NYSPI Biostatistics Seminar Series[1]

Semi-parametric Models for Longitudinal Count Responses with Overdispersion and Structural Zeros

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3:30-4:30pm, New PI 6th Floor Multipurpose Room (6602)
Light refreshments provided

Abstract

Overdispersion and structural zeros are two major manifestations of departure from the Poisson assumption when modeling count responses using Poisson loglinear regression. Ignoring such departures could yield bias and lead to wrong conclusions. Different approaches have been developed to tackle these two major problems. In this talk, we review available methods for dealing with overdispersion and structural zeros within a longitudinal data setting and propose a new semi-parametric modeling approach to address the limitations of these methods. We illustrate our approach with both simulated and real study data.

Biographical Note

Dr. Hua He is an Assistant professor of biostatistics at the Department of Biostatistics and Computational Biology and the Department of Psychiatry at University of Rochester. She is also a biostatistician at VA VISN2 Center of Excellence focusing on suicide research. Her research interests include ROC analysis, non-parametric and semi-parametric inference, longitudinal data analysis, causal inference, missing data modeling and their applications to large and complex data sets from clinical and public health research, particularly in the behavioral and social sciences.

[1] The PI Biostatistics Seminar Series is held on Tuesdays at New York State Psychiatric Institute. If you are interested in receiving regular announcements for our seminars in the future, or if you need further information, please contact Jina James (jamesji@nyspi.columbia.edu, (212) 543-5589).