ml) at diagnosis (2,574) than those reporting internet (6,275) or place (11,745) only venues.

Conclusions MSM meeting sex partners at both venue types may be at greater risk for HIV transmission based on number of sex partners, sex under influence of alcohol, and chlamydia infection. Lower viral load may suggest later diagnosis which increases transmission risk. Exploring this population may improve control strategies.

ASSOCIATION OF GENDER OF SEXUAL PARTNERS WITH WOMEN’S SEXUALLY TRANSMITTED INFECTION RISK

HS Harbison*, EL Austin, EW Hook, CM Mamy. Division of Infectious Diseases, University of Alabama at Birmingham

Background Previous data suggest that women who have sex with women and men (WSWM) have the highest STI risk compared to other female sexual behaviour groups. We compared risk behaviours and STI rates among women who have sex with women (WSW), WSWM, women with a single male partner (WSM), and women with multiple male partners. We hypothesised a continuum of STI risk with WSW having the lowest risk, followed by WSM with one partner, WSM with multiple partners, and WSWM.

Methods A secondary analysis of data from two studies of African American women evaluated at a Birmingham, Alabama STD clinic was performed. One study included exclusive WSW (n = 78) and WSWM (n = 85) during the preceding year while the other evaluated WSM (n = 91 with one male partner and n = 78 with multiple male partners) during this timeframe. All participants completed a questionnaire and were tested for STIs.

Results Groups did not differ by education, employment status, or recent alcohol/drug use. WSWM and WSM with multiple partners were more likely to report prior incarceration, transactional sex, and new/sexual partner (s) within the past month. Rates of chlamydia and gonorrhoea were significantly different across groups with WSWM more likely to have chlamydia and WSM and WSWM were more likely to have gonorrhoea. In contrast, WSW and WSWM were more likely to have trichomoniasis than WSM. With the exception of WSW (25%), HSV-2 seroprevalence was high (>50%) among all groups. WSWM and WSM with multiple partners were more likely to report condom use at their last sexual encounter than WSWM with single male partners and WSW.

Conclusion Among women attending an STD clinic, STIs were common in all groups however prevalence appears to vary in association with partner gender and number. Even in STD clinics, partner gender and number are important factors to consider in sexual health counselling.

Disclosure of interest statement Funding for original research was received from a Development Award from the American Sexually Transmitted Disease Association. No pharmaceutical grants were received in the development of this study.

THE LINK BETWEEN POPULATION SEXUAL BEHAVIOUR AND HIV PREVALENCE IN SUB-SAHARAN AFRICA

1,2,3 R Omori*, 4 H Chemaitelly, 2,3,4 L Abu-Raddad. 1 Hokkaido University; 2 Weill Cornell Medical College – Qatar; 4 Weill Cornell Medical College; 3 Fred Hutchinson Cancer Research Center

Introduction The patterns of sexual partnering and structure of sexual networks should shape HIV transmission in human populations. We examined the empirical association between population casual-sex behaviour and HIV prevalence, and the empirical associations between different measures of casual-sex behaviour.

Methods An ecologic study design was applied to the nationally-representative data of the Demographic and Health Surveys in 25 countries in sub-Saharan Africa. Spearman rank correlation was used to assess the association between HIV prevalence and the number of casual-sex partners. Spearman rank correlation was also used to assess the associations between the different means, different variances, and means and variances of the number of casual-sex partners.

Results Correlations between HIV prevalence and means and variances of the number of casual-sex partners were positive, large, and statistically significant. However, all correlations between the means, as well as variances, and the number of unmarried females were weak and statistically insignificant. Population casual-sex behaviour was not predictive of HIV prevalence across these African countries. Nevertheless, the strong correlations across means and variances suggest that self-reported sexual data are self-consistent and may convey credible information.

Conclusion Self-reported population sexual behaviour was not found predictive of HIV prevalence, but appears inherently self-consistent and with valid information content. Unmarried female behaviour seems puzzling, but could be playing an influential role in HIV transmission patterns.

Disclosure of interest statement No pharmaceutical grants were received in the development of this study.

ESTIMATION OF NON-COHABITING SEX PARTNERING IN SUB-SAHARAN AFRICA

1,2,3 R Omori*, 4 H Chemaitelly, 2,3,4 L Abu-Raddad. 1 Hokkaido University; 2 Weill Cornell Medical College – Qatar; 4 Weill Cornell Medical College; 3 Fred Hutchinson Cancer Research Center

Introduction Understanding the patterns of sexual partnering and structure of sexual networks is essential for understanding the epidemiological dynamics of sexually transmitted infections (STI) in human populations. This study aimed to develop an analytical understanding of non-cohabiting sex partnering in sub-Saharan Africa (SSA) by utilising nationally-representative sexual behaviour data.

Methods A non-homogenous Poisson stochastic process model was used to describe the dynamics of non-cohabiting sex. The model was applied to 25 countries in SSA and was fitted to Demographic and Health Survey (DHS) data. The country-specific means and variances of the distributions of number of non-cohabiting partners were estimated.

Results The model showed robust fits to the empirical distributions stratified by country, marital status and sex. The median across all country-specific means was highest for unmarried males at 0.574 non-cohabiting partners over the last 12 months, followed by that of unmarried females at 0.337, married males at 0.192, and married females at 0.038. The median of variances was highest for unmarried males at 0.127, followed by married males at 0.057, unmarried females at 0.003, and married females at 0.000. The largest variability in means across countries was...
for unmarried males (0.103 to 1.206), and the largest variability in variances was among unmarried females (0.000 to 1.994).

Conclusion Robust fits of our model to the empirical sexual behaviour data suggest that non-cohabiting sex partnering appears to be a random “opportunist” phenomenon. Unmarried individuals have larger means than their married counterparts, and males have larger means than females. Unmarried individuals appear to play a key role in driving heterogeneity in sexual networks and STIs epidemiology.

Disclosure of interest statement No pharmaceutical grants were received in the development of this study.

Abstracts

P04.12 FRONT-TO-BACK WIPE AND DABBING BEHAVIOUR WIPING POST-TOILET SIGNIFICANTLY ASSOCIATED WITH ANAL NEOPLASIA AND HR-HPV CARRIAGE IN A COHORT OF WOMEN WITH A HISTORY OF AN HPV-MEDATED GYNAECOLOGICAL NEOPLASIA

Steve Simpson1, Penny Blomfield2, Amanda Dennis, Sepheh Tabrizi3, Richard Tumer3, Menzies Institute for Medical Research, University of Tasmania, Hobart Australia; 1Gynaecologic Oncology, Royal Hobart Hospital, Hobart, Australia; 2School of Medicine, University of Tasmania, Hobart, Australia; 3Gynaecologic Oncology, Launceston General Hospital, Launceston, Australia; 4Department of Microbiology and Infectious Diseases, The Royal Women’s Hospital, Parkville, Australia; 5School of Medicine, University of Tasmania, Hobart Australia

Background Anal cancer is an HPV-mediated neoplasia of the squamous epithelium of the anus. A hitherto unexplained feature of anal cancer epidemiology is its much higher frequency among women, who comprise nearly two thirds of cases.

Methods Cross-sectional study of women with a history of an HPV-mediated gynaecological neoplasia in Tasmania, Australia. Women presenting for follow-up gynaecological care had anal swab samples taken for anal cytology by Hologic Liquid Thin-Prep and HR-HPV typing. Women with abnormal anal cytology were invited for high-resolution anoscopy (HRA). Covariates of anal outcomes evaluated by log-binomial and log-multinomial regression.

Results 163 women had anal swabs taken and comprised the study sample, of whom 40.0% had abnormal cytology (28.2% high-grade). Of the 50 women with abnormal anal cytology having an HRA, 64.0% had abnormal histology (26.0% high-grade). Of the 120 women having anal HPV typing done, 31.7% had HR-HPV carriage, the most common types being 51 (11.5%); 56 (6.7%, p = 0.002), Muslim (ARC: -16.5%, p < 0.001; SHS: -35.4%), p = 0.001) and Protestant (ARC: -2.3%, p = 0.023; SHS: -4.4%, p < 0.001) identifications had markedly lower SHL. Importantly, many of these associations persisted on adjustment for age, sex, sexual education and sexual experience.

Conclusions Our study substantiates the ongoing deficits in sexual health literacy among university students, as highlighted by prior research. Students’ literacy increased with sexual experience (ever sex, earlier age of sexual debut, partner number, diversity of sexual activity). Students in medical/nursing disciplines had the highest SHL.

Key message This study substantiates the ongoing deficits in sexual health literacy in some minority religious/ethnic/birthplace populations. This study is the first targeting university students in Australia, a varied cohort by SHL by sex, age, sexual education and sexual experience, as well as by birthplace and religious affiliation. These findings have applications in orientation and education programs at Australian universities.


Steve Simpson1, Christine Clifford2, Kaz Ross3, Neil Sefton, Louise Owen, Leigh Blizzard4, Kaz Ross3, 1Richard Tumer. 1Menzies Institute for Medical Research, University of Tasmania, Hobart Australia; 2School of Psychology, University of Tasmania, Hobart Australia; 3School of Humanities, University of Tasmania, Hobart Australia; 4School of Medicine, University of Tasmania, Hobart Australia; 5Sexual Health Service Tasmania, Tasmanian Department of Health and Human Services, Hobart Australia

Introduction/background/issues Evidence suggests a varied level of sexual health literacy (SHL) among university student populations. Accordingly, we evaluated the SHL among students at the University of Tasmania.

Methods Students were invited to complete an anonymous online questionnaire.

Results/discussions The study recruited 1,786 participants, or 8.2% of the student population, of similar composition to the general university population.

Female sex, older age, and sexual education and increased communication on sexual topics were significant predictors of literacy scores. Literacy increased with sexual experience (ever sex, earlier age of sexual debut, partner number, diversity of sexual activity). Students in medical/nursing disciplines had the highest SHL.

Compared to Australian/New Zealander students, overseas-born students had significantly lower ARC (-3.6%, p < 0.001) and SHS (-4.2%, p < 0.001), this driven by Malaysian, Indian and Chinese students. Compared to agnostic/atheist-identifying students, those of Buddhist (ARC: -5.4%, p = 0.014; SHS: -6.7%, p = 0.002), Muslim (ARC: -16.3%, p < 0.001; SHS: -13.4%, p = 0.001) and Protestant (ARC: -2.3%, p = 0.023; SHS: -4.4%, p < 0.001) identifications had markedly lower SHL. Importantly, many of these associations persisted on adjustment for age, sex, sexual education and sexual experience.

Conclusions/implications This study, one of the first targeting university students in Australia, found a varied SHL by sex, age, sexual education and sexual experience, as well as by birthplace and religious affiliation. These findings have applications in orientation and education programs at Australian universities.

Key message This study substantiates the ongoing deficits in sexual health literacy in some minority religious/ethnic/birthplace populations, suggesting some role for remedial sexual health education in university orientation programs may be appropriate.

P04.14 PREVALENCE AND CONSISTENCY OF OPINIONS ON SAME-SEX PARTNERSHIPS OVER 12 YEARS IN A NEW ZEALAND BIRTH COHORT

1J Connor, 2E Burgess, 3A Cresswell, 4A Righatts, 5N Dickson. 1Department of Preventive and Social Medicine, University of Otago, Dunedin, New Zealand; 2London School of Hygiene and Tropical Medicine, London, UK

Introduction/background/issues This study, one of the first targeting university students in Australia, found a varied SHL by sex, age, sexual education and sexual experience, as well as by birthplace and religious affiliation. These findings have applications in orientation and education programs at Australian universities.

Key message This study substantiates the ongoing deficits in sexual health literacy in some minority religious/ethnic/birthplace populations, suggesting some role for remedial sexual health education in university orientation programs may be appropriate.