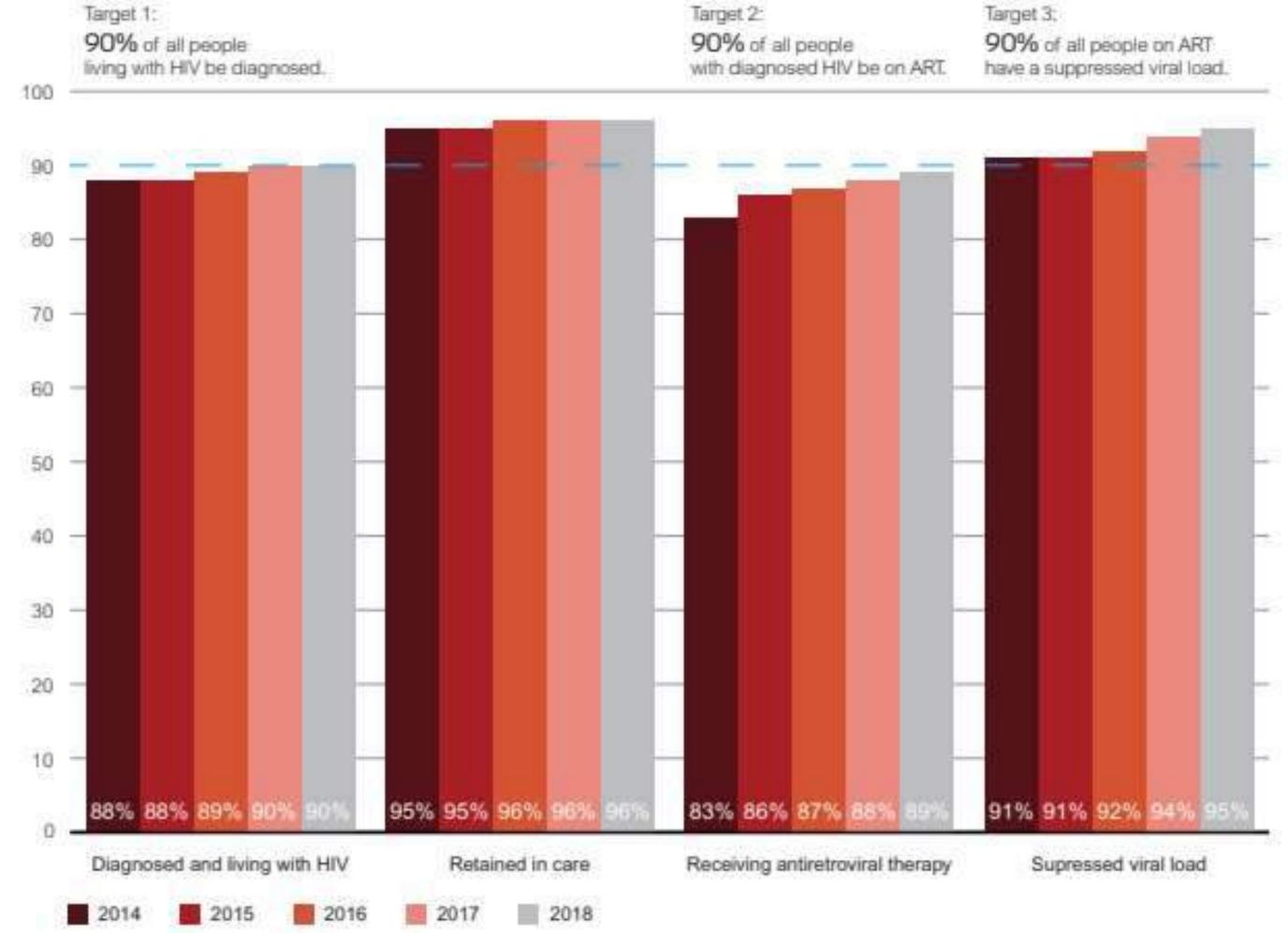
Content warning The following presentation contains images of genitalia and other graphic imagery that may be confronting to some people.







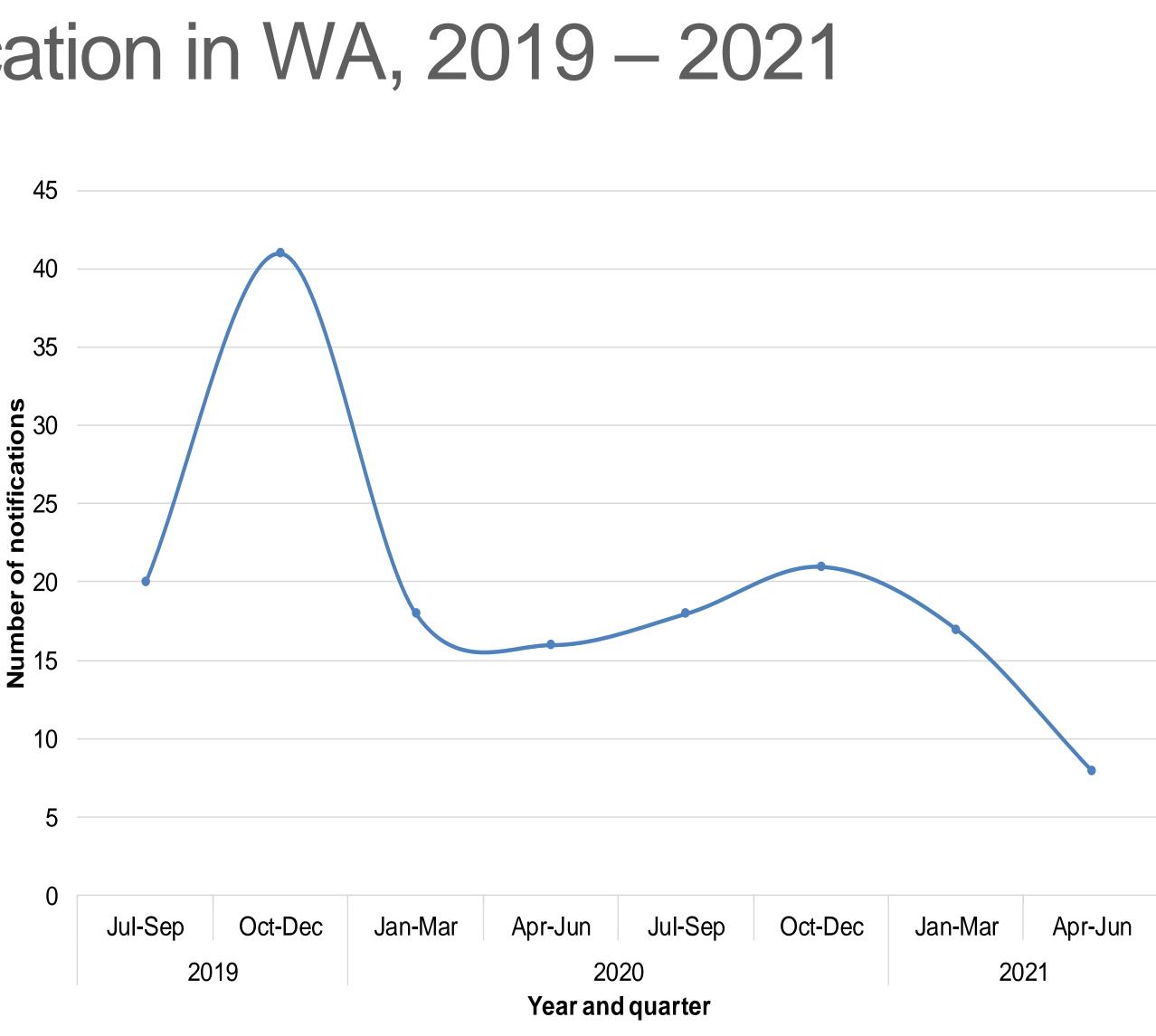
The HIV diagnosis and care cascade, 2014–2018



National update on HIV, viral hepatitis and sexually transmissible infections in Australia 2009–2018 https://kirby.unsw.edu.au/sites/default/files/kirby/report/National-update-on-HIV-viral-hepatitis-and-STIs-2009-2018.pdf



HIV notification in WA, 2019 – 2021



Quarterly Surveillance Report. Notifiable Sexually Transmissible Infections and Blood-borne Viruses in Western Australia. Period ending 30 June 2021 Vol. 20 (3), issued August 2021 https://ww2.health.wa.gov.au/Articles/A_E/Epidemiology-of-STIs-and-BBVs-in-Western-Australia



HIV notifications in WA by Aboriginality, 2019 – 2021

Aboriginglity	1 Jul 20 - 30 J	un 21 Period	1 Jul 19 - 30 Jun 20 Period		
Aboriginality	Number	Rate	Number	Rate	
Aboriginal	2	1.9	4	3.7	
Non-Aboriginal	61	2.4	91	3.6	
Unknown	1	N/A	0	N/A	
Aboriginal:Non-Aboriginal ratio	0.03	0.8	0.04	1.0	
Total	64	2.4	95	3.6	

Rate = Crude notification rate per 100,000 population

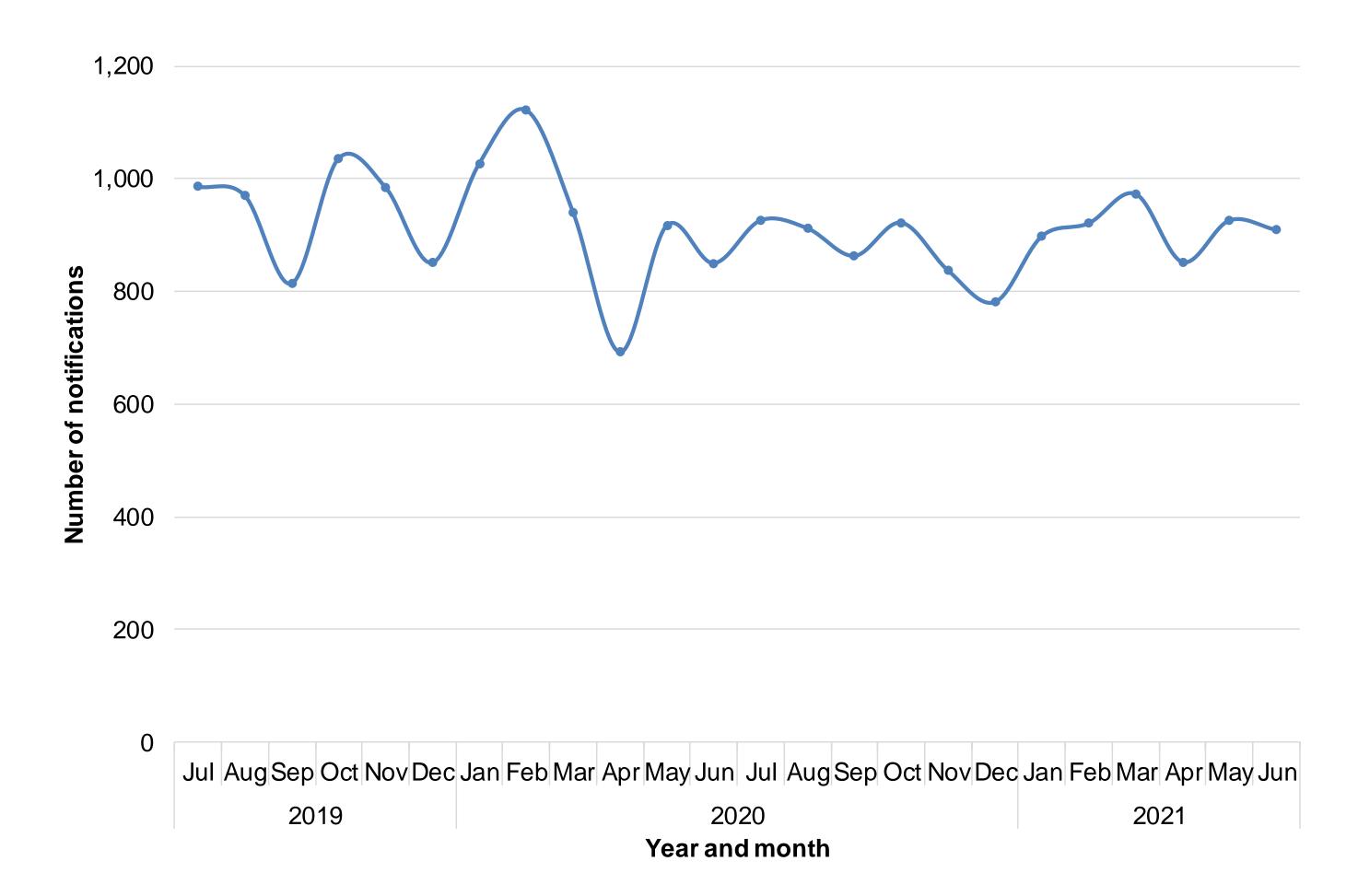
Quarterly Surveillance Report.Notifiable Sexually Transmissible Infections and Blood-borne Viruses in Western Australia. Period ending 30 June 2021 Vol. 20 (3), issued August 2021 https://ww2.health.wa.gov.au/Articles/A_E/Epidemiology-of-STIs-and-BBVs-in-Western-Australia

Mucous patches, skin rash in an HIV positive male





Chlamydia notification in WA, 2019 – 2021



Quarterly Surveillance Report.Notifiable Sexually Transmissible Infections and Blood-borne Viruses in Western Australia. Period ending 30 June 2021 Vol. 20 (3), issued August 2021 https://ww2.health.wa.gov.au/Articles/A_E/Epidemiology-of-STIs-and-BBVs-in-Western-Australia



Aboriginality	01 Jul 20 - 30	Jun 21 Period	01 Jul 19 - 30 Jun 20 Period		
Aboriginality	Number	Rate	Number	Rate	
Aboriginal	1,446	1,357.8	1,515	1,442.0	
Non-Aboriginal	8,977	355.4	9,070	361.5	
Unknown	291	N/A	606	N/A	
Aboriginal:Non-Aboriginal ratio	0.2	3.8	0.2	4.0	
Total	10,720	407.3	11,191	428.1	

Rate = Crude notification rate per 100,000 population

Quarterly Surveillance Report.Notifiable Sexually Transmissible Infections and Blood-borne Viruses in Western Australia. Period ending 30 June 2021 Vol. 20 (3), issued August 2021 https://ww2.health.wa.gov.au/Articles/A_E/Epidemiology-of-STIs-and-BBVs-in-Western-Australia

Chlamydia notifications in WA by Aboriginality, 2019 – 2021



Chlamydia notifications in WA by region, 2019 – 2021

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	Quarterly Su https://ww2.h

Pagion	01 Jul 20 - 30	Jun 21 Period	01 Jul 19 - 30 Jun 20 Period		
Region	Number	Rate	Number	Rate	
Goldfields	280	531.5	307	571.6	
Great Southern	162	265.2	162	266.0	
Kimberley	515	1,467.0	525	1,481.4	
Metropolitan	8,398	398.9	8,809	422.3	
Midwest	325	530.7	237	380.8	
Pilbara	303	505.0	341	565.1	
South West	545	300.9	590	328.0	
Wheatbelt	162	215.0	159	209.4	
Other	29	N/A	41	N/A	
Unknown	1	N/A	20	N/A	
Total	10,720	407.3	11,191	428.1	

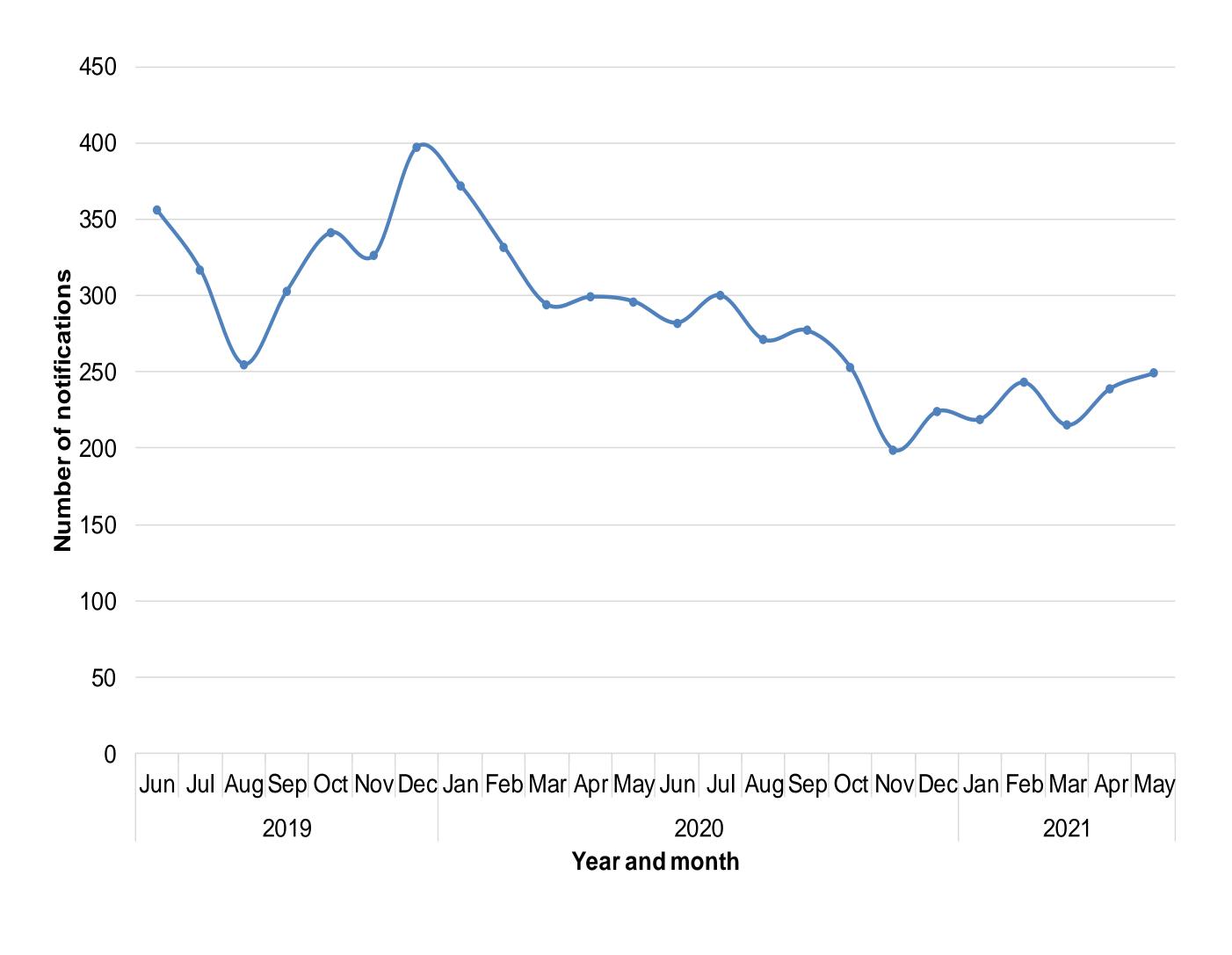
Rate = Crude notification rate per 100,000 population Metropolitan = East Metropolitan + North Metropolitan + South Metropolitan Other = Overseas residents diagnosed in WA Unknown = Unknown residential address within WA N/A = Not applicable

Gonococcal and chlamydial urethritis



Images sourced from STI Atlas <u>https://stiatlas.org/</u>





Gonorrhoea notifications in WA, 2019 – 2021

Aboriginality	01 Jul 20 - 30 .	Jun 21 Period	01 Jul 19 - 30 Jun 20 Period		
Aboriginality	Number	Rate	Number	Rate	
Aboriginal	1,307	1,227.2	1,082	1,029.9	
Non-Aboriginal	1,657	65.6	2,801	111.6	
Unknown	7	N/A	5	N/A	
Aboriginal:Non-Aboriginal ratio	0.8	18.7	0.4	9.2	
Total	2,971	112.9	3,888	148.7	

Rate = Crude notification rate per 100,000 population

Quarterly Surveillance Report.Notifiable Sexually Transmissible Infections and Blood-borne Viruses in Western Australia. Period ending 30 June 2021 Vol. 20 (3), issued August 2021 https://ww2.health.wa.gov.au/Articles/A_E/Epidemiology-of-STIs-and-BBVs-in-Western-Australia



Gonorrhoea notifications in WA by region, 2019 – 2021

Region	01 Jul 20 - 30	Jun 21 Period	01 Jul 19 - 30 Jun 20 Period		
Region	Number	Rate	Number	Rate	
Goldfields	241	457.5	109	202.9	
Great Southern	12	19.6	33	54.2	
Kimberley	535	1,524.0	400	1,128.7	
Metropolitan	1,751	83.2	2,793	133.9	
Midwest	90	147.0	97	155.8	
Pilbara	231	385.0	228	377.8	
South West	62	34.2	172	95.6	
Wheatbelt	43	57.1	32	42.1	
Other	6	N/A	14	N/A	
Unknown	0	N/A	10	N/A	
Total	2,971	112.9	3,888	148.7	

Rate = Crude notification rate per 100,000 population Metropolitan = East Metropolitan + North Metropolitan + South Metropolitan Other = Overseas residents diagnosed in WA Unknown = Unknown residential address within WA N/A = Not applicable



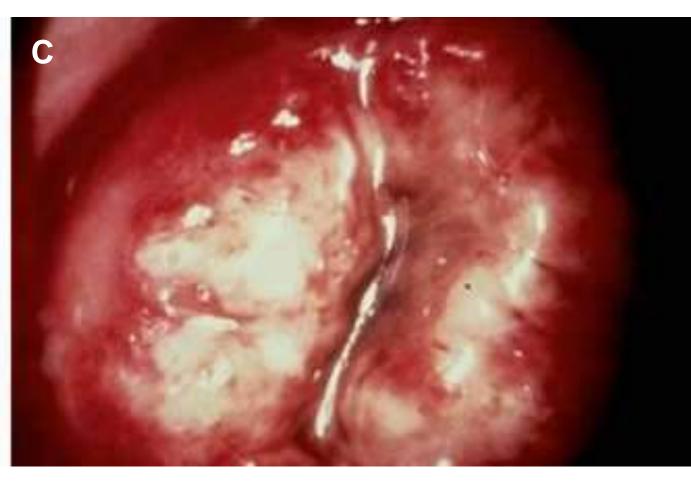
Gonorrhoea

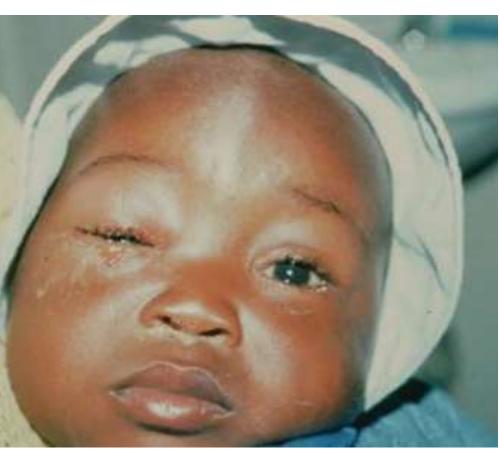




Images provided by Dr Jenny McCloskey



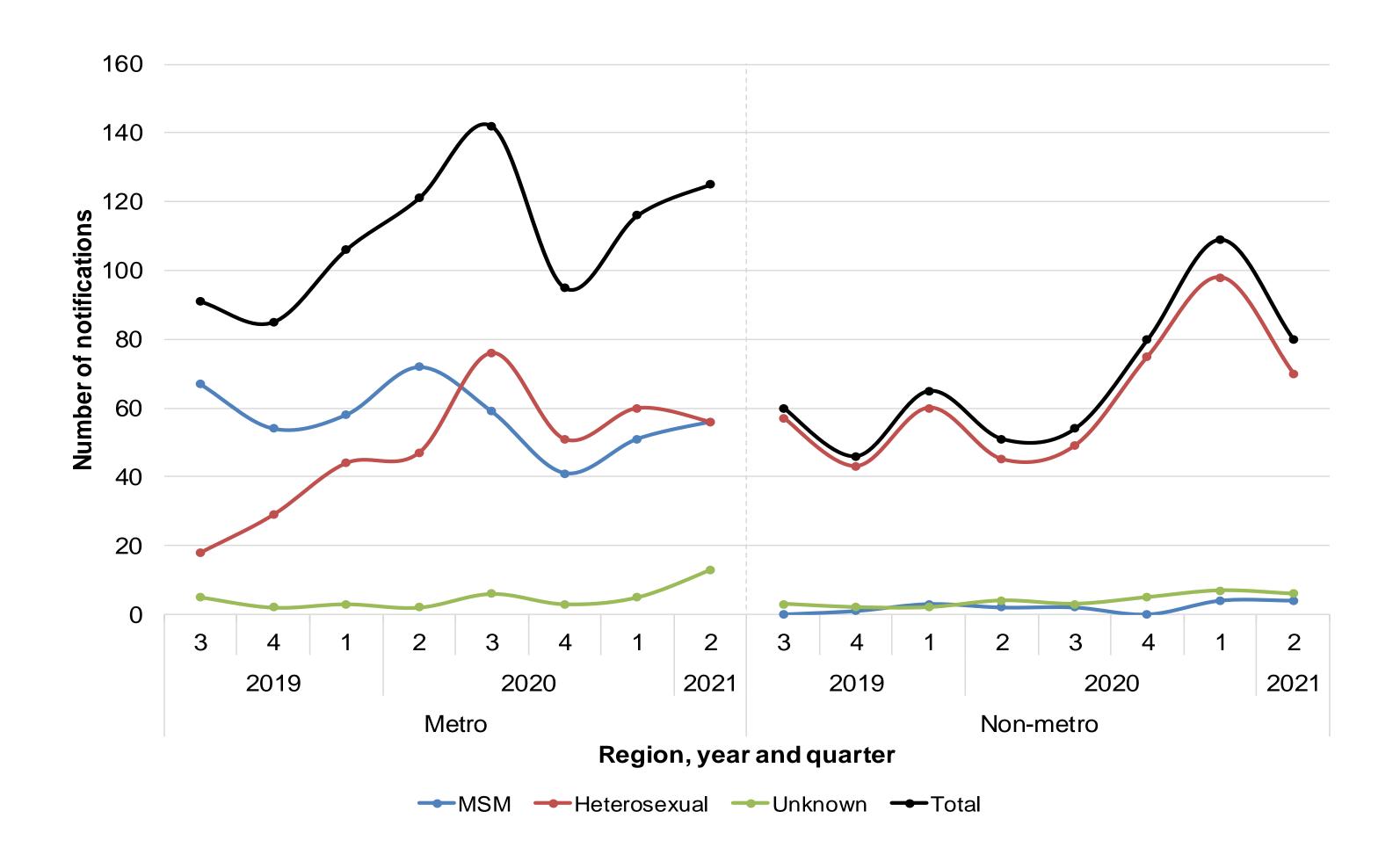




A.penile discharge
B.oropharyngeal gonorrhoea
C.gonococcal cervicitis
D.adult gonococcal eye infection
E.neonate gonococcal eye infection



Infectious syphilis notifications in WA, 2019 – 2021



Infectious syphilis notifications in WA by Aboriginality, 2019 -2021

Aboriginality	01 Jul 20 - 30	Jun 21 Period	01 Jul 19 - 30 Jun 20 Period		
Aboriginality	Number	Rate	Number	Rate	
Aboriginal	370	347.4	247	235.1	
Non-Aboriginal	432	17.1	387	15.4	
Unknown	1	N/A	0	N/A	
Aboriginal:Non-Aboriginal ratio	0.9	20.3	0.6	15.2	
Total	803	30.5	634	24.3	

Rate = Crude notification rate per 100,000 population





Infectious syphilis notifications in WA by region, 2019 – 2021

Region	01 Jul 20 - 30 .	Jun 21 Period	01 Jul 19 - 30 Jun 20 Period		
Region	Number	Rate	Number	Rate	
Goldfields	34	64.5	22	41.0	
Great Southern	8	13.1	5	8.2	
Kimberley	124	353.2	92	259.6	
Metropolitan	478	22.7	403	19.3	
Midwest	19	31.0	6	9.6	
Pilbara	120	200.0	75	124.3	
South West	13	7.2	14	7.8	
Wheatbelt	5	6.6	8	10.5	
Other	0	N/A	6	N/A	
Unknown	2	N/A	3	N/A	
Total	803	30.5	634	24.3	

Rate = Crude notification rate per 100,000 population Metropolitan = East Metropolitan + North Metropolitan + South Metropolitan Other = Overseas residents diagnosed in WA Unknown = Unknown residential address within WA N/A = Not applicable

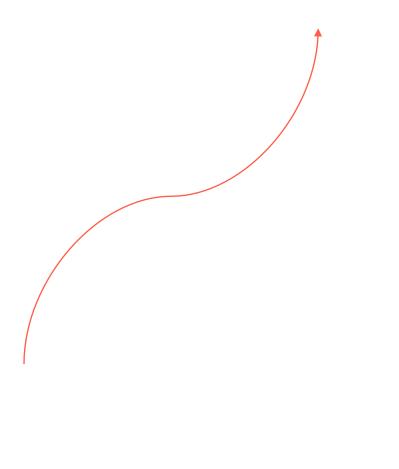
Secondary syphilis & spirochaete



Opportunistic STI & BBV testing for Aboriginal and Torres Strait Islander people

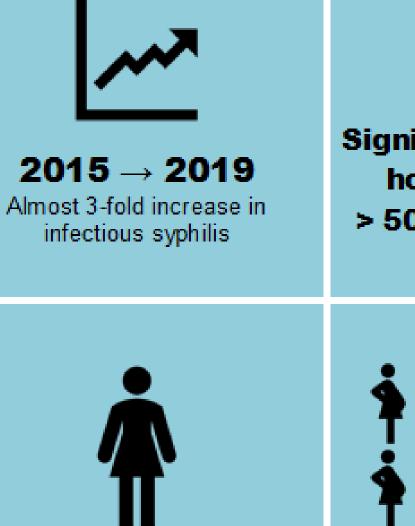








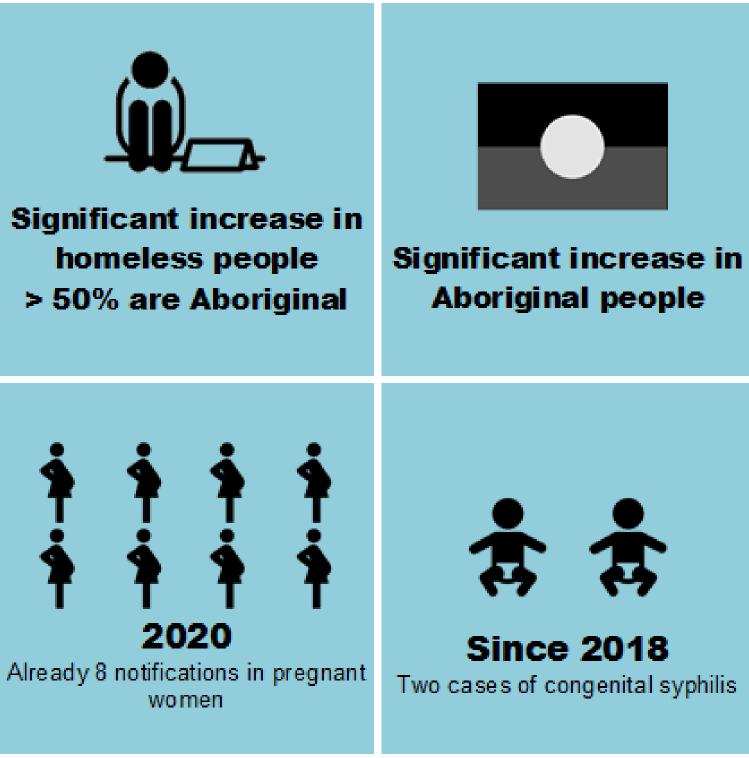
Infographic of key changes in syphilis epidemiology in vulnerable populations, Perth metropolitan area, 2015 to 15 June 2020



 $2015 \rightarrow 2019$ 6-fold increase in women of childbearing age



Source: Public Health Intelligence, Metropolitan Communicable Disease Control, North Metropolitan Health Service: Perth, Western Australia; 2020.





WA Syphilis outbreak response

□GPs should **test for syphilis** in all persons attending for diagnosis and treatment of any STI, or where screening for STIs is indicated.

□GPs and other health services working with identified vulnerable populations should offer opportunistic screening for STIs, including syphilis.

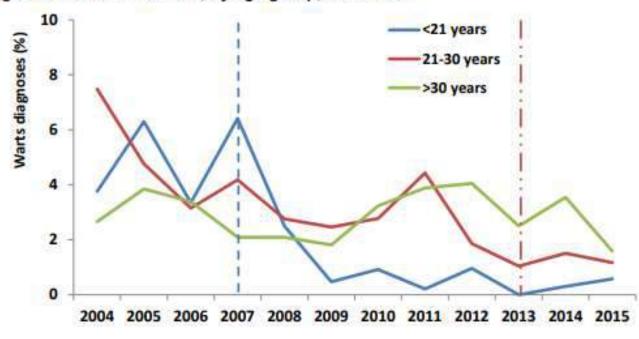
□All pregnant women should be screened for syphilis at the booking appointment and women from vulnerable and higher risk groups should also be screened at 28 weeks, 36 weeks and at delivery.

All women of childbearing age diagnosed with syphilis require a pregnancy test.

Discussion with a sexual health specialist is recommended for pregnant patients, HIV coinfection, and tertiary syphilis

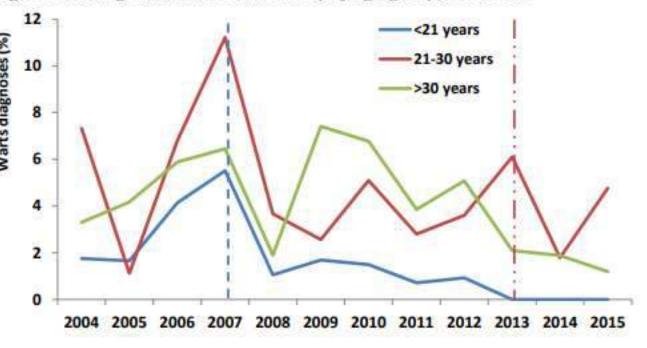
HPV & Genital warts in Aboriginal and Torres Strait Islander people, GWSN Report 2016

Figure 5: Proportion of Aboriginal and Torres Strait Islander women diagnosed with genital warts at first visit, by age group, 2004-2015



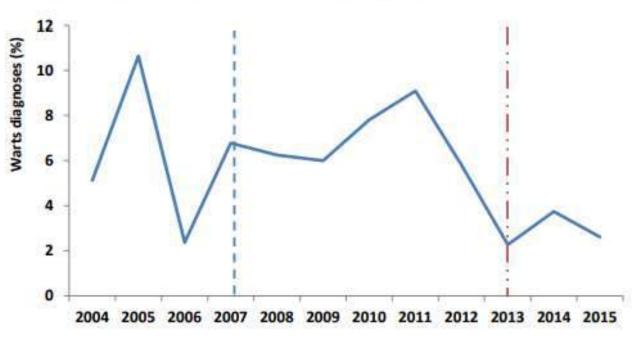
* The first dotted line represents the start of the national HPV vaccination program for women in mid-2007 and the second dotted line represents the start of the national HPV vaccination program for boys in 2013

Figure 6: Proportion of Aboriginal and Torres Strait Islander heterosexual men diagnosed with genital warts at first visit, by age group, 2004-2015



* The first dotted line represents the start of the national HPV vaccination program for women in mid-2007 and * The first dotted line represents the start of the national HPV vaccination program for women in mid-2007 and the second dotted line represents the start of the national HPV vaccination program for boys in 2013 the second dotted line represents the start of the national HPV vaccination program for boys in 2013

Figure 7: Proportion of Aboriginal and Torres Strait Islander men who have sex with men diagnosed with genital warts at first visit, 2004-2015

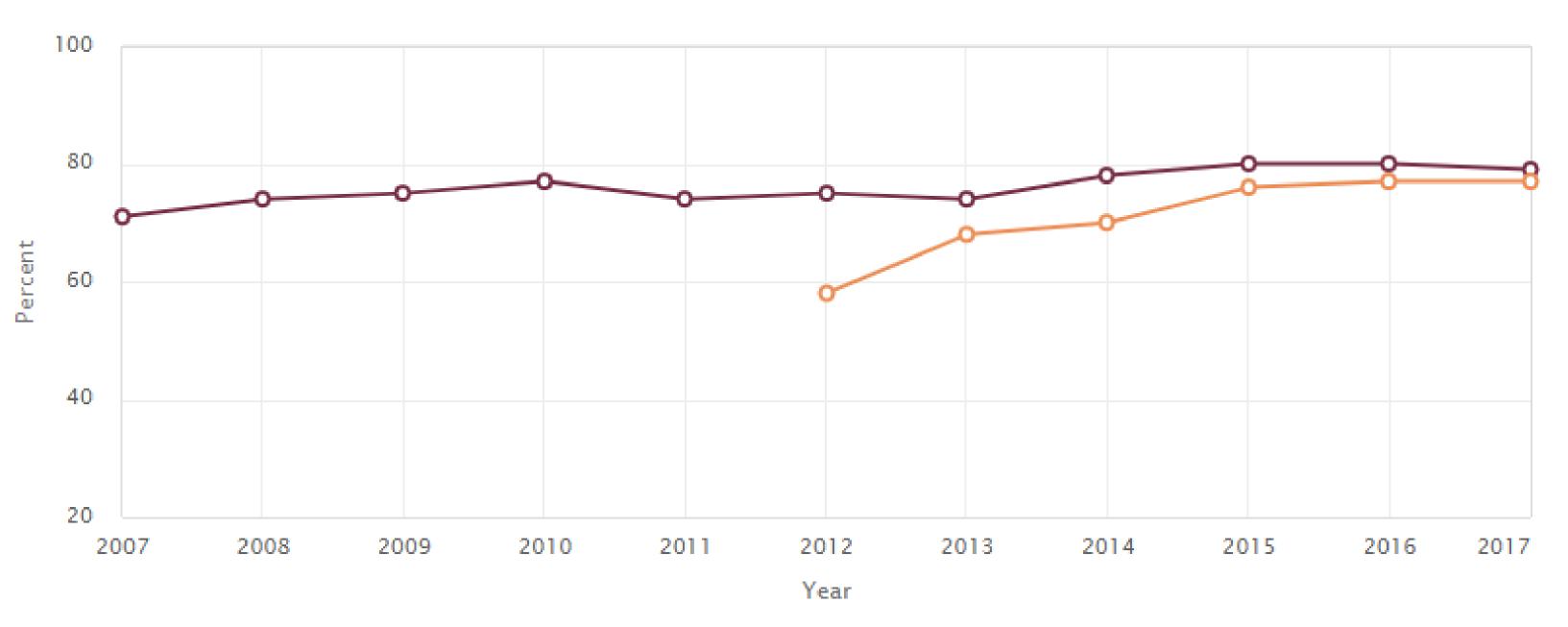




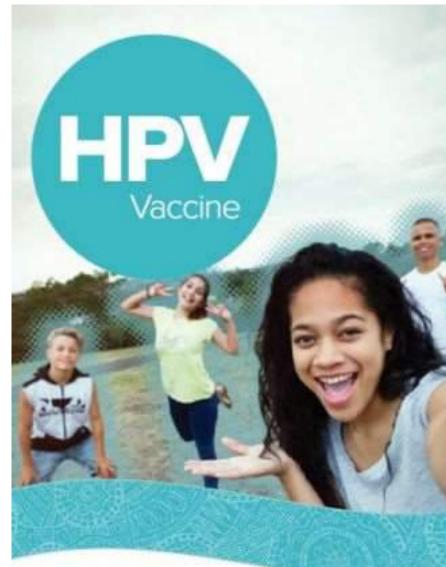
HPV vaccination (Gardasil)

In 2017, more than three-quarters of Aboriginal and Torres Strait Islander people aged 15 years old (79% of females and 77% of males) that commenced the HPV vaccination course had completed all three doses of the course.

Proportion of Aboriginal and Torres Strait Islander females and males aged 15 years that commenced the HPV vaccine course who had completed all three doses, 2007 to 2017



Source: National Cancer Control Indicators - HPV immunisation https://ncci.canceraustralia.gov.au/screening-and-immunisation/immunisation/hpv-immunisation



Let's keep our kids HPV free

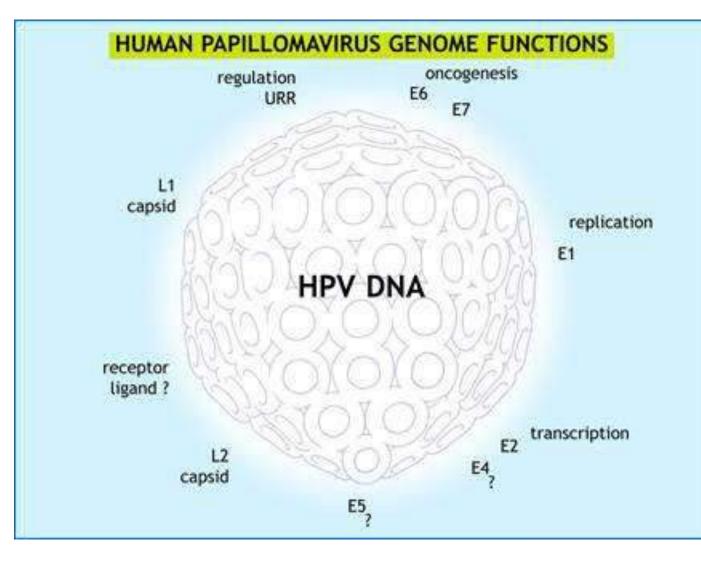
Getting the human papillomavirus (HPV) vaccine in school helps protect our kids from a range of cancers and diseases

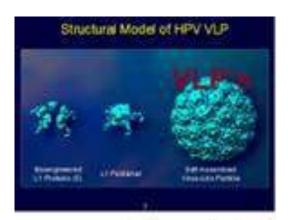
health.gov.au/immunisation





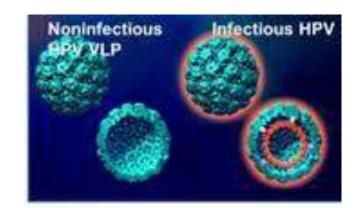
HPV & Genital/Anal Warts



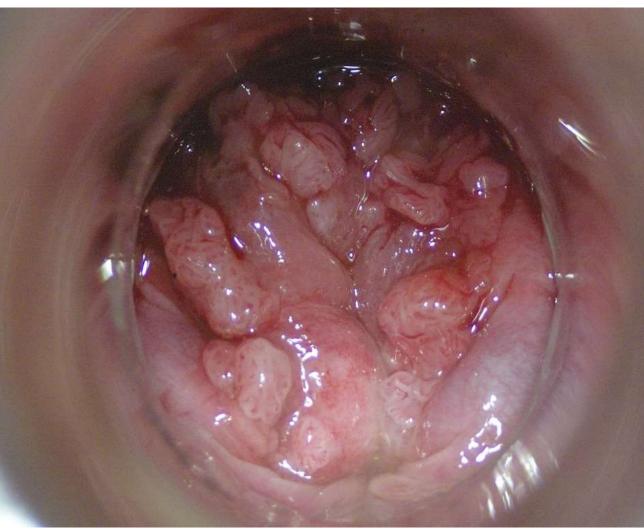


particular virus cannot cause HPV

Images supplied by Dr Jenny McCloskey



- empty virus shell, no nucleus
- man made virus look alikes
- made from L1 protein of virus coat which self assembles when made in cells
- stimulates high levels of neutralising antibodies to the
- do not cause cancer





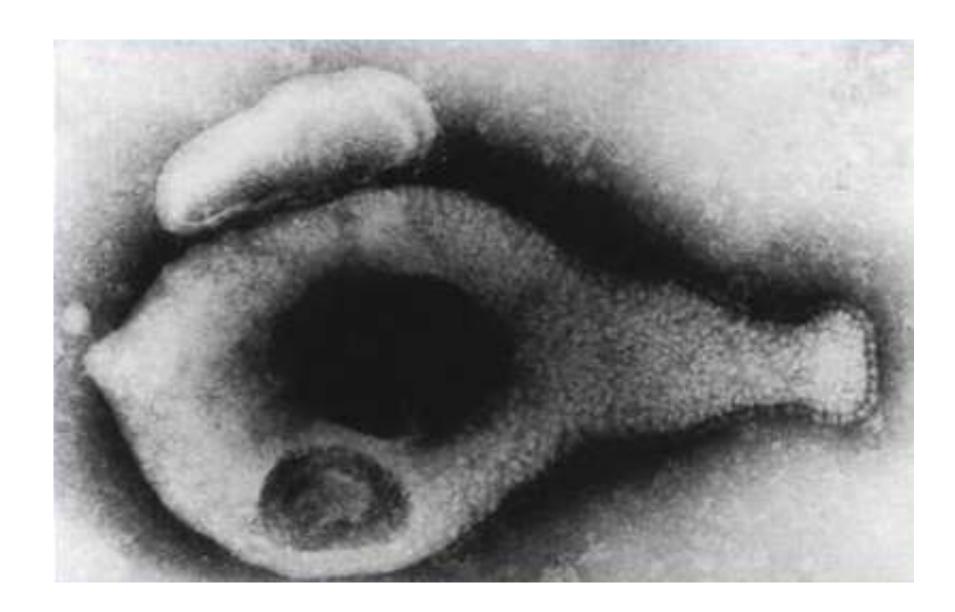


Mycoplasma genitalium (M.Gen)

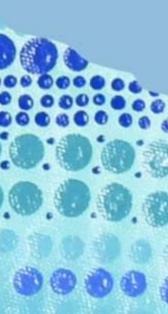
- Emerging bacterial STI evidence regarding management evolving
- Established cause of urethritis, cervicitis and PID and associated with preterm delivery and miscarriage
- Macrolide resistance is common, particularly in MSM
- Asymptomatic anorectal infection in MSM is common

Silver book - Mycoplasma genitalium https://ww2.health.wa.gov.au/Silver-book/Non-notifiable-infections/Mycoplasma-genitalium

Image provided by Dr Jenny McCloskey









Silver Book- STI/BBV management guidelines



Government of Western Australia Department of Health

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+ Notifiable infections

+ Non-notifiable infections

STI screening recommendations for priority populations

STI screening recommendations in pregnant and postpartum women

STI/BBV or HIV notification

Contact tracing

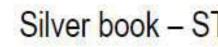
General principles

History and examination

Patient presentation and specimen collection

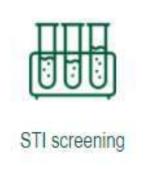
Opportunistic testing of asymptomatic men and women

Sexually transmitted infection syndromes



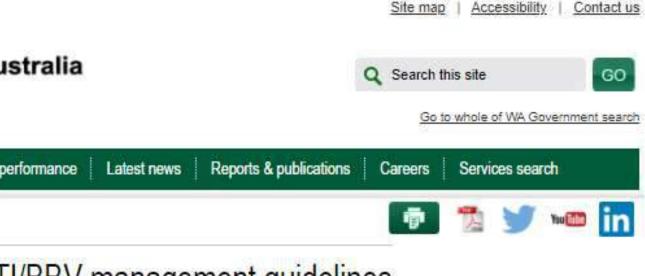
Sexually transmitted infections (STIs) and blood-borne viruses (BBVs) are significant public health concerns in Western Australia, particularly in some areas and among some populations. As part of its continued response to this issue, the Western Australian Department of Health (WA Health) is continuously updating these clinical guidelines, aiming to promote the principles of best practice to the wide range of providers who are responsible for STI and BBV management in this State.





Last reviewed: 07-05-2020

Silver book – STI/BBV management guidelines https://ww2.health.wa.gov.au/Silver-book



Silver book – STI/BBV management guidelines



Notification

Quick guides

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Produced by Sexual Health and Blood-borne Virus Program

Related links

- Quick Guide to STI testing (PDF 960KB)
- Quick reference to STI management (PDF 992KB)
- Quick guide for testing and treatment of syphilis (PDF 1.1MB)
- Patient fact sheets
- STI e-learning (external) site)
- <u>ASHM Syphilis Training</u>
 (PDF 1MB)
- Download the Silver book (PDF 2MB)

Syphilis and Pregnancy



Silver Book Quick Guides



Government of Western Australia Department of Health

Quick guide for opportunistic STI testing for people with no symptoms May 2021

Getting started with an STI discussion

Bringing the subject up opportunistically

"We are offering sexually transmitted infection testing to all sexually active people under 35. Would you like to have a test now or find out more about STIs?"

Using a 'hook'

"Have you heard about hepatitis A or B vaccines? They protect against infections that can be sexually transmitted. Perhaps we could discuss these while you are here?"

As part of a reproductive health consultation

"Since you are here today for/to discuss contraception/ cervical screening, could we also talk about some other aspects of sexual health, such as an STI check up?"

As part of an antenatal visit

"There has been a noticeable increase in pregnant women being diagnosed with syphilis. If you engaged in one of these behaviours that increase your risk of syphilis it is recommended you get another syphilis test to protect your baby."

Because the patient requests an STI checkup

"I'd like to ask you some questions about your sexual activity so that we can decide what tests to do, is that OK?" (See Brief sexual history)

Brief sexual/risk factor history*

"I'd like to ask you some questions about your sexual and lifestyle activities so we can decide what tests to do, is that OK?"

- Are you currently in a relationship?
- Tell me about the sexual partners you have had in the last 3 months.
- Tell me about your sexual partners in the last 12 months.
- Were these casual or regular partners?
- Were your sex partners male, female or both?
- Have you ever been forced or coerced into having sex against your will?"

"https://www.tacgpi.org.su/afp/2015/march/disclosures-of-sexual-abuse-what-do-you-do-next/ "Adapted from an NSW STI Programs Unit resource 2010 www.stipu.new.gov.au

- Have you had sex with a man who has sex with male partners?
- Are you homeless or couch-surfing?
- From today, when was the last time you had vaginal sex/oral sex/anal sex without a condom? ('exclude if MSM)
- In the past year, have you ever had sex in exchange for money, gifts, food, accommodation, alcohol or drugs?
- Have you previously been diagnosed with an STI?
- Have you recently travelled overseas and had sex with someone you met there?
- Have you ever been in jail?
- In the previous 6 months have you used methamphetamine?
- Have you ever injected drugs/shared needles?
- Is there anything else that is concerning you?

Consent

"I suggest that we test for ...", e.g. chlamydia, gonorrhoea and syphilis."

- This will involve a urine or swab, and blood test. Can you tell me what you understand about chlamydia, gonorrhoea and syphilis?"
- "If the result is positive, we can also talk about your recent partners being tested too."

Contact tracing

Contact tracing aims to reduce the transmission of infections through early detection and treatment of STIs.

- "From what you have told me today we now know there are two or three people out there who might be infected. Do you feel comfortable to talk to them or would you like some help?"
- "If you need some help we will need the names and contact details of your sexual partners over the last six months. These partners need to be treated, as some STIs have no symptoms".

health.wa.gov.au

Government of Western Australia Department of Health

Quick guide to **STI** management 2019



Fifth Aboriginal and Torres Strait Islander BBVs and STIs Strategy

FIFTH

National Aboriginal and **Torres Strait Islander Blood Borne Viruses and** Sexually Transmissible Infections Strategy

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2018-2022



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Islander sex workers

Priority groups

Aboriginal and Torres Strait Young Aboriginal and Torres Islander women Strait Islander people Aboriginal and Torres Strait Aboriginal and Torres Strait Islander people who live in remote communities Aboriginal and Torres People living in the cross border region of Australia Strait Islander people and Papua New Guinea who inject drugs Aboriginal and Torres Strait Islander Aboriginal and Torres people living with BBV and their Strait Islander people in household and intimate contacts custodial settings Aboriginal and Torres Strait Islander trans Aboriginal and Torres Strait and gender-diverse people, including Islander gay men and other Sistergirls/Sistagirls and Brotherboys men who have sex with men



Fifth Aboriginal and Torres Strait Islander BBVs and STIs Strategy

FIFTH

National Aboriginal and **Torres Strait Islander Blood Borne Viruses and** Sexually Transmissible Infections Strategy

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2018-2022



Priority settings

Geographic locations with high prevalence and incidence of BBV and STI, including remote communities

Places where Aboriginal and Torres Strait Islander priority populations live, work and socialise

Aboriginal Community Controlled Health Services

Community, primary, antenatal care and other health services

Custodial settings



Other services that support Aboriginal and Torres Strait Islander priority populations, including community and peer-based services, homelessness services and mental health services

Needle and syringe programs



Alcohol and other drug services





Who else?

- Patient requests testing (explore concerns)
- **Sexual history** indicates need for testing
- Symptoms & signs of primary infection or immune suppression Exclude co-infection in patients with
- hepatitis B or C, or TB
- **Diagnosed with another STI**
- **Contacts of the infections**



ASHM Clinical Tools

australian **STIMANAGEMENT** GUIDELINES FOR USE IN PRIMARY CARE

Standard STIs Syndromes asymptomatic check-up

How to use these Guidelines?

All STIs can cause disease without producing symptoms. Please refer to Populations & Situations for asymptomatic screening recommendations, Syndromes for guidance about managing specific clinical scenarios and to STIs for specific management of a diagnosed infection.

Australian STI Management Guidelines for use in Primary Care http://www.sti.guidelines.org.au/

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Populations & situations Resources

Latest Updates

Feb 2020: Updated MSM testing guidelines

Dec 2018: Pharyngeal gonorrhoea

2017/18: Annual Critical Review Complete - what's changed?

Thank you for attending

There is a wide range of resources, online training module and other trainings available to support health professionals to test, diagnose, manage and treat BBVs and STIs.

> Check ASHM's resource list https://www.ashm.org.au/resources/

Check ASHM's Online Training Modules https://lms.ashm.org.au/login/index.php

Check ASHM's Training Calendar https://ashm.org.au/training/

For more information contact education@ashm.org.au

