

CDC's Childhood Lead Poisoning Prevention Program

CDC 24/7: Saving Lives. Protecting People from Health Threats. Saving Money through Prevention.



Today, children in at least 4 million U.S. households are exposed to high levels of lead. There are approximately half a million U.S. children ages 1-5 with blood lead levels above 5 micrograms per deciliter ($\mu\text{g}/\text{dL}$), the reference level at which CDC recommends public health actions to prevent or mitigate exposure be initiated.

Lead exposure continues to harm our nation's children.

CDC's Childhood Lead Poisoning Prevention Program and its partners have driven a significant decline in the number of children with elevated blood lead levels over the past 20 years with various prevention strategies to protect children from lead exposure.

However, there is no known safe level of lead, and millions of children are still exposed to lead in their homes.

Lead exposure can affect nearly every system in the body and is associated with numerous behavioral and learning problems (e.g. reduced IQ, attention-deficit/hyperactivity disorder, juvenile delinquency, and criminal behavior). Research indicates that even low levels of lead in a child's blood can affect IQ, the ability to pay attention, and academic achievement. The effects of lead exposure cannot be corrected. Because lead exposure often occurs with no obvious symptoms, it frequently goes unrecognized.

What does the Childhood Lead Poisoning Prevention Program do?

CDC's Childhood Lead Poisoning Prevention Program helps prevent childhood lead exposure through

- Surveillance: CDC surveillance data trigger actions to protect children from lead exposure and to serve children who have already been lead poisoned.
 - » These data are used by CDC, health departments, and other agencies to target limited resources to the highest risk children and to track incidence and risk factors.
 - » For example, HUD uses CDC lead surveillance data to identify rental housing properties that have led to multiple children being lead poisoned. The U.S. Department of Housing and Urban Development (HUD), Environmental Protection Agency, and Department of Justice then use the CDC data to target their enforcement actions.
- National expertise, guidance, and recommendations.
- Collaboration with federal agencies including HUD, Centers for Medicare and Medicaid Services, Consumer Product Safety Commission, and Health Resources and Services Administration.
- Funding for lead poisoning prevention programs and staff in state or local health departments.

Is the Childhood Lead Poisoning Prevention Program making a difference?

CDC's Childhood Lead Poisoning Prevention Program's efforts have led to enormous success in protecting children from lead exposure:

- Between 2008 and 2010, CDC and its state programs helped reduce the number of children ages 1-5 with blood lead levels $\geq 1 \mu\text{g}/\text{dL}$ by nearly 3 million, saving \$26–57 billion in lifetime productivity earnings alone. These estimates do not account for behavioral and other adverse effects on lifetime productivity linked to lead exposure, such as attention-deficit/hyperactivity disorder, juvenile delinquency, criminal behavior, and an increased need for special education.
- CDC provided technical assistance to support the development of state and local lead-screening plans and abatement laws. By 2009, 27 states had comprehensive laws requiring lead paint abatement (whereas only 3 states had such laws in 1990).

Childhood Lead Poisoning Prevention Program Funding

Year	Funding Level
FY 2014	\$15,522,000
FY 2015	\$15,522,000
FY 2016	\$17,000,000

Funding at Work

Building and Strengthening Lead Surveillance Systems

New York City: New York City's Lead Poisoning Prevention Program used small-area analyses to identify communities where high blood lead levels persist. The analyses alerted staff to the Greenpoint, Brooklyn, neighborhood where children are disproportionately at risk for high blood lead levels. Greenpoint is home to a community of Orthodox Jews.

Because they had limited understanding of the cultural heritage of this close-knit community, the lead program collaborated with local rabbis, translated health education materials into Yiddish, and conducted an awareness campaign on childhood lead poisoning, its prevention, and how families can report lead hazards such as peeling paint.

According to New York City lead program staff, "The CDC support was essential to having the tools to identify and respond to the needs of this small community."

Educating Parents and Clinical Providers

Mississippi: The Mississippi Lead Poisoning Prevention and Healthy Homes Program used CDC cooperative agreement funds to partner with six communities identified as high-risk areas for lead poisoning: the cities of Meridian, Jackson, Hattiesburg, West Point, Moss Point, and Yazoo.

Between July 1 and December 31, 2015, city partners facilitated lead poisoning prevention and healthy homes trainings, planned and conducted healthy homes community planning meetings featuring focused discussion on childhood lead poisoning prevention, and distributed health education materials to residents.

(continued on next page)



Educating Parents and Clinical Providers *(continued from previous page)*

Through focused campaigns, the communities distributed 2,000 lead poisoning prevention educational materials featuring details about lead testing and identifying lead sources. The communities also distributed 900 lead poisoning prevention toolkits to resident families. Since 2010, the number of children tested for lead in increased 18%.

Equipped with information about lead poisoning, the cities are reviewing, planning, and implementing methods for updating environmental health ordinances.

Collaborating with Partners

Washington: Washington's State Health Officer chaired an expert panel to develop risk-based childhood lead screening recommendations for use by clinicians statewide. The recommendations included a one-page clinical algorithm for screening, a list of key risk factors to consider, and a link to an interactive mapping tool for identifying communities by census tract that are at a higher risk for lead exposure.

Based on the new recommendations, the program partnered with the state Refugee Health Program to screen all refugee children 6 months-16 years.

Louisiana: Louisiana data showed that some children attending special nutrition projects at local Women, Infants, and Children (WIC) clinics do not receive routine health prevention services, and therefore are unlikely to receive blood lead testing at a medical clinic.

The Louisiana Healthy Homes and Childhood Lead Poisoning Prevention Program partnered with a New Orleans area WIC clinic to pilot a blood lead testing program. The goals for the project were to increase lead testing rates of children in Louisiana and to determine the percent of children tested during WIC clinic visit who had elevated blood lead levels.

By matching WIC client lists with surveillance data, the program demonstrated that WIC clinics are an efficient way to screen high-risk children who would not otherwise be tested. During the pilot phase, the program ensured blood lead testing for 1,395 children, 81% of whom had never had a previous test. The project has expanded to include WIC clinics in other high-risk areas of the state.

Twenty-five percent of the increase in child lead testing in Louisiana between July 2014 and April 2015 was attributable to the WIC clinic testing pilot project.

For More Information, visit

National Center for Environmental Health

www.cdc.gov/nceh

Childhood Lead Poisoning Prevention Program

www.cdc.gov/nceh/lead



Environmental Health

Your environment is everything around you—the air you breathe, the water you drink, the community you live in, the places where your food is grown or prepared, your workplace, and your home.

When your environment is safe and healthy, you are more likely to stay healthy. But when your environment exposes you to dangerous events or toxic substances, your health can be negatively affected.

CDC is committed to saving lives and protecting people from environmental hazards by responding to natural and man-made disasters, supporting state and city public health programs, educating communities, and providing scientific knowledge.

We help maintain and improve the health of Americans by promoting a healthy environment and preventing premature death and avoidable illness caused by environmental and related factors. We also identify how people might be exposed to hazardous substances in the environment and assess exposures to determine if they are hazardous to human health.

CDC invests in prevention to improve health and save money by reducing health care costs. We remain committed to maximizing the impact of every dollar entrusted to the agency.

