Childhood asthma is the leading cause of emergency room visits, inpatient hospitalizations and school absenteeism among children under age 15 due to a chronic condition. While there have been significant advances in asthma management over the past decade that allow most people with asthma to live active and healthy lives, many children—in Missouri and around the country—continue to suffer.

In 2007 Missouri Foundation for Health identified childhood asthma as a major health issue in the state. It established the Childhood Asthma Linkages in Missouri (CALM) initiative to demonstrate that a collaboration between a child’s school, medical care provider and other community organizations would lead to better overall asthma care for the child, as well as a reduction in symptoms.

The Foundation awarded a total of more than $6.6 million to 14 organizations to integrate childhood asthma support into their daily operations. Funds went to collaborative and multifaceted program models led by community hospitals, school districts and university-affiliated health centers that utilize community-based approaches to build successful linkages among those responsible for asthma care in children.

Grantees of the CALM Initiative extended across 14 urban and rural sites throughout Missouri, with project periods ranging from 3-5 years. CALM sites were based in academic, clinical, or school settings, with most of the programs including an emphasis on serving school-aged children in school settings. All of the sites used community-based approaches and planning interventions to improve asthma management and asthma-related health outcomes.

According to the 2012 Missouri Behavioral Risk Factor Surveillance System, 10.2% of children under the age of 18 in Missouri suffer from asthma.
Interventions
Grantees implemented a variety of interventions as part of their programs. All grantees included some aspect of education and training, and many incorporated home visits and community outreach as well.

Reach
More than 7000 children and 3000 adults were reached annually through the many interventions. 86 schools were reached directly through interventions, along with the entirety of the St. Louis Public Schools system. Additionally, 100 school districts were reached through the Asthma Ready Schools program.

Linkages
Grantees reported improved communication and coordination with other care providers, increased access to specialist services, care providers using consistent treatment plans, and a more rapid identification of students with asthma. Other commonly reported benefits included increased awareness through education and additional access to resources, such as medications and devices like spacers and peak flow meters. Transportation support also spurred program participation.

Due to the educational component of this grant, the staff is much more aware of the signs and symptoms of asthma and, in turn, they know exactly whom to report that to so help can be given.

– CALM Grantee
CHANGE IN ASSESSMENT OF ASTHMA CONTROL OVER TIME (450 PARTICIPANTS)

SCHOOL ATTENDANCE & ACTIVITY DAYS (ONE-YEAR FOLLOW-UP)

Decrease in days of school missed due to asthma in the last twelve months

44% (2.0 days to 1.3 days)

Decrease in days children were inactive due to asthma in past four weeks

35% (1.6 to 0.9 days)

BEYOND MFH

SUSTAINABILITY THROUGH CHANGES IN ASTHMA POLICY AND PRACTICE

CALM INITIATED CHANGES INCLUDE:

- School-based policies incorporating parental consent that enable schools and clinics to communicate with primary care providers
- Increased asthma education provided to students, school nurses, and other school staff by doctors and asthma educators
- Improved asthma assessment tools and procedure manuals outlining inhaler techniques, medication management, and standardized care per the National Heart, Lung, and Blood Institutes
- Brief asthma education included in CPR/ACLS classes

Learn more about changes in asthma policy and practice, as well as grantee challenges.

School-based policies implementing standardized asthma action plans that are updated and on file for all students with asthma

Informational asthma meetings hosted by schools and regional hospitals, fostering collaboration between parents, the hospital, and the school

Asthma education included before hospital discharge for any patient with asthma

Financial assistance for purchasing inhalers through partnerships with local pharmacies and pharmaceutical companies
Grantees reported that parents, children, and school nurses were more knowledgeable about how to manage asthma and decrease asthmatic episodes. Increased training and health literacy education was also found among health professionals. Finally, grantees noted an increase in the number of children in the schools who have an Asthma Action Plan.

CALM was such a success that in 2014 grantees from the initiative helped the Missouri Asthma Prevention and Control Program garner a federal grant. A portion of those funds are going toward the creation of CALM2, a five-year statewide expansion of the CALM model.

Learn more about the Missouri Asthma Prevention and Control Program.