

ASTDA Small Project Assistance: Final Report

Date: 11/28/23

Project Name: The Impact of State-Level Sex Education Mandates on Gonorrhea and Chlamydia Diagnosis Rates in Children Aged 15 to 19

Project Goals: High school sex education is a core mitigation strategy to prevent long-term population transmission of sexually transmitted infections (STIs). In the US, sex education is mandated at the state level, so people across the country receive different information depending on where they live. New sex education curricula have been developed since 2001, but we continue to see rising chlamydia and gonorrhea rates, particularly in adolescents aged 15 to 19. The goal of this project was to provide valuable insight into sex education as an STI prevention strategy by evaluating three different policies' effects on chlamydia and gonorrhea rates in adolescents aged 15-19. Policies included whether sex education, STI/HIV education, and/or contraceptive education were mandated in each state. This project was awarded \$3,800 by the ASTDA to pay the stipend for an early-career research assistant who spearheaded the statistical data analysis for this project and presented results at the STI & HIV 2023 World Congress.

Project Achievements: Thanks to the funding provided by ASTDA, a poster titled “The Relationship Between State-Level Sex Education Mandates, Gonorrhea, and Chlamydia Diagnosis Rates in Adolescents Aged 15 to 19” was presented at the STI & HIV 2023 World Congress in Chicago. Our analysis revealed that average state-level diagnosis rates for chlamydia in adolescents aged 15 to 19 increased between 2001 and 2019, with a period of attenuation from 2011–2014, and average state-level rates for gonorrhea changed little during 2001–2013 but increased between 2013 and 2019. Between 2001 and 2019, 313 new sex/STI education policies were mandated nationally. Sex education policies were introduced and removed often during the period. Nationally, the sex education mandate changed 14 times, the STI education mandate changed 16 times, and the contraceptive education mandate changed 15 times. We fitted statistical models to the state-level data to investigate the relationship between sex education policies and STI rates in our target population. We found that relatively simple, baseline, models-- accounting for common time trends, state-level effects, and (for gonorrhea) socioeconomic explanatory variables-- explained variation in STI rates better than models incorporating effects of sex education along with the baseline variables. This suggests that STI rates in 15 to 19-year-olds had relatively little relationship with sex education mandates during this period. Therefore, our longitudinal sample of state-level STI rates adjusted for socioeconomic variables does not support the premise that mandated sex education reduces STIs in adolescents. These results do not negate the importance of sex education; however, we need to adjust our policy implementation strategies and continually strive to develop more inclusive and effective curricula.