
Title: Missing Data and Multiple Imputation



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Proposal

Missing data are a pervasive problem in large epidemiologic studies. Incomplete data may arise due to refusal, attrition, measurement errors and miscommunication. Ignoring incompleteness or handling the data inappropriately may bias study results, reduce power and efficiency, and alter important risk/benefit relationships. Statistical methods for addressing missing values have been actively pursued in recent years, including maximum likelihood estimation, Bayesian estimation and multiple imputation (MI). The proposed topic will provide an introduction to MI with a focus on practical aspects and challenges. It can well disseminate the state-of-art missing data methodology to the readers of the journal.

Mathematical Statistician

Dr. Liu is a Mathematical Statistician on the Statistics Team in CDC/NCIPC/DARPI's Statistics, Programming & Economics Branch, USA. Currently he provides technical assistance to strengthen capacity for employing sound statistical methods and surveys in national injury/violence related programs. Yang conducts research, statistical consultation and hands-on analysis of several large complex data sets like NISVIS and HCUP. He also has interest in missing data analysis and has published research articles related to multiple imputation methodology in *International Journal of Statistics in Medical Research* and *Transfusion Medicine Reviews*. Dr. Liu served as organizer and chair of a session on missing data and multiple imputation at the 2016 International Chinese Statistical Association (ICSA) Applied Statistics Symposium. In addition, he serves the larger statistical community as NCIPC's representative to CDC's Statistical Advisory Group (SAG) Training Committee.
