What Your Electronic Health Data Won't Tell You...But I Will

Sherri Rose, PhD, Associate Professor
Department of Health Care Policy, Harvard Medical School and
Co-Director of the Health Policy Data Science Lab

Abstract

Health care is moving toward analytic systems that take large databases and estimate varying quantities of interest both quickly and robustly, incorporating advances from statistics, econometrics, and computer science. The massive size of the health care sector make data science applications in this space particularly salient for social policy. This presentation will discuss specific challenges related to developing and deploying statistical machine learning algorithms for health economics and outcomes research, including examples from the areas of health plan payment and medical devices. Considerations go beyond typical measures of statistical assessment, and include concepts such as dataset shift, algorithmic fairness, and inclusivity.