BIOSTATISTICS SEMINAR

Statistical Considerations in Cross-Sectional HIV Incidence Estimation

Jacob Konikoff, Faculty candidate
Department of Biostatistics
UCLA

Abstract

Tracking and surveillance of the HIV epidemic depend on accurate estimation of the number of new infections in the population. The rate at which these infections occur, known as the incidence, is also critical for effectively designing, targeting, and evaluating prevention efforts. This talk focuses on recent advances in estimating HIV incidence through cross-sectional surveys. We develop and discuss biomarker-based sequential classification algorithms that mark individuals in an early disease stage as recent infections. We further derive sample size methodology for executing both single and successive cross-sectional surveys. Our findings show both the limitations and growing promise of cross-sectional methods for estimating HIV incidence.

The Johns Hopkins Bloomberg School of Public Health, Department of Biostatistics, Monday, January 12, 2015, 12:15-1:15, Room W3030

School of Public Health (Refreshments: 12:00-12:15)

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