Yale school of public health



Public Health Modeling Unit Seminar Series

Samuel V. Scarpino, PhD

Managing Director,
Pandemic Prevention Institute,
Health Initiative, The Rockefeller Foundation

The Role of Behavior, Mobility, and Social-Network Structure in Shaping Epidemics

October 18, 2021
12 - 1 pm EDT (US & Canada)

The COVID-19 pandemic has upended our societies and re-shaped the way we go about our day-to-day lives — from how we work and interact to the way we buy groceries and attend school. Leveraging global data sets that represent billions of people, Sam Scarpino will present a series of studies exploring how our behavior, mobility patterns, and social networks have altered and been altered by COVID-19 and the non-pharmaceutical interventions implemented to control its spread. Next, he will examine how we can better incorporate stochasticity and social network heterogeneity and link directionality into forecasting pandemic risk. With these results, Dr. Scarpino will demonstrate how the complexity of COVID-19 creates epistemological challenges associated with model identifiability. Finally, he will discuss The Rockefeller Foundation's Pandemic Prevention Institute. The Institute is building an equitable, representative network of data systems that respects sovereignty, upholds the highest ethical standards, and empowers decision-makers to respond efficiently and effectively to pathogen threats. It will ensure that early warnings sound when needed and local actors are empowered to take appropriate steps before it is too late. Embracing a combination of technological innovation, capacity building, and multi-sector collaboration, the Institute and its partners will transform the world's ability to capture signals and provide rapid response.

Sam Scarpino is Affiliate Assistant Professor, Northeastern University, and on the External Faculty, Santa Fe Institute & Vermont Complex Systems Center.

EPH 580 01 (FA21): Seminar for Modeling in PH

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