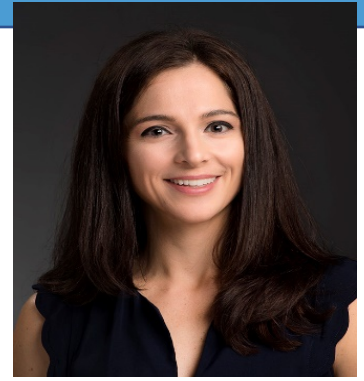


Testing for Heterogeneity in the Utility of a Surrogate Marker



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In studies that require long-term and/or costly follow-up of participants to evaluate a treatment, there is often interest in identifying and using a surrogate marker to evaluate the treatment effect. While several statistical methods have been proposed to evaluate potential surrogate markers, available methods generally do not account for or address the potential for a surrogate to vary in utility or strength by patient characteristics. Previous work examining surrogate markers has indicated that there may be such heterogeneity i.e., that a surrogate marker may be useful (with respect to capturing the treatment effect on the primary outcome) for some subgroups, but not for others. This heterogeneity is important to understand, particularly if the surrogate is to be used in a future trial to replace the primary outcome. In this talk, Dr. Parast will describe an approach and estimation procedures to measure the surrogate strength as a function of a baseline covariate W and thus, examine potential heterogeneity in the utility of the surrogate marker with respect to W . Within a potential outcome framework, we quantify the surrogate strength/utility using the proportion of treatment effect on the primary outcome that is explained by the treatment effect on the surrogate. We propose testing procedures to test for evidence of heterogeneity, examine finite sample performance of these methods via simulation, and illustrate the methods using AIDS clinical trial data.

Thursday March 10, 2022, 3:30-4:30 PM Eastern

McGavran-Greenberg Hall - Room 1301

Virtual using link and info below.

Link: <https://unc.zoom.us/j/98412143955?pwd=a1p6c3hvZ28wSnk3dVVXQWI0dEpzd09>

Meeting ID: 984 1214 3955 Passcode: 0375501630