

PUBLIC HEALTH & PREVENTIVE MEDICINE

GRAND ROUNDS

Sponsored by: Division of Biostatistics

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12 PM-1 PM

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Using Auxiliary Information to Correct for Informative Loss to Follow Up

ABSTRACT

Almost all methods for analysis of longitudinal data assume that unobserved data are similar to observed data. That is certainly not the case in most longitudinal studies in elderly populations. We know – and ignore – the fact that study participants who don't appear for assessments are worse off than those who do. Specifically, the Missing At Random (MAR) assumption is almost always violated in these studies, but that fact is routinely ignored in data analyses. As a result, rates of decline in function, and rates of incident disease, will be systematically underestimated. In some studies additional "auxiliary" data are available on participants who are lost to follow-up. We will offer three examples of such auxiliary data and show two statistical approaches, joint modeling of the outcome of interest with the auxiliary data, and multiple imputation, that can be used to help estimate the degree to which the original data result in bias.

Food and beverages will be provided.