

Uncertainty and the Response to COVID-19



Abstract: The COVID-19 pandemic has impacted all of our lives and reporting on epidemiological data has become almost a routine, daily occurrence. Since early in the pandemic, I have been on the OSU Comprehensive Monitoring Team that has been advising the Ohio Department of Health. One important theme throughout this work has been operating under uncertainty. As with any novel disease, there was and still is uncertainty about the disease itself. However, there is also uncertainty about the data that we can collect to try to understand rates of infection across space and time and to identify emerging areas of concern. It is critical to consider this uncertainty within the decision-making process. During this talk, I will discuss several areas where I have contributed to the response to COVID-19 including a seroprevalence study, surveillance, and an excess deaths analysis. I will particularly focus on the importance of thinking beyond the data that are observed to consider the context and the quality of what are observed. Through these examples, I will highlight important contributions of statistical and epidemiological methods and thinking.

About the Speaker: Dr. Kline is an Assistant Professor in the Department of Biomedical Informatics at The Ohio State University. He is also affiliated with the Center for Biostatistics, co-leads the Population Health Informatics and Biostatistics (PHIB) Lab, and is a member of the Infectious Diseases Institute. Broadly, Dr. Kline's research is focused on addressing problems in population health and epidemiology using biostatistical methodology and data science. He is particularly interested in using multivariate disease mapping techniques and Bayesian hierarchical models to address complex, difficult to measure social and epidemiological problems, like the opioid epidemic. In addition, Dr. Kline applies his biostatistical expertise in a wide variety of collaborative research. He is primarily focused on modeling clinical and observational data.

David Kline, PhD
Friday, October 2nd, 11:00am-12:00pm
Carmen Zoom