New methods for mediation analysis in perinatal epidemiology: An application to medication-mediated effects in HIV

Kelesitse Phiri, PhD

Postdoctoral Fellow,
Department of Epidemiology

Harvard T.H. Chan School of Public Health

Thursday, April 7, 2016
12:00 to 1:00 pm
121 S. Main St., Room 245

Both maternal HIV infection and use of combination antiretroviral treatment (ART) during pregnancy have been associated with an increased risk of adverse birth outcomes. However, it remains unknown whether in the era of widespread ART use, the extent to which effects associated with HIV may be attributed to ART exposure. We have recently developed general methodology to quantify the ART mediation-mediated effect of maternal HIV on birth outcomes, thus allowing us to tease apart the direct effect of HIV from its indirect effects mediated by ART. We applied the analytic technique to surveillance data of over 33 000 birth outcomes among HIV-infected and uninfected women in Botswana. The proportion of the effects of HIV mediated by maternal ART use during pregnancy was 41%, 43% and 61% for stillbirth, SGA and preterm delivery, respectively.