Meta-analysis is the statistical analysis of research findings, and meta-analytic techniques are widely used in public health, medicine, the social sciences and educational research. Typically these methods are employed to combine the results of individual studies to provide a summary result of the research in an area, but other uses include exploratory analyses to identify study-level factors that affect outcomes. The session will summarize the theory and use of the most common meta-analytic methods, the interpretation and limitations of results from these methods, diagnostic procedures, and some advanced topics with a focus on applications. Meta-analytic results are sometimes controversial, and we will discuss these controversies as well.

Michael LaValley, PhD, is a Professor of Biostatistics at the Boston University School of Public Health, where he teaches courses on meta-analysis, logistic regression and survival analysis. He has been an author on 25 meta-analyses or articles on meta-analysis and has taught a yearly course on meta-analysis and systematic review at Boston University since 2004.

Dr. LaValley has a BA in Mathematics from American International College, a MA in Mathematics from Ohio State University, and a Ph.D. in Statistics from Penn State University. He joined the faculty at Boston University after completing a postdoctoral fellowship in Biostatistics at the Harvard School of Public Health. He serves as the Research Direction for the BU Center for Enhancing Activity and Participation among Persons with Arthritis (ENACT) and is an Associate Editor for the journal Arthritis Care & Research.

The Center for Statistics Education is a Center of Excellence in the College of Liberal Arts and Sciences at Villanova University. The goals of the Center include promoting quality research among faculty and working to improve statistics education in the curricula across disciplines at Villanova University, creating programs in statistics education for current students at Villanova University, providing professional development for statistics teachers in the Greater Philadelphia region at the K-16 levels, and conducting research on effective methods in statistics instruction and pedagogy.

For more information, to join our distribution list, or if you have suggestions for future colloquia, please email cse@villanova.edu. Go to http://www1.villanova.edu/villanova/artsci/mathematics/cse.html for more information.