Yale SCHOOL OF PUBLIC HEALTH

Public Health Modeling Unit
Seminar Series

Shweta Bansal, PhD

Associate Professor of Biology
Georgetown University

Characterizing spatial heterogeneity in respiratory disease transmission through spatial 'big data'

March 7, 2022
12-1 pm (Eastern)

During one of epidemiology's formative moments, John Snow mapped London households with cholera and succeeded in highlighting the risk of disease associated with the Broad Street pump. Since then, spatial investigations have played a critical role in improving our understanding of the associations between risks and disease outcomes. Modern electronic resources allow us to carry out spatial epidemiology studies by increasing accessibility to populations over space and time, and by providing digital data on health behaviors and health outcomes at unprecedented breadth and depth. In this talk, Dr. Bansal will discuss case studies where spatial big data has improved spatial modeling and describe ongoing challenges as spatial big data become more pervasive in informing disease surveillance, disease control, and public health policy.

Shweta Bansal is a Provost's Distinguished Associate Professor of Biology at Georgetown University and specializes in the role of social and spatial behavior in infectious disease transmission dynamics. She leads an interdisciplinary research group that develops data-driven mathematical models using tools from network science, statistical physics, and spatial statistics to study disease surveillance and control in a variety of human and animal disease systems.

Dr. Bansal received her bachelor's degree in mathematics and computer science from Santa Clara University, and her master's degree in computational and applied mathematics from UT Austin. Her PhD, in network modeling and infectious disease ecology, also was completed at UT Austin.

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Or telephone: 203-432-9666 (2-ZOOM if on campus) or 646 568 7788
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ZOOM ONLY Class will not meet in LEPH115 this date