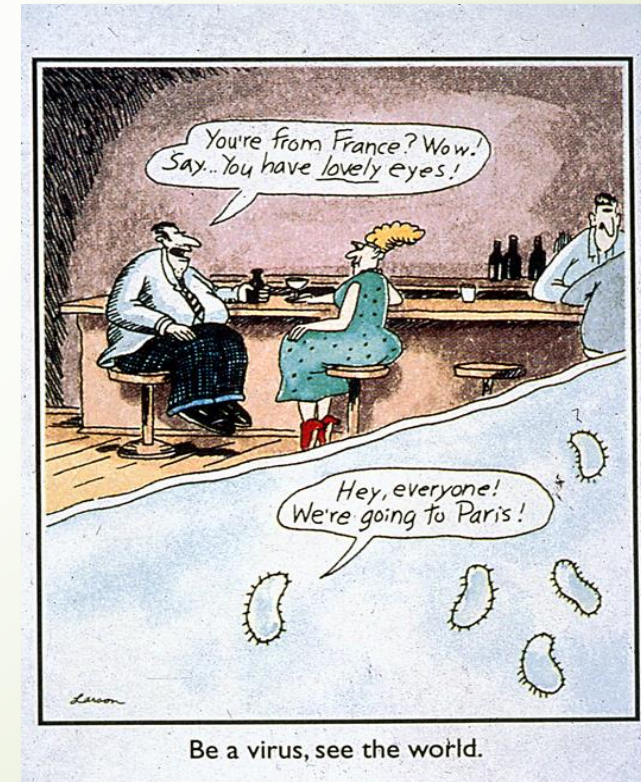


# RISING TO THE GLOBAL CHALLENGE... GONORRHOEA, SYPHILIS AND OTHER BUGS



**Warning: contains  
sexual themes  
and references!**

**Dr Heather Young**  
**Christchurch Sexual Health Centre**  
[heather.young@cdhb.health.nz](mailto:heather.young@cdhb.health.nz)





# Updates



**ashm**

Supporting the HIV, Viral Hepatitis and Sexual Health Workforce



HIV

Hep B

Hep C

STI

International & Programs

Resources

- Background: Quality STI prevention and outbreak response

## What you need to know

- STI Epidemiology and partnerships

## Where you access resources

- New STI phase-specific tools

## What you need to do



New Zealand AIDS Foundation  
Te Tūāpapa Mate Āraikore o Aotearoa



# Executive summary...

- 2017 NZSHS STI Management Guidelines encourage frequent opportunistic testing, contact tracing, NAAT use, antimicrobial stewardship and education aimed at each phase of  $R_0 = \beta c D$
- Do a lot more rectal and oropharyngeal swabs
- Actively recruit, recall and test males and outreach to venues
- Never assume the gender and number of sexual contacts – particularly if the patient in front of you is male and/or has a regular contact
- There are several new phase-specific tools to combat STIs via partnerships with other SRH organisations such as ASHM & NZAF
- We need a lot more research, surveillance data, MOH targets, KPIs, demonstration of core competencies and especially resourcing for quality SRH care

# Disclosures



**NZSHS Guidelines Writing Group  
Professional Advisory Board of STIEF  
why?**

**WHO Sustainable Development Goals (SDGs) and our moral obligation**

The image shows the cover of a WHO HRP position paper. At the top left is the WHO logo and the text 'World Health Organization'. Below it is the HRP logo (a stylized 'h' and 'r' in a hexagon) and the title 'Sexual and reproductive health beyond 2014: Equality, Quality of care and Accountability'. The subtitle 'position paper' is in a grey box. Below the subtitle is a purple box with white text: 'To advance the sexual and reproductive health and rights agenda beyond 2014/2015, inequalities must be addressed, quality of care guaranteed and accountability enhanced.' To the right of the text are three small photographs: a woman holding a child, a group of people, and a man and woman.

# The Human Impact of Effectively Addressing STIs



Combats  
antimicrobial  
resistance



Eliminates  
adverse  
pregnancy  
outcomes



Reduces HIV  
transmission



Prevents  
cancer



Decreases  
burden of  
infertility



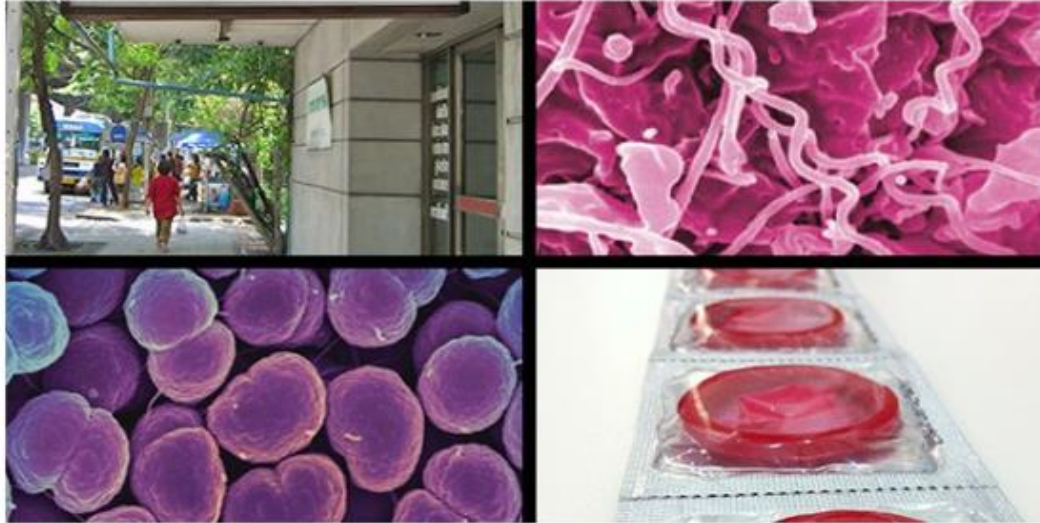
Improves  
the lives of  
people



# What are our responsibilities for quality care?



- Gender equality, women's empowerment, access to contraception, maternity and abortion services, sexual health and human rights is the heart of global development
- HIV, STIs and human rights are the major determinants of global health
- It is acknowledged that sexual and reproductive health services must be based on quality research and surveillance
- Politicians must play a part in translating the research into funding and policy – and clinicians in SRH advocacy

[< Previous](#)

## PLOS Medicine Announces a Call for Research Papers, on the Prevention, Diagnosis, and Treatment of Sexually Transmitted Infections

Posted June 12, 2017 by PLOS Medicine in [Call for Papers](#), [Collections](#), [Global Health](#), [HIV](#), [Special Issues](#)



Guest editors Nicola Low of the University of Bern, Switzerland and Nathalie Broutet of the World Health Organization, along with *PLOS Medicine* Senior Editor Richard Turner, discuss the rationale for a call for papers on sexually transmitted infections.



Lancet ID Commission  
Aug 2017  
Sexually Transmitted  
Infections: challenges  
ahead

## Sexual and reproductive health

### Scientists warn that antibiotic-resistant gonorrhoea is on the rise

#### New drugs and better preventative methods urgently needed

**07 July 2017:** Every day, more than 1 million sexually transmitted infections are acquired worldwide, and each year an estimated 78 million people are infected with gonorrhoea (1). New data from 77 countries show that antibiotic resistance is making gonorrhoea much harder – and sometimes impossible – to treat.

The data has been published in PLOS, in two new scientific articles led respectively by authors from WHO Department of Reproductive Health and Research including HRP, and the Global Antibiotic Research and Development Partnership (GARDP).



WHO/Sergey Volkov



**Mycoplasma genitalium  
testing and treatment  
guidelines required in  
resourced countries**

Only good data, evidence-based guidelines and a human rights approach to advocacy will provide the pressure to appropriately resource sexual and reproductive health for New Zealanders

We need to promote a healthy environment and direct tools at the various phases of STI epidemics

**So what are we doing in  
New Zealand...?**



The New Zealand Sexual Health Society Inc is an inclusive multidisciplinary professional body dedicated to advocating and promoting Sexual Health for all in New Zealand.



#### BECOME A MEMBER

Membership is open to anyone interested in the NZSHS



#### NZ CLINICS

Click through for a list of Sexual Health Clinics nationwide



#### GUIDELINES

Best Practice Guidelines and patient information



#### CONFERENCE REVIEW

Click here for presentations from the recent conference (2015)

### LATEST NEWS & PRESS RELEASES

#### DR PETER SAXTON AWARDED TOP AUSTRALASIAN HONOUR

 21 November 2016

NZSHS executive member and New Zealand AIDS Foundation Fellow Dr. Peter Saxton has been awarded the Mid-Career Interdisciplinary Achiever Award by the Australasian Sexual Health Alliance (ASHA). The award recognizes Dr. Saxton's very strong commitment to both leadership and to advocacy with significant outcomes achieved for patients and communities within NZ.

#### TAKATĀPUI RESEARCH AND INTERNSHIP OPPORTUNITY

 29 September 2016

An opportunity to support a Takatāpui research project and upskill a Takatāpui researcher has come about. Any queries should be directed to Professor Linda Waimarie Nikora at [Psyc2046@waikato.ac.nz](mailto:Psyc2046@waikato.ac.nz).

### UPCOMING EVENTS

#### NEW ZEALAND SEXUAL HEALTH SOCIETY 39TH CONFERENCE 2017

 07 September 2017,

 Christchurch

Call for Abstracts now open...

The 2017 New Zealand Sexual Health Society 39th Conference is being held at the Chateau on the Park, a Doubletree by Hilton from 7 to 9 September 2017. The committee are working hard on the programme so SAVE THE DATE now and bookmark the conference website [www.nzshs2017.co.nz](http://www.nzshs2017.co.nz)

[Click here](#) for conference information

[Click here](#) to download a flyer for your noticeboard



**Raising  
awareness and  
producing  
resources**  
[www.nzshs.org](http://www.nzshs.org)

**Conferences**

**Lobbying**

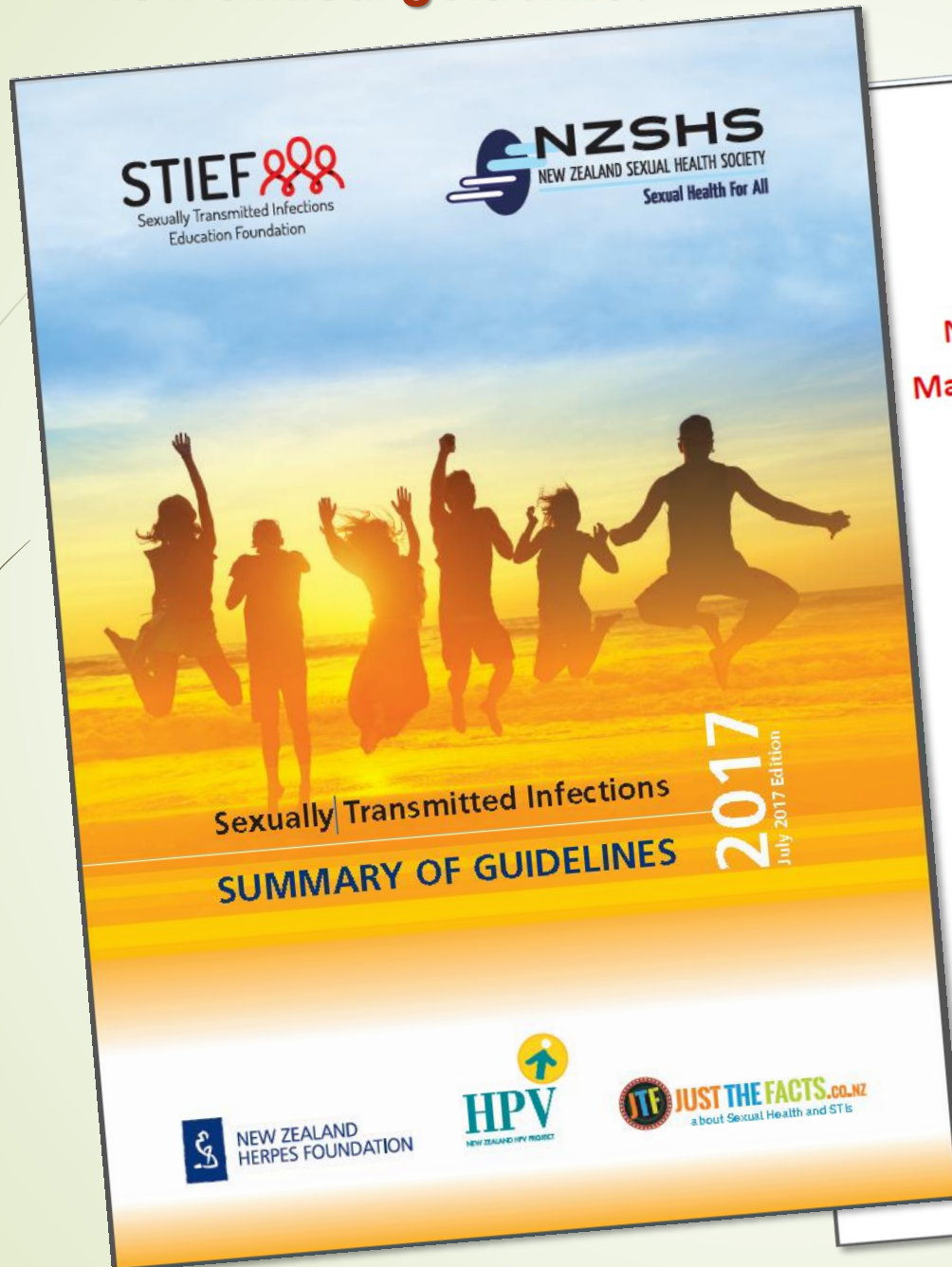
**STI information**

**Developing  
collaborative  
links**



# New clinical guidelines

[www.nzshs.org](http://www.nzshs.org)



## New Zealand Guideline for the Management of Gonorrhoea, 2014, and Response to the Threat of Antimicrobial Resistance

Gonorrhoea Guideline Writing Group  
on behalf of  
the New Zealand Sexual Health Society

<http://www.nzshs.org>

10 September 2014

“

# IUSTI-Asia Pacific World Congress 2018

In association with NZSHS and AHSM

November 1-3 Pullman Hotel Auckland 2018

”

Would you like a GP sexual health workshop??



## New videos empowering patients

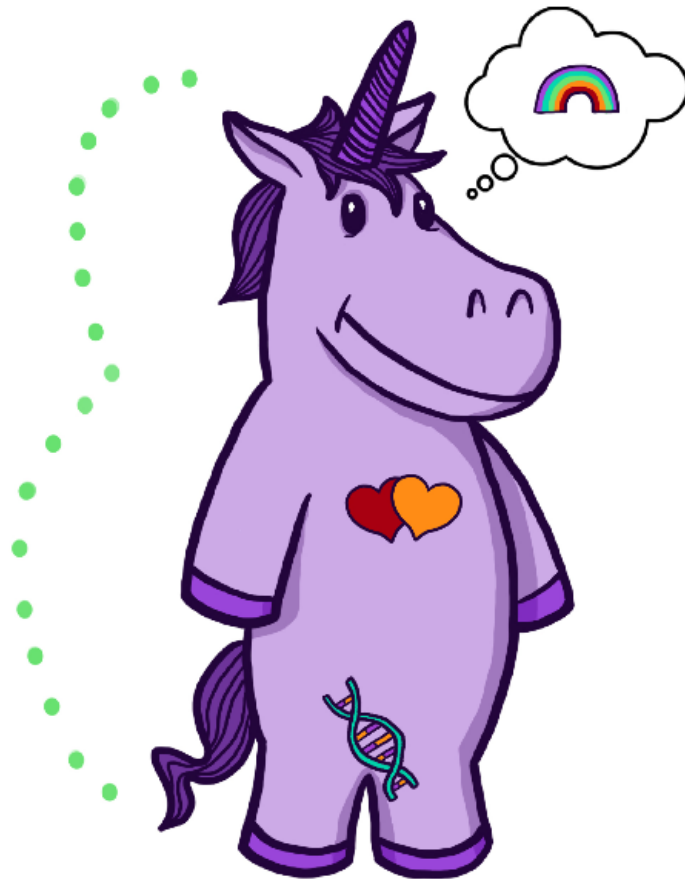
### Just the Facts videos on STI's

Check out these awesome videos to explain sexual health topics. Taken with the help of our friends at **Theta**.



# The Gender Unicorn

Graphic by:  
**TSER**  
Trans Student Educational Resources



Gender Identity



Female/Woman/Girl  
Male/Man/Boy  
Other Gender(s)



Gender Expression



Feminine  
Masculine  
Other



Sex Assigned at Birth

Female  


Male  


Other/Intersex  




Physically Attracted to



Women  
Men  
Other Gender(s)



Emotionally Attracted to



Women  
Men  
Other Gender(s)

To learn more, go to:  
[www.transstudent.org/gender](http://www.transstudent.org/gender)

Design by Landyn Pan and Anna Moore

# New Public Health Legislation

- Health (Protection) Amendment Act and the Health (Infectious & Notifiable Diseases) Regulations 2016 – public health protection from infectious diseases and formalise a contact tracing network
- Anonymised HIV, syphilis, gonorrhoea and chlamydia +ve tests are submitted by laboratories to ESR for STI data analysis.
- HIV, AIDs, syphilis and gonorrhoea are notifiable conditions: you may receive a secure website link to provide further information
- In rare circumstances of public health risk access to identifiers is available and cases can be legally required to identify contacts
- In general, contact tracing for STIs is “business as usual” \*
- There will be an STI Notification Flowchart and links from Public Health on the NZSHS website

# STI Epidemiology and determinants

The basic reproductive number

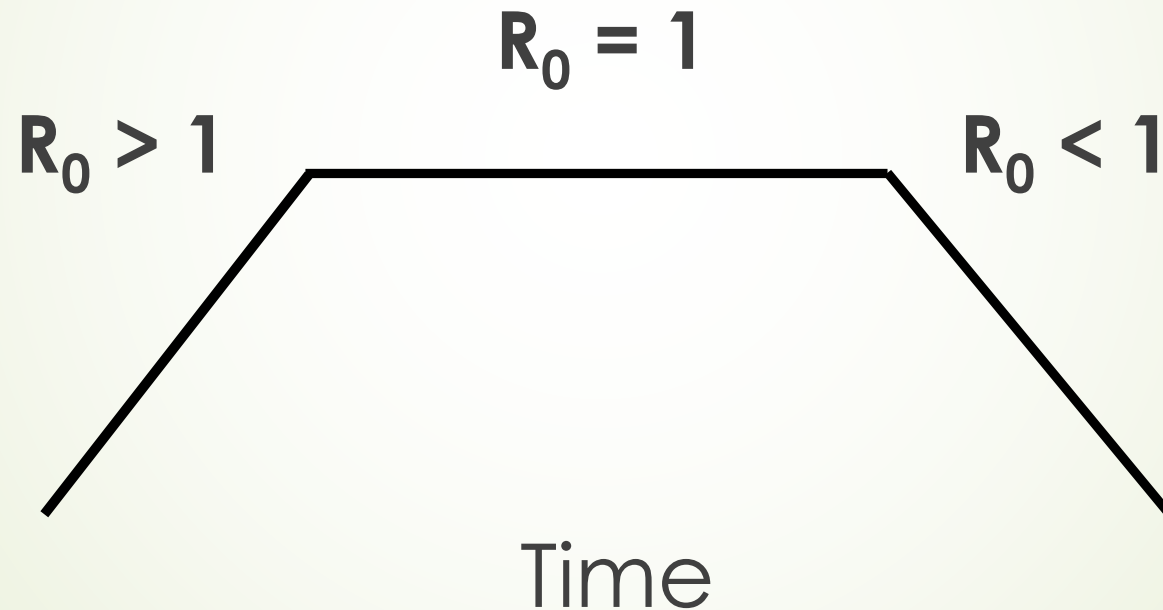
Duration of infectivity


$$R_0 = \beta \cdot c \cdot D$$

Probability of transmission per sexual act

Contact rate between susceptible  
and infected

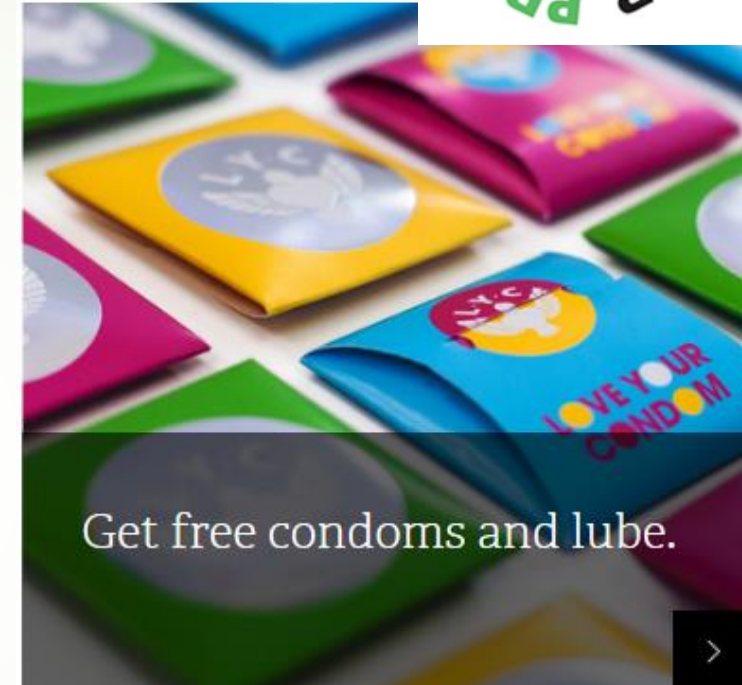
# $R_0$ Incidence of Infection over time



# β: Efficacy of condoms



➤ HIV infection	>95%
➤ Gonorrhoea	>90%
➤ Chlamydia	>90%
➤ Hepatitis B	≈>80%
➤ Syphilis	≈50-90%
➤ Genital Herpes	≈20-50%
➤ Genital Warts	≈20-50%



Get free condoms and lube.



New Zealand AIDS Foundation  
Te Tūāpapa Mate Āraikore o Aotearoa

# Tools for reducing Transmission Efficiency ( $\beta$ )

- **VACCINATION** – W.H.O. calls for vaccines against STIs
- Condoms: male and female
- “Non-penetrative” sex
- **Treatment of STI cofactors\***
- Pre-exposure prophylaxis (PrEP)
- Suppressive treatment – HIV treatment, herpes suppression
- Post-exposure prophylaxis (PEP)
- Circumcision
- Listerine gargles for MSM to prevent oral gonorrhoea

**\*See NZSHS 2017 STI Management guidelines**



PREVENTING HPV CANCERS  
BY VACCINATION:  
**WHAT EVERYONE  
SHOULD KNOW**



[www.hpv.org.nz](http://www.hpv.org.nz)

**You will need to  
actively recruit  
and recall males!**

# Meningitis vaccine may also cut risk of 'untreatable' gonorrhoea, study says

Bacteria causing two different illnesses belong to the same family and share much of the same genetic code providing unexpected cross protection



621



88

James Rudd



@jhfrudd

Monday 10 July 2017 23.30 BST



**i** One vaccine for two diseases: more than 78 million people worldwide get gonorrhoea each year with most infections in men and women under the age of 25. Photograph: Andrew Brookes/Getty Images/Cultura RF

Hopes to fight untreatable strains of gonorrhoea have risen after it emerged that a new vaccine against meningitis unexpectedly reduced the risk of people getting the sexually transmitted infection.

# Endinghiv.org/prep

- The CD4 threshold of <500 has gone from Pharmac-funded HIV drugs
- PrEP is offered in selected centres
- Truvada is licenced by Medsafe for PrEP
- Self-importation by patients - unfunded
- Truvada drug patent expires in August



New Zealand AIDS Foundation  
Te Tūāpapa Mate Āraikore o Aotearoa

PrEP IN NEW ZEALAND

## PrEP INFORMATION FOR PATIENTS

[STAY  
SAFE] + [TEST  
OFTEN] + [TREAT  
EARLY] = [ENDING  
HIV]

ENDINGHIV.ORG.NZ/PREP

# PrEP in practice: Practical guidance for general practitioners in New Zealand

Online Learning Module (duration: 40 to 60 minutes)

This online learning module provides guidance for general practitioners in New Zealand to better understand and safely prescribe PrEP.

Note: If you are a first-time user of the [ASHM Learning Management System](https://lms.ashm.org.au), you will first be directed to register as a new system user.

Click here to begin the module: <https://lms.ashm.org.au/course/view.php?id=78>



The screenshot shows the ASHM (Australian Society of HIV Medicine) online learning module interface. The header includes the ASHM logo, the text "Prescribing and managing patients on PrEP", and navigation links for "RESOURCES", "HELP", and "EXIT". The main content area is titled "Introduction" and contains the following text: "In this module you will follow the journey of a patient named Andy. You will learn the key management principles required to safely prescribe and manage patients on PrEP." Below this, there is a section titled "Related online learning module:" which links to "Becoming More Gay Friendly in your Practice Online learning module" produced by the STIs in Gay Men Action Group (STIGMA) and ASHM. To the right, there is a section titled "Meet Andy" featuring a photo of a man giving a thumbs up. The text describes Andy as a 25-year-old Caucasian male who is requesting information on 'PrEP', the new HIV prevention drug. It also notes that he has no notable medical history and is not on any medications. At the bottom right, there is a "NEXT >" button.

[www.ashm.org.au](http://www.ashm.org.au)

## PrEP online module for NZ GP prescribers

# Problems with the Concept of “core” (c)



- Is “core” individuals, a network, a group or a place?
- Scapegoating of social groups or venues
- False sense of security if you don't identify as “core” group
- The “core” differs for each STD
- “Core” membership may be transient





# Trying to Reduce Volume of New Sexual Contacts (c)

- Sexuality education, especially in schools
- HIV/safer sex messages and advertising
- Moral (and legal) restrictions on behaviour, decriminalisation of sex work, human rights
- Close venues or de-link intoxication + sex
- Add quality to relationships (community development)
- Combat pornography and violence

# Reducing Duration of Infectiousness (D)

- **OPPORTUNISTIC SCREENING\***
- Routine & targeted screens
- **Contact tracing** and empiric partner therapy
- Educating the public and professionals to respond to early symptoms
- Providing accessible, affordable and acceptable clinical services
- Better tests and treatments (**eg self-collected NAATs**)\*
- Mass treatment

**\*The “raison d’etre” for STI Management Guidelines update**

Test all sexually active persons **< 30 years** and anyone at risk. See Express STI Testing Questionnaire [www.nzshs.org/guidelines](http://www.nzshs.org/guidelines).  
Be aware of the difference between a Nucleic Acid Amplification Test (NAAT) swab (e.g. PCR) and a culture swab.

Note: Most laboratories are automatically performing multiplex NAAT testing for chlamydia & gonorrhoea (+/- trichomoniasis).  
False positive gonorrhoea results are possible in low prevalence populations – see NZSHS Management of Gonorrhoea 2017, and Response to the Threat of Antimicrobial Resistance [www.nzshs.org/guidelines](http://www.nzshs.org/guidelines).

### Recommended tests – Females

#### *Asymptomatic and/or opportunistic testing*

- Offer examination including speculum.
- Vulvovaginal NAAT swab for chlamydia & gonorrhoea testing (self-collected if not examined).
- Anorectal NAAT swab for chlamydia & gonorrhoea testing if patient has anal sex or anorectal symptoms (self-collected if not examined).
- Serology: Universal HIV and syphilis.
- Targeted hepatitis B and C serology if hepatitis B immune status unknown and risk factors present e.g. Maori, Pasifika, areas of high endemicity, IDU or incarceration [www.hepatitisfoundation.org.nz/](http://www.hepatitisfoundation.org.nz/)

#### *Symptomatic*

Examination is required for clinical assessment if symptomatic of vaginal discharge, dysuria, lower abdominal pain, abnormal bleeding, anal pain or discharge, or a contact of gonorrhoea:

- Examine the inguinal nodes, vulval and perianal skin, vestibule and introitus.
- Vulvovaginal NAAT swab for chlamydia & gonorrhoea testing prior to speculum insertion.
- Insert speculum and examine vagina and cervix.
- Endocervical culture swab for gonorrhoea (if gonorrhoea culture available).
- High vaginal culture swab for candida & BV & trichomoniasis (if NAAT for trichomoniasis not available).
- Anorectal NAAT swab for chlamydia & gonorrhoea testing if patient has anal sex or anorectal symptoms.
- Serology: Universal HIV and syphilis.
- Targeted hepatitis B and C serology if hepatitis B immune status unknown and risk factors present e.g. Maori, Pasifika, areas of high endemicity, IDU or incarceration [www.hepatitisfoundation.org.nz/](http://www.hepatitisfoundation.org.nz/)

### Recommended tests – Men who have sex with women (MSW)

#### *Asymptomatic and/or opportunistic testing*

- Offer examination, as below.
- First void urine for chlamydia & gonorrhoea NAAT testing (first 30ml), preferably  $\geq 1$  hour after last void.
- Serology: Universal HIV and syphilis.
- Targeted hepatitis B and C serology if hepatitis B immune status unknown and risk factors present e.g. Maori, Pasifika, areas of high endemicity, IDU or incarceration [www.hepatitisfoundation.org.nz/](http://www.hepatitisfoundation.org.nz/)

#### *Symptomatic*

Examination is required for clinical assessment if symptomatic of urethral discharge, dysuria, testicular pain or swelling, anal pain or discharge or a contact of gonorrhoea.

- Examine the genital and perianal skin, inguinal lymph nodes, penis, scrotum, and testes.
- Urethral culture swab for gonorrhoea (if gonorrhoea culture available) followed by:
- First void urine for chlamydia & gonorrhoea NAAT testing (first 30ml), preferably  $\geq 1$  hour after last void.
- Serology: Universal HIV and syphilis.
- Targeted hepatitis B and C serology if hepatitis B immune status unknown and risk factors present e.g. Maori, Pasifika, areas of high endemicity, IDU or incarceration [www.hepatitisfoundation.org.nz/](http://www.hepatitisfoundation.org.nz/)

### Recommended tests – Men who have sex with men (MSM)

#### *All MSM should be tested at least once a year.*

- Extragenital (pharyngeal and anorectal) testing is required irrespective of reported sexual practices or condom use.
- Pharyngeal NAAT swab for chlamydia & gonorrhoea testing.
- Anorectal NAAT swab for chlamydia & gonorrhoea testing (self-collected if not examined).
- First void urine for chlamydia & gonorrhoea NAAT testing (first 30ml), preferably  $\geq 1$  hour after last void.
- If anorectal symptoms refer or discuss with a sexual health specialist.
- Serology: Universal HIV, syphilis, hepatitis A and B (if hepatitis A and B immune status unknown).
- Targeted hepatitis C if HIV positive, IDU or incarceration.

#### *MSM who fall into one or more categories below require testing up to 4 times a year:*

- Any unprotected anal sex
- More than 10 sexual contacts in 6 months
- Participate in group sex
- Are HIV positive
- Use of PrEP or PEP
- Use recreational drugs during sex.

## “Quick and Dirty” Triage

- ▶ A downloadable **Express STI Testing Questionnaire** will be on the NZSHS website
- ▶ This may be administered by Practice Nurses, reception or at the beginning or end of a consultation or at sign-on for all new patients - in 5 minutes!
- ▶ In most cases opportunistic testing is self-collected
- ▶ Good sexual health is all about “prepping” patient’s expectations through implicit and explicit messaging of healthy sexuality – signage, posters, advertising, magazines, recalls, confidentiality, genital diagrams on the desk, RCGP (UK) standards of care...so no “bolt out of the blue”

## Express STI testing questionnaire

Please answer the following questions:

SYMPTOMS	
Do you have discharge/drip/abnormal bleeding or blood spotting from penis, vagina or bottom?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Do you have sore(s) or a rash on penis, vagina, bottom or body?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Do you have pain/discomfort when passing urine (peeing)?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Do you have pain/discomfort in lower tummy, bottom or genital area?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
RISKS	
Has a sexual contact told you they have symptoms?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Has a sexual contact told you they've been treated for an STI (Sexually Transmitted infection)?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Have you had a new sexual contact within the last year?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Do you have sexual contact with: Men: <input type="checkbox"/> Women: <input type="checkbox"/> Both men and women: <input type="checkbox"/> People of another gender: <input type="checkbox"/>	
Number of different people you've had sexual contact with in the last:    3 months: <input type="text"/> 12 months: <input type="text"/>	
Do you use condoms with casual contacts?    Always: <input type="checkbox"/> Sometimes: <input type="checkbox"/> Never: <input type="checkbox"/>	
Have you ever received anal sex?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Have you ever used needles to inject drugs (including steroids) into yourself?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Have you ever had a sexual encounter against your wishes or sexual abuse?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Have you experienced domestic violence (psychological / sexual / physical)?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Do you smoke?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
If you smoke, do you want to stop?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>

Tests are sent to the laboratory using your name and NHI number. If you do not want other health providers to see your results and prefer a coded number, then please inform the nurse.

# STI Management Guidelines Summary

- All men who have sex with men require **pharyngeal and anorectal NAAT swabs** regardless of practices or condom use
- There is insufficient evidence to recommend **pharyngeal testing in females** - other than for gonorrhoea contacts or sex workers
- There is some evidence that **anorectal NAAT swabs** should be routinely performed **in females**, but currently guidelines target testing to females who report anal sex or anorectal symptoms
- There is insufficient evidence to recommend pharyngeal or anorectal testing for heterosexual males
- **Males who attend a GP for reasons other than sexual health should be targeted for opportunistic STI screening**

# Serology

- ▶ All persons having an STI screen require HIV and syphilis serology
- ▶ Hepatitis B testing is targeted to risk groups and only if immune (Ab) status is unknown. MOH immunisation handbook and Hepatitis Foundation NZ have specific recommendations regarding groups requiring testing.
- ▶ Hepatitis C testing is targeted to risk groups: IVDU, incarceration, HIV+ve, risky MSM, blood product use

# Gonorrhoea

- Dual therapy has been the standard for gonorrhoea treatment since 2011 **irrespective of chlamydia test results** – to delay the onset of ceftriaxone resistance and to improve clearance of pharyngeal infection

**Ceftriaxone 500mg IM + azithromycin 1g P.O**

**(for uncomplicated gonorrhoeal infection)**

[www.medsafe.govt/profs/PUArticles/DruginducedQTProlongation.htm](http://www.medsafe.govt/profs/PUArticles/DruginducedQTProlongation.htm)

Pharyngeal gonorrhoea or gonorrhoea in pregnancy requires a test of cure in 3 to 5 weeks

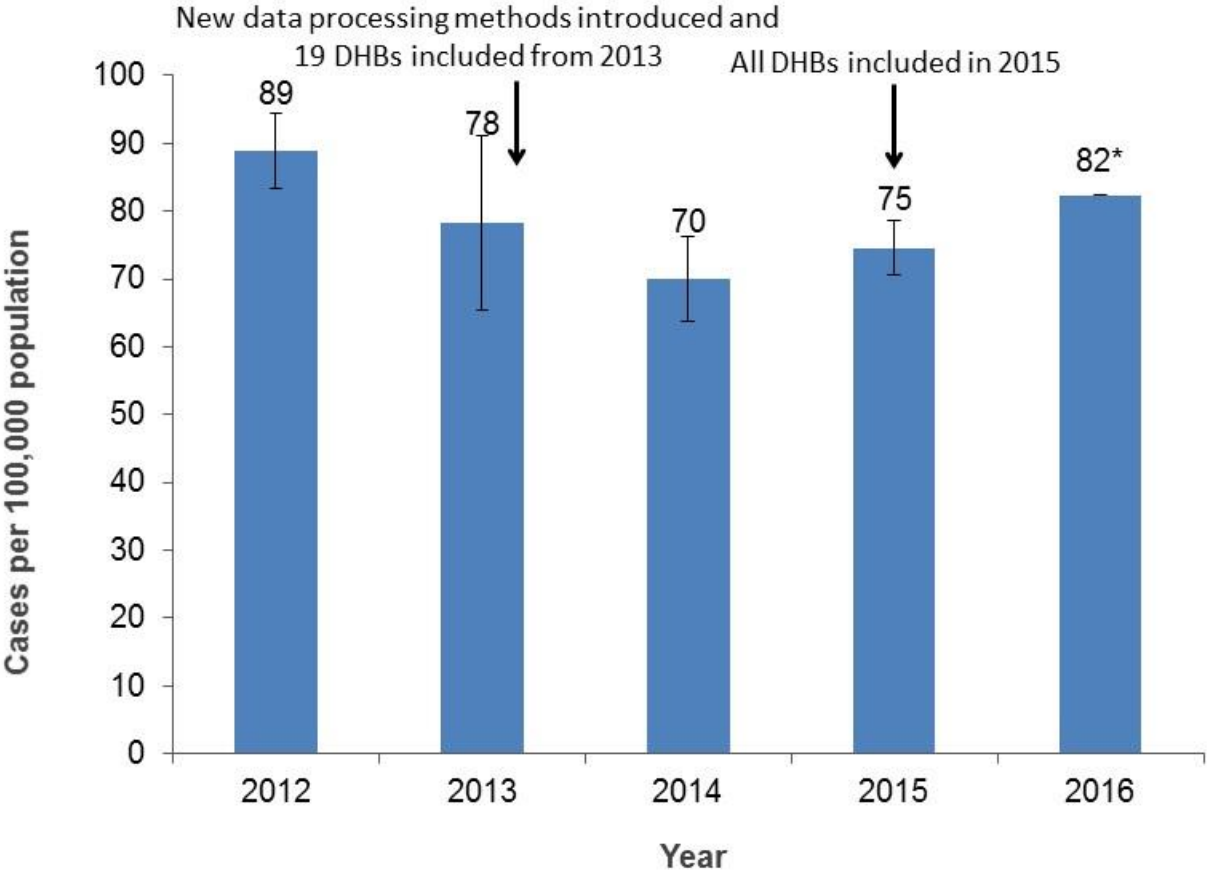
# Chlamydia

- Rectal chlamydia is treated with 1 week of **doxycycline 100mg bd**
- Evidence suggests concomitant rectal and cervical infection in females is more common than previously thought
- There is an advantage of doxycycline over azithromycin for symptomatic chlamydial urethritis but only where compliance is assured
- **Extragenital chlamydia and chlamydia in pregnancy requires a test of cure in 5 weeks**
- Rectal chlamydia with proctitis symptoms may be referred to Sexual Health Clinics for consideration of LGV testing

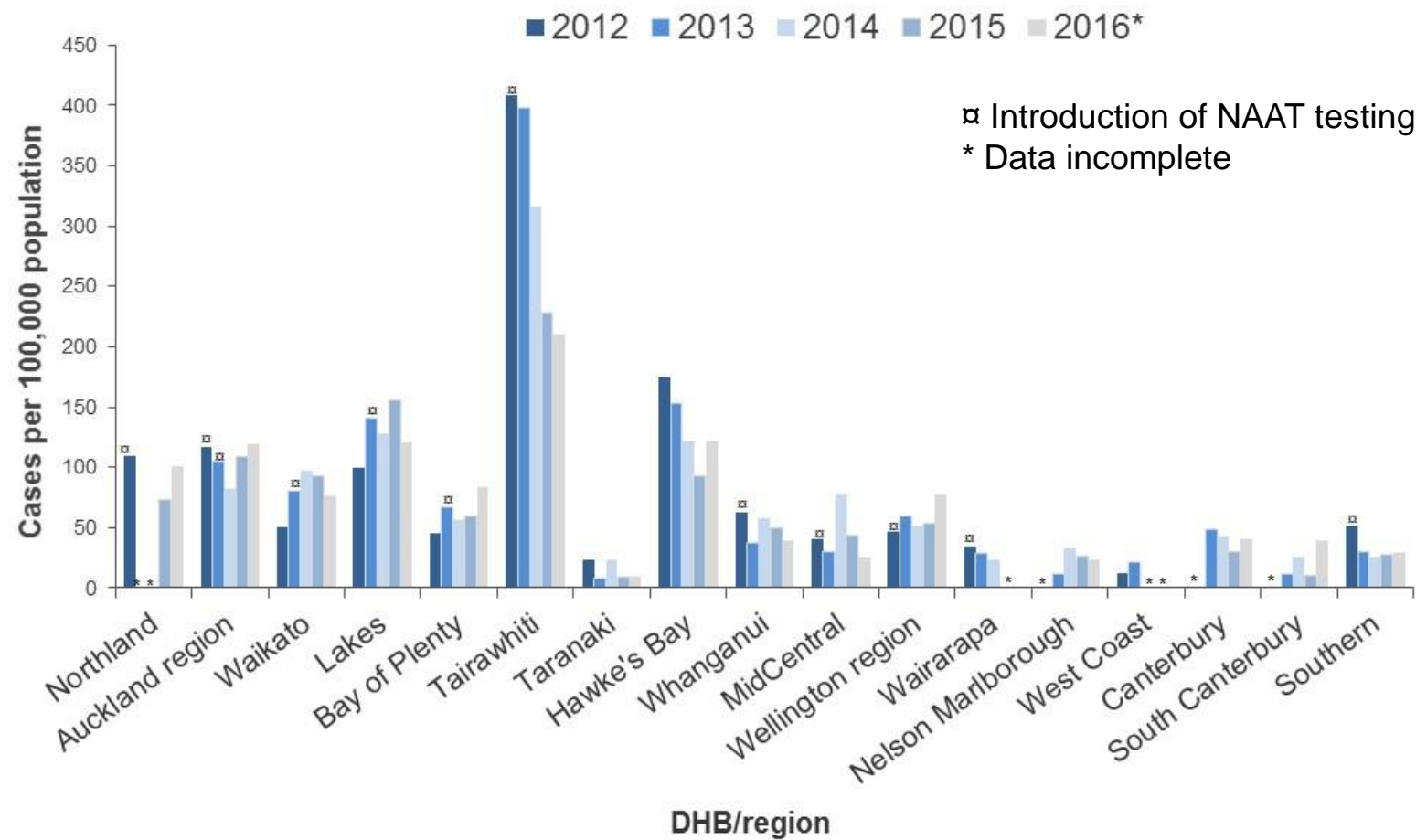
# Test for Syphilis

- All men who have sex with men (annually)
- Any male with a rash or genital symptoms
- Unusual clinical presentations eg lymphadenopathy, unexplained abnormal liver function tests, alopecia, PUO
- Any person with a rash on the palms or soles
- Any genital ulceration
- Refer painless or HSV-negative genital ulcers to the Sexual Health Clinic

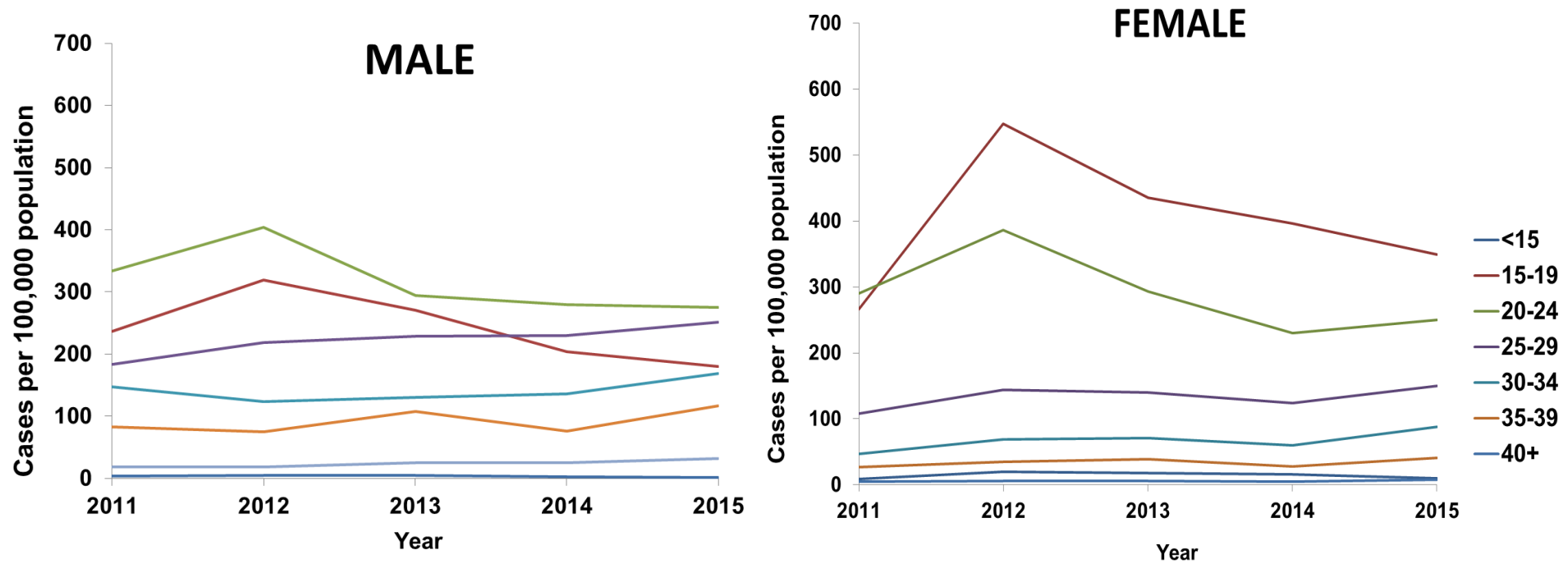
# National gonorrhoea rate, 2012-2016\*



# Gonorrhoea rates by DHB/region, 2012-2016\*

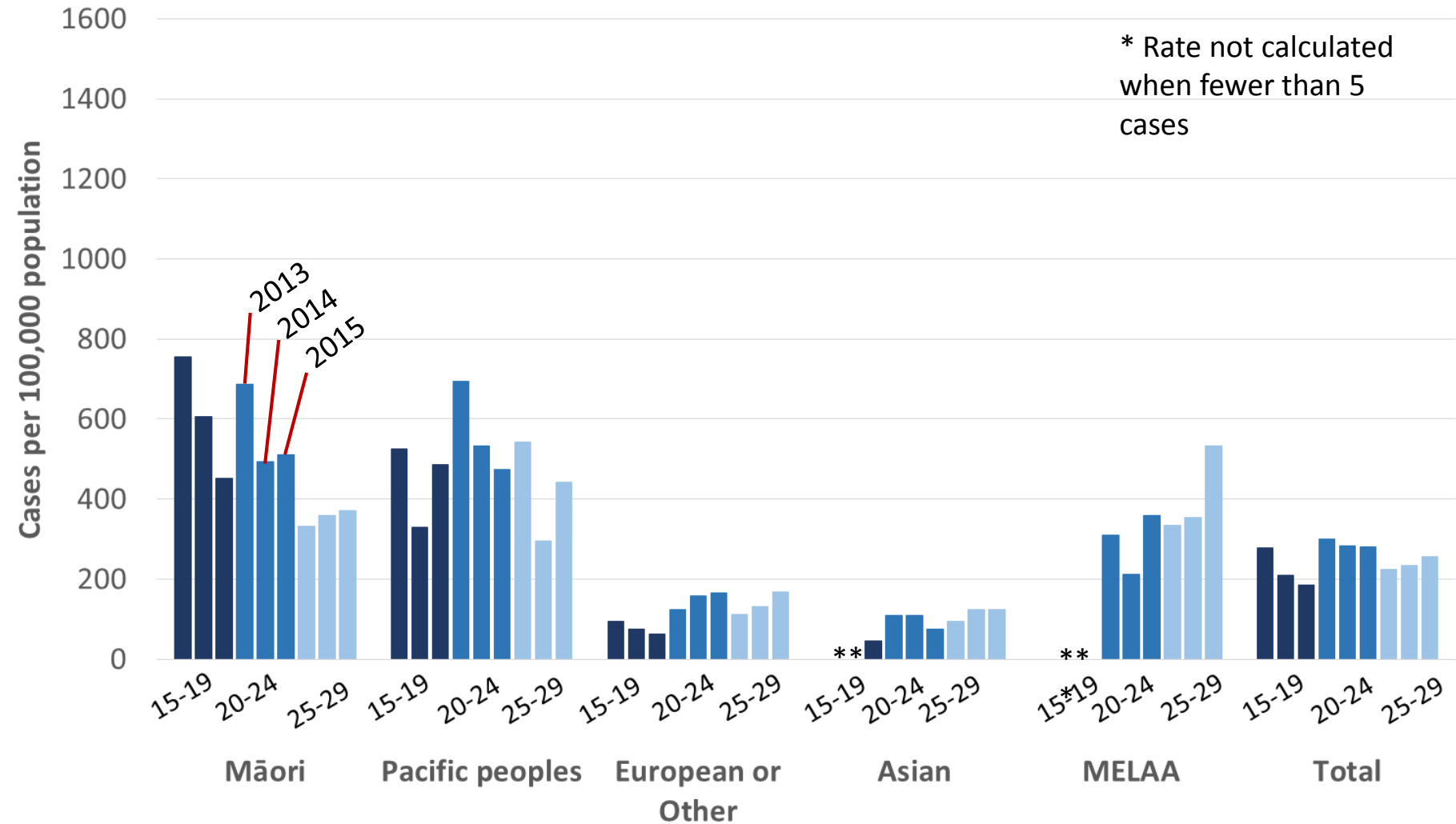


## Gonorrhoea rates by age group and sex, 2011-2015

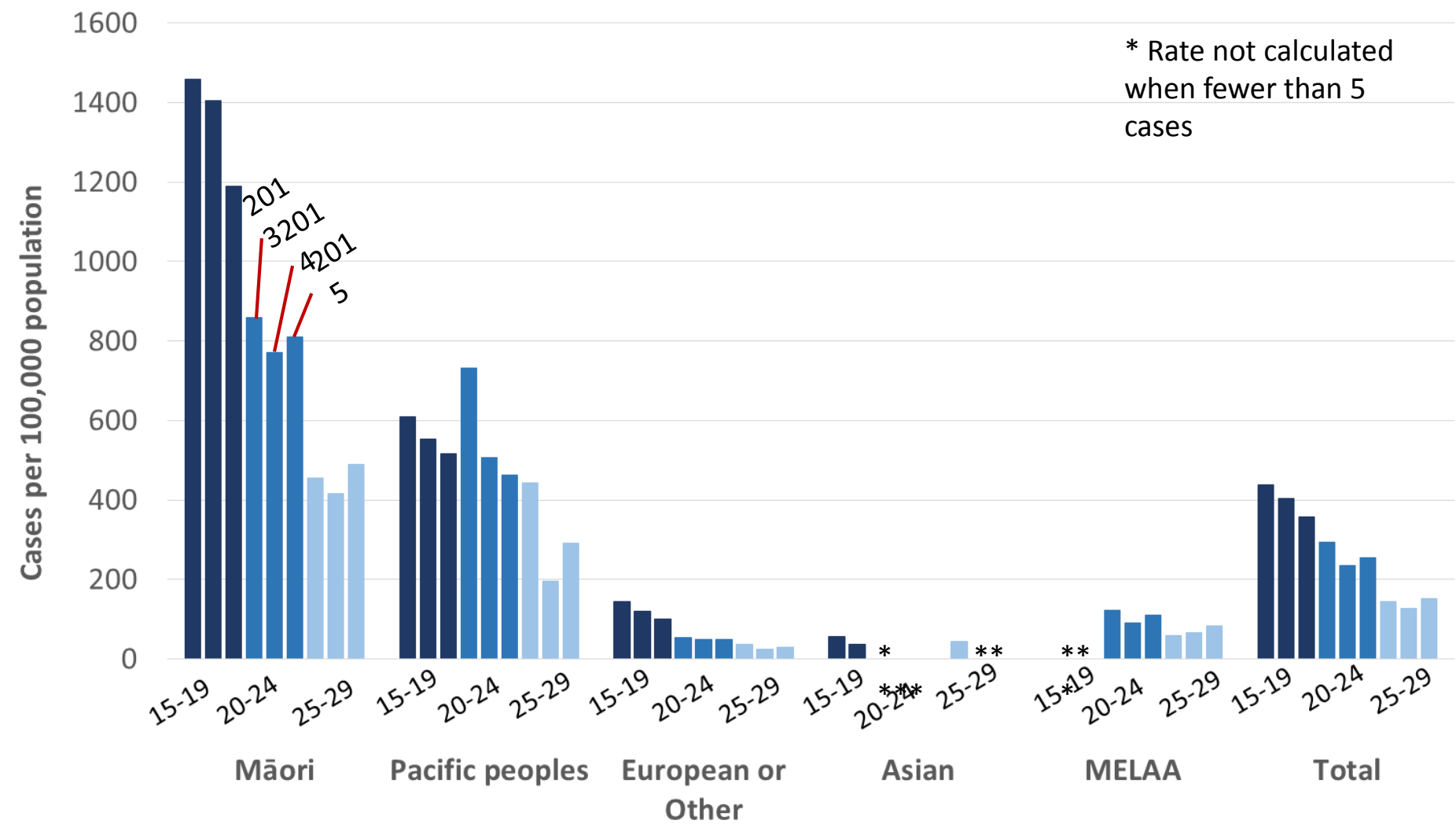


Source: Sexually Transmitted Infections in New Zealand: Annual Surveillance Report 2015

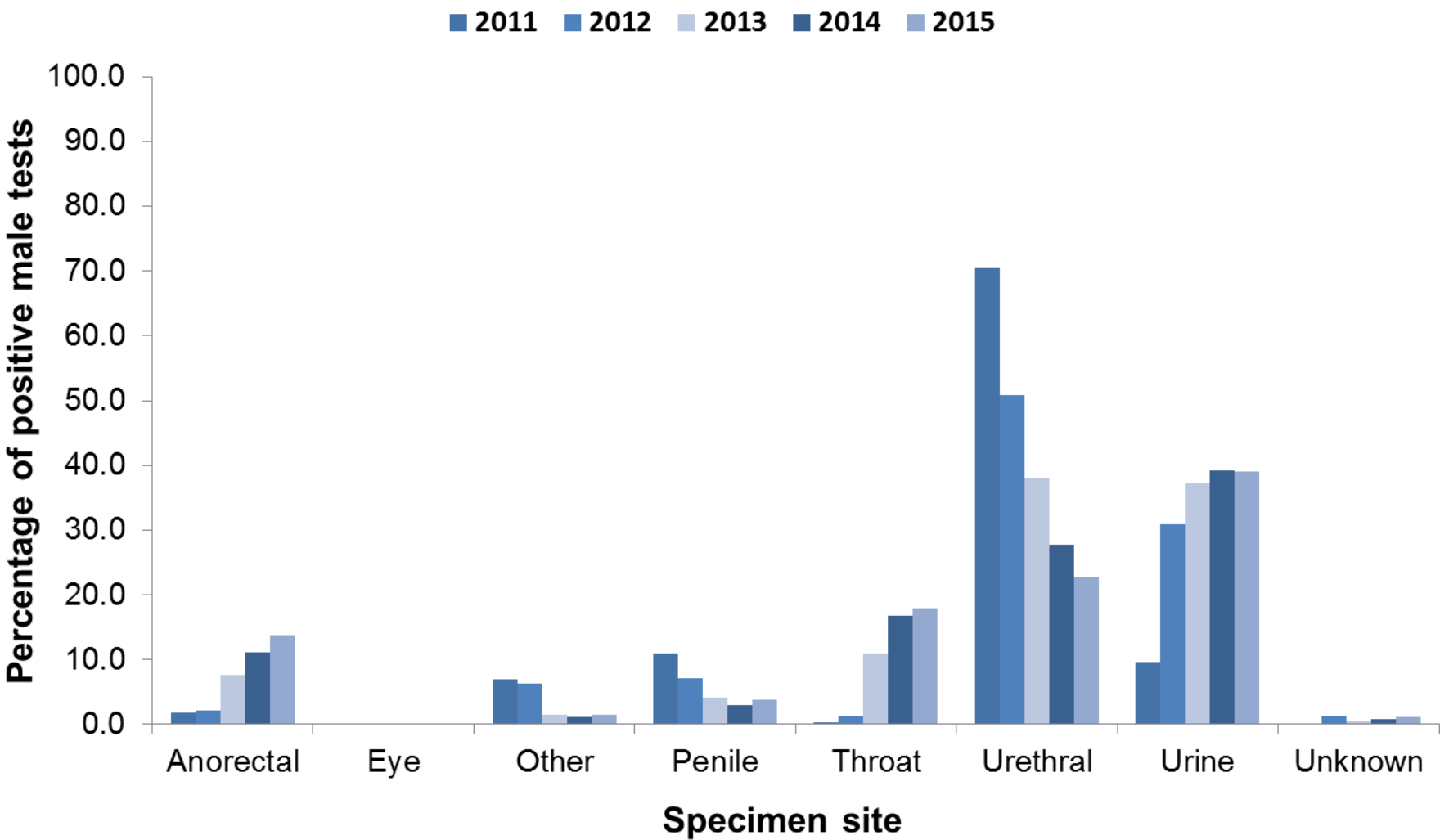
# Male gonorrhoea rates by ethnicity and age group, 2013-2015



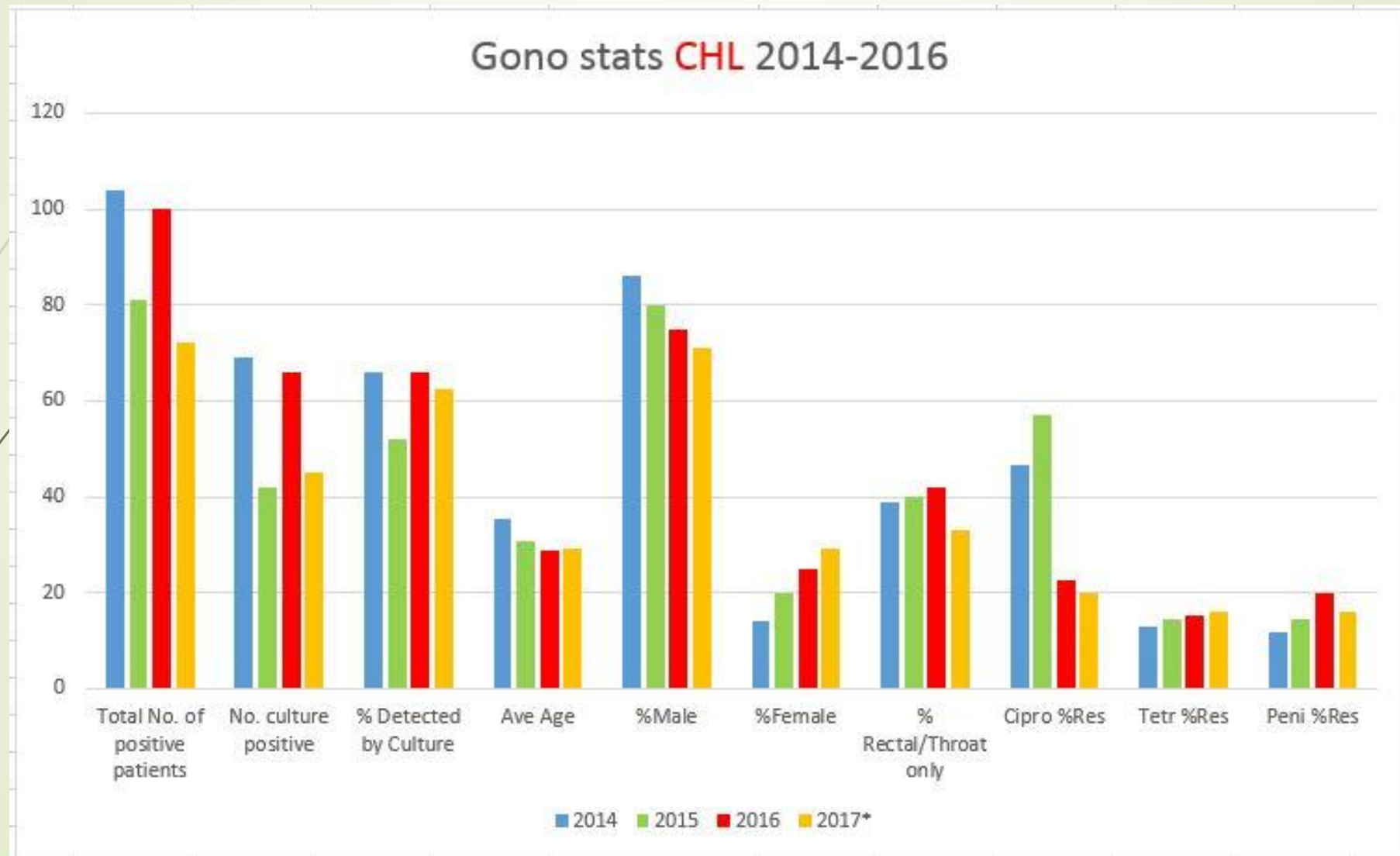
# Female gonorrhoea rates by ethnicity and age group, 2013-2015



# Gonorrhoea site of infection as a percentage of positive male tests, 2011-2015



**Outside Sexual Health Clinics the extragenital swabs are missing - particularly from males!**



**Age ranges 2014,2015,2016 all 14-65+yrs, females mean age <20yrs, male <30yrs**

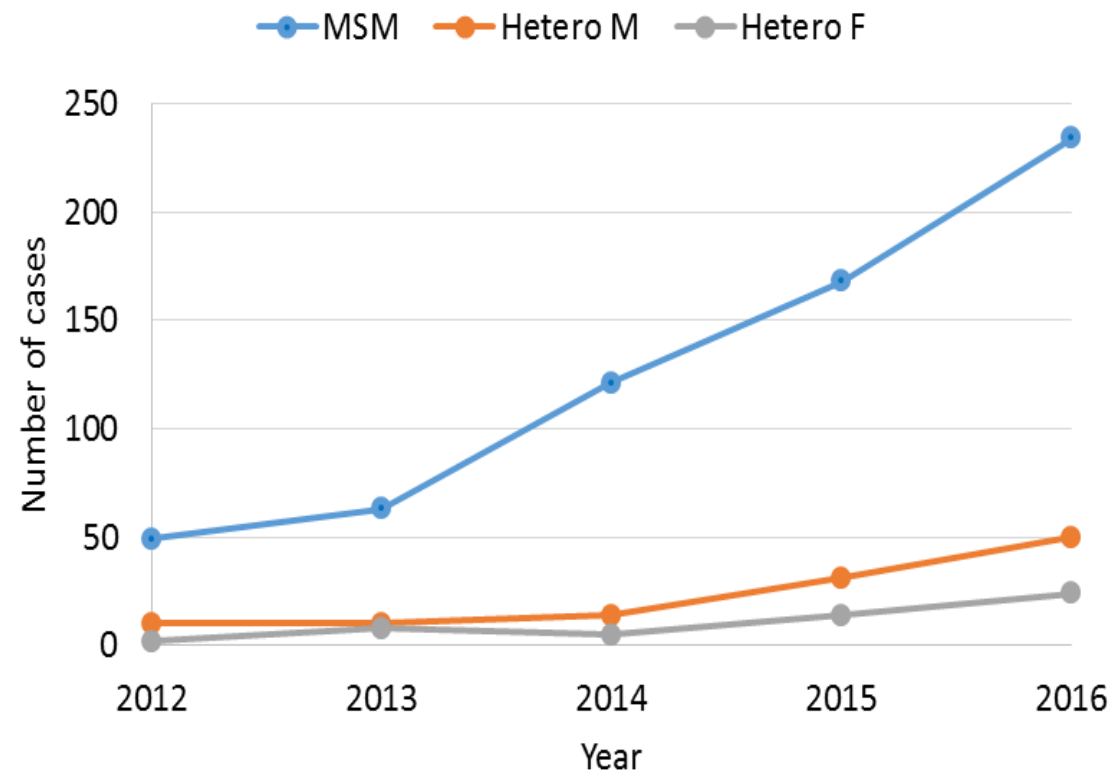
## Youth Health System Level Measure: Chlamydia Testing Coverage for 15-24 year olds - % of age group tested in one year, Canterbury DHB, 2015

[illegible]

## Youth Health System Level Measure: Chlamydia Testing Coverage for 15-24 year olds - % of age group tested in one year, Southern DHB region, 2015

Ethnicity	Age group (years)																			
	Total Specimens				Number of Laboratory-confirmed cases <sup>a</sup>				Rate per 100,000 population <sup>b</sup>				Test positivity (%) <sup>c</sup>				Coverage (% of age group tested) <sup>d</sup>			
	15 to 19		20 to 24		15 to 19		20 to 24		15 to 19		20 to 24		15 to 19		20 to 24		15 to 19		20 to 24	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Māori	105	574	188	683	30	100	37	73	2276.9	8072.3	2956.1	5975.1	28.6	18.1	20.7	11.9	6.6	28.7	10.8	35.0
Pacific peoples	24	109	48	141	8	22	12	24	2857.3	7000.0	3563.7	7574.3	33.3	21.1	25.0	17.7	7.1	23.5	9.8	30.3
Asian	26	97	72	238	2	7	3	19	-	885.0	-	1746.8	11.5	7.2	4.2	8.0	2.1	9.6	4.4	16.2
MELAA	9	24	13	55	0	2	1	6	-	-	-	4579.8	0.0	8.3	7.7	10.9	-	18.5	4.1	28.2
European or Other	620	3696	1440	5937	88	351	167	382	1038.2	4219.7	1771.2	4116.2	15.0	10.0	12.2	6.7	6.0	28.6	11.5	42.9
Unknown	40	191	211	458	6	16	32	54	-	-	-	-	15.0	8.4	15.6	12.0	-	-	-	-
<b>Total</b>	<b>824</b>	<b>4691</b>	<b>1972</b>	<b>7512</b>	<b>134</b>	<b>498</b>	<b>252</b>	<b>558</b>	<b>1178.0</b>	<b>4438.5</b>	<b>1931.0</b>	<b>4367.9</b>	<b>17.0</b>	<b>11.1</b>	<b>13.4</b>	<b>7.8</b>	<b>5.9</b>	<b>27.2</b>	<b>11.4</b>	<b>39.9</b>
<sup>a</sup> Excludes repeat tests																				
<sup>b</sup> Repeat tests for an individual excluded if test date is <6 weeks after a positive test																				
<sup>c</sup> Calculated using the number of positive specimens (includes repeat tests)																				
<sup>d</sup> Unique tests based on NHI and patient ID numbers.																				

## Infectious syphilis cases by sexual behaviour, 2011-2016\*



\*Data for 2016 provisional



# Trichomonas data????

Community prevalence studies are missing



# Executive summary...

- 2017 NZSHS STI Management Guidelines encourage frequent opportunistic testing, contact tracing, NAAT use, antimicrobial stewardship and education aimed at each phase of  $R_0 = \beta c D$
- Do a lot more **rectal and oropharyngeal** swabs
- Actively **recruit, recall and test males** and outreach to venues
- Never assume the gender and number of sexual contacts – particularly if the patient in front of you is male and/or has a regular contact
- There are several new phase-specific tools to combat STIs via partnerships with other SRH organisations such as ASHM & NZAF
- We need a lot more research, surveillance data, MOH targets, KPIs, demonstration of core competencies and especially resourcing for quality SRH care



# Thank you



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