

**S05.2 ADOLESCENT CHLAMYDIA RATES ADJUSTED FOR SCREENING HETEROGENEITY**Lizzi Torrone\*. *Centers for Disease Control and Prevention, Atlanta, USA*

10.1136/sextrans-2015-052270.36

After chlamydia became a nationally notifiable condition in the United States, reported case rates increased steadily, likely a result of more complete reporting, expanded screening efforts, and use of more sensitive diagnostic tests. Reported case rates of chlamydia are highest among young women, a consequence of high prevalence in this population (as evidenced by estimates from national population-based surveys) and of targeted screening efforts (current guidelines in the United States recommend screening for all sexually active females aged <25 years). However, after a decade of increasing reported case rates, case rates have recently declined among adolescent women aged 15–19 years: during 2001–2011, case rates increased 49.8% (2,327 to 3,485 per 100,000 females) and then decreased 15.1% during 2011–2014 (3,485 to 2,960 per 100,000 females). We explored possible reasons for decreases in chlamydia case rates among adolescent females using available national data and highlight how decreases in screening coverage among key populations may be impacting reported case rate trends.

**S05.3 CALCULATING RISK AMONG MEN WHO HAVE SEX WITH MEN**Kyle Bernstein\*. *Centers for Disease Control and Prevention, Atlanta, USA*

10.1136/sextrans-2015-052270.37

In the United States (US) in 2013, men who have sex with men (MSM) accounted for 75% of reported primary and secondary syphilis and over 80% of new HIV diagnoses. However, describing trends in MSM disparities are challenging. Few estimates of the size of the population of men who have sex with men (MSM) in the US exist. The National Survey of Family Growth (NSFG) is a probability sample of American men and women aged 15–44. We used the weighted proportion of males surveyed during the 2006–2010 cycle of NSFG who reported having ever had sex with men to estimate the population prevalence of MSM in the US; racial/ethnic and age specific were also developed. We estimated the population of MSM by applying the proportions of men who reported ever having sex with a man from NSFG to the 2010 census estimates of the number of men 15–44. Rates of primary and secondary (P&S) syphilis among MSM were calculated by dividing the number of reported P&S syphilis cases among MSM by the estimated US MSM population. Age and racial/ethnic rates were also estimated. Among the 10,403 males participating in the 2006–2010 NSFG cycle, the proportion who reported ever having sex with a man was 5.1%; we estimated 3.2 million MSM aged 15–44 in the US. By applying metrics from a national probability sample of males, we were able to estimate conservative rates of P&S syphilis among important sub-populations of MSM. However, numerous challenges exist to developing robust MSM population-based estimates of disease burden including how to determine the gender of sex partners on male case reports for syphilis, chlamydia, gonorrhoea, and HIV and the estimation of sub-population specific denominators (e.g. racial/ethnic groups) for MSM.

**S05.4 POTENTIAL INCONGRUITIES IN RELATIVE MEASURES OF DISPARITIES IN SEXUALLY TRANSMITTED DISEASES**Harrell Chesson\*. *Centers for Disease Control and Prevention, Atlanta, USA*

10.1136/sextrans-2015-052270.38

Sexually transmitted infections (STIs) in pregnancy prevalent in many resource limited settings are associated with adverse pregnancy outcomes that include spontaneous abortion, stillbirths, preterm rupture of membranes, premature delivery and postpartum endometritis.

Antenatal clinic attendance provides opportunity to screen the women for STIs, offer prompt treatment for curable STIs or prophylaxis for viral infections such as HIV and to promote prevention. Although routine screening for syphilis and HIV is recommended as part of antenatal care (ANC), optimal screening rates have not been achieved. This is due antenatal clinic non-attendance, non-availability of screening tests and where available, health system inefficiencies such long wait time before test results are available or need for women to make return visits to receive results. Use of point-of care tests that detect syphilis and HIV have been shown to increase the number of women tested for HIV and syphilis, are inexpensive, easy to use and do not require a sophisticated laboratory. In resource limited settings, prompt detection and treatment of the other STIs is hampered by lack of screening tests. Often, health providers rely on syndromic approach to diagnose and manage STIs. This approach alleviates the need for laboratory services but misses women with asymptomatic infections and has poor diagnostic performance. Pregnant women with STIs are at an increased risk of acquiring HIV and transmitting the infection to their infants. Increased availability of HIV testing and provision of effective PMTCT regimens has dramatically reduced the number of new paediatric HIV infections. However, STIs, apart from HIV, have not been viewed as a public health priority and adequate resources allocated to combat them. To optimise maternal and infant outcomes, there is need to prioritise development of low-cost tests to detect STIs during pregnancy and to ensure women are provided with effective treatment promptly.

**S05.5 NETWORK FORMATION AS A DETERMINANT OF SPATIAL DISPARITY**Ian Spicknall\*, HW Chesson, CG Patel, TL Gift, KT Bernstein, SO Aral. *Centers for Disease Control and Prevention, Atlanta, USA*

10.1136/sextrans-2015-052270.39

**Introduction** Racial disparities in the burden of sexually transmitted disease have been documented and described for decades. Several disparity measures, such as the black-to-white rate ratio, the Index of Disparity (ID), and the Gini coefficient, have been used to quantify disparities in STDs. Although these measures are generally useful and informative, in some scenarios the results of these measures may seem incongruous with reasonable, practical assessments of disparity. The purpose of this study was to provide examples of such incongruities in the context of racial disparities in STDs.

**Methods** We examined a population consisting of 312.5 million people overall, with 200 million non-Hispanic Whites, 40 million non-Hispanic Blacks, 55 million Hispanics, 15 million Asian/Pacific Islanders, and 2.5 million American Indian/Alaskan Natives (AI/AN), similar to the actual US population. Case numbers of a hypothetical STD for each racial group were chosen