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ashm
Supporting the HIV, Viral Hepatitis
and Sexual Health Workforce

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2011 AUSTRALASIAN
SEXUAL HEALTH CONFERENCE
28–30 SEPTEMBER 2011
National Convention Centre, Canberra ACT Australia

CONFERENCES HANDBOOK
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CONFERENCE ENVIRONMENT POLICY

ASHM Conference, Sponsorship and Events Division implements a waste-reduction policy that addresses: Reduce, Reuse, Recycle. This is done before, during and after each conference. Our waste-reduction policy aims to implement the following strategies:

• reduce the number of printed materials by using electronic communication means wherever possible, including the website, email, online registration and abstract submission.
• monitor final delegate numbers for an accurate forecast of catering requirements in order to avoid waste.
• research and prioritise purchasing items and equipment that support the use of recycled materials or can be recycled after use.
• ensure that recycling bins are available onsite at all events.
• minimise travel through the use of teleconferences instead of face-to-face meetings and holding meetings only when necessary.
• encourage all conference stakeholders to consider the environment by suggesting the following: reduction in printing requirements; recycling conference materials; and reusing conference merchandise.

WHAT IS SEXUAL HEALTH MEDICINE?

Sexual health medicine is the specialised area of medical practice concerned with healthy sexual relations, including freedom from sexually transmitted infections, unplanned pregnancy, coercion and physical or psychological discomfort associated with sexuality. Its practice encompasses the individual, population, social, interpersonal, microbial and immunological factors that contribute to sexually transmissible infections (STIs), sexual assault, sexual dysfunction and fertility regulation.

Sexual health medicine is concerned with the promotion of the sexual health of the community by identifying and minimising the impact of the above problems through education, behaviour change, advocacy, targeted medical and laboratory screening, clinical service provision, surveillance and research.

Sexual health medicine is a well-established field of medicine with equivalents in the United Kingdom and Europe. In Australia there are two well-established academic chairs of sexual health medicine (Melbourne and Sydney) actively involved in both teaching and research. There are several international journals devoted to sexual health medicine including the Australian journal 'Sexual Health'. All State and Territory health departments recognise and employ specialists in sexual health medicine.
On behalf of the Conference Organising Committee we would like to thank you for coming to Canberra for the 2011 Australasian Sexual Health Conference.

Mr James Ward, Program Head of the Aboriginal and Torres Strait Islander Health Research Program at The Kirby Institute will open the Conference with the Gollow Lecture. This year’s Gollow Lecture will focus on Australia’s first peoples, addressing Aboriginal and Torres Strait Islander people’s health in relation to STIs and BBVs – reflecting on the past and looking forward to a healthy future.

Our international speakers include Professor Charlotte Gaydos (USA) and Professor Jeanne Marrazzo (USA). This year, day one of the Sexual Health Conference will overlap with the final day of the Australasian HIV/AIDS Conference, offering the opportunity for a number of joint symposia addressing current issues in HIV, STIs and prevention, and the needs of prisoners and juvenile detainees. Then, in keeping with a visit to the capital city, our first day will conclude with our own ‘parliamentary debate’.

The Conference program will continue with a range of topics including communicating healthy sexuality, e-health for STI control, strategies to connect with hard-to-reach groups, Aboriginal and Torres Strait Islander health, transgender health, sexuality education, lesbian sexual health, what’s new in STI diagnostics, and updates on the treatment of viral STIs. We will draw on the expertise of key negotiators and industry experts to look at skills required to influence political decision-making in the realm of sexual health.

We know the Conference will be both informative and thought-provoking, and that delegates will also enjoy networking and socialising. The Conference Gala Dinner will be held in the Great Hall at Parliament House on Thursday 29 September, and promises an evening of good food and entertainment, with views across Canberra at night.

We look forward to meeting you all here in Canberra for the 2011 Australasian Sexual Health Conference.

Dr Sarah Martin and Professor Frank Bowden
Canberra Sexual Health Centre
Academic Unit of Internal Medicine
Australian National University Medical School
CONFERENCE ORGANISING COMMITTEE

Co Convenor: Dr Sarah Martin, Canberra Sexual Health Centre
Co Convenor: Professor Frank Bowden, Canberra Sexual Health Centre
Dr Sunita Azariah, Auckland Sexual Health Service
Dr Melanie Bissessor, Melbourne Sexual Health Centre
Mr Tony Blattman, ACT Health
Dr Katerina Lagios, MSI Australia and Justice Health
Dr Josephine Lusk, Short Street Clinic, Sydney
Ms Suzanne Marks, Australasian Chapter of Sexual Health Medicine
Dr Nathan Ryder, Clinic 34, Darwin
Dr Alex Tyson, Canberra Sexual Health Centre
Ms Shannon Woodward, Canberra Sexual Health Centre
Dr Lynne Wray, Sydney Sexual Health Centre

CONFERENCE ORGANISERS

Ms Amy Watson and Mrs Nicole Robertson
The Health Directorate of the ACT Government has a long and proud history of implementing new and innovative programs in the sexual health and blood-borne virus arena.

Partnership approaches are key to the our goal of improving the well-being of our community.

We work closely with non-government and government stakeholders to promote consumer participation, research and evaluation to support effective programs across the sector.

www.health.act.gov.au
2011 AUSTRALASIAN
SEXUAL HEALTH CONFERENCE
28–30 SEPTEMBER 2011
National Convention Centre, Canberra ACT Australia

PROGRAM AT A GLANCE

www.sexualhealthconference.com.au
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<thead>
<tr>
<th>Time</th>
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<tr>
<td>7:00am</td>
<td>Registration</td>
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<tr>
<td>7:00am-8:15am</td>
<td><strong>ACHSHM Education Committee Meeting</strong></td>
<td>Torrens Room</td>
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<tr>
<td>7:00am-8:30am</td>
<td><strong>Thirty years on. Addressing future challenges and acting upon current opportunities</strong> Satellite Symposium sponsored by Gilead</td>
<td>The Ballroom</td>
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<td>7:30am-8:30am</td>
<td><strong>Affiliate Event: Australasian Sexual Health and HIV Nurses Association (ASHHNA) Breakfast Annual General Meeting</strong></td>
<td>Swan Room</td>
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<tr>
<td>8:30am-10:00am</td>
<td><strong>Sexual Health Conference Opening and Joint Conference Plenary</strong></td>
<td>Royal Theatre</td>
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<td>9:00am-10:00am</td>
<td><strong>Gollow Lecture: Dreaming a pathway to equality in health outcomes for Australia’s First Peoples: STI and BBVs</strong></td>
<td>Royal Theatre</td>
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<td><strong>Morning Tea in Exhibition and Poster Area</strong></td>
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<td>10:30am-12:00pm</td>
<td><strong>Joint Conference Symposium: HIV and HPV</strong></td>
<td>Royal Theatre, Bradman Theatre, Menzies Theatre</td>
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<td>12:00pm-1:00pm</td>
<td><strong>Lunch in Exhibition and Poster Area</strong></td>
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<td>12:00pm-2:00pm</td>
<td><strong>ACHSHM Chapter Committee Meeting</strong></td>
<td>Torrens Room</td>
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<td>12:30pm-1:45pm</td>
<td><strong>STI Lab Lunch</strong></td>
<td>Bradman Theatre</td>
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<td>12:30pm-1:30pm</td>
<td><strong>ASHM AGM</strong></td>
<td>Fitzroy/Derwent Room</td>
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<td>2:00pm-3:30pm</td>
<td><strong>Joint Conference/Theme C Symposium: Testing and Prevention</strong></td>
<td>Royal Theatre</td>
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<td>2:00pm-3:30pm</td>
<td><strong>Joint Conference Symposium: Prisoners and juvenile detainees: Are these our forgotten population?</strong></td>
<td>Bradman Theatre</td>
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<td>3:30pm-4:00pm</td>
<td><strong>Afternoon Tea in Exhibition and Poster Area</strong></td>
<td>Exhibition Hall</td>
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<td>4:00pm-5:30pm</td>
<td><strong>Joint Conference Session and HIV/AIDS Conference Closing</strong></td>
<td>Royal Theatre</td>
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<td>5:30pm-7:00pm</td>
<td><strong>Sexual Health Conference Welcome Reception in Exhibition and Poster Area</strong></td>
<td>Exhibition Hall</td>
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<td>7:00pm</td>
<td><strong>ACHSHM Trainee Dinner</strong></td>
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<td>7.00am–8.50am</td>
<td>The Penelope Lowe Trainee Update Breakfast</td>
<td>Swan/Torrens Room</td>
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<td>9.00am–10.30am</td>
<td>Plenary: Communicating Healthy Sexuality</td>
<td>Royal Theatre</td>
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<td>10.30am–11.00am</td>
<td>Morning Tea in Exhibition and Poster Area</td>
<td>Exhibition Hall</td>
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<td>11.00am–12.30pm</td>
<td>Symposium: Updates in the treatment of viral STIs</td>
<td>Royal Theatre</td>
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<td>11.00am–12.30pm</td>
<td>Symposium: Meeting the Needs of Specific Population Groups</td>
<td>Bradman Theatre</td>
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<td>11.00am–12.30pm</td>
<td>Symposium: Lesbian Sexual and Reproductive Health</td>
<td>Menzies Theatre</td>
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<td>Lunch in Exhibition and Poster Area</td>
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<td>12.30pm–2.00pm</td>
<td>AChSHM Annual Meeting</td>
<td>Swan Room</td>
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<td>2.00pm–3.30pm</td>
<td>Proffered Paper Session: Sex Messaging</td>
<td>Royal Theatre</td>
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<td>2.00pm–3.30pm</td>
<td>Proffered Paper Session: Men who Have Sex with Men (MSM)</td>
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<td>2.00pm–3.30pm</td>
<td>Proffered Paper Session: A Focus on Chlamydia</td>
<td>Menzies Theatre</td>
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<td>Afternoon Tea in Exhibition and Poster Area</td>
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<td>4.00pm–5.30pm</td>
<td>Symposium: What's new in STI testing?</td>
<td>Royal Theatre</td>
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<td>4.00pm–5.30pm</td>
<td>Symposium: Getting your message across – Effective use of the media</td>
<td>Bradman Theatre</td>
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<td>4.00pm–5.30pm</td>
<td>Symposium: Closing the Gap by Filling the Gaps</td>
<td>Menzies Theatre</td>
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<td>Sponsored by the Government of Western Australia Department of Health</td>
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<td>7.00pm–11.00pm</td>
<td>Conference Gala Dinner</td>
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<td>7.00am</td>
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<td>7.00am–8.30am</td>
<td>Sexual Assault Breakfast: Swan Room</td>
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<td>This breakfast will focus on presenting a range of cases and issues that are relevant to both sexual health and sexual assault services</td>
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<td>9.00am–10.00am</td>
<td>Plenary: Pelvic Inflammatory Disease</td>
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<td>Symposium: Professional Development Issues</td>
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<td>Royal Theatre</td>
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<td>Symposium: Teaching sexual health: National curriculum and policy priorities</td>
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<td>Proffered Paper Session: E-Health</td>
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<td>Proffered Paper Session: Beyond the Capital city</td>
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<td>1.00pm–2.30pm</td>
<td>Proffered Paper Session: A focus on women</td>
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<td>Sexual Health Conference Closing</td>
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16 2011 AustrAlAsiAn sexuAl heAlth conference
28–30 september 2011
Dr Charlotte Gaydos
Professor, Division of Infectious Diseases, Department of Medicine, Johns Hopkins University, Baltimore, MD, USA

Dr Gaydos is a Professor in the Division of Infectious Diseases, Johns Hopkins University, Director of the North American Branch for the International Union Against Sexually Transmitted Infections and member of the Center for Global Health. She is the Director of the International STI, Respiratory Diseases, and Biothreat Research Laboratory. She has 40 years of laboratory expertise in microbiology, has authored 18 book chapters, 275 research articles, and 460 abstracts/oral presentations. Dr Gaydos has conducted clinical trials for new diagnostics for STIs and respiratory pathogens and developed multiple DNA amplification tests. Internet recruitment of home-collected samples for STI screening has been an effective out-reach program.

Her CLIA-licensed laboratory is the Core Diagnostic/Reference Laboratory for international studies of STIs, respiratory diseases, and trachoma. She is Diagnostic Core Co-investigator for the Mid-Atlantic Center of Excellence for Biothreat and Emerging Diseases and has an NIH Center grant to develop point-of-care tests for STIs.

Dr Jeanne Marrazzo
Professor, Division of Allergy & Infectious Diseases, and Medical Director, Seattle STD/HIV Prevention Training Center, University of Washington, WA, USA

Dr Marrazzo is a Professor in the Division of Infectious Diseases at the University of Washington, in Seattle. She is Medical Director of the Seattle STD/HIV Prevention and Training Center, president of the American STD Association, and Associate Editor of the journal Sexually Transmitted Diseases. She is Protocol Co-Chair of the VOICe Study, a large study implemented by the Microbicides Trial Network to test HIV pre-exposure prophylaxis administered vaginally and orally to women at high risk for HIV infection in sub-Saharan Africa. She is a Fellow of the American College of Physicians and the Infectious Disease Society of America, and has been the Principal Investigator for numerous studies of clinical and epidemiologic aspects of genital chlamydial infections, vaginal infections and cervicitis. Other research interests include molecular epidemiology, pathogenesis, management of bacterial vaginosis, diagnosis and screening of chlamydial infection and epidemiology and management of cervicitis.
GOLLOW LECTURER

Mr James Ward
Program Head, Aboriginal and Torres Strait Islander Health Research Program
The Kirby Institute (formerly National Centre for HIV Epidemiology and Clinical Research),
University of NSW, NSW, Australia

James Ward is a passionate expert in the area of Aboriginal and Torres Strait Islander Health in Australia. He has more than 15 years experience working within communities, ranging from urban to very remote. He is a descendant of the Nurrunga and Pitjantajarra clans of Central and South Australia.

As Senior Lecturer and Head of the Aboriginal and Torres Strait Islander Health Research Program at The Kirby Institute, he leads a research program addressing sexually transmitted infections (STIs) and blood-borne viruses (BBVs) in Indigenous communities. The Program has developed strong national research collaborations and more recently with international Indigenous research organisations.

Prior to taking up his current post Mr Ward has held senior public service and public health roles within both government and non-government organisations. He has made significant contributions throughout his career to the policy environment. In 2010 he was the lead author of the Third National Aboriginal and Torres Strait Islander STI and BBV Strategy 2009-2013 and has been, or is currently a member of numerous Ministerial Committees, professional, technical and expert committees in the area of STIs and BBVs.

Mr Ward is keen to see through the required improvements needed in the area of STIs and BBVs for Aboriginal and Torres Strait Island community in the next decade that will address the significant differences in morbidity that currently exist between Indigenous and non-Indigenous people.

Dr Christopher Fairley
Professor of Sexual Health, University of Melbourne, Director Melbourne Sexual Health Centre, VIC, Australia

Professor Christopher (Kit) Fairley took up the position as Professor of Sexual Health in the Melbourne School of Population at the University of Melbourne and Director of the Melbourne Sexual Health Centre in 2001. He holds three specialist medical fellowships from the College of Physicians: Infectious Diseases, Faculty of Public Health and Chapter of Sexual Health Medicine. He is also a member of the International Executive of the International Union Against Sexually Transmitted Infections (IUSTI). He chaired the 2006 Sexual Health Conference Organising Committee in Melbourne, he was co-chair of the scientific program of 2009 IUSTI World Congress in Cape Town and he will host the 2012 World Congress incorporating the Australasian Sexual Health Conference in Melbourne. He is an editor of the journal Sexual Health. His principal research interests are the public health control of sexually transmitted diseases and the effectiveness of clinical services.

Dr Alan McKee
Professor, Program Head, Promoting Healthy Sexuality Development Research Group, Queensland University of Technology, QLD, Australia

Professor Alan McKee leads the Promoting Healthy Sexuality Research Group at Queensland University of Technology, and heads Research Program 5: ‘Education – Developing improved sexual health education strategies’ in the National and International Research Alliances Program grant ‘Improved surveillance, treatment and control of chlamydial infections’. He has published extensively on healthy sexual development, with particular attention to the role of sexualised media. His most recent article on this topic is ‘The importance of entertainment to sexuality education’, which is in press with Sex Education.
Dr Gollow, the inaugural President of the Australasian College of Venereologists (ACVen), passed away after a short illness on the 3 April 2011. Having had the vision that Venereology should be recognised as a specialty in its own right, he was involved in the establishment of the College, and was its President for the first triennium, 1988-1991.

His career in medicine started in London, but in 1956 he emigrated to Western Australia with his wife Sue, becoming the local medical practitioner for Kununoppin, a small wheat-belt town. In 1958 he and his family moved to Perth to provide better schooling for their children. He initially worked as a General Practitioner in his own practice until he joined the Health Department of Western Australia in 1975 as a Venereologist. The clinic was located at 69 Moore Street and run by Dr Arthur Newnham. Dr Gollow took over the position as Director of VD Control in 1979 when Dr Newnham retired.

During his time as a Venereologist he regularly visited remote areas of the state, where the increasing prevalence of syphilis and gonorrhoea was just being recognised, and provided support and updates to staff in the regions on a regular basis. During his career in Venereology, Dr Gollow had monthly meetings at the clinic where clinicians, scientists and general practitioners with an interest in Venereology used to meet over a glass of wine and some light food.

He worked closely with his laboratory associates and was able to routinely provide chlamydia testing via culture for clinic attendees, at a time when chlamydia was only just being recognised as an important pathogen. He also worked closely with his colleagues in the Health Department to ensure open access to the clinic, with services and treatment provided free of charge for the promotion of greater public-health good. He wrote and lectured prolifically, and had many articles published during his career. His pioneering work was recognised in 1986 when he received the Order of Australia for his services to Venereology. Dr Gollow is survived by his wife Sue, four children Adam, Ian, Charles and Anne, and eleven grandchildren, all of whom he doted on.

As inaugural President of the ACVen Dr Morris Gollow and his wife Suzette endowed funds for an honorarium to be given to the invited presenter of the Gollow Lecture, delivered at the annual scientific meeting of the former Australasian College of Sexual Health Physicians (which followed on from the ACVen). Since 2004, when the Australasian Chapter of Sexual Health Medicine amalgamated with the RACP, the Chapter has sponsored the Lecture at its annual Australasian Sexual Health Conference.
GARDASIL INDICATED IN MEN UP TO 26 YEARS

for the prevention of external genital lesions and infection caused by HPV Types 6,11,16 and 18.

In a worldwide, multicentre trial in over 4,000 males aged 16 through to 26, the efficacy of GARDASIL against HPV 6/11/16/18 external genital lesions (genital warts and perineal/perianal/penile intraepithelial neoplasia) was 90.4% (95% CI:69.2/98.1).

GARDASIL IS THE ONLY QUADRIVALENT HPV VACCINE

PBS Information: This product is listed on the National Immunisation Program (NIP) for 12-13 year old girls.
Refer to NIP schedule

Please review Product Information before prescribing.

REFERENCE: 1. GARDASIL Product Information 2011. MINIMUM PRODUCT INFORMATION: GARDASIL® [Quadrivalent Human Papillomavirus (Types 6, 11, 16, 18) Recombinant Vaccine]
INDICATIONS: GARDASIL® is indicated in females aged 9 through 18 years for the prevention of cervical, vulvar, and vaginal cancer, precancerous or dysplastic lesions, genital warts, and infection caused by Human Papillomavirus (HPV) Types 6, 11, 16, and 18. GARDASIL® is indicated in males aged 9 through 26 years for the prevention of external genital lesions and infection caused by Human Papillomavirus (HPV) Types 6, 11, 16, and 18. Immunogenicity studies have been conducted to link efficacy in females and males aged 16 to 26 years to the younger population. CONTRAINDICATIONS: Hypersensitivity to vaccines, including excipients. PRECAUTIONS: Fever or illness, impaired immune response, thrombocytopenia or any coagulation disorder. The vaccine is not intended to be used for active treatment, routine cervical screening and detection and removal of cervical lesions should be continued in individuals who receive the vaccine. Syncope (fainting) may follow any vaccination, especially in adolescents and young adults. Syncope, sometimes associated with feeling, has occurred after vaccination with GARDASIL. Therefore, vaccination should be carefully observed for approximately 15 minutes after administration of GARDASIL. Use in Pregnancy (Category B2), GARDASIL is not recommended for use in pregnant women. Use in Lactation (GARDASIL) may be administered to lactating women. ADVERSE REACTIONS: Injection site pain, swelling, erythema, bruising, pruritus, and very rarely, bronchospasm. All cause common systemic adverse experiences include pyrexia, diarrhoea, vomiting. Post-marketing Reports: The following adverse experiences have been spontaneously reported during post-approval use of GARDASIL. Because these experiences were reported voluntarily from a population of uncertain size, it is not possible to reliably estimate their frequency or to establish a causal relationship to vaccine exposure. Infections and infestations: cellulitis, Blood and lymphatic system disorders: idiopathic thrombocytopenic purpura, lymphadenopathy. Nervous system disorders: acute disseminated encephalomyelitis, diziness, Guillain-Barré syndrome, headache, syncope sometimes accompanied by tonic-clonic movements. Gastrointestinal disorders: nausea, vomiting. Musculoskeletal and connective tissue disorders: arthralgia, myalgia. General disorders and administration site conditions: asthenia, chills, fatigue, malaise. Immune system disorders: hypersensitivity reactions including anaphylactic/ anaphylactoid reactions, bronchospasm, and urticaria. DOSAGE AND ADMINISTRATION: Administer intramuscularly at day 0 and then at 2 and 6 months after initial dose. In clinical studies, efficacy has been demonstrated in individuals who have received all 3 doses within a 1-year period. Based on TGA approved Product Information of 13th July 2011.

# Please note change in Product Information.

Product information is available from CSL. Biotherapies. ABN 00 120 308 007, 45 Pygmal Road, Parkville, 3052, distributor for Merck, Sharp and Dohme (Australia) Pty Ltd. GARDASIL® is a registered trademark of Merck & Co., Inc., Whitehouse Station, NJ, USA. Thinking Australia® is a registered trademark of CSL Ltd. ADworks 11830

Thinking Australia® CSL Biotherapies
GENERAL INFORMATION

DISCLAIMER
The information in this brochure is correct at the time of printing. The Conference Secretariat reserves the right to change any aspect of the program without notice.

VENUE
National Convention Centre
31 Constitution Avenue,
Canberra City ACT 2601
T: +61 2 6276 5200
F: +61 2 6276 5276

The venue will host the conference sessions, poster presentations, the breakfast sessions, conference day catering and the trade exhibition.

REGISTRATION DESK
The Registration Desk will be located on the Ground Floor, Main Entrance, National Convention Centre. All enquiries should be directed to the Registration Desk which will be open at the following times:

Tuesday 27 September 2011: 4.00pm to 6.00pm
Wednesday 28 September 2011: 7.00am to 6.00pm
Thursday 29 September 2011: 7.00am to 6.00pm
Friday 30 September 2011: 7.00am to 4.30pm

SPEAKER PREPARATION ROOM
A speaker preparation room will be located next to the Registration Desk on the Ground Floor, Main Entrance, National Convention Centre. This room will be open at the following times:

Tuesday 27 September 2011: 4.00pm to 6.00pm
Wednesday 28 September 2011: 7.00am to 6.00pm
Thursday 29 September 2011: 7.00am to 6.00pm
Friday 30 September 2011: 7.00am to 3.00pm

All speakers must take their presentation to the speaker preparation room a minimum of four hours prior to their presentation or the day before if presenting at a breakfast or morning session.

EXHIBITION
An exhibition will be held in the Exhibition Hall on theGround Floor of the National Convention Centre, which also contains the posters and all the catering.

The exhibition will open for the Australasian Sexual Health Conference on Wednesday 28 September 2011 at 10.00am and conclude on Friday 30 September 2011 at 3.00pm.

The exhibition will be open during the following hours:

Wednesday 28 September 2011: 10.00am to 7.00pm
Thursday 29 September 2011: 10.30am to 5.30pm
Friday 30 September 2011: 10.00am to 3.00pm

The exhibition for the Australasian HIV/AIDS Conference will also be available for viewing on Wednesday 28 September 2011 from 10.00am to 7.00pm.
POSTER DISPLAYS
Posters will be displayed for the duration of the Conference in the Exhibition Hall on the Ground Floor of the National Convention Centre.

INTERNET HUB
An Internet Hub, proudly sponsored by the Conference, will be available in the Exhibition Hall on the Ground Floor. Computers will be available for:

- Completing an online conference evaluation survey (with your own personal link)
- Printing a certificate of attendance
- Viewing the abstract search database
- Viewing delegate lists

WIRELESS
Wireless will be available in the Convention Centre. Please ask the Conference Secretariat at the Registration Desk for access instructions.

CATERING
Morning teas, afternoon teas and lunches will be held in the Exhibition Hall each day. Lunches will be served as an informal stand-up buffet. Dietary requirements noted on your registration form have been passed on to the catering staff. Vegetarian options will be available on the buffets. A separate buffet station will be available for other specific dietary requirements such as vegan, halal, gluten intolerance. Please ask the Convention Centre staff at this station for assistance.

At the conference dinner, vegetarian meals will only be available for those who have previously advised. If you wish to have a vegetarian meal and have not booked one, please see the staff at the Registration Desk on Wednesday 28 September to advise.

SPECIAL REQUIREMENTS
Every effort has been made to ensure people with special needs are catered for. If you have not previously advised the Conference Secretariat of any special dietary or disability requirements, please see the staff at the Registration Desk as soon as possible.

QUIET/PRAYER ROOM
Boardroom 2, on level 1 is available for use as a quiet room/prayer room for the duration of the conference.

EMERGENCY AND EVACUATION PROCEDURES
In the event of an emergency, such as a fire, the Convention Centre staff will direct delegates accordingly. A fire evacuation plan is available from the National Convention Centre Concierge/Reception Desk.

SMOKING
This Conference has a no smoking policy.
MOBILE PHONES/BEEPERS
As a courtesy to all delegates and speakers, please switch off, or set to silent, your mobile phones and beepers during all sessions.

MESSAGES
The Convention Centre main concierge reception desk will receive messages by telephone or fax for delegates through their switchboard. A message board is situated near the Conference Registration Desk and should be checked regularly. The Conference Organisers do not accept responsibility for personal mail. Please have all mail sent to your accommodation address.

LUGGAGE STORAGE
During the Conference, luggage can be stored by National Convention Centre staff. If you would like your luggage stored please see the National Convention Centre Registration Desk on the Ground Floor.

TAXIS
Taxis can be hailed or booked in advance. They are reasonably priced and readily available at the airport, railway station, coach terminal and central points within the city. The National Convention Centre also has a ‘taxi direct’ telephone.

Canberra Elite Taxis Phone: 13 22 27

PARKING
Parking for more than 260 cars is available beneath the National Convention Centre, currently at a cost of $12.00 per vehicle per day, or $7.00 per four hours.

NAME BADGES
For security purposes, all attendees must wear their name badge at all times while in the Conference venue. Entrance to the exhibition will be limited to badge-holders only. If you misplace your name badge, please advise staff at the Registration Desk.

PARTICIPANT LIST
Information necessary for your attendance at the Conference will be gathered, stored and disseminated in accordance with the nation’s privacy legislation.

A participant list with name, organisation and state/country will be supplied to all exhibitors at the Conference (excluding those who indicated during registration they did not wish to be named on the participant list).

The participant list will also be viewable by delegates at the Internet Hub.

LIABILITY/INSURANCE
In the event of industrial disruptions or natural disasters the Conference Secretariat cannot accept responsibility for any financial or other losses incurred by delegates. Nor can the Conference Secretariat take responsibility for injury or damage to property or persons occurring during the Conference or associated activities. Insurance is the responsibility of the individual delegate.

PROGRAM INFORMATION
A full Conference program can be found on page 39.
MAJOR CONFERENCE SUPPORTERS
Thank you to the following supporters of the 2011 Conference.
• Australian Government, Department of Health and Ageing
• ACT Health; Department of Health

SESSION SUPPORTER
Thank you to Western Australia; Department of Health for supporting the Symposium Session Closing the Gaps by Filling the Gaps.

SCHOLARSHIP SUPPORTERS
Thank you to the following supporters of the 2011 Conference Scholarships:
• Australian Government, Department of Health and Ageing
• ACT Health; Department of Health
• Western Australia; Department of Health,
• Queensland Government Department of Health.

HIV PRESCRIBER CPD POINTS
HIV 100 prescribers who are accredited in NSW/ACT/VIC/SA will receive three (3) Prescriber CPD points for each day of the conference that they attend.

RACP/AChSHM
Registrants may claim one credit point/hour of the Conference attended to a maximum of 50 credits annually in the Category 2: Group learning activities section.
The onus is on the Fellow themselves to determine the total number of credit points they may claim and to claim them. Further information and access to the MyCPD program is available at www.racp.edu.au.

RACGP
The Conference has been awarded 30 Category 2 RACGP QI&CPD Points. If you wish to claim these points please sign the attendance sheet at the Registration Desk each day you attend.

EVALUATION
Your feedback on the Sexual Health Conference is important as it will help us plan future events. The Conference will be evaluated by Ultrafeedback.
To submit your comments complete the online evaluation, using the username and password provided by Ultrafeedback.
An email reminder will be sent to delegates in the weeks following the Conference. Thank you in anticipation of your feedback.
AWARDS

There are several awards that are presented every year. These are the:

1. **Jan Edwards Prize.** For the best proffered paper presented orally by a Trainee of the Australasian Chapter of Sexual Health Medicine. This is offered annually and sponsored by Novartis – value A$500.

2. **Sexual Health Society of Victoria prizes.** Three prizes are offered for best poster presentations in Clinical/Epidemiological Research, Health Promotion and Social/Behavioural Research – value A$250 each.

3. **The Sexual Health Prize** is awarded by the journal *Sexual Health*. It is awarded to the best written abstract. Abstracts are assessed on a number of features including structure, clarity, the inclusion of actual data (specifically actual numbers), values, confidence intervals and odds ratios. They are not assessed on the strength of the science. Abstracts that win generally contain sufficient data to allow the data to be cited without the need to see the presentation or read the full paper. The author will be awarded a full print and online subscription to the journal – value A$120.

4. **The Penelope Lowe Trainee Update Breakfast Prize.** For the best case presentation by a Trainee – value A$500. This is sponsored by the Sexual Health Society of Victoria.

5. **ASHHNA Prizes.** Each year ASHHNA (Australasian Sexual Health and HIV Nurses Association Inc) awards a prize for the best poster submission by a nurse at the Sexual Health Conference and also awards the Kendra Sundquist Nurses’ Prize for best oral presentation by a nurse – value A$500 each. These awards recognise the outstanding contribution to sexual and reproductive health that nurses make and aim to encourage nurses to develop and present research.

Chapter Awards

Every two years (odd years) the Chapter presents a number of awards:

1. **Sexual Health Medicine Award for Commitment to Education and Training in Sexual Health (open category)**

2. **Sexual Health Medicine Award for outstanding contribution to trainee development by a Fellow (open category)**

3. **Sexual Health Award for significant contribution to sexual health medicine by a Fellow of less than 10 years standing**

4. **Outstanding Contribution to Research in Sexual Health Medicine Award to be awarded to a Fellow or Trainee of the Chapter**

5. **Sexual Health Medicine Award for innovation in service delivery in Sexual Health - for outstanding commitment to improving the delivery of sexual health services as demonstrated by the development of innovative models of service delivery or improved efficiency or improved quality of service delivery (open category)**

6. **Sexual Health Medicine Award for outstanding organisational service to the Chapter who in the opinion of the Chapter Executive have particularly contributed to the welfare of the Chapter but who have not attained the office of President of the Chapter (open category).**
ASSOCIATED EVENTS

WELCOME RECEPTION AND POSTER VIEWING EVENING
5.30pm–7.00pm, Wednesday 28 September 2011
National Convention Centre, Exhibition Hall, Ground Floor

All delegates are invited to enjoy a relaxing end to the first day of the Conference. This is also the dedicated time to meet the poster presenters. It is an opportunity to catch up with old friends and make new friends, while enjoying drinks and canapés.

One ticket to the Welcome Reception is included for all registrants except day registrants.

Ticket cost: A$44 for day registrants and guests

THE PENELope loWE TRAINEE UPDATE BREAKFAST
7.00am, Thursday 29 September 2011
National Convention Centre, Swan/Torrens Room

Registrar case presentations will take place at this early-morning session. Presenters will be asked to present their clinical case and a succinct literature review before taking questions from a panel of sexual health physicians and members of the audience. This session is included in the registration fees for Trainees and students but is an optional extra for all others.

An annual prize of A$500 will be awarded for the best case presentation by a Trainee, sponsored by the Sexual Health Society of Victoria. Please make the time to attend this session to support the Chapter’s Trainees.

Additional tickets to the breakfast can be purchased until 1pm Wednesday 28 September 2011.

Ticket cost: A$22 for all registrants, excluding Trainees and students.

THE PENELope loWE TRAINEE UPDATE BREAKFAST
Dr Penelope Chantelle Lowe – 3 August 1973 to 22 December 2010

Dr Penelope Chantelle Lowe (known as Penny) was born in Auckland, New Zealand on 3 August 1973, grew up in Auckland, attending Epsom Girls Grammar School from 1986 to 1990 and being awarded Proxime Accesit behind the dux of the school. She attended medical school at Otago University, Dunedin, New Zealand and Wellington clinical school, graduating in 1996. She worked in emergency medicine in both New Zealand and London, and gained diplomas in Genitourinary Medicine and Sexual and Reproductive Healthcare in London before moving to Australia.

Penny was a clinical advisor for the Australasian Society of HIV Medicine and a Fellow of the Australasian Chapter of Sexual Health Medicine of the Royal Australasian College of Physicians (FACHSM). She worked in a number of sexual health and HIV clinics in NSW, including servicing rural NSW HIV/Sexual Health clinics and also locum at the Cairns Sexual Health Service in Queensland.

Penny had a keen interest in medical education and attended many post-graduate courses. She participated in the Australasian Chapter of Sexual Health Medicine Education Committee, with lead responsibility for managing site accreditation. Having previously been an enthusiastic Trainee Representative, her exceptional talents were obvious when she was still a Chapter Trainee and the Chapter decided to film her as the candidate in the example Exit Assessment Interview, which remains a valuable resource for Chapter Trainees. Penny was passionate about supporting quality training environments and lobbied for a more Trainee-centric model of training. As a result of her efforts, she has left a worthwhile legacy for current and future Trainees.

Penny was a very capable musician and was member of various choirs. She was also keen swimmer and walker. Her vibrancy, great warmth and humour are greatly missed by Chapter Fellows, Trainees and all those who knew her.

The Trainee Update Breakfast has been renamed The Penelope Lowe Trainee Update Breakfast in her memory and the Chapter is indebted to the Sexual Health Society of Victoria for their sponsorship of the annual prize for the best case presentation by a Chapter Trainee – value A$500.
AUSTRALASIAN CHAPTER OF SEXUAL HEALTH MEDICINE ANNUAL MEETING
12.30pm – 2.00pm, Thursday 29 September 2011
National Convention Centre, Swan Room
Lunch will be served during the Chapter Annual Meeting. The Annual Meeting is only open to Fellows, Trainees and Professional Affiliates of the Australasian Chapter of Sexual Health Medicine.

SEXUAL HEALTH CONFERENCE GALA DINNER - ‘HOT ON THE HILL’
7.00pm, Thursday 29 September 2011
Grand Hall, New Parliament House, Canberra
Put on your glamorous gear and your dancing shoes to join us on Capital Hill for a night to remember. It may be cold outside but the excitement will be hot, hot, hot in the Great Hall of New Parliament House. Pre-dinner drinks will be held in the stunning marble entrance hall, and amongst the towering eucalypts of the Great Hall Tapestry you will dine to the sultry sounds of a live band. After dinner the band will pick up the beat so all can strut their stuff on the dance floor. Come on – get your glad rags on and see if you can be the brightest star shining in the Capital City, at the Conference Gala Dinner, Great Hall, New Parliament House.

Ticket cost:
Tickets only available onsite if cancellations received
Australasian HIV/AIDS & Sexual Health Conference joint registrants: Complimentary
Sexual Health Conference registrants: Complimentary
Australasian HIV/AIDS Conference only registrations: A$120
Partners/Guests: A$120
Bus transfers have been organised to transfer you to Parliament House for the Conference Gala Dinner. Please note the transfer times below:

<table>
<thead>
<tr>
<th>Pick Up</th>
<th>National Convention Centre Canberra</th>
<th>6:15pm, 6:30pm, 6:45pm</th>
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<tbody>
<tr>
<td>Drop Off</td>
<td>Crowne Plaza</td>
<td>11:00pm</td>
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<td></td>
<td>Rydges and Convention Centre</td>
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<td></td>
<td>Rex Hotel</td>
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<td>Clifton on Northborne and Marque Hotel</td>
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FORENSIC AND MEDICAL SEXUAL ASSAULT CLINICIANS AUSTRALIA (FAMSACA):
SEXUAL ASSAULT BREAKFAST
7.00am, Friday 30 September 2011
National Convention Centre, Swan/Torrens Room
FAMSACA would like to invite all delegates to attend a 90-minute breakfast case presentation session. This breakfast will focus on presenting a range of cases and issues that are relevant to both sexual health and sexual assault services.

Additional tickets to the breakfast can be purchased until 1pm Thursday 29 September

Ticket cost: A$22 for all delegates

NGARRA EXHIBITION
Tuesday 27 to Thursday 29 September 2011
National Convention Centre, Ground Floor
For three days during the Australasian HIV/AIDS Conference and the Australasian Sexual Health Conference, Ngarra 2011 will showcase a range of sexual health initiatives for Aboriginal and Torres Strait Islander population groups. This display features projects, resources and activities from organisations and individuals around Australia and provides an opportunity to network and share ideas.

TICKETS TO ASSOCIATED EVENTS
Tickets and/or name badges will be required for entry to the majority of associated events. All tickets will be given out at registration. The tickets are located in the name badge pocket. A no-refund policy operates for cancellation of function tickets.
## EXHIBITION BOOTH LISTING

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<tr>
<th>B1</th>
<th>REYATAZ; Bristol-Myers Squibb</th>
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<td>B2</td>
<td>Novartis</td>
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<td>B3</td>
<td>Viiv Healthcare</td>
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<td>B4</td>
<td>Australasian Society for HIV Medicine (ASHM)</td>
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<td>B5</td>
<td>Alere</td>
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<td>B6</td>
<td>Australian Therapeutic Supplies</td>
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<td>B7</td>
<td>Orasure Technologies</td>
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<td>B8</td>
<td>Boehringer Ingelheim</td>
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<td>B9</td>
<td>The Kirby Institute</td>
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<td>B10</td>
<td>ACT Health</td>
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<td>ASHM Online</td>
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<td>Advantage Health Care</td>
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<td>C2</td>
<td>Victoria Cytology Service</td>
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<td>C3</td>
<td>Dr Marie</td>
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<td>Chapter of Sexual Health Medicine</td>
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<td>C5</td>
<td>CSL Biotherapies</td>
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The following companies are exhibiting during the Australasian HIV/AIDS Conference and will be available on Wednesday 28 September only.

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<td>Janssen Cilag</td>
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<td>Burnet Institute</td>
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<td>MSD – Isentress</td>
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<td>A7</td>
<td>NCHSR</td>
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<td>A8</td>
<td>ASHM International Gift Fund</td>
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<tr>
<td>A9</td>
<td>Australian Research Centre in Sex, Health and Society faculty of Health Sciences (ARCSHS)</td>
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</table>
EXHIBITOR DIRECTORY

B1. REYATAZ; BRISTOL-MYERS SQUIBB

Bristol-Myers Squibb is a global biopharmaceutical company firmly focused on its mission to discover, develop and deliver innovative medicines that help patients prevail over serious diseases. Around the world, our medicines help millions of people in their fights against cancer, cardiovascular disease, diabetes, hepatitis B, HIV/AIDS, rheumatoid arthritis and psychiatric disorders.

B2. NOVARTIS PHARMACEUTICALS

Novartis is a world leader in the research, development and supply of medicines to prevent and cure diseases, ease suffering and enhance quality of life. Headquartered in Basel, Switzerland, we employ approximately 98,000 people worldwide and operate in over 140 countries.

Novartis offers a wide range of healthcare products through our Pharmaceuticals, Vaccines and Diagnostics, Sandoz and Consumer Health Divisions. Our medicines treat some of the most serious conditions confronting healthcare professionals and their patients in the areas of Primary Care, Oncology, Immunology, Infectious Disease and Ophthalmics.

In Australia Novartis employs more than 600 people, and invests over AUD $30 million annually in local research.

Contact details:
Novartis Pharmaceuticals Pty Limited
54 Waterloo Road
North Ryde NSW 2113
Ph: +61 2 9805 3555

B3. VIIV HEALTHCARE

Viiv Healthcare is a global specialist HIV company established by GlaxoSmithKline and Pfizer to deliver advances in treatment and care for people living with HIV. Our company is 100% dedicated to the area of HIV and we aim to take a deeper and broader interest in HIV/AIDS than any company has done before. Our focus is to deliver effective and new HIV medicines and to provide support for the communities affected by the epidemic.

In Australia, Viiv Healthcare has been involved in supporting research through investigator initiated and pivotal clinical studies. Globally, Viiv Healthcare has been actively involved in expanding access to treatment in resource poor settings through compassionate supply programs and royalty free licensing agreements to 69 countries for our current and future products.

For more information visit
Viiv Healthcare
Level 4, 436 Johnston Street
Abbotsford Victoria 3067
Ph: +61 3 9721 6161
Fax: +61 3 8761 2456
Viiv Medical Information: 1800 499 226

B4. AUSTRALASIAN SOCIETY FOR HIV MEDICINE (ASHM)

ASHM is a peak organisation of health professionals in Australia and New Zealand who work in HIV, viral hepatitis and sexually transmissible infections (STIs). ASHM draws on its experience and expertise to support the health workforce and to contribute to the sector.

ASHM’s Professional Education Division provides education, training, guidelines and resources addressing HIV, viral hepatitis and sexual health for medical practitioners, health care providers and allied health workers. Please visit the ASHM booth to pick up free copies of our resources and talk to staff about tailored training opportunities. They can also help you sign up as ASHM members.
B5. ALERE

Alere empowers people to take control of their health by actively integrating diagnostics and health management solutions to provide timely, actionable information in a range of environments from hospital to home. A global leader in rapid point-of-care diagnostics, our products focus on infectious diseases including HIV and STIs, cardiology, oncology and women’s health.

Through developing simple diagnostic equipment we support healthcare workers and patients to help ensure better quality inpatient and outpatient care. One such example is the Alere Pima Analyser which enables point-of-care CD4 T-helper cell analysis of HIV/AIDS patients from a fingerprick or venous blood sample in only 20 minutes. Fully portable, the analyser can be transported directly to the patient, allowing healthcare professionals to conduct CD4 testing in rural communities and resource limited settings as well as at the physician’s office.

Contact Details
Alere Australia
Ph: +61 7 3363 7100
Fax: +61 7 3363 7199
1800 622 642 Freecall (in Aus
Email: au.enquiries@alere.com

B6. FOUR SEASONS CONDOMS

With over 20 years experience in condoms and sexual health products, we are excited to launch our range of Naked condoms – they feel like not wearing a condom at all! Designed to be ultra thin but also extra strong, the Naked range is available in three completely different sizes of tighter 49mm, classic 54mm and larger 60mm. Ask for sample of our Naked flavour condom range and water based lubricants, and grab one of our promotional tin packs. Four Seasons is a Quality Endorsed company and 100% Australian owned and operated.

B7. ORASURE TECHNOLOGIES

Based in Pennsylvania, USA, OraSure Technologies develops, manufactures and markets point-of-care, oral fluid specimen collection devices that leverage proprietary oral fluid technologies, diagnostic products, including immunoassays and other in vitro diagnostic tests, and other medical devices. These products include tests for the detection of antibodies for the HIV virus (the OraQuick ADVANCE® Rapid HIV-1/2 Antibody Test and the OraSure® HIV-1 Oral Specimen Collection Device), a test for antibodies for the HCV virus (the OraQuick® HCV Rapid Antibody Test) and oral fluid testing solutions for drugs of abuse testing (Intercept® Oral Fluid Drug Testing System and Q.E.D.® Saliva Alcohol Test). These products are sold to clinical laboratories, hospitals, clinics, community-based organizations, public health organizations, distributors, government agencies, physicians’ offices, commercial and industrial entities.

Headquarters:
220 East First Street
Bethlehem, PA 18015 USA

Contact Person:
Mr. Quoc Pham, Director of Asia Pacific Sales
Mobile: +1 503 334 7754
Email: qpham@orasure.com

B8. BOEHRINGER INGELHEIM

Boehringer Ingelheim is committed to active involvement and practical answers for people living with HIV. The fight against HIV/AIDS extends to resource-poor settings where Viramune® (nevirapine) has been donated to treat more than 1,747,000 mother-child pairs 170 programmes in 60 countries through the Viramune Donation Programme. Boehringer Ingelheim is also proud to be a member of the Collaboration for Health in PNG (CHPNG). The CHPNG is the initiative of a group of Australian pharmaceutical companies who are dedicated to making a philanthropic contribution towards improving the health and wellbeing, and political and social stability of Australia’s nearest neighbour and is currently working with its partners to provide education and support to health care workers in PNG.

Contact:
PO Box 1969
Macquarie Centre
NORTH RYDE NSW 2113
Ph: +61 2 8875 8833
Fax: +61 2 8875 8712
B9. THE KIRBY INSTITUTE

The Kirby Institute for infection and immunity in society is the new identity for the organisation formerly known as the National Centre in HIV Epidemiology and Clinical Research and was launched on the 25th anniversary of the founding of the three National Centres of HICV Research by the Australian Government in 1986. The new identity reflects the Kirby Institute’s greater breadth of research focus across infectious diseases, and is named for the former Justice of the High Court of Australia, Mr Michael Kirby. The ten programs and groups range from clinical work in HIV, HCV, co-infection and STIs, and public health work in prevention and behavioural and cultural research. We continue to undertake a range of surveillance work, as well as databases, modeling and linkage. In the laboratory the focus is on immunopathogenesis and assay development. We also work in Indigenous health, justice health and a range of related programs and evaluations. At present our programs are spread across three locations; by 2013/14, the staff of the Kirby Institute will be together at one location at the University of New South Wales main campus.

The Kirby Institute
The CFI building
Corner West and Boundary Streets
Darlinghurst NSW 2010 Australia
Ph: +61 2 9385 0900
Email: recpt@kirby.unsw.edu.au
Web: www.kirby.unsw.edu.au

B10. THE ACT HEALTH DIRECTORATE—WORKING IN PARTNERSHIP

The Health Directorate of the ACT Government has a long and proud history of implementing new and innovative programs in the sexual health and blood-borne virus arena. Partnership approaches are key to the ACT Government’s goal to improving the overall well-being of our community by reducing the incidence and impact of these conditions. We work closely with non-government and government stakeholders to promote consumer participation, research and evaluation to support effective programs across the sector.

Tony Blattman
Senior Policy Officer Policy Support Office Population Health, Health Directorate, Act Government
GPO BOX 825 CANBERRA CITY ACT 2601
Email: tony.blattman@act.gov.au
Web: www.health.act.gov.au

B11. ASHM ONLINE

ASHM has just developed a new website specially designed to provide health professionals with a gateway for all policies, resources, publications, curriculums, training and education related to HIV, Hepatitis C and Hepatitis B testing. Come try out the new website for yourself or go to http://testingportal.ashm.org.au.

Another online initiative from the HIV/AIDS and Sexual Health Conferences is the launch of Twitter. If you’ve never really understood this online phenomenon or want to know more about its professional applications in a health setting then please visit the booth where you can watch instructional videos, sign up on the spot, and learn more from staff. You can also follow us online. Look for #hivsexhealthconf.

C1. ADVANTAGE HEALTH CARE

ADVANTAGE HEALTH CARE PTY LTD (AHC) is a Melbourne based privately owned Australian company which was established in 1987. AHC is the distributor of a number of leading brands in a number of therapeutic areas as follow:
- Women’s Health
- Obstetric related products
- Continence management
- Breastfeeding
- Health and Fitness, including body composition and weight management
- Compression Therapy
- Orthopaedics and rehabilitation
- Pressure care and wound prevention

We strive as a company to provide the most technically advanced products by continuously searching for products that make a difference in peoples’ lives. The team at AHC provides professional customer service, with the understanding that the patients’ quality of life is of most importance.

Advantage Health Care Pty Ltd
34 Percy Street
MORDIALLOC VIC 3195 Australia
Ph: +61 3 9580 9288
Fax: +61 3 9587 5871
Email: info@advantagehealthcare.com.au
Web: www.advantagehealthcare.com.au
C2. VICTORIA CYTOLOGY SERVICE

VCS is a health promotion charity specialising in the reporting of conventional Pap tests, Thin Prep specimens, gynaecological histology specimens, as well as HPV and Chlamydia testing.

VCS is a leader in its field reporting approximately 50% of Victoria’s Pap tests. As a public laboratory, VCS plays an integral role in training cytopathologists, cytologists and students. VCS also supports the Victorian Cervical Registry (VCCR) & the Human Papilloma Registry.

Lyndal Ritchie
Customer Liaison
Victorian Cytology Service
PO Box 178
Carlton South VIC 3053
Ph: +61 3 9250 0300
Fax: +61 3 9349 1949
Email: lritchie@vcs.org.au
Web: www.vcs.org.au

C3. DR MARIE

Dr Marie is a part of the Marie Stopes International global partnership that provides sexual and reproductive healthcare services in 40 countries around the world. Here in Australia Dr Marie has 17 centres throughout the ACT, NSW, QLD, VIC and WA offering contraception services (IUD/IUS, implants and injections), STI check-ups, colposcopies (selected centres), unplanned pregnancy counselling, abortion (surgical and medical) and vasectomy (selected centres).

Go to www.drmarie.org.au to learn more.

C4. AUSTRALASIAN CHAPTER OF SEXUAL HEALTH MEDICINE

The Australasian Chapter of Sexual Health Medicine is the professional body responsible for the education and training of doctors wishing to specialise in sexual health. It contributes to the professional development of other health professionals through its training courses, and the development and dissemination of guidelines and other educational products. It provides expert advice to government and other agencies on sexual health matters and its Fellows contribute to policy development at state and national level.

Contact the Australasian Chapter of Sexual Health Medicine
Education Officer (training related enquiries)
Education Services Department
The Royal Australasian College of Physicians
145 Macquarie Street
SYDNEY NSW 2000
Ph: +61 2 9256 9669
Fax: +61 2 9256 9698
Email: shmedtraining@racp.edu.au

Executive Officer (all other enquiries)
Australasian Chapter of Sexual Health Medicine
The Royal Australasian College of Physicians
145 Macquarie Street
SYDNEY NSW 2000
Ph: +61 2 9256 9643
Fax: +61 2 9256 9693
Email: shmed@racp.edu.au

C5. CSL BIOOTHERAPIES

CSL Biotherapies manufactures and markets biological products for human use, in-licenses and markets vaccines and prescription pharmaceuticals to treat a range of serious human medical conditions as well as support all aspects of the process from the collection and testing of donated plasma through to the production of a range of plasma-derived products and the manufacture and market in vitro diagnostic products. Headquartered in Australia, CSL Biotherapies also has operations based in New Zealand and the USA. Vaccines manufactured by CSL are used in global markets. The international demand for CSL’s influenza vaccine continues to grow as the benefits of protection from this life-threatening disease are more widely recognised around the world.
2011 AUSTRALASIAN
SEXUAL HEALTH CONFERENCE
28–30 SEPTEMBER 2011
National Convention Centre, Canberra ACT Australia

FULL CONFERENCE PROGRAM

www.sexualhealthconference.com.au
## Wednesday 28 September

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
<th>Chair(S)</th>
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<tbody>
<tr>
<td>7.00am</td>
<td>Registration</td>
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<tr>
<td>7.00am-8.15am</td>
<td>AChSHM Education Committee Meeting</td>
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<tr>
<td>7.00am-8.30am</td>
<td>Thirty years on. Addressing future challenges and acting upon current opportunities satellites symposium sponsored by Gilead</td>
<td></td>
<td>Chair: Sharon Lewin</td>
</tr>
<tr>
<td>7.30am-8.30am</td>
<td>Old Problems New Insights; Current opportunities of adherence and cost to patients</td>
<td></td>
<td>Professor Andrew Carr, St Vincent's Hospital, Sydney, NSW, Australia</td>
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<tr>
<td>8.00am-8.30am</td>
<td>Back to the Future - The future challenge of curing HIV</td>
<td></td>
<td>Dr Romas Geleziunas, Director Biology, Gilead Sciences, Foster City, USA</td>
</tr>
<tr>
<td>7.30am-8.30am</td>
<td>Affiliate Event: Australasian Sexual Health and HIV Nurses Association (ASHHNA) Breakfast Annual General Meeting</td>
<td>Swan Room</td>
<td>Chair: Ms Donna Tilley</td>
</tr>
<tr>
<td>8.30am-10.00am</td>
<td>Sexual Health Conference Opening and Joint Conference Plenary</td>
<td>Royal Theatre</td>
<td>Chairs: Anne Robertson, Sarah Martin and Frank Bowden</td>
</tr>
<tr>
<td>8.35am-8.40am</td>
<td>Introduction by Convenor of the 2011 Sexual Health Conference Committee</td>
<td></td>
<td>Dr Sarah Martin, Staff Specialist, Canberra Sexual Health Centre, ACT, Australia</td>
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<tr>
<td>8.45am-8.50am</td>
<td>Welcome to Country</td>
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<td>Chief Minister Katy Gallagher, ACT, Australia</td>
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<tr>
<td>8.50am-8.55am</td>
<td>Welcome by President of the Australasian Chapter of Sexual Health Medicine</td>
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<td>Dr Anne Robertson, President of the Australasian Chapter of Sexual Health Medicine</td>
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<tr>
<td>8.55am-9.00am</td>
<td>Introduction to the Gollow Lecture</td>
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<td>Dr Anne Robertson, President of the Australasian Chapter of Sexual Health Medicine</td>
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<tr>
<td>9.00am-10.00am</td>
<td>Gollow Lecture: Dreaming a pathway to equality in health outcomes for Australia's First Peoples: STI and BBVs</td>
<td></td>
<td>Mr James Ward, Program Head, Senior Lecturer, Aboriginal and Torres Strait Islander Health Program, The Kirby Institute, Sydney, NSW, Australia</td>
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<tr>
<td>10.00am-10.30am</td>
<td>Morning Tea in Exhibition and Poster Area</td>
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<tr>
<td>10.30am-12.00pm</td>
<td>Joint Conference Symposium: HIV and HPV</td>
<td>Royal Theatre</td>
<td>Chairs: Katerina Lagos and Richard Hillman</td>
</tr>
<tr>
<td>10.30am-10.45am</td>
<td>Implementation of Australia's largest clustered randomised trial in Aboriginal health</td>
<td>Bradman Theatre</td>
<td>Chair: James Ward and John Kaldor</td>
</tr>
<tr>
<td>10.50am-11.10am</td>
<td>Update on HPV in HIV positive women</td>
<td></td>
<td>Professor Suzanne M. Garland, Director of Microbiological Research and Head of Clinical Microbiology and Infectious Diseases, Royal Women's Hospital, and Senior Consultant Microbiology, Royal Children's Hospital, VIC, Australia</td>
</tr>
<tr>
<td>10.50am-11.10am</td>
<td>Digital rectal examination to screen for anal cancer in HIV positive men having sex with men (MSM)</td>
<td>Menzies Theatre</td>
<td>Chair: Tuck Meng Soo</td>
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<tr>
<td>10.50am-11.00am</td>
<td>Point of care tests for syphilis: Is there a role for them in our patients today and tomorrow?</td>
<td></td>
<td>Dr Brendan McMullen, Microbiology Registrar, St Vincent's Hospital, Conjoint Associate Lecturer, University of New South Wales, Sydney, NSW, Australia</td>
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<tr>
<td>10.50am-11.10am</td>
<td>Neurosyphilis and HIV: A headache for both patients and doctors</td>
<td></td>
<td>Dr Mark Kelly, AIDS Medical Unit, Queensland Health, Brisbane, QLD, Australia</td>
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<tr>
<td>11.00am-12.00pm</td>
<td>Joint Conference Symposium: STRIVE: Making a difference in primary care to address STI rates in remote Aboriginal communities</td>
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<tr>
<td>11.00am-12.00pm</td>
<td>STRIVE: Making a difference in primary care to address STI rates in remote Aboriginal communities</td>
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<td>11:10am–11:30am</td>
<td>Oropharyngeal carcinoma related to Human papillomavirus</td>
<td>Dr. Angela Hong, Radiation Oncologist and Clinical Senior Lecturer, Faculty of Medicine, University of Sydney, Sydney, NSW, Australia</td>
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<tr>
<td>10:45am–11:00am</td>
<td>Use of quality improvement strategies to address endemic rates of STI in remote primary health care services</td>
<td>Ms. Bronwyn Silver, STI Research Fellow, Menzies School of Health Research, Alice Springs, NT, Australia</td>
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<tr>
<td>11:00am–11:15am</td>
<td>The 2010 baseline prevalence study conducted by the STRIVE trial</td>
<td>Dr. Rebecca Guy, The Kirby Institute, University of New South Wales, Sydney, NSW, Australia</td>
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<tr>
<td>11:15am–11:30am</td>
<td>Routine STI testing patterns in remote health services in the Northern Territory and Far North Queensland</td>
<td>Ms. Skye McGeoghe, The Kirby Institute, University of New South Wales, Sydney, NSW, Australia</td>
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<tr>
<td>11:30am–11:50am</td>
<td>Health service utilisation patterns in FNQ remote communities: Implications for STI testing</td>
<td>Ms. Belinda Hengel, Far North Queensland STRIVE Co-ordinator, Aurukun Cape York Health Council, Cairns, QLD, Australia</td>
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<tr>
<td>12:00pm–12:30pm</td>
<td>Discussion</td>
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<tr>
<td>12:30pm–12:43pm</td>
<td>The influence of organism load on the sensitivity of point-of-care tests for chlamydia</td>
<td>Dr. David Whiley</td>
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<tr>
<td>12:43pm–12:56pm</td>
<td>Point-of-care tests for the detection of Neisseria gonorrhoeae: A systematic review of operational characteristics and performance</td>
<td>Ms. Lucy Watchirs Smith</td>
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<tr>
<td>12:56pm–1:15pm</td>
<td>Neisseria gonorrhoeae – Culture or PCR?</td>
<td>Dr. Brian Hughes</td>
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<tr>
<td>1:15pm–1:30pm</td>
<td>Neisseria gonorrhoeae resistance to ceftriaxone: Where are we at?</td>
<td>Dr. David Whitey</td>
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<tr>
<td>1:30pm–1:45pm</td>
<td>The epidemiological associations of BV candidate bacteria in sexually experienced and inexperienced women with BV and normal vaginal flora</td>
<td>Dr. Kath Fethers</td>
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<td>Discussion</td>
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<tr>
<td>12:30pm–1:30pm</td>
<td>ASHM AGM</td>
<td>Fitzroy/Derwent Room</td>
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<tr>
<td>2:00pm–3:30pm</td>
<td>Joint Conference Symposium: Testing and Prevention</td>
<td>Royal Theatre Chairs: Andrew Grulich</td>
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<tr>
<td>2:00pm–2:20pm</td>
<td>HIV testing and prevention: The New Zealand experience</td>
<td>Dr. Peter Saxton, Postdoctoral Fellow, Department of Preventive and Social Medicine, University of Otago, New Zealand</td>
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<tr>
<td>2:00pm–2:10pm</td>
<td>The 2010 National Prison Entrants’ Bloodborne Virus and Risk Behaviour Survey – update and Report Launch</td>
<td>Professor Tony Butler, The Kirby Institute, Sydney, NSW, Australia</td>
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<tr>
<td>2:10pm–2:40pm</td>
<td>Advocacy for a prison needle and syringe program trial with prominent Australians</td>
<td>Mr. John Ryan, Chief Executive Officer, Anex, Melbourne, VIC, Australia</td>
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<td>2:40pm–3:00pm</td>
<td>Joint Conference Symposium: Prisoners and juvenile detainees: Are these our forgotten population?</td>
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<td>2:00pm–2:10pm</td>
<td>Medical Aspects of HIV Management Specific to Women</td>
<td>Dr. Michelle Giles, The Alfred Hospital, Melbourne, VIC, Australia</td>
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<tr>
<td>2.25pm–2.45pm</td>
<td>Testing times - Peer educators in community-based testing environments</td>
<td>Ms Patricia Längdon, Executive Director, Western Australian AIDS Council, West Perth, WA, Australia</td>
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<tr>
<td>2.45pm–3.05pm</td>
<td>Sexual behaviour and wellbeing of Australian prisoners</td>
<td>Associate Professor Juliet Richers, Associate Professor in Sexual Health, School of Public Health and Community Medicine, University of NSW, Sydney, NSW, Australia</td>
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<td>3.05pm–3.25pm</td>
<td>Stigma and Women Living with HIV: A Cooperative Inquiry</td>
<td>Ms Jane Bruning, National Coordinator Positive Women Inc, New Zealand, and Asia Pacific UNAIDS PCB NGO Delegate</td>
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<td>3.30pm–3.40pm</td>
<td>Community-based HIV testing services for gay men: A systematic review</td>
<td>Ms Alisa Pedrina, PhD Scholar, Bumet Institute, Melbourne, VIC, Australia</td>
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<td>3.50pm–4.00pm</td>
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<tr>
<td>9.00am–10.30am</td>
<td>Plenary: Communicating Healthy Sexuality</td>
<td>Royal Theatre</td>
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<td>Chairs: Sarah Martin and Catriona Bradshaw</td>
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<tr>
<td>9.00am–10.30am</td>
<td>What is healthy sexuality? Learning from entertainment</td>
<td>Menzies Theatre</td>
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<td>Chairs: Shannon Woodward and Nathan Ryder</td>
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<tr>
<td>10.00am–11.00am</td>
<td>Proffered Paper Session: A Focus on Chlamydia</td>
<td>Menzies Theatre</td>
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<td>Chairs: Sunita Azariah and Basil Donovan</td>
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<td>Swan Room</td>
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<td>11.00am–12.30pm</td>
<td>Symposium: Updates in the treatment of viral STIs</td>
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<td>Royal Theatre</td>
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<td>Chairs: Simon Woodward and Nathan Ryder</td>
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<td>11.00am–12.30pm</td>
<td>Symposium: Lesbian Sexual and Reproductive Health</td>
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<td>Chair: Sarah Martin</td>
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<td>12.00pm–1.00pm</td>
<td>ACHSHM Annual Meeting</td>
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<td>2.00pm–3.30pm</td>
<td>Proffered Paper Session: Sex Messaging</td>
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<td>Chairs: Alan McKee and James Ward</td>
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<td>2.00pm–3.30pm</td>
<td>Proffered Paper Session: Men who Have Sex with Men (MSM)</td>
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<td>Chairs: Tuck Meng Soo and Richard Hillman</td>
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<td>2.00pm–3.30pm</td>
<td>Proffered Paper Session: How to Have Safe Sex (HSS)</td>
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### Sexting and young people: Pressure points

Ms Shelley Walker

### Epidemiological treatment of chlamydia co-infection in MSM with a presumptive diagnosis of urethral gonorrhoea in South Australia - Should we or shouldn’t we?

Dr Carole Khaw (Trainee Presentation)

### SMS reminders increase re-testing for repeat chlamydial infection in heterosexuals at a sexual health clinic

Dr Rebecca Guy

### The CaddyShack Project: Overcoming barriers in access to chlamydia screening for young people

Mr Marty Janssen

### High levels of Neisseria gonorrhoeae in men with symptomatic gonococcal proctitis: Implications for gonorrhoea transmission

Dr Melanie Bissessor

### Afternoon Tea in Exhibition and Poster Area

### Symposium: What’s new in STI testing?

Royal Theatre
Chair: David Whiley and Sunita Azariah

#### What is new in Point of Care (POC) tests for STIs? Can we treat more STIs with POC tests?

Professor Charlotte Gaydos, Professor, Division of Infectious Diseases, Department of Medicine, Johns Hopkins University, Baltimore, MD USA

#### NAAT detection of N. gonorrhoeae on extragenital samples: are we ready for it?

Associate Professor Sepideh Tabrizi, University of Melbourne, Melbourne, VIC, Australia

#### Some serological hazards of HIV and syphilis testing

Associate Professor Peter Robertson, Serologist, Prince of Wales Hospital, Sydney, NSW, Australia

### Symposium: Getting your message across – Effective use of the media

Bradman Theatre
Chair: Frank Bowden

#### You’ve got to respect Today Tonight

Professor Alan McKee, Professor, Program Head, Promoting Healthiness Development Research Group, Queensland University of Technology, Brisbane, QLD, Australia

#### Infectious disease and catching the media

Mr Mark Metherell, Health Correspondent, Sydney Morning Herald, Sydney, NSW, Australia

### Proving that collaborative research is do-able in the Aboriginal Community Controlled Health Sector that will improve outcomes in STI and BBV

Mr Mark Saunders, Policy Officer, NACCHO, ACT, Australia

### Increased completeness of Aboriginal reporting for notifiable diseases through data linkage

Associate Professor Peter Robertson, Serologist, Prince of Wales Hospital, Sydney, NSW, Australia

### Why and when to use the media?

Mr Francis Sullivan, Secretary General, Australian Medical Association, Canberra, ACT, Australia

### Hearing from young Aboriginal and Torres Strait Islander people about their sexual health and wellbeing

Dr Clint Arizmendi, Research Fellow, The Kirby Institute, Sydney, NSW, Australia

### Discussion

### Conference Gala Dinner

New Parliament House

### FRIDAY 30 SEPTEMBER

#### Registration opens

#### Sexual Assault Breakfast: Swan Room

This breakfast will focus on presenting a range of cases and issues that are relevant to both sexual health and sexual assault services

#### Plenary: Pelvic Inflammatory Disease

Royal Theatre
Chair: Lynne Way and Lewis Marshall

#### Pelvic Inflammatory Disease in the Era of the Microbiome Project and Evolving Antimicrobial Resistance: Implications for Clinicians

Professor Jeanne Marrazzo, Professor, Division of Allergy and Infectious Diseases, Medical Director, Seattle STD/HIV Prevention and Training Center, University of Washington, USA

#### Morning Tea in Exhibition and Poster Area

#### Symposium: Teaching sexual health: National curriculum and policy priorities

Bradman Theatre
Chair: Tim Bavinton

#### Symposium: Transgender Health

Menzies Theatre
Chair: Tuck Meng Soo
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<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
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<tr>
<td>10:30am–11:00am</td>
<td>Statistical design and analysis of studies: Avoid it, DIY, consult or collaborate?</td>
<td>Mr Niels Becker, Director, National Centre for Epidemiology and Population Health, The Australian National University, Canberra, ACT, Australia</td>
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<tr>
<td>11:00am–11:15am</td>
<td>Writing Grant Applications</td>
<td>Professor Christopher Fairley, Professor of Sexual Health, University of Melbourne, Director Melbourne Sexual Health Centre, VIC, Australia</td>
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<td>11:15am–11:30am</td>
<td>Cultural Respect and Communication Guide</td>
<td>Mr Rob Monaghan, NSWR Aboriginal Sexual Health Coordinator, Grafton Base Hospital, Grafton, NSW, Australia</td>
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<td>11:30am–11:50am</td>
<td>Lighting the fire, not filling the pail - Positioning sexuality in the Australian curriculum</td>
<td>Ms Cecelia Goe, Director of Education and Community Services, Family Planning Queensland, Fortitude Valley, QLD, Australia</td>
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<td>11:50am–12:00pm</td>
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ORAL PRESENTATION ABSTRACTS

WEDNESDAY 28 SEPTEMBER 2011
GOLLOW LECTURE

<table>
<thead>
<tr>
<th>PAPER NUMBER: 74</th>
<th>DREAMING A PATHWAY TO EQUALITY IN HEALTH OUTCOMES FOR AUSTRALIA’S FIRST PEOPLES: STI AND BBVS</th>
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</table>
| Ward J¹ | Imagine 2021, ten years from now. The fourth and fifth Aboriginal and Torres Strait Islander STI and BBV Strategies have been evaluated with a decision made by all concerned, including Aboriginal and Torres Strait Islander leadership not to pursue a sixth strategy. For reasons none other than we are doing as well or better than non Indigenous Australians. Or am I just dreaming?

The extreme health disadvantage experienced by Aboriginal and Torres Strait Islander people is now widely recognised by contemporary Australian society. Initiatives such as the ‘close the gap campaign’ aimed at overcoming disadvantage are widely supported. However an area of major concern for young Aboriginal and Torres Strait Islander people is the sustained rates of STIs and increasing risk of transmission of BBVs. This area of Aboriginal health has not received as much attention as some others. This area is complex to address because of the sensitivity of the issues involved, the disparate perspectives of preventative and clinical service delivery, (the different health sectors and workforce, lack of coordination and resources), the diversity of population characteristics and the responses required to address individual STIs and BBVs across regions.

While the solutions for entrenched disparity need to be long term, there has been a temptation, repeated at regular intervals, to find solutions which offer the promise of quick gains. Approaches such as mass treatment programs and incentive based testing and treatment programs fall into this category. An alternative which has proven to yield sustainable outcomes is the strengthening of Aboriginal community led programs and primary health care done simultaneously with community development and capacity strengthening. This approach will inevitably allow for Aboriginal people to have the fullest access to best possible primary health care. In addition the use of performance indicators to track progress and guide modifications to service delivery are needed, combined with targeted initiatives designed in a way that there is full understanding, participation and ownership from Aboriginal communities affected.

There have already been some successes in the field of STI control among Aboriginal and Torres Strait Islander peoples of Australia, and there are others that are not out that far out of reach. Examples are the virtual elimination of donovanosis, a very stable HIV epidemic; declines in infectious syphilis in Aboriginal communities. These should be built upon so that the dreams of Aboriginal and Torres Strait Islander Australians and those who are non Indigenous working in this field are fully realised.

¹The Kirby Institute, University of New South Wales, Sydney, NSW.

NOTES
JOINT CONFERENCE SYMPOSIUM: STRIVE: MAKING A DIFFERENCE IN PRIMARY CARE TO ADDRESS STI RATES IN REMOTE ABORIGINAL COMMUNITIES

PAPER NUMBER: 590

IMPLEMENTATION OF AUSTRALIA’S LARGEST CLUSTERED RANDOMISED TRIAL IN ABORIGINAL HEALTH: PROGRESS TOWARD A GOAL

Garton L1, Guy R1, Silver B2, Taylor-Thompson D2 Hengel B2, Knox J1 McGregor S1 Wand H1, Rumbold A4 Ward J1, Kaldor J1 on behalf of the STRIVE Investigator Group.

Background: Globally STI randomised trials have proven successful in reducing STIs especially using a variety of STI treatment strategies. All but one of the eight published STI RCTs globally have achieved reductions (30-60%) in STI prevalence or incidence. Many remote Aboriginal communities have sustained and elevated rates of chlamydia, gonorrhoea and trichomoniasis despite program and policy efforts to reduce prevalence.

Method: STRIVE is a randomised clustered trial designed to improve sexual health service delivery for people, aged 16 to 34 years, living in 67 remote communities across three jurisdictions in Australia. The aim of the trial is to assess if a targeted STI quality improvement program can improve STI testing and management practices to a level sufficient to decrease STI prevalence in the community.

Aim: To determine (1) whether targeted support to health services, using a quality improvement framework can achieve improvements in sexual health clinical services in remote communities; and (2) whether the attainment of best practice levels in clinical activity can reduce prevalence of bacterial STIs.

Summary of outcomes: STRIVE has achieved significant steps, including engagement of 67 remote health services and communities, baseline data collection, the development of STI best practice indicators and a sexual health quality improvement program tailored for remote communities as well as upgrades to patient management systems in three jurisdictions.

Discussion: Randomised trials in any setting can encounter a range of challenges, even when conducted under a model of community involvement and ownership. Some of the challenges we have experienced have included; ensuring proper community and key stakeholders engagement as the trial has progressed, complying with our own proposed project timeframe, the need to seek multiple ethics committee approvals and cross jurisdictional approvals, modifications to several patient management systems and seeking access to laboratory data. STRIVE progress, methodology and expected outcomes will be discussed.

PAPER NUMBER: 592

USE OF QUALITY IMPROVEMENT STRATEGIES TO ADDRESS ENDEMIC RATES OF STI IN REMOTE PRIMARY HEALTH CARE SERVICES

Silver B2, Taylor-Thompson D1, Garton L1, Hengel B2, Knox J1, Rumbold A1, McGregor S1, Guy R1, Kaldor J1, Ward J1, on behalf of the STRIVE Investigator Group.

Background: STRIVE is a cluster randomised trial designed to improve sexual health service delivery for young people, aged 16 to 34 years, living in remote Aboriginal and Torres Strait Islander communities across three jurisdictions in Australia. The aim of the trial is to assess if a targeted quality improvement program can improve STI testing and management practices to a level sufficient to decrease community STI prevalence. We describe the components of the sexual health quality improvement program.

Methods: The program is based on a plan–do–study–act annual cycle of quality improvement. Components of the program were developed based on a review of the literature on effective sexual health service delivery. We also adapted existing quality improvement tools and processes shown to be effective at improving the quality of care in other program areas in this setting (e.g. chronic disease).

Results: The components of the program include:

- The establishment of a set of best practice indicators in STI clinical service delivery
- Upgrades to patient management systems within services including an STI template/care plan, STI recall and alerts, and automated STI service activity reports
- A formal assessment using evidence-based CQI tools to identify strengths and weaknesses in current practice within services
- Development and implementation of a written sexual health action plan including goal setting and identification of relevant strategies tailored to the capabilities of the service
- Identification and facilitation of sexual health training opportunities
- Regular review of health service activity and progress towards the action plan
- Financial incentives to support health promotion activities, as well as payments for episodes of care and for incremental improvements in STI testing and treatment

Conclusion: The sexual health quality improvement program is being implemented in participating primary health care services; its impact on the prevalence of bacterial STI will be assessed over the next three years. Although the program has been developed specifically for remote service delivery, many components will have wider relevance to improving delivery of sexual health programs in other settings.
Background: STRIVE is a randomised clustered trial designed to improve sexual health service delivery for young people, aged 16 to 34 years, living in remote communities across three jurisdictions in Australia. The aim of the trial is to assess if a targeted quality improvement program can improve STI testing and management practices to a level sufficient to decrease community STI prevalence. We describe the results of the baseline prevalence study.

Methods: In 2010-2011, 67 health services participating in STRIVE were invited to undertake a prevalence study involving testing for chlamydia, gonorrhoea and trichomoniasis in 16-34 year olds over a nominated time period. Services were provided with target numbers of tests to achieve (15-150). Health service staff undertook the testing as part of the provision of routine clinical services, except in Far North Queensland where it was done as part of an existing Young Person’s Check (YPC).

Results: In the study, 63 services provided data. There were 2,536 individuals aged 16-34 years tested for chlamydia and gonorrhoea, 56% were women. In males chlamydia prevalence was 9.0% 16-34 year olds overall; highest in 16-19 year olds (11.8%), and lowest in 30-34 year olds (4.6%). In females chlamydia prevalence was 8.9% overall; highest in 16-19 year olds (17.7%), and lowest in 30-34 year olds (3.5%). In males gonorrhoea prevalence was 7.2% in 16-34 year olds overall, highest in 16-19 year olds (13.7%), and lowest in 30-34 year olds (4.1%). In females gonorrhoea prevalence was 7.2% overall, highest in 16-19 year olds (13.5%), and lowest in 30-34 year olds (4.3%). A total of 1,828 individuals aged 16-34 years were tested for trichomoniasis, 64% were females. Prevalence of Trichomonas vaginalis was 5.8% in males aged 16-34 years and 17.9% in females. In females Trichomonas vaginalis prevalence was 26.4% in 16-19 year olds, 15.8% in 20-24 year olds, 15.5% in 25-29 year olds and 16.1% in 30-34 year olds.

Conclusion: These results demonstrate high STI prevalence in remote communities prior to the STRIVE trial. Prevalence studies will be carried out in participating STRIVE health services over the next 3 years to assess the impact of the trial.

Background: STRIVE is a cluster randomised controlled trial, designed to improve sexual health service delivery for young people, aged 16 to 34 years, living in the remotest communities in three jurisdictions in Australia (Northern Territory, Far North Queensland and Western Australia) spanning three jurisdictions. To inform STRIVE intervention strategies, we describe baseline testing patterns for bacterial sexually transmissible infections (STIs) in participating services.

Methods: Laboratory records for 66 remote primary health services participating in STRIVE from the Northern Territory, Far North Queensland and Western Australia were analysed. The focus of analysis was individuals tested for chlamydia, gonorrhoea and trichomoniasis infections in 2010.

Results: During 2010, 4,736 individuals aged 16-34 years were tested for chlamydia; 68% were women and chlamydia positivity was 8.8% overall:7.8% in females, 10.9% in males, highest in 16-19 year olds (16.3%), and lowest in 30-34 year olds (4.2%). There were 4,749 individuals aged 16-34 years tested for gonorrhoea, similarly 68% were women, gonorrhoea positivity was 8.1% overall: 6.3% in females and 12.0% in males, highest in 16-19 year olds (14.2%), and lowest in 30-34 year olds (4.2%). A total of 3,503 individuals aged 16-34 years were tested for trichomoniasis and the majority were women (73%). Trichomoniasis positivity was 15.0% overall:18.7% in females, and 5.2% in males. In females, trichomoniasis positivity was highest in 16-19 year olds (18.3%), and lowest in 30-34 year olds (12.2%).

Conclusion: These data show that females aged 16-34 are tested for STIs at much higher rates than men of the same age, and that the greatest positivity rates are among people aged 16-19 years. Further efforts are required to increase testing among young men.
**JOINT CONFERENCE SYMPOSIUM: STRIVE: MAKING A DIFFERENCE IN PRIMARY CARE TO ADDRESS STI RATES IN REMOTE ABORIGINAL COMMUNITIES**

**PAPER NUMBER: 591**  
Health Service Utilisation Patterns in FNQ Remote Communities: Implications for STI Testing

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<th>Hengel B1, Mein J1, Fagan P2, Ward J3, Kaldor J3, Guy R1, on behalf of the STRIVE Investigator Group.</th>
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<td>2 Tropical Regional Services, Queensland Health, Cairns, Queensland</td>
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<tr>
<td>3 The Kirby Institute, University of New South Wales, Sydney, NSW</td>
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**Background:** Far North Queensland (FNQ) remote Aboriginal and Torres Strait Islander communities consistently experience high rates of bacterial sexually transmitted infections (STIs), particularly amongst young people. STRIVE is a clustered randomised trial which aims to assess if a targeted STI quality improvement program can improve STI testing and management practices to a level sufficient to decrease STI community prevalence. To inform STRIVE health promotion and quality improvement programs, we describe consultation patterns and STI testing rates in FNQ services participating in STRIVE.

**Methods:** Consultations and STI testing data recorded in the patient management systems of three remote FNQ Aboriginal health services participating in STRIVE were analysed. The analysis focused on the 12-month time period prior to the STRIVE trial commencing (May 2010 to April 2011) and testing for chlamydia, gonorrhoea and trichomoniasis infections, excluding screening done as part of the Young Person’s Check (YPC).

**Results:** In the 12 month period, there were 40,756 consultations, of which 8,858 (21%) were in 16-34 year olds. Females aged 16-34 years had a median of 6 consultations per year, and males aged 16-34 years had an average of 3 consultations per year. These consultations were done in 1,216 individuals of which 902 (74%) were community residents (474 females, and 428 males) and 26% were from other communities. Community residents who attended the services represent 99% of the total female community resident population aged 16-34 years, and 81% of the male community resident population aged 16-34 years. Of all 16-34 year old female attendees, 38% were tested at least once in the 12-month period for chlamydia and positivity was 17%, 37% were tested for gonorrhoea and positivity was 7%, and 19% were tested for trichomoniasis and positivity was 21%. Of 16-34 year old male attendees, 19% were tested for chlamydia and positivity was 21%, 19% were tested for gonorrhoea and positivity was 11%, and 9% were tested for trichomoniasis and positivity was 2%.

**Conclusion:** Results indicate that across three FNQ communities participating in STRIVE most 16-34 year old males and females attend health services regularly and more consultations and higher STI testing rates are being achieved in 16-34 year old females compared with males.

**NOTES**
JOINT CONFERENCE SYMPOSIUM: HIV AND HPV

PAPER NUMBER: 580

DIGITAL RECTAL EXAMINATION TO SCREEN FOR ANAL CANCER IN HIV POSITIVE MEN HAVING SEX WITH MEN (MSM)

Read T
Melbourne Sexual Health Centre and School of Population Health, University of Melbourne.

Anal cancer is more common in MSM and even more common if they have HIV. Anal intra-epithelial neoplasia (AIN) appears to be the precursor and considerable effort is being directed toward evaluating the effectiveness of screening for and treating AIN to prevent anal cancer. This is analogous to the cervical screening programs in wealthy countries. But AIN screening and treatment differs from cervical screening and treatment in several key ways that may delay its introduction into routine clinical care.

First we do not fully understand the natural history of AIN, and particularly why AIN is so prevalent (20 to 50% of HIV+ MSM) when anal cancer is relatively rare. Second, the process of screening for AIN is troubled by problems with non-specific cytology and a resulting high demand for uncomfortable high-resolution anoscopy. Third, there is no consensus on the ideal treatment for AIN; most treatments involve high rates of recurrence, complications, or both.

While we await resolution of these uncertainties, some guidelines recommend regular digital rectal examination (DRE) for early detection of anal cancer. Anal cancers smaller than 3cm when they are treated, have significantly lower recurrence rates and higher five-year survival, suggesting that regular digital examinations will be beneficial. Interim data from a retrospective analysis of anal tumour size will be presented. An ongoing study of routine DRE at Melbourne Sexual Health Centre suggests that the rate of referral for non-cancer diagnoses (false positives) is low and the examination is acceptable to MSM in the HIV clinic.

PAPER NUMBER: 581

UPDATE ON HPV IN HIV POSITIVE WOMEN

Garland SM1-4
1Dept. of Microbiology and Infectious Diseases, The Royal Women’s Hospital, Locked Bag 300, Parkville, Vic. 3052, Australia. 2Department of Obstetrics and Gynaecology, University of Melbourne, Parkville, Vic 3052, Australia. 3Microbiology, Royal Children’s Hospital, Parkville, Vic. 3052, Australia. 4Murdoch Children’s Research Institute, Parkville, Vic. 3052, Australia.

Among HIV-infected women as compared to non-HIV-infected women, human papillomavirus (HPV) infection is more common, detectable at greater viral loads, as well as being present as more persistent infections and as mixed infections. In addition, the various disease manifestations of HPV, including genital warts, cervical intraepithelial neoplasia lesions (CIN) plus anal intraepithelial neoplasia are more common. High grade CIN (CIN2/3) are more common and recalcitrant to standard treatment, particularly when CD4 counts are low. Of note studies in various countries (USA, France Italy and Canada) have had conflicting results regarding the impact of HAART on the persistence of HPV infection and outcomes of treatment of CIN. In some countries, recurrence of cervical disease was more frequent in highly immunosuppressed women, whereas others found no such correlation.

Invasive cervical cancer became an AIDS defining diagnosis in 1993. Data from the International Collaborative Group on HIV and cancer has shown the risk for cervical cancer has remained stable during the past decade in HIV-infected women, with the incidence not decreasing with improved CD4 cell counts in those receiving antiretroviral treatment.

Cervical cytology guidelines will be discussed, as will the place of HPV vaccines which are being trialled in HIV-positive women.
Human papillomavirus (HPV) induced oropharyngeal squamous cell carcinoma is a unique subtype of oropharyngeal cancer. It has a significantly better prognosis than that caused by tobacco and/or alcohol. The incidence of HPV related oropharyngeal cancer is rising in the western countries.

Along the HPV pathways, there are inverse relationships between HPV status, cyclin D1, pRb and EGFR. Overexpression of either cyclin D1 or EGFR predicted poor outcome. Our data have suggested that a combination of HPV status and cyclin D1 or HPV and EGFR provides better prognostic stratification in oropharyngeal cancer than HPV status alone. There are also strong interactions between HPV and T, N stage implicating that the current TNM staging system for oropharyngeal cancer might not be applicable in HPV related cancer. There are ongoing trials to define the best treatment approach for HPV related oropharyngeal cancer and there is no current level 1 or 2 evidence to de-intensifying treatment for patients with HPV related oropharyngeal cancer.
### Joint Conference Symposium: Syphilis and HIV

#### Paper Number: 641

**Point of Care Tests for Syphilis: Is There a Role for Them in Our Patients Today and Tomorrow?**

McMullen B

St Vincent’s Hospital, Sydney

Point of Care Testing (PoCT) is becoming increasingly relevant in modern medical practice. These tests have the potential to improve timely detection of many infectious diseases and reduce costs and delays associated with centralized laboratory testing. Balanced against these potential advantages are issues of quality and governance. The area of STI testing is particularly ripe for reliable, rapid PoCTs, and syphilis is of major importance in this regard.

This presentation will discuss current syphilis diagnostics then review the evidence on currently available PoCTs for syphilis and discuss their potential applications and limitations in various settings, including high-risk and HIV co-infected patients.

#### Paper Number: 647

**Neurosyphilis in Persons with HIV: A Headache for Both Patients and Doctors**

Kelly M

Brisbane Sexual Health and HIV Service.

The diagnosis and management of neurosyphilis in persons with HIV is problematic and not supported by a strong evidence base. While international guidelines exist they are conflicting and imperfectly followed.

Recent observational data from both international and national studies indicate that early neurosyphilis is an emerging issue for persons with HIV and early syphilis. The pathogenesis of this condition is incompletely understood. The clinical manifestations are broad and range from an asymptomatic state to wide-ranging neurological deficits including headache, optical, auditory and other cranial nerve deficits often with long-term sequelae despite treatment. These neurological deficits may be subtle and elude the busy clinician. The neurological symptoms can occur either before or after other clinical manifestations of early syphilis. Recent reports of an association between impaired neurocognitive performance and prior syphilis in persons with HIV are of great concern.

The diagnosis of early neurosyphilis in persons with HIV is problematic given the need for a lumbar puncture; co-existing abnormalities of the cerebrospinal fluid and the lack of a diagnostic gold standard. Some data support targeting asymptomatic patients with HIV and early syphilis with low CD4 counts and high RPR for lumbar puncture. Randomized data do not exist to guide management of early neurosyphilis in persons with HIV yet it is generally agreed that neuropenetrative penicillin based therapy is preferred. Data to assist the clinician in monitoring response to treatment are lacking.

This presentation will review the gaps in the current evidence base and attempt to suggest some steps forward to fill in these gaps.
# Joint Conference Symposium: Syphilis and HIV

## Paper Number: 642

**Syphilis in HIV Infection: What’s All the Fuss About?**

Donovan B¹

¹The Kirby Institute, Basil Donovan, Sydney Sexual Health Centre, Sydney Hospital, The Kirby Institute, University of New South Wales.

Syphilis killed more people in western countries every year for over 400 years than AIDS killed at its peak in 1994. That leaves a deep cultural and clinical memory – we need regular reassurance that we are managing syphilis as well as possible.

The protean manifestations of syphilis (*Treponema pallidum* infection) are the result of a complex interplay between *T pallidum* and our innate, humoral, and cellular immune responses. Thus it seemed inevitable that the natural history of syphilis must be altered by the shock to our immune systems caused by HIV infection. However, after 30 years all the evidence that we have of a change in natural history of syphilis is some highly-cited anecdotes and case series that are yet to be confirmed by more systematic studies. The possible exception is CNS disease – neurosyphilis.

To date there is no high-level evidence that the routine diagnosis or management of syphilis should be altered by a background of HIV infection. However, our public health response to syphilis should be informed by the close epidemiological and behavioural links between the two infections.

## Paper Number: 527

**High Levels of Azithromycin Resistant Syphilis in Sydney**

Jeoffreys NJ¹, Read PJ², Huynh S¹, Donovan B¹, Gilbert GL¹

¹Centre for Infectious Diseases and Microbiology-Public Health, Westmead, Sydney West Area Health Service, ²Sydney Sexual Health Centre, Sydney Hospital, Sydney, NSW, ³School of Public Health and Community Medicine, University of New South Wales, ⁴The Kirby Institute, University of New South Wales.

**Background:** The genetic mutation A2058G in the 23S ribosome of *Treponema pallidum* confers resistance to azithromycin, and is associated with macrolide treatment failure. This mutation has been detected in samples from San Francisco, Dublin and China. This is the first study to report this mutation in Australia.

**Methods:** PCR amplification of the 23S rDNA gene was performed on stored DNA samples collected from 2004-2008. These samples had previously tested positive for the presence of *Treponema pallidum* DNA using a PCR targeting the 47kDa membrane protein gene.

23S rDNA amplicons were subject to restriction endonuclease digestion using the enzyme MboII. Samples containing the A2058G mutation were identified by the presence of two unique bands on agarose gel electrophoresis.

**Results:** To date, amplification of 23S rDNA has been successful in 106 samples, with restriction endonuclease digestion identifying 92 of these (86.8%) as containing the genetic mutation A2058G. Preliminary results indicate there has been little variation in the prevalence of this mutation from year to year.

**Discussion:** The high prevalence of azithromycin resistant syphilis in Sydney (86.8%) is similar to that seen in other countries with syphilis epidemics in men who have sex with men, such as the USA (76.5% in 2005) and Ireland (88% in 2004). However, it is interesting to note that the prevalence in Sydney has been consistently high, rather than gradually increasing as seen in other sites. Widespread use of macrolides for treatment of other bacterial infections may have contributed to this phenomenon. Further analyses will focus on samples from 2008 onward, and correlate azithromycin resistance with HIV status, macrolide use and sexuality. This study illustrates that macrolides should not be used for treatment of syphilis in Sydney.
## PAPER NUMBER: 446

**THE INFLUENCE OF ORGANISM LOAD ON THE SENSITIVITY OF POINT-OF-CARE TESTS FOR CHLAMYDIA**

**Background:** Nucleic acid amplification tests (NAAT) are now the mainstay for laboratory-based screening of chlamydia and gonorrhoea. While sensitive and highly suitable for screening, NAAT methods need to be performed in dedicated clinical laboratory facilities. In some remote communities, there are delays in result turnaround time, and difficulties locating patients when results are received, leading to delayed treatment of chlamydial infections. In this pilot study, we examined the performance of a candidate chlamydia POC assay validated for use in male urine samples.

**Methods:** To date, 58 male urine samples have been included in the evaluation (25 Chlamydia NAAT-positive and 33 Chlamydia NAAT-negative), with additional samples to be assessed. The specimens were tested according to kit guidelines and the sensitivity and specificity calculated using NAAT as the reference test. For a subset samples we also assessed the POC sensitivity according to organism DNA load indicated by NAAT cycle threshold values (22 to 38 cycles). In addition, 10-fold dilutions of Chlamydia culture were tested by both POC and NAAT.

**Results:** Of the 35 chlamydia NAAT-positive samples, the POC assays was positive in 21 samples giving a sensitivity of 60.0% (95%CI:42.1–76.1%) and of the 33 chlamydia NAAT-negative urine samples, all were negative by the POC assay, giving a specificity of 100% (95%CI:89.4–100.0%). For 28 chlamydia NAAT-positive samples with DNA loads available, the POC more readily detected (81.8%, 95%CI:48.2–97.7%) chlamydia in samples with higher organism loads (i.e. cycle threshold values of 30 or less) than those with lower organism load where only 5.9% (95%CI:1.1–28.7%) were positive.

**Conclusions:** The early findings from our evaluation show that the POC assay had a very high specificity, however sensitivity in samples with lower organism loads may have implications for use of POC assays for screening purposes compared with testing symptomatic patients.

### Authors
- Whiley D1,2, Kaldor J1, Sloots TP1, Tabrizi S1, Ward J2, Donovan B2, Anderson D2, Fairley C3, Guy R4
- 1Queensland Paediatric Infectious Diseases Laboratory, QCMRI and SARI, Royal Children’s Hospital and Health Service District; 2The Kirby Institute, University of New South Wales, Sydney, NSW; 3Royal Women’s Hospital, Victoria; 4Burnet Institute, Melbourne, Victoria; 5Melbourne Sexual Health Centre, Melbourne, Victoria.

## PAPER NUMBER: 439

**POINT-OF-CARE TESTS FOR THE DETECTION OF N. GONORRHOEAE; A SYSTEMATIC REVIEW OF OPERATIONAL CHARACTERISTICS AND PERFORMANCE**

**Background:** *Neisseria gonorrhoeae* infection, if left untreated, can result in serious reproductive health complications. In some high prevalence settings significant delays in treatment can occur due to lack of laboratory infrastructure, delays receiving results, or loss to follow-up of patients. Rapid point-of-care tests have the potential to improve detection and management of *N.gonorrhoeae* infection. We undertook a systematic review of studies that evaluated the performance of point-of-care tests for detection of *N.gonorrhoeae*.

**Methods:** PubMed and Embase databases were searched. We extracted information about the setting, participants, type of point-of-care test, reference test, operational characteristics of the test and performance (sensitivity, specificity and positive predictive value (PPV)). Findings were stratified by type of test.

**Results:** The search identified 100 papers, 14 studies were included; 11 evaluated leukocyte esterase strips and 3 immunochromatric strips. The gold standard was PCR in 6 studies, culture in 7 studies and unspecified in one study. In five studies at least half of the patients were symptomatic. The median sensitivity of leukocyte esterase was 65% (range:23-86%), the median specificity was 70% (range:32-99%), and median PPV was 16% (range:5-50%). One study found the leukocyte esterase test had a sensitivity of 75% in symptomatic women but only 23% overall. Most leukocyte esterase tests involved 4 steps and took <2minutes. The median sensitivity of immunochromatric strips was 75% (range:54-94%), median specificity was 97% (range:89-98%) and median PPV was 58.5% (range:55%-97%). Immunochromatric strips involved 5-7 steps, and took 15-30 minutes.

**Conclusions:** In our review, immunochromatric tests and leukocyte esterase tests for detection of *N.gonorrhoeae* had a similar sensitivity that may be an over-estimation due to the inclusion of mainly symptomatic patients. Immunochromatric tests had a higher specificity. Despite limitations, both tests may still provide advantages over syndromic management in high prevalence and logistical challenged settings.

### Authors
- Watchirs Smith L1, Hillman R1, Ward J2, Whiley D2, Causer L3, Skov S4, Donovan B4, Kaldor J3, Guy R5
- 1The Kirby Institute, University of New South Wales, Sydney NSW 2052, Australia; 2The Sexually Transmitted Infections Research Centre, Westmead Hospital, Westmead NSW 2145, Australia; 3Queensland Paediatric Infectious Diseases Laboratory, Royal Children’s Hospital, Brisbane QLD, Australia; 4Centre for Disease Control, Department of Health and Families, Northern Territory Government.
### Proffered Paper Session: STI Lab Lunch

<table>
<thead>
<tr>
<th>Paper Number: 383</th>
<th>Promiscuous Neisseria Gonorrhoeae - Culture or PCR?</th>
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<tbody>
<tr>
<td>Hughes BR, Whiley DM, Moon NJ, Gehrig N</td>
<td>Background: There has been recent debate in Australia to replace culture in with nucleic acid amplification tests (NAATs) for the detection of gonorrhoea to improve control of gonorrhoea in gay men. However, sequence variation continues to cause problems for these methods. False-negative results have been reported for NAATs targeting the gonococcal cppB and opa genes. A case of a false-negative test result in an N. gonorrhoeae PCR targeting the gonococcal porA pseudogene, being a popular N. gonorrhoeae PCR target has recently been reported. False-positive results for NAATs are well described in the literature.</td>
</tr>
<tr>
<td>1 Pacific Sexual Health Clinic, Department of Immunology and Infectious Diseases, Newcastle, New South Wales, Australia; 2 Queensland Paediatric Infectious Diseases Laboratory, QCMRI and SASVRC, Royal Children’s Hospital and Health Service District; 3 Microbiology Department, Hunter Area Pathology Service, Division of Pathology North, Newcastle, New South Wales, Australia; 4 Dept of Biomedical Sciences, University of Newcastle.</td>
<td>Methods: A case of pharyngeal and rectal N. gonorrhoeae from a male patient who presented with anal pain to a sexual health clinic in Newcastle in March 2011 is described. The isolate, when tested by N. gonorrhoeae porA pseudogene PCR, provided negative results.</td>
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<td>Discussion: The homology of N. gonorrhoeae to other Neisseria species, subtype sequence diversity, and the promiscuous nature of N. gonorrhoeae with regards to sharing genetic material is discussed. A literature review of false negative and positive results of various NAATs caused by sequence variations and cross reaction with other Neisseria subspecies is described. Increasing third generation cephalosporin resistance to Neisseria gonorrhoeae is also discussed. Public Health implications regarding notification and the unknown infectivity of PCR positive and culture negative gonorrhoea are discussed.</td>
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<td>Conclusions: Due to the promiscuous nature of Neisseria gonorrhoeae, it is envisaged that NAATs will continue to present challenges for diagnosis. Culture based methods are essential for surveillance of antibiotic resistance and should continue to be used in parallel with NAATs to identify new sequence variations that may affect sensitivity and specificity of current and future NAATs. Supplemental NAATs assays should be adequately funded.</td>
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<tr>
<th>Paper Number: 449</th>
<th>Neisseria Gonorrhoeae Resistance to Ceftriaxone: Where Are We At?</th>
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<tr>
<td>Whiley DM, Goire N, Lambert SB, Nissen MD, Sloots TP</td>
<td>Background: Neisseria gonorrhoeae (NG) has developed resistance to almost every class of antimicrobials used to treat it. The extended spectrum cephalosporins (ESCs), particularly the injectable agent ceftriaxone, are now the mainstay of treatment in most settings. However, NG isolates exhibiting reduced-susceptibility to ceftriaxone are now prevalent in Australia and elsewhere, and a fully resistant strain was recently reported in Japan.</td>
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<tr>
<td>Queensland Paediatric Infectious Diseases Laboratory, QCMRI and SASVRC, Royal Children’s Hospital and Health Service District, Brisbane.</td>
<td>Methods: In this study, we investigate the issue of emerging resistance to ceftriaxone in NG, with a particular focus on the genetic basis of the problem. We report our local data in the context of findings in the recent literature.</td>
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<td>Results: Alternations in the gonococcal penicillin binding protein 2 (PBP2) are pivotal to emerging resistance to ceftriaxone in NG. These include a “mosaic” PBP2 sequence and variants thereof, arising from genetic recombination events, as well as other spontaneous substitutions in PBP2, including A501V, G542S and P551L. In addition, reduced-susceptibility to ceftriaxone is evident in genetically distinct gonococcal populations. Therefore the phenomenon is not simply due to spread of a single gonococcal strain. Treatment failures using ceftriaxone for pharyngeal gonorrhoea have so far been reported in Australia and Sweden.</td>
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<td>Conclusion: Emerging resistance to ceftriaxone is well advanced in clinical gonococcal isolates. Without adequate surveillance we may soon lose ceftriaxone as a first-line treatment for gonorrhoea.</td>
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**Paper Number: 7**

**The Epidemiological Associations of BV Candidate Bacteria in Sexually Experienced and Inexperienced Women With BV and Normal Vaginal Flora**

**Background:** Several bacterial candidate organisms (COs) have recently been shown to be highly specific for BV. The epidemiological profiles for these COs are unknown, and no studies have examined COs in young sexually-inexperienced women, whether these COs are sexually-transmitted, or how they relate to specific sexual activities.

**Methods:** This study incorporates 2 study populations: The Female University Student Study which recruited women aged 17–21 years attending the University of Melbourne, and a sexually-experienced clinic population from Melbourne Sexual Health Centre. Participants completed a questionnaire addressing demographics and detailed sexual practices. Gram-stained vaginal smears were scored by the Nugent method. Three-hundred-and-thirty-nine samples from women with normal flora and BV were selected for analysis using quantitative PCR assays (qPCR) targeting the specific 16S rRNA gene sequences of eight published COs (G. vaginalis, A. vaginae, Megasphaera spp., Sneathia spp., BVAb1, BVAb2, BVAb3, and Leptotrichia spp.) and L. crispatus. Detection of COs and L. crispatus and their total bacterial loads were compared between women with BV and normal flora. The associations between prevalence of COs and specific sexual behavioural practices were examined by univariate and multivariate analysis.

**Results:** Analysis found all COs were strongly associated with BV compared with normal flora and L. crispatus was negatively associated. G. vaginalis and A. vaginae were relatively common in sexually inexperienced women; however, other COs were absent in a truly virginal population. When women with normal flora and BV were analysed separately, Sneathia spp., BVAB1, BVAB2, BVAB3, and Leptotrichia spp. all demonstrated a progressive increase in prevalence with increasing sexual experienced and increasing numbers of vaginal sexual partners. Megasphaera spp. however differed from other COs, with a higher prevalence being strongly associated with increasing oral sex frequency and oral sex partner number.

**Conclusions:** These data provide compelling evidence for sexual transmission of several COs – with absence of COs in virginal women and increasing prevalence with increasing sexual exposure. Interestingly the COs Sneathia spp., BVAB1, BVAB2, BVAB3, Leptotrichia spp. and G. vaginalis are significantly associated with vaginal sex while the epidemiological association of Megasphaera spp. differed from the other COs being significantly associated with oral sex.
### JOINT CONFERENCE SYMPOSIUM: HIV AND WOMEN

#### PAPER NUMBER: 629

**BIOMEDICAL PREVENTION OF HIV IN WOMEN: A PROMISE IN PRE-EXPOSURE PROPHYLAXIS**

<table>
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<th>Author</th>
<th>Institution</th>
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<tr>
<td>Marrazzo, J.</td>
<td>University of Washington, USA</td>
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Despite remarkable advances in antiretroviral treatment, infection with HIV-1 is still incurable, and current prevention strategies including abstinence, condom use, and male circumcision are only partially effective. To date, four clinical trials have provided promising data that pre-exposure prophylaxis (PrEP) using antiretroviral agents (ARV) may offer a promising strategy. The CAPRISA 004 study demonstrated that periocital vaginal insertion of 1% tenofovir gel significantly reduced women’s risk of acquiring HIV-1. The iPrEx study demonstrated that daily oral tenofovir-emtricitabine (TDF/FTC) reduced the risk of HIV-1 acquisition in men who had sex with men by a similar magnitude. The Partners in Prevention PrEP Study demonstrated efficacy of nearly 62-73% with daily oral TDF or TDF/FTC among the HIV-negative partner of serodiscordant couples, who generally reported excellent adherence. Daily oral TDF/FTC was also effective among heterosexual adults in the Botswana-based TDF2 Study. While the findings of these studies have infused much-needed energy into the field of HIV prevention, many questions remain to be answered before PrEP can be widely implemented across all populations at risk for HIV-1, particularly since one study (FEM-PrEP) of daily oral TDF/FTC in women at high risk for HIV acquisition was recently halted for futility. In this session, we will review the current status of PrEP as a means to prevent HIV-1 acquisition in women.

#### PAPER NUMBER: 584

**MEDICAL ASPECTS OF HIV MANAGEMENT SPECIFIC TO WOMEN**

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<th>Author</th>
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<td>Giles M</td>
<td>The Alfred Hospital</td>
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Women are often underrepresented in clinical trials of antiretroviral therapy. Many studies therefore extrapolate the findings (efficacy and toxicity) to women although they may only comprise a small proportion of participants. This paper will review the current data from randomised controlled trials addressing the specific question of gender based differences in outcome and toxicity. In addition, as women with HIV infection get older issues such as menopause will become increasingly common. Little is known about the impact of HIV on the age of menopause, the symptoms and management of menopause and the impact this will have on comorbidities such as bone disease and cardiovascular disease. This presentation will summarise the current data available surrounding menopause and HIV and highlight the priority areas for future research.
<table>
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<tr>
<th>PAPER NUMBER: 585</th>
<th>STIGMA AND WOMEN LIVING WITH HIV: A COOPERATIVE INQUIRY</th>
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<tr>
<td>Bruning J.1</td>
<td>This presentation explores the impact of stigma on women in Aotearoa/New Zealand living with HIV through the use of co-operative inquiry, an innovative, participatory, action-based and somewhat revolutionary, research method.</td>
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<td>(Positive Women Inc, New Zealand)</td>
<td>Co-operative inquiry is about discovery and learning. It is not about confirming or validating previous theories or hypothesis. All participants, including the researcher, were women living with HIV, who worked together as co-participants in a research project which was done ‘with’ rather than ‘about’ those who took part and was based on feminist grounded theory.</td>
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<td>Through the process of sharing experiences, reflection and discussion, participants were encouraged to learn to interpret meaning and gain a better understanding of their world. By working through an agreed set of actions, this process lead to personal transformations and consciousness-raising for all who took part. It also highlighted how the involvement of people living with and affected by HIV is both paramount and instrumental to all HIV related advocacy, policies and interventions.</td>
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<td>Key findings were significant not only for the participants but also for future governmental and community interventions and policies in regards to HIV awareness and education.</td>
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NOTES
### Joint Conference Symposium: Prisoners and Juvenile Detainees; Are These Our Forgotten Population?

#### Paper Number: 586

**The 2010 National Prison Entrants’ Bloodborne Virus and Risk Behaviour Survey – Update and Report Launch**

**Butler T**

Prisoner populations are characterised by engagement in a range of risk behaviours, most notably injecting drug use. This puts them at an increased risk of exposure to blood-borne viruses such as hepatitis B, hepatitis C and HIV. Surveys of prisoners in Australia have found the prevalence of hepatitis C to be up to forty times higher than the general community and hepatitis B to be around thirty times higher. With variations in testing strategies between jurisdictions, the National Prison Entrants’ Bloodborne Virus and Risk Behaviour Survey (NPEBBV&RBS) provides systematic information on bloodborne virus epidemiology in one of Australia’s most marginalised groups.

The triennial survey was first conducted in 2004 with four jurisdictions, increasing to 7 in 2007, and in 2010 all states and territories were participated. Prison entrants are screened over a two week period at reception prisons. The response rate to the survey is high at around 75% with Indigenous prisoners represented in the survey.

This presentation will report on some of the key findings from the 2010 NPEBBV&RBS and launch the current report.

#### Paper Number: 587

**Advocacy for a Prison Needle and Syringe Program Trial with Prominent Australians**

**Ryan, J**
- Chief Executive Officer, Anex.

**Background:** There are about 30,000 Australians in correctional facilities, an estimated 71 percent of whom had used illicit drugs in the 12 months before incarceration. In the words of the National NSP Strategic Framework, “injecting drug use in prison and the absence of NSPs in prisons represents a gap, a risk and a limitation in all jurisdictions and requires urgent attention.” Only the Australian Capital Territory (ACT) has publicly explored the possibility of introducing a needle and syringe program (NSP) in a prison. The single biggest obstacle has, and remains, opposition from the prison officers’ union which threatens industrial action.

**Discussion:** Political and supporting media strategy has been critical in positioning in-prison NSP as a responsible public health measure. Anex established a Harm Minimisation in Prisons Committee (HMPC) comprising respected medical and research leaders. Prominent Australians from across the political spectrum were enlisted as a means of publically re-positioning prison NSP away from its portrayal as a “leftist” pro-prisoner rights issue as its opponents often do. Former military leaders have signed up, as has Nobel Laureate Professor Peter Doherty, the eminent Sir Gustav Nossal, former Governor General Bill Hayden as well Janet Holmes a Court.

We proposed that the Government establish an investigation into potential models and steps to overcome barriers to implementation. The Public Health Association was contracted to conduct the investigation which concluded a trial is feasible and recommend it should proceed. The decision is expected later this year. At least three other jurisdictions’ officials have privately expressed willingness to investigate prison NSP options.

**Conclusion:** Enlisting respected opinion leaders from across the political spectrum has provided enhanced political legitimacy for a contentious area of corrections practice. Ongoing and careful political strategy throughout other jurisdictions is required to supplement the existing evidence-base supporting prison NSP.
JOINT CONFERENCE SYMPOSIUM: PRISONERS AND JUVENILE DETAINEES; ARE THESE OUR FORGOTTEN POPULATION?

PAPER NUMBER: 620

Richters J
 University of NSW

SEXUAL BEHAVIOUR AND WELLBEING OF AUSTRALIAN PRISONERS

Background: Prisoners are at risk for sexual ill health. On average they start having sex at an earlier age than other people, have more sexual partners and more unprotected sex, and are more likely to have done sex work. They are also an under-serviced and under-researched group.

Methods: We used a computer-assisted telephone interview based on the Australian Study of Health and Relationships to survey a random sample of 2,351 men and women in prison in New South Wales and Queensland in 2006–2008. Inmates were ineligible if they could not speak English, were intellectually disabled, seriously mentally ill, unavailable (e.g. due to a court appearance), or could not safely be moved to the telephone location. The response rate was 83% in NSW and 75% in Queensland.

Results: Most men (96%) in prison identified as heterosexual and reported attraction (91%) and sexual experience (87%) only with females. Many women in prison (29%) identified as bisexual and 8% as lesbian. Prisoners reported more lifetime opposite-sex partners than people in the community (median men 24 v. 6; women 10 v. 3). More than a third of men in prison (36%) had ever paid for sex, as had 3% of women; 8% of men and 24% of women had ever been paid for sex. Prisoners were more likely than Australians in general to have had an STI, but their knowledge levels about STIs were as good as other people’s. Female prisoners were more likely than other Australians to disapprove of abortion, but they were more likely to have had one. Rates of sexual difficulties were high among both male and female prisoners. High proportions (13% men and 59% women) had a history of sexual coercion.

Conclusions: Prisoners as a group are vulnerable to sexual ill health when outside jail because of low income, low education, inadequate housing and, for some, chaotic lives and drug use. Surveys of prisoners are a unique opportunity to research a disadvantaged group who are usually omitted from household surveys. Prison is also a setting for provision of sexual health care that many do not receive when outside prison.


NOTES
### Paper Number: 75

**HIV Testing and Prevention: The New Zealand Experience**

Saxton P.1

1 New Zealand AIDS Foundation

This presentation will briefly discuss the role of HIV testing as a tool in epidemic control.

Epidemiological, behavioural and clinical data profiling New Zealand as a low-level, concentrated HIV epidemic with moderate levels of HIV testing among men who have sex with men (MSM) will provide a backdrop to a discussion of recent responses including the introduction of rapid HIV testing in 2006.

The paper concludes with some thoughts on the challenges and opportunities posed by new testing technologies in this setting, in particular with regard to hegemonic HIV prevention praxis in New Zealand.

### Paper Number: 76

**Testing Times - Peer Based Discussion in Community-Based Testing Environments**

Langdon PA, Atkinson M, Bradstreet B

1 Western Australian AIDS Council, West Perth, Australia

An innovative peer-led testing service has been developed by the WA AIDS Council (WAAC) to improve HIV and STI testing rates of gay men and men who have sex with men (MSM). The service uses the best aspects of the medical model, the public health model with the introduction of a peer-based aspect, necessitating a paradigm shift for all those involved. It is an example of the reorientation of health services, built on trust, respect and partnership which are the hallmarks of the Australian HIV response.

WAAC has operated a range of testing options including outreach clinics in sex on premises venues (SOPVs) for nearly two decades. In January 2007, STI testing became available to asymptomatic gay men/msm at the WAAC office in partnership with a private pathology provider, in response to the re-emergence of syphilis in this population. Men received pre & post test discussion by peer educators in accordance with Australian testing guidelines and those with positive results were referred on for treatment.

The M Clinic, a stand-alone HIV/STI testing clinic was established in July 2010. It is situated 3kms from the Perth CBD in a medical precinct. Again peer educators provide pre & post test discussion augmented by a clinical nurse and 2 physician sessions to facilitate treatment. Access barriers have been addressed such as the employment of appropriately trained staff, waiting times, hours of service, culturally appropriate promotion, location convenience etc. Over 750 men have accessed this unique service in its first year of operation, including many men aged less than 30 years as well as people living with HIV.

This service delivery model provides opportunities for ambitious outcomes including:

- Accessing men who would otherwise not seek testing resulting in the early detection and treatment of STIs and appropriate support and referral pathways for new HIV diagnoses;
- Providing meaningful and authentic discussion of sexual health and related issues using peers with appropriate referrals;
- Linking men in with integrated health promotion services provide by WAAC and other agencies;
- Reintroducing and normalising a robust testing culture in the gay/msm community; and
- Building specialised sexual health workforce capacity.

**Disclosure Of Interest Statement:** The WA AIDS Council and the M Clinic is funded by the WA Department of Health.
Rapid HIV Testing in Homosexual Men: Early Lessons from the SMARTest Study.

Modelling of the Australian HIV epidemic indicates that increasing the frequency of HIV testing by homosexual men will reduce HIV transmission. Surveys and international experience indicate many prefer rapid testing and may even use it to test more frequently. The SMARTest study aims to determine if Australian men having sex with men (MSM) will have HIV tests more often if they can have a rapid HIV test.

The SMARTest study is an ongoing open-label randomised trial comparing the frequency of HIV testing in MSM with access to clinic-based rapid HIV testing against MSM with access to usual lab-based serology with a one week wait for results. The study is being conducted at Melbourne Sexual Health Centre. Participants are followed for 18 months and complete a short questionnaire at baseline, 6, 12 and 18 months, asking about testing and sexual behaviour. The Determine HIV-1/2 Ag/Ab Combo rapid test (Alere) was selected because the P24 Ag test probably reduces the mean time to seroconversion, compared to other rapid tests. Protocols for training and quality control were developed with the assistance of the manufacturer, and the National Serological Reference Laboratory, Melbourne.

Four hundred men were enrolled from Sept 2010 to March 2011. Cases of confirmed and false reactive rapid tests will be presented. Results on initial reactions to rapid testing will be presented. Data on testing frequency are expected in late 2012.

Practical problems arising when starting a rapid HIV testing service in a sexual health centre will be discussed. Point-of-care testing for HIV appears to be acceptable, but its introduction requires careful planning and training.

Community-Based HIV Testing Services for Gay Men: A Systematic Review.

Background: The recent review of the Australia National HIV testing policy sparked debate about who, (clinical vs. non-clinical staff) should be able to conduct rapid HIV testing for screening purposes and in what settings (clinics, community, home). We systematically reviewed the literature to describe community-based HIV testing services internationally to inform both the policy debate and the future implementation of HIV service models in Australia.

Methods: We searched Medline, EMBASE and Cochrane databases from 1980 to October 2010. Included studies described HIV testing outcomes at community-based testing services that included gay men as clients.

Results: We identified 44 community-based HIV testing services; 18 fixed-site only, seven on-site services with outreach and 19 outreach only. Services operated in 8 countries, most in the US (64%), and 77% offered rapid HIV antibody testing at the point-of-care followed by whole blood collection for confirmatory testing if the rapid test was reactive or indeterminate. OraQuick Advance Rapid HIV-1/2 Antibody or Abbott Determine HIV-1/2 rapid with finger-prick were the most commonly used rapid testing devices. Twenty-two services reported testing outcomes in gay men; the median proportion who had never tested previously for HIV was 34.1% (range: 7.8%-44.0%) and the median HIV positivity per service was 3.9% (range 0.3%-60.0%). Twenty-six services described staffing profiles; 62% employed non-medical HIV testing and counselling staff; 31% employed nurses/health care workers; and 15% employed physicians/medical officers. Thirty-five services described referral pathways for clients diagnosed with HIV which usually involved referral to a nearby partnering community-based organisation or sexual health clinic for follow up care.

Conclusion: Community-based HIV testing services are widely utilised internationally and most rely on non-clinically trained staff to undertake point-of-care testing. These services have attracted high risk men (evidenced by reported HIV positivity rates) and provide models of HIV testing that attract a significant proportion of gay men who have never tested before.
**JOINT CONFERENCE SESSION AND HIV/AIDS CLOSING**

**PAPER NUMBER: 593**

**TOWARDS COITALLY-INDEPENDENT MICROBICIDES: STUDIES WITH VAGINAL RINGS AND SILICONE-BASED GEL DELIVERY SYSTEMS**

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<tr>
<th>John P. Moore, PJ Klasse, Ronald A Veazey, Robin J Shattock and R. Karl Malcolm</th>
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We will describe in vitro and rhesus macaque studies aimed at developing a coitally-independent delivery system(s) for vaginal microbicides. In this work, we have focused on the small molecule CCR5 inhibitors CMPD167 and Maraviroc. We have formulated these compounds in vaginal rings that can remain in situ for up to a month while gradually releasing their active contents. As a second delivery option, Maraviroc was formulated in a silicone-based gel that is superior to traditional water-based gels, from the perspective of delivering high concentrations of the inhibitor to the vagina for prolonged periods (up to one day). We have performed pharmacokinetic studies in the rhesus macaque aimed at assessing how well the vaginal rings and silicone-based gels perform under in vivo conditions, compared to water-based gels and oral dosing. We are also assessing how to determine whether, and for how long, the rings and silicone-based gels can protect the animals against vaginal SHIV-162P3 challenge.

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**A BILL TO PROVIDE FOR THE ERADICATION OF NEW HIV INFECTION IN AUSTRALIA BY THE YEAR 2020**

This year the debate will be conducted loosely in a 'parliamentary style' in keeping with the Conferences being held in Canberra as the seat of National Government.

The format of the debate will be based on a ‘government’ introducing a ‘bill’, the intention of which is to ‘provide for the eradication of new HIV infection in Australia by the year 2020’. In keeping with the concept of a parliamentary style debate, Mr Shane Rattenbury, speaker of the ACT Legislative Assembly, has agreed to act as facilitator.

**AFFIRMATIVE:**

Associate Professor Darren Russell, Director of Sexual Health, Cairns Sexual Health Service, Cairns, QLD, Australia

Justice Richard Refshauge, Supreme Court Judge, ACT, Australia

**NEGATIVE:**

Dr Edwina Wright, ID Physician, Alfred Hospital, Melbourne, VIC, Australia

Mr Rob Lake, Executive Director, AFAO, Newtown, NSW, Australia
PAPER NUMBER 643  
A DIFFERENT KIND OF TRIFECTA AND ASSOCIATED CHALLENGES

Carole Khaw
1

1 Clinic 275 STD Services
Royal Adelaide Hospital

The case is of a 61 year old HIV positive MSM who has been a management challenge to a multidisciplinary team over the past decade in Adelaide, S. Australia.

This is a complex case of an aging HIV positive patient having developed several other sexually transmitted infections over the past few years. This has been complicated by various co-morbidities.

The case demonstrates the importance of a good multidisciplinary team in the long-term management of such a patient.

An overview of HIV/Hepatitis C co-infection from recent literature review will also be presented.

PAPER NUMBER 681  
A WAR AGAINST THE MIRROR

Katie Boog
1

1 Cairns Sexual Health Clinic

When an elderly, obese gentleman with known atrial fibrillation attends the Emergency Department with shortness of breath and chest pain, a pulmonary embolus was not a surprise diagnosis. What was unexpected was the fact that this gentleman was on oestrogen therapy and was in the first stages of transitioning to become a woman.

This case study looks at the interesting case of a transgender client who began the transition to become a woman at the age of 77. The story will document the physical and psychological impacts of cross-sex hormone therapy and follow the client through the transition journey.

The presentation will include an overview of the care and management of transsexual clients and the complications of therapy – in particular of venous thromboembolism (VTE) on oestrogen therapy - and discuss the impact of a diagnosis of VTE on our future treatment choices.

PAPER NUMBER 83  
‘IF ONLY FREE CONDOMS DID THE TRICK’: ADOLESCENTS AND HIV.

Tonia Mezzini
1

1 Clinic 275 Royal Adelaide Hospital

This paper describes the case of a 15 year old girl who became sexually active at age 13 and who contracted a number of STIs including HIV in 2010. The epidemiology of HIV in South Australia will be described, and the significance of ‘Clade D’ infection will be discussed in terms of disease progression and treatment options. This case is illustrates how normal adolescent sexual development can be negatively influenced by individual intellectual functioning, poverty, the insidious, incessant ‘pornification’ of our culture and even evolutionary theory. The solutions lie beyond sex education and free condoms, and call for measures that challenge economic inequalities and give young people optimism for their future.
**Paper Number: 644**

**E-Health for STI Control**

**Background:** There is a significant need to develop acceptable and more easily available techniques for diagnosing STDs, especially for adolescents and all high-risk populations with health inequities, who bear the significant portion of infections. New tools and approaches such as self-collected samples like vaginal and penile swabs, urine, point of care tests, and newer molecular amplified tests need to be implemented more widely. These new tools afford the ability to offer screening for STDs via internet recruitment by using self-collected samples that can be mailed to the laboratory for testing or by providing easily accessible testing, such as through recruitment using a kiosk in venues such as emergency departments.

**Methods:** In our Internet program www.iwantthekit.org (IWTK), women in Maryland, West Virginia, and Washington DC have been able to request home vaginal swab collection kits since 2004 via the Internet or a toll-free number. Other jurisdictions have been added over time. Beginning in 2006, men were added to the program and could request free kits for home collection of urine and penile self-obtained specimens were collected and mailed, and questionnaires were completed for demographics, acceptability and perceptions of use, and sexual risk history. Samples were tested using nucleic acid amplification tests. Self-collected rectal kits were made available in 2009. Infected participants were treated at participating clinics. As well, patients in our Emergency Department (ED) have been allowed to perform their own HIV test and are requesting a HIV test via an e-health kiosk.

From 2008 to 2009, patients, who had completed a standard HIV oral fluid test performed by a trained healthcare professional and who were unaware of their results, were recruited to perform a rapid POC HIV test. In 2009-2010, patients were allowed to perform their own test before the standard of care HIV test.

**Results:** Of 2689 female samples submitted from IWTK, 8.9% were positive for Chlamydia, 1.2% for gonorrhea and since 2006, 8.9% were positive for trichomonas. Prevalence for chlamydia in women aged 15-19 was 15.3% (11% in 20-25 year olds). High satisfaction was reported: 91% preferred self-collection; almost 97% said the collection was easy or very easy and 92% stated they would use the internet program again. Treatment was verified in all women except 4. Prevalence was higher than in family planning clinics. Of 927 men requesting kits, 29.1% mailed samples. Most (98.1%) submitted both penile swabs and urines. Chlamydia prevalence was 13.4%. Prevalence for those 15-19 yr. was 20.6%, for 20-24 yr. was 18.1% and for 25-29 was 5.8%. Treatment was verified for all but 1 infected man. 93.0% of men found the instructions very easy/easy. Median age was 24 yr. Only 16.0% used condoms consistently. High satisfaction was reported: 86.7% preferred to collect his own specimen; 88.9% indicated the swab collection was easy/easy and 87.5% stated they would use the Internet program again. In the ED HIV self test program, 478 of 564 (85%) patients receiving a standard oral fluid HIV test volunteered, with a mean age of 38-39 years. 91% of participants chose oral fluid and 9% chose blood (p<0.05). Self-test results were 99.6% concordant with health care professionals’ test results. For the self-testers, 94% of oral fluid testers and 84.4% of blood testers reported trusting the self-administered test result “very much.” 95.6% of oral fluid group and 93.3% of the blood group would “probably” or “definitely” perform a test at home, if available. A kiosk is now used in an ongoing study to recruit patients to accept an HIV test and provide an option to perform the oral fluid HIV self-test.

**Conclusions:** Self-collected samples recruited via the Internet and via an electronic kiosk approach appear to be acceptable, may remove barriers to testing, such as stigma and privacy issues, and may identify more sexually transmitted infections and cases of HIV than traditional venues if they can be more widely implemented. E-health for STI control has arrived.
### PLENARY: COMMUNICATING HEALTHY SEXUALITY

#### PAPER NUMBER: 649

**INNOVATION IN SEXUAL HEALTH SERVICES**

Fairley CK\(^1,2,3\)

\(^1\)Melbourne Sexual Health Centre, \(^2\)Victoria Australia and Melbourne School of Population Health, \(^3\)University of Melbourne, Australia.

Any health service that does not innovate necessarily moves backwards. Health care costs are rising at almost twice the rate of inflation and our population is ageing. Unfortunately any medical speciality that is below the belt and occurs because of things that the community perceives as ‘ones own fault’ will receive less funds than the more ‘acceptable’ medical specialities. For this reason, Sexual Health will always be underfunded, and more in need of efficiency gains through innovation that any other speciality with perhaps the exception of addiction medicine.

Clinical staff might consider any or all of the following innovations when considering ways to improve their clinical efficiency. Computer assisted self interviewing (CASI) with language translation, electronic medical records with carefully designed data fields that allow extensive use of decision support software, computer assisted counselling or education services, extensive use of web sites for information provision, partner notification, STI testing, risk assessment and advice, partner notification, and even clinical consultations.

It is very important that time and money is set aside for clinical development and innovation in all health services. It should be based on sound evidence and carefully evaluated once instituted, so the public funds that are entrusted to those running these services are spent for the greatest public good.

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#### PAPER NUMBER: 622

**WHAT IS HEALTHY SEXUALITY? LEARNING FROM ENTERTAINMENT**

Professor Alan McKee\(^1\)

\(^1\)Queensland University of Technology.

Some sexual health experts are concerned that entertainment media promote undesirable forms of sexual practice among young people – including promiscuity and premarital sex. Such concerns are problematic. It is wrong to insist that there is only a single ‘normal’ kind of sexual practice in which all people should engage. Such an approach is heteronormative, relying on a model of healthy sexuality that is vanilla, monogamous and loving. Models of sexuality that do not fit this model – including casual sex, kinky sex, anal sex, BDSM and group sex – are condemned as unhealthy.

The Promoting Healthy Sexual Development research group at QUT developed a framework of sixteen domains of healthy sexual development. These are: freedom from unwanted activity; an understanding of consent; education about biological aspects of sexual aspects; understanding of safety; relationship skills; agency; lifelong learning; resilience; open communication; sexual development should not be ‘aggressive, coercive or joyless’; self-acceptance; acceptance that sex can be pleasurable; understanding of parental and societal values; awareness of public/private boundaries; and competence in mediated sexuality. There is no requirement for healthy sexual development that young people grow up heterosexual, vanilla or committed to monogamy.

We can think about entertainment media in a different way. Entertainment provides a good guide to what the majority of citizens think is acceptable sexually. It should not be surprising, for example, that a nationally representative survey of Australians found that 85% of citizens agree with the statement ‘Sex before marriage is acceptable’. Around 15% of Australians have engaged in anal play. Perhaps from entertainment we can learn that the majority of Australians think that fun is an important part of sex. How can we integrate that perspective into our own work?
### SYMPOSIUM: MEETING THE NEEDS OF SPECIFIC POPULATION GROUPS

#### PAPER NUMBER: 624  THE SEXUAL HEALTH OF MAORI SECONDARY SCHOOL STUDENTS IN NEW ZEALAND

**Clark T.C, Robinson E1, Crengle S, Rowe D1 and Sheridan J4**

1 School of Nursing, University of Auckland, 2 School of Population Health, University of Auckland, 3 Te Kupenga Hauora Māori, University of Auckland, 4 School of Pharmacy, University of Auckland.

**Background:** Māori youth are disproportionately affected by poor sexual health outcomes compared to their Non-Māori peers. This presentation will describe the sexual health behaviours of Māori youth and their access to sexual health services from a nationally representative youth health survey.

**Methods:** Secondary analysis was conducted with Māori participants in the New Zealand health and wellbeing surveys of secondary school students aged 12-18 years in 2007.

**Results:** Fifty-five percent (55.3%) of Māori students use contraception all the time to prevent pregnancy and 41.1% always use condoms to prevent sexually transmitted infections. Māori students (55.0%) are less likely to use contraception to prevent pregnancy compared to NZ European/Pakeha students (70.4%) \(p < 0.0001\) and are less likely (41.0%) to use condoms to prevent sexually transmitted infections compared to NZ European/Pakeha students (56.4%) \(p < 0.0001\).

Females (11.1%) were more likely to report difficulty getting contraception-related healthcare compared to males (5.4%). Similarly, females (10.0%) had more difficulty getting healthcare for pregnancy related issues compared to males (1.4%). Māori students were significantly more likely to report difficulty accessing healthcare for contraception (Māori 8.3%, NZ European/Pakeha 4.8% \(p<0.0001\)) and pregnancy related issues (Māori 5.7%, NZ European/Pakeha 2.3% \(p<0.0001\)).

**Conclusions:** Māori students report less consistent contraception use than Pakeha/NZ European students, and they also report significant difficulties accessing sexual health services and care. Sexual health services and clinicians must seek to be more responsive to the unique needs of Māori youth to reduce health inequities.

#### PAPER NUMBER: 657  PROMOTING THE SEXUAL HEALTH AND RIGHTS OF PEOPLE WITH DISABILITIES

**Bavinton T1**

1 Sexual Health and Family Planning ACT.
"So what are you drivin’?...A bus with a shoe on top?...Like Priscilla?..."

Daniel Witthaus supposed he had it coming. Tell most Australian people of a certain age that you are going to drive non-stop for 38-weeks around the country to challenge homophobia in regional, rural and remote areas and you’ll cop some reference to The Adventures of Priscilla, Queen of the Desert. Indeed Daniel realised the risk of being reduced to the most familiar stereotype mainstream Australia has for gays in the bush.

“No I think it’s more Leyland Brothers than Priscilla, Queen of the Desert...I’m driving a gay truck called Bruce...”

Daniel’s answer, he believes, was accurate. Rather than an abbreviated personal quest with shades of provocation, entertainment and titillation, his was an extended, simple journey to engage and educate. Just as Mal and Mike Leyland traveled to every nook and cranny of our great country in the 1980s to answer questions from everyday Australians, so too Daniel would seek the answers to questions such as:

· Just what is modern day life like for everyday lesbian, gay, bisexual and transgender (LGBT) people in regional, rural and remote Australia?
· What are the good, bad and ugly stories of country Australia for LGBT people?
· What happens when you give teachers, health professionals and homophobia-curious others strategies and resources to challenge homophobia?

In short, what is life in the bush like for gays “after Priscilla”?

Daniel joked to many that he was challenging homophobia “one cuppa at a time”. In driving through every state and territory over 266 relentless days, Daniel managed to have a “cuppa” with people from all walks of life.

After 100s and 100s cups of tea, he’ll share what he found out.

There have been many recent media debates and controversies in Australia over what sexuality education in schools should constitute. Concerns for sexual health can inform pushes for educating young people on topics such as hygiene, biology or safe sex. Yet other agendas privilege censorship, the teaching of abstinence, a focus on sexual morality or the inclusion of gay rights and other diverse perspectives. A review of the literature uncovered the key approaches to sexuality education, and 14 specific messages they offer young people about their sexuality. This presentation considers the relevance of these messages for gay, lesbian, bisexual, transgender and intersex students. It reports on the messages received by GLBTIQ students in the sexuality education classes they are provided in Australian schools, and how useful they found these to be, using the data from a 2010 online survey of over 3,000 GLBTIQ students (aged 14-21). It explores differences in sexuality education provision across key states and sectors, and also in comparison to international trends. The majority of Australian GLBTIQ students are currently substituting their sexuality education with information from other sources (particularly the internet), and their recommendations for improved schooling and other provisions (such as through these websites) are considered.
### SYMPOSIUM: UPDATES IN THE TREATMENT OF VIRAL STIS

#### PAPER NUMBER: 625

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<th><strong>CAPITAL B: UPDATE IN THE MANAGEMENT OF HEPATITIS B</strong></th>
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<td>(^1)Melbourne Health</td>
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WHO Regional Reference Laboratory for Hepatitis B, Victorian Infectious Diseases Reference Laboratory; Victorian Infectious Diseases Service, Royal Melbourne Hospital; Department of Medicine, University of Melbourne.

Hepatitis B is a commonly acquired, sexually transmissible, vaccine preventable viral infection with the potential for significant morbidity and mortality. Five per cent of incident hepatitis B infections in adults will progress to chronic infection, which can lead to end stage liver disease and cancer.

Approximately 165,000 Australians are estimated to be living with chronic hepatitis B virus (HBV) infection, with one third having never been diagnosed. This failure to diagnose leads to poor outcomes for those affected, and ongoing transmission to susceptible contacts.

An estimated 2,500 incident hepatitis B infections occurred in Australia in 2010, only 10% of which were notified to health departments. Of notified acute cases with exposure data available, approximately one quarter are reported to be sexually acquired. Approximately 2-10 cases of fulminant acute hepatitis B infection are estimated to occur in Australia annually, with a further 325 deaths due to complications of chronic hepatitis B each year.

It is essential that all clinicians seeing patients with risk factors for incident or chronic hepatitis B opportunistically establish the presence of infection or immunity, vaccinate those susceptible, and appropriately manage those found to be chronically infected. The management paradigm for chronic hepatitis B has changed significantly in recent years, as has the range and efficacy of available antiviral agents.

Workforce development and enhancing access to appropriate treatment and care are cornerstones of Australia’s First National Hepatitis B Strategy and the WHO Viral Hepatitis Resolution, both of which were endorsed in 2010. It is now time for clinicians, policy makers and public health workers to prioritise the actions in these strategic plans to address the cause of one of the world’s most common, and Australia’s fastest increasing causes of cancer death.

#### PAPER NUMBER: 626

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<th><strong>RECENT INSIGHTS INTO GENTIAL HERPES INFECTIONS: HSV SHEDDING, TREATMENT AND INTERACTIONS WITH HIV</strong></th>
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<td>Marcus Chen(^1)</td>
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<td>(^1)Melbourne Sexual Health Centre and Melbourne School of Population Health, University of Melbourne, Australia</td>
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Genital herpes simplex virus (HSV) infection is highly prevalent and a common cause of morbidity worldwide. Recent studies have highlighted the high frequency of subclinical shedding of genital HSV that can persist for years.

Suppressive therapy with antiviral medication is highly effective at preventing symptomatic recurrences and leads to improved quality of life. Clinical trials support the efficacy of shorter courses of aciclovir, famciclovir and valaciclovir for episodic therapy.

While there is compelling evidence that genital herpes promotes the transmission of HIV and that suppressive therapy for herpes lowers plasma and mucosal HIV levels, major randomised trials using aciclovir have failed to show reduced HIV acquisition by HSV-2 seropositive individuals or HIV transmission from HIV/HSV-2 co-infected individuals. The persistence of HIV susceptible cells in genital mucosa following HSV reactivation has been put forward to help explain the failure of acyclovir in preventing HIV acquisition.

Although aciclovir has been shown to have a modest effect on delaying HIV progression, whether antivirals that target HSV could play any substantial role in HIV treatment in resource limited settings is doubtful.
With over 200,000 hepatitis C-infected individuals in Australia, many within the 20-40 year age group, HCV infection is a major public health problem and is likely to be so for several decades. Currently, of the estimated 5900 individuals with HCV-related cirrhosis, a significant proportion are likely to develop hepatic decompensation and hepatocellular carcinoma in the absence of effective treatment. There is now better understanding of factors that are associated with progressive liver disease or with poor treatment outcomes. These include well-recognised host characteristics such as older age, duration of infection, excessive alcohol use, immunosuppression and co-infections with HIV and other hepatitis viruses as well as more recently identified features including hepatic steatosis, insulin resistance and certain genetic polymorphisms (e.g. PNPLA3, IL-28B).

The treatment of chronic hepatitis C has evolved from interferon monotherapy through to the current standard of care, pegylated interferon with ribavirin. While the sustained viral response rates (SVR) of 75-80% for those infected with HCV genotypes 2 and 3 have been encouraging, the SVR rates for individuals with genotype 1 (~40-50%) have been less impressive. However, this is set to change with the introduction of the newer directly acting antiviral agents that target specific points within the virus lifecycle. Of these, telaprevir and boceprevir which are inhibitors of the HCV NS3/4A protease have been recently approved by the US FDA. Phase III studies using these drugs have shown higher SVR (~65-70%) rates in both treatment-naive as well as for treatment-experienced individuals with genotype 1 HCV infections. Improved SVR rates have also documented with difficult-to-subgroups: persons with cirrhosis, African-Americans, null-responders. However, these intensive treatment regimes will incur greater cost and will place greater demands on treating healthcare professionals due to the complexity of the treatment schedules and for the management of side-effects.
**SYMPOSIUM LESBIAN SEXUAL AND REPRODUCTIVE HEALTH**

**PAPER NUMBER: 627**

**WOMAN WHO HAVE SEX WITH WOMEN, WHY SHOULD WE CARE?**

Jeanne Marrazzo¹

¹University of Washington, USA.

Women having sex with women are at risk for a full range of viral and bacterial sexually transmitted infections (STI) and associated conditions, with the available evidence strongly supporting the need for attention to studies of transmission of C. trachomatis, HSV, HPV and BV. While there is a paucity of data on most STI in WSW, relatively solid data do speak to the need for adherence to standard screening guidelines for cervical cancer and C. trachomatis. Health care providers should apply their skills in sexual risk assessment to all women, including WSW, with particular effort towards inquiring about potential higher risk male partnerships and illicit drug use. Evidence also supports that while WSW may be knowledgeable about safer sex measures, relatively few practice them. Further research on behaviors and mechanisms of disease acquisition and transmission among WSW, including exploration of higher risk partnerships and behaviors, is needed.

**PAPER NUMBER: 630**

**NEITHER LESBIAN NOR STRAIGHT - RECLAIMING THE MIDDLE GROUND**

Ruth McNair

¹University of Melbourne

Background: Women who are neither heterosexual nor lesbian-identified have traditionally been ignored in research and healthcare practice. Yet, recent research evidence indicates that these women have significant health inequities in areas of mental health, substance use, physical health and sexual health. Reasons for these inequities are not clear, although hypotheses include greater marginalisation and social isolation, and an absence of a unifying activist voice. Emerging literature indicates that these women are a disparate group with few unifying features, and varied sexual attraction, behaviour and identity.

Methods: Mixed methods were used for this exploration of the middle ground of women’s sexual orientation. Secondary data analysis of surveys from the Australian Longitudinal Study of Women’s Health examined women who identify as lesbian, bisexual, mainly heterosexual and exclusively heterosexual. Measures of mental health, substance use, physical health, victimisation and health care usage were compared against sexual identity using logistic regression modelling. A qualitative study was also conducted using a critical hermeneutic approach, involving in-depth interviews with 33 same sex attracted women and 27 GPs, including 24 woman-GP pairs.

Results: Women’s sexual identity experience plays a significant role in the risk and protective factors influencing their health. It also influences their interaction with the healthcare system and wider social networks. For example, the degree of importance women place on their sexual identity is central to whether they disclose this identity publicly, including within healthcare settings, and this, in turn, can influence the effectiveness of their healthcare experience.

Conclusion: Although substantial progress has been made in understanding health risks among bisexual and mainly heterosexual women, there are still many questions regarding who these women are and what underpins their health inequalities. Nevertheless, researchers, clinicians and policy makers need to consider the diversity within sexual minority populations and develop more targeted prevention and intervention strategies to reduce health disparities and engage these women more effectively.
## Symposium Lesbian Sexual and Reproductive Health

### Paper Number: 632

#### Behavioural Practices Associated with Bacterial Vaginosis (BV) in Women Who Have Sex with Women (WSW): The Women on Women’s (WOW) Health Study


1. Melbourne School of Population Health, University of Melbourne,
2. Melbourne Sexual Health Centre, The Alfred Hospital, Melbourne,
3. Department of Epidemiology and Preventive Medicine, Monash University,
4. Department of Molecular Microbiology, The Royal Women's Hospital,
5. Department of Obstetrics and Gynecology, University of Melbourne.

**Background:** The WOW Health study is a national two-year cohort study of Australian WSW that examines the behavioural and microbiological factors associated with prevalent and incident BV in WSW and their partners. Cross-sectional data will be presented.

**Methods:** WSW were recruited using internet, festival and media-based promotion. Women were ineligible if they were postmenopausal, pregnant or had no female sex partner (FSP) in the prior 18 months. Study kits containing consent forms, questionnaires, swabs and slides were sent to participants and returned by post. At baseline, women self-collected 3 vaginal smears at weekly intervals and provided detailed demographic behavioural data. Smears were scored by the Nugent method. BV was defined as ≥1 smears with a Nugent score (NS) of 7-10. Univariate and multivariate analyses were performed using SPSS to examine the association between BV and behavioural practices.

**Results:** By April 2011, 431 of 450 (96%) women had been recruited. Median age was 30 years (range 17-55), 420 (97%) reported a FSP in the last year and 341 (79%) reported past vaginal sex with a male. The baseline prevalence of BV was 27% (95% CI 23-32). In the multivariate analysis, BV was associated with: increased numbers of FSPs (≥3) in the prior 5 years (OR = 1.9; 95% CIs: 1.2-3.2); cigarette smoking (OR = 1.7; 95% CI: 1.1-2.8); and a history of genital warts (OR = 2.2; 95% CIs: 1.1-4.5). Notably, BV was not associated with increased numbers of FSPs > 5 years prior to diagnosis, age or male partnerships.

**Conclusion:** BV is common in WSW and is strongly associated with greater numbers of FSPs in the prior 5 years, smoking and a past history of warts. In this population sexual practices with women more than 5 years prior to diagnosis did not impart an increased risk for BV; this may have implications for duration of infection.
PROFFERED PAPER SESSION: A FOCUS ON CHLAMYDIA

PAPER NUMBER: 347


Introduction: Chlamydia testing data are important to interpret increasing trends in notifications, however there has been no national collation of testing data beyond Medicare data in Australia. The Laboratory Network of Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS) system (established 2008) aims to collate data from both public and private laboratories across Australia to provide population-level chlamydia testing and positivity rates.

Methods: All Australian diagnostic laboratories testing for chlamydia were invited to participate. Data was collected from 15 large laboratories (4 private and 11 public) representing five jurisdictions, between 2008 and 2009. Laboratories extracted demographic and chlamydia testing data from their information systems which were de-identified with a non-reversible unique code using GRANITE® software. We describe testing rates and the proportion positive (positivity) by patient demographic characteristics.

Results: A total of 416,996 test results were collated; 69% (288,671) were in 16-29 year olds; 210,405 (73%) were women and 78,266 (27%) men. Chlamydia positivity was higher in 16-29 year old men (11.5%, 95%CI:11.3-11.8) than women (7.6%, 95%CI:7.4-7.7). Chlamydia positivity declined steadily as age increased for both women and men; positivity rates among women aged 16-19, 20-24 and 25-29 years were 11.7%, 7.9% and 4.4%, respectively, and positivity rates among men aged 16-19, 20-24 and 25-29 years were 14.4%, 12.9% and 8.8%, respectively.

Conclusions: The ACCESS Laboratory Network successfully implemented the first national laboratory-based sentinel surveillance system for chlamydia, representing 50-70% of total testing by integrating public and private laboratory data. The findings show more women than men are being tested, high positivity rates, and positivity declines as age increases highlighting the need for strategies to increase testing among young people, particularly men. The ACCESS Laboratory Network provides a platform for potential expansion to other sexually transmissible infections to inform and evaluate prevention initiatives.

PAPER NUMBER: 187

HIGH CHLAMYDIA PREVALENCE FOUND AMONG YOUNG AUSTRALIAN MEN AND WOMEN - RESULTS FROM THE AUSTRALIAN CHLAMYDIA CONTROL EFFECTIVENESS PILOT (ACCEPT).

Background: ACCEPT is a multi-state cluster randomised trial that aims to increase annual chlamydia testing in 16-29 year olds attending general practice. 54 postcodes (80% in rural areas) are being randomised to a multi-faceted intervention and GP clinics within each postcode enrolled.

The primary outcome is change in chlamydia prevalence, and a prevalence study is being conducted at the beginning and end of the trial. We report on the findings of the baseline prevalence study.

Methods: A research assistant, placed in each clinic, is responsible for recruiting a consecutive sample of 70 to 100 16 to 29 year old patients within each postcode (4000 patients in total). Patients complete a demographic and sexual behaviour questionnaire and have a chlamydia test.

Results: Recruitment began in July 2010; 383 GPs in 80 clinics in 30 postcodes have been recruited across VIC, NSW, QLD and SA. 1187 individuals have been tested with a participation of 69%. Chlamydia prevalence is 4.1% (95%CI: 3.1%, 5.4%). Prevalence is slightly higher among males 5.0% (95%CI: 3.0%, 7.7%) than females 3.8% (95%CI: 2.6%, 5.3%; p=0.33) and in rural (4.8%; 95%CI: 3.4%, 6.4%) compared with metropolitan areas (2.8%; 95%CI: 1.4%, 4.9%; p=0.09). Men in rural areas (7.0%; 95%CI: 3.9%, 11.2%) have a higher prevalence than rural women (4.0%; 95%CI: 2.5%, 6.0%; p=0.09).

Chlamydia is associated with 2+ opposite sex partners in the last 12 months (OR=5.3, 95%CI: 2.8, 10.2) with both sexes reporting a median of 1 sex partner. Recruitment will be completed by December 2011.

Conclusions: Chlamydia prevalence continues to be high among young Australians. A prevalence of 7% among rural men provides further evidence for the importance of targeting men for testing. This will be Australia’s largest chlamydia prevalence survey to date.
PROFERRED PAPER SESSION: A FOCUS ON CHLAMYDIA

PAPER NUMBER: 468

Bowring A1, Gouillou M1, Guy R1, Kong FYS1, Van Gemert C1, Goller JL1, Harvey C1, McNamara K1, Bateson D1, Wardle R1, Stephens A1, Hocking JS1, Pirotta MP1, Heal C10, Brett T1, Merritt T12, Donovan B1 and Hellard ME1 on behalf of the ACCESS Collaboration.

1Centre for Population Health, Burnet Institute, Kirby Institute, University of New South Wales, Family Planning Queensland, Family Planning Victoria, Family Planning NSW, Family Planning Welfare Association, 7Sexual Care Research, University Notre Dame, General practice and primary Health Area, Wallsend, NSW, Australia.

Background: Chlamydia re-infection is common and increases the risk of reproductive morbidity. Repeat testing at 3 months after positive diagnosis is recommended, with varying time frames (3, 3-6 or 3-12 months) advised in different guidelines. We describe repeat testing rates among patients diagnosed with chlamydia at General Practices (GPs) and Family Planning Clinics (FPCs) participating in the Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS) system.

Methods: Among 16-29 year olds attending 25 GPs and four FPCs during 2008-2009, we measured annual testing, annual chlamydia positivity among those tested (where result was known), and assessed chlamydia repeat testing rates at 1-4 months among patients diagnosed with chlamydia between January 2008 and August 2009.

Results: At GPs: 2,224 (7.1%) patients tested for chlamydia in 2008 and 166 (9.1%) tested positive; 2,509 (7.1%) patients tested for chlamydia in 2009 and 159 (8.1%) tested positive. Of 273 patients in Jan 2008-Aug 2009 with a positive diagnosis, 28.2% (95%CI:22.9-33.9%) had a repeat test within 1-4 months; 11 (14.3%; 95%CI:7.4-24.1%) repeat tests were positive.

At FPCs: 2,306 (37.6%) patients tested for chlamydia in 2008 and 194 (8.5%) tested positive; 2,176 (33.6%) patients tested for chlamydia in 2009 and 195 (9.0%) tested positive. Of 307 patients in Jan 2008-Aug 2009 with a positive diagnosis, 12.7% (95%CI:9.2-17.0%) had a repeat test within 1-4 months; 5 (12.8%; 95%CI:4.3-27.4%) repeat tests were positive.

Conclusion: The proportion of young patients tested for chlamydia and having a repeat test after initial infection is lower than recommended, and positivity rates at repeat test are high. Variations in service roles, inconsistencies in guideline recommendations, and the extent of guideline implementation may explain differences by setting. These findings emphasise the importance of clear, consistent repeat testing guidelines across all primary healthcare sectors, and strategies are needed to increase repeat testing and prevent re-infection.

PAPER NUMBER: 290

Liu B1, Guy R1, Donovan B1, Kaldor J1

1The Kirby Institute, Faculty of Medicine, University of New South Wales.

Background: Studies suggest that in women re-infection with chlamydia increases the risk of subsequent reproductive morbidity. We sought to identify characteristics associated with repeat chlamydia notifications in women in order to guide re-screening strategies.

Methods: We defined a cohort based on all females aged 10-49 years resident in New South Wales who had a notification of genital chlamydia between 1998-2008. We then linked subsequent notifications in the same woman during the period, using probabilistic linkage methods. Within the cohort we estimated a woman’s risk of a subsequent chlamydia notification, according to her age, year of first recorded notification, socioeconomic status and area of residence using Cox regression.

Results: There were 41211 women with a chlamydia notification in the period, and 3246 of them had at least one subsequent chlamydia notification over an average of 3.6 years; equivalent to an annual rate of repeat notification of 2.2%(95%CI 2.1-2.3). Overall the annual rate of repeat notification was highest in the first year after initial notification: 4.4%(4.2-4.7) and it decreased with increasing age. In women aged <16, 16-17, 18-19, 20-21, 22-23, 24-25, 26-29, 30-34 the annual rates in the year following first notification were respectively 9.4%(7.7-11.5%), 6.4%(5.6-7.3%), 6.0%(5.5-6.7%), 5.2%(4.7-5.8%), 4.6%(4.0-5.2), 3.5%(2.9-4.1), 2.5%(2.0-3.0), 2.4%(2.0-3.0). There was an increase in the risk of repeat notification with younger age at first recorded notification (ptrend<0.001) and among women notified in the years 2005-2008 compared to those notified before 2005; adjusted HR 1.41[1.31-1.52], p<0.001. Area of residence and socioeconomic status were not associated with repeat notification.

Conclusion: Younger age and later year of a chlamydia notification significantly increased the risk of a repeat chlamydia notification. The reasons behind young women having substantially more repeat chlamydia notifications need to be explored. Our results suggest that very young women should be targeted for re-screening strategies.
### PROFFERED PAPER SESSION: A FOCUS ON CHLAMYDIA

#### PAPER NUMBER: 398

**SMS Reminders Increase Re-Testing for Repeat Chlamydial Infection in Heterosexuals at a Sexual Health Clinic**

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<tr>
<td>Guy B, Wend H, Read P, Kenigsberg A, Knight V, McNulty A:3</td>
<td>1The Kirby Institute, University of New South Wales, Sydney, NSW, Australia 2 Sydney Sexual Health Centre, Sydney Hospital, Sydney, New South Wales, Australia 3School of Public Health and Community Medicine, University of NSW, Kensington, NSW</td>
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**Background:** Repeat infection with *Chlamydia trachomatis* is common. If left untreated it can lead to onward transmission and in females it increases the risk of pelvic inflammatory disease by four-fold. In late 2008, Sydney Sexual Health Centre implemented a reminder system using short message service (SMS) to improve re-testing rates following treatment of chlamydial infection. Clinicians were advised to set up SMS reminders to be sent out at 3 months after the visit.

**Methods:** We compared the frequency of re-screening within 1-4 months of the initial infection in women and heterosexual men who received the SMS in the 12 month period of January-December 2009 (intervention group) to a 18-month period before the SMS was introduced (historical control group) using a Chi-square test, and multivariate regression.

**Results:** Between January-December 2009, 141 patients were diagnosed with chlamydia and received the SMS reminder (intervention group) and 338 patients formed the historical control group. In the intervention group, 82% were new patients, 51% were aged <25 years, 31% reported three or more sexual partners in the last three months and 52% reported ano-genital symptoms, compared to 72%, 33%, 27% and 38% in the historical control group, respectively, p<0.01. The chlamydia re-screening rate 1-4 months after chlamydia infection was significantly higher in the intervention group (30%) than the historical control group (21%), p=0.04. After adjusting for baseline difference, the odds ratio for chlamydia re-screening 1-4 months after chlamydia infection in the intervention group was 1.57 (95%CI:1.01-2.46), compared to the historical control group.

**Conclusion:** SMS reminders increased re-screening rates in patients diagnosed with chlamydia at a sexual health clinic. To enhance re-screening effectiveness protocols incorporating two evidence-based approaches such as SMS reminders and mailed screening kits may be needed.

#### PAPER NUMBER: 495

**Do Cash Incentives Increase the Uptake of Chlamydia Testing in Pharmacies**

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<tr>
<td>Currie MJ, Deeks LS, CooperGM, Parker RM, Martin SJ, Del Rosario R, Hocking JS, Bowden FJ</td>
<td>1Academic Unit of Internal Medicine, ANU Medical School, 2Faculty of Health, University of Canberra, 3Australian Primary Health Care Research Institute, The Australian National University, 4Canberra Sexual Health Centre, 5Centre for Women’s Health, Gender and Society, 6Melbourne School of Population Health, University of Melbourne</td>
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**Introduction:** Chlamydia screening uptake rates in Australia and overseas pharmacies vary (11% and 58%). The aim of this study was to determine the effect on the uptake of chlamydia screening in community pharmacies if a cash reward was offered to young people and participating pharmacies.

**Method:** The study was advertised in print and electronic media. People aged 16 to 30 years requested, or were offered, chlamydia test kits by pharmacy staff (assistants and pharmacists). Participants who provided a urine sample and completed a questionnaire received $10; pharmacies received $10 per person recruited. Urine specimens were tested in pools of 5 in the laboratory using PCR, with reflex testing of individual samples when pools tested positive. Positive cases were notified by sexual health nurses and offered treatment.

**Results:** Six urban community pharmacies took part in the study, each for 15 days. 979 testing kits were given out and 970 sample pots returned (99.1%); 66 (7%) did not contain urine. 74% (670/904) of the urine samples were determined to be from unique individuals, 65% of whom were male. 19 people (13 females and 6 males) tested positive; positivity rates were 5.2% (95%CI 2.8-8.8) for females and 1.4% (0.5-3.1) for males. 11 (61%) of those testing positive were contacted and 8 attended Canberra Sexual Health Centre (CSHC) for treatment, 3 were treated elsewhere. Of the 8 people treated at CSHC, 2 females (aged 15 and 20 years respectively) were diagnosed with pelvic inflammatory disease. Contact with the remaining 8 positive individuals was not possible due to disconnected, incorrect or non-existent telephone numbers.

**Conclusion:** The 68% testable specimen return rate found in this study significantly exceeds those reported elsewhere. Strategies to prevent repeat testing, non-urine specimens and incorrect contact numbers are needed to ensure good clinical care and optimum use of resources.
**PAPER NUMBER: 154**

**PREVALENCE, INCIDENCE AND RISK FACTORS FOR HPV16 SEROPOSITIVITY IN HOMOSEXUAL MEN**

**Background:** HPV16 causes ~75% of HPV-associated anal cancer. Homosexual men are at greatly increased risk, but there are few data on the seroepidemiology of HPV16 in this population. We aim to determine the prevalence, incidence and risk factors for HPV16 seropositivity among community-based cohorts of homosexual Australian men.

**Methods:** 1427 HIV negative men had sera collected annually from 2001 to 2007. 245 HIV positive men had sera collected annually between 2005 and 2007. Antibodies to HPV16 L1 were tested using multiplex type-specific Luminex serology. HPV16 seroprevalence, and seroincidence per 100 person-years (PY) in those initially HPV16 seronegative were calculated. Predictors of seroprevalent HPV16 were analysed by logistic regression and predictors of seroincident HPV16 by Cox regression for HIV negative participants.

**Results:** A quarter (25.4%, 95% CI 23.1-27.9%) of HIV negative participants were HPV16 seropositive at baseline compared with nearly half of HIV positive participants (44.3%, 95% CI 37.4-51.5%). In contrast, HPV16 seroincidence was more than twice as high among HIV negative (3.1/100PY, 95% CI 2.5-3.8/100PY) as HIV positive men (1.3/100PY, 95% CI 0.3-5.2/100PY). In multivariate analyses, seroprevalent HPV16 was associated with more lifetime male partners (p=0.002), longer duration since first anal sex (p<0.001), preference for receptive role during anal sex (p=0.032), past infection with hepatitis B (p=0.035), positive HSV1 (p=0.034) and HSV2 (p=0.042) serology. In multivariate analyses, seroincident HPV16 was associated with younger age (p=0.004), reporting more recent male sexual partners (p=0.008) and unprotected anal intercourse with HIV positive or status unknown partners (p=0.021).

**Conclusions:** HPV16 seroprevalence was higher among HIV positive men, but HPV16 seroincidence was higher among HIV negatives. HPV16 seroincidence did not decline until after 34 years, suggesting that vaccination may be protective in many men under age 35. Both seroprevalence and seroincidence correlated well with markers of high risk sexual activity, particularly receptive anal sexual practices.

**PAPER NUMBER: 418**

**HPV IN YOUNG MEN WHO HAVE SEX WITH MEN: PRELIMINARY FINDINGS FROM THE HYPER STUDY**

**Background:** Homosexually active men are at increased risk for human papillomavirus (HPV) infection and HPV-associated anal cancer. There are no previous studies that focused on the prevalence of HPV in samples of young homosexual and bisexual men and used longitudinal detection of HPV over time to define the presence of infection. The HYPER study aims to determine the prevalence and risk factors of HPV infection among young homosexual and bisexual men.

**Methods:** Young men, aged 16 to 20, who report homosexual behaviour or attraction were recruited in Melbourne via sexual health clinics, universities, community events, gay media, social networking websites and peer recruitment. Participants were seen at baseline, 3, 6 and 12 months. At each visit anal, perianal, penile, and oral swabs and oral gargle were obtained. Serum was collected for HPV serology.

**Results:** Seventy nine participants were enrolled between September 2010 and May 2011. The median age of first oral sex and first anal intercourse were 16 and 17 respectively and the median number of lifetime male sex partners was 11 (range 1-150). Seventy two percent reported condom use at last receptive anal intercourse.

Most had heard of HPV before with half indicating they would not pay A$400 for the HPV vaccine. However, 90% indicated they would be willing to disclose their sex with men to a GP if HPV vaccination were free for homosexually active men. Of the 39 participants for whom HPV results are available, 46% had any HPV type detected at the anus while 15% had HPV 16 detected at the anus.

**Conclusion:** We will continue enrolment and expect to provide data on early acquisition of HPV infection in young homosexual and bisexual men, which should help to determine if effective, targeted HPV-vaccination of this group is likely to be achievable.
### Paper Number: 462

**Helicobacter pylori Infection and Sexual Risk Factors: Data from the Health in Men Study**

**Background:** The routes of transmission of Helicobacter pylori (H. pylori) remain in question and studies about possible sexual transmission have been inconclusive. Understanding transmission routes may have important implications for prevention and treatment. Therefore, we decided to study the possible association between sexual risk factors and H. pylori infection in a community-based cohort of HIV-negative homosexual men in Sydney.

**Methods:** Participants were 1,427 men from the Health in Men cohort study recruited from 2001 to 2004 and followed till 2007. Participants underwent annual face-to-face interviews regarding demographics, sexual risk factors and sexual transmitted infections, and blood samples were collected and stored. Stored sera were analyzed using H. pylori multiplex serology based on a GST capture immunosorbent assay combined with fluorescent bead technology (Luminex). Seropositivity was defined as reactivity with at least three out of 6 recombinant proteins.

**Results:** At baseline, 1,333 men had serum available for analysis and 249 (18.7%, 95% CI 16.6 - 20.9) were seropositive for H. pylori. In multivariate analyses, prevalent H. pylori infection was significantly associated with increasing age (p<0.001), positive syphilis serology (OR=2.03, 95% CI 1.03-4.00) and HSV1 seropositivity (OR=2.65, 95% CI 1.70-4.14). Circumcised men were less likely to test positive (OR=0.59, 95% CI 0.43-0.81). Among those who were seronegative at baseline, 30 seroconverted during the study, an incidence of 0.85 per 100 person-years (95% CI 0.60-1.23). In multivariate analyses, H. pylori seroconversion was significantly associated with urethral gonorrhoea in the last 12 months (HR=5.95, 95% CI 1.98-17.86) and reporting receptive fisting with casual partners (HR=4.62, 95% CI 1.59-13.93). Circumcised men were less likely to seroconvert to H. pylori (HR=0.39, 95% CI 0.19-0.80).

**Conclusion:** The association of H pylori infection with some sexual practices, circumcision, syphilis, gonorrhoea and HSV1 infection, suggests a role for sexual transmission. Further studies to elucidate these associations are warranted.

### Paper Number: 483

**STI Testing Outcomes and Sexual Risk Practices Among Men Who Have Sex with Men (MSM)**

**Background:** The most at risk population for HIV and other STIs are men who have sex with men (MSM), with those identifying as sex workers (MSW) believed to be at greater risk. We compared STI testing outcomes and sexual risk practices among MSW and other MSM.

**Methods:** Data from the Victorian Primary Care Network for Sentinel Surveillance (VPCNSS), April 2006-June 2010, was analysed to describe STI testing, diagnoses and reported sexual risk practices among self-identified MSW.

**Results:** Of the 58,943 STI tests conducted among MSM, 2,203 (3.7%) of those tested indicated recent sex work. The proportion of positive tests among MSW for HIV (1.9%), chlamydia (5.2%) and syphilis (1.7%) were not significantly different from other MSM (1.4%, 6.8% and 1.8%, respectively). MSW had a higher mean number of annual HIV (1.5), chlamydia (3.1) and syphilis (2.0) tests compared to other MSM (1.2, 1.4 and 1.4, respectively) (p<0.01). MSW were less likely to report STI symptoms as their reason for a HIV (7.5%), chlamydia (6.1%) or syphilis (6.9%) test than other MSM (17.1%, 24.1% and 18.9%, respectively) (p<0.01). Compared to other MSM, MSW were more likely to report six or more oral (63.7% vs. 45.0%) and anal sex partners (56.9% vs. 26.4%) in the past six months. More than half of MSW reported always using a condom with partners (54.7%) compared to 40.5% of MSM (p<0.01).

**Conclusion:** MSW more frequently tested for STIs compared to other MSM, with similar rates of STI diagnoses. Although reporting higher rates of sexual activity, a combination of more regular STI testing and more frequent condom use among MSW is likely to have contributed to STI diagnosis rates comparable with other MSM. These data provide information to inform health promotion targeting MSW and support the important role of regular STI testing in this population.
PROFFERED PAPER SESSION: MEN WHO HAVE SEX WITH MEN (MSM)

PAPER NUMBER: 113

EPIDEMIOLOGICAL TREATMENT OF CHLAMYDIA CO-INFECTION IN MSM WITH A PRESUMPTIVE DIAGNOSIS OF URETHRAL GONORRHEA IN SOUTH AUSTRALIA - SHOULD WE OR SHOULDN'T WE?

Dr Carole Khaw1, Mr L Bin1, Dr Russell Waddell1
1Clinic 275, STD Services, Royal Adelaide Hospital.

Background: Recent studies have shown up to 30% Neisseria gonorrhoea (NG) and Chlamydia trachomatis (CT) co-infection rates in men. Historically, Men who have Sex with Men (MSM) were generally considered to have a low incidence of Chlamydia. In Australia and overseas, there has been increasing prevalence of CT and NG in MSM, especially asymptomatic ano-rectal infection.

Despite well-established guidelines providing presumptive co-treatment for Chlamydia to patients with treatment indications for N. Gonorrhoea, various centers in Australia differ in their approach to management in MSM.

At our Clinic, epidemiological treatment for Chlamydia is given to heterosexual males with a presumptive diagnosis of urethral gonorrhoea. This is not the case for MSM.

We wanted to determine if the local prevalence of co-infection in MSM is enough to justify epidemiological treatment when there is a presumptive diagnosis of urethral gonorrhoea.

Methods: A retrospective review of case notes data, analyzed for NG and CT co-infection in male patients was made over a 10 - year period from 2001 – 2010. The sites of NG and CT co-infection were analyzed. GC was confirmed by culture, CT by PCR. Data analysis was performed using STATA (version 10).

Results: Over the study period the proportion of heterosexual males who were Gonococcal smear positive and found to have Chlamydia infection was 33/274 (12%) CI 8.4% - 16.5%. The proportion of MSM who were Gonococcal smear positive and found to have Chlamydia infection was 22/207 (13.4%) CI 9 - 18.8%. The numbers of heterosexual males and MSM with co-infection at different sites will also be presented.

Conclusion: Based on this study, the current guidelines at our Clinic were changed such that all MSM with a presumptive diagnosis of NG infection (made on gram stain) and treated, should also be given epidemiological treatment for Chlamydia infection as their heterosexual counterparts.

PAPER NUMBER: 171

HIGH LEVELS OF NEISSERIA GONORRHOEAE IN MEN WITH SYMPTOMATIC GONOCOCCAL PROCTITIS: IMPLICATIONS FOR GONORROHEA TRANSMISSION

Bissessor M1, Tabrizi SN2,3, Fairley CK1,4, Danielewski J1, Whitton B1, Bird S1, Garland S1, Chen MY1,4
1 Melbourne Sexual Health Centre, Alfred Hospital; 2 Department of Obstetrics and Gynaecology, University of Melbourne; 3 Department of Clinical Microbiology and Infectious Diseases, Royal Women’s Hospital; 4 Melbourne School of Population Health, University of Melbourne

Background: To improve our understanding of the potential transmissibility of gonococcal infections from the pharynx and rectum, we measured gonococcal bacterial loads at these sites and examined clinical features associated with these loads.

Methods: Men who had sex with men attending the Melbourne Sexual Health Centre were tested for pharyngeal and rectal gonorrhoea by two real-time quantitative PCRs targeting the opa gene and porA pseudogene. Specimens that were positive by PCR had bacterial load measurements determined using molecular techniques.

Results: 1011 rectal and 1076 pharyngeal specimens were obtained from 1076 MSM. Forty three (3.9%) pharyngeal and 47 (4.6%) rectal specimens were PCR positive. The median bacterial load among rectal infections (18,960 copies per swab) was significantly higher than that for pharyngeal infections (2,100 copies per swab) (p<0.001). Furthermore, the median bacterial load among the 7 men with anal pain, discharge or bleeding (278,800 copies per swab, range: 43,000 to 2.2 million) was substantially higher than the median load among men with asymptomatic rectal infections (13,980 copies per swab, p<0.001).

Conclusion: Higher bacterial loads of gonorrhoea were observed in rectal infections than pharyngeal infections and were particularly high among men with symptomatic rectal gonorrhoea. This has implications for gonococcal transmission.
### PROFFERED PAPER SESSION: SEX MESSAGING

#### PAPER NUMBER: 283
**SEXUAL HEALTH PEER EDUCATION PROGRAMS IN THE COMMUNITY YOUTH SECTOR: WHAT WORKS, WHAT DOESN'T AND WHAT CAN THEY ACHIEVE?**

**Walker R**, Comrie C, Brown G

1 Youth Affairs Council of Western Australia, 2 WA Centre for Health Promotion Research, Curtin University of Technology, 3 Australian Research Centre for Sex, Health and Society.

**Background:** The community youth sector has often been an underutilised asset in engaging young people around sexual health and blood borne viruses (BBV). Many of these organisations have sustained and effective relationships with groups of young people who may have disengaged with school education, or who may not have received relevant, holistic sexual health education (through school, parents etc). The use of peer based programming can be an effective approach in health promotion, particularly given the influential role peers play in shaping young people’s attitudes and behaviours.

**Methods:** Youth Educating Peers (YEP) was a two-year participatory action research (PAR) project seeking to mobilise and improve sexual health and BBV education and support efforts in the WA youth sector. There were three broad aims: to increase the capacity of youth workers and young people to address youth sexual health and BBV issues; to determine critical enabling factors for delivering peer-based programs in youth sector contexts; and to determine the impact of these programs on young people’s sexual health. To achieve these aims, YEP Project partnered with six WA youth sector agencies who trialled youth peer-based sexual health and BBV programs.

**Results:** Thematic data analysis of the six diverse data sets deduced a number of critical enablers and barriers, giving a rich description of ‘what works’ and ‘what doesn’t’ when delivering these programs. Programs that achieved good-practice standards (had critical enablers in place) were able to achieve significant outcomes with young people, including increased knowledge, confidence, social and interpersonal skills, social connectedness, leadership, empowerment for change and reduced stigma toward STIs and BBVs. Youth worker capacity was also increased through program experience and reflective practice.

**Conclusion:** The results have enabled the development of an evidenced-based resource specific to youth workers and supporting positive youth sexual health outcomes in youth sector contexts.

#### PAPER NUMBER: 319
**P-4A-PS3 PROGRAM FROM ABORIGINAL MEDICAL SERVICE WESTERN SYDNEY**

**Fernando T**, Tighe L, Robinson R

1 Aboriginal Medical Service Western Sydney co-operative Ltd.

The P-4A-PS3 Program is an innovative health promotion project developed under the philosophies of the Aboriginal Community Controlled Health, which incorporates a wholistic approach to health and wellbeing. The program is a collaboration of Aboriginal Medical Service Western Sydney (AMSWS) programs; Sexual Health; Reproductive Health; Public Health; Social & Emotional Wellbeing; Alcohol & Other Drugs; Oral Hygiene; Domestic Violence; Stolen Generation and Child & Family Health.

The P-4A-PS3 Program focuses on Aboriginal students aged 16 and older who are currently enrolled in High School’s that are in low socio economic areas.

**Aim:** To raise cultural awareness and knowledge of Sexual Health & Sexual Reproductive Health, with an emphasis on Wholistic Health, amongst Aboriginal high school students in Western Sydney.

**Objectives:**
- Educate Aboriginal high school Students on Sexual Health and Sexual Reproductive issues around transmitted infection/s while providing Clinical constituent.
- To promote open awareness on Sexual Health and Sexual Reproductive Issues.
- Facilitate issues surrounding Sexual Health, Sexual Reproductive Health, Mental Health, Alcohol & Other Drugs, Oral Hygiene and Domestic Health.
- Inform knowledge and understanding of the issues contiguous with Stolen Generations and Family Trauma.

**Outcomes:**
- To decrease the incident rate of STI’s.
- STI and BBV testing.
- Increase the use of condoms and other contraception/s among Aboriginal high school students.
- Reduce the shame and stigma surrounding sexual health.
- Educate awareness of Sexual Health, Mental health and Alcohol & Other Drug issues with an emphasis of related issues around Oral Hygiene and Domestic Violence.
- Provide cultural awareness around Stolen Generation issues.
### PROFFERED PAPER SESSION: SEX MESSAGING

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\(^1\) HIV/AIDS, Sexual Health and Hepatitis C Health Promotion Unit, Health Reform Transition Office Western (the old Sydney West Area Health Service), NSW Health.

The Blacktown Local Government Authority (LGA) has the largest concentration of urban Aboriginal residents in Australia. 2.7% of the population of the LGA is Aboriginal; the total Aboriginal population is 18,000 (2009 statistics). Also, many Aboriginal people pass through, or live in the area, for short periods of time.

In 2009, Aboriginal access to the Mt Druitt Sexual Health Clinic was 5% of total clients, but other clinics in the old Sydney West Area Health Service were much lower; 0.9% at Parramatta, 2.9% at Nepean (Penrith) and 0.9% at Blue Mountains (Katoomba).

The Aboriginal Sexual Health Worker’s (ASHW) role is to inform the community about sexual health services and to help community members understand what happens when accessing these services. To achieve this, the AHSW’s does extensive community work at local Aboriginal services such as the D&A service, Marrin Weejali, as well as the Needle and Syringe Program.

The AHSW identified a need, particularly amongst young Aboriginal people, for more information about sexual health as well as information about what happens when you go to a sexual health clinic.

The publication ‘Sexual Health and Us Mob’ was developed to meet this need.

The presentation will cover the background to the publication and the key messages of the booklet; what are STIs, what is safe and unsafe sex and what a sexual health check up involves. Also, the presentation will cover the development of the resource, the involvement of the community, how the focus testing was run, and the distribution plan.

To be launched on July 4 during NAIDOC Week, already the booklet has elicited great interest and the AHSM Conferences are the perfect opportunity to share our experience in the development of this much needed resource with all health care workers working with the Aboriginal community and with Aboriginal health workers.

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<th>PAPER NUMBER: 292</th>
<th>MASTURBATION IN THE MEDIA</th>
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<td>Watson A-F, McKee A(^1)</td>
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\(^1\) Queensland University of Technology

Background: Previous research has shown that masturbation is a natural and healthy part of human sexual development, but this message is rarely disseminated to young people. Masturbation is rarely spoken of in formal schooling, and studies have shown that it is a topic that seldom arises in parental communication about sexuality. Masturbation has been infrequently addressed in popular television shows and movies directed at young people.

Methods: A textual analysis of instances where masturbation was discussed or seen in recent popular television shows was conducted.

Results: Masturbation is still presented as a taboo practice, but it is beginning to be shown in some television shows and movies as a normal practice.

Conclusions: The media is often lambasted for sexualising young people and presenting sexual topics in a way that encourages sexual behaviours. Where masturbation is mentioned in programmes addressed at young people, it is starting to be presented as a healthy and normative practice.
**SEXTING AND YOUNG PEOPLE: PRESSURE POINTS**

Walker SJ, Temple-Smith MJ and Sanci LA

Background: Sexting, which involves the sending and receiving of sexual images on a mobile phone has led to young people being excluded from friendship groups, moving schools, suffering anxiety and depression, and in extreme cases being charged with the production/distribution of child pornography. The phenomenon has become a focus of much media reporting; however research regarding the phenomenon is in its infancy, and the voice of young people is missing from this discussion and debate. This study is one of the first Australian studies to explore the phenomenon of sexting from the perspective of young people themselves.

Methods: A qualitative methodology was utilised, involving individual semi-structured interviews with 32 young people (male [n=14] female [n=18]) aged 15 – 20 years. Young people were sourced via youth health, recreational and educational settings using purposeful snowball sampling to ensure information-rich data was gathered.

Results: Preliminary analysis of data highlighted a range of themes relating to motivations for the behaviour, consequences for those involved and potential solutions.

A clearly emerging theme was one of pressure experienced by both young men and women. Young people discussed the pressure boys place on each other to have girl’s photos on their phones and computers, they talk of the pressure some girls feel to be in the photos, and they share concerns about the powerful force of the media that promotes a highly sexualised culture and which places pressure on young men and women to conform to gender stereotypes.

Conclusion: This study addressed an absence of reliable data about sexting from the perspective of young people themselves. It highlighted the importance of their voice in understanding and developing responses to prevent and deal with this phenomenon. Preliminary findings supported the need for continued on-going and meaningful dialogue with young people, to ensure they are part of the solution.

Disclosure of Interest Statement: This study has been financially supported by a PHCREDS (Primary Health Care Research, Evaluation and Development) Fellowship. No Pharmaceutical grants were received in the development of this study.

**THE CADDYSHACK PROJECT: OVERCOMING BARRIERS IN ACCESS TO CHLAMYDIA SCREENING FOR YOUNG PEOPLE**

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1HIV and Related Programs Unit, NSW Health Service Health Reform
2Transitional Organisation Southern
Illawarra and Shoalhaven Sexual Health Service.

Background: The concerning high prevalence of Chlamydia within the population of young people aged 16 – 25 in Australia has been well established. Creative strategies are required to overcome barriers to screening for this population, as improved screening rates will promote better understanding and management of this condition. Various initiatives have been designed to increase access to screening for young people, from awareness and education campaigns, to mail out home testing kits. Many initiatives have had limited success in overcoming inherent barriers to testing for this important population.

Methods: The CaddyShack Mobile Chlamydia Screening Project was developed to improve access to Chlamydia screening for young people by providing quick and easy opportunistic onsite screening when and where young people are already located. Key project strategies included non-clinician led screening activity, and the use of positive peer pressure to encourage young people and their peers to be screened. The project worked in partnership with the local sexual health service, and a number of youth services in the Illawarra and Shoalhaven areas of NSW. Youth focused and valued resources were provided to young people in exchange for their involvement. Participants were sent an SMS for negative results, or contacted by clinic staff if positive.

Results: The project visited 6 youth events over the summer of 2010-2011. A total of 90 young people were screened, and unlike other non-clinical based Chlamydia screening the project had a high responder rate. A positive Chlamydia rate of 5% was identified, which corresponds with the broader youth population.

Conclusion: Creative strategies used to overcome barriers to Chlamydia screening for young people do show success, especially when developed specifically for the needs of youth. The project strategies will be presented, which are easily adaptable to meet the needs of other local populations of young people, allowing replication in other settings.
## SYMPOSIUM: WHAT’S NEW IN STI TESTING?

### PAPER NUMBER: 645

**WHAT IS NEW IN POINT OF CARE (POC) TESTS FOR STIS? CAN WE TREAT MORE STIS WITH POC TESTS?**

**Charlotte Gaydos**

1Johns Hopkins University, USA.

**Background:** Since young adults and high-risk populations with health inequities bear the significant portion of infections, more acceptable tests such as point of care tests (POCT) and more easily available techniques for diagnosing STIs, are required in order to address the epidemic of STDs. Molecular tests for the detection of STIs are now the gold standard for diagnosing Chlamydia trachomatis infections, such assays are becoming increasing available, and are now recommended as the tests of choice by the Centers for Disease Control and Prevention. However having an accurate and rapid POC test which has result of having the patient being treated before leaving the clinic or doctor’s office has much appeal and can be potentially cost saving.

**Methods:** This presentation will provide an update on the use of new and older nucleic acid amplification tests (NAATs) for the detection of STIs. It will present how non-invasive specimen types are now being used to screen individuals in non-traditional venues. Methods of using self-collected urogenital samples at home can provide outreach into the community for screening. POC tests that are in the development pipeline will be discussed.

**Results:** There are four commercially available NAAT assays for the diagnosis of chlamydia: Amplicor PCR, ProbeTec SDA, APTIMA Combo2 TMA and RT-PCR m2000. One new NAAT test, kPCR is in clinical trials. There is now a commercial NAAT amplification test for Trichomonas vaginalis, that is FDA cleared. Sensitivities and specificities are uniformly high and range well above 90% for sensitivity and above 98-99% for specificity. New specimen types such as urine, self-collected vaginal swabs, and liquid PAP cervical samples are approved for detection of STIs using NAATs. Additionally, self-collected samples have been shown to be able to be successfully used outside the clinic in non-traditional venues and to provide screening for asymptomatic patients, who might not attend a clinic. Internet recruited home samples are showing promise as a new way to screen individuals at risk for STIs. Home collected samples are acceptable to individuals and are highly accurate. New POC tests will soon be available.

**Conclusion:** New tests and new methods of reaching individual at risk for STIs will provide effective tools for preventing transmission of STIs.

### PAPER NUMBER: 633

**NAAT DETECTION OF N. GONORROEAE ON EXTRANGENITAL SAMPLES: ARE WE READY FOR IT?**

**Sepehr N. Tabrizi**

1Department of molecular microbiology, The Royal Women’s Hospital

Advances in non-culture, pathogen-specific molecular methods have revolutionized the diagnosis of sexually transmitted infections (STIs). These tests are mainly based on nucleic acid amplification technology and allow for testing of variety of samples including self-collected specimens (i.e. urine, swab and tampon). As the result, screening for STIs in non-clinic settings, have become highly desirable for detection of asymptomatic infections.

Several commercial, as well as a number of in-house, assays are currently utilized for detection and confirmation of N. gonorrhoeae. However issues surrounding cross-reactivity to other closely related organisms have complicated gonococcal diagnostics by these methods, in particular from extragenital sites which include the rectum and oropharynx. With increasing use of commercial and ‘in house’ NAAT systems over time and in different geographical settings, a need has arisen for both a considered approach to the application of NAATs and for an awareness of their limitations.
### SYMPOSIUM: WHAT’S NEW IN STI TESTING?

<table>
<thead>
<tr>
<th>PAPER NUMBER: 653</th>
<th>SOME SEROLOGICAL HAZARDS OF HIV AND SYphilis TESTING</th>
</tr>
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<tbody>
<tr>
<td>Robertson P1</td>
<td>Accurate automated serological screening tests for syphilis and HIV have been developed in recent years. These automated chemiluminescence assays are both sensitive and specific (&gt;99%) and ideally suited for screening. However in a diagnostic setting there are still potential hazards in test selection, performance and interpretation with both syphilis and HIV serology. The traditional RPR test is labour intensive and has poor reproducibility when used for quantitative assessments of response to treatment. The prozone phenomenon can occur with this assay and result in false negative results being reported. When performing syphilis serology on cerebrospinal fluid because the sensitivity of the VDRL is as low as 20% therefore accurate diagnosis of neurosyphilis requires the use of sensitive assays such as TPPA and FTA. Contamination of CSF with serum from either damaged tissue in the CNS or traumatic lumbar puncture must be identified in order to eliminate false positive results with these assays. The recently developed HIV “combo” tests can detect both HIV antigen and antibody in serum and have been shown to detect infection earlier than tests that detect antibody alone. Most clinicians now accept that a negative combo test 6 weeks after an exposure excludes HIV infection but antiviral treatment can alter the pattern of these serological tests in early infection. Confirmation of HIV infection requires a reactive western blot but in advanced disease the blot pattern may revert to indeterminate and other supplemental testing may be required.</td>
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1Prince of Wales Hospital

### NOTES
### SYMPOSIUM: GETTING YOUR MESSAGE ACROSS – EFFECTIVE USE OF THE MEDIA

<table>
<thead>
<tr>
<th>PAPER NUMBER: 623</th>
<th>YOU’VE GOT TO RESPECT TODAY TONIGHT</th>
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| Professor Alan McKee¹ | In the Plenary session 'Communicating Healthy Sexuality' I focused on the ways in which sexuality is represented in entertainment media. In this session I explore how an understanding of entertainment as a form can inform our interactions with media. The question of working with the news media is key for many sexual health professionals. A key aspect of improving this relationship is to acknowledge our own prejudices. Many health professionals don’t like entertainment (‘tabloid’) media. They prefer informative (‘quality’) media. They complain that Today Tonight isn’t the same as The Health Report. Such a complaint misses the point. Today Tonight is very good at its job. It provides entertainment for a mass audience of over a million. If we want to reach that audience we have to understand how entertainment works, see its value, and respect the expertise of those who make it. Entertainment has been a coherent textual system for two hundred years. Good entertainment is vulgar. It has a story. Seriality is valued, as is adaptation. Good entertainment has a happy ending. It is interactive, fast, loud and spectacular. It provokes a strong emotional response in the consumer. And it is fun. This kind of representation is popular with working class audiences. Do we want to reach this audience? If so, we can learn some lessons from the producers of Today Tonight:  
  • Cheerfully accept that you will be ‘misrepresented’  
  • It’s all about the audience you’re trying to reach – don’t worry about what other health experts are going to think  
  • Don’t get obsessed with the full complexity of the issue – communicating something is better than communicating nothing (‘dumb it down’)  
  • Make it fun  
  • Master the soundbite  
  • And think about what counts as healthy sexuality (the place of fun in it). |

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<thead>
<tr>
<th>PAPER NUMBER: 658</th>
<th>INFECTIOUS DISEASE AND CATCHING THE MEDIA</th>
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<tr>
<td>Metherell M¹</td>
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## SYMPOSIUM: GETTING YOUR MESSAGE ACROSS – EFFECTIVE USE OF THE MEDIA

<table>
<thead>
<tr>
<th>PAPER NUMBER: 652</th>
<th>WHY AND WHEN TO USE THE MEDIA?</th>
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<tr>
<td>Sullivan F&lt;sup&gt;1&lt;/sup&gt;</td>
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<td>&lt;sup&gt;1&lt;/sup&gt;Australian Medical Association</td>
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### NOTES
PAPER NUMBER: 634  
THE IMPORTANCE OF MOBILITY IN SUSTAINING HIGH STI PREVALENCE IN REMOTE INDIGENOUS COMMUNITIES


1 The Kirby Institute (formerly the National Centre in HIV Epidemiology and Clinical Research), University of NSW, 2 Australian Research Centre in Sex, Health and Society, La Trobe University, 3 Centre for Women’s Health, Gender and Society, University of Melbourne.

Background: Despite high rates of screening and treatment in many remote Indigenous communities in Australia, diagnosis rates for sexually transmitted infections (STI), chlamydia and gonorrhoea in particular, remain alarmingly high. One contributing factor may be the high rate of temporary mobility for residents of remote communities. We use mathematical modelling to explore the impact of mobility on STI transmission within remote communities.

Methods: An agent-based computer simulation model was developed to study the relationship between mobility rate and the transmission of gonorrhoea and Chlamydia across numerous representative but theoretical Indigenous populations. Population mobility is incorporated using a ‘gravity’ formulation from transport theory.

Results: Simulation results suggest that temporary mobility could be a factor in sustaining a persistent high level of STIs. However, this relationship is unlikely to be of a simple nature. It was found that STIs are unlikely to be sustained at an endemic level if there is no mobility. Interestingly, however, endemic STI levels are also unlikely to be sustained if mobility is very high. For example, in this model the endemic prevalence of gonorrhoea increases rapidly to more than 10% as the maximum mobility rate (MMR) increases from 0 movements per 1000 individuals per day to between 0.2 and 1.2, before gradually decreasing to 0 again as the MMR increases to 3 movements per 1000 individuals per day.

Conclusion: While mobility patterns vary between remote communities, mobility is generally believed to be much higher than for non-remote communities. Our modelling suggests that mobility may be an important factor in sustaining high levels of STIs in remote communities and that simple location-based interventions may not be effective for control and prevention. It is therefore necessary to obtain accurate and specific data on mobility patterns in order to access the potential impact of current and proposed interventions.

PAPER NUMBER: 659  
PROVING THAT COLLABORATIVE RESEARCH IS DO-ABLE IN THE ABORIGINAL COMMUNITY CONTROLLED HEALTH SECTOR THAT WILL IMPROVE OUTCOMES IN STI AND BBV

Mark Saunders, Donna Ah Chee, Sophie Couzos, Maurice Shipp, Mary Ellen Harrod, Simon Graham, Clint Arzmendi, Belinda Ford, Andrew Nakhla, John Kaldor, James Ward

1 National Aboriginal Community Controlled Health Organisation (NACCHO)

Background: Despite a negative history between researchers and Aboriginal and Torres Strait Islander communities in Australia collaborative research is occurring within the Aboriginal Community Controlled Health Sector (ACCHS) and is continually evolving. The ACCHS sector is the largest single provider of primary health care to Aboriginal people. In 2008 over 344,000 unique patients attended ACCHS and over 1.85 million episodes of care occurred within the sector. Like many other health indicators in Indigenous health there is significant disparity between Aboriginal and Torres Strait Islander people and non-Indigenous people in almost all areas of STI and BBV.

Methods: The Aboriginal and Torres Strait Islander Health Program at the Kirby Institute has established a program in partnership with the National Aboriginal Community Controlled Health Organisation. The research is informed and embedded in Aboriginal community control philosophy and practice: firstly as an Aboriginal-led program, secondly by engaging Aboriginal community controlled organisations as equal partners, thirdly by ensuring research projects are embedded in service delivery and have potential to influence positive changes in population health, and finally ensuring that capacity is built within the sector for each and every research project.

Results: The Program has worked towards initiating a number of large-scale research studies in the Aboriginal Community Controlled health sector in Australia. Over 50 ACCHS are involved in projects that aim to improve sexual health and BBV service delivery using quality improvement frameworks. Other projects include clinical audits of hepatitis B positive patients, evaluations of service delivery, projects focused on antenatal care, chlamydia testing and treatment as well as projects addressing young men. Preliminary results arising from these projects will be provided.

Conclusion: A critical element of working with local communities is transferring control of the research from an academic to the community setting. Projects undertaken by the program have progressively moved towards a model of community participation and control of research design and output.
### PAPER NUMBER: 635

<table>
<thead>
<tr>
<th>HEARING FROM YOUNG ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE ABOUT THEIR SEXUAL HEALTH AND WELLBEING</th>
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<tr>
<td>Arizmendi C1, Worth, H2, Smith A1, Ah Chee D4, Kaldor J1, Bryant J1, Pitts M1, Ward, J1.</td>
</tr>
<tr>
<td>1Kirby Institute for infection and immunity in society, UNSW, 2School of Public Health and Community Medicine, UNSW, 4Australian Research Centre for Sex Health and Society, Latrobe University Melbourne, 3National Aboriginal Community Controlled Health Organisation, 5National Centre for HIV Social Research, UNSW.</td>
</tr>
<tr>
<td>Background: Young Indigenous people are vulnerable group for STI and BBV in Australia. Disproportionate rates of STI and BBV have been diagnosed among this group for well over two decades, yet little information exists on levels of knowledge, risk behaviours and health service access for this population. To address this we are conducting the first national survey of young Indigenous people to establish a baseline to inform policy and practice.</td>
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<tr>
<td>Methods: Cross-sectional surveys are administered at community cultural and sporting events to 16-29 year old Indigenous people using hand held computers. Over the next two years we aim to collect data from close to 40 events in all Australian jurisdictions with a target of 4000 by completion. Questions are consistent with other Australian surveys and address demographics, risk behaviours, access to health services and knowledge of STI and BBV. Peak Aboriginal health agencies coordinate the survey in each jurisdiction. Capacity building is a major component of this study with training provided to each peak organisation and staff in research methodologies.</td>
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<tr>
<td>Results: Seven events have been completed nationally with over 700 interviews completed. The median age of participants is 22, 62% female, 92% Aboriginal and 89% identified as heterosexual. Of those who reported sexual intercourse in the last year, 90% had three or less partners and 62% did not always use a condom. The median age for first (penetrative) sex was 15.6, the median age for first (oral) sex was 15.4. Of 11 knowledge questions regarding STIs/BBVs, 68% knew the correct answers. 25% reported being diagnosed with an STI in the last year, 56% received their last test at an AMS and 59% believed that an AMS was the best place to get information for an STI.</td>
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<td>Conclusion: Preliminary results demonstrate the need for continued education programs addressing risk practices for STI and BBV as well as the need for clinical services particularly in AMS to be supported in the management of STI and BBV.</td>
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### PAPER NUMBER: 636

<table>
<thead>
<tr>
<th>INCREASING COMPLETENESS OF ABORIGINAL REPORTING FOR NOTIFIABLE DISEASES THROUGH DATA LINKAGE</th>
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<tbody>
<tr>
<td>Ward J1, Dyda A1, Hunt J1, Spokes P2</td>
</tr>
<tr>
<td>1Kirby Institute, 2Communicable Diseases Branch, NSW Health, 3Aboriginal Health and Medical Research Council.</td>
</tr>
<tr>
<td>Background: To understand the burden of disease caused by sexually transmitted infections (STIs) and blood borne viruses (BBVs) in Aboriginal people in Australia, accurate epidemiological data are essential. In NSW, notifiable disease data are collected via the Notifiable Conditions Information Management System (NCIMS). These data do not currently meet national targets for completion of Aboriginal and Torres Strait Islander status. We conducted a data linkage project to determine if record linkage could improve completeness of notification data for Aboriginal and Torres Strait Islander status.</td>
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<td>Methods: Data from NCIMS in the period 1993 to 2007 were linked with the NSW Admitted Patient Data Collection (APDC), Midwives Data Collection and birth and death registrations. Where a person had information recorded in the Aboriginal and Torres Strait Islander status field in any data set, the information was assumed to be true for the purpose of analysis. We compared the proportion of people with information recorded for Aboriginal and Torres Strait Islander status in NCIMS with the proportion in the linked datasets.</td>
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<tr>
<td>Results: Following linkage the proportion of total STI and BBV records in NCIMS with complete information for Aboriginal or Torres Strait Islander status increased from 17.9% to 49.6%. The improved completeness of reporting differed between diseases, with hepatitis C, chlamydia and gonorrhea showing the most significant improvements. Hepatitis C completeness increased from 18.1% to 54.5%, chlamydia increased from 9.8% to 42.0%, and gonorrhea increased from 8.2% to 35.3%.</td>
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<tr>
<td>Conclusions: Data linkage has improved completeness of Aboriginal or Torres Strait Islander status for STIs and BBVs in NSW, but not to a level high enough to meet national reporting targets. This strategy will be used in conjunction with others such as enhanced surveillance and improvements in electronic records systems to achieve improvements in completeness of Aboriginal people within notifiable diseases databases.</td>
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Pelvic inflammatory disease (PID) remains a challenge for clinicians in terms of the diagnosis and proper management. Declines in chlamydia and gonorrhea incidence in most parts of the world have likely resulted in declines in PID related to these organisms, yet challenges remain. What is the contribution of anaerobes, especially those arising from vaginal bacteria? How should gonorrhea be covered with antibiotic regimens that address this organism’s ever-evolving capacity for resistance? Are there better ways to diagnose this condition, and anything new in prevention? Finally, is there a role for ‘new’ pathogens, like M. genitalium, in helping us to understand what PID is and how best to treat it?
### SYMPOSIUM: TEACHING SEXUAL HEALTH: NATIONAL CURRICULUM AND POLICY PRIORITIES

#### PAPER NUMBER: 646

**THE INDIGENOUS ADOLESCENT SEXUALITY EDUCATION PROJECT: DELIVERING AN EVIDENCE BASED, COMMUNITY SUPPORTED SEXUALITY EDUCATION PROGRAM ACROSS THE NT**

**Perry J**

1 Northern Territory Department of Health

The Indigenous Adolescent Sexuality Education Project (IASEP) will develop, implement and evaluate an Indigenous focused sexuality education program across the Northern Territory (NT). The IASEP is funded through the Coalition of Australian Government's National Partnership Agreement on Indigenous Early Childhood Development and will be implemented from 2009-2014. Despite well recognised extremes of sexual ill-health, the delivery of comprehensive and coordinated sexuality education in the NT has been challenged by the difficulties of delivering services in remote areas, significant Aboriginal adolescent cultural considerations and poor social determinants of health.

The IASEP initially investigated the local context, current approaches to sexuality education and perceived barriers and opportunities for delivery. This was achieved by undertaking a literature review of best practice standards, followed by in depth consultation with stakeholders including service providers, families, senior community members and young people from both remote and urban locations. These informed the development of the project model using a strengths based, community development approach which acknowledges the highly complex environment in which it works. Through the combination of local knowledge and resources, and best practice standards in sexuality education, the IASEP aims to support Aboriginal communities in the delivery of an effective, holistic and culturally appropriate sexuality education program.

Currently the trial phase of the IASEP is being carried out. This involves: providing ongoing support to educators through consultation and planning, provision of training, resource development and best practice guidance. This process has confirmed that 'one size does not fit all' and that flexibility, time and community readiness are essential factors in implementation. Feedback from communities and educators participating in trial phase indicate increased access and use of appropriate education resources, high levels of community participation and increased educator confidence in the delivery of sexuality education. Planning the implementation of the IASEP across the NT is underway.

#### PAPER NUMBER: 618

**FOCUS SCHOOLS PROGRAM: SHINE SA**

**Flentje J**

1 SHine SA

Background: SHine SA (Sexual Health information, networking and education, South Australia) aims to improve the sexual health and well-being of all South Australians. The *share* (sexual health and relationships education) program aimed to improve the health and wellbeing of young people in schools, with particular emphasis on addressing the unacceptable levels of unplanned teenage pregnancy and parenting, teenage abortion, sexually transmitted infections, sexual coercion, homophobic discrimination and harassment and violence against women in intimate relationships.

**Methods:** The *share* program was a pilot program in 15 Education Department Schools in South Australia from 2003-5. Schools volunteered to be a part of the program. The program involved training of teachers who then delivered the comprehensive relationships and sexual health education curriculum to all students in years 8-10. SHine SA developed the curriculum, training program and support materials in consultation with teachers.

The *share* model was based on a literature search conducted by La Trobe into the critical factors for success for effective sexual health and relationships education with young people in schools. SHine SA engaged La Trobe University and the University of South Australia to evaluate the project.

**Results:** Students rated the program highly and relevant to their lives. Teachers' confidence to deliver relationships and sexual health education improved, they also highly valued the support materials.

**Conclusion:** SHine SA is now supporting approximately 100 schools through the Focus Schools program which is based on the *share* model. Teachers value the whole school approach and sustainability of the program. Once they have received training they implement the program in ways that suit their school. Teachers continue to find the program relevant and appropriate to their students.

SHine SA is currently working with the University of SA to again evaluate our work with schools.
## SYMPOSIUM: TEACHING SEXUAL HEALTH: NATIONAL CURRICULUM AND POLICY PRIORITIES

### PAPER NUMBER: 139

**SEXUALITY EDUCATION IN AUSTRALIAN SECONDARY SCHOOLS – A TEACHERS PERSPECTIVE**

<table>
<thead>
<tr>
<th>Schlichthorst M1, Smith A1, Mitchell A1, Walsh J1, Lyons A1, Blackman P1, Pitts M1</th>
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<tr>
<td>1Australian Research Centre in Sex Health and Society, La Trobe University, Melbourne, Victoria, Australia</td>
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**Background:** It is widely acknowledged that sexuality education delivered by well trained and supported teachers remains the best means of preparing young people to lead safe sexual lives. However, to date little is known about what and how sexuality education is taught in schools. This study gathered information about the content and practices of teaching sexuality education and the difficulties teachers experience.

**Methods:** Data were collected between August and October 2010 using an anonymous online survey. Respondents were recruited by representative random sampling as well as snowball sampling. The two samples were merged and weighted according to the distribution of teachers by state. Descriptive data analysis was used to gain a comprehensive understanding of the content and forces on sexuality education.

**Results:** Most teachers followed a comprehensive approach by teaching the majority of relevant topics. While sexuality education was mainly taught in years 9 and 10 and only a few topics were more likely to be covered in years 7 and 8 (e.g. puberty, reproduction and body image), a large proportion of teachers wanted most topics to be covered earlier. Although feeling supported by their school and parents, 65% of teachers agreed that there was insufficient time for teaching the amount of sexuality education needed and 44% of teachers were careful what they taught because of possible adverse community reactions. 54% of teachers named constraints in the curriculum or in time allowance as their main reasons for not having taught a specific topic. Many teachers also commented on the lack of up-to-date teaching resources inhibiting teaching that matches students’ needs in a modern society dominated by media.

**Conclusions:** The limited time allowance, curriculum constraints, the shortage of up-to-date resources and anticipated adverse community reactions mean a significant challenge for providing effective comprehensive programs and helping young people make healthy decisions.

**Disclosure of Interest Statement:** The Commonwealth Department of Health and Ageing funded this research project.

### PAPER NUMBER: 637

**LIGHTING THE FIRE, NOT FILLING THE PAIL – POSITIONING SEXUALITY IN THE AUSTRALIAN CURRICULUM**

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<th>Gore C1</th>
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<tr>
<td>1Family Planning Queensland</td>
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This symposium presentation will discuss conceptual approaches to how processes underway to develop the Australian Curriculum might link to improved sexual health outcomes. It will also explore the assumptions underpinning the ‘partnership’ between health and education sectors to uncover both the opportunities and the pitfalls for those who want to promote young people’s learning.

The presentation will challenge participants to critically reflect on the values underpinning different approaches to young people’s learning and engagement and what implications this diversity may have for advocacy strategies.
**SYMPOSIUM: PROFESSIONAL DEVELOPMENT ISSUES**

**PAPER NUMBER: 638**  

<table>
<thead>
<tr>
<th>Becker NG1</th>
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<tbody>
<tr>
<td>1National Centre for Epidemiology and Population Health, Australian National University.</td>
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</table>

**STATISTICAL DESIGN AND ANALYSIS OF STUDIES: AVOID IT, DIY, CONSULT OR COLLABORATE?**

Editors of journals and assessors of grant applications are increasingly insisting on evidence that the design of the study and the analysis of its data are statistically sound and best suited to the research question. To flourish, health researchers must therefore ensure they have an adequate understanding of what statistics can contribute to their research, know what they can do themselves and when to seek advice. The answers depend on the type of research, the research question and the type of data. Modern computer packages help, but are often only part of the solution. For ambitious researchers and research groups there are compelling reasons why they should foster a continuing collaboration with a well-qualified statistician.

This talk discusses the why, when, what and how of adequate statistical support for high quality health studies, including issues that are specific to studies of infectious diseases.

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**PAPER NUMBER: 654**  

<table>
<thead>
<tr>
<th>Fairley CK1</th>
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<tbody>
<tr>
<td>1Melbourne Sexual Health Centre, Victoria Australia and Melbourne School of Population Health, University of Melbourne, Australia.</td>
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**WRITING GRANT APPLICATIONS**

Successful grant writing is difficult. Most competitive granting bodies having success rates of less than 20%. Medical graduates who have probably never failed an exam in the entire life, let alone most of them, find this very difficult to take. Many find it so much easier to slip back into medical practice where everyone says ‘thank you’ all the time.

This presentation will be aimed at practical issues that can improve the success rate for those in the early stages of their careers. The critical factors for success include; hard work, time, practice, good ideas, the right mix of collaborators, the right people, and a fair bit of luck. The idea needs to be important and the methodology needs to be correct.

There are two absolutes without which a grant will almost never succeed. The entire grants needs to be clearly and simply written and you need pilot data.

While the work is hard, the rewards are enormous and it is all great fun.
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<tr>
<th>PAPER NUMBER: 655</th>
<th>CULTURAL RESPECT AND COMMUNICATION GUIDE</th>
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<td>Monaghan R1</td>
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1 North Coast Area Health Service.

NOTES
### SYMPOSIUM: TRANSGENDER HEALTH

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<thead>
<tr>
<th>PAPER NUMBER: 656</th>
<th>TRANSGENDER SEXUAL HEALTH ISSUES</th>
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<tr>
<td>Hyndal P(^1)</td>
<td>Peter Hyndal, who is from A Gender Agenda, a Canberra based community group, who provide support, education and advocacy for sex and gender diverse people will provide an introduction to transgender health issues.</td>
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\(^1\) A Gender Agenda

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<th>PAPER NUMBER: 639</th>
<th>SURGICAL ASPECTS OF TRANSGENDER MEDICINE</th>
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<tr>
<td>Haertsch P(^1)</td>
<td>Surgery for gender dysphoria was not routinely available prior to the 80’s, surgery and psychiatry having had an unhappy liaison.</td>
</tr>
<tr>
<td>(^1)Concord Hospital</td>
<td>While gender dysphoria is DSM classified it’s not because it is deemed to be an illness, rather than to give guidelines as to establishing a diagnosis, and surgery is now deemed to be an appropriate activity.</td>
</tr>
<tr>
<td></td>
<td>I have performed several hundred operations during which time there has been continuing improvement in appearance and outcomes. These will be discussed in some details.</td>
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</table>
PSYCHIATRIC ASPECTS OF TRANSGENDER HEALTH

Background: Over the past half century psychiatric views of Transsexualism have been shifting from pathologizing towards acceptance as a variant of the norm. The phrase Gender Identity Disorder now seems set to disappear from the DSM.

Assessment: A psychiatric opinion nonetheless is desirable to exclude other conditions presenting as Gender Dysphoria. These may include delusional disorders or the obsessions sometimes a feature of Asperger’s Syndrome.

Support: Discrimination and rejection by family and others can have disastrous effects. Assessment itself should explore this possibility. Ongoing counselling is a safeguard which may prove life saving.
### Paper Number: 268

**Client Feedback and Satisfaction with an Express STI Screening Service at an Inner City Sexual Health Centre**

**Background:** Sydney Sexual Health Centre (SSHC) commenced an express STI clinic (Xpress) for asymptomatic clients in March 2010, utilising CASI and self-collected samples. Client feedback and satisfaction was assessed over 6 months and comparisons made between priority groups.

**Methods:** This was a cross sectional study questionnaire. Results were stratified by gender, MSM status, age (<25/>25) and sex work.

**Results:** Of the 243 clients who attended Xpress, 145 (60%) returned questionnaires. Significantly more Australian-born clients responded to the survey than overseas-born clients (77% vs 60% p=0.013), but otherwise demographics of responders were similar to non-responders. Reasons for choosing Xpress included not wanting to wait long (30%) and not wanting a long consultation (12%), but the majority (47%) chose Xpress because staff offered it. 68% would have definitely attended SSHC even if Xpress was not available.

70% considered that they would test more frequently for STIs using the Xpress model. Using a 5-point Likert scale, 94% of clients reported being very satisfied or satisfied with the CASI, 73% with no examination, 76% with self-collected swabs, and 91% with the time taken. 82% would come to Xpress again and 84% would recommend it to friends.

Sex workers were more likely to be dissatisfied with no examination than non-sex workers (25% vs 5% p=0.033). Only 53% of those <25 years old would have attended SSHC anyway vs 78% of those >25 (p=0.012); similarly 77% of MSM would have attended SSHC anyway compared to 66% of non-MSM (p=0.034). All other analyses by age, MSM status, gender and sex work were non significant.

**Conclusions:** The majority of clients reported high satisfaction with all aspects of the Xpress clinic and high intentions to retest using this model of care. Innovative screening practices for asymptomatic clients may facilitate regular screening in priority groups and increase efficiency of clinical services.

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### Paper Number: 317

**Download to Diagnosis: Reinforcing the Net – Testing for Chlamydia Online, One Year On...**

**Background:** Western Australia’s (WA) Online Chlamydia program was launched in February 2010 as a case-finding vehicle aimed to address increasing rates of genital Chlamydia trachomatis (CT). The free test can be accessed via two websites (http://www.getthefacts.health.wa.gov.au & http://www.couldihaveit.com.au).

Participants must be 16 years or older, have a mobile telephone, access to a computer with printer and the ability to visit a PathWest specimen collection site. Specimens are tested for both chlamydia and gonorrhoea. All results are faxed to Fremantle’s B2 sexual Health Clinic. Positive results are actioned, negative results are available via a toll-free number.

**Methods:** Data for the 12-month period 9/3/2011-8/3/2011 was collated and analysed using the SPSS statistical program.

**Results:** 6% of total website hits resulted in a completed pathology form being downloaded with 60% of these progressing to actual test (4% total website hits). 247 eligible tests were performed on 229 individuals. 72% of total tested were aged 16-29 with statistically more males (55%) than females (45%) submitting a sample. All WA Population health regions were represented with metropolitan areas dominating the sample (89%). 103 participants (42%) received results and all agreed to sexual health history and risk assessment at telephone consult.

42 participants (17%) tested positive for CT with one also positive for gonorrhoea. Of these, 88% were aged 16-29 years with equal male & female representation. Participants were informed of a positive result Median 4 days after submitting a sample. Time from test to treatment was Median 6.5 days. Treatment, partner notification, education provision and follow-up arrangements were confirmed in 100% of participants testing positive. 88% of participants testing positive were aware of their result within 7 days and 98% of participants received treatment with 14 days of submitting a sample.

**Conclusion:** The Online Chlamydia Program has proven an effective and efficient case-finding vehicle for CT infection among the WA population. The 17% positivity quotient and management outcomes are compatible with national and international data.
### PAPER NUMBER: 147

**YOUNG PEOPLE’S VIEWS ON TELEPHONE AND WEBCAM CONSULTATIONS FOR SEXUAL HEALTH**

**Garrett CC**, Kirkman M\(^2\), Hocking J\(^1\), Chen MY\(^3\), Fairley CK\(^1\)

\(^1\)Centre for Women’s Health, Gender and Society, School of Population Health, University of Melbourne, Victoria, Australia; \(^2\)The Jean Hailes Research Unit, School of Public Health and Preventative Medicine, Monash University, Clayton, Victoria, Australia; \(^3\)Melbourne Sexual Health Centre, School of Population Health, University of Melbourne, Carlton, Victoria, Australia.

**Background:** Young people face barriers to accessing sexual health services that may be overcome by the use of telemedicine.

**Methods:** Young people’s (aged 16-24) pre-use views on telephone and webcam consultations for sexual health were investigated through a national online survey in Australia.

**Results:** Of the 662 respondents, 85% were willing to have an asymptomatic in-person consultation with a doctor, 63% a telephone consultation, and 29% a webcam consultation. Willingness to have webcam consultations was reported by more men than women (36% vs. 26%, p=0.01), those with same-sex partners (45% vs. 27%, p<0.01), and those with three or more partners in the prior year (38% vs. 27%, p=0.01). Most (88%) of the sample were willing to receive testing kits and treatment by mail.

If given the option between an in-person, telephone, or webcam consultation, an in-person consultation was the top preference when living 20 minutes from a doctor (83%); telephone was the top preference when living 2 hours from a doctor (51%).

Respondents with three or more partners in the prior year had an increased odds of choosing to speak to a doctor by webcam as their top preference compared to an in-person consultation in multivariate (OR 4.24; 95% CI 1.24-14.42) analysis.

Free text responses revealed that the main concerns about webcam consultations were about privacy and security because online consultations can be recorded and stored and are potentially retrievable online.

**Conclusion:** To our knowledge, this is the first investigation of the use of telemedicine consultations between healthcare providers and clients for sexually transmitted disease care. While only about 1/3 of respondents were willing to have webcam consultations, the service may benefit a minority of high-risk youth who would not otherwise access a sexual health service. Webcam consultations may be more acceptable if privacy policies are pertinent and accessible.

**Disclosure of Interest Statement:** CCG was awarded a Melbourne International Research Scholarship, Melbourne International Free Remission Scholarship, and an Institute for a Broadband-Enabled Society PhD Top-Up Scholarship to undertake her doctoral research. The funders exercised no influence on the research.

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### PAPER NUMBER: 229

**IMPROVED PARTNER NOTIFICATION THROUGH A WEB BASED PARTNER NOTIFICATION SERVICE: LET THEM KNOW**

**Sarah Huffam\(^1\), Christopher Fairley\(^2\), Jun Kit Sze\(^1\), Mark Chung\(^1\), Jade Bilardi\(^2\), Marcus Chen\(^1,2\)**

\(^1\)Melbourne Sexual Health Centre, Alfred Health, Melbourne, \(^2\)School of Population Health, University of Melbourne.

**Background:** Websites that assist individuals infected with an STI to contact their sexual partners using SMS and email have been established but few have published data that demonstrate their effectiveness in enhancing notification of partners. In March 2010, the Let Them Know website (www.letthemknow.org.au) was expanded to support individuals diagnosed with one of five STIs to notify their partners. We undertook an evaluation of the service including feedback received by users.

**Methods:** Using Google analytics and in house data we examined visits to the website and the number of SMS and emails sent. During 4 of the 13 months, those users who sent an SMS or email message to a partner were asked if it was more likely they contacted a partner because of the website.

**Results:** Between March 1st 2010 and March 31st 2011, there were 19,395 visits to the website with an average of 4.5 pages viewed per visit. Twenty two percent (4317) and 0.8% (155) of visits resulted in an SMS and email being sent. The number of SMS and email messages that were sent for chlamydia, gonorrhoea, syphilis, Mycoplasma genitalium and trichomonas were: 2218 (50%), 957 (21%), 908 (20%), 300 (7%) and 89 (2%) respectively. Eighty four percent of notifications were anonymous while 16% were named by the sender. Seventy percent of 1383 consecutive users indicated that they were more likely to contact a partner because of the website while 10% indicated this was not the case and the remainder were unsure. During the audit period there were 55 feedback emails including 21 (0.5% of total SMS and email sent) relating to possible hoaxes or expressing anger at being notified.

**Conclusion:** Websites such as Let Them Know can be an effective resource for supporting individuals infected with an STI to notify their partners.
### Paper Number: 399

Gay Men Prefer Partner Notification by Short Message Service (SMS) Rather Than E-Postcards: A Web-Based Evaluation

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2. The Kirby Institute, University of New South Wales, Sydney, NSW.
3. ACON, Sydney, NSW.

**Background:** In 2006 two new innovative features were added to the WhyTest website: the ‘Tell them’ service allowing visitors to forward anonymous e-postcard or short message services (SMS) to sexual partners who may have been exposed to an STI, and the ‘remind me’ service allowing visitors to register for a 3, 6 or 12 monthly SMS reminder for a sexual health check. We describe the usage of the new website functionality, and recognition of a health promotion campaign conducted in January-June 2007 to promote these new features.

**Methods:** We used linear regression to assess trends in monthly partner notification messages and STI testing reminders sent in August 2007-June 2010. We also analysed 2007 Sydney Gay Community Periodic Survey data to measure recall of the campaign and used a Chi-square test to assess differences in recall among subgroups of men.

**Results:** A total of 7923 partner notification messages were sent in the period August 2007-June 2010; with a significant increasing trend in monthly messages sent (p<0.001); 7581 (96%) were by SMS and 342 (4%) by e-postcards. A total of 1023 STI testing reminders were sent in the same time period, with a significant increasing trend in monthly reminders sent (p<0.001); 516 reminders were by SMS (50.4%) and 507 by email (49.6%). The 2007 Sydney Gay Community Periodic Survey showed 55% of the 2342 participants recognised the WhyTest campaign image in the campaign; highest in men with greater social engagement with gay men, aged 30-49 years, Anglo-Australian background; Metropolitan residence, tertiary qualifications, higher numbers of male sexual partners in the past 6 months, and having a HIV/STI test in the past year (p<0.001).

**Conclusion:** This analysis demonstrates there was high awareness of WhyTest campaign images and the SMS partner notification service was more popular than the e-postcard feature.

### Paper Number: 126

‘Get the Facts’ Sexual Health and BBV Health Promotion Website for Youth Qualitative Evaluation

**Jocelyn Grace1, Donna Mak2,3 and Lisa Bastian2.**

1. Shelby Consulting Pty Ltd, WA.
2. Department of Health.
3. Notre Dame University.

This paper reports on the methodology used to qualitatively evaluate the WA Department of Health’s ‘Get the Facts’ website. Launched in March 2009 after state-wide consultation with young people, the website is aimed at 14-17 years old people and provides relevant information on a range of topics including safe sex, contraception, STIs/BBVs, body piercing and relationships.

To evaluate the website’s suitability and appeal to its target audience, participants aged 14-17 were recruited through youth centres in the Perth metropolitan areas and two regional centres. Assisted by a colleague, the principal author ran six one-hour sessions with a total of 34 people during February 2011. During these sessions participants tested the website using storyboards depicting six common scenarios, and provided feedback on a simple tick-the-box form regarding the ease of navigation, the look and the contents for each. After this, they took part in a focus group discussion, providing more detailed feedback about the website as a whole, and specific pages within it. They were also asked to comment on how the website might be improved, and for suggestions about how the website might be marketed to their peers.

While overall the feedback received was positive, participants also provided valuable constructive criticism and suggestions. The methodology used was original and proved very effective in meeting its objective of obtaining critical feedback from the website’s target audience. In the discussion it will be compared with other methods that have been used for evaluating websites. It will be argued that these other methods would not have been as appropriate and effective as the one used, and that it could be used by others evaluating websites such as ‘Get the Facts’ that are aimed at reaching youth with relevant, accurate and important information and health promotion messages.
Background: Papua New Guinea (PNG) is facing rising rates of HIV and sexually transmitted infections (STI). Clinical Outreach, Men’s Programs, Advocacy and Sexual Health Services Strengthening (COMPASS) aims to reduce the incidence of HIV by reducing STI prevalence in Morobe Province. COMPASS uses a quality assurance (QA) process to assess minimum standard service provision and improve STI client management in rural and urban health centres.

Methods: A QA assessment tool was developed in consultation with the PNG National Department of Health and incorporated National Minimum Standards guidelines. The QA process assesses STI services within each health centre against 18 criteria including facility structure, equipment and medications, infection control methods, clinical services, staff capacity, training, supervision and reporting. Clinic-specific action plans and clinical in-services address the issues highlighted by the QA assessment. This is followed by a one-day sexual health clinic allowing supervised clinical training for nursing staff. To complete the QA process, health centres were re-evaluated within the twelve month period using the same QA tool and additional qualitative data was collected.

Results: Eleven of 19 health centres have completed the QA process. Eight health centres showed significant improvement, while 3 showed no change or scores had deteriorated. Most consistent improvements have been in accessibility, provision of privacy, and confidentiality within the STI service, appropriate use of physical examination, and in client education, staff training, record keeping and medication supply. With the raised profile of STI management, and additional training, health workers have been able to make changes in the way they practice, resulting in improved clinical services.

Conclusions: The quality assurance model provides a valuable combination of fact-finding, training and clinical supervision. Even in resource poor settings, a QA and clinical mentorship approach can significantly improve the delivery of STI care.

Disclosure of Interest Statement: COMPASS is funded by the Australian Government (AusAID).

Background: To date there has been no agreed set of key performance indicators (KPI) for sexual health programs in remote primary health care (PHC) centres in the Northern Territory (NT). Monitoring the impact of sexual health programs across the NT has relied on disease notifications, which are a crude marker of service activity. We report on the development of a set of NT sexual health KPI relevant for settings with high prevalence of bacterial sexually transmissible infections.

Methods: A working group of PHC and sexual health practitioners and researchers reviewed the literature and developed a set of KPI. Examination of existing data collection and reporting mechanisms was undertaken to determine the feasibility of implementing the KPI, followed by the development of reporting tools for each KPI.

Results: A final set of twenty KPI were chosen by the working group. The KPI are classified into a ‘core set’ which comprise of five indicators that reflect a minimal standard of service delivery for all services, and a ‘comprehensive set’ of fifteen indicators that enable a comprehensive assessment of sexual health programs. The KPI cover: partnerships (integration, collaboration), prevention (condoms, health promotion), diagnosis and treatment (testing, treatment, contact tracing), workforce (health hardware, education) and surveillance (notification rates). An automated electronic reporting mechanism for four of the KPI is currently available in most remote NT PHC centres. Other reporting tools/mechanisms that incorporate the use of laboratory or notification data and a staff interview have also been developed.

Conclusion: This project has produced, for the first time, a comprehensive set of KPI in sexual health for remote PHC services. The KPI will assist in the monitoring and evaluation of sexual health programs across the NT and provide a framework for individual services to further develop and assess their own sexual health programs over time.

Disclosure of Interest Statement: None declared.
### ORAL PRESENTATION ABSTRACTS

#### PROFFERED PAPER SESSION: BEYOND THE CAPITAL CITY

<table>
<thead>
<tr>
<th>PAPER NUMBER: 227</th>
<th>EVALUATION OF TWO CHLAMYDIA TRACHOMATIS RAPID TESTS – RESULTS FROM A FIELD STUDY IN THE SOUTH PACIFIC</th>
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</thead>
</table>

**Hurly DS¹, Badman S², Buhrer-Skinner M¹, Bulu S², Muller R¹, Simon L², Tarivonda L³.**  
¹Anton Brehm School for Public Health and Tropical Medicine, James Cook University. ²Wan Smol Bag KPH Clinic, Port Vila, Vanuatu. ³Vanuatu Ministry of Health.

### Background:
The performance of the 'Chlamydia Rapid Test' (Diagnostics for the Real World, Cambridge (DRW)) and 'ACON Chlamydia Rapid Test' (ACON Laboratories, California) was evaluated under field conditions in a Vanuatu reproductive health clinic. The manufacturers’ stated sensitivities and specificities range from 80% to 90% and 96.7% to >99% respectively.

### Method:
Paired male first void urine or female vaginal swabs were taken for testing by DRW/ACON and by quantitative NAAT tests at a NATA accredited laboratory. Rapid tests were stored and performed in accordance with the manufacturers' instructions (except that the ACON female swabs were vaginal rather than cervical).

### Results:
In 33/205 male and 73/333 female NAAT positive samples, DRW sensitivities were 42.4% and 76.7%, and specificities 84.3% and 94.6% respectively; ACON sensitivities in 16/132 male and 77/6 female NAAT positive samples were 75% and 100%, and specificities 91.4% and 73.9% respectively. Male median organism loads were 8.91E+03 copies/ml and female were 8.64E+04 copies/swab.

Neither test detected organism loads beneath 1,000 copies per ml/swab; between 1,000 and 100,000 copies per ml/swab the sensitivity was reduced; with more than 100,000 copies the sensitivity was 97.5% for DRW and 100% for ACON.

Most DRW and ACON false positive results had a weak visual signal; by considering these weak signals as negative, DRW specificity improved in men and women to 98.8% and 99.2%, with a subsequent reduction in sensitivity to 30.3% and 67.1% respectively; similarly ACON specificity was 100% for both men and women and sensitivity was 37.5% and 66.7% respectively.

### Conclusion:
The specificity under field conditions of the DRW and ACON tests ranged from 73.9% to 94.6%; the sensitivities ranged from 42.4% to 100% and were highly dependent on the organism load. Specificity can be improved by discounting weak positive signals in both tests, with subsequent loss of sensitivity.

### Disclosure of Interest Statement:
Funding was obtained through a grant from the Secretariat of the Pacific Community. Rapid tests were paid for by this study at commercial prices from Diagnostics for the Real World and from ACON. DRW provided a ‘proficiency’ test panel free of charge. Neither Diagnostics for the Real World nor ACON were involved in protocol development, nor made any financial contributions to the research.

### Ni-vanuatu participation:
Mr Len Tarivonda, Director of Public Health for the Vanuatu Ministry of Health, was involved from the early stages with guiding, implementing and advising the research and in obtaining ethics approval from the Ministry. Mrs Siula Bulu of the Vanuatu HIV/STI Committee and Wan Smol Bag, and Mrs Leimako Simon, Principal Nurse of the Wan Smol Bag KPH Clinic were instrumental in planning and implementing the field work. Numerous other nurses, peer educators and administrative staff of Wan Smol Bag were involved with the field work. Presenting and publishing of the work has the approval of Wan Smol Bag and the Vanuatu Ministry of Health.
Background: *Neisseria gonorrhoea* and *Chlamydia Trachomatis* predominate in youth. Undiagnosed and untreated infections have wide reaching implications in physical, emotional and financial terms. High rates of asymptomatic infection and targeting at risk youth fosters a challenging environment to establish new health initiatives. The objective of this study was to implement and evaluate a nurse driven youth screening program for *N.gonorrhoea* and *C.trachomatis* within a busy remote Emergency Department.

Methods: Individuals who presented to the Broome Emergency Department with Non-genitourinary complaints between the ages of 16-34 were offered free opportunistic urinary testing for *N.gonorrhoea* and *C.trachomatis*. Offering of testing was triage nurse initiated. Follow up, treatment and contact tracing occurred under the auspice of Community Health nurses.

Results: From August 9 to Dec 9 2010, 178 eligible patients were offered screening and 116 consented entry. There was an overall acceptance rate of 65% with minimal variation amongst males, females, Indigenous and Non-Indigenous patients. 14 patients (12.6%) returned positive results, with 10 diagnoses of chlamydia, 9 of gonorrhoea and 5 with both. All patients with positive results were offered treatment, further testing for blood borne viruses, contact tracing and follow up. 90% of identified sexual contacts received testing and treatment with a further 12 positive results returned within study period.

Discussion: Emergency Departments are an under utilised interface between difficult to reach at risk youth populations and public health services. Through creating a streamlined workflow and minimising additional time and clerical constraints, the Emergency Department can act as an appropriate forum for opportunistic sexual health screening programs, particularly amongst those who are historically difficult to target, namely young men and Indigenous populations.
### PROFFERED PAPER SESSION: BEYOND THE CAPITAL CITY

<table>
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<tr>
<th>PAPER NUMBER: 451</th>
<th>GAPS IN SEXUALLY TRANSMISSIBLE AND BLOOD BORNE VIRAL INFECTION REPORTING: WHAT ARE THE IMPLICATIONS FOR CLOSING THE GAP?</th>
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<tr>
<td>Hartod ME1, Wand H1, Graham SJ1, Guy R1, Kaldor J1, Ward J1</td>
<td><strong>Background:</strong> Incomplete reporting of Aboriginal and Torres Strait Islander status within notifiable disease databases is a longstanding concern. In the environment of Close the Gap, accurate reporting of Indigenous status is required for health services planning and to measure improvements in health outcomes across the life span. <strong>Methods:</strong> This study analysed completeness of reporting of Aboriginal and Torres Strait Islander status for sexually transmissible (STI) and blood borne viral (BBV) notifications during 2000-2009 for chlamydia, gonorrhea, infectious syphilis, newly acquired Hepatitis B and all cases of Hepatitis C. Data was analysed for Aboriginal and Torres Strait Islander status by sex, age, remoteness and jurisdiction. Analyses include descriptive statistics, an estimation of the effect of completeness of data on prevalence and a simulation study. <strong>Results:</strong> In the ten years between 2000 and 2009, the number of STI and BBV reports nearly doubled. The rate of completion of Aboriginal and Torres Strait Islander status has remained stable at about 50% of notifications over the same time period. Poor reporting of status (less than 50% complete for Indigenous status) was found for chlamydia in the ACT, NSW and QLD, gonorrhea in the ACT and NSW and hepatitis B in the ACT and NSW and hepatitis C in ACT, NSW, QLD, TAS and VIC. Identification data was more complete in remote communities was more complete although this varied somewhat by jurisdiction. The most populated jurisdictions for Indigenous people returned the least complete data. <strong>Conclusion:</strong> Despite efforts to improve quality of data, completeness in the reporting of Aboriginal and Torres Strait Islander status within some STI and BBV notifications remains poor in Australia. These gaps in understanding are significant for informed planning of prevention and treatment programs. The serious ongoing health implications of untreated infections require that gaps in knowledge be addressed in order to bridge the gap in morbidity in Aboriginal and Torres Strait Islander people.</td>
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| The Kirby Institute, University of New South Wales | **Background:** Incomplete reporting of Aboriginal and Torres Strait Islander status within notifiable disease databases is a longstanding concern. In the environment of Close the Gap, accurate reporting of Indigenous status is required for health services planning and to measure improvements in health outcomes across the life span. **Methods:** This study analysed completeness of reporting of Aboriginal and Torres Strait Islander status for sexually transmissible (STI) and blood borne viral (BBV) notifications during 2000-2009 for chlamydia, gonorrhea, infectious syphilis, newly acquired Hepatitis B and all cases of Hepatitis C. Data was analysed for Aboriginal and Torres Strait Islander status by sex, age, remoteness and jurisdiction. Analyses include descriptive statistics, an estimation of the effect of completeness of data on prevalence and a simulation study. **Results:** In the ten years between 2000 and 2009, the number of STI and BBV reports nearly doubled. The rate of completion of Aboriginal and Torres Strait Islander status has remained stable at about 50% of notifications over the same time period. Poor reporting of status (less than 50% complete for Indigenous status) was found for chlamydia in the ACT, NSW and QLD, gonorrhea in the ACT and NSW and hepatitis B in the ACT and NSW and hepatitis C in ACT, NSW, QLD, TAS and VIC. Identification data was more complete in remote communities was more complete although this varied somewhat by jurisdiction. The most populated jurisdictions for Indigenous people returned the least complete data. **Conclusion:** Despite efforts to improve quality of data, completeness in the reporting of Aboriginal and Torres Strait Islander status within some STI and BBV notifications remains poor in Australia. These gaps in understanding are significant for informed planning of prevention and treatment programs. The serious ongoing health implications of untreated infections require that gaps in knowledge be addressed in order to bridge the gap in morbidity in Aboriginal and Torres Strait Islander people. |

### NOTES
**PROFERRED PAPER SESSION: A FOCUS ON WOMEN**

**PAPER NUMBER: 275  
CONTINUING DECLINES IN GENITAL WARTS IN YOUNG WOMEN AND HETEROSEXUAL MEN: POPULATION EFFECTS OF THE NATIONAL QUADRI Valent HPV VACCINATION IN AUSTRALIA, 2004-2010**

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1The Kirby Institute, University of New South Wales, Sydney, 2Sydney Sexual Health Centre, Sydney Hospital, Sydney, 3Melbourne Sexual Health Centre and School of Population Health, University of Melbourne, Melbourne, Australia.

Background: From mid-2007 Australia funded a universal free vaccination program for all females between 12 and 26 years, but not for men or for women who were older than 26 years. Vaccine coverage rates of ~80% were achieved for school-girls, though coverage was probably lower for young women in the community. To determine the population effect of the vaccine program we established a national surveillance network to measure trends in clinical presentations for genital warts.

Methods: Eight sexual health services dispersed around Australia provided data on all new patients between 2004 and 2010, including new diagnoses of genital warts, demographics, sexual behaviour, and HPV vaccination status (Lancet Inf Dis 2011, 11:39).

Results: Among 134,939 new patients we identified 11,194 new cases of genital warts. Before the vaccination program there was no change in the proportion of women or heterosexual men diagnosed with genital warts. To the end of 2010 we detected a 73% decline in the proportion of young resident women diagnosed with genital warts that was ongoing (p-trend <0.0001). In contrast, a 25% decline in young non-resident women only approached significance (p-trend=0.06), and we could not detect any significant decline in genital warts among older women or men who have sex with men. Interestingly, the proportion of resident heterosexual men diagnosed with genital warts declined by 35% (p-trend <0.0001), particularly among younger men (44%). By 2010, 65% of resident women of free vaccine-eligible age reported prior HPV vaccination, approaching 80% in the youngest women.

Conclusion: The vaccination program is having a major impact on the incidence of genital warts in young Australian women, with some protection of heterosexual men resulting from herd immunity. These declines seem to be ongoing as the most highly vaccinated cohort that was vaccinated at school approaches its peak period for exposure to HPV.

Statement of Competing Interests
Funded by CSL Biotherapies. All data held and analysed by the Kirby Institute with no input from funding source.

**PAPER NUMBER: 202  
IMPROVEMENT IN ANTENATAL TESTING FOR SEXUALLY TRANSMISSIBLE INFECTIONS (STIs) AND BLOOD-BORNE VIRUSES (BBVs) IN WESTERN AUSTRALIAN HOSPITALS, 2007 TO 2010**

Laing S, Kwan K, Giele C, Combs B, Mak D

Communicable Disease Control Directorate, Department of Health, Western Australia.

Background: Antenatal testing for STIs and BBVs has been recommended by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) since 1992. In 2007, the Department of Health, Western Australia (DoH) issued an Operational Directive (OD) recommending additional testing for chlamydia, repeat testing at 28-36 weeks gestation if at high risk and further testing, including gonorrhoea, for those in the STI-endemic region of WA. To assess adherence to both these guidelines, baseline and follow-up audits were conducted at seven WA public hospitals to determine the proportion of women who had antenatal STI and BBV testing.

Methods: Each hospital provided antenatal records of the last 200 women who delivered immediately prior to 1st July 2007 (baseline) and 30th June 2010 (follow-up). Basic demographic details and STI and BBV testing information were collected.

Results: The records of 2,799 women were examined (baseline: n=1,400; follow-up: n=1,399). At both baseline and follow-up audits, the majority of women were tested for syphilis (baseline: 90%; follow-up: 94%), HIV (79%; 89%), hepatitis B (92%; 97%) and hepatitis C (90%; 94%). There was significant improvement in testing for chlamydia (20%; 66%) and gonorrhoea (24%; 55%).

From baseline to follow-up, there was an increase in the proportion of women who had all STI and BBV tests at their first antenatal visit at a GP or hospital as recommended by RANZCOG (67%; 74%) and the DoH OD (11%; 39%). The highest test positivity rates were for chlamydia (4% of those tested at both baseline and follow-up).

Conclusion: A high proportion of women in WA hospitals have antenatal tests for most STIs and BBVs. The proportion who had antenatal STI and BBV tests as recommended by RANZCOG and the DoH OD improved between 2007 and 2010 and there was substantial improvement in chlamydia and gonorrhoea testing in particular.

Disclosure of Interest Statement: This study was solely funded by the DoH, with no potential conflicts of interest.
### Paper Number: 470

**MycoPlasma Genitalium in a Public Hospital Pregnancy Termination Service**

Marceglia AH, Garland SM, Tabrizi SN, Costa AM, Fletcher AS.

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2. Microbiology Infectious Diseases, Royal Women’s Hospital, Parkville, Victoria, Australia.

The Royal Women’s Hospital is the largest public provider of therapeutic abortions in Victoria, Australia. Prior to their medical or surgical termination, all women presenting to the Pregnancy Advisory Service (PAS) have been screened for *Mycoplasma genitalium* utilising an in-house PCR assay in addition to *Chlamydia trachomatis* using a commercial PCR and bacterial vaginosis (BV) by Gram stained smear of posterior fornix secretions. From August 2009 to December 2010, the prevalence for *M. genitalium* was 4.6% (CI 3.5, 5.6), *C. trachomatis* 5.3% (CI 4.2, 6.4) and BV 16.2% (CI 14.4, 18.0). Most women had a normal genital tract on clinical examination. Of the women infected with *C. trachomatis* and *M. genitalium*, 42% and 34% respectively had abnormal genital tract signs.

The average age of women attending the PAS clinic was 26.4 years, with 45.3% of the women being under 25. The average age for women with *M. genitalium* was 24.6 years, whilst for those with *C. trachomatis* it was 22.4 years.

The 50 test of cures completed after treatment for *M. genitalium* to date have all been negative. This is in contrast to local treatment failure rates in similar aged males (symptomatic with nonspecific urethritis in a sexual health clinic) and females (screening within a general practitioner setting) of 28% and a population treatment failure rate of 12%. Direct observed patient treatment may play a role in this low failure rate.

This presentation will report on the first 17 months of screening for *M. genitalium* in the PAS clinic and its implications for service provision within The Women’s. Given the role of *M. genitalium* in cervicitis, and the increasing evidence for its role in upper genital tract disease, screening for this bacterium should be considered, particularly with a surgical procedure such as termination of pregnancy, although the lack of a commercial test is problematic.

### Paper Number: 344

**Knowledge, Barriers and Facilitating Factors for Chlamydia Trachomatis Screening - the Views of Young Women using Social Networking Sites**

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1. University of Melbourne, Melbourne, Victoria, Australia.
2. Royal Women’s Hospital, Melbourne, Victoria, Australia.
3. Murdoch Children’s Research Institute, Melbourne, Victoria, Australia.
4. Royal Children’s Hospital, Melbourne, Victoria, Australia.
5. Royal Women’s Hospital, Parkville, Victoria, Australia.

Background: *Chlamydia trachomatis* is a common sexually transmitted infection and has serious implications for fertility in young women. We evaluated the knowledge of chlamydia plus potential barriers and facilitating factors for screening in young Victorian women using the social networking site, Facebook.

Methods: This was part of a larger feasibility study assessing the use of Facebook to recruit subjects for a novel prospective health study, the Young Female Health Initiative (YFHI). Women living in Victoria aged 16-25 were eligible to participate. An advertisement was placed on Facebook between May 2010-September 2010 and visible to a random sample of eligible women. Women who clicked on the advertisement were redirected to our website (www.yfhi.org) and invited to provide their contact details. The women were contacted by a researcher and invited to complete the survey at the YFHI study site, or remotely online.

Results: 278 participants completed the survey. Our population was representative in geographic distribution and socioeconomic status. Overall, 78% had heard of *Chlamydia trachomatis*. Participants aged 16-17 were less likely to have heard of chlamydia than older participants (p=0.01), as were sexually naive and overseas-born participants (p=0.02 and p<0.001 respectively). Eighty-seven per cent of participants knew that chlamydia could cause infertility. Screening methods that were most acceptable to participants were providing a urine sample at home (73.4%) and screening during a Pap smear (70.5%). Seventy-six per cent of participants indicated their willingness to participate in online screening. Regional participants were as willing as metropolitan participants (p=0.2).

Conclusions: This study demonstrated a high level of knowledge of chlamydia infection. Knowledge was lower in younger females, indicating a need for further educational interventions targeted to them. There was strong agreement for self-collected urine sampling, coinciding Pap smears with chlamydia screening and online screening, suggesting these may be acceptable methods for young women.

Disclosure of Interest Statement: The Young Female Health Initiative pilot study was funded by the National Health and Medical Research Council Program Grant 568971 and the ANZ Trustees Medical Research & Technology in Victoria Grant.
PROFFERED PAPER SESSION: A FOCUS ON WOMEN

PAPER NUMBER: 219

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Background: The primary cause of cervical cancer is sexually acquired persistent human papillomavirus (HPV), yet surprisingly little is known about the association between sexual behaviour and Pap testing.

Methods: We analysed data from the Australian Longitudinal Study of Health and Relationships (ALSHR). Using computer assisted telephone interviewing and random digit dialling, ALSHR surveyed a representative sample of 8656 Australian men and women in 2004-05. Only women who reported sexual experience (ever had vaginal intercourse) were included in the current analyses (N=4052). To be consistent with current Australian cervical cancer screening guidelines, our outcome variable was whether women reported a Pap test in the two years prior to the survey. Multivariate logistic and log-binomial regression modelling was used to examine associations between Pap testing, demographic/lifestyle characteristics and sexual behaviour.

Results: 2969 (73%) women surveyed reported having a Pap test in the previous two years. Adjusted relative risks showed lower rates of Pap testing among women under the age of 30 and those over the age of 40, women without a regular partner, and among those who smoked regularly (weekly to daily). Higher rates of Pap testing were reported by women who drank alcohol regularly compared to non-drinkers. After adjusting for demographic differences, women with no recent opposite sex partners were less likely to report having a recent Pap test, while women who reported ever having an STI were more likely to have had a Pap test in the previous two years. Residential location, socioeconomic status, sexual identity and age at first sex were among variables not significantly associated with recent Pap testing.

Conclusions: Younger and older women, those who smoke and women with no recent sexual partners are less likely to follow Australian cervical cancer screening guidelines. Recruitment strategies and campaigns aimed at increasing screening coverage should target these women.

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Background: To determine if addition of vaginal clindamycin or an oestrogen-containing vaginal probiotic, to recommended therapy for bacterial vaginosis (BV), oral metronidazole for 7 days, reduces 6-month recurrence rates.

Methods: Three-arm randomised double-blind placebo-controlled trial of 450 women (150 per arm): [MetPlac] oral metronidazole (7days)/vaginal placebo (12 days), [MProb] oral metronidazole (7 days)/vaginal probiotic (12 days) and [MetClin] oral metronidazole (7 days)/vaginal clindamycin (1g 2% nocte, 7 days). Symptomatic 18-50 year old females with BV on vaginal swab by the Nugent examination & STI screen and completed a detailed behavioural questionnaire at 0, 1, 2, 3 & 6 months. At each interval participants were posted a kit containing swabs and a slide for self-collection and a questionnaire. Principle study outcome: Nugent score of 7-10. Cumulative BV recurrence rates were calculated and compared using Chi square and survival analyses using SPSS and STATA.

Results: 450 women with BV were recruited from December 2007 to May 2010. Median age was 27 years (range 18-49); there were no differences in participant demographic or behavioural characteristics between arms. Retention rates were high, with 408 (91%) participants providing one or more sets of post-randomization data and contributing 1225 person years of follow-up. Six-month cumulative BV recurrence rates did not differ between study arms by intention-to-treat analysis: MetPlac (26.7%, 95% CI 19.7-34.6%) MetProb (27.8%, 95% CI 20.7-35.9%) and MetClin (30.0%, 95% CI 22.9-38.0%), p>0.82.

Conclusions: The addition of vaginal clindamycin or a vaginal probiotic to oral metronidazole does not improve 6-month BV recurrence rates. This is the first RCT to evaluate the efficacy of combination clindamycin/metronidazole for BV treatment, and has important implications for clinical practice. Combination therapy is often used in patients with recurrent BV, but evidence to support this practice has not been available.

Disclosure of Interest Statement: This study was funded by the NHMRC. Authors have no potential conflicts of interest to declare with respect to this work.
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SEXUAL HEALTH CONFERENCE
28–30 SEPTEMBER 2011
National Convention Centre, Canberra ACT Australia

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POSTER ABSTRACTS
A FOCUS ON INFECTION

DEVELOPING CHLAMYDIA PREVENTION INDICATORS FOR AUSTRALIA - NSW AS A CASE STUDY.

**Background:** Annual chlamydia notifications are increasing steadily in Australia. To guide the public health response, there is a need to develop national prevention indicators.

**Methods:** We take NSW as a case study and report on ten prevention indicators (based on core indicators by UNAIDS) from all available data (peer-reviewed, grey literature and surveillance) from 2000 to 2010. Comparable national data were used where NSW data were not available.

**Results:** Over the past decade, 110,862 chlamydia notifications in 15-29 years olds were reported in NSW, increasing by 307% from 4,477 in 2001 to 18,256 in 2010. Medicare data showed a comparable increase of 336% in tests rebated (35,384 in 2001 to 154,218 in 2010). Prevalence estimates from one community-based and six clinic-based studies range from 3% to 12% and a cohort study of young Australian women reported an incidence of 4.5% and a re-infection rate of 22% by 12 months. Between 2006 and 2009, sentinel surveillance in sexual health services showed an increase of 8.4% in positivity in young women attending for the first time. Testing data from selected general practices in 2008/09 showed that only 7.3% of young people were tested in a 12 month period. Nationally, the number of hospital admissions for pelvic inflammatory disease has remained steady, the age of sexual initiation is decreasing, the percentage of young people with multiple partners is increasing and condom use albeit low has been stable.

**Conclusion:** These data demonstrate that development of national chlamydia indicators is important as notifications alone do not provide a complete picture. Though there has been a steep rise in notifications, the modest increase in positivity seen at sexual health services is probably a more realistic reflection of chlamydia infection trends. The trend towards greater risk-taking behaviour and the low proportion of young people being tested are of concern.

**Disclosure of Interest Statement:** No conflicts of interest.

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A REVIEW OF CHLAMYDIA CONTACT TRACING PILOT PROGRAM IN THE AUSTRALIAN CAPITAL TERRITORY

**Background:** The Chlamydia Contact Tracing Pilot Project (CCTPP) was instigated in response to rising rates of chlamydia in the Australian Capital Territory (ACT). The aim was to investigate and improve partner notification for ACT clients by offering assistance with contact tracing.

**Methods:** Two part time nurses with sexual health qualifications and public health officer status were recruited in 2009. They liaised with Communicable Disease Control and general practitioners (GPs) to identify chlamydia positive clients that would benefit from a phone call. Clients and their contacts were contacted and chlamydia and contact tracing was discussed. CCTPP developed resources for GPs on chlamydia contact tracing and PID, provided education to GPs and offered three month test of reinfection SMS reminders.

**Results:** In eighteen months 570 clients were contacted. 524 (92%) had completed their own contact tracing. 46 indexes yielded 78 contacts who were referred for testing and treatment. 8/325 female indexes (2.4%) who had been treated for chlamydia were referred back to their GP with symptoms suggesting pelvic inflammatory disease (PID). 32/570 (6%) clients contacted were not aware they had tested positive for chlamydia and were referred for treatment and assisted with contact tracing. 11/570 (2%) clients who had been treated for chlamydia had not been advised to avoid sexual intercourse post treatment. 14/570 (2.5%) of clients with a prescription from their GP could not afford treatment and were referred to the local sexual health centre.

**Conclusion:** The majority of indexes felt they had addressed their own contact tracing but were willing to discuss issues relating to their treatment. Some required referral for further care. Some clients benefitted from assistance in contact tracing. With time and familiarity GPs accepted the CCTPP.

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Currie MJ1, Del Rosario R2, Martin SJ1,2, Tyson A1,2, Morgan D, Todkill M, Fairall D, Cullen S1, Reed K1, Baynes A1, Woodward S2, Sherley M2, Lingard C1 and Bowden FJ1,2

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Department of Pathology, University of Otago, Dunedin, NZ

Poster Abstract

Introduction: Many individuals at risk for chlamydia do not attend mainstream services. To address this public health issue many sexual health services provide outreach clinics.

Method: Pathology data concerning chlamydia testing conducted by Canberra Sexual Health Centre (CSHC) in-house and during outreach activities during 2010 were analysed. Results were stratified by in-clinic or outreach, type of outreach activity, age and sex. CSHC outreach activities in 2010 comprised the Stamp Out Chlamydia program (SOC) conducted in workplaces, tertiary campuses, sporting clubs and festivals; the Partnership Approach to Comprehensive testing (PACT) conducted in a sex on premises venues, brothels and youth centres and an education and screening program conducted in senior high schools (SHLIRP).

Results: 7,625 chlamydia tests were conducted in 2010. Of these, 5,323 specimens were collected at the clinic and 2,302 (30%) were collected during outreach activities. Overall the chlamydia test positivity rate was 5.3% (95% CI 4.8 - 5.8), 6.7% (95% CI 6.0 - 7.4) for the clinic and 2.0% (95% CI 1.5 - 2.6) for outreach activities. Males provided the most specimens in both settings, 57% and 68% respectively. The median ages of those providing specimens at CHSC and during outreach were 26 and 21 years respectively. SOC accounted for the largest number of samples (1,923). The highest positivity rate among outreach participants (7.1%) was found in rectal swabs from MSM attending the sex on premises venue. The highest rate of chlamydia positive tests in the clinic was also found among rectal swabs from MSM.

Conclusion: A significant proportion of CSHC work concerning chlamydia comprises education and screening conducted in outreach settings. This approach is justified because sexual health education is provided to large numbers of young people over a short period and positivity rates are highest among groups targeted by the outreach program, MSM and disadvantaged youth.

Disclosure of Interest Statement: No grants were received for this audit.

POSTER NUMBER: 163
PAPER NUMBER: 441

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Background: There have been calls for testing for Chlamydia trachomatis (CT) antibodies in epidemiological studies to estimate past exposure. While CT immunoglobulin G (IgG) antibodies persist in almost half the people with symptomatic infection for up to six years, data on asymptomatic infection is lacking. Available assays have been criticised for lacking sensitivity and specificity. We tested sera for CT IgG in a longitudinal study.

Methods: Self-reported data were collected in a cohort initially of 1037 people born in Dunedin, New Zealand in 1972/3 interviewed through childhood and when aged 21, 26 and 32. Serological testing from sera drawn at age 32 was undertaken using Bioline's Elegance CT IgG ELISA Kit. The prevalence of CT IgG by gender, numbers of partners, and self-reported CT infection.

Results: Results were available for 876 participants, 86% of the surviving cohort. Overall 7.9% were positive or equivocal (5.9% and 1.9% respectively) 6.5% among men and 9.3% among women. A significant trend of increasing antibody level and self-reported CT infection was found among women (p=<0.001) but not significant among the men (p=0.089). A significant trend in prevalence with increasing numbers of partners was again found for women (p=0.034) but not men (p=0.284).

Conclusions: The level of undiagnosed CT and accuracy of self-reports of diagnosed CT are unknown, persistence of IgG at age 32 is likely to be low, and there may be a high proportion of false-positives as specificity is also low. Despite this there was a moderate level of association between self-reports of CT infection and numbers of partners, and IgG prevalence among women, but not among men. These findings suggest that men may be less likely to mount a measurable and/or persistent serological response to genital CT infection; they also question the value to serological testing in epidemiological studies to determine lifetime infection.

Disclosure: The study of sexual and reproductive health in the Dunedin Multidisciplinary Health and Development Study has been funded by the Health Research Council of New Zealand. No pharmaceutical grants were received in the development of this study.
### POSTER NUMBER: 164
**PAPER NUMBER: 249**

**CHANGING STRATEGIES FOR ENHANCED SURVEILLANCE DATA COLLECTION FOR CHLAMYDIA IN VICTORIA**

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**Background:** *Chlamydia trachomatis* has been notifiable in Victoria since 1991. Surveillance for chlamydia is passive; doctors and laboratories notify cases to the Department of Health in writing within five days of diagnosis as per the Public Health and Wellbeing Regulations 2009. Enhanced surveillance for chlamydia has been conducted to improve demographic data and provide information on risk factors since 2002. An enhanced surveillance questionnaire is generated for all cases where notifying doctor details are available, and mailed to doctors for voluntary completion. A data analysis was conducted to determine whether the current enhanced surveillance system is the most effective use of resources given the continuing increase in chlamydia cases.

**Methods:** Notified cases of chlamydia in Victoria from 1 January 2010 to 30 June 2010 were extracted from the Notifiable Infectious Disease Surveillance database. The dataset was analysed as a whole on demographic and enhanced surveillance data. Two random samples of 80%, 60%, 40%, 30%, 20% and 10% were taken with the analysis repeated for each sample.

**Results:** There were 8,418 chlamydia cases notified in Victoria from 1 January to 30 June 2010. Enhanced surveillance data were received for 3,802 cases (45%). Analysis of enhanced surveillance data for each sample showed that a randomised sample of 40% provided data consistent with that for all cases; however, samples of 30% and below showed more variation.

**Conclusion:** These findings showed a sampled chlamydia enhanced surveillance system in Victoria could continue to provide useful data. A reduction in questionnaire mail out would decrease data entry time and allow faster data entry of notifications, as well as improve the timeliness of the mail out of questionnaires which should improve completion rates and data quality. A sampling approach to enhanced surveillance of chlamydia allows sufficient power to monitor behavioural trends to inform public health policy.

**Disclosure of Interest Statement:** Nil.

### POSTER NUMBER: 165
**PAPER NUMBER: 192**

**DO SMS REMINDERS AND INCENTIVE PAYMENTS INCREASE CHLAMYDIA TEST OF REINFECTION RATES?**

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**Background:** Clients diagnosed and treated for Chlamydia are a recognised high-risk group for subsequent infection. An estimated 8% of clients treated for Chlamydia at Cairns Sexual Health Service (CCHS) return for re-screening within the recommended three to four month period. There is no recall or reminder system in place. We conducted a study to assess the effectiveness of using SMS reminders with and without incentive payments to increase re-screening rates.

**Methods:** Eligible CSHS clients consenting to participate were randomly allocated to one of three groups. Group One (controls) received the standard advice from the clinician to return for re-screening in three to four months. Group Two received the standard advice and an SMS reminder at 12 weeks post treatment. Group Three received the standard advice and the SMS reminder which also offered an incentive payment on clinic attendance. Re-screening was defined for Group One as being tested between 12 to 16 weeks post treatment and for Groups Two and Three as being tested within four weeks post SMS reminder.

**Results:** Preliminary data suggest that SMS reminders with or without an incentive payment increase re-screening rates. Of those due for re-screening, two of 24 Group One participants (8%), seven of 30 (23%) Group Two participants and eight of 28 (29%) Group Three participants have returned. Eleven participants are still within the re-screening time frame; eight in Group One, one in Group Two and two in Group Three. Complete results will be available after July 2011.

**Conclusion:** SMS reminders are likely to significantly increase re-screening rates in clients diagnosed and treated for Chlamydia. Recall/reminder systems using SMS technology provide a simple, effective method to target high-risk groups for re-screening and should be considered an integral tool in modern health services.
### POSTER NUMBER: 166
**PAPER NUMBER: 253**

**THE IMPACT OF CHLAMYDIA ON SEXUAL, REPRODUCTIVE AND PSYCHOLOGICAL HEALTH**

**Background:** This qualitative study explored the impact of chlamydia on the sexual, reproductive and psychological health of men and women.

**Methods:** In depth, semi-structured interviews were conducted with 31 men and women diagnosed with chlamydia. Participants were recruited from primary health care services. Interviews were conducted at the time of diagnosis and up to 4 months post-diagnosis in order to obtain short and longer term psychological responses and experiences. A brief, self-report questionnaire containing demographic items was also completed by participants. Interview analysis was conducted using an inductive, thematic approach.

**Results:** Nearly all participants reported that being diagnosed with chlamydia had either minimal or no impact on them. This was mostly related to having previous knowledge of chlamydia. However, some participants experienced distress when diagnosed with chlamydia, in the form of shock, sadness or feelings of being contaminated and stigmatised. Feelings of distress usually decreased over time, and in some cases resulted in feelings of relief. The majority of participants reported that they were more likely to practice safer sex, choose their partners more selectively, and be more vigilant about monitoring their sexual health since their diagnosis. Relationships with intimate partners were often positively impacted by their diagnosis, due to an increase in trust and closeness; however, some intimate relationships were negatively impacted, such as those where fidelity was questioned or sexual behaviour was impacted.

**Conclusion:** The findings of this study indicate that a chlamydia diagnosis may have a significant psychosocial impact for some individuals. Recommendations for health care professionals are proposed.

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**POSTER NUMBER: 167
**PAPER NUMBER: 226**

**IMPACT EVALUATION OF CHLAMYDIA TRACHOMATIS POINT OF CARE TESTING – RESULTS FROM A SOUTH PACIFIC CLINICAL TRIAL.**

**Background:** The utility of Point of Care tests (POC) for infection control of Chlamydia is not known for the developing countries of the South Pacific where Chlamydia is epidemic and where health services have limited ability to diagnose, treat and control Chlamydia. We evaluated the impact of POC testing in field conditions at a reproductive health clinic in Vanuatu.

**Method:** 153 men and 216 women were tested in Round 1; 71 men and 111 women returned after a 4 month interval for Round 2 testing. Paired male urine and female vaginal swabs were taken for testing by the Chlamydia Rapid Test (CRT) (Diagnostics for the Real World, Cambridge) and by NAAT at a NATA certified laboratory.

All CRT positive patients were treated with Azithromycin and NAAT positive patients recalled for treatment; contact tracing and multiple recall communications were attempted in all cases.

**Results:** Round 1 prevalence in the 153 males and 216 females was 20.3% and 28.2% respectively; CRT sensitivity and specificity in men was respectively 41.9% and 90.2%, and in women 73.8% and 96.8%. In the 71 male and 111 female Round 1 / Round 2 matched pairs, prevalence in Round 1 was 17% and 28% and Round 2 was 7% and 10% respectively, a relative reduction using combined CRT and NAAT testing of 58% and 65%.

There was a relative prevalence reduction achievable under field conditions using CRT testing alone in men and women of 42% and 55% respectively, by comparison to a 50% reduction that would be attributable to NAAT alone, assuming our field conditions of 50% of people lost to follow up.

**Conclusion:** Where NAAT testing is not available, and/or there are low rates of return for treatment, rapid testing is an effective means of Chlamydia control.

**Disclosure of Interest Statement:** Funding was obtained through a grant from the Secretariat of the Pacific Community. Rapid tests were purchased by this study at commercial prices from Diagnostics for the Real World, who provided a ‘proficiency’ test panel free of charge. DRW was not involved in protocol development, nor made any financial contributions to the research.

**Ni-vanuatu participation:** Mr Len Tarivonda, Director of Public Health for the Vanuatu Ministry of Health, was involved from the early stages with guiding, implementing and advising the research and in obtaining ethics approval from the Ministry. Mrs Siula Bulu of the Vanuatu HIV/STI committee and Wan Smol Bag, and Mrs Leimako Simon, Principal Nurse of the Wan Smol Bag KPH Clinic were instrumental in planning and implementing the field work. Numerous other nurses, peer educators and administrative staff of Wan Smol Bag were involved with the field work. Presenting and publishing of the work has the approval of Wan Smol Bag and the Vanuatu Ministry of Health.
POSTER NUMBER: 168
PAPER NUMBER: 392

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“[I CAN OFFER YOU A CHLAMYDIA TEST TOO...]”: THE DEVELOPMENT OF TARGETED CHLAMYDIA SCREENING BY WOMEN’S HEALTH NURSES IN SOUTHERN NSW

Background: Women’s Health Nurses (WHN) provide well women’s screening within the Local Health Districts. Both Aboriginal and Torres Strait Islander women and young women under 25yrs are priority populations for WHN services and publicly funded Sexual Health Services (PFSHS). In previous years WHN have identified clients at risk of Chlamydia within these priority populations without being able to provide screening. Based on the NSW Health Sexual Health Services Standard Operating Procedures (SOP), a Service agreement and Policy and Procedure were developed between Women’s Health and HIV & Related Program services (HARP) services, outlining roles and responsibilities in relation to Chlamydia screening for women<30yrs who have had a sexual partner change in the last 6 months.

Methods: The process of developing policy and procedure guidelines and Memorandum of Understanding between Sexual and Women’s Health Services to enable screening was documented. The Chlamydia screening data by WHN’s from the first year of the program, 2010 was reviewed.

Results: A review of occasions of service reports from the WHN service, revealed a range of screening practices ranging from no screening to regularly screening all eligible clients. Not all WHN provide Chlamydia screening data as required. From the data submitted by WHN on clients screened, 11.7% had a positive Chlamydia result.

Conclusion: Strengths and challenges are identified and their relevance in the ongoing development of the Chlamydia screening program will be reviewed. Improved recording methods and data collection is needed for program evaluation. Further research into barriers of WHN providing screening at risk clients and providing data to the Sexual Health Service is required.

Disclosure of Interest Statement: There are no conflicts of interest.

POSTER NUMBER: 169
PAPER NUMBER: 297

Lewis D, 1 Newton D, 1 Guy R, 2 Ali H, 2 Chen M, 2 Fairley CK, 3 Hocking JS.

THE PREVALENCE OF CHLAMYDIA TRACHOMATIS INFECTION IN AUSTRALIA: A SYSTEMATIC REVIEW AND META-ANALYSIS

1 Centre for Women’s Health, Gender and Society, School of Population Health, University of Melbourne, Victoria, Australia, 2 Kirby Institute, University of New South Wales, New South Wales, Australia, 3 Melbourne Sexual Health Centre, University of Melbourne.

Background: This study aims to ascertain the burden of Chlamydia trachomatis infection in Australia by systematically reviewing reports on the prevalence of chlamydia in Australian populations.

Methods: An electronic database search of published literature and conference proceedings was conducted, with additional literature identified from reference lists and researchers. Studies were eligible if they were conducted between 1997 and 2010 and individuals were tested for genital or pharyngeal chlamydia using a nucleic acid amplification test. Studies were categorised by setting and population, and meta-analysis was used to calculate summary prevalence estimates for each category.

Results: Sixty-seven papers met the inclusion criteria for the review. Summary prevalence estimates combining men and women by setting were: 3.2% (95% CI: 2.8%, 3.7%) for general practice clinics and the community, 6.5% (95% CI: 6.3%, 6.7%) for sexual health clinics, 7.8% (95% CI: 6.1%, 10.0%) for youth centres; and by subgroup, were 5.1% (95% CI: 4.5%, 5.8) for pregnant women, 9.3% (95% CI: 8.7%, 9.9%) for Indigenous Australians, 6.4% (95% CI: 6.0%, 6.8%) for men who have sex with men and 2.9% (95% CI: 2.3%, 3.6%) for commercial sex workers. Where available, age-stratified data indicate that prevalence was higher in younger age groups. Women and men had similar prevalence estimates in general practice and community-based studies (3.2% vs. 2.6%), sexual health centres (7.5% vs. 7.1%), and Indigenous populations (9.7% vs. 8.8%); however, fewer studies estimated prevalence in heterosexual men compared with women. Only one study recruited participants from the general population.

Conclusions: Chlamydia trachomatis infections are a significant health burden in Australia; however, accurate estimates of the prevalence of Chlamydia trachomatis in Australian sub-populations is limited by heterogeneity within surveyed populations and variations in sampling methodologies. There is a need for more large, population-based studies and well designed sentinel surveillance.
**POSTER NUMBER: 170**  
PAPER NUMBER: 100  

**RECTAL CHLAMYDIA – A TICKING TIME BOMB IN THE GAY COMMUNITY?**

**Background:** The current Chlamydia screening campaign involves urinalysis, so only screens for urethral Chlamydia. Men who have sex with men (hereafter MSM) are more likely to have rectal than urethral Chlamydia. A negative screen with this ‘pee in pot’ campaign could falsely reassure MSM. Rectal mucosal damage caused by Chlamydia increases HIV transmission risk. 10% of MSM are estimated to have rectal Chlamydia. The 1st line antibiotic for rectal Chlamydia is Doxycycline. Azithromycin is not recommended for rectal Chlamydia.

**Objectives:** To ascertain if the correct treatment was prescribed, if an HIV test was accepted and if rectal swabs were taken under proctoscopic guidance.

**Methods:** Males who received a positive rectal Chlamydia result between 01/10/2009 and 30/09/2010 were analysed.

**Results:** Following a positive rectal Chlamydia diagnosis, all patients were offered Doxycycline treatment. However, 12 patients were given Azithromycin before their diagnosis. These patients must be brought back for Doxycycline treatment. 96% of patients had an HIV test (16% above targets). 11 patients did not have rectal swabs taken under proctoscopic guidance and no reason was documented.

**Recommendations:** Patients receive Azithromycin prior to a diagnosis if i) they are a Chlamydia contact ii) microscopy suggests a Chlamydia co-infection or iii) they present after a positive screening test.

It is recommended that Doxycycline substitutes Azithromycin in all MSM that present in these three ways. This will cure rectal Chlamydia, save unnecessary retests and save money.

**The male proforma should include the question “Was proctoscopy performed?” in bold to remind clinicians.**

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**POSTER NUMBER: 171**  
PAPER NUMBER: 279  

**A MULTIFACETED INTERVENTION TO INCREASE CHLAMYDIA TESTING IN AUSTRALIAN GENERAL PRACTICE**

**Background:** The Australian Government has funded a randomised controlled trial to assess the feasibility, acceptability and cost-effectiveness of chlamydia testing in general practice. There are well-documented barriers to chlamydia testing in general practice including time, cost, and clinicians’ knowledge and awareness of chlamydia. If an intervention is to successfully increase chlamydia testing, it must minimise these barriers. This paper describes the chlamydia testing intervention being implemented in the trial.

**Methods:** Intervention clinics are being provided with a multifaceted evidence-based intervention that includes: computer alerts prompting general practitioners (GPs) to test; incentive payments for GPs and practice nurses; an annual recall system involving SMS, phone or mail reminders; a comprehensive education pack associated with professional development points; guidance on how to introduce chlamydia screening opportunistically; quarterly feedback on testing performance; a staff initiation meeting to identify methods for improving chlamydia testing; and annual progress meetings. The intervention will be in place for 4 years, and will be tailored to the resources and needs of each clinic.

**Results:** To date, 80 clinics in 30 areas have been recruited across four states. Eight of these areas (18 clinics) have been randomised: four areas (12 clinics) are in the intervention group, and four areas (6 clinics) in the control group. The intervention has been customised to each clinic with two thirds of clinics receiving the computer alert, 4 clinics using SMS reminders for recall, others using a mail recall, and some using practice nurses to initiate chlamydia testing. Where possible, GPs and practice nurses have been given one-on-one education and training about chlamydia and pelvic inflammatory disease.

**Conclusions:** This first stage of intervention implementation has demonstrated the importance of engaging with staff and tailoring interventions to individual clinic needs in order to achieve system changes.
### Poster Abstract

**Poster Number: 172**
**Paper Number: 167**

**Title:** Prevalence of Repeat Infection with Chlamydia and Gonorrhoea in Central Australia, 2005-2009

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**Background:** Repeat infection (RI) with gonorrhoea or chlamydia is associated with increased risks of reproductive complications. High rates of gonorrhoea and chlamydia have been reported in remote Aboriginal communities in Central Australia (CA) in recent years, but the prevalence of RI was never reported. This study aimed at determining the prevalence of RI with these two sexually transmitted infections (STIs) in CA, and identifying significant predictors for RI.

**Methods:** A retrospective cohort study was conducted. STI testing data for 2005-2009 were retrieved from a local STI management database. We calculated period prevalence of both STIs, prevalence and relative risks for RI among those with one or more STI episodes, and investigate if RI was associated with any demographic variables.

**Results:** A total of 12986 nucleic acid amplification tests for gonorrhoea and chlamydia were performed during the study period for 3975 individuals, 2,152 (54.1%) females and 1,823 (45.9%) males. Of these, 1362 individuals (34.3%) recorded one or more episodes of STI and 999 of them were included for RI analysis. The prevalence of RI was 50.0% (95% confidence interval [CI]: 46.8-53.1%). The prevalence did not differ significantly between sexes, but was significantly higher in those aged <30 years than those aged 30 and over (p<0.005, adjusted odds ratio: 3.53 [95%CI: 2.22-3.96]). 8.6% and 50.7% of RIs occurred within 90 days and 1 year of the index episode, respectively. The probability of acquiring RI was inversely related to age at the index episode.

**Conclusions:** The extremely high prevalence of RI should be one of the major reasons for the persisting high STI rates in this region and should be taken into consideration in the planning of sexual health programs. In particular, patients diagnosed with STIs should be targeted for enhanced intervention and follow-up, including re-screening within 3 months.

**Disclosure of Interest Statement:** All authors are salaried employees of Northern Territory Department of Health. No pharmaceutical grants were received in conducting this study.

### Poster Abstract

**Poster Number: 173**
**Paper Number: 456**

**Title:** A Survey to Evaluate the Knowledge and Attitudes of General Practitioners in Queensland to Partner Notification of Chlamydia Trachomatis

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**Background:** Morbidities associated with untreated Chlamydia infection are avoidable with timely treatment. Asymptomatic, undiagnosed infections are at least partially reliant on effective partner notification (PN) practices to identify and treat infected people. This study aimed to assess the knowledge and attitudes of Queensland General Practitioners (GPs) to PN.

**Methods:** The Notifiable Conditions Systems (NOCS) was used to extract the names of GPs who had diagnosed at least one case of Chlamydia between 01/07/09 to 30/06/10. A single page questionnaire was mailed to 1078 GPs practicing in the Gold Coast, Brisbane South and Darling Downs-West Moreton Health Districts. The GPs were stratified into low caseload (1-4 cases) and high caseload (5 -37 cases).

**Results:** GPs diagnosed 85% (2476/2916) of the Chlamydia infections in these Districts. Response rates were poor and completed questionaries were received from 261 of 1078 GPs, giving a response rate of 26%. Most respondents 99% recognised that it is their duty to discuss PN and see the importance of PN, however 38% of surveyed GPs mistakenly believed that Qld Health was responsible for PN and a further 26% did not know who was responsible; only 38% of respondents offered PN on behalf of patients.

**Conclusions:** Uncertainty regarding the role and responsibly of GPs in regard to Chlamydia PN appears to be affecting practice of PN. The implementation of educational programs tailored at both high and low case load GPs to support and educate regarding PN procedures, methods and resources would be beneficial.

**Disclosure of Interest Statement:** No pharmaceutical grants were received in the development of this study.
### POSTER NUMBER: 174  
PAPER NUMBER: 393

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**Background:** The early diagnosis of gonorrhoea, in both symptomatic and asymptomatic patients, is an important aspect of the control of this disease. In January 2011 Canberra Sexual Health Centre (CSHC) changed the protocol for screening of asymptomatic men who have sex with men (MSM) to PCR-based pharyngeal testing. Microbiological swabs are collected prior to treatment for all contacts of gonorrhoea, symptomatic and PCR-positive patients.

From January to April 2011, 39 cases of gonorrhoea were seen at CSHC. This brief epidemic created an opportunity for early assessment of the new screening protocol.

**Methods:** Cases of gonorrhoea for 2010 and 2011 were identified from CSHC notification records. Individual files were reviewed and data collected regarding site/s of infection, sites tested, testing methods, risk factors and patient demographics.

**Results:** From January to April 2011 there was an increased incidence of pharyngeal, urethral and rectal gonorrhoea. There was a proportionately larger increase in pharyngeal cases, from 16% (5) of total cases in 2010 to 36% (14) total and 41% (13) MSM in 2011. There was an increase in multisite infections from 13% (4) in 2010 to 23% (9) total and 25% (8) MSM in 2011, of which 67% (6) total and 63% (5) MSM involved the pharynx.

Of 14 PCR-positive pharyngeal cases, 13 were in MSM; 4 were symptomatic from coinfected sites, 1 had pharyngeal symptoms and 8 were asymptomatic. All asymptomatic cases had frequent partner change, 4 were known contacts of gonorrhoea.

Culture-positivity for PCR-positive sites was 14% (1) for pharyngeal, 69% (9) for rectal and 100% (11) for urethral samples.

**Conclusion:** Our results suggest that PCR-based testing is more sensitive than microbiological testing for pharyngeal gonorrhoea. Low culture-positivity of pharyngeal samples raises problems for sensitivity testing. Collection of microbiological swabs from multiple sites and rapid transport to the laboratory may offset this.

**Disclosure of Interest Statement:** This study was unfunded. The authors do not have any conflicts of interest to disclose.

### POSTER NUMBER: 175  
PAPER NUMBER: 434

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**Background:** Nucleic acid amplification tests (NAATs) are widely used for the detection of gonorrhoea. However, sequence variation can cause problems for these methods. For example, false-negative results caused by sequence variation have been reported for NAATs targeting the gonococcal cppB and opa genes. Here, we describe the first case of a false-negative test result in an N. gonorrhoeae PCR targeting the gonococcal porA pseudogene, being a popular N. gonorrhoeae PCR target.

**Methods:** In March 2011, clinical isolates of N. gonorrhoeae were derived from pharyngeal and rectal swabs from a male patient who presented with anal pain to a sexual health clinic in Newcastle. However, when tested by N. gonorrhoeae porA pseudogene PCR, both isolates provided negative results. The isolates were fully characterised phenotypically and genetically to investigate the basis of the discrepancy.

**Results:** Both isolates were indistinguishable and were identified phenotypically as N. gonorrhoeae by Gram stain, colonial morphology on modified New York City agar, oxidase, superoxol and rapid carbohydrate utilisation tests. Prolyliminopeptidase (Pip) activity, auxotype, serogroup, serovar and antimicrobial resistance patterns were also characteristic of N. gonorrhoeae; and an identification of N. gonorrhoeae was also provided by the Bruker MALDITOF Biotyper. Both isolates were of multilocus sequence type (MLST) 1901, being a common N. gonorrhoeae/MLST type. DNA sequencing of the porA pseudogene of the isolates revealed multiple mismatches and deletions in the porA pseudogene PCR primer and probe targets. Notably, the porA sequences of these isolates provided greater similarity to N. meningitidis (99% homologous) than to a reference N. gonorrhoeae sequence (90%).

**Conclusions:** Overall the results show that these isolates were typical N. gonorrhoeae in terms of genotypic and phenotypic characteristics, except that they had acquired a meningococcal porA sequence, which had caused the false-negative results in the porA pseudogene PCR method.
### Poster Abstract 176

**Routine Serological Follow-Up After Treatment of Early Syphilis - What Does It Achieve?**

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**Background:** It is a universal standard that cases of early syphilis should be followed up serologically at 3, 6 and 12 months after treatment - to identify treatment failures and re-infections. However, there is no recent data to validate this recommendation, which is both time-consuming and costly. We present our experience of the efficacy of treatment, and of the rates of follow-up of patients with early infectious syphilis at our Centre.

**Methods:** From 2007 we have maintained a data file of early syphilis cases and tracked their rate of re-attendance and their post-treatment serological results. Here we have chosen cases from January 2007 to the end of June 2010 - thus allowing a 12-month follow-up period for the cases diagnosed at the end of June 2011.

**Results:** During this period, there were 359 cases of early infectious syphilis, 112 primary, 132 secondary and 115 early latent infections. So far - and final data will not be available until after June 2011 - both treatment failures and re-infections appear so low (for example there have been no treatment failures in primary syphilis) even in HIV-positive patients, that the necessity for routine serological follow-up should be questioned.

**Conclusion:** We firstly present an argument for abandoning routine serological follow-up, and discuss what implications doing this may have. We then give a counter-argument in favour of maintaining the status quo, especially in view of the continued current syphilis epidemic.

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### Poster Abstract 177

**Are RPR Units the New RPR Titres? An Evaluation of the Automated MediacRE® Test for the Detection of Syphilis Antibody Levels.**

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**Background:** Increasing rates of infectious syphilis have challenged laboratories to streamline the processing of large volumes of serological tests for syphilis (STS), especially the Rapid Plasma Reagin (RPR) Test. The RPR test is cheap, simple and stable but labour intensive and has poor reproducibility. The aims of this preliminary study were to compare the automated MediacRE RPR test® (Roche diagnostics) with the RPR card test (Macro-Vue B&D Md USA) on single positive and negative samples and repeat (same patient) positive samples to assess its suitability for monitoring of syphilis treatment.

**Methods:** Between March 2009-February 2010, 180/7725 serum samples tested syphilis EIA positive at Sydney Sexual Health Centre and all underwent RPR testing. 255 RPR (titre range:<1:1-1:1024) samples were assessment including 42 patients with repeat RPR (replicates) between 2 weeks and 7 months apart. RPR samples were tested using MediacRE RPR test® expressed as RPR Units (RU) and compared with their RPR card titres. The reproducibility of the MediacRE assay was determined by testing 21 replicates with a mean value of 50 RU. A 4 fold or greater difference in RPR titre and more than 2SD difference in the RU were taken as significant changes.

**Results:** There was 91.4% (233/255) overall agreement between the RPR and MediacRE RPR test® (correlation coefficient, r=0.601) indicating a "weakly positive relationship". The lowest agreement between the tests was at low RPR(<1:4) titres. Of the replicates, 14 RPR titres showed a significant fall, 4 a significant rise while it was unchanged in 24. The MediacRE results agreed in 36/42 pairs but there were significant differences in 5/24 unchanged pairs.

**Conclusion:** The MediacRE RPR® test appears promising as a replacement for the RPR card test. However, further research is required to determine what differences in RU represent a response to treatment.

**Disclosure of Interest Statement:** Roche Diagnostics Australia Pty Ltd provided free MediacRE RPR test® kits and technical guidance to machine operators at PALMS laboratory. They had no input to data analysis or interpretation.
SOUTHWESTERN SYDNEY LOCAL HEALTH DISTRICT – ENHANCED SYPHILIS SURVEILLANCE ANALYSIS.

**Background:** In 2007 NSW reported 453 cases of infectious syphilis, a significant increase from 2006 (231 cases). In 2009, 508 notifications of infectious syphilis were reported – the highest annual count on record. This prompted review and subsequent change to the syphilis response protocol for NSW public health units.

**Method:** The implementation of a mentorship program began in July 2010. The aim of this is to provide support to general practitioners (GPs) in their capacity to manage newly diagnosed syphilis infections - and hence, attempt to facilitate control of transmission, monitor the epidemiology of the disease and devise prevention strategies.

**Results:** Bigge Park Centre (BPC), Liverpool Sexual Health Service, SWSLHD was nominated to provide the investigatory and advisory service to GPs on notification from Sydney SouthWest Public Health Unit. As of 30th June 2011 107 notifications have been received and 52 GPs have required assistance in classification of disease, clinical management and contact tracing. Of the 107 notifications, 36 relate to past treated syphilis, 32 relate to infectious syphilis, 27 late latent, 8 nil responses and 4 false positive results.

**Conclusion:** The knowledge base of diagnosing doctors was variable. Contact with GPs often revealed a need for advice regarding the management of syphilis. An analysis of the findings to date will be presented in the discussion that follows.

FACTORS ASSOCIATED WITH INSUFFICIENT SYPHILIS TESTING AMONG GAY MEN IN AUSTRALIA

**Background:** Since 2000, infectious syphilis notifications have increased substantially among Australian gay men. In order to inform the National Gay Men's Syphilis Action Plan 2010-2013 we describe current syphilis testing patterns among gay men in Australia, and how syphilis testing rates compare with guidelines.

**Methods:** We examined data from the Gay Community Periodic Surveys conducted among gay men across five Australian cities in 2010. We used univariate and multivariate logistic regression to identify factors associated with testing at a frequency lower than specified in the guidelines; never testing for syphilis among HIV-negative men and testing less than twice in the past year among HIV-positive men and HIV-negative men at higher-risk of infection.

**Results:** Of 6329 HIV-negative men, 14% reported never testing for syphilis and significant predictors of never testing were: lower social engagement with gay men, older age, fewer sexual partners, no anal sex with casual partners, and not being aware syphilis was asymptomatic. Of 1409 HIV-negative men reporting >10 partners in the past six months, 52% reported <2 syphilis tests in the past year and significant predictors of <2 tests were: residing in non-metropolitan areas; older age; no anal sex with casual partners; no unprotected anal intercourse with casual partners (UAIC), not aware syphilis could be acquired through oral sex; and attending a non-regular general practitioner for their last test. Of 580 HIV-positive men, 43% reported <2 syphilis tests in the past year and significant predictors of <2 tests were: UAIC with HIV-negative partner/s compared with HIV-positive partner/s; and recruitment from social or sex on premises venues.

**Conclusion:** Our analysis shows that self-reported syphilis testing patterns of gay men in Australia are not optimal compared to guidelines. Our analysis has identified factors associated with less frequent syphilis testing among Australian gay men to assist in developing targeted screening strategies.
SPHILIS TESTING AS PART OF QUARTERLY HIV MANAGEMENT CHECKS: THE CLINICAL REALITY

**Background:** Australian clinical guidelines and the National Gay Men’s Syphilis Action Plan 2010-2013 calls for 3-monthly syphilis screening in sexually active HIV-positive men who have sex with men with quarterly HIV monitoring. We describe the frequency of syphilis screening and HIV management checks in HIV-positive men at a range of clinical sites.

**Methods:** Three general practices, two sexual health clinics and one hospital HIV outpatient clinic provided HIV viral load and syphilis testing data for 2008 and 2009. Men having ≥1 viral load test in the year were included. A Chi-square test assessed differences in viral load and syphilis testing frequency between years.

**Results:** In 2008, 3505 men attended the six clinics, 29% had one viral load test (range per clinic: 17-49%), 24% had two (19-29%), 47% had ≥3 (30-59%). 11% had no syphilis tests (7-23%), 34% had one (21-47%), 25% had two (20-32%), and 31% had ≥3 (11-45%). In 2009, 3897 men attended, and compared with 2008 a lower proportion of men had ≥3 viral load tests (43%, range: 28-64%), and a lower proportion had ≥3 syphilis tests (28%, range: 7-53%), p<0.01. A same day syphilis test was conducted in 74% of all viral load tests in 2008 and 2009. In 2008 and 2009, clinics with the lowest proportions of men having ≥3 viral loads and same day syphilis tests, had the lowest proportions of men having ≥3 syphilis tests.

**Conclusion:** Nearly three-quarters of HIV viral load tests in HIV-positive men had a same-day syphilis screen, however only one third of men had ≥3 syphilis tests in a year. Lower syphilis testing frequency was associated with less frequent viral load monitoring and failure to test for syphilis on the same day as the viral load. Other possible reasons include shared-care arrangements and non-testing of sexually inactive patients.

RISK FACTORS FOR INFECTIOUS SPHILIS AMONG HIV NEGATIVE MSM IN VICTORIA

**Background:** Infectious syphilis notifications have increased two-fold nationally and three-fold in Victoria between 2005 and 2009. Most notifications in Victoria are among men who have sex with men (MSM). Although HIV positive MSM are recognised to be at particular risk of syphilis, HIV negative are also at risk, with much of this risk thought to be related to risk behaviours. We investigated the behaviours associated with infectious syphilis among HIV negative MSM.

**Methods:** Behavioural and syphilis testing data from two high MSM caseload clinics participating in the Victorian Primary Care Network for Sentinel Surveillance on BBVs/STIs between April 2006 and June 2010 was used to identify risk factors associated with infectious syphilis. Both univariable and multivariable logistic regression was used to identify correlates of infectious syphilis.

**Results:** 6,226 syphilis tests were conducted among HIV negative MSM; 86 (1.4%) tested positive for infectious syphilis. Multivariable analysis showed MSM reporting STI symptoms (aOR=6.8, 95% CI 2.6-17.8), six or more anal sex partners in the past six months (aOR=2.5, 95% CI 1.3-4.8), and seeking sex partners at nightclubs (aOR=1.7, 95% CI 1.1-3.0) were at increased risk of infectious syphilis. Reporting six or more oral sex partners or meeting your partner at a sex on premises venue (SOPV) was significant in univariable but not multivariable analysis. Of note, condom use (consistent/ inconsistent) was not found to be associated with infectious syphilis.

**Conclusion:** This analysis identified high numbers of anal sex partners and seeking sex partners at nightclubs to be associated with increased risk of syphilis infection. Interestingly, compared with other studies, inconsistent condom use and meeting partners at high risk venues such as SOPVs were not associated with syphilis infection. These findings have implications for both syphilis testing guidelines targeting highly sexually active MSM and suggest health promotion interventions to include dance venues.
### Poster Number: 182
**Paper Number: 176**

**Title**: Type-Specific Human Papillomavirus (HPV) L1 Antibody Seroreversion in Homosexual Men

**Authors**: Fengyi Jin1,2, I Mary Poynten1, David J Templeton1, Christopher Fairley5, Andrew E Grulich1, Tim Waterboer3

**Background**: Type-specific antibodies to HPV L1 are measured as a marker of lifetime HPV exposure. Multiplex type specific HPV antibody assays allow the simultaneous analysis of the serological response to a broad range of HPV antigens. However, the durability of HPV antibody responses has not been well documented. We report the incidence of HPV seroreversion in a cohort of HIV-negative homosexual men in Sydney, Australia.

**Methods**: Participants were 1,427 men from the Health in Men (HiM) cohort study recruited from community-based settings from 2001 to 2004 and followed to June 2007. Multiplex type-specific HPV L1 serological testing (Luminex) was performed on stored sera collected at each annual visit. HPV L1 seroreversion was defined by a status change from seropositive to seronegative and a two-fold decrease in antibody reactivity compared with the previous year.

**Results**: Among the 10 HPV types (6, 11, 16, 18, 31, 33, 35, 45, 52, and 58) examined, the incidence of HPV L1 seroreversion ranged from 3.11 per 100 person-years (PY) for HPV 31 to 6.66 per 100 PY for HPV 58. None of those who seroconverted during the study seroreverted during a median of 3.9 years follow up. Younger age was associated with higher seroreversion incidence for HPV 6, 11, 45 and 58. More recent onset of homosexual activity was associated with higher seroreversion rates for HPV 6, 45, 52 and 58, as was more recent onset of anal intercourse for HPV 6, 11, 33, 45, 52 and 58.

**Conclusion**: HPV seroreversion is not uncommon in HIV-negative homosexual men, but the absence of seroreversions in recent seroconverters suggests that antibody responses are reasonably durable. Younger men and those who have become recently homosexually active had higher rates of seroreversion for low-risk and less common high-risk HPV types, but not for HPV 16 and HPV 18.

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### Poster Number: 183
**Paper Number: 177**

**Title**: Non-Vaccine Preventable High-Risk Human Papillomavirus (HPV) Infection in Homosexual Men

**Authors**: Fengyi Jin1,2, Tim Waterboer3, I Mary Poynten1, David J Templeton1, Garrett P Prestage1, Bassil Donovan1,3, Christopher Fairley5, Suzanne Garland6, Michael Pawlita7, Andrew E Grulich1

**Background**: Recent advances in multiplex serology allow the measurement of HPV L1 antibodies to a broad range of HPV types. HPV L1 seropositivity reflects lifetime history of infection. We report seroprevalence and seroincidence of HPV L1 antibodies to non-vaccine preventable HPV types in a cohort of HIV-negative homosexual men.

**Methods**: 1,427 men from the Health in Men cohort study were recruited from 2001 to 2004 and followed up to June 2007. Type-specific HPV serological testing (Luminex, HPV types 31, 33, 35, 45, 52, and 58) was performed on stored sera collected at each annual visit. Seroconversion was defined by a status change from seronegative to seropositive and a two-fold increase in antibody reactivity. We examined risk factors for seropositivity to any of these types at baseline and for seroconversion to any of these types among those who were seronegative at baseline.

**Results**: At baseline, 50.1% (95% CI 47.4-52.8%) of participants tested HPV L1 seropositive to at least one of the six HPV types. Seropositive men were more likely to report more lifetime sexual partners (p<0.001), a history of anal warts (OR=1.65, 95% CI 1.21-2.26), and to test seropositive to herpes simplex virus type 2 (OR=1.44, 95% CI 1.06-1.95). Among those seronegative to all six types at baseline (n=621), 98 seroconverted to at least one HPV, an incidence of 4.98 per 100 person-years (95% CI 4.08-6.07). In multivariate analyses, seroconverters were more likely to report incident anal warts (HR=2.86, 95% CI 1.16-7.06) and be diagnosed with anal gonorrhoea (HR=3.17, 95% CI 1.37-7.34). Circumcised men were borderline less likely to seroconvert (HR=0.67, 95% CI 0.45-1.02). Similar although less strong relationships were seen when the analysis was restricted to those who were HPV 16 seronegative.

**Conclusion**: Infections with non-vaccine preventable high-risk HPV types are common in homosexual men and risk factors point to the importance of anal exposure.
A SYSTEMATIC REVIEW OF THE NATURAL HISTORY OF HUMAN PAPILLOMAVIRUS INFECTION AND ASSOCIATED NEOPLASTIC LESIONS IN HOMOSEXUAL MEN

Background: Homosexual men are at increased risk of HPV-associated anal cancer. Screening of homosexual men for anal intra-epithelial neoplasia (AIN) to prevent cancer has therefore been proposed. This has been challenged on the grounds that the natural history of anal HPV infection and of AIN has been incompletely described.

Methods: A systematic review was conducted of published English language peer-reviewed studies reporting the prevalence and/or incidence of high risk anal HPV (HR-HPV), high grade (HG) AIN and anal cancer in homosexual men. Studies were included if they reported data separately for HIV negative(-) and HIV positive(+) men.

Results: 727 abstracts were identified and forty-one met the inclusion criteria. For HIV(-) men, anal HR-HPV prevalence varied from 30-70%, with no published estimates of HR-HPV incidence. Prevalence of HGAIN varied from 20-40% and incidence varied from 2-3% per year. In the only available estimate, anal cancer incidence was 14/100,000. For HIV(+) men, anal HR-HPV prevalence varied from 50-100%, and the incidence of HPV16 was 13% per year in the only published estimate. Clearance of HPV16 in this study occurred in 15% of men per year. Prevalence of HGAIN varied from 20-70% and incidence of HGAIN was 3-15% per year. Anal cancer incidence ranged from 25-70/100,000. There were no published estimates of regression of HGAIN. Based on these estimates, we calculated a progression rate from high-grade disease to cancer of around 0.5 and 1.0/1000 person-years in HIV(-) and HIV(+) men respectively.

Conclusion: Most homosexual men have anal HR-HPV infection, and about one third and one half of HIV(-) and HIV(+) men respectively have HGAIN. Rates of HGAIN progression to anal cancer are low. The identification of markers which identify those men with HGAIN who are at highest risk of progression should be a priority in the design of anal cancer screening programs.

HPV 6/11 SEROPOSITIVITY: RISK FACTORS AND RELATION TO ANOGENITAL WARTS

Background: HPV6 and 11 cause the great majority of anogenital warts. There are few data on the seroepidemiology of HPV6/11 in homosexual men. We aimed to determine the prevalence, incidence and risk factors for HPV6/11 seropositivity and the relation to anogenital warts in a community-based cohort of homosexual Australian men.

Methods: 1427 HIV negative men had sera collected annually from 2001 to 2007. L1 antibodies to HPV6 and 11 were determined using a multiplex Luminex-based serological assay. Combined HPV 6/11 seroprevalence and seroincidence per 100 person-years (PY) in those initially HPV6/11 seronegative were calculated. Predictors of seroprevalent HPV6/11 were analysed by logistic regression and predictors of seroconversion were analysed by Cox regression.

Results: Over half the participants (55.3%, 95% CI 52.6-58.0%) were HPV6/11 seropositive at baseline. Among the 569 men who were sero-negative at baseline and completed at least one follow-up visit, HPV6/11 seroconversion was 5.9/100PY (95% CI 4.9-7.2/100PY). Men younger than 25 years had a seroconversion of 12.6/100PY (95% CI 7.6-20.9/100PY). In multivariate analyses, seroprevalent HPV6/11 was strongly associated with a history of anal warts (p<0.001) and associated with more lifetime male partners (p=0.02), infection with hepatitis B (p=0.02) and positive HSV2 serology (p=0.009). In multivariate analyses, seroincident HPV6/11 was strongly associated with incident anal warts (p<0.001) and was associated with younger age (p=0.05), receptive anal fingering (p=0.02) and rectal chlamydia (p=0.009).

Conclusions: HPV6/11 seropositivity was common in this cohort. In young men, more than 10% seroconverted to HPV6/11 each year. A strong relationship was apparent between seroprevalent and seroincident HPV6/11 and past and incident anal warts respectively, although there was no such association with genital warts. This may be due to decreased antibody production in response to infection of the penis compared with infection of the anal area.
**POSTER ABSTRACT**

**POSTER NUMBER: 186**  
PAPER NUMBER: 39  
**KNOWLEDGE, AWARENESS, AND ATTITUDES OF FEMALE SEX WORKERS; TOWARD HPV INFECTION, CERVICAL SMEARS IN BOGOR, INDONESIA**

**Objective:** To determine the knowledge, attitudes, and awareness of female sex workers (FSWs) regarding cervical cancer and its prevention in Bogor.

**Method:** From October 2010 through January 2011, 362 consecutive FSWs were recruited for interviews.

**Results:** The mean knowledge score was 4.9 (maximum possible, 15; range, 0-14). Approximately 60% of the FSWs had knowledge scores less than 5. Low education and a lack of health insurance were significant independent predictors of low knowledge scores (adjusted odds ratios, 3.17 and 1.97, respectively). More than half of the FSWs were unaware of being at higher risk for HPV infection or of the possible consequences of HPV infection. The negative attitude regarding cervical screening was caused by the fear of abnormal results (27.9%), experiencing pain (18.4%), and embarrassment (14.7%).

**Conclusion:** The knowledge and awareness of HPV infection, cervical cancer, and utility of cervical smears is low among FSWs in Bogor. Designing and implementing effective interventions is crucial and merits attention in future research.

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**POSTER NUMBER: 187**  
PAPER NUMBER: 223  
**MODELLING THE IMPACT OF QUADRIVALENT HUMAN PAPILLOMAVIRUS (HPV) VACCINATION ON GENITAL WARTS UNDER DIFFERENT ASSUMPTIONS ABOUT HPV ECOLOGY**

**Background:** It is not known whether a decline in HPV 6/11 infection due to vaccination will impact on the incidence of warts due to other (non-vaccine) types. This could occur due to vaccine effects on these types or interactions between HPV types.

**Methods:** We developed an individual-based stochastic transmission model of infection with HPV types that cause genital warts. The model was calibrated to Australian sexual behaviour and incidence data. The modelled impact of vaccination was compared to Australian surveillance data under four ecological scenarios:

1. HPV 6/11 infection has no effect on the risk of acquiring a non-vaccine type or developing a wart due to it, and vice versa. The vaccine has no efficacy against non-vaccine types;
2. As in (2), but vaccination provides protection against non-vaccine type infection equivalent to half its efficacy against HPV 6/11;
3. HPV 6/11 co-infection reduces the risk of developing a concurrent wart due to another HPV type by half. The vaccine has no efficacy against other types;
4. As in (3), but vaccination is half as efficacious against non-vaccine types.

**Results:** Model-predicted decreases in the incidence of warts amongst women eligible for vaccination best match sentinel surveillance data when vaccination had 50% efficacy against non-vaccine types and co-infection with HPV 6/11 suppresses the development of warts due to other types. The model predicts an eventual decline in warts of ~50-60% depending on underlying ecological assumptions. Short term type replacement only occurs where infection with HPV 6/11 protects against warts due to non-vaccine types but vaccination does not.

**Conclusions:** Results from our modelling suggest that:
- The ecology of low risk HPV will not impact the efficacy of the vaccination programme;
- There is unlikely to be an increase in the incidence of warts due to non-vaccine types;
- Type replacement is unlikely.

**Biography.** Edward Waters is a doctoral candidate at UNSW exploring the ecology of HPV and the impacts of vaccination on non-vaccine types.

**Disclosure of Interest Statement:** This work was funded from the following sources: the Australian Government Department of Health and Ageing, Australian Research Council (ARC) Linkage Project (LP0883831) which included contributions from CSL Ltd and Victorian Cytology Service Inc. The views expressed in this publication do not necessarily represent the position of the Australian Government. The Kirby Institute is affiliated with the Faculty of Medicine, the University of New South Wales.
### POSTER NUMBER: 188
**PAPER NUMBER: 376**

**THE PREVALENCE OF ANAL HPV INFECTION AMONG MEN WHO HAVE SEX WITH MEN: A SYSTEMATIC REVIEW AND META-ANALYSIS**

Huachun Zou (1), Christopher Fairley (1,2), Jane Hocking (3), Suzanne Garland (4), Andrew Grulich (5), Marcus Chen (1,2).

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**Background:** Men who have sex with men (MSM) are at increased risk for HPV and HPV-associated anal cancer. The prevalence of HPV among young MSM is of interest as HPV vaccination before HPV is acquired could prevent anal cancer in this group. We undertook a systematic review and meta-analysis on the prevalence of HPV among younger MSM.

**Methods:** A search for relevant abstracts was undertaken from MEDLINE and from the EUROGIN and IPV Conferences. We used the key words: men who have sex with men, homosexual, bisexual, and human papilloma virus. We included studies with data on anal HPV DNA detected among MSM aged 25 or younger. Only studies with 20 or more MSM were included. Studies where men were selected on the basis of abnormal cytology or histology were excluded. Authors were contacted for additional, unpublished data. Meta-analysis was performed using STATA version 11.1.

**Results:** From the 14 studies that were shortlisted and contacted, relevant data were available from 4 studies. These included a total of 795 MSM aged 25 and less. By meta-analysis, the detection rates of anal HPV 6, 11, 16 and 18 were: 10% (95% confidence interval (CI): 7-12%); 4% (95% CI: 3-5%); 13% (95% CI: 4-22%); and 8% (95% CI: 3-12%) respectively. The detection rates of any HPV type, any low risk HPV type and any high risk HPV type were: 54% (95% CI: 16-92%); 35% (95% CI: 11-59%); and 37% (95% CI: 11-63%) respectively.

**Conclusion:** Few studies have focused on determining the prevalence of HPV infection in younger MSM and available data are subject to sampling bias. Moreover, no studies provide data on HPV infection based on HPV detection beyond a single time point. Available data suggest HPV infection may already be common among teenage same sex attracted males.

### POSTER NUMBER: 189
**PAPER NUMBER: 359**

**GENITAL HERPES - COMPARISON OF GENERAL PRACTITIONER PERSPECTIVES AND PATIENT PERSPECTIVES AND EXPERIENCE**

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1 Sexually Transmitted Infections Research Centre (STIRC), University of Sydney; 2 Australian Herpes Management Forum, c/- STIRC

**Background:** Genital herpes is one of the most common sexually transmitted infections (STIs) worldwide. In Australia, a population-based survey revealed that 16% of women and 8% of men over 25 had antibodies to HSV-2. Most patients with genital herpes are diagnosed and treated in general practice. However data about the differences of the experience and perspectives of general practitioners (GPs) and patients is limited.

**Methods:** Two online surveys were designed and reviewed by the AHMF. One survey reviewed experiences of GPs and the other reviewed patient experiences and perspectives. Questions were asked about demography; strategies for reducing transmission, major concerns related to herpes, type of consultation and types of treatment (alternative remedies and/or experience with antiviral therapy).

**Results:** The GP survey opened in May 2011 and the patient survey opened in May 2009. Results from the patient survey showed high levels of dissatisfaction with health care providers, with 35% dissatisfied or highly dissatisfied with the amount of time that the health care worker provided. Less than half of the patients were satisfied with the information provided and the emotional support offered by the health care worker. Younger patients and those whose sex lives were adversely affected, were more likely to be dissatisfied. The majority of patients had several major concerns relating to their genital herpes. Over 90% expressed a ‘great deal’ or ‘some’, concern about transmission, about shame and embarrassment, sexual desirability and the emotional impact of genital herpes.

Results from the GP survey are currently being collected and will be collated and compared to the results from the patient survey in June.

**Conclusions:** Many patients are dissatisfied with the service they have received from health care providers. Mechanisms for improving communication between patients and providers need to be developed.

**Disclosure of Interest Statement:** This study was funded by Novartis Pharmaceuticals Australia Pty Limited.
**SCREENING FOR LATENT TUBERCULOSIS IN NEWLY DIAGNOSED PATIENTS WITH HIV INFECTION AT SYDNEY SEXUAL HEALTH CENTRE (SSHC) IN 2009: AN AUDIT**

**Background:** Approximately 1000 new cases of tuberculosis (TB) are diagnosed in Australia each year. Eighty-five per cent occur in patients who were born overseas or infected overseas. Immunosuppression poses a risk for reactivation of latent tuberculosis, with patients with HIV infection having an annual risk of reactivation of TB of 10% and a lifetime risk of 50%.

NSW Health recommends that all HIV positive patients who have lived in countries with high TB prevalence – defined as >50 cases /100,000 population per year – are screened for latent tuberculosis.

**Method:** An audit was designed to measure two aspects of screening for latent tuberculosis in newly diagnosed HIV positive patients:
1. Compliance with screening by Mantoux testing or Quantiferon gold testing and chest x-ray
2. Screening results are recorded on the HIV patient care summary sheet

Our clinic database was searched from 01/01/2009 to 31/12/2009 to identify all new patients with HIV infection attending SSHC. Medical records were examined to determine if TB screening had been performed and recorded.

**Results:**
79 HIV positive patients were identified of whom 18 (23%) were considered at risk of TB exposure. 16/18 (89%) were referred for screening for latent TB, and 13/18 (72%) attended. 9/13 (69%) of TB screening results were recorded on the summary sheet, and screening results for a further 3 patients were in the clinical notes. Thus 12/13 (92%) patients had accessible TB screening results on file.

**Conclusion:** TB screening was offered to 89% of new at-risk HIV positive patients. 72% of patients were screened and results were on file for 92% of these patients.

We intend to improve care by implementing a specific clinic visit at which essential screening tests are performed on all new HIV positive patients. Staff require further training to increase completion of the HIV summary sheet.

**Disclosure of Interest Statement:** These activities are funded by AusAID’s HCPI.
**ADVANCES IN CLINICAL SERVICES**

**TOWARDS BEST-PRACTICE MANAGEMENT OF SEXUALLY TRANSMISSIBLE INFECTIONS WITHIN CENTRAL COAST LOCAL HEALTH NETWORK: A COLLABORATIVE APPROACH**

**Poster Number:** 192  
**Paper Number:** 396

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**Background:** Anecdotal evidence suggested suboptimal management of sexually transmissible infections (STIs) within Central Coast Local Health Network (CCLHN). Sexual health clinics (SHCs) are ideally placed to provide expert advice/delivery of STI best-practice management (STI-BPM). A collaborative quality improvement project involving Holden Street Sexual Health Clinic (HSSHC), testing laboratories and other CCLHN departments commenced in March 2010 with the aims of documenting current management and providing STI-BPM for patients of CCLHN.

**Methods:** Testing laboratories notified HSSHC of positive results for chlamydia, gonorrhoea, infectious syphilis (RPR ≥8) and new HIV. HSSHC reviewed medical records, extracted relevant information and actively followed-up results by offering advice to requesting teams or direct management to patients.

**Results:** From March 2010-February 2011 HSSHC received 44 positive results (39 chlamydia, 4 gonorrhoea and 1 new-HIV) on 42 patients. Most requests (82%) originated from emergency departments/surgical wards. Results were received on average five days following request by which time most patients (40/44) had been discharged to general practitioner (GP) follow-up. HSSHC provided management advice for four patients under CCLHN care, and successfully contacted discharged patients by phone to provide results, education/information, and contact tracing advice on 36/40 occasions. Only 3/36 patients had arranged GP follow-up prior to being contacted.

Of 36 patients contacted 80% were symptomatic: further evaluation/treatment/follow-up was recommended to 27. Twenty-three attended HSSHC. 13 women required additional treatment for pelvic inflammatory disease and seven men required additional treatment for epididymitis (including four aged <35 years initially treated for uropathogens). Only one patient with upper-genital tract infection was aware of the need for contact tracing.

**Conclusions:** Results confirm suboptimal management of STIs, and demonstrate that SHCs can make a significant contribution towards STI-BPM through a collaborative approach. The need for further training within relevant CCLHN departments and structural changes (eg. clinical pathway protocols) to facilitate STI-BPM is evident.

**Disclosure of Interest Statement:** No conflict of interest.

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**ONLINE TRAINING IN PHONE TRIAGE FOR NEW SOUTH WALES PUBLIC SEXUAL HEALTH CLINIC INTAKE STAFF: A PILOT EVALUATION**

**Poster Number:** 193  
**Paper Number:** 476

**Boonwaat L1, Ewing M1,2**  
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Bourne C1,2

1 NSW STIPU Programs Unit, 2 Sydney Sexual Health Centre.

**Background:** The Australian and New South Wales (NSW) Sexually Transmissible Infections (STI) Strategies recommend service prioritisation to those most at risk. As NSW Public Sexual Health Services (PSHS) have a limited capacity, a triage process is encouraged to optimise access for priority groups. An online triage training package was developed by the NSW Sexual Health Info Line, the Publicly Funded Sexual Health Services Projects working group and Senior Nurses Technical Group to standardise and build triage processes in NSW PSHS.

**Methods:** Online training (http://stiprojects.info/triagecourse) included information about sex, sexual health, priority groups & their epidemiological importance, a telephone triage framework and managing ‘difficult’ calls. There was also a knowledge quiz and a course content and methods evaluation.

**Results:** Seven PSHS reception staff completed the pilot training. Participants reported improvements in the following course objectives: confidence in identifying barriers to communicating about sex; maintaining personal boundaries; ability to explain why some people were more at risks of STIs; identifying priority groups; responding to non priority callers and managing distressed or angry callers. All participants found the online course easy to navigate. There remained some uncertainty about how heterosexuals with recent partner change and people age less than 25yrs should be assessed.

**Conclusion:** This process appears to be a viable alternative to face to face triage training and improved the knowledge and confidence of PSHS reception staff. Individual clinic capacity and geographic location may determine how clients are assessed and local triage guidelines should also be in place. Further evaluation will ensure the course remains relevant.
WHAT PROPORTION OF SEXUALLY TRANSMITTED INFECTIONS & HIV ARE DIAGNOSED IN NEW SOUTH WALES PUBLIC SEXUAL HEALTH SERVICES COMPARED WITH OTHER SERVICES?

Background: In Australia the majority of sexually transmitted infections (STIs) are treated in general practice. However, New South Wales (NSW) publicly funded sexual health services (PFSHS) specifically target populations at highest risk for STIs of public health importance, so may be anticipated to make a large contribution to the diagnosis of notifiable STIs. Our aim was to determine the proportions of STIs notified to the NSW Department of Health in 2009 that were diagnosed in PFSHS and describe the variation across NSW.

Methods: The number of notifiable STIs (infectious syphilis, gonorrhoea, HIV, and chlamydia) diagnosed in 2009 was obtained from NSW Health for each former Area Health Service (AHS) and from each PFSHS. The proportion of STI/HIV diagnoses made by PFSHS was calculated at the state level and AHS level according to five geographical regions: inner and outer metropolitan, regional, rural and remote.

Results: The overall proportions of STI/HIV diagnosed by NSW PFSHS were: infectious syphilis 25%, gonorrhoea 25%, HIV 21% and chlamydia 14%. Within each geographic region, the proportions of each of these four infections diagnosed in PFSHS were (respectively): (i) inner metropolitan 32%, 26%, 21% and 13%; (ii) outer metropolitan: 41%, 24%, 43% and 9%; (iii) regional 62%, 15%, 23% and 10%; (iv) rural 8%, 29%, 3% and 20%; and (v) remote 0%, 43%, 0% and 29%. There was also considerable variation in proportions between AHS ranging from 0-100% for some infections.

Conclusions: NSW PFSHS contribute a relatively large proportion of diagnoses for infectious syphilis, gonorrhoea and HIV, but to a lesser extent for chlamydia. Across AHS and regions there was considerable variation in the proportions. These data support the pivotal role of PFSHS in identifying and managing STIs of public health importance in high risk populations.

Disclosure of Interest Statement: No conflicts of interest.

SEX IN THE COUNTRY: THE ESTABLISHMENT OF A SEXUAL HEALTH SERVICE IN RURAL VICTORIA

Background: In 2009 a review of sexual health service provision was conducted in the Upper Hume region. The purpose of the review was to identify current local sexual health needs and explore service provision in order to guide the redevelopment of a sexual health service to be located in Wodonga.

As a result of this review, Department of Health funding was allocated to Gateway Community Health to establish and provide the sexual health service. The service is called Clinic 35, and since opening in August 2010 continues to gain momentum.

Methods: This service design for Clinic 35 is based on recommendations from consultations as a part of the sexual health review and evidence-based best practice for sexual health clinical services. The model is nurse led, and supported by a weekly three hour clinic with a General Practitioner who also provides telephone assistance. The service provides both appointment and walk-in capacity, including an afterhours clinic. Clinic 35 is free of charge, located in a central location close to public transport, and is able to offer services to clients who are under 16, or who do not have Medicare card.

Furthermore, clinical services are supported and enhanced by the establishment of a sexual health promotion team.

Results: To date, Clinic 35 has held more than 600 consultations. Based on reportable data collected from the last quarter (January 2011-April 2011), 11.1% of clients tested were positive for Chlamydia. This is triple national estimated rates. 39% of clients who accessed the service were under the age of 16 years, and 51% were between the ages of 17-25 years.

Conclusion: Clinic 35 targets vulnerable and under-screened groups in the community, as identified by the Second National Sexually Transmissible Infection Strategy 2010-2013. In particular, Clinic 35 focuses on young people. The current model of service delivery used at Clinic 35 has shown to be successful in targeting young people. Future directions include a study to determine the social determinants of health of clients accessing Clinic 35.
**POSTER NUMBER: 196**  **PAPER NUMBER: 217**

**SEX, DRUGS AND BACKPACKING - BEST HOLIDAY IN THE WORLD?**

**Background:** Backpacking experiences can be conducive to excessive alcohol consumption and risky behaviours, placing individuals directly at risk along with potential bridging to the Australian community. Designed to explore associations between international backpackers social environment, alcohol consumption and sexual behaviour patterns, this study aimed to establish *Chlamydia trachomatis/Neisseria gonorrhoea* prevalence, determine whether a brief intervention could alter behaviour and explore feasibility of the chosen method.

**Methods:** A prospective follow-up study consisting of a convenience sample of non-treatment seeking international backpackers visiting Brisbane. At recruitment participants (N=168) were asked to self-complete a questionnaire and undertake a urine PCR test for *Chlamydia trachomatis* and *Neisseria gonorrhoea* (n=160). Participants were provided with ‘prevention packs at this point of contact, then one month later invited via email to complete an online survey (n=98).

**Results:** Limited knowledge and understanding of safe alcohol consumption was found along with a range of risk related behaviours. Patterns of binge drinking were detected with 43% of participants reporting drinking more alcohol compared to back home. The number of drinks consumed on a given day positively correlated with the number of sexual partners, greater amounts of sex whilst on vacation and a greater perception of sexual risk. No gonorrhoea was detected but 7 out of 160 (4.3%) were reactive for *Chlamydia trachomatis*. At follow-up, frequency, quantity and locations of alcohol consumption had not decreased but ‘standard drink’ knowledge had increased (53.3% vs 90.1%) and alcohol-related risky behaviours had reduced. 22.9% of follow-up respondents reported that study participation had contributed to behavioural change.

**Conclusions:** Knowledge and risky behaviours are amenable to change in this population. For this population interventions tailored towards common backpacking activities, such as binge drinking, swimming/road safety and sexual risk taking in the places this population frequents would be beneficial.

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**POSTER NUMBER: 197**  **PAPER NUMBER: 445**

**THE USE OF FACEBOOK IN CLINICAL CARE**

**Background:** Young people who maybe associated with the sex industry are hard to reach. Cell phone ownership with this particular group has proved transient. Facebook is a way to engage with and remain in contact with this client group.

**Methods:** The use of Facebook is explored in this poster, both benefits and pitfalls have been examined.

**Results:** Relevant data will be presented including qualitative data.

**Conclusion:** Although more complex than originally anticipated this has proved an invaluable communication tool.

**Disclosure of Interest Statement:**
**Poster Abstract**

**Poster Number: 198
Paper Number: 259**

**Sex Drugs and Gen Z: At Risk Youth Attending an Outreach Clinic in Sydney’s Eastern Suburbs**

**Background:** Young people are a priority in the NSW and Australian Sexual Health Strategies. Sydney Sexual Health Centre (SSHC) runs an outreach drop-in service for young people (≤24 years.) This study describes the risk profile of these young people in comparison to national data, identifies the prevalence of markers of adolescent vulnerability.

**Methods:** Data from attendances at youth clinic (January 2009- May 2011) were extracted from the clinic database. Sexual partners, condom use, reproductive health, drug and alcohol use was compared with data from the 4th National Survey of Australian Secondary Students, HIV/AIDS and Sexual Health. Vulnerability was assessed using a modified HEADSS criteria.

**Results:** 612 individuals attended the service. The median age at presentation was 18 years (range 12-25 years). Two thirds of clients had not previously tested for STIs, yet 15% were diagnosed with an STI at the clinic. Of the 314 school aged clients 65% reported having more than one sexual partner in the previous year and 73% reported using condoms inconsistently. This compares to the national secondary school data of sexually active students of 45% and 50% respectively. Consumption of alcohol >1 day a week was reported by 56% of the school aged clinic clients compared to 21% nationally and marijuana use was reported by 54% versus 24% nationally. 249 (41% of all clients had ≥1 markers of vulnerability identified. The most common (22%) was a previous diagnosis of a mental health condition. 119 (19%) clients self reported feelings of anxiety or depression in the previous 12 months and 15% experienced current or past behavioural problems at school.

**Discussion:** Clients attending the youth service exhibited greater sexual risk behaviours, and poorer sexual health outcomes than comparable national averages. Markers of vulnerability are frequently identified. Clinical services for high risk youth should remain a priority of sexual health clinics.

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**Poster Number: 199
Paper Number: 547**

**Does a New Express STI Screening Model Increase Clinic Capacity**

**Background:** Increasing access to sexually transmissible infection (STI) screening among high risk populations is a key control strategy. In December 2010, Sydney Sexual Health Centre (SSHC) established a new clinical model – the ‘Xpress clinic’ which utilises computer assisted self interview (CASI) for risk assessment, has 10 minutes consultation slots, is staffed by nurses, and self-collected genital specimens are taken. We describe the impact of an Xpress clinic on clinical capacity during the first 5 months of operation.

**Methods:** We extracted consultation data from the SSHC database and calculated total patients seen, clients seen per clinical staff hour, and utilisation rate (patients seen/capacity) in the 5-month period when Xpress clinic was operating and a 5-month period before. Nurse and Doctor appointment clinics.

**Results:** During the Xpress period, the clinic had capacity to see 8006 patients, 5351 patients were seen, staff worked 3567 clinic hours, equating to 1.5 patients seen per clinical staff hour and a utilisation rate of 66.8%; 1.5 and 76% in the walk-in nurse clinic, 1.6 and 78% in the nurse appointment clinic, 1.2 and 60.7% in the doctor walk-in clinic, 1.7 and 83% in the doctor appointment clinic, and 1.6 and 41% in the Xpress clinic. The median time to be seen in the Xpress clinic was 10 minutes (interquartile range IQR:7-17) and 40 minutes (IQR:29-58) in other services, p<0.01. In the before period, the clinic had capacity to see 6301 patients, 4822 patients were seen, staff worked 3151 clinic hours, 1.5 patients were seen per clinical staff hour, and the utilisation rate was 76.5%.

**Conclusions:** The Xpress service significantly reduced patient wait times. However due to low utilisation of the Xpress clinic in the early operational months, the patient seen/per clinic hour in the entire clinic did not increase. Active promotion of the Xpress service to priority populations is underway.
### Poster Abstract

#### How Does Contact Tracing Success Impact on Bacterial STI Re-Infection?

**Background:** Clients diagnosed with a bacterial STI are frequently asked to re-test for that infection at a later date because re-infection rates can be high. Contact tracing is an important component of STI management. This study compares the success of contact tracing with the results of screening for re-infection.

**Methods:** Clients diagnosed with gonorrhoea, Chlamydia or infectious syphilis at Sydney Sexual Health Centre between March 8th and May 31st 2010 were telephoned one week after diagnosis and interviewed about the proportion of contacts they had informed and the methods used. The results of any re-testing for STIs during the subsequent 12 month period were extracted from the clinic database.

**Results:** 224 individuals were diagnosed with a bacterial STI during the study period, of whom 177 participated in the study. These 177 clients reported a total of 1159 contacts within the last 3 months, of whom 430 (37%) were able to be contacted. Overall 82/177 (46%) were able to contact all their sexual partners. 102/177 (58%) clients were retested within a 12 month period (median 142 days IQR 73-297), of whom 23 (23%) were reinfected: 15/57 (26%) of those who were unable to contact all partners were reinfected compared to 8/45 (18%) of those who contacted all partners (p=0.30). Reinfected clients had contacted 58% of contacts compared to 64% of those not reinfected (p=0.487). Reinfection was not associated with face-to-face (p=0.788) nor non face-to-face methods of contact tracing (p=0.434).

**Discussion:** Although a trend towards reduced re-infection with more complete contact tracing was observed, this was not statistically significant. This may be due to low total numbers of reinfections in our study. Further research on the contribution of contact tracing and other strategies in reducing reinfection of bacterial STIs is required.

### Poster Abstract

#### The GP STI Testing Tool: Does it Work?

**Background:** Although GPs are the main providers of sexual healthcare in Australia, they do not always use evidence-based practice. This can have significant implications for many Australians. To investigate knowledge translation, a study was conducted to determine the value of the STI Testing Tool – a resource designed to optimise evidence-based practice among GPs in NSW.

**Methods:** Twenty GPs were interviewed on the factors that help or hinder their use of evidence-based practice; the delivery of sexual healthcare; and the perceived influence of the STI Testing Tool on clinical practice. Interviews were complemented with a closed-item survey, which included demographic items and clinical vignettes.

**Results:** The STI Testing Tool did not directly modify clinical practice among most participants. Only six (30%) explicitly referred to using this resource to identify at-risk patients and/or appropriate screening tests. However, most participants did not actively use the tool largely because: (1) sexual health consultations are patient-driven; and (2) the tool reinforced familiar knowledge. However, responses to the vignettes suggest that almost half of the participants had a limited capacity to recognise occasions for opportunistic screening. Furthermore, all but two participants were likely to use more than the minimum required screening tests, with two participants likely to use seven more tests than required.

**Conclusion:** Results offer three key findings. First, tools that promote evidence-based practice can optimise efficiencies by helping clinicians to readily identify at-risk patients and/or screening tests. Second, such tools constitute one component of ‘sense making’, whereby ‘knowledge, both explicit and tacit and from whatever sources, is negotiated, constructed, and internalised in routine practice’ [1] – as such, an array of strategies may be required to facilitate knowledge translation. Third, the provision of sexual healthcare is largely patient-initiated – this highlights the importance of sexual-health-literacy within the community.

**Disclosure of Interest Statement:** This project was funded by the University of Western Sydney and the New South Wales Sexually Transmissible Infections Programs Unit. It was also supported by WentWest, the Nepean Division of General Practice and the Bankstown General Practice Division.

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**References**

**POSTER NUMBER: 202**
**PAPER NUMBER: 277**

**RECRUITING GENERAL PRACTICE CLINICS FOR A STI INTERVENTION: STRATEGIES AND TIPS FROM THE FIELD**


1. Centre for Women's Health, Gender and Society, School of Population Health, University of Melbourne, Victoria, Australia. 2. Department of General Practice, University of Melbourne, Victoria, Australia. 3. The Kirby Institute; University of New South Wales, Australia.

**Background:** The Australian Chlamydia Control Effectiveness Pilot (ACCEPt) will assess the feasibility, acceptability and cost-effectiveness of a chlamydia testing intervention in general practice. Trials involving sexual issues are not always welcomed in general practice; this paper describes our highly successful recruitment strategy.

**Methods:** ACCEPt is a cluster randomised controlled trial involving general practice clinics in 54 postcodes (rural towns). The intervention is multi-faceted and uniquely tailored to increase chlamydia testing in patients aged 16 to 29 years and will be in place for up to 4 years. Recruitment involves a 6-step process and the allocation of a single Project Officer to each postcode who is responsible for all clinic visits and follow-up contact to establish rapport with the clinics and ensure continuity.

**Results:** Recruitment began in July 2010; 383 GPs in 80 clinics in 30 postcodes have been recruited with 13 postcodes in Victoria, eight in NSW, five in QLD and one in South Australia. Overall, 85% of clinics have agreed to participate. Recruitment of all clinics within a postcode has taken an average of 80 days (range 16 to 154 days), and has required between 4 and 8 visits, at least one of which is catered. Success in recruitment is due to the nature and persistence of the Project Officers, personality and interest of the Practice Manager, and the level of organisation and the capacity to take on new projects within the practice. Detailed field notes and the opportunity for Project Officers to exchange tips has been critical to the success of recruitment.

**Conclusions:** Recruiting general practices into a study looking at prevention of sexually transmissible infection can be successfully achieved using a strategy of contact and communication to engage and motivate the staff and participants involved.

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**POSTER NUMBER: 203**
**PAPER NUMBER: 221**

**WOULD YOU SELF SWAB FOR STIS IN A UNISEX TOILET?**


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**Background:** With the emergence of highly sensitive nucleic acid amplification tests for STIs, and the desire to offer easy screening options to clients, patient collected samples for diagnosis of STIs have become more common. This increases the demand for toilet facilities in clinic. In order to reduce waiting times for toilet cubicles to self-swab, Sydney Sexual Health Centre (SSHC) explored client preferences and the impact of unisex toilet facilities.

**Methods:** This was a cross sectional study using an anonymous questionnaire. Clients attending SSHC from December 2010 participated if they could read English. Clients were asked whether they had a preference for gender-specific or unisex toilets, and if unisex toilets would impact on their likelihood of self-swabbing. Results were stratified by age, MSM status, gender, and whether the client had previously self-swabbed.

**Results:** 463 clients completed the survey. Gender-specific toilets were preferred by 235/463 (51%), 208/463 (45%) had no preference, and 20/463 (4%) preferred unisex toilets. However, only 102/463 (22%) suggested they would be less likely to self-swab in a unisex toilet. 219 (47%) clients had previously self-collected swabs, but this was not associated with responses (p=0.583). There was no effect of age (p=0.564).

However, more women preferred gender-specific toilets than men (71% vs 44% p=0.001) and more women reported unisex toilets would have a negative impact on self-swabbing than did men (38% vs 17% p<0.001). In contrast, MSM were less likely to prefer gender-specific toilets than nonMSM (41% vs 59% p<0.001), but this did not significantly impact on the likelihood of self-swabbing.

**Discussion:** Although many clients would be happy to self-collect swabs in a unisex toilet, a significant number, particularly women, would be less likely to self-collect swabs in this situation. Uniform provision of unisex toilets to facilitate self-swabbing may be counter-productive, and the continued availability of gender-specific toilet facilities appears necessary.
### POSTER NUMBER: 204
**PAPER NUMBER: 205**

**CONTACT TRACING USING PROVIDER REFERRAL- HOW DIFFICULT IS IT?**

Allan W1, McCann L1, McNulty A1,2, Read PJ1,2  
1 Sydney Sexual Health Centre, GPO Box 1614, Sydney NSW 2011; 2 School of Public Health and Community Medicine, University of New South Wales, Sydney.

**Background:** Provider referral (PR) may be an effective strategy for contact tracing when the index case is unwilling to contact partners themself. However, PR is often seen to be difficult or time-consuming particularly in primary care settings. This study describes the work required to deliver PR and the success rate in a tertiary referral service.

**Methods:** All attempts at PR at Sydney Sexual Health Centre (SSHC) from 2008-2010 inclusive were recorded on a clinic PR proforma. The methods used, number of attempts, time taken and success of PR were extracted from these proformae. Data was compared for HIV and STI diagnoses.

**Results:** Over the time period 230 individual contacts were referred for PR from 108 index cases. 209 were internal SSHC referrals and 21 were externally referred. Overall 558 attempts at contact were made, 487 of these (87%) were calls to mobile phones. The median number of contacts required was 2 (range 1-7), which was completed in a median of 1 day (range 1-67). Overall PR could be confirmed as successful in 174/191 cases (91%). In a further 39 cases an SMS was sent as the final contact method. There were no significant differences between the time taken and number of contacts required between STI and HIV notifications. However, HIV contact tracing was less successful than for STIs (85% vs 94% p=0.036). Overall PR was requested for 4% of clients with a bacterial STI diagnosis, but 15% of HIV diagnoses (p=<0.001).

**Discussion:** For the majority of cases PR was achieved within 2 or less attempts, and took no longer than 1 day. This should be feasible in most clinical settings. In the instances that PR is more difficult, referral to specialist PR services is recommended.

### POSTER NUMBER: 205
**PAPER NUMBER: 224**

**TARGETING PRIORITY POPULATIONS THROUGH SOCIAL MARKETING: IS IT COST EFFECTIVE?**

Williamson A1, Read PJ1,2  
1 Sydney Sexual Health Centre, GPO Box 1614, Sydney NSW 2011; 2 School of Public Health and Community Medicine, University of New South Wales, Sydney.

**Background:** Sydney Sexual Health Centre (SSHC) operated an STI Testing Outreach Clinic for men who have sex with men (MSM) at the Mardi Gras Fair Day in 2010 and 2011. In 2011 social marketing was used to increase the utilisation of the testing service.

**Methods:** We commissioned banner advertisements on a prominent Australian GLBTI information website (samesame.com.au), the creation of a Facebook page and Facebook advertising to all males who were ‘interested in men’, within 25 miles of Sydney and between the ages of 18 and 55. A prominent advertisement was placed in the Sydney Star Observers’ Mardi Gras festival guide (SSOFG). We extracted data from the websites on the number of impressions generated (number of times the advertisement was displayed on a site visitors screen), cost and number of click-throughs.

**Results:** The banner advertisement on samesame.com.au generated 34,623 impressions to 4,904 unique visitors, and 32 clicked the advertisement through to the information page. The cost for advertising was $1190 ($37.19 per click through.) Facebook advertising provided $884,916 impressions. 312 men clicked through to the information page, at a cost of $380 ($1.22 per click through.) The SSOFG had 15,000 copies distributed at a cost of $1823.25.

The Facebook information page was also distributed by community organisations through their e-newsletters to over 1000 of their members at no cost. 52 MSM attended the testing tent in 2011 compared to 46 in 2010. We were unable to establish what proportion of clients had seen the advertisements.

**Conclusion:** Facebook is a very cost effective way to target a specific population with limited budget when paying per click through. Yet despite increased promotion of the testing service, there was only a minimal increase in participation. Other factors such as location and visibility of the tent at the event may have contributed.
**Poster Number: 206**

**Patient Preferred Method of Obtaining STI and/or HIV Results from Sydney Sexual Health Centre (SSHc)**

**Background:** SSHC utilises an SMS appointment reminder system and also provides selected negative HIV results via phone. Results from international studies have shown benefits from these strategies when used for results provision. We aimed to determine the preferred method of results delivery by SSHC clients.

**Method:** This was a cross-sectional study using an anonymous questionnaire. Clients nominated a single preference for receiving negative and positive STI and HIV results via the following choices: SMS, email, phoning SSHC, a call from SSHC, secure internet site and in person.

**Results:** 477 clients returned surveys (90.7% return rate). There were no differences in how people wanted to receive their negative STI or HIV test results ($p=0.537$). Preference was shown for SMS (STI 32%, HIV 27%), phoning SSHC (STI 26%, HIV 27%) and in person (STI 21%, HIV 26%). When analysed by age, gender and MSM there were no significant differences.

Few people were happy to receive positive STI results (13%) or positive HIV results (7%) by SMS. Most people preferred their negative HIV result (56%) or positive STI result (40%) in person.

MSM significantly differed from non-MSM in their preferences for receiving positive STI results ($p=0.038$) 47% of MSM vs 33% non-MSM preferred in-person results. More non-MSM preferred SMS (16% non-MSM vs 8.5% MSM). MSM were significantly more likely to prefer to receive a positive HIV result in person (56% MSM vs 47% non-MSM, $p<0.001$). Few people wished to receive their positive HIV results by email (11% non-MSM vs 4% MSM).

**Conclusions:** This study utilised consumer input to direct, where possible, a more client centred service for results provision. Although electronic methods were acceptable for negative results, many clients, especially MSM still prefer to receive their results in person or via the telephone. A streamlined results service may facilitate greater access to clinic for new clients.

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**Poster Number: 207**

**Test of Reinfection Recalls – When Computerised Systems Are Not in Use, What Is Viable?**

**Background:** At the Canberra Sexual Health Centre (CShC) there is no computerised recall system. Clients who have tested positive for a sexually transmissible infection (STI) are advised when they access treatment to return for a test of reinfection (TOR). The aim was to investigate if a formal reminder from CShC would increase numbers of clients accessing Tors.

**Methods:** A small retrospective audit of files was undertaken to determine the number of clients returning for Tors. A systematic notification reminder system was instigated with a nurse notifying patients by phone or SMS that their TOR was due. A prospective audit was undertaken over the following six months to determine the number of clients presenting for Tors.

**Results:** The preliminary file audit revealed very few clients returning for a TOR without being notified. Following the implementation of the recall system there was an increase in attendance for Tors. 14% of those retested had positive results.

Various modes of contacting clients were trialled including SMS, phone call, message and a combination of these. SMS only, proved the most effective method of reminding clients with 22/48 (45%) presenting. It was estimated that at least 15 minutes per client was taken to perform this task with an average of 15 notifications per week.

**Conclusion:** An increase from 10% to 30% rate of TOR participation, with a 14% positive pickup result is a valuable and justifiable reason to send an SMS notifying clients that their TOR is due. In smaller sexual health centres where automated TOR reminders are unavailable, it may be appropriate to invest time in recalling clients for Tors.
Background: The sexual behaviour of young travellers is often high risk for STIs. Clinic-based prevalence of chlamydia among international backpackers in Sydney is higher compared with local Australians. We piloted a model of outreach screening for gonorrhoea and chlamydia at two backpacker hostels in Manly, Sydney.

Methods: We developed simple collection kits and promotional material to encourage screening by backpackers. Kits were comprised of a plastic bag containing a pamphlet (with instructions and a questionnaire), a jar (for first-void urine from men) or sterile swab (for self-collected vaginal specimen from women) and identifier labels. Kits and collection bins were placed in bathrooms of hostels. Specimens were tested for gonorrhoea and chlamydia by strand displacement amplification assay.

Results: From January to April 2011, 35 men and 49 women provided samples. Median age was 24 years in men and 23 years in women. The majority (93%) were residents of western European countries, had been travelling for three months (median) and been in Australia for two months (median). At least one new sexual partner during their trip was reported by 91% of men and 96% of women; 56% of men and 64% of women reported two or more. Fellow travellers were the most common sexual partner(s). Reported consistent condom use was 20% in men and 14% in women. Five chlamydial infections were detected in the men (prevalence 14.3%) and five in the women (prevalence 10.2%). No gonococcal infections were detected. Of the kits dispensed, 50% disappeared or were tampered with. We found that collection bins were occasionally used to dispose of bathroom waste.

Conclusion: The number of backpackers who participated in this screening was lower than we expected. However, the overall yield of chlamydial infections at 11.9% is higher than our clinic-based screening, and justifies attempts to refine and continue this project.

Disclosure of Interest Statement: This project was funded within the current funding arrangements for this Service from NSW Health: no additional funds were received from any external source.

Background:

The sexual behaviour of young travellers is often high risk for STIs. Clinic-based prevalence of chlamydia among international backpackers in Sydney is higher compared with local Australians. We piloted a model of outreach screening for gonorrhoea and chlamydia at two backpacker hostels in Manly, Sydney.

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Disclosure of Interest Statement:

This project was funded within the current funding arrangements for this Service from NSW Health: no additional funds were received from any external source.
### Providing Contraceptives in Pharmacy: What Do Pharmacists Think?

**Background:** Every year, more than 120 million couples have an unmet need for contraception, 80 million women have unintended pregnancies (45 million of which end in abortion). Recently, pharmacist participation in providing contraceptives to the public has gained interest from researchers. Our objectives are to assess pharmacists’ perception in providing contraceptives to the public and to evaluate confidence level of pharmacists in providing pharmaceutical care in contraception issues.

**Methods:** The Pubmed, ScienceDirect and MEDLINE databases were searched from their start through March 31, 2011. Studies were eligible for inclusion if they were published in English; included search terms for contraceptive, oral hormonal contraceptive, emergency hormonal contraceptive, depot medroxyprogesterone acetate, AND pharmacist. The search results were then limited to human. Reference list from these articles were hand-searched to identify additional articles. We excluded studies that did not report results on provision of contraceptives by pharmacists, and pharmacists’ perception on providing contraception. Nine articles fulfilled the inclusion criteria. Key information were extracted and presented in the table.

**Results:** Pharmacists were broadly positive with their role in providing emergency hormonal contraceptives (EHC). However, many pharmacists are concerned about pharmacy supply of EHC might lead to increases of unprotected sexual intercourse. Religion affiliations emerged as significant predictor of unwillingness to dispense emergency contraception. Conard et al reported pharmacists felt they were inadequately trained in adolescent-specific issues, adolescent consent issues and adolescent confidentiality issues in pharmacy schools. Lack of privacy for consultation in pharmacy setting is recognized as barrier to provide adequate consultation to patients.

**Conclusions:** Pharmacists lacks training and are not comfortable dealing with sensitive domains such as contraception. Sexual and reproductive health curriculum in pharmacy education must be re-examined to ensure future pharmacists have the necessary knowledge and skills to advice patients who needs contraception.

**Disclosure of Interest Statement:** This review is supported by Dana Kecemerlangan research grant 600-RMI/ST/DANA 5/3/Dst(11/2011) from RMI, UiTM.

### Fluidity of Sexual Attraction Measured over Eleven Years in a New Zealand Birth Cohort

**Introduction:** There is a growing appreciation that sexual attraction can vary across the life course, but little information on this from longitudinal studies based on general population samples past adolescence. The aim of this analysis was to examine sexual attraction at ages 21, 26 and 32 years, and determine changes between these ages, among nearly 1000 men and women enrolled in the New Zealand Dunedin Multidisciplinary Health and Development Study, one of the longest comprehensive cohort studies of sexual behaviour worldwide.

**Methods:** Self-completed computer-presented questions on same sex attraction (similar to those used in the British NATSAL studies) with 6 Kinsey-style options were presented at age 21, 26 and 32.

**Results:** A significantly greater proportion of women than men reported same sex attraction at each age, and experienced a much greater change in attraction between assessments. Some same sex attraction was reported by 8.8, 16.6 and 14.7% of women and 4.2, 5.8 and 4.8% of men at ages 21, 26 and 32 respectively. Between 21 and 26, 15.9% of all women and 4.1% of men changed their level of attraction, as did 16.3% of all women and 3.3% of men between 26 and 32 years.

**Conclusions:** The public and clinicians need to be aware that in early adulthood any same sex attraction is relatively commonly experienced, especially by women, and changes in attraction frequently persist through early adulthood.

**Disclosure:** The study of sexual and reproductive health in the Dunedin Multidisciplinary Health and Development Study has been funded by the Health Research Council of New Zealand. No pharmaceutical grants were received in the development of this study.
“SEX IS EVERYWHERE”: YOUNG PEOPLE DISCUSS THE SOURCES OF THEIR LEARNING ABOUT SEXUALITY

Background: The Strengthening Sexuality Education research project focuses on evaluating the current puberty and sexual health programmes delivered in local schools by Ballarat Community Health (BCH). BCH has been providing Puberty and Sexual Health curriculum to schools in the regional Victorian city of Ballarat (Australia) for over 15 years. It is likely that students in local secondary schools will have had a variety of formal and informal learning experiences in sexuality education. In addition, students will also have learnt about sexuality from a range of sources such as teachers, parents, friends, and the media.

Method: This paper examines what young people say are the most authoritative and effective sources of puberty and sexual health information. A mixed-method approach (quantitative surveys and focus discussion groups) was used to investigate the sexual health information sources that young people identify as informing their learning. The research participants (n=100) were students in years 7, 8 and 9 from two participant schools in low socioeconomic areas.

Results: The young participants in this study identified community health educators, doctors and parents as the most effective sources of sexuality information. Classroom teachers, peers, magazines, books and television were sources that were often used but they were generally considered to have a low level of effectiveness and were not always trustworthy. The young people gave explanations for their choices.

Conclusion: The research reveals evidence that the participants in this study are active learners who are able to construct their learning about sexuality from a variety of sources. Several learners demonstrated that they exercised judgement over which sources are trustworthy, reliable and likely to provide them with consistent, clear and accurate information about sexuality. The role of external health providers, parents/relatives and healthcare professionals appear to be crucial sources of information and teachers within school settings were not always perceived as trustworthy or believable.

SELF HARM SEXUAL BEHAVIOUR: IS ONE A DISPLAY OF THE OTHER

Background: The importance of sexual expression has significantly surpassed a containment of ‘free sexual expression’. If one explores the relationship between adolescent sexual risk-taking behaviour and links this to a concept of self harm, one is able to find numerous traits of other risk-taking behaviours that surface. Literature has explored whether a link indeed does exist and interestingly some studies suggest that parenting processes – moreover communication styles – do in fact influence a teenager as to whether they may engage in no sexual risk-taking behaviour, low level risk-taking behaviour or high level risk-taking behaviour.

Methods: Review of the literature by key words and retrospective findings of clinical presentations of presenting clientele of who are young adolescents aged 12 – 25 years. Keywords: self harm; sexual behaviour; adolescents; risk taking.

Results: Self harm within the definition associated with mental health is often described within the context of cutting. Here, it has been recognised as a ‘coping strategy’ that is a harmful habit, but mental health experts recognise the importance of preventing it becoming a learnt coping skill. However, it is a fairly new understanding the link between the abnormal and normal sexual behaviours of young people and the link to self harm. Literature is clearly defining a link between sexual behaviour patterns and self harm within the younger population but this is still emerging and requires further research.

Conclusions: When one incorporates factors such as age, cognitive ability, mental health issues, drug and/or alcohol consumption, and socio-economic factors, the question remains how can one define a line of normal sexual behaviours and experimentation, versus self harm in the display of sexual promiscuity? This area in understanding the link between abnormal and normal sexual behaviours of young people is still emerging within the literature let alone the link to self harm.
### POSTER ABSTRACT

#### PERCEPTION ABOUT HIV/ AIDS AMONG ADOLESCENT GARMENT WORKERS

**Poster Number: 213**  
**Paper Number: 5**  

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**Background:**  
AIDS is a public health problem that merits serious concern. Now garments are growing industries in Bangladesh. There are around five lacks girls involve in garment industries. One fourth of Bangladesh populations are adolescents. The adolescent garments workers who are exposed daily to the working environment outside their houses they need to know the healthy reproductive behaviour. Information regarding HIV/AIDS is prior and essential to get free from the deadly disease. The purpose of this study is to assess the knowledge and awareness on HIV/AIDS among adolescent garment workers.

**Methods:**  
This was a descriptive type of cross sectional study conducted among 340 garment workers. Data collection was done face to face interview by structured questionnaire.

**Results:**  
Study shows that mean age of the respondents was 17.61 years. Seventy-five percent of the respondents were unmarried. Study revealed that 82.4% respondents’ monthly income was less than TK 2500. About 52% respondents gave correct but inadequate answer, 21% gave mixed answer, 6% had misconception and 20% had no idea about the mode of transmission of HIV/AIDS. Two-thirds of the respondents were unaware of the fact that a child can be contracted AIDS through breast milk of HIV infected mother. Eighty nine percent respondents had no idea about signs/symptoms of AIDS. Study revealed that 59.4% respondents had no idea about the consequences of HIV/AIDS. Ninety-nine percent respondents opined that awareness on HIV/AIDS should be created among the adolescent and same percentage of the respondents thought that information should be included in the school curriculum. More than ninety-eight percent respondents opined that they need training on HIV/AIDS.

**Conclusion:**  
The study findings will be help the government, policy makers and NGOs for formulation of training programme for the adolescent garments workers to upgrade their knowledge on HIV/AIDS.

### WHY WE SHOULD CARE ABOUT BABY BOOMER SEXUALITY

**Poster Number: 214**  
**Paper Number: 302**  

Kirkman L

Baby boomers led the sexual revolution in the 1960s and 1970s and are still sexual beings, despite popular media’s depiction of sexuality and sexual activity as the provenance of the young. Older adults who are not in long term partnerships are seeking new relationships, or maintaining independence while enjoying sexual intimacy within casual or informal sexual relationships. Baby boomers are using online dating websites to find both short and long term partners, and evidence suggests many are engaging in sexual activity the first time they meet face to face.

Older adults may view safe sex as pregnancy prevention rather than STI prevention.

The sexual health of older adults is neglected from research and policy perspectives, and consequently is not included in health promotion or routine offering of screening. Government sexual health policy does not specifically refer to older adults. Given general practitioners experience discomfort when discussing sexuality and are reluctant to ask young people about sexual health it is even less likely they will engage a peer-aged patient on this topic.

An increase in STI rates for the over 50s in the United Kingdom led to the UK Family Planning Association in 2010 to run a sexual health promotion campaign targeted at this cohort.

This paper will present a case for considering baby boomer sexual health to be an important topic in public health, sexual health policy, and general practitioner protocols.

No interests to disclose.
Poster Number: 215  
Paper Number: 281  
**Bedding Sexual Health Promotion in Human Rights: Strengths and Liabilities**

**Background:** Over the past decade there has been mounting pressure both in Australia and internationally, for the development of a unified and comprehensive approach to sexual health promotion. Advocates argue that current sexual health policy relies on a disease model that treats sex and reproduction as risk factors for sexually transmissible infections (STIs) and unwanted pregnancy, respectively. They argue that the inability of this model to accommodate changing sexual attitudes and practices, and increasing legal and social recognition of sexual minorities, has led to a reduction in the overall sexual health of populations.

**Methods:** This paper outlines a comprehensive, human rights approach to sexual health promotion. It draws on the results of a 12 month research project that included:

- A review of the research literatures on sexual and reproductive health promotion
- A review of Victorian data on populations at increased risk of sexual and reproductive ill-health; and
- Comparative analyses of a number of Australian and international sexual and reproductive health-related policies and programs.

**Results:** According to the data, the major risk factors for reduced sexual health in Australia are disadvantage and discrimination, poor sexual health literacy, and reduced access to appropriate sexual-health information and resources. This paper argues that these broad social determinants of sexual health are most effectively addressed within a human rights framework.

**Conclusion:** The paper concludes by considering some of the barriers to government and other agencies adopting a human rights approach to sexual health promotion including the abiding association between sex and reproduction, difficulties in framing sexual health outside a disease model, the privileging of quantitative over qualitative data, and concerns regarding legal liability.

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Poster Number: 216  
Paper Number: 497  
**How Do Graduating Medical Students Rate Their Knowledge & Skills in Sexual Health & HIV Medicine?**

**Background:** Medical practitioners are frequently required to address sexual health issues during consultations and many report difficulties in doing so. The aim of this study was to assess sexual health and HIV medicine teaching at a new medical school.

**Methods:** All graduating Australian National University Medical School students from 2007 to 2010 were invited to participate in an online anonymous survey to self-assess their knowledge and skills in sexual health and HIV medicine and evaluate a range of teaching methods.

**Results:** 176/329 (54%) graduating students (68% females) answered the questionnaire over the 4 year period.

- 78% and 65% of respondents had encountered at least one HIV positive outpatient or inpatient respectively and 85% had encountered patients with an STI. 76% of students were confident in their knowledge of genital and reproductive anatomy, physiology and epidemiology. 80% felt able to take a sexual history and 92% felt competent to provide information on safe sex.

- Students reported feeling less competent in clinical examination skills. 20% of all students did not feel competent to carry out either a female or male genital examination, although only 7% reported not feeling competent to carry out a speculum examination and Pap test. In relation to more complex consultations, 38% and 20% respectively did not feel competent to discuss sexual dysfunction and sexual assault.

- While the majority of students (75%) found all methods of teaching effective, 93% reported that lectures and seminars were their preferred strategies for learning sexual health. The majority of students reported that clinical placements in general practice (77%) and the sexual health centre (78%) were an effective learning strategy.

**Conclusions:** Self-assessment via an online instrument is a useful adjunct to other curriculum evaluation methods. Further emphasis on developing competency in physical examination skills is warranted.
**GLOBALIZATION VS SYARIAH LAW: EXPLORATIONS OF PRE-MARITAL SEX PATTERNS AND ITS DETERMINANTS AMONG UNMARRIED YOUNG ADULTS IN INDONESIA**

This study aims to explore the pattern of pre-marital sexual intercourse among unmarried young adults in Indonesia and examines key factors as predictors of pre-marital sexual behaviours after the introduction of Syariah Law. The study found that there was a trend showing an increase in the prevalence of pre-marital sexual relations from 3.1% to 4.1% over five years despite the application of Syariah law in several provinces. It argues that other determining factors (globalization related to access to free information about sex, knowledge of reproductive health contraception, substance abuse) are more powerful than the doctrine from community religious law in affecting sexual attitude of young adults in Indonesia. However, age and religion are negative predictors of pre-marital sex while dating behaviours, alcohol consumption, and injected drug use are positive predictors of pre-marital sex behaviours. Data drawn from two time series cross sectional surveys of the Indonesian Young Adult Reproductive Health Survey (IYARHS) conducted in 2002/2003 (N=4,156) and 2007 (N=19,311). Bivariate analysis as well as binary logistic regression is applied for the analysis.

Key words: globalization, Syariah law, unmarried young adults, determinants, pre-marital sex, Indonesia.

**SEXUAL BACKGROUNDS OF IMPRISONED MALE SEX OFFENDERS**

Aim: We analysed data from the NHMRC-funded project Sexual Attitudes and Behaviour of Australian Prisoners to describe the sexual history and demographic profile of male prisoners (NSW and Qld) imprisoned primarily for sexual offences, in comparison with other prisoners.

Backgrounds: Many clinical studies of sex offenders are done within a psychiatric framework that assumes they suffer from sexual disorders (e.g. that men convicted of sex with minors are paedophiles, i.e. compulsively attracted to pre-pubertal children), but it is not clear whether men with sex offence convictions in fact differ from other prisoners in their sexual histories.

Method: A random representative sample of NSW and Queensland prisoners (2018 men) was surveyed by computer-assisted telephone interview using detailed questions on sexual behaviour, attraction, attitudes and age of first and regular partners.

We analysed differences between sex offenders (11%) and other prisoners in relation to (1) prior sexual abuse/coercion, (2) hom/o/bi/hetero identity, attraction and experience, (3) age of partners, (4) number of partners, and (5) demographic features such as age, Aboriginality and education.

Results: Sex offenders were more likely than prisoners in general to report ever having been themselves forced or frightened into doing something sexual (24% v. 13%), to identify as non-heterosexual (9% v. 5%), and to have any same-sex experience (23% v. 13%). They were older on average at first intercourse than other prisoners (median 16 v. 14 years) and had fewer lifetime female sexual partners (12 v. 18). However, sex offenders serve long sentences and are much more likely (72%) to be aged over 35 than other prisoners (34%). Adjusted and age-stratified results will be presented. Sex offenders are a heterogeneous group including some reporting very little or no sexual experience. Although they differ on average, there is a large overlap between sex offenders and other prisoners.
“WHY DIDN’T I LEARN ABOUT CONTRACEPTION IN HIGH SCHOOL?” CONTRACEPTIVE CHOICES OF YOUNG, UNMARRIED WOMEN IN HANOI, VIETNAM

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Background: There is significant documentation regarding the integration of Western sexual ideals and Vietnamese culture. This study explored the current status of Vietnamese youth with regards to contraceptive knowledge, attitudes and practices. Previous qualitative studies on this subject have frequently sampled young unmarried women from abortion clinics. This study samples from an unmarried educated demographic of young Vietnamese women to allow for comparison and explore varying views of sexual behaviour and contraceptive use.

Methods: A qualitative approach was used, and data was collected from individual in-depth interviews and a focus group discussion. A snowballing method was used to recruit the participants, who were all unmarried, educated women aged 20-25. The participants were asked a series of questions focusing on contraceptive decision-making and influences affecting use. Due to the sensitive subject matter, questions focused on societal views rather than individual beliefs and practices.

Results: Sexual and reproductive health (SRH) education was minimal at the school level for participants. The societal view that teaching young people about SRH leads to higher levels of sexual activity was raised. Gender issues were also discussed, and included the influence of men over women in the use of contraception, and the belief that Vietnamese society is more accepting of men seeking contraception. Negative societal views towards premarital sex were discussed. Many of the participants felt that this hinders access to and knowledge of contraception, and has a direct influence on contraceptive decision-making for youths in Vietnam.

Conclusion: This study highlights the participants’ belief that regardless of attitudes towards premarital sex, there should be comprehensive sexual and reproductive health education of all young Vietnamese women. It also emphasizes the need for further research in the area of contraceptive use in Vietnamese youth.

SEXUALITY EDUCATION FOR YOUTH AT-RISK IN SINGAPORE

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Background: In 2009, about 15% of the 463 new HIV cases detected were youth aged 10 – 29. STI among youth aged 10-19 has been increasing, from 238 in 2002 to 651 cases in 2009. Besides STI/HIV, the average number of teen (aged 10 – 19) pregnancy is 2,000 per year since 2002. In view of these staggering statistics, HPB adopted a targeted approach in its sexual health promotion efforts.

The YES (Youth Exploring Sexuality) Programme was developed with aims to equip youth at-risk with life-skills to make informed decisions, influence them to adopt less permissive attitudes towards casual sex and raise awareness of STI/HIV prevention.

Methods: The programme adopted a quasi operations research methodology. It was developed in collaboration with a local social service agency in 2008 and pilot tested in 2009. The crucial elements of the programme include: gender specific curricula; small group settings; interactive activities; opportunities for self reflection; a safe environment to voice their concerns and doubts and enlisting qualified social/youth workers and counselors as trained facilitators.

Results: A quantitative evaluation was done through the pre-post programme survey, and was analysed through statistical software - SPSS. A paired sample t-test was run to test the significance of the changes pre and post programme. 38 youths went through the programme to-date. The pre-post test results were generally positive. Of significance are the youth’s likelihood to remain faithful to their partner and to use condoms should they engage in sex in the future. Also, youth expressed greater confidence to reject sex if they do not wish to engage in it.

Conclusion: In the two years of development, pilot testing and implementation of the programme, the initial results from the pre-post surveys have been encouraging. The programme will be made available to all schools.
**ADDRESSING SPECIFIC POPULATION GROUPS**

**POSTER NUMBER:** 221  
**PAPER NUMBER:** 169

Walker J,1 Hocking JS,1 Fairley CK,2,3 Tabrizi SN,4 Chen MY,2,3 Twin J,1 Taylor N,4 Donovan B,5 Kaldor JK,5 McNamee K,6,7 Urban E,2 Walker S,2 Currie M,6 Birden H,6 Bowden F,6 Gunn J,6 Pirotta M,6 Gurrin L,13 Bradshaw CS,2,3,14

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**THE PREVALENCE AND INCIDENCE OF BACTERIAL VAGINOSIS IN A COHORT OF YOUNG AUSTRALIAN WOMEN.**

**Background:** Bacterial vaginosis (BV) is associated with late miscarriage, pre-term delivery, PID and increased susceptibility to STIs; however its aetiology remains unclear and current treatment is not very effective. Currently, there are no community-based estimates for BV prevalence or incidence in Australia.

**Methods:** Women aged 16 to 25 years were recruited from primary health care clinics in Australia and self-collected vaginal smears at 0, 6 and 12 months were scored using the Nugent method. BV prevalence was measured at the time of recruitment and incidence was measured over the 12 month study period. Incident BV was diagnosed if a participant at baseline had a Nugent score <7 followed by a subsequent Nugent score of 7-10 at 6 or 12 months. Adjusted odds ratios were calculated to explore associations at baseline and adjusted hazard ratios calculated to explore predictors of incident infection.

**Results:** Overall, 1116 women were recruited from 29 clinics; slides were available for 1112 (99%) women at the baseline and 875 women (79%) at study completion. The prevalence of BV at baseline was 11.8% (95% CI: 9.9-13.7) and was associated with increased numbers of recent male sexual partners (adjusted odds ratio [AOR]=2.2; 95%CI:1.0-4.6), recent female sexual partner (AOR=3.2; 95% CI:1.6-6.5), being recruited from a sexual health centre (AOR=1.7; 95%CI:1.1-2.5) and being less well educated (AOR=1.4; 95%CI:1.0-1.9). The incidence of BV was 8.8 per 100 women years (95% CI:7.1-10.8) [n=88] and incident BV was associated increased numbers of new sexual partners (adjusted hazard ratio [AHR]=1.7; 95% CI: 1.1-2.5). Both prevalent and incident infections were associated with ‘abnormal vaginal discharge’ and ‘abnormal vaginal odour’.

**Conclusion:** These are Australia’s first BV prevalence and incidence estimates and show that BV is very common among young women and associated with sexual behaviour.
### POSTER NUMBER: 222  
**PAPER NUMBER: 258**

**THE IMPACT OF PELVIC INFLAMMATORY DISEASE ON SEXUAL, REPRODUCTIVE AND PSYCHOLOGICAL HEALTH**

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**Background:** Pelvic inflammatory disease (PID) is a condition commonly attributable to chlamydia infection. This qualitative study sought to explore the sexual, reproductive and psychological impact of this condition.

**Methods:** In depth, semi-structured interviews were conducted with 23 women diagnosed with PID. Both symptomatic and asymptomatic women were recruited from primary and tertiary healthcare services. Interviews were conducted with women from 2-12 months post-diagnosis in order to explore short and longer term psychological responses and experiences. A brief, self-report questionnaire containing demographic items was also completed by all women. Interview analysis was conducted using an inductive, thematic approach.

**Results:** Nearly all women experienced some form of distress when they received their diagnosis, and the emotional impact of their diagnosis was generally prolonged. Women typically experienced emotions such as shock, sadness or anger. At the time of diagnosis, women frequently had little or no knowledge of PID and continued to experience confusion about their condition post-diagnosis. Some women reported that PID had created conflict in their intimate relationships or had impacted on the level of intimacy they shared with their partner. Almost all women reported that their sexual behaviour had changed dramatically post-diagnosis. The possibility of being infertile stood out for women as their greatest health concern and nearly all women reported changes to their health behaviours since their diagnosis.

**Conclusion:** The findings of this study indicate that a diagnosis of PID can have significant psychosocial implications for the diagnosed individual. Recommendations for health care professionals are proposed.

### POSTER NUMBER: 223  
**PAPER NUMBER: 305**

**TWO YEARS ON: INCREASING ACCESS FOR GAY MEN/MSM TO SEXUAL HEALTH CLINICS IN AN OUTER METROPOLITAN AREA - A CLINICAL PERSPECTIVE**

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**Background:** Bigge Park Centre (BPC) identified that Gay Men and Men who have sex with Men (MSM) in South Western Sydney Local Health District (SWSLHD), may not be accessing local Sexual Health Services.

**Methods:** In 2008 an Action Plan was developed in collaboration with SWSLHD Health Promotion Team (HPT). Implemented strategies included:

- Providing safe sex messages and Bigge Park Centre referral plaques in male toilets in South West Sydney.
- Working in partnership with local Same Sex Attracted Youth Groups to advocate and promote sexual health.
- Creating a supportive environment for Gay Men/MSM at BPC (clinical and social) to increase both awareness and access for this Priority Population.
- Working strategically with gay and non-gay community attached print media.
- Working in partnership with private businesses to engage the target group and provide sexual health information and referral information.

At the 2009 Australasian Sexual Health Conference a poster was presented which outlined the initial findings of strategies during the period 2007 to 2009.

Two years on we appraise the implementation of the action plan, which is reflected in the attendance of MSM at Bigge Park Centre.

Demographic profile will be discussed.

**Results:** The number of clients and occasions of service provided to this group has consistently increased compared to the non priority population from: 2009 (144) 8.6% and (401) 9.5%; 2010 (173) 10% and (662) 14.4%; and to date for 2011 (109) 14.2% and (457) 22.8%.

**Conclusions:** The analysis shows there is a consistent increase in the total attendances and number of new MSM accessing the service.
ADDRESSING SPECIFIC POPULATION GROUPS

POSTER NUMBER: 224
PAPER NUMBER: 546

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OPTIMISING CLINICAL SYSTEMS TO INCREASE HIV/STI TESTING IN GAY MEN: THE ETEST PROJECT

Background: Despite HIV/STI testing rates being high (~60% annually) in Australian gay men, the proportion of 'high-risk' gay men having two or more HIV/STI tests per year, as specified in clinical guidelines, is relatively low (~20%). NSW Health funded the development of a multi-faceted intervention based on information technology which aims to increase STI/HIV re-testing rates in high-risk gay men. The intervention will be conducted over two years at 10-15 general practice clinics which see a medium to high case load of gay men. We describe the process and outcomes of the development stage of the intervention.

Methods: We engaged a software company "Pen Computers" to develop a software program adaptable to multiple clinic systems which aims to increase clinic efficiency and enhance sexual health testing. The process was undertaken over a 12 month period in 2010 and involved extensive consultation with clinicians and stakeholders.

Results: The program has four key elements: (i) passive prompts reminding clinicians when the next test is due based on the patient’s risk assessment profile, testing guidelines and clinic record of past testing; (ii) SMS-based recalls sent automatically to patients when testing is overdue; (iii) a sexual health resource tool bar on the GP’s computer desktop to provide partner notification websites, access to up-to-date educational information and referral systems; and (iv) a population reporting enhancement allowing practice staff to review their progress towards achievement of best practice.

Conclusion: This innovative clinical intervention addresses a range of important barriers to HIV/STI re-testing in a single information technology program. The system is currently being rolled out in Sydney and the impact of this intervention will be assessed by measuring the change in HIV/STI re-testing rates before-and-after the program. Interviews will also be conducted with clinic staff to assess barriers to testing, acceptability and transferability of the intervention.

UNDERSTANDING OF NORMS REGARDING SEXUAL PRACTICES AMONG GAY MEN: LITERATURE REVIEW

Background: The patterns of sexual behaviour among men who have sex with men (MSM) are influenced by the shared understanding of HIV/STI risk and risk reduction is more likely to occur if community norms regarding risk reduction are supported and accepted. Since there is little evidence about gay community norms in Australia, we reviewed published peer-reviewed literature in this area and discuss implications for prevention and research.

Methods: We conducted an extensive search of 7 databases for original peer-reviewed articles with a primary emphasis on norms and sexual practices among gay men as the subject matter and published after 1990. Articles that were published in languages other than English and those that did not include MSM as a population group were excluded. Each article was assessed by three reviewers.

Results: We found that 30 articles were considered suitable for the present review. Fourteen out of 30 articles mentioned the association between norms regarding sexual practices and the self-reported measure of actual practices; however, they did not measure or otherwise investigate the association. Remaining 16 articles were considered suitable for further analysis. All articles used quantitative methodology. Only seven of them were based on a previously published theoretical framework and were often methodologically more rigorous. All papers reviewed included between 1 to 5 items measuring norms and most of them examined norms on condom use. Norms about other risk and risk reduction practices were not explored.

Conclusion: The research to date exploring norms and sexual practices among gay men has been very limited. It is clear there is a gap in understanding how community norms about risk reduction affect actual practices of individual gay men.
WHICH MEN WHO HAVE SEX WITH MEN TEST FOR STIS AT A MARDI GRAS TESTING TENT?

Background: Sydney Sexual Health Centre (SSHC) provided an STI screening service for MSM at the Sydney Mardi Gras Fair day in 2010 and 2011. We compared clients at the Testing Tent (TT) to SSHC MSM attendees to determine if a high risk population was being reached, and in 2011, intentions to retest in clinical outreach settings.

Methods: Computer-assisted sexual interview, self collected swabs and urine, and syphilis point-of-care tests were provided at the TT. Sexual risk factors were compared between TT clients and all MSM attending SSHC as new clients in the preceding year. 2011 TT clients completed additional evaluation questions.

Results: 98 clients attended the TT (46 in 2010 and 52 in 2011). Compared to clients attending the SSHC, TT clients reported more male sexual partners (median 5 per 3 months vs 2 per 3 months p=<0.001), more injection drug use (10% vs 4% p=0.034), but were more likely to have previously tested for STIs (81% vs 68% p=0.028), and to use condoms consistently for anal sex (59% vs 43% p=0.01). Screening yielded 1 case of infectious syphilis, 2 rectal Chlamydia and 2 pharyngeal gonorrhoea. 46 (89%) of the 2011 TT clients reported increased likelihood of regular testing if outreach screening were available. However 19 (36%) were already planning to test in the next 3-6 months. The likely impact on testing practice was no different for men who had never previously tested (p=0.446), nor those with >5 partners in 3 months (p=0.274). All respondents indicated their experience had been positive or very positive.

Conclusion: Although TT clients were highly sexually active, they reported greater safe sex practices and testing habits than the general clinic population. Non-clinical testing facilities may increase the opportunities for men to test, but accessing higher risk men who do not engage in regular sexual health screening remains a challenge.

A COMMUNITY BASED, PEER DRIVEN APPROACH TO CAPACITY BUILDING SEXUAL HEALTH IN REMOTE ABORIGINAL COMMUNITIES IN CENTRAL AUSTRALIA.

Background: In the quest to achieve sustainable health outcomes for remote Aboriginal communities significant difficulties have been encountered in attaining reductions in Sexually Transmitted Infections (STIs). Current STI rates demonstrate the potential for HIV to spread rapidly within remote communities. The context is furthered in an environment where the retention of remote staff remains problematic; while conversely a significant contingent of Aboriginal community members, with diverse health skills and training remain under utilised.

Methods: An analysis of numerous peer based models throughout the world, both in developed and less developed settings. The models analysed employed peers in the delivery of clinical services aimed at improving access to sexual health information and treatment for hard to reach communities. Central to the success of the peer based model is that peer health workers are elected by the community through a process of authentic consultation. Clinical training occurs in a short time frame in a culturally informed manner. Peers are paid and respected as professionals by health clinician and health services. Peers are provided with access to continued adaptive professional development that reflects their unique environment.

Conclusion: This approach could facilitate a remodelling of remote health services and thus connect Aboriginal community members in appropriate sexual health engagements hallmarkd by cultural competency. The evidence of valuing community participation is profound and represented in the Ottawa charter where the participation of indigenous peoples is accepted as a priority. Traditional approaches to sexual health have failed to adapt to, or capitalise from, Aboriginal participation. Participation dramatically increases health when fostered by social and political commitments that value indigenous perspectives, control and governance. Actions designed to address the inequities in sexual health in the Aboriginal population in some part lie in our willingness to surrender our notion of expertise and capitalise on the strengths, wisdoms and culture of everyday Aboriginal life.
HEPATITIS B AMONG ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE – KEY SUB GROUPS

**Background:** Hepatitis B is a highly infectious disease with a number of transmission routes including contact with infected blood and body fluids. This paper systematically reviews studies which have estimated hepatitis B prevalence in Aboriginal and Torres Strait Islander (Indigenous) people.

**Methods:** The electronic databases were searched from 2000 to the end of March 2011. The MeSH search terms used were: “hepatitis B”, “Aboriginal and Torres Strait Islander”, “Indigenous”, “prevalence” and “Australia” and variations of these terms. Hepatitis B was defined on the basis of the presence of hepatitis B surface antigen.

**Results:** There were 19 studies reviewed and eight met the inclusion criteria. Four studies were conducted among pregnant women, one involved prospective testing of attendees at an Aboriginal Medical Service, three were audits and one analysed the Northern territory midwives dataset, the sample sizes ranged from 363-1221, and hepatitis B prevalence in Indigenous percent women compared to non-Indigenous pregnant women was found to be 5.5% vs 0.8%, 4.1% vs 1.1%, 3.2% vs 0.6% and 3.7% vs 0.98%, respectively. Three studies were conducted among prisoners (two in prisons, one in a juvenile justice centre), the sample sizes ranged from 101-709 and hepatitis B prevalence in Indigenous people compared to non-Indigenous people was 3.4% vs 1.1%, 3% vs 3% and in the third study 11% among Indigenous offenders. Two studies focused on youth, the sample sizes were 137 and 235, and hepatitis B prevalence was 13% in Indigenous teenagers.

**Conclusion:** This review demonstrates that hepatitis B prevalence is much higher in Indigenous than non-Indigenous people. Targeted prevention programs for pregnant women, prisoners and infants are needed and strategies focusing on training Aboriginal health workers to effectively deliver prevention messages to those at risk.

INDIGENOUS SEXUAL HEALTH EDUCATION IN ARNHEM LAND

**Background:** Yolngu, the Indigenous people of North-east Arnhem Land, have very high rates of sexually transmissible diseases (STIs), consistent with the overall rates in the Northern Territory (NT).

Within traditional Yolngu knowledge and culture, little conceptual understanding exists about ‘germs’ and their associated illnesses, nor about preventative measures for infectious diseases, including STIs. Current ‘safer sex’ health promotion campaigns often fail to address this adequately in the first language of Yolngu, instead relying on English which is a second language, thus limiting effective communication.

The Aboriginal Resource and Development Services (ARDS) Sexual Health Education Project, aims to improve sexual health through effective delivery of in-depth biomedical information in the first language of Yolngu, about causation, prevention and consequences of STIs.

**Methods:** Community adult and teenager education workshops are conducted in the languages of Yolngu. Dialogue based sessions involve scaffolding new biomedical information onto existing contemporary and traditional knowledge and aims to address knowledge gaps while respecting and incorporating cultural practices.

Initially, microscopes are used to show people live bacteria from their environment. Targeted education on STIs and HIV is then conducted based on this understanding of germ theory.

**Results:**
1. Discovery of key knowledge gaps and confusions among Yolngu about STIs and sexual health.
2. Discovery of concepts and language terms from Yolngu worldview that can help bridge the knowledge gap when conducting health education.
3. 34 community health education workshops conducted involving 145 people.
4. All participants reported an increase in understanding about STIs and safer sex practices.

**Conclusion:** Health education for Indigenous communities in the NT can be improved by using Indigenous languages and incorporating cultural understandings, so that in-depth biomedical information can be communicated which address key knowledge gaps about sexual health.

**Disclosure of Interests Statement:** The ARDS Sexual Health Education Project is funded by the Office of Aboriginal and Torres Strait Islander Health. There are no other interests to disclose.
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<td><strong>RISK SEXUAL BEHAVIOR AND KNOWLEDGE ABOUT HIV/AIDS AMONG THE INJECTABLE DRUG USERS IN A SELECTED CENTRE</strong></td>
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<td><strong>Karim MR</strong>&lt;sup&gt;1&lt;/sup&gt;</td>
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<td>1Department of Population Dynamics, National Institute of Preventive and Social Medicine (NIPSM) Mohakhali, Dhaka-1212, Bangladesh.</td>
</tr>
<tr>
<td><strong>Background:</strong> The whole world is now facing a threat to normal healthy life due to HIV/AIDS pandemic. It is a lifelong disease with no effective treatment and vaccine. Transmission of HIV occurs primarily by sexual contact and transfusion of infected blood. Risk group are the homosexual and heterosexual polyamous men, intravenous drug users, persons exposed to infected body fluids with HIV and children born to infected mother. Intravenous drug users have sex partners both commercial and non-commercial, they rarely use condoms and some sell blood. The purpose of this study is to explore risk sexual behavior and knowledge about HIV/AIDS among injectable drug users.</td>
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<td><strong>Methods:</strong> This descriptive cross sectional study was conducted among 200 patients. Data collection was done face to face interview by structured questionnaire.</td>
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<td><strong>Results:</strong> Study shows that total 27% respondents started to take drugs due to frustration, 23% as a result of unemployment and 19% due to peer pressure. Addicted with cannabis and buprenorphine were 18% and with pathedin 13%. Total 98% respondents had experience to take multiple drugs. Thirty four percent respondents did not use disposable syringe during taking drugs. It is evident that 80% respondents had experienced pre-marital history of sexual exposure. Only 17% respondents used condom always during sex with partners. The study revealed that 41% respondents had average knowledge about HIV/AIDS, followed by 40% had poor knowledge. Nineteen percent respondents had fair knowledge regarding cause, transmission, prevention of HIV/AIDS. The study shows that there is significant relationship between knowledge of HIV/AIDS and marital status of the respondents (p&lt;0.05).</td>
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<td><strong>Conclusion:</strong> The findings suggest that risk sexual behavior of the intravenous drug users is very devastating for the society as because they can acts as a bridge for transmitting AIDS. So, different program should be taken for the effective prevention and control of AIDS.</td>
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<td><strong>PAP SMEARS AMONG WOMEN IN RESIDENTIAL DRUG REHABILITATION</strong></td>
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<td><strong>Tilley DM</strong>&lt;sup&gt;1,2&lt;/sup&gt;, <strong>Hristov S</strong>&lt;sup&gt;1&lt;/sup&gt;, <strong>Sharp NC</strong>&lt;sup&gt;1&lt;/sup&gt;, <strong>Templeton DJ</strong>&lt;sup&gt;1,3&lt;/sup&gt;, <strong>O’Connor CC</strong>&lt;sup&gt;1,4&lt;/sup&gt;</td>
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<td>1Women’s Health Service, Community Health, Sydney and South Western Sydney Local Health Districts (SWSLHDs), NSW, Australia; 2RPA Sexual Health, Sexual Health Service, Community Health, Sydney and South Western Sydney Local Health Districts (SWSLHDs), NSW, Australia; 3The Kirby Institute, The University of New South Wales, Sydney, NSW, Australia; 4South Western Clinical School, The University of New South Wales, Sydney, NSW, Australia</td>
</tr>
<tr>
<td><strong>Background:</strong> Many women in residential drug rehabilitation services are being reviewed by sexual health clinics to assess risk of blood borne viruses and sexually transmissible infections. Some women also have Pap smears during these clinic visits. RPA Sexual Health has a clinic for women in residential drug rehabilitation in the local area. Publically funded Women’s Health Services prioritise a number of disadvantaged population subgroups - women with drug and alcohol addiction are not a specific target group.</td>
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<tr>
<td><strong>Methods:</strong> Data was analysed from January 2008-April 2011 from women in residential drug rehabilitation attending a specific RPA Sexual Health Clinic and compared with women attending a Women’s Health Clinic in a nearby area during the same period of time. Cytology results and rates of overdue pap smears were compared with the control group.</td>
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<td><strong>Results:</strong> In 40 months, Pap smear tests were performed on 85 women in residential drug rehabilitation services who attended RPA Sexual Health and 105 who attended the Women’s Health Clinic. High rates of Pap smear abnormalities and low rates of abnormal Pap follow-up have been observed among women from drug rehabilitation services. Data will be presented on differences in history of abnormal Pap smear results, prior treatment, overdue rates, and current Pap smear result between these two clinical populations.</td>
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<td><strong>Conclusions:</strong> Women in residential drug rehabilitation require women’s health services in addition to an assessment for risk of blood borne viruses and sexually transmitted infections. Aligning patient history taking from Women’s Health and Sexual Health Services would enhance future collaborative research.</td>
</tr>
<tr>
<td><strong>Disclosure of Interest Statement:</strong> Women’s Health Service and Sexual Health Service, Community Health, Sydney and South Western Sydney Local Health Districts, are funded by NSW Department of Health. No pharmaceutical grants were received in the development of this study.</td>
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</table>
## Are Heterosexual Injecting Drug Users Who Attend Sydney Sexual Health Centre at Higher Risk of STIs?

**Background:** People who inject drugs (PWIDs) are a marginalized population, who infrequently access health services for testing for HIV and sexually transmitted infections (STIs). Injecting drug use has also been associated with high risk sexual behaviors such as exchange of sex for drugs and high lifetime number of sexual partners. Injecting drug users are a priority population for sexual health clinics in New South Wales.

**Objective:** This cross sectional study of heterosexuals who attended the Sydney Sexual Health Clinic (SSHC) during the period of 1998-2008, estimated the prevalence and correlates of HIV and STIs among PWID when compared with those who had never injected.

**Results:** A total of 35,742 heterosexual men and women attended SSHC during the study period. Of these 1,225 (3%) reported injecting drug use at least once. Of these 531 (43%) reported injecting drug use in the past 12 months. A total of 309 (58%) of the recent injectors reported injecting at least daily. Recent and past injecting drug users were more likely to report sex work compared to those who had never injected (11%, 8% and 2% respectively, p<0.001); they were also more likely to be current smokers (57%, 46% vs 29%, p<0.001); 82% of the recent injectors reported to be single/never married compared to 71% and 76% in past injectors and never injected. Among the sexual risk behaviours, consistent condom use in last 3 months were significantly lower among PWID (13%, 15% vs 20%, p<0.001). However, STI prevalence were similar among the groups (6%, 5% and 7% respectively, p=0.133).

**Conclusion:** Although, prevalence of STIs were similar between PWID and non injecting heterosexual attendees of a sexual health clinic maintaining access to services for this population remains important. The inclusion of Injecting drug users as a priority population in state STI strategies should be reviewed.

**Disclosure of Interest Statement:** The Kirby Institute is funded by the Australian Government Department of Health and Ageing, and is affiliated with the Faculty of Medicine, University of New South Wales. No pharmaceutical grants were received in the development of this study.

## Empowering and Strengthening Pacific MSM Transgender Networks to Reduce Discrimination and Upholding Dignity

**Background:** New Zealand AIDS Foundation (NZAF) manages an international development programme with Pacific partners. Discrimination based on HIV status, sexuality and gender is damaging and a major contributor to the silence around the sexuality of men who have sex with men (MSM) and Transgender people and the correlating HIV risk behaviour.

**Methods:** The NZAF’s three year programme since 2009, of capacity building work focussed on improving sexual health, wellbeing and human rights of Pacific MSM/Transgender reducing stigma,discrimination against them. The Pacific partners are: Pacific Sexual Diversity Network (PSDN) Tongan Leiti Association (TLA) and Samoa AIDS Foundation (SAF).

**Results:** PSDN are implementing their strategic plan and developing the best model for the secretariat function. TLA have launched their new five year strategic plan and ongoing operational planning. SAF received advocacy and human rights technical assistance, peer education training and increased access to their sexual health services by the community.

**Conclusion:** Respecting and enabling community empowerment through soliciting champions who are influential and supportive such as the Tongan Royal Family and the Samoan Prime Minister.

More donor funding is needed to sustain operations, infrastructure and staff salaries for MSM/Transgender Organisations.

MSM/Transgender response needs more attention through the paradigm shift of Pacific Legislation to address stigma and discrimination.
### Poster Number: 234  
**Paper Number: 236**  
**Self-Perceptions of Male Clients of the Australian Sex Industry – How They Place Themselves Politically and Their Position Within the Context of the Sexual Contract**

**Caldwell H1, Hossain SZ1**  
1University of Sydney

**Background:** Modern discourse on the sex industry has been influenced by legal and cultural changes over millennia. Clients have been systematically demonised in the last 50 years. Most recent research on clients of sexual services is quantitative which does not offer a meaningful understanding of how this population conceptualises their experiences. Presented are the empirical results of analysis of narratives written by male clients outlining their personal perceptions about buying sex and sex workers.

**Methods:** Based on an interpretive phenomenological method of qualitative research this study analysed the unique experiences and perceptions of clients in a thorough description of the phenomena of buying sex. Internet advertising was used to attract self-selecting volunteers to participate in an anonymous on-line survey. 137 participants filled in a short questionnaire and wrote narratives of which 27 were suitable for final analysis. The major strength of the study was the unstructured approach which allowed participants to discuss their own issues and priorities.

**Results:** Each participant stated multiple motivations to buy sex such as seeking sexual variety, sexual intimacy and convenience; within the context of their own relationship status. The impacts of buying sex were not presented as positives or negatives but as: financial, physical, emotional, and social health effects. Participant’s discussed the influences of stigma and disclosure, and how they felt about – and treated sex workers, and the way in which they both reject and project the client stereotype.

**Conclusion:** This presentation represents clients of the sex industry in a true and valid way – devoid of stigma, discrimination and stereotypes. The results will be of interest to those who seek to understand sex industry clients such as clients, sex workers, and sex industry businesses, health professionals and to governing bodies and agencies with an interest in the sex industry.

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### Poster Number: 235  
**Paper Number: 683**  
**Implementing Sexual Health Orientation and Training Designed to Meet the Needs of Remote Area Health Professionals in the NT**

**Santi B1, Henaway F2, Davis A1, Borenstein M4**  
1Sexual Health and Blood Borne Virus Unit, Northern Territory Government, Darwin; 2Top End Remote Health, Tiwi Islands 3Centre for Sexual Health, Northern Territory Government, Alice Springs.

**Objective:** To produce a sexual health orientation package that is accessible, uniform and adaptable across the broader Australian remote context for the prevention and treatment of Sexually Transmitted Infections (STIs) in remote Aboriginal primary health care settings. The aim of this project is to build the capacity of remote clinicians in response to continued high levels of STIs experienced by NT Aboriginal populations.

**Methodology:** A working group was convened to develop a training schedule to reflect the outcome of a widely circulated training needs questionnaire. After a mix of teleconferences, face to face and online meetings a training package was developed offering a mix of interactive sessions, didactic training, case studies and role plays. A comprehensive course evaluation document was developed encouraging participants to evaluate the content, thus instigating a process of continuous quality improvement and evaluation.

With the objective that the package be accessible, flexible and meaningful in the remote context, other widely available and diverse training platforms were identified and included collaboration with extensive stakeholders. An online version of the course was also developed, markedly improving accessibility. Medical and nursing participants are eligible to accrue Professional Development Points to meet obligations required to maintain professional registration.

**Conclusion:** A process of authentic consultation and collaboration involving a broad range of stakeholders is essential when developing training and educational resources. An ongoing process of evaluation and adaptation must be maintained. The utilisation of emerging technologies to deliver training in conjunction with traditional face to face forums is essential to bolster accessibility and therefore equity.
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