EXPLAINING THE RACIAL DISPARITY IN SEXUALLY TRANSMITTED INFECTION: INDIVIDUAL-LEVEL BEHAVIOR, MESO-LEVEL STRUCTURE AND MACRO-LEVEL OUTCOMES


Committee:
Martina Morris (Chair), Matthew Golden (GSR), Samuel J. Clark, Robert Crutchfield, Steven M. Goodreau, Mark S. Handcock.

For as long as data has been collected on sexually transmitted infections (STI) in the U.S., there has been a significant racial disparity in the prevalence of STI. Three papers are presented here that together systematically attempt to identify the causal mechanism generating the persistent disparity with particular focus on the structure of sexual networks. In the first paper, data from four surveys of the U.S. population are used to determine the extent to which behaviors related to STI acquisition and transmission varies across race. In the second paper, a traditional logistic regression approach to predicting STI is used to determine the association between individual risk behaviors and network location measure and STI status. The mitigating impact on the observed association between race and STI is also shown. In the third paper, dynamic network simulation is used to demonstrate the extent to which observed rates of assortative mixing by race and concurrency can generate racial disparities in STI similar to those observed in the U.S. population.