Faculté de pharmacie
Séminaire de l'axe
« Médicament et santé des populations »

« *Estimating the Impact of Cluster-Based Interventions: The SEARCH trial and HIV prevention in East Africa* »

Laura B. Balzer, Ph.D.

Stagiaire postdoctorale
Dép. de biostastistiques
Harvard T.H. Chan School of Public Health

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À l'invitation de la professeure Mireille Schnitzer

Evaluation of cluster-based interventions presents significant methodological challenges. In this talk, we describe the design and analysis of the SEARCH trial, an ongoing community randomized trial to evaluate the impact of early HIV diagnosis and immediate treatment with streamlined care in rural Uganda and Kenya. We focus on 3 choices to optimize the design and analysis: pair-matching over complete randomization, targeting the sample effect instead of a population average parameter, and data-adaptive adjustment through a pre-specified targeted maximum likelihood estimator (TMLE). These choices are compared theoretically and with finite sample simulations. We demonstrate each choice improves efficiency relative to standard practice, while maintaining nominal confidence interval coverage. We conclude with practical implications and some ongoing challenges.