BIOSTATISTICS SEMINAR

On Weighted Estimators for Generalizing Average Treatment Effects from a Trial to a Target Population

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Abstract

Because the distribution of treatment modifiers in a population may differ from that observed among randomized trial participants, trial results may not directly reflect the average treatment effect that would follow real world adoption of a new treatment. Much interest has recently arisen around using reweighting methods to more appropriately generalize trial results to real populations. Before we can evaluate such methods, we first carefully define the population averages of interest. Then, we compare several naturally arising model-based and nonparametric weighted estimators for the generalization problem. We consider their absolute and relative performance across various large- and small-sample data scenarios and possible population parameter definitions. We especially focus on methods for constructing confidence intervals based on both closed form and resampling-based approaches. We make recommendations for practice based on simulation results and a real data demonstration.

The Johns Hopkins Bloomberg School of Public Health
Department of Biostatistics, Monday, April 10, 2017, 12:15-1:15
Room W2008 (Refreshments 12:00pm)

Note: Taking photos during the seminar is prohibited

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