Measuring the Impacts of Low-Income Weatherization on Indoor Air Quality

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Purpose of the Evaluation

The poster will contain a summary of a research project exploring indoor air quality in low-income weatherization program homes and the research design for assessing program impacts on indoor air quality. The information from this study will help policymakers better understand the net impact of weatherization on air quality and how various factors affect the outcomes. The specific indoor air quality parameters being studied include carbon monoxide, radon, formaldehyde, temperature, and relative humidity. The study also is collecting information on program treatments and building characteristics including air leakage, duct leakage, and combustion safety.

Research Design and Methodology

The poster will include summaries of the research design and methodology showing there are two important components of the research design – the IAQ measurement protocol and the evaluation design. Selected measurement devices and testing protocols will be shown. The evaluation design including home visits, treatment and control group selection, surveys with occupants, and study logistics will be highlighted.

Research Findings

The focus of this evaluation is to develop information on the baseline level of indoor air quality for low-income homes; assess the net impact of weatherization on indoor air quality; examine how program measures and other factor correlate with indoor air quality;, and examine how changes in indoor air quality may be associated with changes in client health outcomes. Data on the Pre-Weatherization indicators of IAQ will be available for this poster, but Post-Weatherization results will not yet be available as the study will still be ongoing at the time of the conference