O09.5 HEPATITIS C INCIDENCE RATE AMONG PEOPLE WHO INJECT DRUG (PWID) IN BRITISH COLUMBIA FROM 2000 TO 2015

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Background Global Health Sector Strategy on Viral Hepatitis aims to reduce new hepatitis C virus (HCV) infections by 80% by 2030. However, countries lack systems to monitor incidence of HCV. We estimated the HCV incidence over time among people who inject drugs (PWID) at population level to provide proof of concept for incidence monitoring.
Methods This study utilized data from the BC Hepatitis Testers Cohort (BC-HTC). Incidence was defined as a positive anti-HCV, RNA, or genotype test following a negative anti-HCV test among PWID, assessed based on a previously validated algorithm using administrative data. Annual incidence rates for HCV primary infection from 2000 to 2015 were estimated using a log-binomial regression model and were stratified by birth cohorts (<1965, 1965–1974, >1974) to observe change in risk over time. Adjusted incidence rates (aIR) were calculated controlling for risk factors.
Results Of the 42,568 participants identified, 4,066 HCV seroconversions occurred over 318,613 person-years (PY) of follow-up. The overall incidence rate was 1.28/100PY. Between 2000 and 2011, the annual aIR decreased steadily from 4.01 to 1.00/100PY. The aIR then rose to 1.49/100PY in 2015. Factors associated with elevated risk of infection include: younger birth cohort (1965–1974: RR:1.9, 95%CI: 1.02,3.6), history of illicit opioid use (RR:2.5, 95%CI: 2.3,2.7), stimulant misuse (RR:1.77, 95%CI: 1.7,1.9), HIV coinfection (RR:3.6, 95%CI: 3.1,4.1), HBV coinfection (RR:1.9, 95%CI: 1.6,2.2), material deprivation (RR:1.5, 95%CI: 1.4,1.7) and social deprivation (RR:1.6, 95%CI: 1.4,1.8).
Conclusion A slight increase in HCV incidence rate since 2011 was mainly driven by the younger birth cohort and introduction of enhanced testing in 2010. People with HIV or HBV coinfection, opioid and stimulant misuse, social and material deprivation are at higher risk of HCV infection. HCV treatment and prevention programs need to address comorbidities and include harm reduction strategies like opioid substitution therapy and access to social services to achieve HCV elimination goals.
Disclosure No significant relationships.

O09.6 DEVELOPMENT OF AN INTEGRATED DATA MART FOR SURVEILLANCE OF SEXUALLY TRANSMITTED AND BLOODBORNE INFECTIONS (STIBBI)

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Background Routine surveillance for sexually transmitted and bloodborne infections (STIBBI) are generally based on case reports. Additional data sources are needed to understand STIBBI syndemics, such co-infections, testing patterns, and timing of infections. We developed a STIBBI Data Mart that integrates laboratory and case information to better understand the context of STIBBI.
Methods In British Columbia (BC), Canada, the BC Centre for Disease Control Public Health Laboratory (BC-PHL) performs about 30% of all chlamydia/gonorrhea and >95% of all syphilis, HIV, and hepatitis C (HCV) tests. These data were integrated with case reports of all STIBBI into a STIBBI Data Mart using a probabilistic patient matching algorithm based on first name, last name, date of birth, sex, and provincial health number. Testing episodes were created to account for multiple tests related to the same disease event (e.g. anti-HIV, p24, and Western Blot testing) based on clinical input and testing pattern analysis. Additional algorithms were developed and applied to improve geographic attribution and flag tests performed as part of prenatal care.
Results The STIBBI Data Mart now produces indicators for co-testing and co-infection (e.g. HIV/HCV, HIV/syphilis) and testing patterns (e.g. HCV incidence among repeat testers, time since last negative HIV test for new diagnoses, syphilis screening during pregnancy) that could not previously be reported and which have become standard indicators.
Conclusion Indicators from the STIBBI Data Mart improve understanding of syndemics and better characterize subpopulations for optimal follow-up and care. Work is currently underway to integrate additional data sources that make up the balance of STIBBI tests to allow for monitoring at the population-level.
Disclosure No significant relationships.

O10 – GETTING REAL WITH IMPLEMENTING PREP 2

Tuesday, July 16, 2019 4:15 PM – 5:45 PM

O10.1 HIV PRE-EXPOSURE PROPHYLAXIS (PREP) INDICATIONS AND UPTAKE VARY BY RACE, GENDER, AND INSURANCE IN A LARGE CLINIC NETWORK

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Background Providers face challenges identifying patients to benefit from PrEP, while disparities remain in PrEP access. We examine gaps in identification of PrEP candidates, uptake, and use of PrEP by populations at high HIV risk within a large federally qualified health center with a lesbian/gay/bisexual/transgender/queer (LGBTQ) focus.
Methods An established PrEP:Need ratio was calculated to examine differences in PrEP use across race, age, gender, and insurance. Two new measures were developed to determine gaps in identifying candidates and uptake - Identification:Need and PrEP:Identification. Patients were identified through electronic health records who had a documented indication for PrEP according to CDC guidelines, whether patients had a

PrEP prescription, and if they seroconverted, from 2015–2018.

Results Over 50,000 unique patients were included, with median age 30.5; patients were 48% White, 47% men who have sex with men (MSM), and 7% transwomen. Overall, there were 14.6 patients on PrEP for each incident HIV infection (PrEP:Need). PrEP:Need was 24.5 among White patients, compared to 6.6 among Black patients. PrEP:Need was low for Medicaid/Medicare patients (7.9), transwomen (10.0), and particularly Black transwomen (4.6). Low PrEP:Need ratios were usually driven by low Identification:Need ratios, with large differences: among MSM, 23.2 patients were indicated for PrEP per incident infection compared to 7.2 among transwomen. Uptake, measured by PrEP:Identification ratios, were lowest among patients without insurance and highest among those with private insurance.

Conclusion We found high variation in PrEP:Need ratios across race, gender, and insurance status. This may be due to a poor fit between current PrEP indications and actual HIV incidence in key populations; there may also be gaps in patient-provider communication and documentation of PrEP indications in certain populations. We also found evidence of barriers to uptake, particularly related to insurance status. We will discuss ways to improve PrEP detection and uptake, which attendees can apply to their practice.

Disclosure No significant relationships.

O10.2 IMPACT OF HIV-PREP FOR FEMALE SEX WORKERS ON COMMUNITY-WIDE AWARENESS, UPTAKE, AND PERCEPTIONS IN A RURAL-AREA KWAZULU-NATAL

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10.1136/sextrans-2019-sti.159

Background Between 2016–2018 a targeted roll-out of pre-exposure prophylaxis (PrEP) for 15–24-year-old female-sex-workers (FSW) was conducted in a sub-district of rural KwaZulu-Natal, South Africa where antenatal HIV-prevalence is 40%. We use an HIV-prevention cascade framework to understand how implementation impacted the first two steps at a population-level, i.e. demand for, access to and community members' attitudes towards PrEP.

Methods We conducted participatory community mapping of four purposively sampled communities and enrolled a representative nested cohort of adolescent girls and young women (AGYW) aged 13–22 in 2017–2018. We conducted group discussions (14), key-informant interviews (9), in-depth interviews (94) and participatory observations (4). All interviews were recorded, transcribed and analysed using thematic content analysis.

Results Among n=2184 AGYW in the nested cohort, n=965 reported being sexually active, of whom 13.4% reported transactional-sex and 10.6% sex-for-money (therefore PrEP-eligible). PrEP awareness significantly increased from 2% in 2017 to 9% in 2018 (p<0.001). Among PrEP-eligible AGYWs (n=194), 11.3% were aware of, and <1% had used PrEP. Interview respondents were generally unaware of PrEP but imagined it would benefit young people, discordant couples and those with long-distance partners. Condoms were described by young people as undesirable, *'killing your babies'* or *'eating sweets in a wrapper'*, in contrast to PrEP which *'…will be in their system'* so not act as a barrier. Teachers and healthcare providers were apprehensive: while acknowledging PrEP's effectiveness, they worried it would lower personal responsibility for sexual health (e.g., abstinence, condoms). Targeting FSWs was portrayed as further stigmatizing PrEP, already tarnished by association with HIV.

Conclusion The narrow focus of public-sector PrEP contributed to implementation challenges in this high HIV-prevalence setting. PrEP reach was low, even amongst self-identifying eligible FSW. Community-based approaches to PrEP education and provision, including engagement of youth and key stakeholders, may help improve demand for, access to, and optimise the PrEP cascade.

Disclosure No significant relationships.

O10.3 HIGH CURABLE STI PREVALENCE AND INCIDENCE AMONG YOUNG AFRICAN WOMEN INITIATING PREP IN HPTN 082

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Background African women face overlapping HIV and STI risks. PrEP programs among men who have sex with men have seen high STI incidence, but few data from African women taking PrEP are available

Methods HPTN 082 was conducted in Cape Town, Johannesburg (South Africa) and Harare (Zimbabwe) to evaluate uptake and adherence to daily oral PrEP in young African women. Sexually active HIV-negative women ages 16–25 were enrolled. Enrollment vaginal swabs were tested for gonorrhea (GC) and chlamydia (CT) by nucleic acid amplification, and trichomonas (TV) by rapid test. Syphilis serology was assessed. All women with positive test results received treatment. Repeat testing was conducted at 6 and 12 months.

Results Of the 412 women who initiated PrEP, median age was 21 years, 84% reported a primary sex partner and a median of 4 vaginal sex acts (IQR 2,8) in the prior month; 35% reported that they never or rarely used condoms. At enrollment 29% of women had CT, 8% GC, 7% TV and 2% reactive syphilis serology. STI incidence was 29.6 per 100 person-years (py) for CT (95% CI 24.3, 35.4), 11.8 per 100 py for GC (95% CI 8.7, 15.7), and 7.1 per 100 py for TV