

## **Using Lists with RDD Samples: An examination of bias, cost and variance estimates**

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The Monitoring Sexually Transmitted Infections Project was a telephone survey conducted in Baltimore, Maryland from 2006 through 2009. The project screened households for people 15-35 years of age and then randomly selected one eligible person for interview. Those that completed an interview were then asked if they would submit a urine sample for testing if mailed a specimen cup. Primary analytic variables of interest included whether these tests indicated the presence of a sexually transmitted infection (STI). To gain efficiency and reduce costs, early in the study a methodological change was implemented. The sampling frame for the project was altered from a pure random-digit-dialed (RDD) sample to one which incorporated the use of lists that identified the ages of residents of some households. This paper will examine the potential biases that may be present in the use of lists alone. It will also address the tradeoff of increased sample size for a fixed survey cost compared to increased variance estimates due to a more complex sample design.