Submission Type	Breakout/Quick/Lightning/Poster
ID	11019
Abstract Type	Breakout
Abstract Title	Aidsvu and Hepvu: Using Data Visualize to Understand the HIV and Hepatitis C Epidemics

Abstract

BACKGROUND: AIDSVu and HepVu.org are free, publicly available websites that visualize the HIV and Hepatitis C epidemics through highly interactive and simple maps and infographics to give users easy access to this information for program planning, policy development, and resource allocation. AIDSVu provides data visualizations of HIV prevalence and new diagnoses in the United States at state- and county-levels, as well as at the ZIP Code-level for cities most highly impacted by HIV. HepVu maps state Hepatitis C prevalence estimates, mortality data, and opioid indicators (soon to come). These websites can be used to understand how HIV and Hepatitis C affect communities and to help guide prevention efforts.
METHODS: AIDSVu and HepVu data are updated every year to visualize the most current and useful data. In 2018, AIDSVu launched the first-ever state-level interactive maps on PrEP users and rates of PrEP use, in addition to updated maps on HIV prevalence, new diagnoses and mortality. In January 2019, HepVu will be launching data and interactive maps on 2013-2016 Hepatitis C estimates along with three new opioid indicators to help visualize the opioid epidemic and its relationship to the Hepatitis C epidemic.
RESULTS: The data on AIDSVu and HepVu can be viewed at the overall level, or stratified by certain demographic filters, like age and sex. PrEP usage and HIV new diagnoses can be seen over time, showing geographical trends, by accessing the individual maps by year, from 2012-2017 for PrEP and 2008-2016 for new diagnoses. Additionally, five social determinants of health can be displayed side-by-side with the maps. Provider overlays may be added on top of the maps to show service locations, such as HIV testing sites and PrEP services. Majority of the data and maps can be downloaded for use in analyses and presentations.
CONCLUSIONS: All of the information on AIDSVu and HepVu can be leveraged by public health officials, policymakers, researchers, and community leaders to understand the levels of HIV, PrEP use, Hepatitis C, and opioids (soon to come) in their community. For example, public health professionals at the state or local government levels can analyze the PrEP use data to determine which sub-populations of people have lower PrEP uptake, and inform how resources should be allocated for the next year. Researchers can also look at new HIV diagnoses across the years to see what counties in their state are improving and what counties need improved education and access.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	HIV/AIDS; Hepatitis; Surveillance
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11789
Abstract Type	Breakout
Abstract Title	Barriers and Challenges to Implementing and Evaluating State Level Molecular HIV Clusters in Florida

Abstract

BACKGROUND: Partner elicitation and contact tracing by Disease Intervention Specialists (DIS) are foundational tools used to interrupt transmission of disease within a community by identifying, contacting and linking persons at risk for HIV to prevention and care services. In the absence of partner contact information and other epidemiological data, transmission networks may not accurately reflect the transmission of HIV. Molecular HIV Surveillance (MHS) data from point-of-care nucleotide genotype sequencing can identify links between individuals when partner elicitation data is lacking, by linking and comparing those with similar HIV genetic sequences to identify recent and rapid transmission within molecularly-linked clusters (genetic distance threshold of 0.5% or less). With the second highest rates of new HIV diagnoses in 2017 (22.9 per 100,00), 1.9 times the national rate, Florida has implemented MHS activities to identify and respond to the HIV epidemic.

METHODS: MHS case definitions and response activities were developed for HIV transmission networks. A protocol outlining roles and responsibilities of state and county health department (CHD) staff was developed. DIS would investigate or re-interview individuals in rapidly growing (RG) clusters (5 or more new HIV diagnoses within the last 12 months) who are not in care or not virally suppressed (>200 copies/mL). A database integrating state-level HIV and STD surveillance system data was constructed to disseminate and collect information for cluster response.

RESULTS: As of January 2019, there were 11 RG clusters of 290 individuals in Florida (ranging from 9–65 members). Most molecularly-linked individuals in RG clusters were male (97.6%), Hispanic (51.4%), and men who have sex with men (MSM) (89.3%); injection drug use (IDU) and MSM/IDU risk was present for 0.7% and 2.4% respectively. Of the 1,663 partners claimed by molecularly-linked individuals, 81.9% were anonymous. DIS re-interview would be required for 77 (26.8%) molecularly-linked and 308 epidemiologically-linked (sex or needle sharing) persons. Persons for re-interview/investigation are predominately located in Miami-Dade, Broward, and Orange counties.

CONCLUSIONS: Through MHS, RG clusters with many epidemiologically-linked and anonymous partners were identified. Protocol-defined interventions and evaluation for these networks requires substantial DIS involvement and is difficult due to the high morbidity DIS must content with and large numbers of anonymous partners. There is a need to tailor cluster response around predominate risk factors while considering the feasibility and potential outcomes of individual-level investigation. Community-based interventions should be considered to reach members of networks that would be otherwise unidentifiable.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	HIV/AIDS; Prevention; Surveillance
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11830
Abstract Type	Breakout
Abstract Title	Beyond Linkage to Care: Utilizing Surveillance Data to Promote Continual HIV Care Utilization and Viral Suppression Maintenance in Louisiana

Abstract

BACKGROUND: Studies show that viral suppression achievement and maintenance, through continual utilization of HIV care and treatment, prevents the occurrence of AIDS-related events and inhibits HIV transmission to sexual partners. Despite these benefits, only 73% of persons living with HIV (PLWH) in the US with a known HIV diagnosis received HIV care in 2015 and only 60% had exhibited viral suppression. In September 2013, the Louisiana Department of Health initiated a data-to-care program, Louisiana Links, which utilizes HIV surveillance and other data to identify PLWH that are presently not engaged in HIV medical care and facilitate (re)linkage to HIV care and supportive services. Data suggests that data-to-care programs may temporarily help clients (re)link to care and achieve viral suppression, but it is unclear if these benefits are sustained after clients are discharged. In this study, we will compare rates of HIV care engagement and viral suppression within the first year post-enrollment to those at 2-5 years post enrollment.
METHODS: Clients were enrolled from September 29, 2013 – September 30, 2016. Clients had a minimum of 2 years and a maximum of 5 years of follow-up time post-enrollment by September 29, 2018. Results from HIV laboratory tests conducted from September 2013 – September 2018 were obtained from Louisiana Department of Health's HIV registry.
RESULTS: 542 clients had 2-5 years of follow-up time by September 29, 2018. Of these, 87% were black, 55% were male and 35% were MSM. The median amount of follow-up time was 3.6 years. Within one year of enrollment, 94% (n=507) of enrolled clients were (re)linked to HIV care and 61% (n=333) achieved viral suppression after enrollment. As of September 30, 2018, 77% (n=415) were engaged in care and 55% (n=297) exhibited viral suppression.
CONCLUSIONS: Within one year after enrollment, clients had an initial rate of care engagement (94%) which was higher than the state average in 2017 (75%). After 2-5 years of follow-up, this rate fell to 77%. Clients experienced a viral suppression rate that was similar to the state average in 2017 (62%) within one year after enrollment; however, this rate decreased to 55% after 2-5 years of follow-up. In response to these results, Louisiana Department of Health is expanding the scope of their data-to-care efforts to include a focus on long-term lab monitoring and follow-up for discharged clients and working with partner agencies to find and implement permanent solutions for addressing structural barriers to HIV care and treatment.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Surveillance; Barriers to Care; HIV/AIDS
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11514
Abstract Type	Breakout
Abstract Title	Sexual Transmission of Shigella in the Portland Oregon Metropolitan Area 2008-2018: Case Case Analyses of Related Pathogens and Classic STIs

Abstract

BACKGROUND: *Shigella* is a bacterial pathogen that causes severe and often bloody diarrhea, fever, and sepsis. Infections are spread via the fecal-oral route and humans are the sole reservoir. Sex-dependent fecal-oral transmission is a known *Shigella* risk factor especially among men who have sex with men (MSM) and sexual networks have enabled the emergence and dissemination of drug resistant *Shigella* . However, the risk of shigellosis during sexual activity among heterosexual men and women is poorly defined. Similarly, limited data exist the on the role of sexual transmission for other closely related bacterial pathogens. We hypothesized that sex-dependent fecal-oral transmission mirrors sexual transmission among other sexually transmitted infections (STIs) and this represents a unique epidemiological niche for *Shigella* compared to other fecal-oral bacterial pathogens.

METHODS: To investigate the burden of illness due to sexual activity for *Shigella* relative to*: Salmonella,* Shiga Toxigenic *E. coli* (STEC), and *Campylobacter* we analyzed data from domestically acquired, "at risk" (>14 years), sporadic cases from July 2008-July 2018. Using STI diagnoses as a proxy for high risk sexual behavior we performed a broad case-case analysis comparing the odds of having an STI diagnosis among representative fecal-oral pathogens as well as traditional STIs including *Chlamydia* , *Gonorrhea* , *Syphilis* , and HIV. Multiple logistic regression analyses were performed to model the odds of having an STI diagnosis between diseases.

RESULTS: Since 2008, the Portland Metropolitan Area had 343 cases of *Shigella* . 76% were male and 23% were female. 51% of *Shigella* cases had an STI diagnosis including 63% of males and 16% of females. After stratifying by sex and adjusting for confounding factors including age, county, race, and year, we found that cases of *Shigella* were significantly more likely to have an STI diagnosis compared to all other fecal-oral pathogens (males adjusted Odds ratio [OR] 15.9-24.7 $p<0.01$; females OR 2.4-4.0 $p<0.02$). Conversely, male *Shigella* cases had similar odds of having an STI diagnosis compared to the STIs (OR 0.8-2.3 $p>0.1$), and 92% of cases with an STI were MSM.

CONCLUSIONS: Our evidence strongly suggests that the majority of domestically acquired *Shigella* infections were acquired sexually, predominantly among MSM. However, we found no evidence that other fecal-oral bacterial pathogens are consistently transmitted sexually. Given the overlap of *Shigella* with other STIs, we recommend foremost consideration of domestically acquired *Shigella* infections as being sexually acquired. Shigellosis cases, especially MSM, should be tested for other STIs and provided fecal-oral sexual health education.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Enteric Infectious Diseases; Epidemiology; Sexually Transmitted Diseases
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	10851
Abstract Type	Breakout
Abstract Title	The Rise and Spread of Female Syphilis Cases in Florida, 2012-2017

Abstract

BACKGROUND: From 2012 through 2017, reported cases of female syphilis increased 67% (n=910 in 2012 to n=1519 in 2017) and congenital syphilis cases increased 138% (n=39 in 2012 to n=93 in 2017). We sought to geospatially assess the increase within Florida, specifically, if a subset of Florida's counties were responsible for the female syphilis increase, or if the proliferation was pervasive statewide, and how stable any resulting patterns were.
METHODS: We analyzed reported congenital syphilis cases and all cases of syphilis, all stages, among females, from 2012 to 2017, in Florida. Outbreak counties were defined as those with a 25% increase in female cases for a given year than the previous five-year average, consistent with Florida's outbreak definition. We excluded any counties that had fewer than 10 cases in the year being examined. Counties meeting the outbreak definition were mapped using ArcMap to visualize the location and spread of the outbreak counties.
RESULTS: In 2012, four out of Florida's 67 counties were experiencing outbreak conditions for reported female syphilis cases, this number increased to 18 counties by 2017. In 2012, the four outbreak counties were distantly spaced across the state. By 2017, the outbreak counties were dispersed throughout the central region of the state and became more contiguous, with few outliers outside this area. The proportion of the state's female syphilis cases made up by these counties has changed temporally. The lowest year was 2013, when the outbreak counties comprised 9% of the state's total cases, and the highest year was 2016, with 65% of the state's cases coming from the defined outbreak counties. The 2017 outbreak counties also experienced a 386% increase in congenital syphilis cases since 2012.
CONCLUSIONS: Most of Florida's counties were not experiencing outbreak conditions of female syphilis in the examined years. However, counties meeting the outbreak definition account for a large proportion of the statewide increase in female syphilis. Visualization efforts, via maps, revealed an expanding and more contiguous pattern of counties meeting the outbreak definition for female syphilis cases spreading within the central area of the state. Developing tools for timely Identification and evidence-based responses to outbreaks are needed. Geospatial visualization techniques could aid in focusing limited intervention resources to high-risk jurisdictions. These counties were also experiencing significant increases in congenital syphilis cases and focusing efforts on female syphilis case reduction could also aid in decreasing congenital syphilis cases in the state of Florida.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Maternal and Child Health; Outbreaks; Geographic Information Systems (GIS)
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11859
Abstract Type	Breakout
Abstract Title	Utilizing Electronic Lab Reporting of Non-Positive Laboratory Results to Assess the Impact of Extragenital Testing on Statewide Chlamydia and Gonorrhea Rates

Abstract

BACKGROUND: Extragenital testing for gonorrhea and chlamydia benefits persons who engage in receptive anal intercourse and oral sex by detecting infections that urogenital testing alone misses. CDC recommends that sexually active men who have sex with men (MSM) receive extragenital screening annually. The level of statewide adherence to this recommendation is unknown. The Utah Department of Health (UDOH) collects non-positive laboratory results electronically for both chlamydia and gonorrhea. These results are stored in EpiTrax, Utah's NEDSS-based surveillance system.

METHODS: Diagnostic laboratory results were analyzed for all cases of chlamydia and gonorrhea reported in 2017. Laboratory results were limited to those collected on the date of diagnosis. Specimen source and laboratory test result were utilized to determine the frequency that chlamydia and gonorrhea cases were provided extragenital screening and the impact of this screening on statewide rates of reported disease. Results were stratified by sex.

RESULTS: In 2017, there were 10,134 cases of chlamydia and 2,541 cases of gonorrhea reported in Utah. A total of 16,342 diagnostic laboratory test results were reported to UDOH and appended to these cases in EpiTrax (11,069 chlamydia results and 3,254 gonorrhea results); 77.1% of these test results were reported via electronic lab reporting. The source of the specimen was reported for 76.3% of these test results. Only one diagnostic laboratory result was reported for the vast majority of cases (92.7% of chlamydia cases and 80.0% of gonorrhea cases). Multi-site testing (testing for infection at multiple anatomic sites) was reported more frequently in male cases than female cases, 10.9% and 0.6% respectively. Three site testing (urogenital, pharyngeal, and rectal) was reported for 221 male chlamydia cases (6.3%) and 177 male gonorrhea cases (10.6%). Two site testing was reported for 97 male chlamydia cases (2.8%) and 70 male gonorrhea cases (4.2%). In males with no reported urogenital infections, there were 117 rectal infections, 90 pharyngeal infections, and 45 rectal and pharyngeal infections. Therefore, extragenital testing alone was responsible for diagnosing 9.9% of male gonorrhea cases in 2017.

CONCLUSIONS: Extragenital screening for chlamydia and gonorrhea detects more infections than urogenital screening alone. The electronic reporting of non-positive laboratory results permits statewide analysis of trends in extragenital screening. Further efforts to improve the quality of reported specimen source are merited.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Sexually Transmitted Diseases; Electronic Laboratory Reporting (ELR)
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	10561
Abstract Type	Breakout
Abstract Title	Zika Virus Disease and HIV/AIDS

Abstract

BACKGROUND: During the 2016 Zika virus outbreak, the Florida Department of Health in Miami-Dade County was frequently approached by concerned healthcare providers regarding co-infections of Zika virus (ZIKV) and human immunodeficiency virus (HIV). At the time of the outbreak, it was unknown whether patients with HIV/AIDS were more likely to experience severe clinical outcomes during their ZIKV infection. This study is unique as it is the first report examining clinical outcomes of HIV and Zika virus disease (ZD) co-infections. The purpose of this study was to examine clinical symptoms associated with Zika virus (ZIKV) infection and HIV co-infection among Miami-Dade County residents with confirmed ZIKV disease in 2016.
METHODS: Analysis of pre-existing epidemiological and laboratory data collected during the 2016 Zika virus outbreak by the Florida Department of Health in Miami-Dade County. Descriptive statistics were calculated to examine differences in age group, gender, symptoms, distribution of symptoms, GBS diagnosis, hematology, healthcare visits, hospitalization, and transmission type by HIV status. Among HIV positive ZIKV disease cases, CD4 counts and HIV viral loads were examined. Odds ratios were calculated between demographics, pregnancy, symptomology, prolonged viremia, cycle threshold values, and HIV status.
RESULTS: During the 2016 ZIKV outbreak in Miami-Dade County, HIV/ZD cases accounted for nine (1.9%) of all confirmed ZD cases (n=474). The median age of HIV/ZD co-infected cases was 48 (range 24 -71); there were no co-infections among pediatric ZD cases. Among the 4 (44.44%) female co-infected case patients, none were pregnant at the time ZIKV infection. HIV status was not found to be associated with age, gender, race/ethnicity, symptom severity, development of Guillian-Barre Syndrome, thrombocytopenia, lymphocytopenia, neutropenia, or anemia.
CONCLUSIONS: Individuals with virally suppressed HIV infection may be less likely to have severe complications associated with ZIKV infection. Five (55.56%) HIV/ZD case patients reported only two of the four main symptoms; whereas, the majority of all ZD cases reported three of the four main symptoms. HIV/ZD patients may present similarly to ZD patients outcomes.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Infectious Diseases; Vectorborne Disease; HIV/AIDS
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11508
Abstract Type	Lightning
Abstract Title	Disparities in Drug Overdose Deaths Among Persons Living with HIV and the General Population in Louisiana

Abstract

BACKGROUND: The sharp increase of premature deaths due to drug overdose (OD) has been a concerning public health trend in recent years. Evidence suggests significant disparities in drug use among people living with HIV (PLWH) as compared to the general population. An examination of OD mortality trends was conducted to assess the impact of drug use among PLWH in Louisiana.
METHODS: A retrospective analysis of OD deaths between August 2012-December 2016 was conducted among adults≥18 years in Louisiana with a valid cause of death. OD deaths were identified using International Classification of Diseases, Tenth Revision (ICD-10) underlying cause of death codes: X40-X44, X60-X64, X85, Y10-Y14. Deaths among PLWH were ascertained through the enhanced HIV/AIDS Reporting System (eHARS). Deaths in the general population were identified through the Louisiana Vital Records Registry. Standardized mortality ratios (SMR) were calculated using U.S. Census data to provide an age-adjusted comparison of OD deaths among PLWH and the Louisiana general population.
RESULTS: During the study time period there were 1,804 deaths among PLWH, of which, 68 (3.8%) were OD deaths. The crude OD death rate for PLWH (8.4 per 10,000 pys; 95% CI 6.6, 10.6) was significantly higher than the OD death rate for the Louisiana general population (2.3 per 10,000 pys; 95% CI 2.2, 2.4). The median age of death among PWLH who died by OD was 45 years (Interquartile range: 37-53). On average, individuals died from an OD 12 years (SD ± 7.7) after their HIV diagnosis; 55.9% were White; 77.9% were male; 51.5% had injection drug use as a reported HIV transmission risk. Within the year prior to their OD death, 49 (72.1%) individuals had≥1 viral load tests, and 24 (35.3%) individuals were virally suppressed (<200 copies/mL) at their last viral load. OD deaths among PLWH were triple that of the Louisiana general population after adjusting for differences in age structure (SMR: 3.0; 95% CI 2.3, 3.7).
CONCLUSIONS: Drug overdose death rates among PLWH are significantly higher than the Louisiana general population. The results are likely an underestimate as OD deaths are frequently under-reported due to lengthy investigations and incomplete data on death certificates. The findings highlight the need for integrated HIV and substance use services to improve engagement in HIV care and overall health outcomes for PLWH.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Health Disparities; Substance Use; HIV/AIDS
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11650
Abstract Type	Lightning
Abstract Title	HIV and Women in North Carolina: Small Rates, but Higher Proportion of Late HIV Diagnoses

Abstract

BACKGROUND: Early diagnosis of HIV results in better health outcomes. In North Carolina (NC), new HIV diagnoses are most frequent among young men, and women are not a high priority for targeted testing compared to men, which may result in later diagnosis for women. This analysis evaluates whether HIV is diagnosed at a similar stage of disease for men and women in NC, and whether other health outcomes are affected if diagnosis occurs at different stages.
METHODS: All newly diagnosed HIV in NC from 2008 through 2017 reported to the enhanced HIV/AIDS Reporting System (eHARS) were included. We compared demographics and the proportion of late HIV diagnoses (HIV and AIDS diagnosis within six months) between women and men. Retention in care (virally suppressed or two care visits at least 90 days apart one-year post-diagnosis), and viral suppression (most recent VL <200 copies/ml one-year post-diagnosis) were assessed using data from NC Engagement in Care Database for HIV Outreach (NC ECHO), which contains laboratory test, drug dispense, and Medicaid claims data. Death records were obtained from the NC State Center for Health Statistics and were matched to HIV case data to examine death rates between early and late diagnoses. Chi-square analyses were used to assess statistical significance.
RESULTS: A total of 14,225 people were newly diagnosed in NC between 2008 and 2017 (3,170 women and 11,055 men). HIV diagnosis rates among men have decreased (36.1 per 100,000 population in 2008 to 25.4 in 2017), as have rates among women (11.6 in 2008 to 5.7 in 2017). Women were more likely to be diagnosed over the age of 40 and non-White/Caucasian ($p<0.0001$). The proportion of late HIV diagnoses among men has decreased (27% in 2008 to 20% in 2017), while the proportion among women has slightly increased (24% in 2008 to 26% in 2017). The proportion of individuals who were retained in care and achieved viral suppression was similar for women and men, regardless of the stage of diagnosis. While death rates have decreased among men diagnosed late (1.2 in 2012 to 1.0 in 2017), rates among women diagnosed late have remained stable (0.3 in 2012 to 0.4 in 2017).
CONCLUSIONS: While other outcomes are similar, women are more likely to be diagnosed late, and the death rate among women diagnosed late has remained stable. Additional outreach, targeted testing, and prevention activities may decrease late diagnoses of HIV among women.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Epidemiology; HIV/AIDS
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11529
Abstract Type	Lightning
Abstract Title	Using Risk Factors to Predict Participation in Partner Services Interviews

Abstract

BACKGROUND: Syphilis has been on the rise nationally and in Louisiana, with a 37% increase in early syphilis (P&S syphilis and early non-primary non-secondary syphilis) in Louisiana from 2014 to 2017. Disease intervention specialists (DIS) are tasked with interrupting disease transmission and stand on the front line of STD prevention efforts. Between 2014 and 2017, the percentage of early syphilis cases without a DIS Partner Services interview in Louisiana doubled, from 8.3% to 16.6%. In order to evaluate and improve Partner Services activities, it is important to identify groups less likely to be successfully interviewed.

METHODS: A risk factor analysis was conducted to determine if client attributes can identify individuals less likely to receive a DIS Partner Services interview. Logistic regression of attributes of persons with early syphilis with and without DIS Partner Services interviews from 2014 to 2017 was performed. Variables of interest included sex at birth, race/ethnicity, age group, public health region, urban or rural residence, patient treatment status, HIV status at diagnosis, and sex of sex partner. In Louisiana, when an individual is not interviewed, sex of sex partner is collected from other sources such as prior interviews, HIV records, and electronic health records, allowing the assessment of this variable despite the lack of an interview record.

RESULTS: Analyses revealed that males were 1.2 times more likely to be missing an interview than females (CI=1.11-1.34). Non-Hispanic Whites were 1.3 times more likely to not be interviewed (CI=1.19-1.46) than non-Hispanic Blacks. How likely an individual was to be interviewed varied by public health regions in the state ($p<0.0001$). Gay and bisexual men (GMB) were 3.86 times less likely to be interviewed (CI=3.44-4.35). Persons who were untreated for their infections were 2.16 times less likely to have an interview (CI=1.94-2.42). With each five year increase in age, persons were 1.18 times less likely to be interviewed (CI=1.16-1.20).

CONCLUSIONS: Risk factor and demographic analysis were a valuable resource when evaluating Partner Services outcomes. More efforts are needed to reach GBM because they were least likely to receive a DIS Partner Services interview. Variation in completeness by public health region may indicate a need for increased staffing in those areas, calling for new workload analyses. Sex positivity trainings have been implemented in Louisiana for DIS since 2018. Finally, future plans include expanding Client Satisfaction Surveys to persons who declined an interview to identify weaknesses and preferred methods of partner notification.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Disease Prevention; Sexually Transmitted Diseases; Evaluation
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	10858
Abstract Type	Poster
Abstract Title	Association of Chlamydia or N. Gonorrhea Infection Rates per County in People Ages 15-24 Years in Alabama and Race, Gender, and Socio-Economic Variables (2014-2015)

Abstract

BACKGROUND: Sexually Transmitted Diseases (STDs) continue to be an important Public Health issue. Young adults carry a significant amount of STD burden, representing over half of new cases in the US, despite making up only 1/4 of the sexually active American population. Our objective was to assess the correlation between STD infection rates (per 100,000 population) per county in people 15-24 years old from Alabama, with gender, race, and socioeconomic variables.
METHODS: Rates of *Chlamydia* and *N. gonorrhea* for 2014 and 2015 were calculated from data on the Alabama Department of Public Health's website. All other variables were collected from the US Census Bureau or the Alabama Department of Education. Correlations and multivariate analysis (GEE model) between rates of *Chlamydia* or *N. gonorrhea* and all variables were calculated using a statistical software (SAS).
RESULTS: In the multivariate model, variables statistically significantly associated with *Chlamydia* infection rate were: % Black or African American, % female, urban/rural, % high school graduation, median household income, and year ($p<0.1$). Multivariate model of *N. gonorrhea* infection rate per county in the 15-24 years age group showed a statistically significantly association with % Black or African American, urban/rural, % high school graduation, and year ($p<0.1$).
CONCLUSIONS: Our analysis showed slightly different final multivariate models for *Chlamydia* or *N. gonorrhea* infection rates based on statistical significance. However, for both *Chlamydia* or *N. gonorrhea* infection rates per county in people age 15-24 years in Alabama (2014-2015), % Black or African American was the single most significant variable in the multivariate analysis ($p<0.0001$).

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Children and Adolescents; HIV/AIDS; Social Determinants
Consider for Different Presentation?	Yes
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Affiliation	Academic Institution

Submission Type	Breakout/Quick/Lightning/Poster
ID	11506
Abstract Type	Poster
Abstract Title	Early Initiation of HIV Care in Georgia, 2014-2017: Prevalence and Association with Longer Term Viral Suppression

Abstract

BACKGROUND: With the recognition that persons with HIV whose viral load (VL) is undetectable do not transmit HIV, there has been an increased emphasis on reducing time from diagnosis to viral suppression (VS). We sought to describe the proportion of persons achieving VS within 3 months of diagnosis in Georgia between 2014 and 2017, and assess the association between VS within 3 months of diagnosis and 2 years later.

METHODS: We analyzed VL test results for persons diagnosed with HIV during 2014-2017 from Georgia's eHARS surveillance database to calculate the proportion virally suppressed within 3 months of diagnosis for each year of diagnosis and to assess disparities by demographic characteristics. We used Poisson regression to examine the relationship between achieving VS within 3 months of diagnosis in 2015 and VS in 2017 (last VL in 2017 <200 copies/ml), controlling for sex, age group, race/ethnicity, transmission category, and location.

RESULTS: The proportion of persons who achieved VS within 3 months of diagnosis increased markedly: 21.3% in 2014, 22.0% in 2015, 26.7% in 2016, and 32.7% in 2017. The relative increase in viral suppression at 3 months during this time period varied across groups. Between 2014 and 2017, the prevalence ratio for Whites versus Blacks decreased from 1.8 to 1.3, the prevalence ratio for Whites versus Hispanics decreased from 1.5 to 1.0, and the prevalence ratio for persons 40 years and older versus persons 20-29 decreased from 2.1 to 1.2. In contrast, the prevalence ratio for men who have sex with men versus persons who inject drugs increased from 1.1 to 1.4, and the prevalence ratio for persons in metro Atlanta versus the rest of the state remained unchanged at 1.3 and 1.4. Among persons diagnosed in 2015 who achieved VS within 3 months, 70% were virally suppressed in 2017, compared with 48% of those who did not achieve VS within 3 months. After controlling for sex, age group, race/ethnicity, transmission category, and location, persons who were virally suppressed within 3 months were significantly more likely to be virally suppressed in 2017 (RR 1.42, 95% CI 1.30-1.55).

CONCLUSIONS: The proportion of persons achieving VS within 3 months of diagnosis has increased substantially in Georgia, indicating that efforts to initiate antiretroviral therapy earlier have been effective. Ongoing monitoring of the association between early suppression and longer term suppression will help assess the impact of those changes.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	HIV/AIDS; Surveillance; Epidemiology
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11634
Abstract Type	Poster
Abstract Title	Evaluating Chlamydia and Gonorrhea Positivity Among Risk Groups in a State-Funded Testing Program, Indiana, 2018

Abstract

BACKGROUND: The Indiana State Department of Health (ISDH) Laboratory analyzes laboratory tests for clinics funded through the STD Prevention Program's Chlamydia and Gonorrhea Screening Program (CT/GC Program). Patient testing fees are covered through this program provided that they meet at least one of nine established risk criteria. Electronic laboratory reports (ELRs) submitted by the ISDH Lab include the risk group, or reason for test. Participating clinics are encouraged to recruit patients according to these risks. This study examined positivity rates within each risk group.

METHODS: ELRs submitted by the ISDH Lab between January 1 and November 30, 2018, were extracted from the Data Repository and Exchange (DREX). Equivocal or invalid test results and submissions from sites not participating in the CT/GC Program were excluded. Chlamydia and gonorrhea test results were analyzed together for this study. Records were recoded to categorize each given risk group individually. Odds ratios were calculated using SAS 9.4.

RESULTS: During the study period, 30,600 valid laboratory results for chlamydia and gonorrhea were reported by the ISDH Lab (11.2% positivity overall). The most frequent risk groups reported included priority age (less than 25 years) (45.9%; 8.1% positivity), symptomatic of an STD (31.6%; 12.7% positivity), and contact to a known case (11.7%; 23.1% positivity). Priority age patients were 0.6 times less likely to test positive than patients whose age was not considered a risk factor. Patients meeting the symptomatic risk criteria were 1.3 times more likely to test positive that those who did not indicate being symptomatic. Contacts to a person previously diagnosed with an STD were 2.9 times more likely to test positive compared to those who were not contacts.

CONCLUSIONS: State testing programs should evaluate positivity rates by risk category to effectively reach populations in need of services. In Indiana, priority age patients were the largest share of submitted tests but less likely to test positive compared to those over 25, suggesting they may be seeking testing at rates higher than needed. The 23.1% positivity of contacts to prior cases may demonstrate the importance of Disease Intervention Specialist services in facilitating testing and treatment of partners or the success of patient-referred partners. This analysis may be used by CT/GC Program participants to prioritize outreach initiatives for risk groups. Future studies could evaluate differences in positivity by demographics, infection, and clinic site type.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Sexually Transmitted Diseases; Risk Factors
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	10681
Abstract Type	Poster
Abstract Title	Gonorrhea Control in Alaska: Lessons from the Yukon-Kuskokwim Region

Abstract

BACKGROUND: During 2008–2011, Alaska experienced a gonorrhea outbreak that disproportionately impacted the Yukon-Kuskokwim (YK) region. During 2009–2011, the YK region had the highest rate of gonorrhea infection in the state. In response to this outbreak, health care providers at the Yukon Kuskokwim Health Corporation (YKHC) tribal health organization implemented several changes to reduce gonorrhea infection rates.

METHODS: Gonorrhea case data were obtained from the Alaska Section of Epidemiology's Patient Reporting Investigation Surveillance Manager (PRISM) database, and crude rates were examined for Alaska and the YK region. Several informal interviews were conducted with YKHC's Obstetrics/Gynecology specialist who helped develop new procedures for testing, treating, tracking, and reporting gonorrhea and chlamydia cases in YK.

RESULTS: Gonorrhea rates in YK declined in correlation with changes in practice. In response to a 2008–2011 outbreak, and after reading an Alaska Epidemiology Bulletin on expedited partner therapy (EPT), a YKHC clinician assembled local stakeholders to develop a strategy to provide easy access to chlamydia and gonorrhea treatment for patients and their sexual partners. EPT is the clinical practice of treating the sex partners of patients diagnosed with gonorrhea and chlamydia without their examination. Key elements of this strategy included:

• Assembling a team of clinical champions to develop and implement a clear policy of how sexually transmitted infections (STIs) would be treated.

• Collaborating with pharmacy staff to ensure that pre-mixed medications and educational materials were available for patients and their sexual contacts in village clinics, emergency rooms, outpatient clinics, etc.

• Expanding access to STI medication in rural areas of YK by training Community Health Aides/ Practitioners to work under standing orders for EPT and ensure that medications are available at their clinics.

• Hiring an STI case manager to report to public health, interview patients, trace patient sexual contacts, provide medication for patients and partners, and order extragenital testing and additional medication, if indicated.

• Developing a reporting form on patient diagnosis and prescriptions (including EPT) that health care providers forwarded to the STI case manager.

CONCLUSIONS: Although still above the statewide rate, the incidence of gonorrhea in the YK region declined from 1,316 cases per 100,000 population in 2010 to a low of 390 cases per 100,000 population in 2015. The activities performed by YKHC outlined in this report may have contributed to this decline, and this epidemiologic and qualitative study may be useful to other regions investigating infections disease transmission.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Disease Prevention; Rural Health; American Indians / Alaska Natives
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11435
Abstract Type	Poster
Abstract Title	Impact of an Electronic Medical Record Best Practice Alert on Expedited Partner Therapy for Chlamydia Infection and Reinfection

Abstract

BACKGROUND: Patients with *Chlamydia trachomatis* infections are at high risk for reinfection if their sex partners are not treated. Expedited partner therapy (EPT) allows providers to prescribe treatment to sex partners of patients diagnosed with chlamydia without examining the partner. In October 2014, Atrius Health implemented an electronic best practice alert (BPA) to encourage providers to prescribe EPT. We sought to describe patient characteristics associated with EPT provision, and to assess the impact of the BPA on EPT provision and chlamydial reinfection.

METHODS: We included patients aged ≥15 years with ≥1 positive chlamydia laboratory test between January 2013 and August 2018. Data were collected using the Electronic medical record Support for Public Health surveillance platform (esphealth.org). We used log-binomial regression with generalized estimating equation methods to identify patient characteristics associated with EPT provision. We performed interrupted time series analyses to identify changes in level and slope corresponding to the BPA release in October 2014 for the following monthly outcomes: 1) chlamydia cases with EPT provided; 2) chlamydia cases with test of reinfection in 12 months; 3) chlamydia reinfection in 12 months.

RESULTS: Between January 2013 and August 2018 there were 6,639 laboratory-confirmed chlamydia diagnoses. EPT was provided to 1,411 (21%). Patients who received EPT were more likely to be female (prevalence ratio (PR) 1.77, 95% CI 1.47, 2.13), and to have a history of ≥2 chlamydia tests (PR 1.19, 95% CI 1.01, 1.39) or diagnoses in the two years preceding their current diagnosis (PR 1.44, 95% CI 1.05, 1.99). EPT prescription frequency increased each month from 15% of chlamydia cases in January 2013 to 24% in October 2014 (slope=0.003, p =0.03). The frequency of EPT prescriptions decreased after introducing the BPA, to 16% of chlamydia cases in August 2018 (slope=-0.005, p <0.01). On average, 65% of chlamydia cases received a test of reinfection and 11% were re-infected; there were no changes in these percentages after the BPA was implemented. Among chlamydia cases that did and did not receive EPT, the percentages that were re-infected did not change after the BPA was implemented.

CONCLUSIONS: EPT provision declined after introducing a BPA to facilitate EPT prescribing. Reasons for the decrease are unclear and may be independent of the BPA. BPAs in electronic medical record systems may not be effective at sustaining awareness of EPT and decreasing chlamydial reinfection. Periodic trainings or other approaches may be more successful at increasing EPT provision among clinicians.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Epidemiology; Sexually Transmitted Diseases; Electronic Health Records
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11256
Abstract Type	Poster
Abstract Title	Risk Factor Analysis and Changes for Non-Congenital Syphilis Cases Residing in Jefferson County, Kentucky, for 2013 to 2017

Abstract

BACKGROUND: In August 2018, the Centers for Disease Control and Prevention reported dramatic and sustained increase in sexually transmitted diseases (STDs) in recent years, including syphilis. In Kentucky, syphilis cases are investigated by STD Prevention and Control Program - patient follow up and interviews are conducted by STD staff at a local health department, such as Louisville Metro Public Health and Wellness (LMPHW), while data are managed by Kentucky Department for Public Health (KDPH). LMPHW set out to determine whether Jefferson county is experiencing a similar trend to what was observed nationally and explored the possibility of any significant changes in characteristics among reported non-congenital syphilis cases investigated from 2013 to 2017.
METHODS: KDPH provided syphilis data of Jefferson County residents. Data analysis includes all syphilis diagnoses, except congenital syphilis. Prevalence rates were calculated using the year-specific population estimates from the Kentucky State Data Center for Jefferson county, Kentucky. The investigation questionnaire includes questions about sexual history and behaviors, drug use behaviors, and other risk factors for the 12 months prior to diagnosis. Regardless of reason, not interviewed cases were excluded from risk factor analysis. For analysis purposes, responses were simplified to “reported”, consisting of only “yes” answers, or “not reported”, consisting of the remaining choices or lack thereof. Responses were analyzed for both individual risk factor questions, and clustered versions of similar questions such as having high risk sexual partners, high risk sexual acts, substance use, and incarceration while controlling for gender and race. Cases were categorized as being reported in 2013 to 2015 (Y1315), and 2016 to 2017 (Y1617). Fisher’s Exact Test was performed to test for differences in responses between Y1315 and Y1617 reported cases among interviewed cases.
RESULTS: From 2013 to 2017, KDPH interviewed 986 (77%) out of 1281 reported non-congenital syphilis cases. In 2016 we observed the largest increase in unadjusted prevalence rates at 9.6 per 100,000. No significant differences in age was observed between the Y1315 and Y1617 cases. Between the two case groups, significant differences ($\alpha \leq 0.05$) were observed in white males for drug use, sex with males and females, and in black males for sex with females.
CONCLUSIONS: The risk factor analysis suggests that certain behaviors among certain groups of people may have changed since 2015. Thus, interventions can be targeted towards those individual groups to better reduce the incidence of non-congenital syphilis in Jefferson county.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Risk Factors; Sexually Transmitted Diseases; Epidemiology
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11522
Abstract Type	Quick
Abstract Title	An Evaluation of Postpartum HIV Viral Load Rebound in Mothers in Pennsylvania, 2007-2016

Abstract

BACKGROUND: HIV positive mothers have added responsibility of raising their newborn babies as well as caring for themselves. The arrival of a newborn can result in shifts in priorities. The purpose of the study was to evaluate whether there is postpartum HIV viral load (VL) rebound in mothers who had demonstrated VL suppression within 30 days before delivery. **METHODS**: Data was compiled from the Enhanced HIV/AIDS Reporting System to formulate a study cohort of mothers who showed a suppressed VL (less than 50 copies/ml) within one month of delivery for births occurring between 1/1/2007 and 12/31/2016. The study cohort had at least three reported VL tests in the first post-partum year. Additionally, data on demographically similar non-mothers were obtained as a control group. A computer algorithm randomly selected non-mothers by iteratively matching attributes of each mother in the study group by location, age, age at diagnosis, and risk category. A randomly selected suppressed VL was chosen for each non-mother to act as a comparative starting point. Selected VL occurred at a point that left a minimum of 12 months follow-up period. Non-mothers were evaluated for the next 12 months for rebound/non-rebound. **RESULTS**: There were 126 mothers who met the criteria for study, and of those 31 (24.6%) showed a VL rebound within the first 3 months postpartum, with a true rebound probability of 17.1% to 32.1%, based on a 95% confidence interval (CI). Within 6 months, 45 (35.7%) showed a rebound, with a true rebound probability of 27.3% to 44.1%. Within 12 months, 62 (49.2%) showed a rebound, with a true rebound probability of 40.5% to 57.9%. For 145 non-mothers, 18 (12.4%) showed a VL rebound within the first 3 months, with a true rebound probability of 7.1% to 17.8%, based on a 95% CI. Within 6 months, 39 (26.9%) showed a rebound, with a true rebound probability of 19.7% to 34.1%. Within 12 months, 69 (47.6%) showed a rebound, with a true rebound probability of 39.5% to 55.7%. **CONCLUSIONS**: A quarter of mothers who had suppressed VL 30 days prior to delivery experienced VL rebound within 3 months postpartum, compared to only 12.4% for the control group 3 months after a suppressed VL, which is significantly different at 95% confidence level. This evaluation confirms findings in similar observational studies. Ensuring continuity of medical care from antepartum period to postpartum period may lead to continued VL suppression for new mothers.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Evaluation; Maternal and Child Health; HIV/AIDS
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11014
Abstract Type	Quick
Abstract Title	Cases of *Neisseria Gonorrhoeae* with High-Level Azithromycin Resistance Detected in Indiana, Strengthening U.S. Response to Resistant Gonorrhea (SURRG), 2017-2018

Abstract

BACKGROUND: Gonorrhea is the second most commonly-reported notifiable disease in the United States, and reported rates continue to steadily increase. Antibiotic resistance in *Neisseria gonorrhoeae* (Ng) continues to be documented across the globe. National surveillance data show Ng azithromycin (AZI) susceptibility has been declining in the United States, but high-level azithromycin-resistance (HL AZI-R) remains rare. Several HL AZI-R Ng isolates have been identified in Indiana. This study describes a cluster of HL AZI-R cases and the resulting public health response.

METHODS: Indiana, through participation in the national surveillance system Gonococcal Isolate Surveillance Project (GISP), and Strengthening U.S. Response to Resistant Gonorrhea (SURRG), a Centers for Disease Control and Prevention (CDC)-supported multisite program to bolster local capacity to rapidly detect and respond to Ng with reduced antibiotic susceptibility, collected genital and extra-genital samples from men and women attending a sexually transmitted disease (STD) clinic and two non-STD clinics for Ng culturing. Local antimicrobial susceptibility testing (AST) via Etest was performed on all 674 Ng isolates collected from September 2017 to September 2018 (an estimated 12% of total morbidity in the jurisdiction). Reduced AZI susceptibility was defined as MICs≥2.0µg/mL; HL AZI-R was defined as MICs ≥256 µg/mL. Disease Intervention Specialists (DIS) conducted investigations on all patients with reduced susceptibility of any level and offered testing and treatment to partners.

RESULTS: Of the 674 isolates, 54 (8.0%) demonstrated reduced AZI susceptibility, of which 14 (2.1%) demonstrated HL AZI-R (11 urethral, two pharyngeal, one rectal). All isolates were susceptible to ceftriaxone (MIC ≤0.125 µg/mL) and were adequately treated with ceftriaxone 250mg and azithromycin 1g. The 14 HL AZI-R isolates were obtained from 12 men, two with both urethral and pharyngeal infections. Of the 12 men, nine were white, eight were men who have sex with men/bisexual, and six reported anonymous partners. Nine patients completed a test-of-cure; all were negative. The 12 men claimed 36 sex partners during the two months prior to infection. DIS elicited enough information to initiate 11 partners for follow-up, and six tested positive for Ng. Only two cases were epidemiologically-linked.

CONCLUSIONS: During a 13 month period, Indiana identified twelve men with HL AZI-R Ng in Indiana. The continued detection of these infections and lack of epidemiological-linkage between the patients and their partners suggest sustained local transmission. Intensified surveillance, expanded AST, and elicitation of local sexual networks may provide future opportunities to curtail local spread of this concerning strain.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Capacity / Capacity Building; Sexually Transmitted Diseases; Antimicrobial Resistance
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	10888
Abstract Type	Quick
Abstract Title	Chlamydia Among Males Aged 15-24 Years in the United States in 2016: How Much Is Actually out There?

Abstract

BACKGROUND: Most *Chlamydia trachomatis* (CT) infections are asymptomatic and prevention efforts in the United States focus on routine screening and treatment of females to prevent adverse reproductive sequelae. Understanding the burden of CT infections in males may help inform prevention and control efforts. We describe the epidemiology of CT in young males in the United States and provide estimates of the extent to which infections in males may go undiagnosed.
METHODS: Data from national case reporting and the National Health and Nutrition Examination Survey (NHANES) were used to estimate the number of reported CT cases and the number of prevalent CT infections among males aged 15-24 years in 2016. The number of prevalent CT infections was calculated by multiplying weighted NHANES prevalence estimates by the average of the American Community Survey population estimates during 2015–2016. Assuming that all undiagnosed cases are not reported, undiagnosed infections were estimated by calculating the number of CT cases reported as a percent of prevalent CT infections. Estimates were calculated overall and by race/ethnicity.
RESULTS: In 2016, 272,524 CT cases were reported among all 15-24 year old males; 92,249 cases were among Black, non-Hispanics, 59,006 among White, non-Hispanics, and 31,292 among Hispanics. Based on NHANES, the population-based CT prevalence among all young males was 2.7%, equating to an estimated 583,113 prevalent CT infections, suggesting that over half (53%) of infections among young males may go undiagnosed. Estimated CT prevalence was highest among Black non-Hispanic young males, at 12.0%, equating to an estimated 360,346 prevalent infections with an estimated 74% of infections undiagnosed. CT prevalence estimates for White non-Hispanic and Hispanic young males are lower than for Black non-Hispanic males in NHANES although small sample sizes resulted in unstable estimates; however, the difference between case reports and prevalent infections suggests that 36% of infections among White non-Hispanics and 64% among Hispanics went undiagnosed.
CONCLUSIONS: A comparison of national case report and prevalence estimates suggests that CT infections are common in young males and a large percent of prevalent CT infections may go undiagnosed in this population. The estimated percent undiagnosed differed by race/ethnicity, with a higher proportion of infections undiagnosed among racial minorities compared to Non-Hispanic Whites. Observed racial differences may be due to differences in access to quality sexual health care. Additional research is needed to determine how undiagnosed infections in males affect CT prevention and control efforts in women.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Infectious Diseases; Sexually Transmitted Diseases; Surveillance
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	10553
Abstract Type	Quick
Abstract Title	Demographics and Risk Factors of Men Who Have Sex with Men (MSM) with Syphilis in Florida, 2017

Abstract

BACKGROUND: Florida reported 8,859 cases of syphilis in 2017, with most cases being in men (n=7317). Most of the cases in men are in individuals who self-report as an MSM (n=5,297). In 2017, 4,969 MSM with syphilis were interviewed by disease intervention specialists and asked about risk factors. We sought to elucidate if there were any characteristics shared among the interviewed MSM, and if the risks differed between those currently living with HIV/AIDS and those not coinfected.

METHODS: The demographics and self-reported risk factors of MSM with syphilis were extracted from Florida's sexually transmitted disease surveillance database for 2017 and analyzed. Differences between the demographics and risk factors of the individuals currently infected with HIV at the time of their syphilis diagnosis were compared, using X^2 tests, to MSM with syphilis who are not currently coinfected with HIV.

RESULTS: The highest self-reported risk factor for MSM coinfected with HIV and syphilis was a prior STD history, with 63% (n=1,928) of individuals disclosing at least one previous STD in their lives, compared to 41% (n=789) of non-coinfected MSM (odds ratio 2.4, confidence limits 2.1 – 2.7, p=<0.001). Those already infected with HIV were also more likely to report HIV+ partners in their interviews (33% vs 15%; odds ratio 2.8, confidence limits 2.4 – 3.2). Conversely, the highest self-reported risk factor for MSM not coinfected with HIV was anonymous sex partners, with 61% (n=1,168) of individuals disclosing this risk factor compared to 46% (n=1,401) of coinfected MSM (odds ratio 1.9, confidence limits 1.7 – 2.1, p=<0.001). White Hispanic (32% vs 28%) or black (30% vs. 19%) MSM were at an increased likelihood to be coinfected with HIV and syphilis (p<0.005 for both comparisons). Conversely, white non-Hispanic MSM were more likely to be infected with syphilis only (32% vs. 28%; p<0.001).

CONCLUSIONS: Given the high percentage of MSM with syphilis, but not HIV, reporting anonymous sex partners, additional HIV prevention tactics, including pre-exposure prophylaxis (PrEP), are warranted for MSM who present with STDs. White Hispanic and black MSM are at an increased risk of having HIV and syphilis. As white non-Hispanics do not share this risk, common causes of health inequity may be contributing factors. Prior STD history is a common coinfection predeterminant; as such, educational and other public health efforts focused on HIV prevention tactics in the MSM community are critical when an MSM individual test positive for syphilis.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	HIV/AIDS; Sexually Transmitted Diseases
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11655
Abstract Type	Quick
Abstract Title	Frequent Gonorrhea Infections and Subsequent Early Syphilis Diagnoses in Louisiana: An Opportunity for Intervention

Abstract

BACKGROUND: Since 2012, gonorrhea diagnoses in the US have increased 66% and early syphilis diagnoses have more than doubled. During this same period, Louisiana has ranked in the top three nationally for its gonorrhea and syphilis diagnosis rates. While both diseases are easily treatable, the prevalence of antimicrobial-resistant gonorrhea has increased, and the sequelae of untreated syphilis can be serious, including congenital syphilis in the children of infected pregnant women. Optimal STD control requires timely testing and treatment of infected persons to reduce the period of infectivity and subsequent disease transmission. Gonorrhea and syphilis are also markers for high-risk sexual behavior and for subsequent STDs and HIV. In this study, we assess the risk of early syphilis infection after frequent repeat gonorrhea infection (FRGI) in persons living in Louisiana.

METHODS: Surveillance data from Louisiana Department of Health's STD registry were used to compile gonorrhea and early syphilis diagnoses occurring in Louisiana between 2012 and 2017. Persons were classified as having FRGIs if they had two or more gonorrhea diagnoses within an 18-month period, forming a retrospective cohort of individuals with FRGIs. Descriptive statistics and survival analyses using variables regularly collected during surveillance activities were performed to determine likelihood of a syphilis infection following an FRGI classification.

RESULTS: From 2012 through 2017, 5,459 persons were FRGI classified. FRGI classified persons were 54% female, 86% non-Hispanic Black, and had a mean age of 23. The number of gonorrhea infections among FRGI classified persons ranged from 2 to 11. Males were more likely to have an early syphilis diagnosis following FRGIs (HR=1.24). Non-Hispanic Whites were more likely to have an early syphilis diagnosis following FRGIs (HR=1.32), and with each year increase in age, a person was more likely to have an early syphilis diagnosis (HR=1.04) after FRGIs.

CONCLUSIONS: Males, non-Hispanic Whites, and older individuals with multiple gonorrhea infections within an 18 month period were more likely to experience a subsequent early syphilis infection than other populations with FRGIs in Louisiana despite a greater proportion of females and non-Hispanic Blacks bring FRGI classified. Because both gonorrhea and syphilis infection are indicators of unprotected sexual contact and facilitate the transmission of HIV, screening for HIV is suggested in persons with FRGIs. Providers should be made aware of the association between FRGIs and subsequent syphilis infection so they can monitor patients with FRGIs more closely and perform regular syphilis screening.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Co-Morbidity; Risk Assessment; Sexually Transmitted Diseases
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11835
Abstract Type	Quick
Abstract Title	From Free to Fees: Evaluating the Local Health Impact of a Public Health STI Clinic Policy Change

Abstract

BACKGROUND: In July 2017, due to a statewide policy change, public health sexually transmitted infection (STI) clinics in Fairfax County, Virginia switched from providing no cost, walk-in services, to operating as an appointment-based clinic with sliding-scale fees. Nationally, the shift towards a revenue generating public health structure is common given reductions in funding for public health services and expanded opportunities for third-party billing. Sustainably funding STI clinics for underserved populations is a public health essential; however, evaluations detailing the local impact from these types of policy changes are lacking. We aim to evaluate changes in STI epidemiology temporally associated with this policy shift in Fairfax Health District (FHD).

METHODS: We analyzed FHD STI public health clinic visit data and laboratory-confirmed STI diagnoses for chlamydia, gonorrhea, HIV, and syphilis among FHD residents. For confirmed cases, we classified the provider site as an FHD clinic, other public health clinic, or private sector site. Data were compared for the six months before and after the policy change, excluding July 2017 as a transition period. Differences were assessed using Chi-squared, Fisher's exact, t-test, and interrupted time series analysis, as appropriate. Statistical significance was defined by a p-value of <0.05.

RESULTS: Compared with the baseline period, we saw a 55% decrease in the number of patients seen at FHD clinics during the six months after the policy change (from August 2017 to January 2018). At FHD clinics, we identified a 41% decrease in chlamydia diagnoses (from 181 to 107, $p<0.001$); numbers of gonorrhea, HIV and syphilis diagnoses before and after the change were similar. The proportion of tests from FHD clinics positive for chlamydia and gonorrhea increased significantly (from 9.9% to 12.9%, and 1.1% to 3.3%, respectively). Increases occurred in the number of STI diagnoses at other public and private sector sites, such that total confirmed diagnoses increased for all STIs in the six months after the policy change. Policy impacts on location of diagnosis and proportion of positive tests varied significantly by age, race and sex.

CONCLUSIONS: We found a significant shift in chlamydia diagnoses among Fairfax County residents from FHD clinics to other public and private sector sites following imposition of appointment-based clinics with fees. Increased yield of positive tests suggests a reduction in the worried-well population seeking care at FHD clinics. Although these results suggest the policy change has not increased the risk of undetected STI, further surveillance is needed to understand long-term impacts.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Evaluation; Local Epidemiology; Sexually Transmitted Diseases
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11545
Abstract Type	Quick
Abstract Title	Improving HIV Data Quality Using ELR Demographics

Abstract

BACKGROUND: As part of routine HIV surveillance practices, persons living with HIV are reported into the enhanced HIV AIDS Reporting System (eHARS) which is managed at Louisiana's STD/HIV Program. Date of birth (DOB) is a mandatory variable for all cases of HIV reported to the Centers for Disease Control and Prevention (CDC). Both intrastate and interstate case deduplication efforts rely heavily on DOB; if recorded incorrectly, true matches are left undocumented. Through Louisiana's electronic lab reporting (ELR) system, DOB is reported in conjunction with laboratory results. Using ELR data to identify discordant DOB in eHARS is a simple, cost effective, quality control method to enhance database management and reduce case duplication.
METHODS: Using SAS 9.3, all laboratory results with a valid DOB were compiled by unique person and DOB. The most frequently reported DOB per person was tabulated, including the number of laboratory results in which it appeared. This dataset was then matched against the current DOB in eHARS to identify discordant results (N=829). To maximize impact, persons with the highest frequencies of discordant DOB via ELR were prioritized. Frequency quartiles were established and follow-up was conducted on quartiles one through three, defined as greater than or equal to 13 laboratory results with discordant DOB present (N=614). Among these individuals, additional verification was conducted using Accurint LexisNexis before DOB was updated in eHARS. Finally, for individuals with a corrected DOB, a CDC Soundex match was conducted for out of state indications for deduplication.
RESULTS: For quartiles one through three, the majority of cases had an incorrect DOB previously recorded in eHARS and the true DOB was received via ELR. 480 profiles (78.2%) in eHARS were updated with the corrected DOB and four persons were subsequently deduplicated. After CDC soundex matching, 170 unique persons returned 270 potential out of state matches not previously identified. To date, 61 cases have been deduplicated from calls with other jurisdictions. Furthermore, while validating DOB with Accurint, 46 Social Security Numbers (SSN) were corrected and seven were collected on individuals with a missing or incomplete SSN.
CONCLUSIONS: In instances where DOB is discordant between eHARS and ELR data, the DOB from the ELR was more likely to be accurate. Utilizing these data as a tool for quality control is a simple and cost-effective strategy. Improving DOB accuracy enhances internal data quality used for reporting and the ability to deduplicate records on a national level.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Information Databases; Electronic Laboratory Reporting (ELR); HIV/AIDS
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11877
Abstract Type	Quick
Abstract Title	Monitoring Viral Suppression among Medicaid Enrollees Living with HIV: Results from Four Years of Medicaid/Surveillance Data Linkage

Abstract

BACKGROUND: In Louisiana, approximately 58% of people living with HIV (PLWH) are enrolled in Medicaid. The number of enrolled PLWH increased significantly with Medicaid expansion in July 2016. The Office of Public Health HIV Surveillance Program (OPH) and Medicaid Program have shared data for the past four years in order to monitor outcomes among PLWH, especially as PLWH transitioned to Medicaid post-expansion. All Medicaid managed care organizations (MCOs) are required to monitor and report HIV viral load suppression on a quarterly basis using data provided by OPH.

METHODS: For the MCO viral load suppression measure, Medicaid submits a file of persons enrolled in Medicaid who have an HIV diagnosis and at least one medical visit during the measurement year. These data are linked to HIV surveillance data to determine whether the person's last viral load was less than 200 copies/mL (i.e., virally suppressed). Data have been linked 13 times since 2014 and are now being exchanged every quarter. During the period of Medicaid expansion (July 2016- January 2017) data were linked monthly to monitor the transition of clients from Ryan White services to Medicaid, including monitoring viral load suppression.

RESULTS: In 2014 among all MCOs combined, 71% of persons enrolled in Medicaid with an HIV diagnosis were virally suppressed; viral suppression was 71% in 2015, 75% in 2016, 77% in 2017, and 77% in September 2018. Of the 3,684 persons receiving Ryan White services who transitioned to Medicaid between July 2016 and January 2017, viral suppression increased from 84% pre-transition to 88% 2 years post-transition.

CONCLUSIONS: Linking Medicaid data and HIV surveillance data has enabled OPH and the MCOs to better monitor HIV-related outcomes among Medicaid enrollees. OPH was able to monitor Ryan White clients who transitioned to Medicaid to ensure there were no gaps in services. MCOs can use the data to improve their outreach and services for enrollees who are living with HIV who are not virally suppressed. Data will continue to be linked and analyzed to identify subgroups of PLWH who need additional intervention to improve outcomes.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Data Sharing; HIV/AIDS; Outcome Measures
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11534
Abstract Type	Quick
Abstract Title	New HIV Infections Among People Who Inject Drugs — Northeast Massachusetts, 2015–2018

Abstract

BACKGROUND: In mid-2016 Massachusetts Department of Public Health (MDPH) identified an increase in HIV diagnoses among people who inject drugs (PWID) in northeastern Massachusetts, an area with high rates of fatal opioid overdoses. MDPH initiated an investigation to characterize the outbreak and recommend control measures.
METHODS: Cases were defined as HIV diagnoses during January 2015–May 2018 in PWID who received medical care, resided, or injected drugs in the Cities of Lawrence or Lowell; or who were a named injecting or sex partner, or were molecularly linked by HIV nucleotide sequences at a genetic distance of ≤1.5% to a case meeting temporal and geographic criteria. Case interviews identified needle-sharing and sexual contacts. Stakeholders provided information on local services. A purposeful sample of 34 PWID gave qualitative interviews.
RESULTS: Of 122 people identified as cases, 71 (58%) were male; 89 (73%) were aged 20–39 years at diagnosis; 80 (66%) were white, and 101 (85%) reported injection drug use. Thirty-one cases (25%) had only molecular links to other cases. Three molecular clusters of ≥5 cases were identified. Median CD4 count at diagnosis was 556 cells/µL (range 1–1470 cells/µL). Stakeholders reported fentanyl use and frequent homelessness and incarceration among PWID. Syringe service program (SSP) accessibility was higher in Lawrence than Lowell. All PWID interviewed expressed a desire not to share syringes and acknowledged that sharing injection equipment occurs; 7 reported injecting >10 times/day, and 7/13 females reported exchange sex.
CONCLUSIONS: Molecular analysis aided case identification and indicates several introductions of HIV into this population with recent rapid transmission alongside detection of longstanding infections. Fentanyl use alters risk behaviors including increasing injection frequency. In 2016, Lawrence established a state-funded SSP; a privately funded SSP opened in Lowell in 2018. MDPH has expanded local field epidemiology to link individuals to care.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Substance Use; HIV/AIDS
Consider for Different Presentation?	No
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Submission Type	Breakout/Quick/Lightning/Poster
ID	10849
Abstract Type	Quick
Abstract Title	Progress Towards Implementation of 2018 CSTE Revised Syphilis Case Definition

Abstract

BACKGROUND: Syphilis, a sexually transmitted disease (STD), can lead to severe complications if untreated, including blindness and deafness. In January 2018, a revised CSTE case definition for syphilis went into effect and included definitions for new variables to capture important clinical manifestations of syphilis. To facilitate transfer of these new variables when providing case notifications to CDC, the record layout for notifiable STDs was concurrently revised. We reviewed syphilis case reports sent to CDC to identify progress in implementing this aspect of case definition change.

METHODS: We reviewed case reports of syphilis, all stages (excluding congenital syphilis), sent to CDC in 2018 (as of 12/13/2018). For each new clinical manifestation variable (late clinical, otic, and ocular manifestations), we reviewed the value reported (1=Yes, verified; 2=Yes, likely; 3=Yes, possible, 4=No, 9=Unknown, or Missing). We identified states that had reported at least one syphilis case with a non-9, non-missing value and estimated the prevalence of clinical manifestations in these states.

RESULTS: As of 12/13/2018, 90,689 syphilis cases (all stages) were reported in the United States for 2018; all states and the District of Columbia reported at least one case of syphilis. Only fourteen (27%) states reported at least one case with a non-9, non-missing value for late clinical, otic, or ocular manifestations variables. In these states, 13,333 cases were reported. Overall, the majority of these cases (78%) were coded as missing or unknown for the clinical manifestation variables. Among the cases with a non-missing or unknown value, the prevalence of late clinical manifestations (verified, likely, or possible) was 2.0% (58/2,871), of ocular manifestations was 2.8% (80/2,883), and of otic manifestations was 1.1% (31/2,881).

CONCLUSIONS: Only about a quarter of states have begun sending information to CDC on clinical manifestations identified in the current CSTE syphilis case definition. Based on data from a limited number of states, prevalence of reported complications is low. Documenting clinical consequences of syphilis is important to inform patient management, as well as to monitor trends in sequelae. Barriers to implementation of the revised case definition may be related to difficulties modifying surveillance information systems.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Sexually Transmitted Diseases; Surveillance
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11257
Abstract Type	Quick
Abstract Title	Sexual Risk Behaviors Associated with HIV Testing Among Sexually Active High School Females in the U.S. By Race/Ethnicity – Youth Risk Behavior Survey, 2015-2017

Abstract

BACKGROUND: Nearly 1,000 young women aged 13-24 received an HIV diagnosis in 2016, two-thirds of which were among black/African American women. Most new diagnoses among young women were attributable to heterosexual contact. CDC recommends "at least once in a lifetime" HIV screening for everyone aged 13-64, and annually for high-risk individuals. Between 2005 and 2013, less than 1/3 of sexually experienced high school females had ever been tested for HIV. Our objective was to examine the association between sexual risk behaviors and HIV testing among sexually active high school females by race/ethnicity.
METHODS: Using 2015 and 2017 Youth Risk Behavior Survey data, we analyzed data from 4,097 sexually active high school females. We calculated prevalence estimates and 95% confidence intervals [CIs] of sexual risk behaviors (first had sex before age 13, ever been forced to have sex, had 4 or more lifetime sexual partners, did not use a condom during last sex, and used alcohol or drugs before last sex) and ever had an HIV test. We used logistic regression to calculate prevalence odds ratios and 95% CIs for the association between each sexual risk behavior and HIV testing adjusted for high school grade. All analyses were stratified by race/ethnicity (non-Hispanic white [NHW], non-Hispanic black/African American [NHB], Hispanic or Latina [Hispanic]). We used non-overlapping CIs as a conservative test of significance at the 0.05 alpha level to determine differences in prevalence across racial/ethnic groups.
RESULTS: NHB females reported the highest prevalence of having had an HIV test (34.4%) compared with NHW (20.2%) and Hispanic (20.3%) females. A higher proportion of NHB reported first sex before age 13 than did NHW (7.7% vs 3.2%). Prevalence of other sexual risk behaviors were similar across racial/ethnic groups. Among NHW and Hispanic females, all sexual risk behaviors were positively associated with HIV testing except alcohol or drug use before last sex among Hispanics. Among NHB females, only having 4 or more lifetime sexual partners was positively associated with HIV testing.
CONCLUSIONS: The prevalence of ever having been tested for HIV among sexually active NHW, NHB, and Hispanic high school females was lower in 2015 and 2017 than is recommended by CDC, indicating a need for more "once in a lifetime" HIV testing in all groups. Additionally, more annual testing and sexual health education to reduce sexual risk behaviors may be warranted for all females with high risk behaviors.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Minority Health; Children and Adolescents; HIV/AIDS
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	10575
Abstract Type	Quick
Abstract Title	Sleuthing for Risks: Drug Use and Exchanging Sex for Drugs or Money Among Mothers of Congenital Syphilis (CS) Babies

Abstract

BACKGROUND: Gathering risk information, specifically drug use and exchanging of sex for money/goods, for pregnant females with syphilis is critical to both provide the best support for obtaining treatment, and to make informed procedural shifts to reduce syphilis within our communities. We assessed whether the number of CS mothers with self-reported risk factors in our database is accurate or under-reported when supplemented with other surveillance tools.

METHODS: Self-reported risk factors of the mothers of CS babies (n=81) were extracted from Florida's sexually transmitted disease surveillance database for 2017 and analyzed for disclosure of drug use, including marijuana, or prostitution. Case review was performed to identify any mentions of drug use or exchanges of sex for drugs or money not contained in self-reported risk factors. Accurint® searches were completed on all the mothers of CS infants to view any related criminal charges. Differences between the number of CS mothers reporting these risk factors, versus the total number reporting it, plus those with criminal records of the behavior, were analyzed using X^2 tests.

RESULTS: Extraction of risk factors related to drug use and exchange sex from the surveillance database indicated 15% (n=12) of CS mothers used drugs and 10% received money or drugs for sex (9% for both). Case review identified an additional 12% (n=10) of mothers that may be using drugs and no additional mothers reporting sex exchanges. Accurint® criminal records were found for 52% (n=42) of the mothers. Drug and/or prostitution charges were identified for 22% (n=18) of the mothers (drug: 20%, n=16; prostitution: 11%, n=9). Adding case review and Accurint® searches yielded significantly more mothers using drugs (32%), compared to those only self-reporting these risk factors (14%) (risk ratio 2.7, confidence limits 1.2 – 4.0). Conversely, although we found additional mothers with histories of prostitution (15%), this increase was not significantly higher than the self-reported risk factors alone (10%) (risk ratio 1.5, confidence limits 0.6 – 3.5).

CONCLUSIONS: Drug use among mothers of CS infants is likely higher than our surveillance database indicates. Further, criminal databases can be a useful tool in identifying addition mothers where drug use was likely, but either the mother was never located for interviewing, the interviewer never asked, or the women were reluctant to disclose drug use. Training techniques to help the interviewer establish trust with the clients, and to reinforce the need to ask these questions, could aid in improving response rates to sensitive questions.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Substance Abuse; Maternal and Child Health; Sexually Transmitted Diseases
Consider for Different Presentation?	Yes
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Submission Type	Breakout/Quick/Lightning/Poster
ID	11079
Abstract Type	Quick
Abstract Title	Violence Victimization, Suicide Attempt, and HIV Testing Vary By Nhas HIV Risk Profile Among Sexual Minority Male High School Students

Abstract

BACKGROUND: An aim of the National HIV/AIDS Strategy (NHAS) was a reduction in the percentage of adolescent sexual minority males (SMM) who have engaged in HIV risk behaviors by at least 10% from the 2015 national baseline of 35.2%, which was achieved in 2017. Adolescent SMMs are at increased risk for several concerning experiences, including violence and suicidality compared to their heterosexual peers. Information is limited on health behavior differences by NHAS HIV risk behaviors. This study aimed to compare violence victimization (VV), attempted suicide and HIV testing status among SMM students who have and have not engaged in HIV risk behaviors.

METHODS: The 2015 and 2017 cycles of the national Youth Risk Behavior Survey, a nationally representative, cross-sectional survey conducted among students in grades 9-12 were combined and, analyses were restricted to male students who engaged in sexual contact with males only or with both males and females (SMM) (n=484). NHAS HIV risk behaviors were defined as engaging in at least one of the following: (1) had sexual intercourse during the past three months with 3+ persons, (2) had sexual intercourse during the past three months and did not use a condom during last sexual intercourse, or (3) ever injected any illegal drug. SMM were then dichotomized into 2 groups -- NHAS HIV risk behaviors vs no NHAS risk behaviors. Descriptive analyses compared demographic characteristics, six VV indicators, attempted suicide, and HIV testing by NHAS HIV risk profile. Logistic regression analyses estimated prevalence ratios (PRs) and 95% confidence intervals (CIs) for associations between NHAS HIV risk profile and health behavioral outcomes.

RESULTS: SMM students were more likely to have engaged in NHAS HIV risk behaviors if they missed school because they felt unsafe (PR=1.87;95% CI:1.34-2.81), had been threatened/injured by a weapon on school property (1.83;1.22-2.76), experienced sexual dating violence (2.00;1.39-2.88), experienced physical dating violence (2.76;1.88-4.06), attempted suicide (1.75;1.19-2.58), and had ever been tested for HIV (1.56;1.10-2.22).

CONCLUSIONS: SMM students who engage in NHAS HIV risk behaviors experience higher rates of VV and suicidal behaviors compared to SMM students who do not engage in such behaviors. SMM at higher risk for HIV may benefit from interventions that address a variety of risk domains. Opportunities for prevention may include increasing protective factors for adolescent SMM (e.g., safe and supportive environments), access to mental health services in schools, as well integrating different behavior domains into evidence-based health education programs.

Submission Complete?	Yes
Committee	Infectious Disease
Topic	HIV & STD
Keywords	Violence; Suicide / Self-Inflicted Harm; HIV/AIDS
Consider for Different Presentation?	Yes
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