



**MSHC**

MELBOURNE SEXUAL HEALTH CENTRE

Part of AlfredHealth

# Melbourne Sexual Health Centre is

# Annual Report 2018





Melbourne Sexual Health Centre (MSHC) is a service within Alfred Health. The vision of the MSHC is to be a leader in the management and prevention of Sexually Transmitted Infections (STIs) and its mission is to maximize sexual health through innovation and excellence in public health, education, clinical care and research.

# Overview

The MSHC has been in operation since 1918 as a specialised unit for the diagnosis and treatment of sexually transmissible infections (STIs). It is the only centre that provides full-time, free sexual health services to the people of Victoria. The Centre became part of Alfred Health in 2003. The services provided by MSHC include general clinics for the management of STIs and HIV and a variety of specialist clinics. The service provided is predominantly walk in led by nurse triage service that focuses on high risk individuals with some appointments.

## Special services provided by MSHC include:

- Medical care and community welfare support for people living with HIV
- Dermatology clinic for specialist dermatological management of genital skin disorders and dermatological conditions in HIV positive and negative clients
- Counselling services with qualified counsellors that are available for individuals or couples with concerns about sexual health and STIs, including HIV
- STI testing through a website and/or telephone consultations for young people under 25 years, men who have sex with men (MSM) and Aboriginal or Torres Strait Islanders of any age living more than 100km from Melbourne augmented by self collected specimens and postal treatment
- Express testing service for MSM, Test and Go service (TAG)
- HIV Integrated Prevention clinic (HIP)
- Outreach services for men who attend sex on premises venues.
- Nursing service for Access Health (Salvation Army) in St Kilda that provides services for marginalised people in the community. Funding by the Drug and Alcohol section of the Department of Health has been provided for 5 hours of sexual health nursing services/week.
- On-site pharmacy provided by Alfred Health
- On-site laboratory service provided by the Public Health Laboratory - Microbiology Diagnostic Unit (PHL-MDU), University of Melbourne which provides assistance to clinicians to make same day diagnoses and treatment

The team of health care providers at MSHC includes 26 doctors, 38 sexual health nurses and 2 counsellors. The clinicians play an instrumental role in screening and testing for STIs and HIV, STI and HIV prevention, education and counselling. The health care team is supported by 15 other staff members in administrative or clerical roles, IT support, pharmacists and medical scientists.

The pharmacy services at MSHC are co-ordinated by Alfred Health pharmacy services. The staff rotate at 6 monthly intervals and cover 4 campuses: The Alfred Hospital, Caulfield and Sandringham Hospitals, and MSHC.

As the population of Victoria grows, so too does the demand for the Centre's services. MSHC has continued to place importance on the provision of services that maximise access for members of the public in most need. This has been achieved through the continued provision of services that are free of charge, have greater flexibility through the use of walk-in triage and additional gains from clinical efficiency. Extra clinical services are provided for men who have sex with men (MSM), who currently constitute a major risk group for STIs in Victoria.



One of MSHC's key roles is to promote public health and education. It aims to provide material that is freely available to both the general public and health care providers, particularly general practitioners (GPs). MSHC provides support to GPs as well as the public through its web based service [www.mshc.org.au](http://www.mshc.org.au) and free-call telephone service whereby GPs can receive specialist clinical advice directly from a sexual health physician.

**The frequently updated MSHC website [www.mshc.org.au](http://www.mshc.org.au) comprises of information divided into four major sections:**

- Clinic information that includes available services recently implemented
- Sexual health for the general public
- Resources for health professionals
- Research and education

**There are also interactive online services provided:**

**For the general public:**

- [ispysti.org/](http://ispysti.org/) (iSpy STI) is a symptom checker to help users understand their genital symptoms who may have a sexually transmitted infection
- <http://letthemknow.org.au/> (Let Them Know) for assisting individuals diagnosed with sexually transmitted infections about informing their partners about their possible risk of infection. The site has numerous tools including examples of conversations, emails, SMS and letters to communicate the information as well as fact sheets
- [checkyourrisk.org.au/](http://checkyourrisk.org.au/) (Check Your Risk) to check risk of exposure to an STI
- <http://testme.org.au/> (TESTme) provides STI testing through telephone consultations for young people under 25 years, men who have sex with men (MSM) and Aboriginal or Torres Strait Islanders of any age living more than 100km from Melbourne augmented by self collected specimens and postal treatment
- [mshc.org.au/syphilis/](http://mshc.org.au/syphilis/) (Syphilis) for assisting people who may have concerns about having contracted or have been diagnosed with syphilis. The site has detailed information about symptoms and treatment of syphilis, photographs and information on reducing risk and informing partners
- [healthmap.org.au/](http://healthmap.org.au/) (Health Map) for HIV positive people to find out what tests are needed and also what issues should be on the agenda at the next visit to the doctor or clinic. Health Map asks questions about health and provides a personal report, based on expert advice. This report directs users to chosen websites for particular needs, and provides some facts and a "to do" list for medical care
- <https://wgodt.com.au/> ('What's Going On Down There?') information for women about vaginal health, symptoms and information for women who have been diagnosed with BV or thrush

**For general practitioners:**

- Online STI atlas <https://stiatlas.org/> is a free, open access online atlas showcasing MSHC's extensive library of clinical images aimed at improving diagnoses of STIs for health care providers internationally
- (GP Assist) provides a mechanism to improve partner notification by providing the web address on laboratory reports of positive results of common STIs. Accessible information about treatment of the more common STIs and simple tools such as partner letters and fact sheets for GPs to use in discussing partner notification are also available at this site
- <https://www.mshc.org.au/images/downloads/stiTool.pdf> This Tool has been prepared as an aid for GPs, providing simplified guidelines for STI screening and for dealing

with common symptomatic presentations. The PDF file may be downloaded to allow offline access, both desktop and mobile, but please make sure you have the latest version. The Tool is an ongoing project and will be updated frequently.

- Treatment guidelines [www.mshc.org.au/health-professionals/treatment-guidelines](http://www.mshc.org.au/health-professionals/treatment-guidelines)

### Online training and education resources for health care professionals:

- Educational videos (see list Table 1) and audios for management of common sexual health issues such as treating genital warts and diagnosing PID, taking a Papanicolaou smear, symptoms of acute HIV, and examples of partner notification explanations to clients [www.mshc.org.au/Education](http://www.mshc.org.au/Education)

**Table 1 List of educational videos for health professionals**

1. MSHC Orientation	A brief description about what happens at Melbourne Sexual Health Centre
2. Chlamydia - introducing the test	How to introduce the recommended annual chlamydia test in a non sexual health consultation
3. Chlamydia in general practice	Who, Where, When and Why An update on a previously recorded - chlamydia testing video
4. Sexual health check up	Sexual health checkups for asymptomatic patients
5. PID	Pelvic inflammatory disease - diagnosis and management
6. Partner notification	Assisting patients to contact their partners
7. Warts removal	Treating warts by cryocautery
8. Warts treatment	Wart treatment
9. Laboratory diagnosis of STIs	Laboratory diagnosis of sexually transmitted infections
10. Sexual health examination	Sexual Health Examination and Normal Variants
11. HSV	Genital herpes
12. Cervical sampling	A clinicians guide to taking a Pap Test

**Table 2 List of educational audio presentations for health professionals**

Adolescent Sexual Health
Genital Chlamydia
Management of Vulvar Pain
Pap Smear Terminology
Sex Worker Screening
Type-Specific Herpes Serology
MSM Screening

The Centre also fulfills an important role as a principal centre for the training of health professionals in Victoria through Dr Hennie Williams at Melbourne University.

The teaching and sexual health courses remain with The University of Melbourne.

MSHC places a premium on the provision of high quality services that are responsive to client needs. To this end, the Centre is active in quality assurance activities, which include an annual client satisfaction survey, where 98% of clients in 2018 expressed satisfaction with the service.



# Director's report 2018

Welcome to our 2018 annual report. This year our extraordinarily committed staff provided 55,862 consultations to the public we serve. But this year I think we all felt that the demand for STI services was beyond what we could provide. We still achieved a 98% satisfaction rating but the rising demand meant we had to direct clients to other services or ask them to return another day. I imagine if we asked them what they thought of not being seen; they would have been less kind.

We have tried hard over many years to streamline the service and improve its efficiency. This year Ian Denham has developed a new service in triage. We plan to start in 2019 where clients who we cannot see on the day can receive the standard STI testing that is bulk billed privately through external service providers. We would follow up the results of these but it would allow clients to receive the testing they want without a consultation here. We are also utilizing our substantial IT skills to develop new ways of providing advice to clients without necessarily seeing them. Janet Towns and collaborators at Monash have developed a website ([spysti.org](http://spysti.org)) that provides symptomatic individuals with a list of likely diagnoses and a referral letter to see their general practitioner for testing and treatment. This builds on the many of our successful sites such as [checkyourrisk.org.au](http://checkyourrisk.org.au) and [letthemknow.org.au](http://letthemknow.org.au) which are now widely used around Australia.

We have had a very successful year this year with staff recognition. Nick Medland, Vincent Cornelisse and Jane Goller all were awarded their PhDs' and Kate Seong was awarded her Masters. Peter Hayes received the Alfred Health Award recognising excellence for patient centred care and two members of staff including Stephen Kent were elected as fellows to the prestigious Australian Academy of Health and Medical Sciences. Lenka Vodstrcil and Rosie Latimer received a number of grants for young investigators, and Erica Plummer, Jade Bilardi also received grants, scholarships or prizes. Eric Chow received the UTS Alumni Award for Excellence 2018, Faculty of Science, University of Technology, Sydney. I was lucky enough to be recognised in the Officer of the Order of Australia (AO) honours and wanted to very gratefully acknowledge that this occurred in large part because of work many of us have done together. We published 112 papers in 2018, received a substantial number of research grants and many of the staff spoke at international research meetings around the globe. There is little doubt that internationally 'Melbourne Sexual Health Centre' has a well-recognised reputation for excellence. Thank you for supporting the research staff in these endeavours through recruiting participants into the large number of clinical studies.

We said thank you and good bye to Jun Kit Sze, who had been with us since the early days. He was responsible for developing some of the IT successes and efficiencies we have had over time and had been part of a number of prizes for this work. We wish him well and welcome Rashidur Rahman who has quite exceptional skills in IT organizational work. We also lost Tim Read to politics. He was elected to the Victorian Parliament for a 4 year term. Tim you have contributed so much to MSHC in the 21 years with us and it is not possible to describe it all. He was a great clinician, a great researcher, a hard worker and just a down right decent bloke. Tim made major contributions in so many areas including publications involving; *Mycoplasma genitalium*, warts, hepatitis A, herpes, gonorrhoea, chlamydia and so much more that was published in great journals; British Medical Journal, Clinical Infectious Diseases and Emerging Infectious Diseases. Tim is one of the great thinkers of the world, quietly asking razor sharp questions that disarmed us all.

But most of all thank you to our outstanding staff. The clinical load that our Centre and staff are facing seems to be rising without a clear solution. We look forward to the outcome of the Victorian Government review of Sexual Health Services and the changes to increase sexual health capacity in the state.

# Services and consultations

The numbers of consultations by type of service provided onsite are shown in Table 3. A further 326 outreach consultations were carried out offsite at various venues for men-who-have-sex-with-men (MSM) and Access Health services for marginalized people.

**Table 3**

Clinic Type	Total	Male	Female	Transgender
General Clinic	51,307	34,841	16,021	445
HIV Clinic	3,571	3,189	355	27
Counselling	984	738	244	2
Total	55,862	38,768	16,620	474
<i>Individuals</i>	<i>27,248</i>	<i>17,718</i>	<i>9,327</i>	<i>203</i>

## Diagnoses

The numbers of the most frequently made diagnoses in consultations are shown in Table 4.

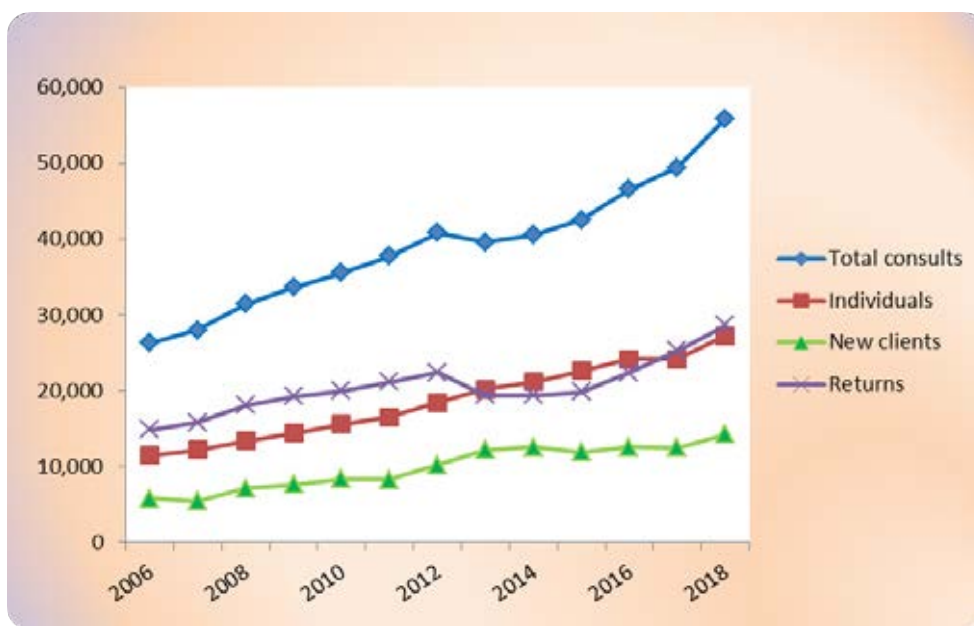
Gonococcal and chlamydial infections included are individuals with a newly diagnosed infection and may have more than one site of infection. Those returning with a new infection following successful treatment are included as a new diagnosis.

**Table 4**

Diagnoses	Total
<i>Chlamydia trachomatis</i>	3,496
Neisseria gonorrhoea	2,333
Non gonococcal urethritis (NGU)	2,273
Herpes	1,249
Infectious syphilis	361
Bacterial vaginosis	1,126
Warts	1,509
HIV new cases	65
PID	366
Mycoplasma genitalium	485
Lymphogranuloma venereum	21
HIV PEP	1,303
PCI	61
Gonorrhoea in women	249
Trichomoniasis in women	48
Infectious syphilis in women	14

The numbers of consultations continue to rise with the number of individuals steadily increasing (Figure 1). In 2015, there were 42,466 consultations in total; 46,564 in 2016, 49,370 in 2017 and 55,862 in 2018. There was a marginal decrease in consultations in the General Clinic from 36,528 in 2012 to 35,072 in 2013 and in 2014 35,836. Since 2015, consultations in the General Clinic have risen from 37,859 to 51,307 in 2018 (Table 3). The number of returning clients remained at approximately the same level from 2013 (19,410 to 19,851 in 2015) after a significant reduction in returning clients in 2012 as a result of changes to sexworker health checks from monthly to 3 monthly in October 2012 and the change in policy of HIV negative results for all clients being provided by telephone consultations from the beginning of 2013. Since 2016, there has been a significant increase in returning clients (22,422 to 28,614 in 2018). This may be the result of the introduction of the Test and Go (TAG) and HIV Integrated (HIP) services.

**Figure 1** Increasing numbers of clients each year

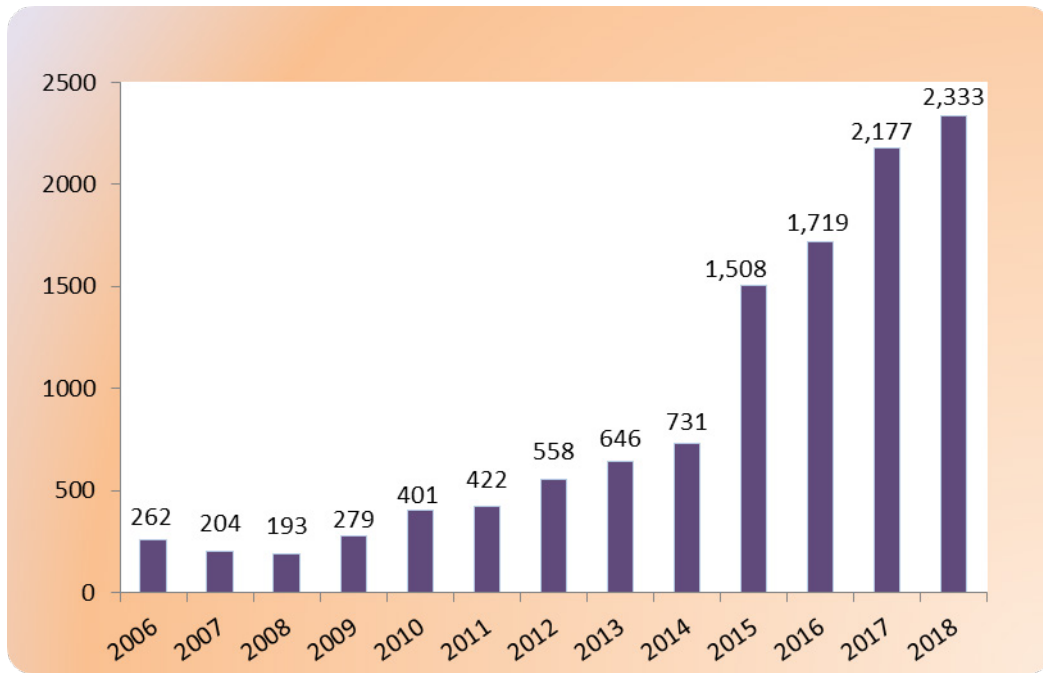


The numbers of positive chlamydia and gonorrhoea tests have also increased (Figure 2 and 3) as well as the number of infectious syphilis cases (Figure 4).

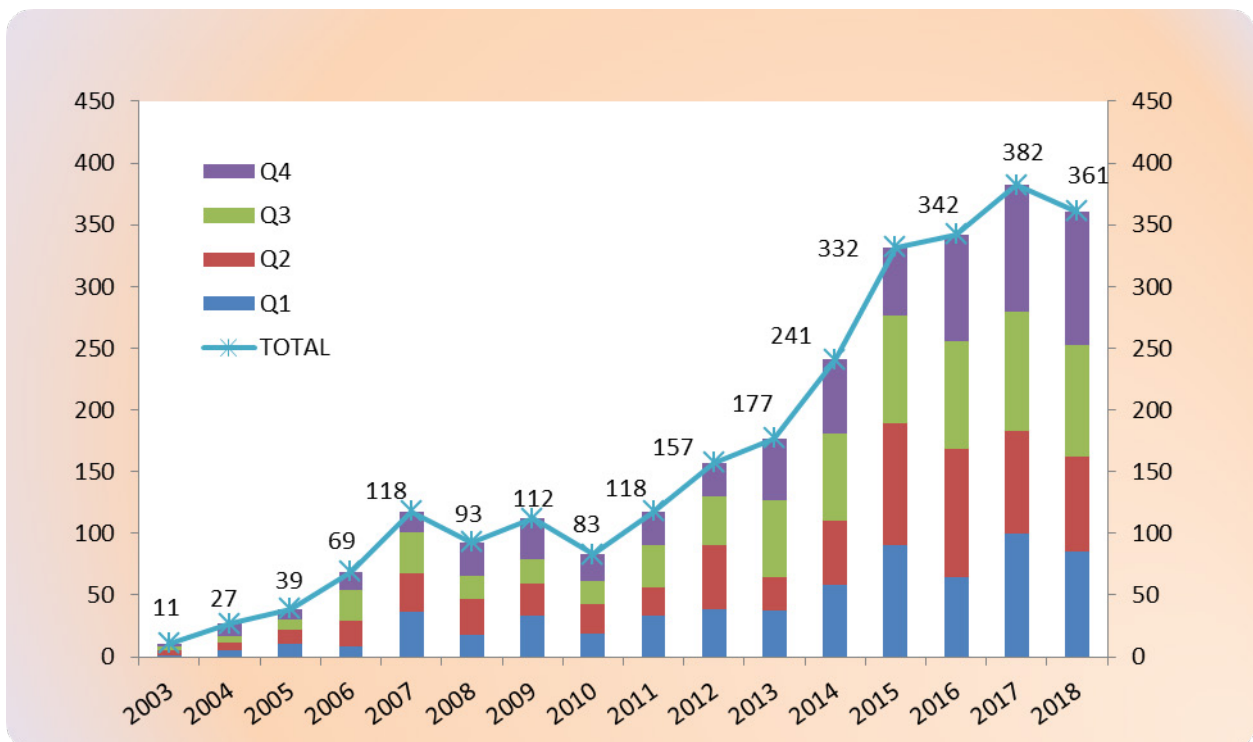
**Figure 2** Number of positive chlamydia tests by year



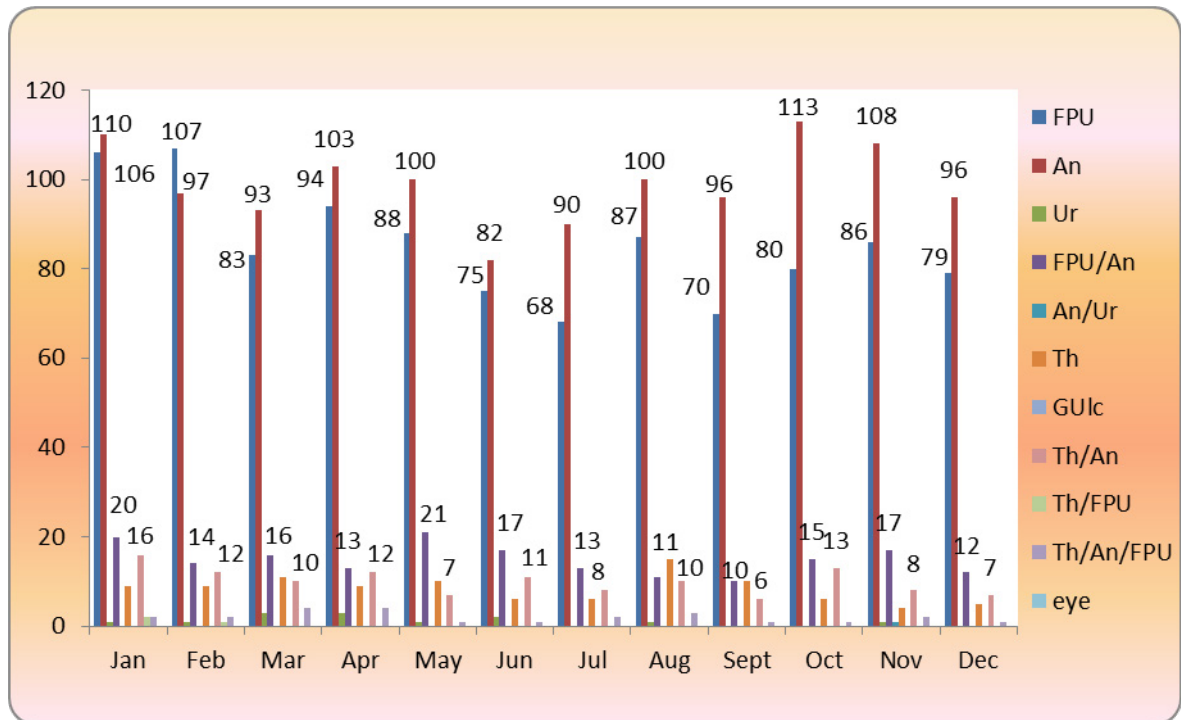
**Figure 3** Number of positive gonorrhoea tests by year



**Figure 4** Number of infectious syphilis cases by quarter and year

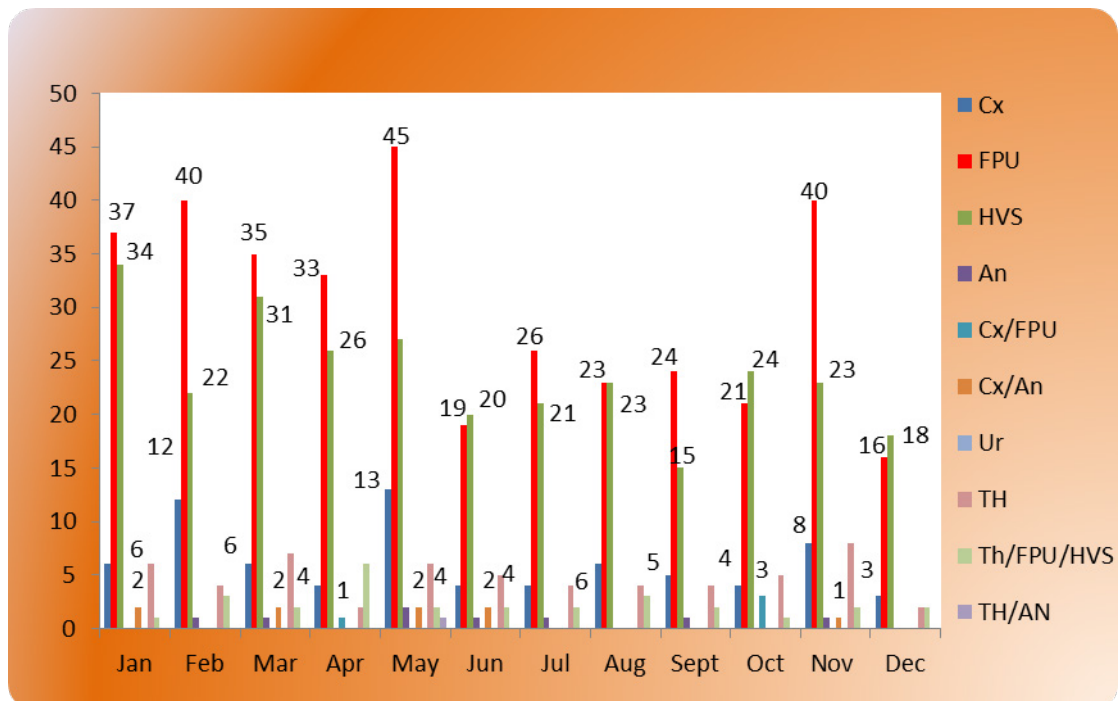


**Figure 5 Sites of chlamydia infections among 2,651 males in 2018**



List of abbreviations: FPU – first pass urine; An – anal; Ur – urethral; Th – throat; GULc – genital ulcer

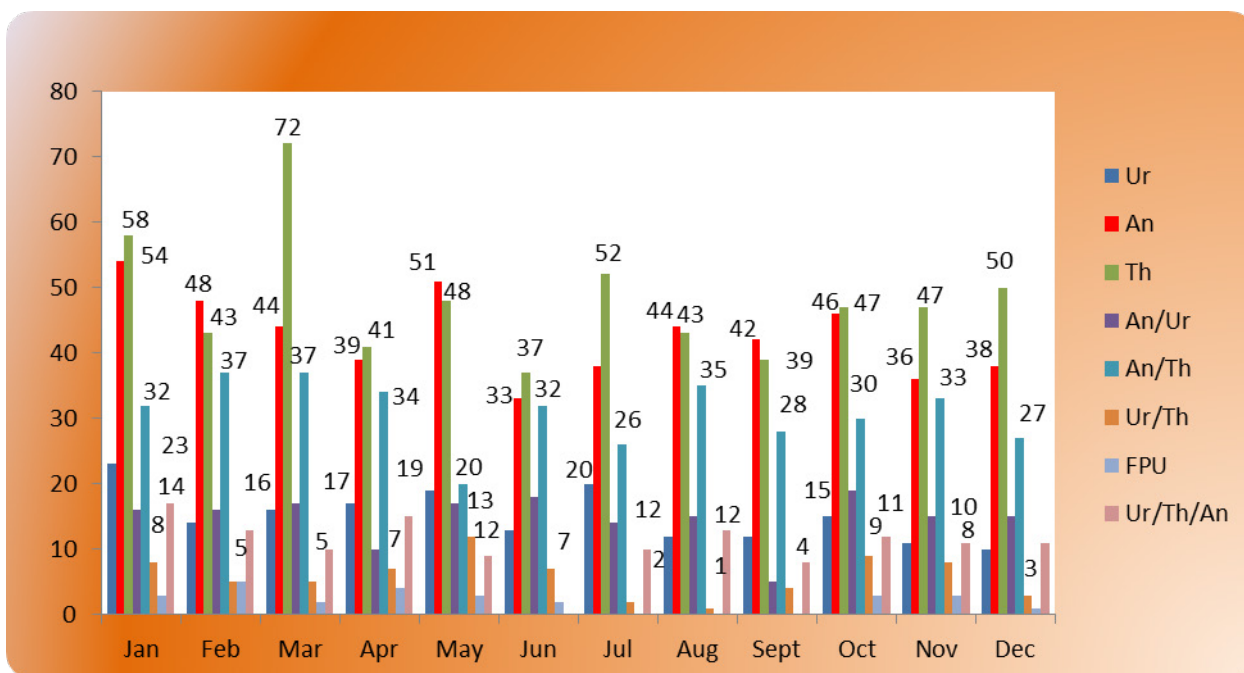
**Figure 6 Sites of chlamydia infections among 825 females in 2018**



List of abbreviations: Cx – cervical; HVS – high vaginal

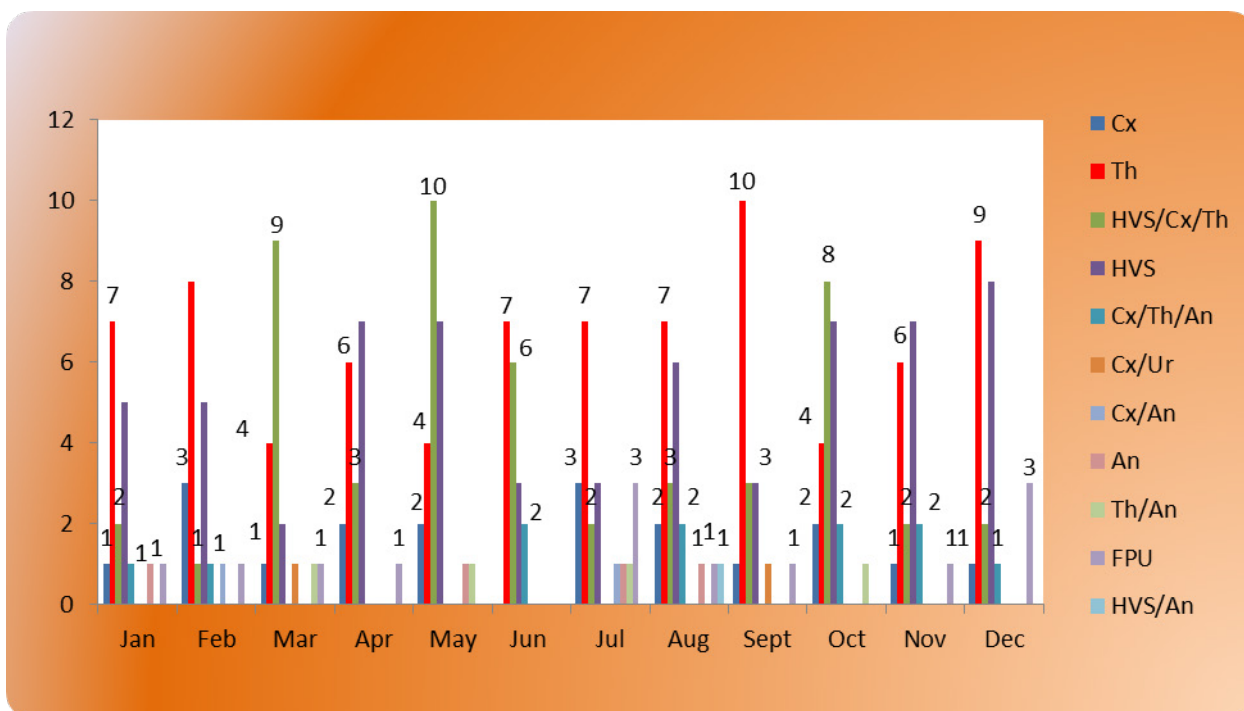
Chlamydia trachomatis remains the most common bacterial STI diagnosed at MSHC. The number of chlamydia infections by sex and site are shown in Figure 4 and 5). The majority of gonococcal infections occur in MSM.

**Figure 7 Sites of gonococcal infections among 2,046 males in 2018**



List of abbreviations: FPU – first pass urine; An – anal; Ur – urethral, Th – throat

**Figure 8 Sites of gonococcal infections among 249 females in 2018**



List of abbreviations: Cx – cervical; HVS – high vaginal



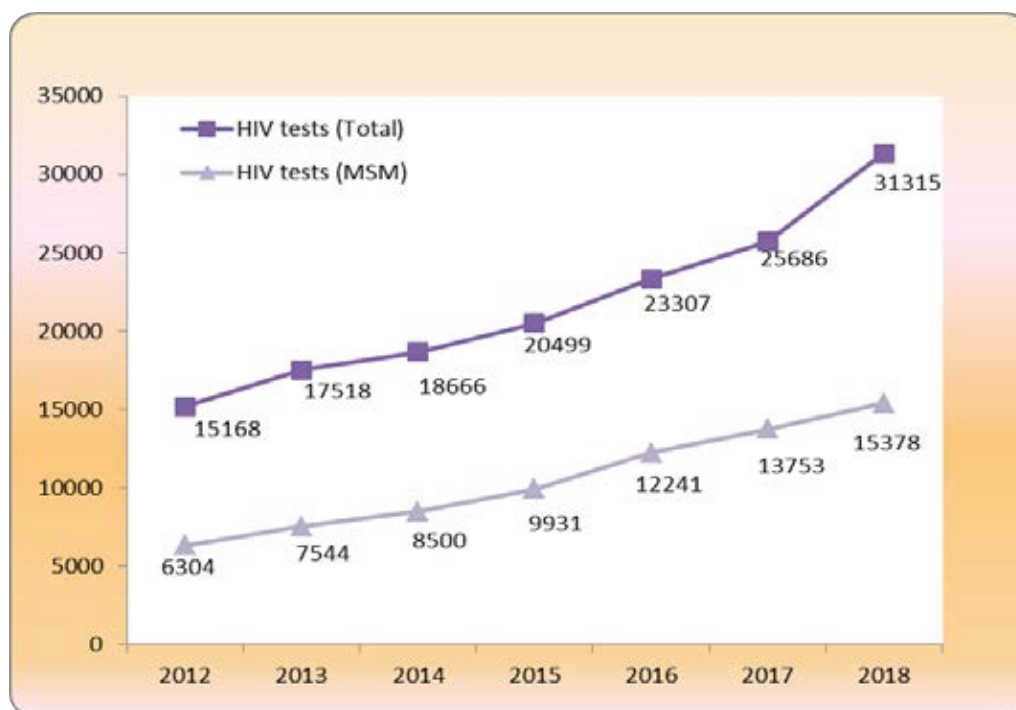
**Table 5** Number of HIV and Syphilis tests provided by year

Year	HIV tests (Total)	HIV tests (in MSM)	Syphilis (Total )	Syphilis (in MSM)
2012	15168	6304	18129	8176
2013	17518	7544	20580	9489
2014	18666	8500	21881	10674
2015	20499	9931	23630	12199
2016	23307	12241	26443	14549
2017	25686	13753	29161	16332
2018	31315	15378	35245	18043

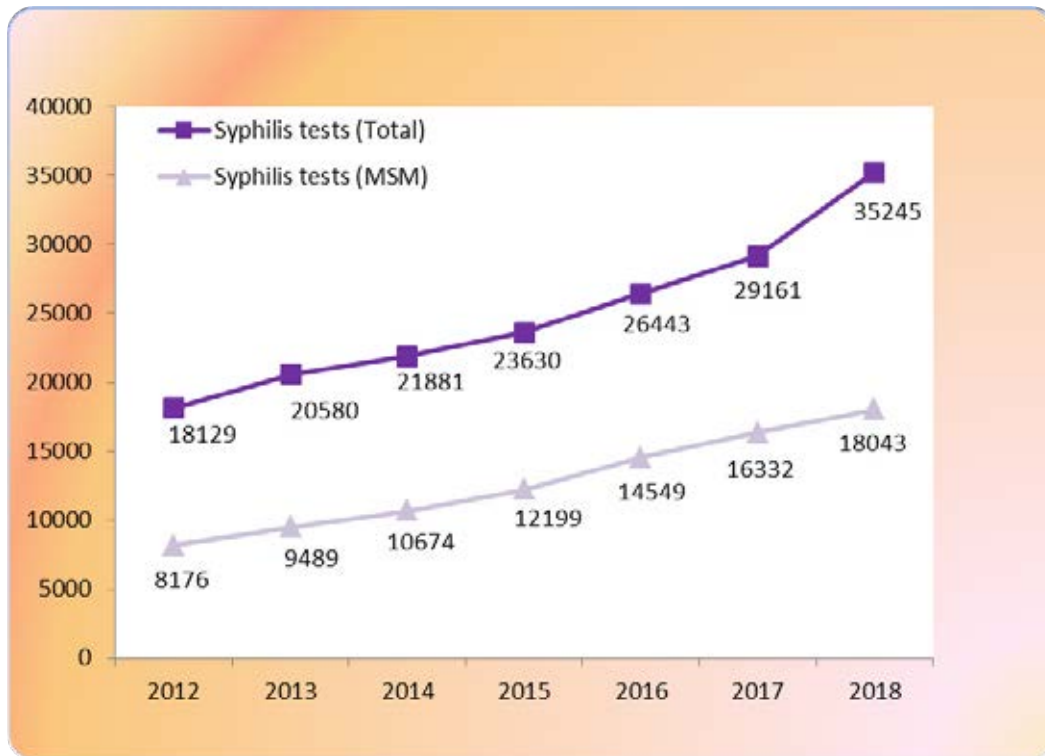
MSM= men who have sex with men

The numbers of HIV and syphilis tests over time has doubled since 2012 to 2018 (Table 5; Figures 9 and 10)

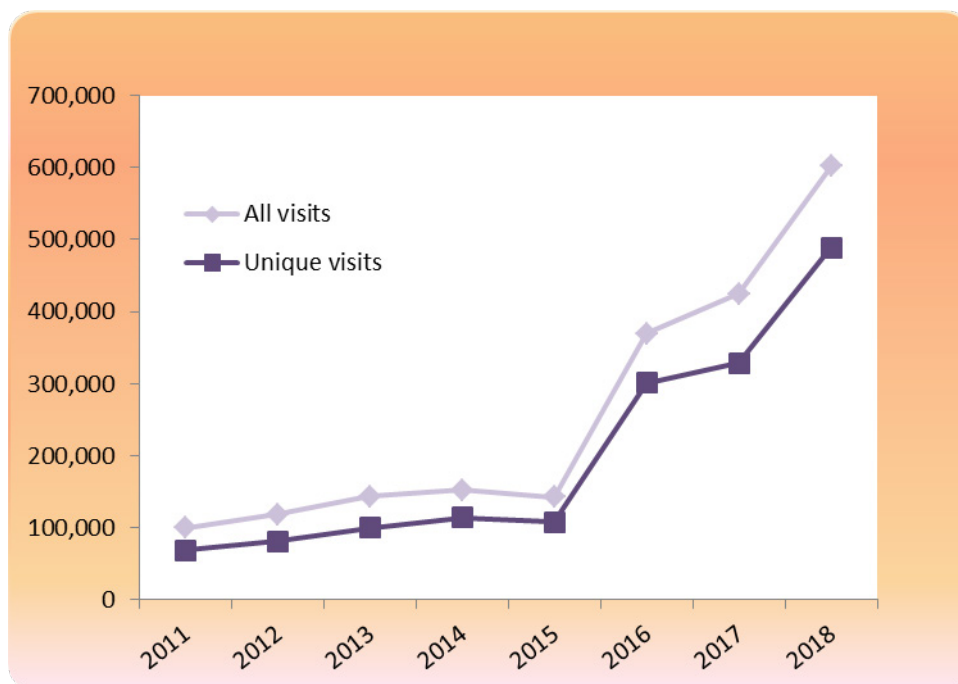
**Figure 9** Numbers of HIV tests taken over time



**Figure 10** Numbers of Syphilis tests taken over time



**Figure 11** Estimated usage of MSHC website from 2011 - 2018



Use of the MSHC website has steadily increased over time. In 2011 there were 100,125 visits in total and 68,991 unique visits. In 2015 a new website was launched and subsequently visits increased substantially

# Research

The Centre has continued to maintain strong research and education activities through the Central Clinical School, Monash University and The Sexual Health Unit of the School of Population Health, University of Melbourne

## Postgraduate Research

### **Completed:**

*Epidemiology of gonorrhoea and its interaction with other major STDs among male patients in South Australia*, **Bin Li** (Mikko), PhD, The University of Adelaide

*What do we know about the diagnosis & management of pelvic inflammatory disease in Australia?* **Jane Goller**, PhD, The University of Melbourne

*The HIV treatment cascade: improved individual and population health outcomes through a better understanding of the natural history of HIV and its treatment in modern health care systems.* **Nick Medland**, PhD, Monash University

*Epidemiology of gonorrhoea, chlamydia and HIV in men who have sex with men, and evaluation of new prevention strategies*, **Vincent Cornelisse**, PhD, Monash University

### **In progress:**

*Sexually transmitted infections (STIs) in HIV-infected patients in the Australian HIV Observational Database (AHOD)*, **Brian Mulhall**, PhD, The University of New South Wales

*Epidemic syphilis in Victoria 2015: Strategies to improve prevention, early detection and treatment*, **Janet Towns**, PhD, Monash University

*RTS: Rectal Treatment Study - comparing single dose 1g azithromycin to 500mg doxycycline twice daily for 7 days as treatment for rectal chlamydia in men who have sex with men (MSM).* **Andrew Lau**, PhD, The University of Melbourne

*Mycoplasma genitalium to genital symptoms in women and MSM.* **Rosie Latimer**, PhD, Monash University

*Using metagenomic techniques to investigate the influence of hormonal contraception on the vaginal microbiota and to determine the cause of non-gonococcal urethritis.* **Larissa Ratten**, PhD, Monash University

*Understanding the pathogenesis of bacterial vaginosis.* **Erica Plummer**, PhD, Monash University

*Novel approaches to treatment and testing of sexually transmitted infections*, **Chloe Durukan**, PhD, Monash University

*Applications of artificial intelligence on disease prevention in public health*, **Eric Xu**, PhD, Monash University

## Completed research projects as part of MPH

*Exploration of the experiences of women who continue a pregnancy following reproductive coercion by a male intimate partner: A research proposal.* **Rosie Brennan**, University of Melbourne

*Factors associated with ano-rectal chlamydia in women. The sexual practices and non-sexual behaviours associated with genital and rectal chlamydia in women: a study protocol.* **Marti Kaiser**, University of Melbourne.

*Does geographical location have an association with sexual behaviours in 16-29 year olds? An analysis of Data.* **Jackie Chan Hon Tang**, University of Melbourne

## Completed Bachelor of Medical Science (Hons)

*Association between drug use and condom-less anal sex among men who have sex with men,* **Christopher Hardy**, Monash University

*Sexual practices among female sex workers in Victoria,* **Annalisa Zappulla**, Monash University

## Medical Student Projects

*Human papillomavirus vaccine uptake rate among young men who have sex with men.* **Launcelot McGrath**, Royal College of Surgeons, Ireland

*Sex with a trans or gender diverse person.* **Eoin Cleere**, Royal College of Surgeons, Ireland

*Comparing the sexual practices of men who have sex with men and women (MSMW) and men who have sex with men only (MSMO).* **Thomas Sardon**, University of Melbourne

*Kissing partners among heterosexual men.* **Finley Charleson**, University of Melbourne

*Hepatitis A vaccine uptake rate among gay and bisexual men who have sex with men at Melbourne Sexual Health Centre from a time-limited vaccination programme in 2018.* **Sam Burrell**, Monash University

## Prizes and awards

### Queen's Birthday honours to Professor Kit Fairley

Congratulations to Kit on receiving Queen's Birthday honours. Kit was awarded Officer of the Order of Australia (AO) for his *distinguished service to community health, particularly in the area of infectious and sexually transmitted diseases, as a clinician, researcher and administrator, and to medical education.*

### Congratulations to new AAHMS Fellow Professor Kit Fairley and Professor Stephen Kent

Australian Academy of Health and Medical Sciences (AAHMS) [elects 37](#) of Australia's leading health and medical researchers as Fellows.

### Eric Chow

- Griffith University Discovery Award 2018 Highly Commended, The Research Australia Health and Medical Research
- UTS Alumni Award for Excellence 2018, Faculty of Science, University of Technology Sydney
- BHIVA/BASHH Best Sexual Health Poster Research Presentation at the Fourth Joint Conference of the British HIV Association (BHIVA) with the British Association for Sexual Health and HIV (BASHH) 2018
- 2018 Club Melbourne Fellowship
- GSK Immunisation Grants 2018, Public Health Association Australia

### Lenka Vodstrcil

- Vodstrcil LA, Bradshaw CS, Plummer EP. Platform Access Grant, Monash University, platform:

Micromon, “Investigating microbial factors associated with bacterial vaginosis recurrence”

- Bradshaw CS, Guy R, Vodstrcil LA, Plummer EP and Murray G. *Mycoplasma genitalium* and antimicrobial resistance in women. Australian Department of Health grant
- Central Clinical School Gender Equity Diversity and Inclusion travel award
- Vodstrcil LA, Hayward J. AMREP Collaborative Seed Grants Application to support our Genital Microbiome Group Initiative between Monash University and the Burnet Institute Advancing Women’s Research Success Grant, Monash University, Chief Investigator

#### **Erica Plummer**

- Recipient of a Keystone Symposia Scholarship to attend the Keystone Symposium on “Role of the Genital Tract Microbiome in Sexual and Reproductive Health”, Cape Town, Western Cape, South Africa Dec 11-Dec 15, 2018
- Post Graduate student presentation winner at 2018 Royal Women’s Hospital Research week. Presentation: Plummer EL, Vodstrcil LA, Tabrizi SN, Garland SM, Fairley CK, Tan A, Law MG, Hocking JS, Bulach DM, Murray GL, Bradshaw CS. Sexual Behaviours Impact the Vaginal Microbiota of Women Who Have Sex with Women.

#### **Other prizes and awards**

- Launelot McGrath won the Fennessy Hogan medal for the best research project at Royal College of Surgeons in Ireland (RCSI). Launelot is a medical student at RCSI and spent 6 weeks at MSHC in Feb 2018 doing a research project under Eric’s and Kit’s supervision.
- Jade Bilardi received CIA award, Advancing Women’s Research Grant, Faculty of Medicine, Nursing and Health Sciences, Monash University
- Rosie Latimer was awarded second prize in the three minute thesis competition at the Central Clinical School for her study on non-consensual condom removal
- Peter Hayes received the Alfred Health recognising excellence award for patient centered care. These awards recognise staff who have been identified by their colleagues for their significant effort in achieving excellence every day. This year, 202 nominations were received across Alfred Health

### **Publication highlights**

**Study:** Risk factors for oropharyngeal gonorrhoea in men who have sex with men: an age-matched case-control study

**Researchers:** Vincent J Cornelisse, Sandra Walker, Tiffany Phillips, Jane S Hocking, Catriona S Bradshaw, David A Lewis, Garrett Paul Prestage, Andrew E Grulich, Christopher K Fairley, Eric P F Chow

**Publication:** Sex Transm Infect Published Online First: 22 January 2018  
2018 doi: 10.1136/sextrans-2017-053381

**Summary:** In 2015, we compared MSM of similar age who attended the Melbourne Sexual Health Centre and had either tested positive or negative for throat gonorrhoea. We looked at which oral sex practices were important risk factors for spreading throat gonorrhoea including tongue kissing, receptive oro-penile sex (fellatio) or insertive oro-anal sex (rimming), and whether the use of mouthwash every day and recent antibiotics would protect against getting infection. The highest risk factor for gonorrhoea throat infection was the number of casual sex partners. Throat gonorrhoea was not associated with insertive oro-anal sex or mouthwash use. The finding that throat gonorrhoea was associated with a higher number of sexual partners but not specific sexual practices highlights the need for further research in the area of how gonorrhoea is transmitted.

**Study:** The frequency of kissing as part of sexual activity differs depending on how men meet their male casual sexual partners

**Researchers:** Cornelisse VJ, Priest D, Fairley CK, Walker S, Bradshaw CS, Phillips T, Chow EPF

**Publication:** *International Journal of STD & AIDS* 2018, 29(6): 598 - 602  
doi: 10.1177/0956462417748717

**Summary:** This was a questionnaire-based study of men who have sex with men (MSM) attending Melbourne Sexual Health Centre, Australia, between March and September 2015. We measured differences in kissing practices among MSM who use different methods to find male casual sexual partners. We surveyed 753 MSM around the age of 29 years. Most of the men (80%) had used apps in the last 3 months to find casual sex partners. Users of apps had a higher number of casual sex partners than non-users and also kissed more casual partners than non-users. We are also investigating whether kissing is an important way of spreading gonorrhoea infection.

**Study:** Combined oral and topical antimicrobial therapy for male partners of women with bacterial vaginosis: tolerability, acceptability and impact on the genital microbiota of couples

**Researchers:** Plummer EL, Vodstrcil LA, Danielewski JA, Murray GL, Fairley CK, Garland SM, Hocking JS, Tabrizi SN, Bradshaw CS

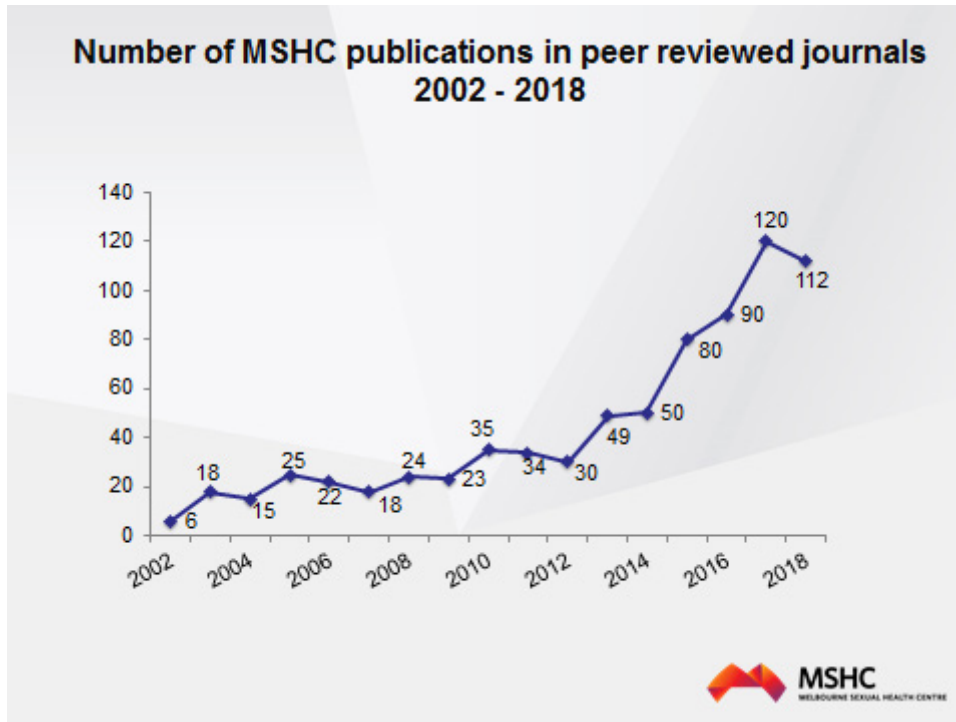
**Publication:** *PLOS ONE* 2018, 13(1): e0190199 doi:10.1371/journal.pone.0190199

**Summary:** We report that treatment of the male partner of women with bacterial vaginosis (BV) is acceptable and treatment was tolerable. Current treatments for BV are associated with unacceptably high recurrence rates. We observed low recurrence of BV in a group of women with a past history of BV who were having unprotected sex with a regular partner following treatment and treatment of their partner. This study supports the need for larger studies with longer follow up to assess the impact on BV recurrence.



### Figure 9 Number of publications over time

The number of publications in peer reviewed journals steadily increased from 6 in 2002 to 30 in 2012, and then significant increases were achieved from 49 in 2013 to 120 in 2017, and 107 in 2018



# Publications

1. Cornelisse VJ, Fairley CK, Phillips T, Walker S, Chow EPF. Fuckbuddy partnerships among men who have sex with men – a marker of sexually transmitted infection risk. *International Journal of STD & AIDS* 2018; 29(1): 44-50 doi:10.1177/0956462417717647
2. Plummer EL, Vodstrcil LA, Danielewski JA, Murray GL, Fairley CK, Garland SM, Hocking JS, Tabrizi SN, Bradshaw CS. Combined oral and topical antimicrobial therapy for male partners of women with bacterial vaginosis: tolerability, acceptability and impact on the genital microbiota of couples. *PLOS ONE* 2018; 13(1): e0190199. doi:10.1371/journal.pone.0190199
3. Read TRH, Jensen JS, Fairley CK, Grant M, Danielewski JA, Su J, Murray GL, Chow EPF, Worthington K, Garland SM, Tabrizi SN, Bradshaw CS. Use of Pristinamycin for Macrolide-Resistant *Mycoplasma genitalium* Infection. *Emerging Infectious Diseases* 2018; 24(2):328-335. doi.org/10.3201/eid2402.170902
4. Ong JJ, Chow EPF, De Petra V, Williamson D, Petalotis I, Howden B, Zhang L, Chen MY, Bradshaw CS, Hocking JS, Fairley CK. Should asymptomatic men who have sex men be screened for oropharyngeal chlamydia? Clinical outcomes from a cross-sectional study. *Sexually Transmitted Diseases* 2018; 45(2): 103-106 doi:10.1097/OLQ.0000000000000718
5. Medland NA, Chow EPF, Walker RG, Chen MY, Read THR, Fairley CK. Incidence of renal Fanconi syndrome in patients taking antiretroviral therapy including tenofovir disoproxil fumarate. *International Journal of STD & AIDS* 2018; 29(3): 227-236 doi:10.1177/0956462417722133
6. Su S, Fairley CK, Sasadeusz J, He J, Wei X, Zheng H, Jing J, Mao L, Chen X, Zhang L. HBV, HVC and HBV/HCV co-infection among HIV-positive patients in Hunan province, China: regimen selection, hepatotoxicity, and antiretroviral therapy outcome. *Journal of Medical Virology* 2018; 90(3): 518-525 doi: 10.1002/jmv.24988
7. Chow EPF, Cornelisse VJ, Read TRH, Chen MY, Bradshaw CS, Fairley CK. Saliva use in sex: Associations with use of smartphone dating applications in men who have sex with men. *International Journal of STD & AIDS* 2018; 29(4): 362-366 doi:10.1177/0956462417727669
8. Callander D, McManus H, Guy R, Hellard M, O'Connor CC, Fairley CK, Chow EPF, McNulty A, Lewis DA, Carmody C, Schmidt HMA, Kim J, Donovan B. Rising chlamydia and gonorrhoea incidence and associated risk factors among female sex workers in Australia: a retrospective cohort study. *Sexually Transmitted Diseases* 2018; 45(3): 199-206 doi:10.1097/OLQ.0000000000000714
9. Fairley CK, Zhang L, Chow EPF. New thinking on gonorrhoea control in men who have sex with men: are antiseptic mouthwashes the answer? *Current Opinion in Infectious Diseases* 2018; 31(1): 45-49 doi: :10.1097/QCO.0000000000000421
10. Kwong JC, Chow EPF, Stevens K, Stinear TP, Seemann T, Fairley CK, Chen MY, Howden BP. Whole-genome sequencing reveals transmission of gonococcal antibiotic resistance among men who have sex with men: an observational study. *Sexually Transmitted Infections* 2018; 94(2): 151-157 doi.10. 1136/sextrans- 2017- 053287
11. Jamil MS, McManus H, Callander D, Prestage G, Ali H, O'Connor CC, Chen MY, McNulty AN, Knight V, Duck T, Keen P, Gray J, Medland N, Hellard M, Lewis DA, Grulich AE, Kaldor JM, Fairley CK, Donovan B, Guy RJ. Understanding the targeting and uptake of HIV testing among gay and bisexual men attending sexual health clinics. *AIDS and Behavior* 2018; 22(2): 513-521 doi: 10.1007/s10461-017-2012-2
12. Cornelisse VJ, Zhang L, Law M, Chen MY, Bradshaw CS, Bellhouse C, Fairley CK, Chow EPF. Concordance of gonorrhoea infections of the rectum, pharynx and urethra in same-sex male partnerships attending a sexual health service in Melbourne, Australia. *BMC Infectious Diseases*. 2018. 18:95 doi: 10.1186/s12879-018-3003-2

13. Li B, Hocking JS, Bi P, Bell C, Fairley CK. The efficacy of Azithromycin and Doxycycline treatment for rectal chlamydia infection: A retrospective cohort study in South Australia. *Internal Medicine Journal* 2018; 48(3):259-264 doi:10.1111/imj.13624
14. Fairley CK, Chow EPF. Doxycycline post-exposure prophylaxis: let the debate begin. *Lancet Infectious Diseases* 2018; 18(3):233-234 doi: 10.1016/S1473-3099(17)30726-0
15. Ong JJ, Fairley CK, Read TRH, Chen MY, Zhang L, Chow EPF. Age-specific pattern of anogenital wart in men who have sex with men. *Sexually Transmitted Diseases* 2018; 45(3): 186-188 doi: 10.1097/OLQ.0000000000000716
16. Kenyon C. Increases in asymptomatic early syphilis may be due to increases in repeat syphilis and not enhanced screening. *Clinical Infectious Diseases* 2018; 66(5): 811-812 doi:10.1093/cid/cix904
17. Chow EPF, Fairley CK, Callander D, Donovan B, Guy R, Chen MY. Increases in asymptomatic early syphilis may be due to increases in repeat syphilis and not enhanced screening. *Clinical Infectious Diseases* 2018; 66(5): 812-813 doi:10.1093/cid/cix905
18. Cornelisse VJ, Priest D, Fairley CK, Walker S, Bradshaw CS, Phillips T, Chow EPF. The frequency of kissing as part of sexual activity differs depending on how men meet their casual sexual partners. *International Journal of STD & AIDS* 2018; 29(6): 598-602 doi: 10.1177/0956462417748717
19. Chow EPF, Fortune R, Dobinson S, Wakefield T, Read TRH, Chen MY, Bradshaw CS, Fehler G, Fairley CK. Evaluation of the Implementation of a New Nurse-Led Express "Test-And-Go" Human Immunodeficiency Virus/Sexually Transmitted Infection Testing Service for Men Who Have Sex With Men at a Sexual Health Center in Melbourne, Australia. *Sexually Transmitted Diseases* 2018; 45(6): 429-434 doi: 10.1097/OLQ.0000000000000777
20. Bellhouse C, Walker S, Fairley CK, Vodstrcil LA, Bradshaw CS, Chen MY, Chow EPF. Patterns of sexual behaviour and sexual healthcare needs among transgender individuals in Melbourne, Australia, 2011-2014. *Sexually Transmitted Infections* 2018; 94(3): 212-215. doi:10.1136/sextrans-2016-052710
21. Aung E, Fairley CK, Tabrizi SN, Danielewski JA, Ong JJ, Chen MY, Bradshaw CS, Chow EPF. Detection of human papillomavirus in urine among heterosexual men in relation to location of genital warts and circumcision status. *Sexually Transmitted Infections* 2018; 94(3): 222-225. doi:10.1136/sextrans-2016-053031
22. Yang TZT, Chen MY, Read TRH, Needleman R, Bradshaw CS, Fortune R, Fairley CK, Chow EPF. Sampling technique and detection rates of oropharyngeal and anorectal gonorrhoea using nucleic acid amplification tests in men who have sex with men. *Sexually Transmitted Infections* 2018; 94(4):286-291. doi:10.1136/sextrans-2017-053339
23. Ryan K, Mak A, Stoope M, Price B, Fairley CK, Ruth S, Lal L, Asselin J, El-Hayek C, Nguyen L, Batrouney C, Wilson D, Lockwood J, Murphy D, Cornelisse VJ, Roth N, Willcox J, Chang CC, Armishaw J, Tee BK, Penn M, Forgan-Smith G, Williams C, Montgomery J, Byron K, Coelho A, Allen B, Wiggins J, Kelsall J, Vujovic O, West M, Pierce AB, Gallant D, Bell C, de Wit JBF, Hoy JF, Wesselingh SL, Grant RM and Wright EJ. Protocol for an HIV Pre-exposure Prophylaxis (PrEP) Population Level Intervention Study in Victoria Australia: The PrEPX Study. *Frontiers in Public Health* 2018; 6:151 doi: 10.3389/fpubh.2018.00151
24. Causer L, Guy R, Tabrizi S, Whitley D, Speers D, Ward J, Tangey A, Badman S, Hengel B, Natoli L, Anderson D, Wand H, Wilson D, Regan D, Shephard M, Donovan B, Fairley CK, Kaldor JM. Molecular test for chlamydia and gonorrhoea used at point-of-care in remote primary health care settings: a diagnostic test evaluation. *Sexually Transmitted Infections* 2018; 94(5): 340-345 doi: 10.1136/sextrans-2017-053443
25. Su S, Zhang L, Cheng F, Li S, Li S, Jing J, Fairley CK, Chen L, Zhao J, Mao L. Association between recreational drug use and sexual practices among people who inject drugs in Southwest China: a cross-sectional study. *BMJ Open* 2018; 8(6): e019730 doi:10.1136/bmjopen-2017-019730
26. Cornelisse VJ, Walker S, Phillips T, Hocking JS, Bradshaw CS, Lewis DA, Prestage GP, Grulich AE, Fairley CK, Chow EPF. Risk factors for oro-pharyngeal gonorrhoea in men who have sex with men: An age-matched case-control study. *Sexually Transmitted Infections* 2018; 94(5): 359-364 doi:10.1136/sextrans-2017-053381

27. Ong JJ, Aung E, Read TRH, Fairley CK, Garland SM, Murray G, Chen MY, Chow EPF, Bradshaw CS. Clinical characteristics of anorectal *Mycoplasma genitalium* infection and microbial cure in men who have sex with men. *Sexually Transmitted Diseases* 2018; 45(8):522–526 doi: 10.1097/OLQ.0000000000000793
28. Medland NA, Chow EPF, Read THR, Ong JJ, Chen MY, Denham I, Gunaratnum P, Fairley CK. Incident HIV infection has fallen rapidly in men who have sex with men in Melbourne, Australia (2013–2017) but not in the newly-arrived Asian-born. *BMC Infectious Diseases* 2018; 18(1):410. doi:10.1186/s12879-018-3325-0
29. Peng P, Su S, Fairley CK, Chu M, Jiang S, Zhuang X, Zhang L. A global estimate of the acceptability of pre-exposure prophylaxis for HIV among men who have sex men: a systematic review and meta-analysis. *AIDS and Behavior* 2018; 22(4): 1063-1074. doi:10.1007/s10461-017-1675-z
30. Cornelisse V, Fairley CK, Read TRH, Lee D, Walker S, Hocking JS, Chen MY, Bradshaw CS, Chow EPF. Associations between anorectal chlamydia and oroanal sex or saliva use as a lubricant for anal sex: A cross-sectional survey. *Sexually Transmitted Diseases*. 2018; 45(8): 506-510. doi: 10.1097/OLQ.0000000000000800
31. Poynten IM, Waterboer T, Jin F, Templeton DJ, Hillman RJ, Law C, Cornall AM, Tabrizi S, Roberts JM, Garland SM, Fairley CK, Grulich AE. Human papillomavirus seroprevalence and association with anal HPV infection and squamous intraepithelial lesions in Australian gay and bisexual men. *Cancer Epidemiology, Biomarkers & Prevention* 2018; 27(7): 768-775 doi: 10.1158/1055-9965.EPI-17-0694
32. Ma X, WWang Q, Ong JJ, Fairley CK, Su S, Peng P, Jun J, Soe NN, Cheng F, Zhang L. Prevalence of human papillomavirus by geographical regions, sexual orientation and HIV status in China: a systematic review and meta-analysis. *Sexually Transmitted Infections* 2018; 94(6): 434-442. doi:10.1136/sextrans-2017-053412
33. Bavinton BR, Pinto AN, Phanuphak N, Grinsztejn B, Prestage GP, Zablotska-Manos IB, Jin F, Fairley CK, Moore R, Roth N, Bloch M, Pell C, McNulty AM, Baker D, Hoy J, Tee BK, Templeton DJ, Cooper DA, Emery S, Kelleher A, Grulich AE, The Opposites Attract Study Group. Viral suppression and HIV transmission in homosexual male serodiscordant couples: An international, prospective, observational, cohort study. *Lancet HIV* 2018; 5(8):e438-e447 doi: 10.1016/S2352-3018(18)30132-2
34. Chow EPF, Medland NA, Denham I, Wright EJ, Fairley CK. Decline in new HIV diagnoses among MSM in Melbourne. *The Lancet HIV* 2018; 5(9): e479-481. doi:10.1016/S23523018(18)30217-0
35. Priest D, Read TRH, Chen MY, Bradshaw CS, Fairley CK, Chow EPF. Only recent sexual partners contribute to oropharyngeal gonorrhoea positivity: the number of sexual partners over different time periods as an indicator of duration of gonorrhoea and chlamydia infection among men who have sex with men. *Sexual Health* 2018; 15(4): 342-349 doi:10.1071/SH17196
36. Chow EPF, Carlin JB, Read TRH, Chen MY, Bradshaw CS, Sze JK, Fairley CK. Factors associated with declining to report the number of sexual partners using computer-assisted self-interviewing: a cross-sectional study among individuals attending a sexual health service in Melbourne, Australia. *Sexual Health* 2018; 15(4): 350-357 doi:10.1071/SH18024
37. Guy R, Ward J, Causer L, Natoli L, Badman S, Tangey A, Hengel B, Wand H, Whiley D, Tabrizi S, Shephard M, Fairley CK, Donovan B, Anderson D, Regan D, Maher L, Kaldor JM. Molecular point-of-care testing for chlamydia and gonorrhoea in Indigenous Australians attending remote primary health services (TTANGO): a cluster-randomised, controlled, crossover trial. *The Lancet Infectious Diseases* 2018; 18(10), 1117-1126 doi:10.1016/S1473-3099(18)30429-8
38. Yeung A, Hocking J, Guy R, Fairley CK, Smith K, Vaisey A, Donovan B, Imrie J, Gunn J, Temple-Smith M. 'It Opened My Eyes' – examining the impact of a multifaceted chlamydia testing intervention on general practitioners using Normalization Process Theory. *Family Practice* 2018; 35(5): 626-632 doi:10.1093/fampra/cmz011
39. Bellhouse C, Walker S, Fairley CK, Chow EPF, Bilardi JE. Getting the terminology right in sexual health research – the importance of accurately classifying fuck buddies among men who have sex with men. *Sexually Transmitted Infections* 2018; 94(7):487-489. doi:10.1136/sextrans-2016-053000

40. Goller JL, De Livera AM, Guy RJ, Low N, Donovan B, Law M, Kaldor JM, Fairley CK, Hocking JS. Rates of pelvic inflammatory disease and ectopic pregnancy in Australia, 2009 to 2014: ecological analysis of hospital data. *Sexually Transmitted Infections* 2018; 94(7):534-541. doi: 10.1136/sextrans-2017-053423
41. Hocking JS, Temple-Smith M, Guy R, Donovan B, Braat S, Law M, Gunn J, Regan D, Vaisey A, Bulfone L, Kaldor J, Fairley CK, Low N. The population effectiveness of opportunistic chlamydia testing in primary care: a cluster randomised controlled trial. *The Lancet* 2018; 392(10156): 1413-1422 doi: 10.1016/S0140-6736(18)31816-6
42. Towns JM, Huffam S, Chow EPF, Denham I, Zhang L, Ryan A, Bellhouse CE, Bissessor M, Bradshaw CS, Phillips T, Graves S, Fairley CK, Chen MY. Clinical factors associated with syphilis concordance in men in sexual partnerships: a cross-sectional couples study. *Sexually Transmitted Infection* 2018; 94(8): 571-573. doi:10.1136/sextrans-2017-053297.
43. Goddard SL, Templeton DJ, Petoumenos K, Jin F, Hillman RJ, Law C, Roberts JM, Fairley CK, Garland SM, Grulich AE, Poynten IM, on behalf of the Study for the Prevention of Anal Cancer (SPANAC). Association of anal symptoms with anal high grade squamous intraepithelial lesions (HSIL) among men who have sex with men: Baseline data from the study of the prevention of anal cancer (SPANAC) Research Team. *Cancer Epidemiology* 2019; 58:12-16. doi: 10.1016/j.canep.2018.10.009
44. Misson J, Chow EPF, Chen MY, Read TRH, Bradshaw CS, Fairley CK. Trends in gonorrhoea infection and overseas sexual contacts among females attending a sexual health centre in Melbourne, Australia, 2008-2015. *Communicable Diseases Intelligence* 2018; 42(S2209-6051(18)00024-6):1-10.
45. Millard T, Dobson S, McDonald K, Klassen KM, Osborne RH, Battersby MW, Fairley CK, Elliott JH. The systematic development of a complex intervention: HealthMap, an online self-management support program for people with HIV. *BMC Infectious Diseases* 2018; 18(1)615. doi: 10.1186/s12879-018-3518-6
46. Latimer RL, Read TRH, Vodstrcil LA, Fairley CK, Cornelisse VJ, Chow EPF, Bradshaw CS. Non-consensual condom removal, reported by patients at a sexual health clinic in Melbourne, Australia. *PLOS ONE* 2018; 13(12): e0209779 doi:10.1371/journal.pone.0209779
47. Soe NN, Ong JJ, Ma X, Fairley CK, Latt PM, Jing J, Cheng F, Zhang L. Should human papillomavirus vaccination target older women over age 26, heterosexual men and men who have sex with men? A targeted literature review of cost-effectiveness. *Human Vaccines & Immunotherapeutics*. 2018. 14(12) 3010-3018. doi:10.1080/21645515.2018.1496878
48. Bradshaw CS, Horner PJ, Jensen JS, White PJ. Syndromic management of STIs and the threat of untreatable *Mycoplasma genitalium*. *Lancet Infect Dis* 2018; 18(3):251-252. doi: 10.1016/S1473-3099(18)30080-X
49. Su JP, Tan LY, Garland SM, Tabrizi SN, Mokany E, Walker S, Bradshaw CS, Read T, Murray GL. Evaluation of the SpeedX ResistancePlus MG diagnostic test for *Mycoplasma genitalium* on the Applied Biosystems 7500 Fast Quantitative PCR Platform. *J Clin Microbiol* 2017; 56(1). pii: e01245-17. doi: 10.1128/JCM.01245-17
50. Van Gemert C, Hellard M, Bradshaw CS, Fowkes FJI, Agius PA, Stoope M, Bennett CM. Syndromic management of sexually transmissible infections in resource-poor settings: a systematic review with meta-analysis of the abnormal vaginal discharge flowchart for *Neisseria gonorrhoea* and *Chlamydia trachomatis*. *Sex Health* 2018;15(1):1-12. doi: 10.1071/SH17070
51. Bradshaw CS, Jensen JS, Waites KB. New horizons in *Mycoplasma genitalium* treatment. *J Infect Dis* 2017; Jul 15;216(suppl\_2):S412-S419. doi: 10.1093/infdis/jix132. Review
52. Phillips S, Vodstrcil LA, Huston WM, Lawrence A, Timms P, Chen MY, Worthington K, McIver R, Bradshaw CS, Garland SM, Tabrizi SN, Hocking JS. Detection of *Chlamydia trachomatis* mRNA using digital PCR as a more accurate marker of viable organism. *Eur J Clin Microbiol Infect Dis* 2018; 37(11):2117-2122. doi: 10.1007/s10096-018-3347-y
53. Priest D, Chow EPF. Kissing while high on ecstasy: lessons from a gay dance party attendee. *Sexually Transmitted Infections* 2018; 94(2): 143



54. Anand SP, Prévost J, Baril S, Richard J, Medjahed H, Chapleau J-P, Tolbert W, Kirk S, Smith A, Wines B, Kent SJ, Hogarth PM, Parsons MS, Pazgier M, Finzi A. Two families of Env antibodies efficiently engage Fc-gamma receptors and eliminate HIV-1-infected cells. *J Virol* 2018; doi:10.1128/JVI.01823-18
55. Kent SJ, Flexner C. Ageing and patients with chronic HIV infection. *AIDS Research and Therapy*. 2018;15:22 doi: 10.1186/s12981-018-0211-1
56. Parsons MS, Kristensen AB, Lee WS, Amarasena T, Houry G, Wheatley AK, Reynaldi A, Wines BD, Hogarth PM, Kent SJ. Fc-dependent functions are redundant to efficacy of anti-HIV antibody PGT121 in macaques. *Journal of Clinical Investigation* 2018 doi.org/10.1172/JCI12246
57. Davenport MD, Houry D, Cromer D, Lewin SR, Kelleher AD, Kent SJ. Functional cure of HIV: The scale of the challenge. *Nature Reviews Immunology* 2018 doi.org/10.1038/s41577-018-0085-4
58. Chen L, Glass JJ De Rose R, Sperling C, Kent SJ, Houston Z, Fletcher N, Rolfe B, Thurecht K. The influence of charge on hemocompatibility and immunoreactivity of polymeric nanoparticles. *ACS Applied Bio Materials* 2018;1:756-767
59. Kent SJ, Hough S, Kelleher AD, Law MG, Hutchinson J, Catalfamo M, van Bockel D, Lane C, Baker JV, Emery S for the ADVICE study group. Randomised double-blind placebo-controlled trial of vorapaxar for HIV associated inflammation and coagulopathy – the ADVICE study. *Lancet HIV*; 2018 doi.org/10.1016/S2352-3018(18)30214-5
60. Parsons MS, Chung AW, Kent SJ. Importance of Fc-mediated functions of anti-HIV-1 broadly neutralizing antibodies. *Retrovirology*; 2018; 15:58.
61. Lopez E, Shattock RJ, Kent SJ, Chung AW. The multi-faceted nature of Immunoglobulin A and its complex role in HIV. *AIDS Research and Human Retroviruses*; 2018; 34:727-738.
62. Faria M, Björnmalm M, Thurecht K, Kent SJ, Parton R, Kavallaris M, Johnston APR, Gooding J, Corrie S, Boyd BJ, Thordarson P, Whittaker A, Stevens M, Prestidge C, Porter C, Parak W, Davis T, Crampin E, Caruso F. Minimum Information Reporting in Bio-Nano Experimental Literature. *Nature Nanotechnology*; 2018;13:777-785
63. Anania JC, Trist HM, Palmer CS, Tan PS, Kouskousis BP, Chenoweth AM, Kent SJ, Hoi H, Mackay GA, Koelmeyer R, Slade C, Bryant VL, Hodgkin PD, Aui PM, van Zelm MC, Wines BD, Hogarth PM. The human Fc-gamma-RIIa3 associated with anaphylaxis in immunoglobulin replacement therapy exhibits distinct characteristics from the canonical Fc-gamma-RIIa1. *Frontiers in Immunology* 2018; 9:1809 doi.org/10.3389/fimmu.2018.01809
64. Cheeseman HM, Day S, McFarlane LR, Fleck S, Miller A, Cole T, Sousa-Santos N, Cope AV, Cizmeci D, Tolazzi M, Hwekwete E, Hannaman D, Kratochvil S, McKay PF, Chung AW, Kent SJ, Cook A, Scarlatti G, Abraham S, Combadiere B, McCormack S, Lewis DJ, Shattock RJ. Combined Skin and Muscle DNA Priming Provides Enhanced Humoral Responses to an HIV-1 Clade C Envelope Vaccine. *Human Gene Therapy*. 2018; 29:1011-1028.
65. Vandervén HA, Wragg K, Ana-Sosa-Batiz F, Kristensen AB, Jegaskanda S, Wheatley AK, Wentworth D, Wines BD, Hogarth PM, Rockman S, INSIGHT FLU005 Pilot Study Writing Group, Kent SJ. Anti-influenza hyperimmune immunoglobulin enhances Fc-functional antibody immunity during human influenza infection. *Journal of Infectious Diseases*; 2018 doi.org/10.1093/infdis/jiy328
66. Parsons MS, Le Grand R, Kent SJ. Utility of broadly neutralizing antibodies to prevent cell-associated HIV-1 infection. *Viruses* 2018;10:333 doi.org/10.3390/v10060333
67. Bangaru S, Zhang H, Gilchuk IM, Voss TG, Irving RP, Gilchuk P, Matta P, Zhu X, Lang S, Nieuwsma T, Richt JA, Albrecht RA, Vandervén HA, Bombardi R, Kent SJ, Ward AB, Wilson IA, Crowe JE. A human monoclonal neutralizing antibody that targets a unique conserved epitope on influenza HA exploits multiple antiviral strategies. *Nature Communications* 2018;9:2669
68. Juno JA, Waruk JLM, Wragg KM, Mesa C, Lopez C, Joe Buetti J, Kent SJ, Ball TB, Kiazzyk SA. MAIT cells are depleted and exhibit altered chemokine receptor expression and elevated GM-CSF production during end stage renal disease. *Frontiers in Immunology* 2018;9:1076



69. Carroll TD, Jegaskanda S, Matzinger SR, Fritts L, McChesney MB, Kent SJ, Fairman J, Miller CJ. A lipid/DNA adjuvant-inactivated influenza virus vaccine protects rhesus macaques from uncontrolled virus replication after heterosubtypic influenza A virus challenge. *Journal of Infectious Diseases* 2018; doi.org/10.1093/infdis/jiy238/4986227
70. Worley MJ, Fei K, Lopez-Denman AJ, Kelleher AD, Kent SJ, Chung AW. Neutrophils mediate HIV-specific antibody-dependent phagocytosis and ADCC. *J Immunol Methods* 2018;457:41-52
71. Wang M, Gustafsson O, Siddiqui G, Javed I, Kelly H, Blin T, Yin H, Kent SJ, Creek D, Kempe K, Ke PC, Davis T. Human plasma proteome association and cytotoxicity of nano-graphene oxide grafted with stealth polyethylene glycol and poly(2-ethyl-2-oxazoline). *Nanoscale* 2018; doi.org/10.1039/c8nr00835c
72. Rasmussen TA, McMahon JH, Chang JJ, Audsley J, Rhodes A, Tennakoon S, Dantanarayana A, Spelman T, Schmidt T, Kent SJ, Morcilla V, Palmer S, Elliott JH, Lewin SR. The effect of antiretroviral intensification with dolutegravir on residual virus replication in HIV infected individuals: A randomised, placebo-controlled, double blind clinical trial. *The Lancet HIV* 2018; Published online April 8, 2018; doi.org/10.1016/S2352-3018(18)30040-7
73. Kristensen AB, Kent SJ, Parsons MS. Contribution of NK cell education to both direct and anti-HIV-1 antibody-dependent NK cell functions. *Journal of Virology* 2018;92:e02146-17
74. Ramarathinam SH, Gras S, Alcantara S, Yeung A, Mifsud NA, Sonza S, Illing PT, Center RJ, Thomas S, Kent SJ, Ternette N, Purcell DFJ, Rossjohn J, Purcell AW. Identification of native and post-translationally modified HLA-B\*57:01-restricted HIV envelope derived epitopes using immunoproteomics. *Proteomics* 2018;18: 1700253 doi.org/10.1002/pmic.201700253
75. Catton M, Gray G, Griffin D, Hasegawa H, Kent SJ, Mackenzie J, McSweegan E, Mercer N, Wang L. 2017 International Meeting of the Global Virus Network. *Antiviral Research* 2018; 153: 60-69
76. Koutsakos M, Wheatley AK, Loh L, Clemens EB, Sant S, Nüssing S, Fox. A., Chung AW, Laurie KL, Hurt AC, Rockman S, Lappas M, Loudovaris T, Mannering SI, Westall GP, Elliot M, Tangye SG, Wakim LM, Kent SJ, Nguyen THO and Kedzierska K. Circulating Tfh cells, serological memory and tissue compartmentalization shape human influenza-specific B cell immunity. *Science Translational Medicine* 2018; 10:eaan8405
77. Parsons MS, Cromer D, Davenport MP, Kent SJ. HIV reactivation after partial protection by neutralizing antibodies. *Trends in Immunology* 2018;39:359-366
78. Kratochvil S, MacKay PF, Chung AW, Kent SJ, Gilmore J, Shattock RJ. IgG1 allotype influences antibody subclass abundance in response to HIV gp140 vaccination. *Frontiers in Immunology* 2017; **8**: 1883
79. Lee WS, Kent SJ. Anti-HIV-1 ADCC: is there more to antibodies than neutralization? *Current Opinion in HIV/AIDS* 2018; 13: 160-166
80. Gunaratnam P, McManus H, Watchirs-Smith L, McGregor S, Callander D, Brown G, Lobo R, O'Connor C, Hellard M, Medland N, Lewis D, Palmer C, Law M, Gray R, Donovan B, Guy R, Committee AS. People Born in Non-Main English Speaking Countries Are Less Likely to Start HIV Treatment Early in Australia: A National Cohort Analysis, 2014-15. *Journal of acquired immune deficiency syndromes (1999)* 2018;77(3):e31-e4
81. Zhao PP, Cao B, Bien-Gund C, Tang WM, Ong JJ, Ding Y, Chen WY, Luo ZZ, Tucker JD. Identifying MSM-competent physicians in China: A national online cross-sectional survey among physicians who see male HIV/STD patients. *BMC Health Services Research* 2018; 18:964
82. Ong JJ, HY Fu, Pan S, Smith K, Dan W, Wei CY, Cao B, Ma W, Yang LG, Tang WM, Tucker JD. Missed opportunities for HIV and syphilis testing among men who have sex with men in China: a cross-sectional study. *Sexually transmitted diseases* 2018 Jun; 45(6):382-386
83. Wong WCW, Lo YR, Jiang SF, Peng M, Zhu Z, Kidd M, Roland M, Lam CLK, Ong J. Improving the hepatitis cascade: assessing hepatitis testing and management in primary health care in China. *Family Practice*. 2018 May 8. doi: 10.1093/fampra/cmy032

84. Ong JJ, Fu HY, Smith K, Tucker JD. Expanding syphilis testing: a scoping review of syphilis testing strategies among key populations. *Expert review of anti-infective therapy* 2018;16(5):423-432
85. Ong JJ, Wei CY, Pan SW, Fu HY, Tucker JD. Individuals have the right to avoid sex with partners unwilling to test for HIV but do not have a right to force them to test for HIV (Letter). *Journal of AIDS* 2018; 78(5): e35 doi: 10.1097/QAI.0000000000001694
86. Ong JJ, Dan W, Huang W, Fu HY, Desmond N, Ma W, Kang DM, Liao MZ, Marley G, Wei CY, Tang WM, Liu CC, Zhang Y, Pan SW, Yang B, Yang LG, Huang SJ, Tucker JD. Pressured HIV testing in the name of love': A mixed methods analysis of pressured HIV testing among men who have sex with men in China. *Journal of International AIDS Society* 2018;21(3):e25098. doi: 10.1002/jia2.25098
87. Ong JJ, Li HC, Dan W, Fu HY, Liu E, Ma W, Kang DM, Liao MZ, Marley G, Wei CY, Tang WM, Pan S, Liu CC, Desmond N, Yang B, Yang LG, Huang SJ, Tucker JD. Coercion and HIV self-testing in men who have sex with men: implementation data from a cross-sectional survey in China. *Journal of Acquired Immune Deficiency Syndrome* 2018; 77(2):e22-25
88. Tucker JD, Ong JJ. (Editorial) *Mycoplasma genitalium*: an important sexually transmitted infection comes into focus. *Sexually transmitted infection* 2018 doi: 10.1136/sextrans-2017-053517
89. Ong JJ, Walker S, Grulich A, Hoy J, Read T, Bradshaw C, Chen M, Garland S, Hillman R, Templeton D, Hocking J, Eu B, Tee BK, Chow EPF, Fairley C. Incorporating digital ano-rectal examinations for anal cancer screening into routine HIV care for men who have sex with men living with HIV: a prospective cohort study. *Journal of International AIDS Society* 2018; 21(12):e25192
90. Ong D, Ong JJ, L Lim. The number of ocular syphilis cases creeps to record high. (Letter) *Clinical and Experimental Ophthalmology* 2018; 46(1):98-99
91. Read T, Walker S, Chow EPF, Ong JJ, Bradshaw C, Medland NA, Chen M, Fairley CK. HIV testing with and without a clinical consultation among men who have sex with men: a randomized controlled trial. *Journal of AIDS* 2018;78(4):406-412
92. van Gemert C, Hellard M, Bradshaw CS, Fowkes FJI, Agius PA, Stooze M, Bennett CM. Syndromic management of sexually transmissible infections in resource-poor settings: a systematic review with meta-analysis of the abnormal vaginal discharge flowchart for *Neisseria gonorrhoea* and *Chlamydia trachomatis*. *Sex Health* 2018 Feb;15(1):1-12. doi: 10.1071/SH17070
93. Detection of *Chlamydia trachomatis* mRNA using digital PCR as a more accurate marker of viable organism. Phillips S, Vodstrcil LA, Huston WM, Lawrence A, Timms P, Chen MY, Worthington K, McIver R, Bradshaw CS, Garland SM, Tabrizi SN, Hocking JS. *Eur J Clin Microbiol Infect Dis* 2018 Nov; 37(11):2117-2122. doi: 10.1007/s10096-018-3347-y
94. Toh J., Temple-Smith MJ, Bilardi JE. Australian general practitioners' views and practices in managing bacterial vaginosis: A pilot qualitative study. *Family Practice & Care* 2018, 1(1), May 2018, doi: 10.15761/FMC.1000103
95. Bellhouse, CE., Watson S, Temple-Smith M, Bilardi JE. The loss was both physically and psychologically traumatic... some healthcare providers added to that trauma": Women's experiences of miscarriage. *Women & Birth*, 2018 Aug 25, pii: S1871-5192(17)30479-1. doi:10.1016/j.wombi.2018.06.006
96. Jensen K, Temple-Smith M, Bilardi JE. Healthcare provider's views and practices in caring for women experiencing miscarriage. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 2018; 1-6, doi: 10.1111/ajo.12910
97. Pang P, Temple-Smith M, Bellhouse C, Trieu V, Kiropolous L, Williams H, Coomarasamy A, Brewin J, Bowles A, Bilardi. J Online health seeking behaviours: What information is sought by women experiencing miscarriage? *Studies in Health Technology and Informatics* 2018, 252; 118-125 doi 10.3233/978-1-61499-890-7-118
98. Bellhouse, C, Watson S, Temple-Smith M, Bilardi JE. "It's just one of those things people don't seem to talk about..." Women's experiences of social support following miscarriage: A qualitative study. *BMC Women's Health*. 2018, 18:176; doi.org/10.1186/s12905-018-0672-3

## Ahead of Print

1. Gilbert M, Thomson K, Salway T, Haag D, Grennan T, Fairley CK, Buchner C, Kraider M, Kendall P, Shoveller J, Ogilvie G. Differences in experiences of barriers to STI testing between clients of the internet-based diagnostic testing service GetCheckedOnline.com and an STI clinic in Vancouver, Canada. *Sexually Transmitted Infections* 2018 doi: 10.1136/sextrans-2017-053325
2. Cornelisse VJ, Fairley CK, Stoove M, Asselin J, Chow EPF, Price B, Roth NJ, Willcox J, Tee BK, Penn M, Chang CC, Armishaw J, Forgan-Smith G, Wright EJ. Evaluation of PrEP eligibility criteria using sexually transmissible infections as HIV risk markers at enrolment in PrEPX, a large Australian HIV pre-exposure prophylaxis trial. *Clinical Infectious Diseases* 2018 doi: 10.1093/cid/ciy370
3. Read TRH, Fairley CK, Murray GL, Jensen JS, Danielewski J, Worthington K, Doyle M, Mokany E, Tan L, Chow EPF, Garland SM, Bradshaw CS. Outcomes of resistance-guided sequential treatment of *Mycoplasma genitalium* infections: a prospective evaluation. *Clinical Infectious Diseases* 2018 doi: org/10.1093/cid/ciy477
4. Cleere EF, Fairley CK, McGrath L, Bradshaw C, Chen MY, Chow EPF. Sex with a trans or gender diverse person among patients attending a sexual health centre in Melbourne, Australia. *Sexually Transmitted Infections* 2018 doi:10.1136/sextrans-2018-053653
5. Needleman R, Chow EPF, Towns JM, Cornelisse VJ, Yang T, Chen MY, Bradshaw CS, Fortune R, Fairley CK. Access to sexual health services after the rapid roll out of the launch of pre-exposure prophylaxis for HIV in Melbourne, Australia: A retrospective cross-sectional analysis. *Sexual Health* 2018 doi: 10.1071/SH17182
6. McGrath L, Fairley CK, Cleere EF, Bradshaw CS, Chen MY, Chow EPF. Human papillomavirus vaccine uptake among young gay and bisexual men who have sex with men with a time-limited targeted vaccination programme through sexual health services in 2017 in Melbourne, Australia. *Sexually Transmitted Infections* 2018 doi:10.1136/sextrans-2018-053619
7. Callander D, Guy R, Fairley CK, McManus H, Prestage G, Chow EPF, Chen M, O'Connor C, Grulich AE, Bourne C, Hellard M, Stoové M, Donovan B. Gonorrhoea gone wild: rising incidence of gonorrhoea and associated risk factors among gay and bisexual men attending Australian sexual health clinics. *Sexual Health* 2018 doi: 10.1071/SH18097
8. Durukan DC, Fairley CK, Bradshaw CS, Read TRH, Druce J, Caly L, Catton M, Chow EPF. Increasing proportion of herpes simplex virus type 1 among women and men diagnosed with first episode anogenital herpes: a retrospective observational study over 14 years in Melbourne, Australia. *Sexually Transmitted Infections* 2018 doi: 10.1136/sextrans-2018-053830
9. Phillips T, Fairley CK, Walker S, Chow EPF. Associations between oral sex practices and frequent mouth wash use in men who have sex with men: implications for gonorrhoea prevention. *Sexual Health* 2018 doi: 10.1071/SH18131
10. Salway T, Thomson K, Taylor D, Haag D, Elliot E, Wong T, Fairley CK, Grennan T, Shoveller J, Ogilvie G, Gilbert M. Post-test comparison of HIV test knowledge and changes in sexual risk behaviour between clients accessing HIV testing online versus in-clinic. *Sexually Transmitted Infections* 2019 doi:10.1136/sextrans-2018-053652
12. Wu Dan, Li K, Tang WM, Ong JJ, Huang WT, Fu HY, Lee A, Wei CY, Tucker JD. Low chlamydia and gonorrhoea testing rates among men who have sex with men in Guangdong and Shandong Provinces, China. *Sexually Transmitted Diseases* 2018 doi: 10.1097/OLQ.0000000000000963
13. Ong JJ, Liao M, Lee A, Fu HY, Pan SW, Tang WM, Wei CY, Dan W, Yang B, Yang LG, Cheng W, Tucker JD. Bridging the HIV-syphilis testing gap: dual testing among men who have sex with men living in China. *Sexually Transmitted Infections* 2018 doi: 10.1136/sextrans-2018-053527
14. Xiaomeng Ma, Qian Wang, Ong JJ, Christopher K Fairley, Shu Su, Peng Peng, Jing Jun, Cheng Feng, Linhong Wang, Lei Zhang. Prevalence of human papillomavirus in Chinese populations by sexual orientation, HIV and cervical cytological status: a systematic review and meta-analysis. *Sexually Transmitted Infections* 2018. doi: 10.1136/sextrans-2017-053412

## Staff

The continuing successes enjoyed by MSHC hinge on the ongoing enthusiasm and dedication shown by its multidisciplinary team. The professionalism and commitment of all staff of MSHC is reflected in the Annual Client Surveys which have recorded overall satisfaction rates of approximately 97-99% since 2005 (see Annual Client Survey).

### Staff Members

#### Administration and Computer Services

Afrizal	IT Systems and Support Officer
Suzanne Amisano	Operations Manager
Lucy Beaton	Patient Services Officer
Alison Clough	Patient Services Officer
Fleur Glenn	Patient Services Officer
David Johnston	Patient Services Officer
Jun Kit Sze	IT Systems, Support & Development Officer
Karen Kon	Patient Services Co-ordinator
David Nguyen	Patient Services Officer
Sharon Noronho	Patient Services Officer
Cecily Sheppard	Patient Services Officer
Maggie Vandeleur	Patient Services Officer
Wendy Zeng	Patient Services Officer

#### Other Support

Mark Chung	Multimedia Content Co-ordinator
Glenda Fehler	Clinical Project Manager
James Unger	Personal Assistant to Director
Lyn Zhang	Resource and Billing Officer

#### Clinical Services - Medical

Ei Aung	Doctor
Karen Berzins	Doctor
Melanie Bissessor	Doctor
Catriona Bradshaw	Doctor
Andrew Buchanan	Doctor
Marcus Chen	Doctor, Medical Unit Manager
Kathy Cook	Doctor
Vincent Cornelisse	Doctor
Mark Darling	Dermatologist
Ian Denham	Doctor
Christopher Fairley	Professor/Director
Kath Fethers	Doctor
Helen Henzell	Doctor
Sarah Huffam	Doctor
Kirsty McNab	Doctor
Alex Marceglia	Doctor
Nick Medland	Doctor
Anna Morton	Doctor
Tim Read	Doctor
Stephen Rowles	Doctor
Tina Schmidt	Doctor
Richard Teague	Doctor
Janet Towns	Doctor
Robin Tideman	Doctor
Hennie Williams	Doctor, Senior Lecturer
Josephine Yeatman	Dermatologist

#### Clinical Services - Nursing

Surbhi Bird	Sexual Health Clinic Support Nurse
Caroline Cittarelli	Sexual Health Clinic Support Nurse
Penne Braybrook	Sexual Health Nurse

Suzanne Brown	Sexual Health Nurse
Lauren Bryar	Sexual Health Nurse
Beth Costelloe	Sexual Health Nurse
Sheranne Dobinson	Sexual Health Nurse
Michelle Doyle	Sexual Health Nurse
Jo Eccles	Sexual Health Nurse
Ria Fortune	Nursing Services Manager
Candice Fuller	Sexual Health Nurse
Shauna Hall	Sexual Health Nurse
Peter Hayes	Counsellor
Kerri Howley	Sexual Health Nurse
Marti Kaiser	Sexual Health Nurse
Lisa Kennedy	Sexual Health Nurse
Abby Knoester	Sexual Health Nurse
David Lee	Sexual Health Nurse Practitioner
Genevieve Lilley	Sexual Health Nurse
Chantal Maloney	Sexual Health Nurse
Luke Mitchell	Sexual Health Nurse
Colette Mc Guinness	Sexual Health Nurse
Lesley O'Donell	Sexual Health Nurse
Monica Owiad	Sexual Health Nurse
Ian O'Meara	Sexual Health Nurse
Amy Peachey	Sexual Health Nurse
Susan Peterson	Sexual Health Nurse
Kate Potappel	Sexual Health Nurse
Anne Reid	Sexual Health Nurse
Suzanne Rose	Sexual Health Nurse
Carly Schreiber	Sexual Health Nurse
Inkyung Kate Seong	Sexual Health Nurse
Anthony Snow	Sexual Health Nurse Practitioner
Mee Tan	Sexual Health Nurse
Haiping Tang	Sexual Health Nurse
Mark Thompson	Sexual Health Nurse
Jacinta Tierney	Sexual Health Nurse
Jocelyn Verry	Counsellor
Eloise Vicary	Sexual Health Nurse
Patricia Wakefield	Sexual Health Nurse/Clinical Nurse Co-ordinator
Leah Ward	Sexual Health Nurse
Rebecca Wigan	Sexual Health Nurse
Jordan Wotten	Sexual Health Nurse
Karen Worthington	Sexual Health Nurse

### **HIV Clinic**

Jayne Howard	Clinical HIV Co-ordinator
Stephen Kent	Doctor
Richard Moore	Doctor
Joe Sasadeusz	Doctor
Ivan Stratov	Doctor
Jeanette Venkataya	Patient Services Officer

### **Evaluation Unit**

Jade Bilardi	Postdoctoral Research Fellow
Eric Chow	Postdoctoral Research Fellow
Michelle Doyle	Research Nurse
Marti Kaiser	Research Nurse
Helen Kent	Research Nurse
Kate Maddeford	Research Nurse
Nick Medland	Doctor, PhD student
Erica Plummer	PhD scholar, Masters in Bioinformatics
Tiffany Phillips	Research Administration
Tiffany Rose	Research Nurse
David Samson	Research Nurse
Julie Silvers	Research Nurse

Sabrina Trumpour  
Lenka Vodstrcil  
Rebecca Wigan  
Lei Zang

Research Administrative Assistant  
Postdoctoral Research Fellow  
Research Nurse  
PhD, Master of Applied Mathematics

**Laboratory**

Vesna de Petra  
Catherine Flower  
Kate Paoli  
Kathy Petit  
Marleen Tschaepe  
Maree Soumilas

Section Leader  
Laboratory Scientist  
Laboratory Scientist  
Laboratory Scientist  
Laboratory Section Support  
Laboratory Scientist

**Pharmacy**

Ivette Aguirre

Senior Clinical Pharmacist

**Long service recognition for staff Members in 2018**

2018	No. of years	2018	No. of years
Afrizal Afrizal	10	Helen Kent	15
Melanie Bissessor	10	Anthony Snow	15
Mark Chung	10	Joseph Sasadeus	20
Anne Reid	10	Alexandra Marceglia	25
Sharon Noronho	10	Trish Wakefield	25
Catriona Bradshaw	15	Tina Schmidt	30
David Johnston	15	Ian Denham	35



# 100 YEARS 1918 – 2018



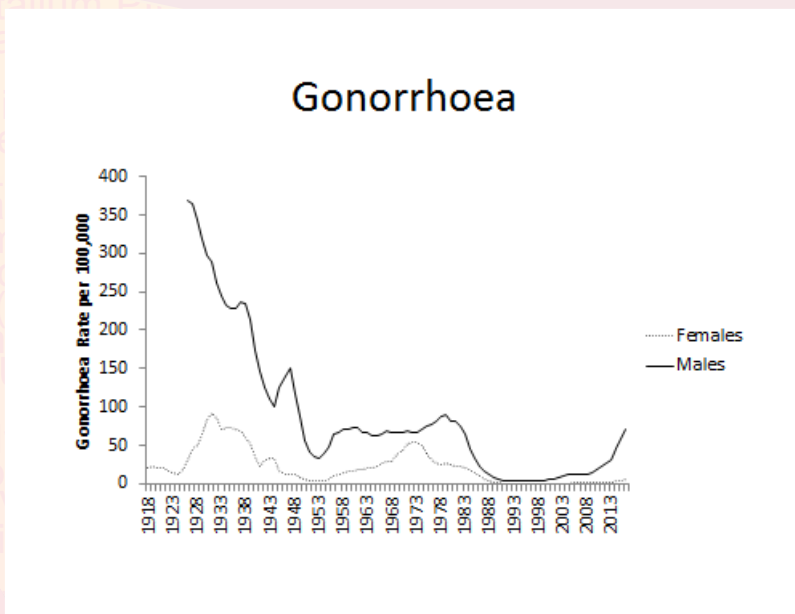
Melbourne Sexual Health celebrated 100 years of service to the people of Victorian on the 20th July 2018. Dr Ian Denham gave a fascinating presentation on the history of the Clinic from 1918 to 2000. MSHC has been the only publically funded clinic providing STI care over this time. Initially in 1918, the Government Clinic was based in Lonsdale street from 1918 to 1929. The clinic made several moves over time and moved to 580 Swanston street in 1992. The Director, Professor Kit Fairley gave an excellent presentation on the achievements of Melbourne Sexual Health Centre from 2001 to the current time.



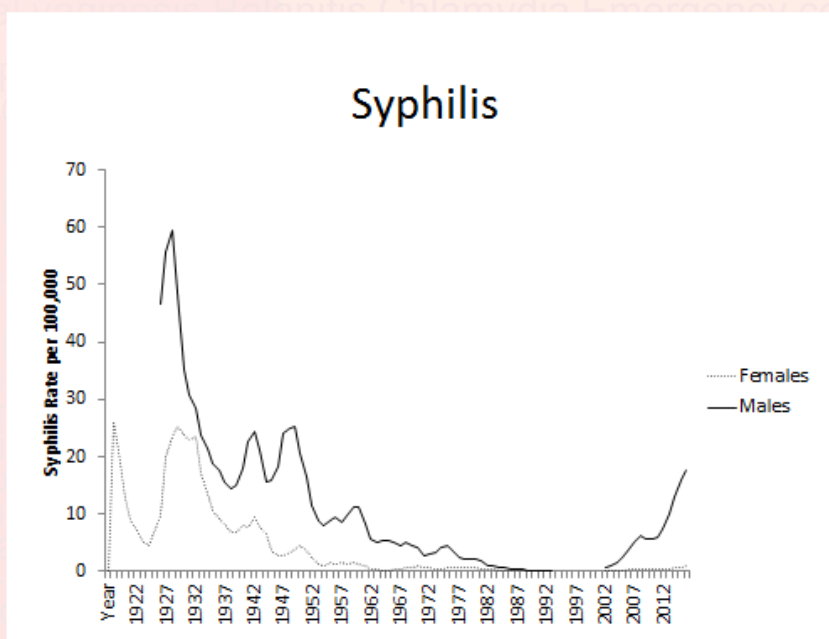
Associate Professor Marcus Chen welcoming distinguished guests and staff to the celebrations



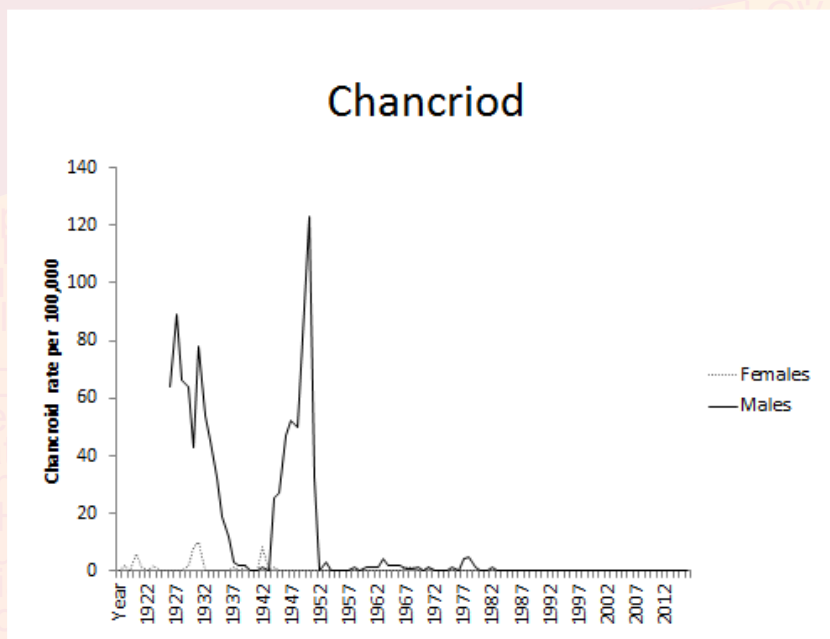
**Figure 1** shows the rate of gonorrhoea by sex per 100,000. For men, the rates fell to a low in 1953, then rose until about 1980, fell dramatically until about 2000, and steadily rose again. In women, there were two peaks (in 1930 and in 1972), after which rates declined to very low levels but began rising again in the early 2000s.



**Figure 2** shows the rate of syphilis by sex per 100,000. Rates in men fell rapidly from a peak in 1928 to almost zero by about 1990. During this decline two substantial peaks occurred in 1942 and 1949. Rates in men began to rise again from early 2000s to the levels not seen since the 1940s. In women, rates fell from 1918 to an initial nadir in 1924, and then rose to peak in 1929. They then fell fairly rapidly to very low levels from the 1950s.



**Figure 3** shows the number of chancroid diagnosis by sex for males from 1926 and for women from 1918. In men, two peaks occurred in 1927 and then again in 1950 with virtually no cases between these peaks or after 1952. In women only a few sporadic cases were seen in the years before the mid-1940s and since the 1950's has almost disappeared.



### Evolved since 2001

In 2001, the clinic had 4 computers, no email or internet and all client information was paper based. All consultations were appointment based with a 2 week waiting time. Anyone with any symptoms went elsewhere. There was no phone room where clients could call with questions or concerns about their symptoms or STI results.

Since 2001 under the leadership of the visionary Director Professor Kit Fairley, MSHC has seen many changes by focusing on efficiency and access to health care to high risk individuals. A number of interventions have been implemented to improve access to sexual health services by translating medical research into clinical practice (see Figure 5)

Some of the changes:

#### **A walk in triage system (WITS) 2002**

This saw a 20% increase in the number of new clients attending the clinic who were younger and less likely to report using condoms (increased consultations from 19,056 to 22,025)

#### **Examinations of asymptomatic patients ceased 2005**

We found examinations of 400 asymptomatic patients did not provide any clinical improvement to their care so we ceased examining asymptomatic women and use the time gained to see more clients

#### **Nurse Practitioner Program**

The introduction of the sexual health practice nurses in 2007 resulted in significant increases in quality of care and episodes of complete STI testing among men who have sex with men (MSM)

#### **HIV phone results for patients 2008-2013**

We identified those at lowest risk of HIV who could safely receive their negative HIV results on the phone rather than mandating they return in person. There were no HIV positive results among 14,902 low-risk men, none tested positive (0%, 95% CI: 0, 0.00025) or in 16,655 low risk women. We extended negative phone results to MSM and found it significantly reduced unnecessary clinic visits (74% to 33%)

#### **NETS 2010**

The introduction of this express testing service for heterosexuals saw a rise in total consultations and a rise in the risk profile of clients seen outside the express service

**Fully electronic medical records 2011 and computer assisted self interviewing for sexual history (CASI)**

The introduction of an electronic record saw high levels of satisfaction among staff, clients and a 5% rise in consultations (about 2,000 extra) as well as substantially reduced costs

### **Change in sex worker legislation in Victoria 2011**

We provided much of the evidence in published research that led to this change in the sex worker legislation (7 of 12 publications in briefing documents to the Minister). We then showed that the reduction in unnecessary screening (from monthly to every 3 months) resulted in a 15% increase in efficiency of our service saving AU\$247,000

### **HIV SMS results within 24 hours (2015)**

To reduce the pressure on the phone room we introduced automated text messages for HIV negative results (previously we rang clients with HIV positive results) without any adverse feedback.

### **Express clinic for gay men (TAG) 2015**

We introduced a new express HIV/STI testing service called 'Test-And-GO' (TAG) for gay men. The cost of providing TAG testing was significantly less

### **Website**

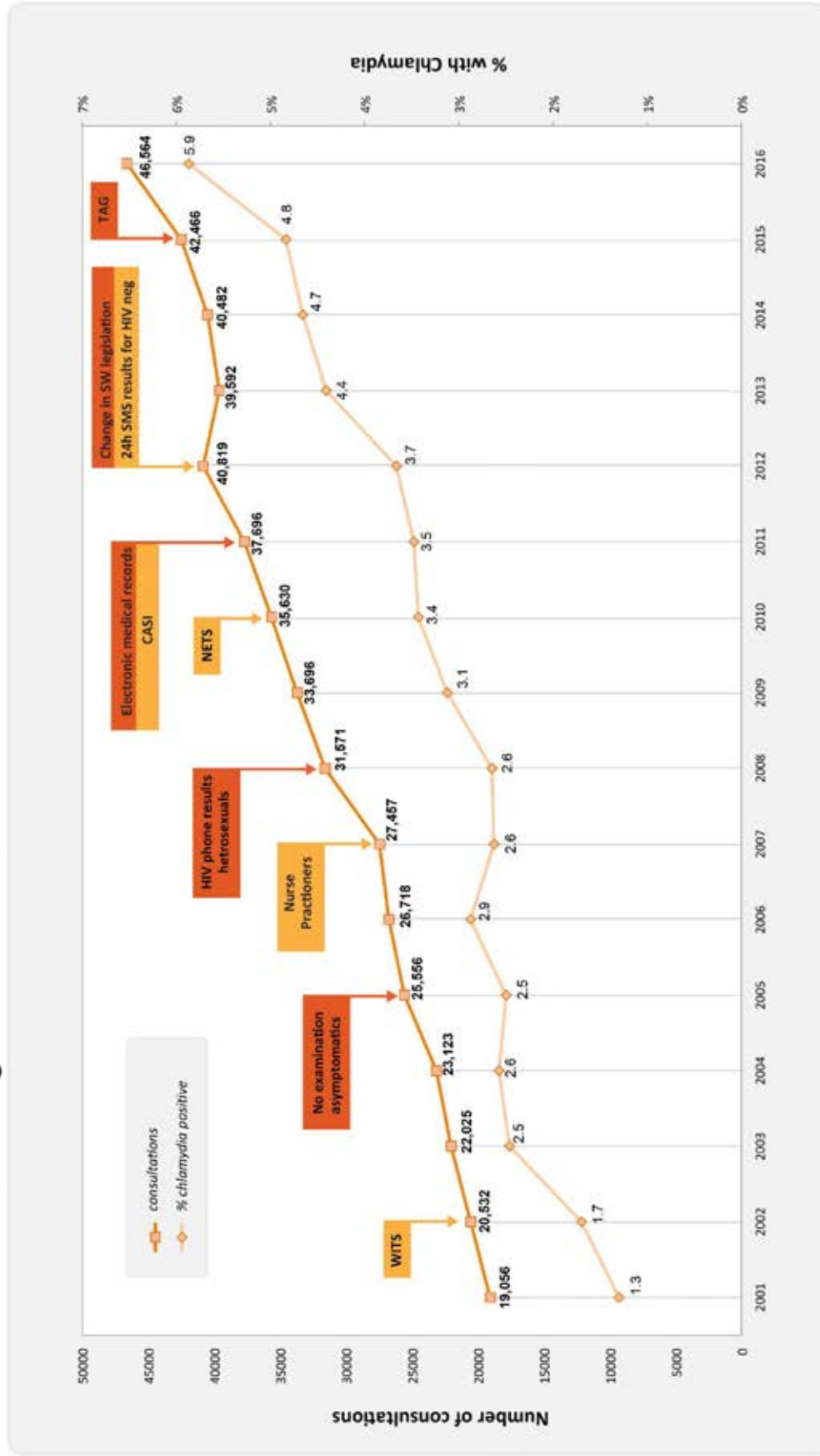
Our website is continuously updated with educational material that is freely available to both the general public and health care providers, particularly general practitioners (GPs). MSHC provides support to GPs as well as the public through its web based service [www.mshc.org.au](http://www.mshc.org.au) and free-call telephone service whereby GPs can receive specialist clinical advice directly from a sexual health physician. For the general public there are interactive online services for partner notification, risk assessments, testing and fact sheets about STIs.

### **Research**

The number of publications in peer reviewed journals steadily increased from 6 in 2002 to 30 in 2012, and then significant increases were achieved from 49 in 2013 to 120 in 2017, and 112 in 2018 (Figure 4)



## Embedding clinical research translates into more efficient health care



### INDEX

- 2002 introduced walk in triage system (WITS)
- 2005 ceased examinations of low risk asymptomatic patients
- 2007 initiated nurse practitioner program
- 2008 HIV phone results for low risk heterosexual patients
- 2010 introduced nurse express service (NETS)

- 2011 fully electronic medical records
- 2011 computer assisted history taking (CASI)
- 2012 provided evidence to reduce sexworker testing to monthly; change in legislation for Victoria
- 2012 fully automated SMS results for HIV negative results
- 2015 introduction of express service for screening men who have sex with men (TAG)

**Footnote:** Graphs shows the number of consultations provided by MSHC each year without any substantial increase in funding and the percentage of consultations with chlamydia diagnosed. This demonstrates more efficient health care by halving costs per consultation: a large increase in the effectiveness of health care because the risk of clients seen (as measured by chlamydia positivity) has risen greatly.



The Team who make it happen





## The Management Team



*Professor Kit Fairley (Director); Suzanne Amisano (Operations Manager), Ria Fortune (Nursing Services Manager), Associate Professor Marcus Chen (Medical Unit Manager)*



*A sample of the historic equipment on display*



*Audience at the presentation July 2018*





*Professor Kit Fairley and Dr Joc Forsyth*



*Suzanne Amisano and Simone Alexander*



*Andrew Way, Ria Fortune and Marcus Chen*



*Dr Anne Myers and Professor Kit Fairley*



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