

Workshop "Outcome-wide Epidemiology and Causal Inference"

Instructor: **Tyler J. VanderWeele**, John L. Loeb and Frances Lehman Loeb Professor of Epidemiology, Departments of Epidemiology and Biostatistics, Harvard T.H. Chan School of Public Health, Boston, MA, USA

Target group: Doctoral students, Postdoctoral fellows, Junior and Senior researchers, primarily from Karolinska Institutet.

Abstract: The workshop will provide an overview of the principles of causal inference especially as relevant to outcome-wide studies. Outcome-wide epidemiologic studies are an extension of the approach often used to assess evidence for the causal effects of an exposure using confounding control, but over numerous outcomes rather than a single outcome. Discussion will be given to (i) the temporal and confounding control principles for causal inference in general and as related to outcome-wide studies; (ii) metrics, such as the E-value, to evaluate robustness or sensitivity to potential unmeasured confounding for each outcome; and (iii) approaches to handle multiple testing. Outcome-wide longitudinal designs have numerous advantages over more traditional studies of single exposure-outcome relationships including results that are less subject to investigator bias, greater potential to report null effects, greater capacity to compare effect sizes, a tremendous gain in the efficiency for the research community, a greater policy relevance and a more rapid advancement of knowledge. Discussion will be given to both the practical and theoretical justification for the outcome-wide longitudinal studies and also the pragmatic details of their implementation. Outcome-wide designs have the potential to more rapidly advance our knowledge within epidemiology.



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Register: <https://survey.ki.se/Survey/29544>

No workshop fees, coffee/tea is included.

Date: 2022-03-15 | 09.00 – 13.00

Venue: Samuelssonsalen, Tomtebodavägen 6, Solna
(not possible to attend remotely)



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