

## **Creating Healthy Homes: A Demonstration to Reduce Asthmatic Conditions and Health Care Costs**

Asthma carries significant socioeconomic burdens and is responsible for over \$55 billion of health-related costs nationally (direct and indirect). In California, 1.6 million children--660,000 covered by Medi-Cal--suffer from asthma. About 210,000 Medi-Cal children have an asthmatic attack within a year. Approximately 40 percent of asthmatic exacerbations are attributed to environmental health hazards located inside the home. USCF conducted the largest study of air pollution in minority children with and without asthma in the U.S, which found that African American children are more susceptible to air pollution than Latino children living in the same area.

Several U.S.-based, small-scale studies are yielding promising results: They have shown home interventions focused on ventilation, and mold and pest control, can significantly reduce the incidence of asthmatic exacerbations and, in turn, reduce the number of ER visits and hospitalizations. Currently, federal healthcare programs nor health care insurance do not cover the home remediation of environmental home-based asthma triggers. The ACA now allows for Medicaid to cover the assessment of home-based environmental health hazards but does not cover the cost of home remediation. Weatherization programs for low-income households will provide some interventions but not all.

The 1115 demonstration waiver renewal offers California the unique opportunity to develop and implement a small-scale demonstration project to quantify the impacts of healthy home interventions on health outcomes and health care costs for asthmatic Medi-Cal children. It also will defer relocation and allow families the opportunity to stay living in their home by improving their overall house's environmental conditions. The objectives would be: 1) to demonstrate that modest home-based interventions can reduce children's asthmatic exacerbations and unplanned medical visits, due to home-based triggers such as mold, dust or pests, and reduce Medi-Cal health care costs; 2) to provide a more whole-person model for delivering health care based on social and environmental determinants; and 3) to provide a methodology for measuring the health impacts of home remediation. This last objective would contribute to the larger-scale promotion and use of home remediation across the state for both health and energy efficiency gains.

The demonstration would take place in a pre-specified geographic area or based on a partnership with particular health provider groups (such as a particular hospital asthma unit or pediatric group). Healthcare providers would assess whether their Medi-Cal asthma patients would benefit from a home assessment and refer them to a two-person team consisting of a house-based health specialist and a certified home performance/weatherization contractor. This team would identify possible triggers or harms in the home that may be exacerbating the child's asthma and provide the appropriate recommendations that are tailored for the child's home. Those recommended interventions that are not already covered by weatherization programs would be covered under Medi-Cal for these Medi-Cal children. Details and standardized baseline health and health care (and cost) data would be collected by the doctor/healthcare provider group. After the home interventions were conducted, the same health and health care measures would be collected over a few time intervals and compared to baseline to determine any significant improvement and which home interventions had the largest and most efficient impact.