

Louisiana Department of Health: Updating Systems and Strategies for Lead Testing

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 Statewide Policies

In Louisiana, addressing lead poisoning has been challenging due to outdated statewide policies and limited abilities of the state health care system. State laws needed to be updated to include current evidence-based recommendations and language around lead poisoning. In addition, the state lacked health care data critical for lead poisoning surveillance and case management. These challenges made it difficult to determine rates of lead exposure and numbers of children being tested.

To address these issues and improve testing rates for children, the Louisiana Department of Health (LDH) 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 to lead. Participation in the CoIIN allowed LDH to form new partnerships and achieve goals around updating data systems.

Lead Testing at WIC Visits

LDH partnered with Community Action Network to expand existing partnerships and form new ones with organizations in Washington, D.C. Through this partnership, LDH was also able to engage with Green and Healthy Homes Initiative. These partnerships generated unique solutions for LDH, including the use of a Plan-Do-Study-Act (PDSA) framework. This framework was used to determine peak times for testing patients at Women, Infants, and Children (WIC) clinics and to analyze and adjust testing patterns. Iterations of the WIC clinic model were developed for other organizations to incentivize higher testing rates. In addition, LDH implemented a practice in WIC clinics to measure lead levels in blood already being drawn for other tests. As a result of these strategies, LDH more than tripled their initial goal of testing 300 children in the pilot program by testing over 1100 children.

Updated Laws & Data Management

In addition to increasing testing rates, LDH updated many state laws to reflect current evidence-based recommendations and language around lead poisoning. LDH also updated their data systems through a partnership with Social Solutions, a data and technology organization. These updates included developing



a system to track the entire case management process from positive case identification, to retesting, to environmental investigation, to clearance. LDH initiated an education campaign for parents to include with every case management process and created an online system for clinicians to submit results directly to the state epidemiologist. Updated state laws and data systems allow LDH to communicate accurate information to the public and health care providers, and to improve case management.

LDH accomplished several major outcomes during this project, including increasing blood lead level testing rates in children. However, establishing a baseline for testing in children at the start of the project was a challenge, impacting LDH's ability to accurately determine the number of children tested. In addition, the lead program within LDH only consists of five staff members, which limits the amount of work they can accomplish. Despite these challenges, LDH hopes to continue the successes of the project.

Future Plans: Expansion to Other WIC Clinics

LDH plans to expand their PDSA model for WIC clinics to further increase testing rates for children. In addition, the LDH lead program plans to train other entities within LDH on lead abatement. LDH plans to use their newly updated data systems to identify vulnerable populations, engage communities, and explore new priorities in addressing lead poisoning prevention.

Meet the Team from Louisiana

The organizations that participated in Louisiana's CoIIN initiative included the Louisiana Department of Health Healthy Homes and Childhood Lead Poisoning Prevention Program and Crescent City Family Services (formerly Crescent City WIC Services).

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. Learn more at the following websites:

- neha.org
- mchb.hrsa.gov
- amchp.org
- atsdr.cdc.gov
- www.MCHLeadToolkit.org

