

CHILDHOOD LEAD POISONING PREVENTION IN MICHIGAN

FISCAL YEAR 2017 REPORT TO THE LEGISLATURE

Prepared by the
Childhood Lead Poisoning Prevention Program
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INTRODUCTION

For over forty years, government, environmental advocates, landlords, schools, and parents have worked to reduce and eliminate childhood lead poisoning hazards. These efforts have led to considerable gains, including increased awareness of lead as an environmental hazard, reductions and/or complete elimination of the use of lead in consumer products, and improvements in guidance for the testing and the treatment of lead poisoned children.

Unfortunately, lead poisoning is far from eradicated. Exposure to lead tends to be higher in Michigan's urban areas due to aging housing stock and poor living conditions. Young children, wherever they live, are particularly vulnerable because of their tendency to put contaminated items such as hands and toys into their mouths.

Why does this matter? Lead is a potent neurotoxin. Children's growing bodies absorb more lead than adults do, and their developing brains and nervous systems are more sensitive to the damaging effects of lead. Exposure to high levels of lead can result in brain damage and even death. Low levels of lead in the body have been shown to affect IQ, ability to pay attention, and academic achievement.

The goal of the Michigan Childhood Lead Poisoning Prevention Program (CLPPP) within the Michigan Department of Health and Human Services (MDHHS) is to address lead hazards before children are exposed. While the State and its local partners have seen some success, including declines in the overall rate of childhood lead poisoning, Michigan continues to be ranked in the top seven states with the greatest number of lead poisoned children, an indication that there is still much work to be done.

This report has been prepared in accordance with Lead Abatement Act 368 of 1978, Section 333.5474 of the Michigan Compiled Laws. Under MCL 333.5474 the department is required to produce an annual report for the legislature detailing the number of children screened for lead poisoning and expenditures under the lead poisoning prevention program. (See Appendix 1.) This report is for Fiscal Year 2017.

NUMBERS OF MICHIGAN CHILDREN TESTED FOR LEAD AND BLOOD LEAD TEST RESULTS

This report describes blood lead test results for children less than 6 years of age for State Fiscal Year 2017 (October 1, 2016-September 30, 2017). Comparison data are provided for the previous ten fiscal years (2007-2016). Each child was counted once each year, even if they had more than one test that year. The counts of children by blood lead level were based on the value representing the highest blood lead level obtained from a venous blood draw (or a capillary blood test if there was no venous test) that fiscal year.

Under MCL 333.5474, the Department is required to annually report to the legislature the number of children with blood lead levels equal to or greater than (\geq) 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$) which, when the law was enacted in 1998, was the recommended threshold for 'blood lead level of concern.' In 2012, the Centers for Disease Control and Prevention (CDC) released updated recommendations for addressing childhood lead poisoning and prevention. As a result of these recommendations, there is no longer a threshold for 'blood lead level of concern.' Rather, as research now shows, even low levels of lead in blood present health risks. The CDC now recommends that a blood lead level of $\geq 5 \mu\text{g}/\text{dL}$ be considered elevated, and provides recommendations for monitoring and follow-up of children down to this lower blood lead level. Given the changes to the CDC recommendations, the data tables and figures that follow include blood lead test results with a level of $\geq 5 \mu\text{g}/\text{dL}$, in addition to the threshold of $\geq 10 \mu\text{g}/\text{dL}$ that was used in previous reports.

In Fiscal Year 2017, blood lead tests for 150,358 children through age 6 were reported by laboratories. A total of 4,960 (3.3%) of tested children had blood lead levels $\geq 5 \mu\text{g}/\text{dL}$ and 1,001 (0.7%) had blood lead levels $\geq 10 \mu\text{g}/\text{dL}$.

Table 1 provides the number and percent of children less than 6 tested and those with elevated blood lead levels for the fiscal years 2007-2017.

Figure 1 shows the number of children less than 6 with blood lead levels $\geq 5 \mu\text{g}/\text{dL}$ and $\geq 10 \mu\text{g}/\text{dL}$ for the fiscal years 2007-2017.

Figure 2 shows the percent of children tested with these blood lead levels for the same fiscal years.

Table 1: Total Number of Children under Age Six Tested for Lead and the Number (#) and Percent (%) of Children with Elevated Blood Lead Levels ($\geq 5\mu\text{g/dL}$ and $\geq 10\mu\text{g/dL}$) by Fiscal Year in the State of Michigan: 2007-2017

Fiscal Year	Children Tested	# $\geq 5 \mu\text{g/dL}$	% ≥ 5	# $\geq 10 \mu\text{g/dL}$	% ≥ 10
2007	151,037	20,428	13.5	3,180	2.1
2008	158,252	16,384	10.4	2,556	1.6
2009	155,680	13,849	8.9	1,996	1.3
2010	153,874	10,234	6.7	1,634	1.1
2011	151,702	8,194	5.4	1,342	0.9
2012	149,017	6,902	4.6	1,126	0.8
2013	148,861	5,939	4.0	921	0.6
2014	144,924	5,287	3.7	926	0.6
2015	139,132	4,733	3.4	831	0.6
2016	155,357	5,526	3.6	1,070	0.7
2017	150,358	4,960	3.3	1,001	0.7

FIGURE 1. NUMBER OF MICHIGAN CHILDREN UNDER AGE 6 WITH ELEVATED BLOOD LEAD LEVELS: FISCAL YEARS 2007 - 2017

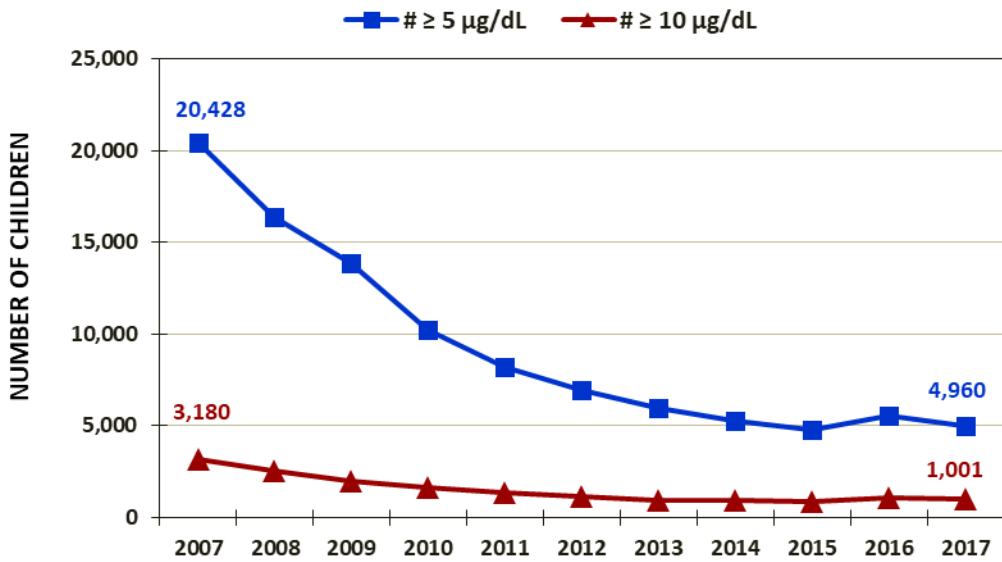
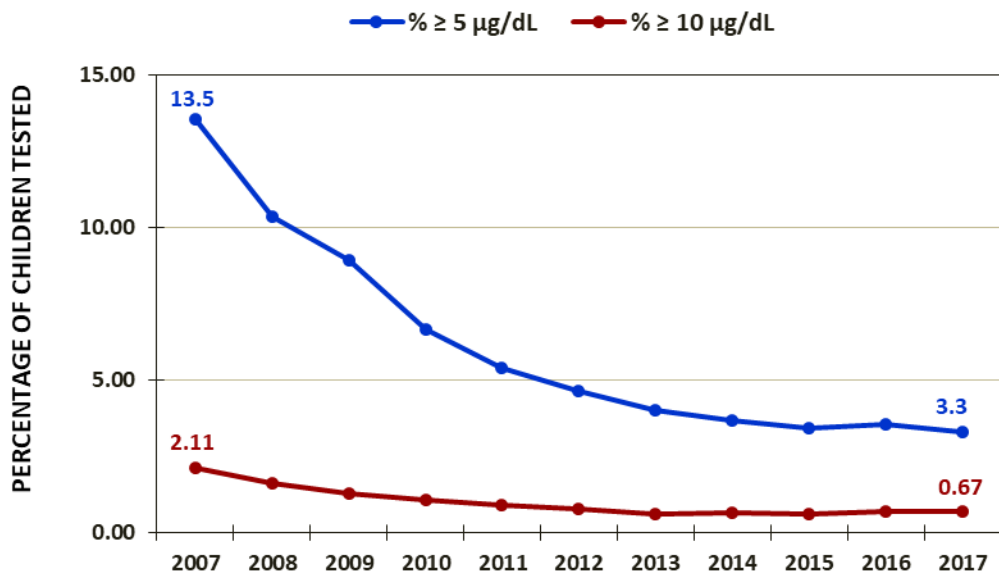


FIGURE 2. PERCENTAGE OF MICHIGAN CHILDREN UNDER AGE 6 WITH ELEVATED BLOOD LEAD LEVELS: FISCAL YEARS 2007 - 2017



FUNDING

FY 2017 funding for the Childhood Lead Poisoning Prevention Program came from four sources:

Fiscal Year	Maternal and Child Health Services Block Grant*	State of Michigan General Fund	State of Michigan Flint Supplemental Funds	Centers for Disease Control and Prevention	Total
2017	\$1,079,800	\$472,500	\$727,700	\$327,353	\$2,607,353

*Source: Federal Health Resources and Services Administration

Funding was used to maintain three components of the MDHHS lead poisoning prevention program as required by PA 368 of 1978, Section 333.5474:

- 1) **A surveillance system capable of gathering, storing, and reporting on blood lead results for Michigan children.** Many grants, programs and activities are dependent on, and benefit directly, from surveillance system data, including the MDHHS Lead Safe Home Program, the Michigan State Housing Development Authority, the Michigan Care Improvement Registry, Medicaid, researchers, and the public. Improvements to the surveillance system in FY 2017 included:
 - The completion of MiCLPS, a new web-based data management system. This was one of several initiatives undertaken to automate electronic laboratory data reports, and to make this data available to other programs within MDHHS. Costs to develop and operate these systems included hardware, computer support, and program staff.
 - Support and technical assistance to local health departments in the use of HHLPSS, an online CDC data management system for maintaining nursing case management (NCM) information.

- 2) **Clinical case management coordination.**
 - The CLPPP Nurse Consultant acted as an expert consultant to clinical health care providers and local public health agencies throughout Michigan to assure that cases of childhood lead poisoning were managed appropriately. More than 2,000 calls/contacts were fielded.
 - Funds were provided to several Local Health Departments (LHDs) to provide NCM services to children with elevated blood lead levels.
 - Flint supplemental funds were used to support the intensive efforts to provide NCM to all children in Flint with elevated blood lead levels.

In January 2017, CLPPP implemented a project to provide increased reimbursement to LHDs for in-home NCM for Medicaid-enrolled children with elevated blood lead levels. All participating LHDs document their NCM activities and report to CLPPP. CLPPP reviews the information provided and administers the Medicaid funds to LHDs. This gives CLPPP better information on how many home visits are provided by the LHDs and how many children are receiving NCM services statewide.

- 3) **Comprehensive educational and community outreach prevention.** Funds were allocated to one local health department within each Prosperity Region to provide lead poisoning prevention education and outreach throughout that Prosperity Region. Activities included:
 - Campaigns to educate and inform key audiences about lead hazards;
 - Informational materials to assist parents and caregivers on safe cleaning practices to reduce lead exposure;
 - Alerts and just-in-time communications on hazardous products; and
 - Updated training for primary care providers on counseling, testing, and treating lead exposed patients.

CONCLUSION & RECOMMENDATIONS

Childhood lead poisoning remains a public health threat for many Michigan children. The number and percentage of tested children with blood lead levels of greater than or equal to 5 µg/dL and 10 µg/dL has decreased since 2007. However, the age of Michigan's housing stock, the number of children living in rental homes, and lack of funding for lead remediation keeps lead poisoning risk as an environmental public health concern.

Blood lead testing results from 1998 to the present can be found in the CLPPP Annual Reports, available at <https://www.michigan.gov/lead/0,5417,7-310-84214---,00.html>.

Beginning in late FY 2015, a major focus of lead poisoning prevention activities has been for lead exposures in the City of Flint. This focus will continue into the future. Data summaries and information specific to Flint can be found at www.michigan.gov/flintwater.

Over the next year, the CLPPP will also continue efforts to reduce exposures and poisonings through:

- Improvements to the systems for managing the surveillance data electronically;
- Analysis and dissemination of data on children with elevated blood lead levels;
- Information and education provided to the general population in order to prevent childhood lead poisoning;
- Ensuring appropriate public health case management and interventions statewide when a child is identified with an elevated blood lead level;
- Linking lead poisoning prevention services, including assessment and abatement of lead hazards in homes, to families in need; and
- Educating primary care providers about the importance of screening children for blood lead, retesting to confirm elevated test results, and treating high risk populations.

APPENDIX 1

Excerpts from Act 368 of 1978 regarding legislative reporting requirements

MCL 333.5474(2) “The department shall report to the legislature by January 1, 1999, and annually thereafter, the number of children through age 6 who were screened for lead poisoning during the preceding fiscal year and who were confirmed to have had blood lead levels above 10 micrograms per deciliter. The report shall compare these rates with those of previous fiscal years and the department shall recommend methods for improving compliance with guidelines issued by the federal centers for disease control and prevention, including any necessary legislation or appropriations.”

MCL 333.5474(3) “Not more than 1 year after the effective date of this part, and annually thereafter, the department shall prepare a written report regarding the expenditures under the lead poisoning prevention program including the amounts and sources of money from the previous year and a complete accounting of its use. The report shall be given to the appropriate committees of the legislature and be made available to the general public upon request.”