

GOSTUJUĆA PREDAVANJA s praktičnom demonstracijom

Causal Inference — Propensity Score

Petak
12. listopada 2018.

10-17h

Škola narodnog zdravlja Dvorana A
“Andrija Štampar”

ROCKEFELLEROVA 4, ZAGREB

In their lectures, Jess Rohmann and Tobias Kurth will give an introduction in causal inference methodology to analyze observational data, with practical examples.

In part 1 (10-11.30h), Jess Rohmann will provide a brief introduction to causality and present a framework within which it can be applied in epidemiological and population health science research settings. The traditional definition of “confounders” will be challenged by the modern causal inference view of “confounding.” Strategies to deal with confounding in observational data will be briefly discussed.

In part 2 (11.45-14.15h), Tobias Kurth will introduce the theory and practical application of one method of confounding control; the propensity score. This section will have a specific focus on propensity score matching. In addition, different implications of other utilization of the propensity score will be discussed.

In a practical demonstration (15-17h), participants will work through interactive, practical examples of applying directed acyclic graphs as well as applying the propensity score in matching and other methods. Useful packages for building and implementing the propensity score in the statistical software program R will also be presented.

Professor Tobias Kurth, MD, ScD
Charité - Universitätsmedizin Berlin &
Harvard School of Public Health



Tobias Kurth, MD, ScD, is Professor of Public Health and Epidemiology and the Director of the Institute of Public Health at the Charité - Universitätsmedizin Berlin, Germany. He is further an Adjunct Professor of Epidemiology at the Harvard T.H. Chan School of Public Health in Boston, Co-Director of the Centre Virchow-Villermé for Public Health Paris - Berlin, and Spokesperson of the board of directors of the Berlin School of Public Health.

Tobias Kurth received his M.D. from the University of Tübingen in Germany and a doctorate in epidemiology from the Harvard T.H. Chan School of Public Health. He served as a resident in the Department of Neurology at the University Hospital of Essen, Germany, which has a strong focus on migraine headache and stroke. Moreover, he was a research fellow at the Division of Preventive Medicine, Brigham and Women's Hospital, Boston, MA.

Professor Kurth has published >300 articles in indexed journals and is ranked among the top 1% of scientists by the ISI Web of Science in the field of clinical medicine, with an h-index of 77 in Google Scholar. He is a Consulting Clinical Epidemiology Editor at the BMJ and involved in teaching and training in Germany and internationally, specifically in epidemiological methods and neurovascular epidemiology.

Jess Rohmann, MScPH
Charité - Universitätsmedizin Berlin



Jess Rohmann is currently in the final stages of her PhD project in clinical epidemiology at the Center for Stroke Research Berlin at the Charité - Universitätsmedizin Berlin and recently started a research fellowship at the Institute of Public Health in Berlin. She has a degree in biochemistry from the University of Wisconsin-Madison (USA)

and worked in a virology laboratory before transitioning into epidemiology and population health science. She completed her MScPH degree in 2013 at the Charité - Universitätsmedizin Berlin.

Her current research projects focus on hypercoagulability, neurovascular disease, cardiovascular mortality, and migraine. She is also involved in causal inference and prediction modeling methodology research. Jess Rohmann has gained extensive experience in both curriculum development and teaching of numerous methods-focused courses in epidemiology, causal inference, and applied statistics both within Germany and internationally. Additionally, she initiated and co-chairs the Berlin Epidemiological Methods Colloquium, which has >200 active members and serves to facilitate collaboration and methodological exchange amongst professionals in Berlin through interactive monthly meetings.