Characterizing Sexual Behavior and Mixing Patterns of American Adults of Different Races/Ethnicities

Ashleigh R Tuite1, Muntu M Rönn1, Emory E Wolf2, Nicolas A Menzies1, Kara V Galer3, Thomas Gift4, Katherine Hsu5, and Joshua A Salomon6

1Harvard T.H. Chan School of Public Health; 2Centers for Disease Control and Prevention; 3Massachusetts Department of Public Health

Background
- Racial/ethnic disparities exist in sexually transmitted infections in the United States
- Non-Hispanic black Americans experience a disproportionate share of overall STI burden
- Individual behaviors, sexual networks, and broader contextual factors may contribute to observed disparities
- Characterizing sexual behavior and mixing patterns is important for understanding STI dynamics and for planning and evaluating public health interventions

Objectives
- To analyze self-reported sexual partnership behaviors in adults aged 15-39 years
- To identify differences by race/ethnicity

Methods
- 2011-2013 National Survey of Family Growth (NSFG)
  - Ever sexually-active respondents aged 15-39 years (n=7511)
  - Unweighted sample size 3086
  - Population total estimate 42.5 million
  - Data weighted to account for complex sampling procedures used by NSFG

Data
- 2011-2013 National Survey of Family Growth (NSFG)
- Ever sexually-active respondents aged 15-39 years (n=7511)
  - 84% of males and 85% of females aged 15-39 reporting ever had sexual intercourse
  - Categorized by age, race/ethnicity, and race/ethnicity of most recent opposite-sex sexual partner

Individual sexual behaviors
- Non-Hispanic black males aged 15-39 more likely to report 4 or more lifetime sexual partners than other males (p<0.001)
- Non-Hispanic black females more likely, and Hispanic females less likely, to report 4 or more lifetime partners than non-Hispanic non-black females (p<0.001)
- Hispanic males less likely to report use of a condom at first sexual intercourse than other males (p=0.001)
- Non-Hispanic non-black females more likely to report condom use than other females (p=0.001)

Results
- Characteristics of ever sexually-active respondents of the 2011-2013 NSFG

Propensity to select partners of the same race/ethnicity
- Black and Hispanic males less likely to report a recent sexual partner of the same race/ethnicity than non-Hispanic non-black males (p=0.001)
- Hispanic females less likely to report a partner of the same race/ethnicity than other females (p<0.001)

Conclusions and Future Directions
- Self-reported sexual behaviors and mixing patterns differ by race/ethnicity, age, and sex in the United States
- Can use this information to inform mathematical models of STI transmission and help illuminate behavioral drivers of observed disparities in STI burden
- Data currently being used to parameterize a mathematical model of gonorrhea transmission

Incorporating these data will allow us to capture both individual risk behaviors and risk associated with network characteristics to better understand observed trends in gonorrhea burden