Design and Methods in Population and Community Health Research

Abstract: While randomized controlled trials (RCT) are often considered the gold standard for inference in efficacy or effectiveness, RCTs are not always logistically possible, ethical, or may take considerable community and stakeholder engagement to be feasible. In this talk, I will describe several projects in population health where statistical principals of design and methods development have been critical to answering the questions of interest. For example, we will consider the design, interim monitoring and evaluation of a recent trial of non-operative management for children with uncomplicated appendicitis. In addition, I will discuss novel causal inference methods to examine time dependent treatment initiation for survival outcomes. Here, the goal is to balance the covariate distribution between on-time treatment and delayed treatment groups at each time point under risk set matching. We apply this method to study the delayed treatment effect of 17 alpha-hydroxyprogesterone caproate (17P) for patients with recurrent preterm birth.

About the Speaker: Dr. Erinn Hade is an Associate Professor in the Departments of Biomedical Informatics and Obstetrics & Gynecology, The Ohio State University College of Medicine. She leads the Population Health studies group in the Center for Biostatistics and co-leads the OSU Maternal and Child Health research group where they focus careful design, inference and method development to improve the health of women and children. Her interests in statistical and epidemiologic methods focus on efficient and pragmatic design and implementation of population based trials, and in best use of existing secondary data. She holds an MS in Biostatistics from the University of Washington and PhD from The Ohio State University. http://u.osu.edu/hade.2/ ; https://u.osu.edu/osumch/

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Carmen Zoom