

**Title** – Impact of Home Repairs on Asthma, Falls, and Health-Related Quality of Life: An Evaluation of the Work of Appalachia Service Project

**Program of Study** – Master of Public Health

**Presentation Type** – Print Poster

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**Category** – Choose one of the following – Applied

**Abstract:** Housing is a significant social determinant of mental and physical health. Low-income homes predispose residents to environmental toxins and increase stressors related to frequent home repairs. Some of the major ailments associated with poor housing infrastructure are asthma, falls, lead poisoning, stress, and depression. Appalachia Service Project (ASP) is a non-profit Christian organization established in 1969 and based in Johnson City, Tennessee. ASP coordinates the repair of houses for low-income families living in rural central Appalachia. Since its establishment in 1969, ASP has completed repairs on over 18,000 homes at no cost to the homeowners. This study aims to examine whether Appalachia Service Project's (ASP) housing interventions impact rates of asthma and falls, as well as Health-Related Quality of Life (HRQoL). In 2016 and 2017, voluntary pre- and post-intervention surveys examining HRQoL and additional health outcomes were provided to every family who received ASP's housing intervention. In 2016, 124 individuals completed the pre-intervention survey, but the post-intervention survey was not dispensed due to logistical complications. In 2017, 126 completed the pre-intervention survey and 42 completed the post-intervention survey. Mann-Whitney U and Chi-Square tests were performed for analysis. For the 2017 participants, the pre-intervention participants appeared to be healthier than the post-intervention participants; however, this was likely due to differences in sample size and age between the two groups. Nonetheless, this study

reveals the vast health disparities that exist among those living in substandard housing and among the elderly in rural Appalachia. Specifically, the participants experienced asthma and days with poor physical and mental health 1.3 to 5 times greater than the national averages. Thus, this study demonstrates the vital need for policies, services, and funding that provide support to people living in substandard housing and the elderly.