

Missouri Department of Health and Senior Services: Reaching Underserved Communities

An AMCHP MCEH CoIIN Success Story

Lead exposure remains one of the greatest public health issues in the United States due to the detrimental health effects on children, including unborn children. Lead can be detected in pregnant women's plasma and breast milk and can cross the placental barrier. Children are particularly vulnerable to lead exposure due to the susceptibility of their developing organ systems. Children exposed to lead before birth or shortly after are at increased risk of neurodevelopmental challenges, including lower IQ, difficulty concentrating, and inability to control emotions.

Limited Outreach, Low Testing Levels

In Missouri, one of the largest struggles with addressing health hazards related to lead exposure is extremely low rates of testing for elevated blood lead levels. The Missouri Department of Health and Senior Services (MDHSS) sought to address the state's low testing rate, which was 20% at the start of the project. This low rate resulted from a lack of awareness, lack of outreach to certain communities, and lack of communication among state departments. MDHSS identified opportunities to increase education, awareness, and outreach throughout the state on the importance of testing for elevated blood lead levels.

To act upon these opportunities, MDHSS participated in the Association of Maternal and Child Health Programs (AMCHP) Maternal and Child Environmental Health (MCEH) Collaborative Improvement and Innovation Network (CoIIN). This initiative aims to build state capacity to increase the number of infants and children who have access to a system of coordinated care to address their needs related to lead exposure, with the goal of decreasing maternal and child morbidity and mortality associated with exposure. Participation in the CoIIN allowed MDHSS to partner with other states in the initiative and develop comprehensive and effective strategies for educating and engaging with the public.

Provided Training, Demographic Facts, Outreach, & Increased Testing

The two strategies MDHSS focused on to increase education and engagement with the public were developing and disseminating resources and conducting community outreach. One of the resources MDHSS developed for health care providers was training to dispel misunderstandings around lead poisoning and increase knowledge on the importance of testing. MDHSS also provided health care providers with demographic fact sheets showing data collected on the number of children tested, the number of children in poverty, and the number of children enrolled in Medicaid. These fact sheets increased awareness among health care providers about patient demographics and risk factors specific to the county they serve. MDHSS also gave health care providers a lead risk questionnaire, guidelines for children with elevated blood lead levels from the Center for Disease Control and Prevention (CDC), and CDC's recommendations on pregnant women and lead exposure.

MDHSS wanted to reach communities that had low or nonexistent testing rates with the materials they produced. These community engagement efforts were critical to raise awareness about the importance of



lead testing among families and community members. The counties selected for engagement during the project were rural communities disadvantaged by lack of financial resources and other assistance. MDHSS, along with support from local public health nurses, held multiple efforts to engage communities by hosting lead testing events, meeting communities at schools, child care programs, Head Start facilities, etc., connecting community members with lead risk assessors, providing case management through on-demand environmental health information, and distributing outreach materials door-to-door in neighborhoods. Following implementation of these strategies, MDHSS performed tracking analytics to determine if the percentage of children being tested increased. As a result of their work, MDHSS increased the number of counties targeted for outreach from four to seven. One of these counties increased their testing rates by 200% over a six-month period.

Despite the many successes they achieved, MDHSS faced several challenges throughout the project. Staff turnover at MDHSS and lack of departmental communication made the project work challenging. Although MDHSS was persistent in following up with health care providers, it was unsuccessful in some areas. In one county, providers were not interested in participating in the training. In addition, some providers were hesitant to receive recommendations due to a belief that MDHSS was instructing them on how to operate their practices. Moving forward, demonstrating successes from the program will be important in improving communication with health care providers.

Future Plans: Further Increase Testing Levels

MDHSS is planning to continue the successes from this project by re-assigning lead risk assessment factors and increasing the number of factors from two to six, which will put three-fourths of the state in a high-risk category. The goal of this re-assignment is to further increase testing levels and maintain awareness around the importance of testing. MDHSS's Maternal and Child Health program director is working with the lead program to support these risk assessment factor adjustments with funding from block grants. Maintaining the internal department partnerships and partnerships through the CoIIN will be important for MDHSS to continue their successes in advancing lead poisoning prevention strategies.

Meet the Team from Missouri

The organizations that participated in Missouri's CoIIN initiative included the Missouri Department of Health and Senior Services and the Missouri Family Partnership.

Learn More

The National Environmental Health Association (NEHA) and other partners are part of the leadership team for the AMCHP MCEH CoIIN, which is funded through a three-year grant from the United States Health Resources and Services Administration. By joining the collaborative, NEHA has an important platform to affect policy within the participating states. The objective of the CoIIN aligns with the Centers for Disease Control and Prevention and the United States Department of Health and Human Services' broad goal to protect children from the health risks of harmful exposures by developing innovative strategies to reduce and prevent emerging and re-emerging environmental health concerns. Read more at the following websites: neha.org, mchb.hrsa.gov, amchp.org, atsdr.cdc.gov, and www.MCHLeadToolkit.org.

