

1163-92-1005 **Shweta Bansal***, shweta.bansal@georgetown.edu. *Infectious disease surveillance and modeling through spatial “big data”*. Preliminary report.

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, I will discuss case studies where we have applied an ecological approach and spatial big data modeling to inform disease surveillance, disease control, and public health policy. (Received September 14, 2020)