JOHNS HOPKINS BLOOMBERG SCHOOL of PUBLIC HEALTH

Department of Biostatistics

BIOSTATISTICS SEMINAR,

Instrumental Variable Methods Using Dynamic Interventions

FACULTY CANDIDATE
Jacqueline Mauro, Ph.D., Postdoctoral Fellow, University of California at Berkeley University

Abstract

Recent work on dynamic interventions has greatly expanded the range of causal questions researchers can study. Simultaneously, this work has weakened identifying assumptions, yielding effects that are more practically relevant. Most work in dynamic interventions to date has focused on settings where we directly alter some unconfounded treatment of interest. In policy analysis, decision makers rarely have this level of control over behaviors or access to experimental data. Instead, they are often faced with treatments they can affect only indirectly and whose effects must be learned from observational data.

In this paper, we propose new estimands and estimators of causal effects based on dynamic interventions with instrumental variables. This method does not rely on parametric models and does not require an experiment. Instead, we estimate the effect of a dynamic intervention on an instrument. This robustness should reassure policy makers that these estimates can be used to effectively inform policy.

We demonstrate the usefulness of this estimation strategy in a case study examining the effect of visitation on recidivism.

Johns Hopkins Bloomberg School of Public Health, Department of Biostatistics
Thursday, January 30, 2020, 12:30-1:30 p.m., Sheldon Hall W1214

For disability access information or listening devices, please contact the Office of Support Services at 410-955-1197 or on the web **www.jhsph.edu/SupportServices**, **EO/AA**