

### P3.031 CONDOM USE AS A FUNCTION OF NEW YOUNG ADULT RELATIONSHIP DURATION

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**Objective** To find out how condom use in new relationships changes as a function of time, gender, as well as sexual and relationship satisfaction.

**Method** Participants in a larger study who reported at least one new partner during the 12-week study interval (N = 115; 18–29 yrs; 48% women; 75% African American) completed weekly STI testing and 3x/day electronic diary collection assessing individual and partner-specific affect, daily activities, sexual behaviour and condom use. We analysed event-level condom use percentage and subject-level behaviour response effects. Generalized Additive Mixed Models (GAMMs) were used to estimate condom use probability accounting for within-subject and within-nested-partners correlations via random effects.

**Results** The average initial condom use in the new relationships was 62% for men and 46% for women. The plotted smooth shapes of the estimated condom use probabilities fitted using GAMMs were qualitatively similar for both sexes throughout the study period. The initial high condom use percentage was followed by a sharp decline during the first 1.5 weeks to 19% for men and 14% for women. The condom use rates stabilised at around 6% after 4 weeks in a new relationship. Women who reported high levels of relationship satisfaction exhibited marginally significant negative association with condom use probability (p-value = 0.055). Sex satisfaction was not significantly associated with condom use when both the time trends and gender were taken into account.

**Conclusion** Condom use declines sharply for both males and females during the early stages of new relationships. Men use condoms more frequently than women in the early and middle stages of relationships. Relationship characteristics may also influence lower levels of condom use, especially among women.

### P3.032 EPIDEMIOLOGY OF SEXUALLY TRANSMITTED INFECTIONS IN TVER, RUSSIA

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**Background** Tver region belongs to the Central part of Russia, its territory is 84,200 km<sup>2</sup> with a population of 1,342,200 inhabitants, including the city of Tver populated by 406,918 inhabitants. The aim of this paper is for the first time to internationally present the epidemiological trends of STIs in the region.

**Methods** Site visits and yearly epidemiological reports of the Center.

**Results** The peripheral laboratories are poorly equipped and therefore the diagnosis of STIs is mainly concentrated to the Center of the Specialized Medical Aid in Tver. However, the long distances for specimen transportation and lack of appropriate transport system are large obstacles for providing effective diagnosis of STIs. In 2009, vaccination against human papilloma virus (HPV) was introduced into the prevention programme against cervical cancer in Tver. The epidemiological trends of the main STIs in the Tver region are

changing. A decrease in the incidence (cases per 100,000 inhabitants) of almost all STIs has been observed, namely during the years 2008 and 2012 the incidence of syphilis was 62.1 and 21.0, gonorrhoea - 42.5 and 19.2, genital chlamydial infection - 58.7 and 34.4 cases, *T. vaginalis* - 120.5 and 73.6, genital herpes - 8.1 and 6.5, and anogenital warts 21.1 and 16.6, respectively. Since introduction in 2009, 373 girls, aged 12–13 years, have been vaccinated for HPV.

**Conclusion** In Tver, Russia, the difficulties to reach the population in most need for testing is of major concern. The reported epidemiologic data is also suboptimal due to many reasons such as lack of appropriate diagnostic methods, frequent use of self-treatment (antibiotics available over the counter), and private laboratories and outpatient clinics do commonly not report STI cases to the authorities. Accordingly, it is imperative to optimise the laboratory diagnosis and epidemiological surveillance of STIs, and introduce evidence-based STI guidelines.

### P3.033 EPIDEMIOLOGY OF VIRAL STIS IN 2000–2011 IN RUSSIAN FEDERATION

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**Introduction and Objectives** To examine epidemiology of genital herpes simplex virus and human papillomavirus (HPV) during 2000–2011 in Russian Federation.

**Materials and Methods** Overview of national statistical surveillance data for 2000–2011 on STI.

**Results** In 2011 a total of 67834 newly diagnosed cases of viral STIs were reported in Russia, which corresponds to an overall rate of 47.5 cases including genital herpes simplex virus rate of 18.3 and human papillomavirus rate 29.2 per 100,000 population.

The age-specific genital herpes simplex virus rates in 2011 were as follows: 21.8 among those aged 18 years and older, 15.7 among those aged 15–17; whereas the age-specific HPV rates were 39.0 among those aged 15–17 versus 34.3 cases per 100,000 population among adults.

During 2000–2011 the total rates of genital herpes simplex virus remain constant (mean rate 19.8 ± 1.4 per 100,000 population). The total rates of HPV during the same period increase from 27.4 to 29.2 per 100,000 population with maximum reported rates of 34.7 in 2009.

During 2000–2010 the mean rate of genital herpes simplex virus among adolescents aged 15–17 was 9.5 ± 1.2 per 100,000 population; whereas significant increase of the rate (15.7 per 100,000 population) was observed in 2011. The mean rate of HPV among those aged 15–17 increased from 37.7 in 2000 to 39.0 in 2011 with the highest rates of 43.7 per 100,000 population reported in 2004.

**Conclusions** against overall 2.6-fold decrease of total reported STI rates in 2000–2011 in Russian Federation the rates of viral STIs remain generally constant except for the 1.7 fold increase of genital herpes simplex virus rate among adolescents aged 15–17 in 2011.

### P3.034 GENERAL PRACTITIONERS IN THE NETHERLANDS MISS OPPORTUNITIES TO TEST FOR STI/HIV DURING STI-RELATED CONSULTATIONS

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**Background** Whereas the majority of STI-related consultations in the Netherlands take place in general practise (GP), national surveillance of STI predominantly uses data from STI centres, focussing at trends in high-risk groups. To also explore determinants of STI in the GP setting, an STI questionnaire was introduced in a nationwide GP-network.

**Methods** Since 2008, GPs of the Dutch Sentinel GP network (45 practises; 125,000 patients) are asked to complete a questionnaire for each STI-related episode, comparable to data collection in STI centres, and report laboratory results. Data included patient demographics, sexual behaviour and sex-life history.

**Results** Annually, for 0.4% of GP patients an STI consultation was recorded, mainly among young heterosexuals of Dutch origin, a profile comparable to STI centre visitors, though specific high-risk groups like MSM and CSW were reported less by GPs. GPs requested one or more laboratory tests in 83% of consultations; an STI was diagnosed in 34%, most frequently chlamydia (21%), condylomata (9%) and herpes (6%). Higher risk profiles were, depending on the STI: < 25 years old (chlamydia), MSM (gonorrhoea/syphilis), ethnic minorities (gonorrhoea), > 25 years old (syphilis) or having symptoms (any STI). GP guidelines on multiple testing in high-risk groups (5 STI) were rarely fully adhered to, with many missed opportunities to test for HIV in patients with casual sexual contacts or originating from HIV-endemic countries.

**Discussion** STI consultation rates were lower than estimates based on electronic registers, probably due to underreporting. Patients who consulted a GP for STIs were comparable to persons attending STI-centres. Where STI-centres routinely test patients for chlamydia, syphilis, HIV and gonorrhoea, GPs test more selectively, resulting in higher case detection rates. This diverges from national GP guidelines and STI diagnoses may be missed. Opportunities for a more proactive role of GPs in STI and HIV testing should be explored.

### P3.035 PREVALENCE OF GENITAL MYCOPLASMAS AND BACTERIAL VAGINOSIS IN PREGNANT WOMEN IN GAUTENG, SOUTH AFRICA

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**Background** Bacterial vaginosis and genital mycoplasmas are reproductive tract infections that are associated with several infections and adverse pregnancy outcomes, such as pelvic inflammatory disease, preterm birth and spontaneous abortions in affected women. Bacterial vaginosis (BV), a polymicrobial condition, is reported to be prevalent in 15% to 20% of pregnant women while mycoplasmas colonise up to about 70% of sexually active women and antenatal patients.

**Methods** Self-collected vaginal swabs were obtained from 221 pregnant women. Bacteria vaginosis was diagnosed using the Nugent scoring system and a multiplex PCR assay was performed to detect genital mycoplasmas. *Mycoplasma hominis*, *M. genitalium*, *Ureaplasma urealyticum* and *U. parvum* were targeted, respectively, for the 16S rRNA gene, 140-kDa adhesion protein and the multiple-banded antigen genes.

**Results** The prevalence of bacterial vaginosis was 17.6% (39/221) with a total of 23.1% (9/39) of all BV-positive cases (score 7 to 10) being HIV positive. An intermediate grading according to the Nugent system (score 4 to 6) was given to 14.9% (33/221) of samples. *Ureaplasma parvum* was isolated from the majority of samples with a prevalence of 72.4% (160/221) followed by *M. hominis*, which was present in 50.7% (112/221) of all samples. The prevalence of *M. genitalium* and

*U. urealyticum* was 14.5% (32/221) and 2.3% (5/221), respectively. *Mycoplasma hominis* was detected in 75% (27/36) of all HIV positive cases with *U. parvum* also present in 75% (27/36) of these cases.

**Conclusions** The overall prevalence of genital mycoplasmas in antenatal patients was relatively high when compared to previous studies, while BV prevalence correlated with other reports. *Ureaplasma parvum* and *M. hominis* were notably present in HIV positive patients. The diagnosis of genital mycoplasmas and BV in pregnant women in HIV-prevalent South Africa is vital to allow early intervention and minimise complications, such as undesirable pregnancy outcomes.

### P3.036 GENITAL WARTS: DATA FROM THE ITALIAN GENERAL PRACTITIONERS

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**Background** Worldwide, several million cases of genital warts occur each year. The objective of this study was to estimate the incidence of genital warts (GW) in Italy, in a sample of the general population aged 15–64 years.

**Methods** A retrospective study was conducted in 2009 with the collaboration of 650 general practitioners (GPs), geographically representative of all Italian GPs.

Cases of GW were identified as follows: (1) individuals diagnosed with the ICD-9 code 078.11 (genital warts); or (2) individuals diagnosed with the ICD-9 code 078.10 (warts) who were prescribed podofilin/imiquimod treatment or were referred to a specialist (gynaecologist/dermatologist/urologist). Incidence was calculated using the number of persons included in the GPs lists as denominator. Individual data on age, gender, and area of residence were available.

**Results** The lists of the 650 GPs included 775,644 persons; their median age was 48 years, 52.7% were women. The incidence of GW was 0.44% (95% CI 0.39–0.49); specifically, 0.41% among men (95% CI 0.36–0.47) and 0.51% among women (95% CI 0.43–0.57). The highest incidence was observed among 25–34 year-old individuals (0.64%; 95% CI 0.52–0.78), for both genders. When stratifying by geographical area, the incidence was 0.40% in Northern Italy, 0.32% in Central Italy and 0.45% in Southern Italy.

**Conclusions** This is the first study to provide an estimate of the incidence of GW in the Italian population attending GPs. The incidence observed is similar to that reported by GPs in the UK (Desai S, 2011; Cassel JA, 2006). These results show that GPs can have a key role in preventing the spread of GW by providing early diagnosis and appropriate referral, especially among young persons, women and in persons living in Southern Italy.

### P3.037 HIGH PREVALENCE OF GENITAL WARTS AMONG YOUNG WOMEN IN ITALY

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**Background** Worldwide, several million cases of genital warts occur each year. The objective of this study was to estimate the prevalence and the incidence of external genital warts (eGW) in a sample of women attending gynaecological ambulatories and to estimate the number of women with eGW among women aged 15–64 years in Italy.