

## Epidemiology poster session 2: Population: Men who have sex with men

### P1-S2.34 STI-SURVEILLANCE WITHIN AIDS REFERENCE CENTRES IN BELGIUM - HIGH CONSISTENT STI INCIDENCE AMONG HIV-POSITIVE MEN HAVING SEX WITH MEN, 2008–2009

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**Background** The observation of STI in HIV-patients has triggered a STI-Surveillance in AIDS Reference Centres (ARC). The aim of this surveillance is to identify STI emerging in HIV-patients, to analyse STI-trends in this group and to describe patient characteristics.

**Methods** There are nine ARC in Belgium. The ARC are specialised in HIV-patient care, STI-consultation and treatment. Since April 2007, seven ARC participate in the surveillance. STI included are limited to *Chlamydia*, *gonorrhoea*, syphilis, *Lymphogranuloma Venerum* (LGV), hepatitis B (HBV) and hepatitis C (HCV) among men having sex with men (MSM).

**Results** In 2008, 6962 HIV-patients (36.8% women; 63.2% men) were followed and 7454 patients (35.7% women; 63.9% men) in 2009. The HIV-population under follow-up increased by 7.1% (8.3% in men; 4.7% in women). In 2008 as well as in 2009, 279 STI were reported among the HIV-patients. It concerns 250 men and two women in 2008 and 251 men and two women in 2009; 242 were MSM in 2008 and 244 in 2009 (96%). The finding observed in 2009, with 5.3% HIV-infected men presenting an STI vs 5.7% in 2008 prevails a lower incidence of STI. This decrease is not statistically significant ( $\chi^2=0.76$ ,  $a=0.38$ ). In 2008 as well as in 2009, 13 patients were diagnosed with more than 1 STI (4.6% of the STI patients). The most frequent STI was syphilis, with 171 cases (61% of STI diagnosis) in 2008 and 160 cases (59%) in 2009, of whom one woman; respectively 94% and 95% of the men were MSM. Chlamydia has been found in 30 men and two women in 2008 and in 28 men and one woman in 2009. LGV was confirmed in 12 men in 2008 and in 15 in 2009. Gonorrhoea was found in 29 men in 2008 and 32 in 2009. HBV and HCV were respectively diagnosed in 2 and 14 men in 2008 and in 7 and 17 men in 2009. All men reported with Chlamydia, LGV, gonorrhoea, HBV and HCV were MSM. 64% (2008) and 75% (2009) of the homosexual men with STI mentioned having multiple partners.

**Conclusions** The surveillance in 2008 and 2009 confirms an STI-problem among HIV-infected MSM. These results highlight unsafe sex behaviour among MSM, also reflected by the high proportion of MSM reporting multiple partners. HIV-positive MSM are particularly vulnerable for syphilis. The incidence of LGV and HCV among HIV-positive men should be followed closely and an adaptation of the international screening policy for LGV and HCV is needed. Chlamydia patients belonging to high risk groups should be tested for the LGV variant.

### P1-S2.35 INCREASED HIV AND PRIMARY AND SECONDARY SYPHILIS DIAGNOSES AMONG YOUNG MEN WHO HAVE SEX WITH MEN, 2004–2008

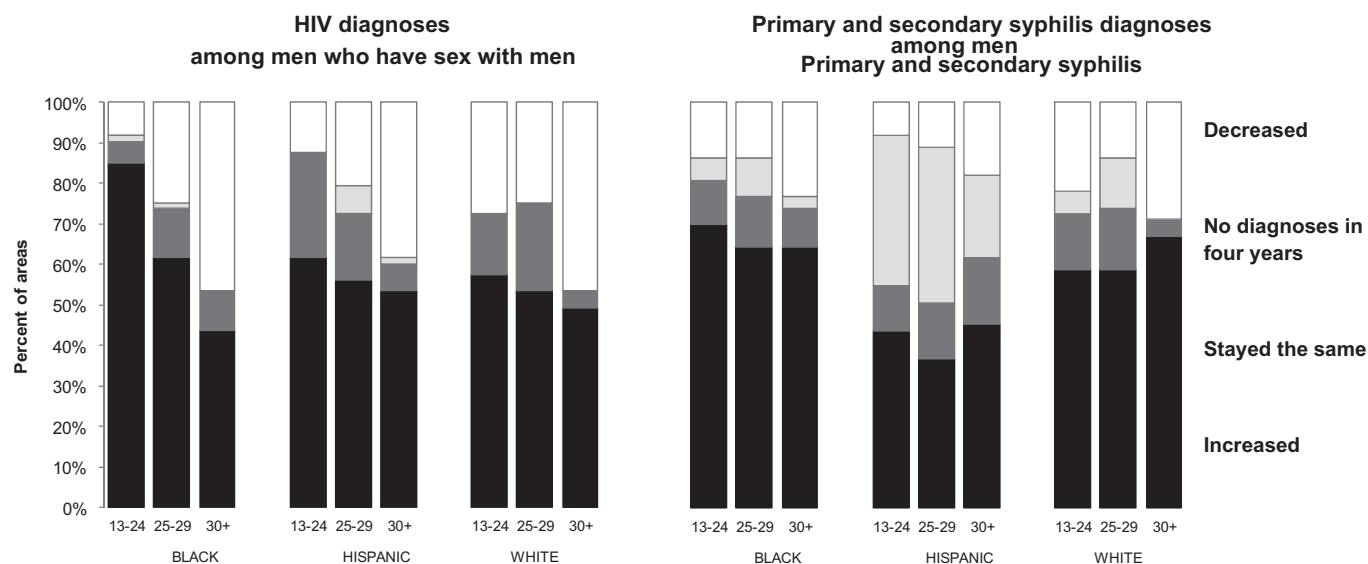
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**Background** National surveillance data document increases in HIV and syphilis diagnoses in young black men who have sex with men (MSM), but trends could be driven by increases in a few large areas. We assessed the extent to which metropolitan areas of varying population sizes have reported increases in HIV diagnoses among MSM and in syphilis diagnoses among men.

**Methods** We examined trends in HIV and primary and secondary syphilis case report data in metropolitan areas with greater than 500 000 people, at least 500 black men aged 13–24 years, and with mature HIV reporting systems as of 2004 ( $n=73$ ). We compared the average number of case reports in 2004–2005 and 2007–2008 and examined differences by age at diagnosis (13–24 years, 25–29 years,  $\geq 30$  years), race/ethnicity (white, black, and Hispanic), and area population size (500 000–999 999, 1 000 000–2 499 999, and  $\geq 2 500 000$  persons).

**Results** Among MSM aged 13–24 years, observed increases in HIV diagnoses were larger among blacks (average percent increase=68.7%) compared with Hispanics (36.7%) and whites (41.7%). Increases in HIV diagnoses were observed in more areas for black MSM aged 13–24 years (85% of areas) than for Hispanic MSM aged 13–24 years (62% of areas), or white MSM aged 13–24 years (58% of areas), or older MSM of any race/ethnicity (range=44%–62% of areas). (Abstract P1-S2.35 figure 1) Among men aged 13–24 years, primary



Abstract P1-S2.35 Figure 1 Change in average diagnoses of HIV among men who have sex with men and primary and secondary syphilis among men comparing 2004–2005 with 2007–2008, by age and race/ethnicity - selected areas ( $n=73$ ). Increased HIV and Primary and Secondary Syphilis Diagnoses among Young Men Who Have Sex with Men, 2004–2008.

and secondary syphilis diagnoses increased on average 203.5% among blacks, 99.7% among Hispanics, and 43.7% among whites, and increases were observed in more areas for blacks (70% of areas) than for Hispanics (44% of areas) or whites (59% of areas). (Abstract P1-S2.35 figure 1) The majority of areas (63%) had increases in both HIV and syphilis in black men aged 13–24 years. Across area size strata, the youngest group of black men had the highest average percent increase in diagnoses of HIV and syphilis as well as the highest percentage of areas with increases in diagnoses.

**Conclusions** HIV and syphilis diagnoses have increased among young black men in almost all areas, suggesting that national trends are not driven by increases in a few large areas. Findings highlight the need for improved prevention efforts for young MSM, particularly young black MSM.

### P1-S2.36 PREVALENCE AND RISK FACTORS OF HSV-2 INFECTION AMONG MEN WHO HAVE SEX WITH MEN IN CHINA

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**Background** HIV prevalence among MSM is high, and epidemiological surveys have confirmed that HSV-2 infection can increase the risk of HIV infection and that HIV seroconversion is closely related to HSV-2 infection. In spite of high prevalence of HIV in MSM and strong association between HSV-2 infection and HIV seropositivity, there have been few studies about the prevalence of HSV-2 among MSM in China. To prevent the spread of HIV among this high risk population, there is an urgent need to investigate the HSV-2 prevalence and potential demographic and behavioural risk factors among MSM in China.

**Methods** A total of 1462 men who have sex with men were randomly selected from three regions (Changzhou, Guangzhou and Shenzhen) in China. Sera were tested to estimate the prevalence of HSV-2 (ELISA for the detection of HSV-2 type specific IgG) and HIV (ELISA for screening and WB for confirmation), while univariate and multivariate logistic regression analyses were used to estimate the degree of association between HSV-2 infection and potential demographic and behavioural risk factors. Results—The prevalence of HSV-2 antibodies was 16.0% (234 out of 1462). Factors independently associated with higher prevalence of HSV-2 antibodies were—age, educational level, exchange of sex for money and HIV status (see Abstract P1-S2.36 table 1).

Abstract P1-S2.36 Table 1 Multivariate analysis of risk factors associated with HSV-2 seropositivity among 1462 MSM in China

Characteristic	AOR (95% CI)	p Value
Age		
≤30	1	
>30	1.988 (1.426 to 2.771)	<0.05
Educational level		
0–9 yr	2.247	
9–12 yr	1.479 (1.520 to 3.321)	<0.05
>12 yr	1 (1.020–2.144)	<0.05
Exchange of sex for money		
Sometimes	1	
Never	0.583 (0.407 to 0.835)	<0.05
HIV status		
Positive	2.763	
Negative	1 (1.850 to 4.128)	<0.05

**Conclusions** The high prevalence of HSV-2 among MSM and strong association between HSV-2 infection and HIV seropositivity

suggests the urgent need for intervention to prevent HSV-2 and HIV infections in high-risk MSM in China.

### P1-S2.37 INCIDENCE OF URETHRAL DISCHARGE SYNDROME AMONG MEN WHO HAVE SEX WITH MEN AND ASSOCIATED RISK FACTORS IN INDIA; A COHORT ANALYSIS OF CLINIC ATTENDEES

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**Background** Monitoring data from a cohort of men who have sex with men (MSM) attending 421 clinics located in six states of India from January 2004 to December 2009 were studied. These clinics were supported by Avahan (the India AIDS initiative of the Bill & Melinda Gates Foundation) and provided services for sexually transmitted infections (STIs) including presumptive treatment for gonorrhoea and chlamydia; risk reduction counselling, treatment of STI syndromes and regular STI check-ups.

**Methods** Individual tracking data from the clinical forms were collected, merged and cleaned. Observed episodes of urethral discharge (UD) were counted as incident cases when clinical record prior to the episode reported no UD or if the patients had received the clinics' standard single dose directly observed treatment. The mid-point between visits was considered as the time of incident UD. Cox proportional hazard models were used to assess associations between incidence of UD and reported behaviours.

**Results** A total of 82 690 MSM made 508 469 visits to the clinics, constituting a cohort of 88 458 person-years (median duration of follow-up 0.86 years; maximum, 5.9 years). 7292 cases of UD were considered as incident giving an incidence rate (IR) of 8.2 per 100 person years (PYs). The IR decreased from 82.7 per 100 PYs in 2005 to 2.8 per 100 PYs in 2009; the first year of follow-up having the highest incidence (HR = 1.5,  $p < 0.001$ ). Factors influencing the risk of UD were—number of years in commercial sex; the first year being the most risky, (HR = 4.3,  $p < 0.001$ ); having more than ten clients per week (HR = 1.6,  $p < 0.001$ ); not using condoms at last sex (HR = 2.3,  $p < 0.001$ ); self-reported sexual identity of a penetrative role in anal sex (HR = 1.4,  $p < 0.001$ ), and not receiving treatment in the first three clinic visits, (HR = 2.8,  $p < 0.001$ ). Increasing frequency of clinic visits per year had a protective role (HR = 0.9,  $p < 0.001$ ). MSM visiting the clinics more than five times a year had an IR below 1 per 100 PY. While one-time presumptive treatment increased the risk of UD (HR = 3.2,  $p < 0.001$ ), there were no episodes of UD when the treatment was given at more than one consecutive visit.

**Conclusion** Urethral discharge syndrome among MSM shows a decline and could be a good proxy to include in future STI surveillance in resource-constrained scenarios. An analysis of MSM risk behaviour in India can help in risk profiling for targeted interventions.

### P1-S2.38 A SITUATIONAL ANALYSIS OF MSM AND HIV AT AAS'S CENTRE OASIS IN BURKINA FASO

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**Introduction** In Burkina Faso at the end of 2008, the AIDS pandemic was characterised by a drop in HIV prevalence rates during the preceding years. In contexts in which a reduction in HIV prevalence is observed, the epidemic tends to be concentrated among certain