proportion of ZIKV cases due to sexual transmission: 0.03 (95% CI: 0.001–0.46) and 0.23 (0.01–0.47). One publication about possible sexual transmission of West Nile virus has been identified so far.

**Conclusion** Sexual transmission of ZIKV can occur but is likely not sufficient to sustain an epidemic. In high risk groups with frequent sexual partner change, it might contribute more to secondary transmission. We are tracking this fast-moving research field in a living systematic review to fill gaps in the evidence about the risks and prevention of sexual transmission of flaviviruses.

**Oral Presentation Session 15**

**STI/HIV Testing and Management**

**015.1 EXAMINING THE ROLE OF LOCATION IN STI PREVENTION AMONG MEN WHO HAVE SEX WITH MEN USING MOBILE APPLICATIONS**

Joshua G. Rosenberg, Nathan E. Jones, Daniel S. Novak, Penn State University, University Park, USA; OLB Research Institute, Cambridge, USA

**Introduction** Due to the disproportionate impact of HIV on men who have sex with men (MSM), public health messaging encourages routine STI and HIV screening among this population. While STI testing services are often situated within high prevalence areas, providing accurate population estimates of MSM, and their subsequent movements, remains limited. This study sought to explore the relationship between STI clinic locations and operating hours and real time locations of MSM using mobile applications.

**Methods** Using global positioning system (GPS) coordinates, location data were collected over a 7 day period from MSM in a mid sized US city who used a mobile phone application for the purpose of engaging in social and sexual interactions with other men. Data points were collected hourly for all men online, including their GPS position and self reported profile demographics (i.e. race/ethnicity and age). Aggregated data points were plotted onto a map of the city along with the position of Health Department STI testing locations.

**Results** Data were collected from a total 5083 individual men. Young men accounted for nearly half of all participants, with 45.4% indicating they were between the ages of 18–24% and 54.6% being 25 years of age or older. Ethnicities included Latino (49.1%), white (30.4%), African American (6.4%), and Other (14.1%). During a 24 hour period 85.3% of all online activity occurred between 7pm and 7am, with 8pm being the hour of the day in which the most people were online (22.9%). The median distance between an individual and a STI activity occurred between 7pm and 7am, with 8pm being the hour of the day in which the most people were online (22.9%). The median distance between an individual and a STI clinic was 3.8 miles. Latino and African American men and those under the age of 25 were significantly more likely to be farther away from STI testing services than men who were White or older (p<0.05).

**Conclusion** Findings highlight location differences among MSM based on age and race, and suggest the need to further explore how these differences influence MSM sexual health. Additional examination of the integration of real time GPS data into STI prevention programing is warranted.

**015.2 FINDINGS FROM THE NATIONAL ONLINE HIV SELF-SAMPLING SERVICE IN ENGLAND: A NATION-WIDE JOINED APPROACH TO INCREASE HIV TESTING ACCESS AMONG MOST AT-RISK POPULATIONS**

Luis Guerra, Louise Logan, Tim Alston, Noel Gill, Anthony Nardone, Public Health England, London, UK; Preventx, Sheffield, UK

**Introduction** Higher effectiveness in HIV testing programmes is needed in order to achieve the WHO target of diagnosing 90% of people living with HIV. Based on the success of two national pilots, Public Health England (PHE), with the support of four Local Authorities, launched a nation-wide HIV self-sampling service for most at-risk populations for HIV acquisition in November 2015. This service delivers reactive results through a community organisation that provides emotional support while linking individuals into the clinical pathway for confirmatory testing and care. Self-sampling is distinct from self-testing in which the individual performs the test themselves and receives the results there and then. The aim of this analysis was to determine who is accessing the service and whether it reached most at-risk groups (including MSM and Black African communities) and first-time testers.

**Methods** Disaggregated anonymised data was collected from all service users requesting a HIV self-sampling kit from the national service (www.freetesting.hiv). Data included ethnicity, gender, sexual orientation, local authority residency, and HIV testing information from 28,657 service users between 11 November 2015 and 31 December 2016. **Results** During this time period there were 55,726 kits ordered of which 52.5% (n=29,233) were returned. 28,657 kits were tested with a 1.1% reactive rate (n=311); 67% (n=19079) of users returning their kits, reported never testing or testing over a year ago. 74% of kits tested were from MSM (n=21,309) with 1.4% reactive rate (n=291) of kits tested by heterosexuals (n=6,689), 50% (n=3,316) were from ethnic minority communities showing a reactivity rate of 1.3% (n=43).

**Conclusions** The service has been successful at engaging most at-risk populations for HIV acquisition. Service users in their majority were different from those attending clinical settings as reported in the high numbers of first time testers and those not testing regularly. A joined commissioning model allowed for a cost-efficient service that increases access to testing for those in higher need.

**015.3 COST-EFFECTIVENESS OF ANTIMICROBIAL RESISTANCE POINT-OF-CARE TESTING FOR OPTIMISING THE TREATMENT OF GONORRHOEA**

Emma Harding-Esch, Susie E Huntington, Mike Harvey, Claire E Broad, Elisabeth J Adams, Tarin Sadique, Applied Diagnostic Research and Evaluation Unit, St George's University of London, London, UK; Aquarius Population Health, London, UK

**Introduction** Antimicrobial resistance (AMR) threatens successful *Neisseria gonorrhoeae* (NG) treatment and WHO recommends specific NG treatments be used only if ≤5% circulating strains are resistant to them. Ceftriaxone plus azithromycin dual therapy, currently recommended, has few practical alternatives should ceftriaxone resistance become widespread, and azithromycin use is undermined also by AMR emergence.