



## Blood Lead Level Test Results for Selected Flint Zip Codes, Genesee County, and the State of Michigan Executive Summary as of September 27, 2019\*

This report is generated by MDHHS to track Blood Lead Level test results in Flint, Michigan.

### Background

- Blood lead level testing is an important part of efforts to identify people who have been harmed by drinking water that contained lead, and from other sources of lead exposure in the home. MDHHS recognizes that the full community of Flint must be the focus of the public health response.

### Data Presentation

- Counts in this report include both capillary and venous blood tests.
- People who have had multiple tests are counted only once per year or per time period in the tables. People counted in one calendar year/time period who were tested again in the next calendar year/time period are counted in both years/time periods.

### Summary of Findings

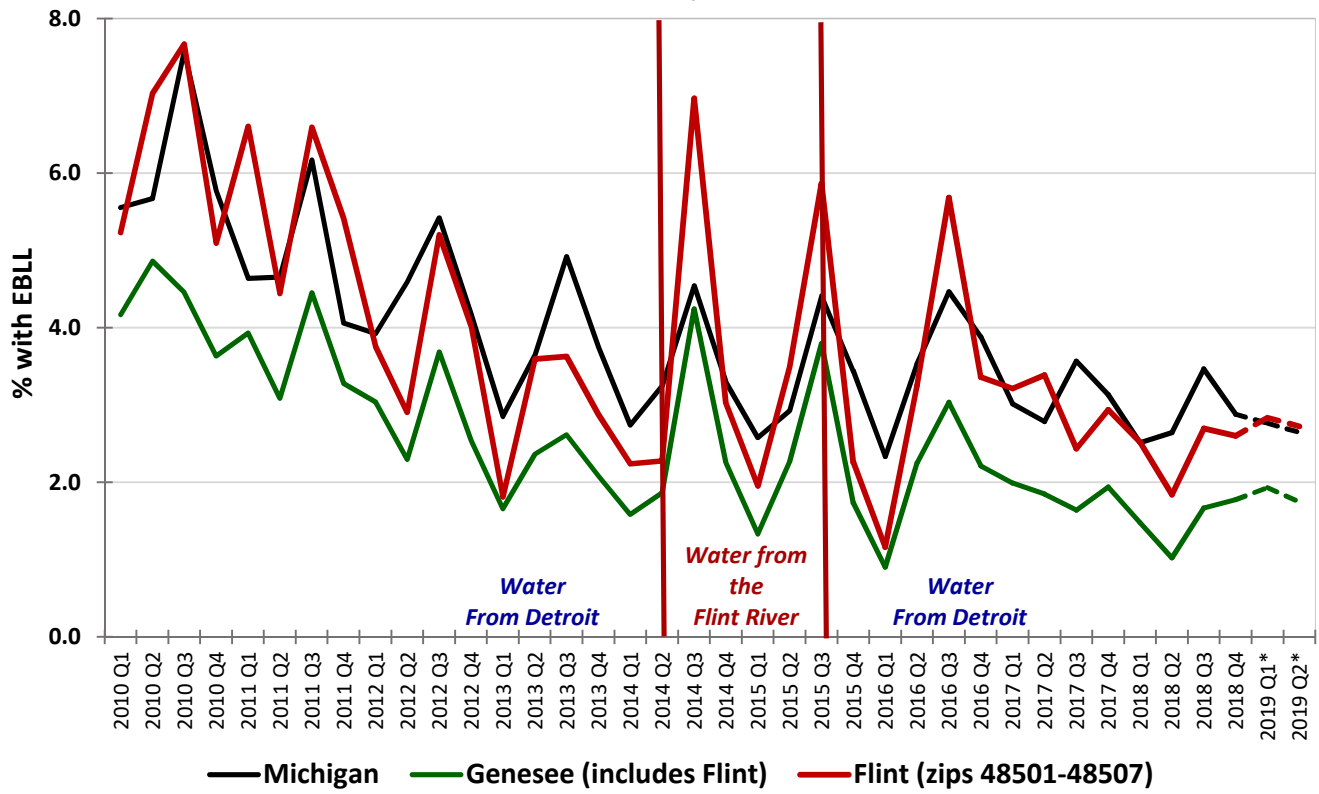
- Between 10/1/2015 and 09/27/2019, 42,232 people had a blood lead test in Flint (zip codes 48501-48507).
- Since 10/1/2015, 364 children under age 18 in the Flint zip codes 48501-48507 had elevated blood lead levels: blood lead levels greater than or equal to 5  $\mu\text{g}/\text{dL}$  (micrograms lead per deciliter of blood).
- Of the 11,756 children younger than 6 years old tested since 10/1/2015, 2.7% had blood lead levels greater than or equal to 5  $\mu\text{g}/\text{dL}$ .

### PLEASE NOTE: Changes in numbers of test results due to algorithm change

- \* **Starting January 4, 2019**, CLPPP has updated the address cleaning algorithm for this report to match other analyses performed by CLPPP; counts no longer include tests that are missing ZIP code, county, city, and street name. This means that Michigan totals will be smaller compared to numbers presented in reports produced before January 4, 2019 (counts for Genesee county and city of Flint are unaffected by this change).

**Percentage of Children < 6 Years of Age with Elevated Blood Lead Levels ( $\geq 5 \mu\text{g}/\text{dL}$ ) by Quarter<sup>†</sup>, Michigan, 2010 - 2019\***

\*Data as of September 27, 2019



† People who have had multiple tests are counted only once per year; if they are tested in more than one year, they will be counted once in each year they were tested.  
Counts on this chart include both capillary and venous blood tests.

\* Data for Quarters 1 and 2 of 2019 are provisional and subject to change.

**Table 1. Percentage of elevated blood lead levels ( $\geq 5 \mu\text{g/dL}$ ) among tested children less than 6 years of age, 2014 – 2019**

			Michigan	Genesee County	Flint 48501-48507
<b>Annual Results</b>	1/01/2019 to 09/27/2019	Total # of children tested for lead	90,732	3,949	1,815
		Children with test results $\geq 5 \mu\text{g/dL}$	2,657	77	55
		<b>% of children with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>2.9%</b>	<b>1.9%</b>	<b>3.0%</b>
	1/1/2018 to 12/31/2018	Total # of children tested for lead	142,357	6,362	2,984
		Children with test results $\geq 5 \mu\text{g/dL}$	4,128	94	72
		<b>% of children with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>2.9%</b>	<b>1.5%</b>	<b>2.4%</b>
	1/1/2017 to 12/31/2017	Total # of children tested for lead	150,463	6,732	3,116
		Children with test results $\geq 5 \mu\text{g/dL}$	4,727	124	92
		<b>% of children with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.1%</b>	<b>1.8%</b>	<b>3.0%</b>
	1/1/2016 to 12/31/2016	Total # of children tested for lead	158,042	11,710	6,624
		Children with test results $\geq 5 \mu\text{g/dL}$	5,669	209	169
		<b>% of children with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.6%</b>	<b>1.8%</b>	<b>2.6%</b>
	1/1/2015 to 12/31/2015	Total # of children tested for lead	141,760	6,992	3,393
		Children with test results $\geq 5 \mu\text{g/dL}$	4,820	160	112
		<b>% of children with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.4%</b>	<b>2.3%</b>	<b>3.3%</b>
	1/1/2014 to 12/31/2014	Total # of children tested for lead	144,185	6,820	3,099
		Children with test results $\geq 5 \mu\text{g/dL}$	5,090	178	121
		<b>% of children with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.5%</b>	<b>2.6%</b>	<b>3.9%</b>
<b>During Flint River Use</b>	4/1/2014 to 9/30/2015	Total # of children tested for lead	197,899	9,272	4,158
		Children with test results $\geq 5 \mu\text{g/dL}$	7,005	252	167
		<b>% of children with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.5%</b>	<b>2.7%</b>	<b>4.0%</b>
<b>After Flint River Use</b>	10/01/2015 to 09/27/2019	Total # of children tested for lead	434,445	23,688	11,756
		Children with test results $\geq 5 \mu\text{g/dL}$	13,698	413	315
		<b>% of children with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.2%</b>	<b>1.7%</b>	<b>2.7%</b>

**Table 2. Percentage of elevated blood lead levels ( $\geq 5 \mu\text{g}/\text{dL}$ ) among tested children 6 to 17 years of age, 2014 – 2019**

			Michigan	Genesee County	Flint 48501-48507
<b>Annual Results</b>	1/01/2019 to 09/27/2019	Total # of children tested for lead	6,685	818	511
		Children with test results $\geq 5 \mu\text{g}/\text{dL}$	160	7	5
		<b>% of children with results <math>\geq 5 \mu\text{g}/\text{dL}</math></b>	<b>2.4%</b>	<b>0.9%</b>	<b>1.0%</b>
	1/1/2018 to 12/31/2018	Total # of children tested for lead	12,098	1,810	1,144
		Children with test results $\geq 5 \mu\text{g}/\text{dL}$	253	9	7
		<b>% of children with results <math>\geq 5 \mu\text{g}/\text{dL}</math></b>	<b>2.1%</b>	<b>0.5%</b>	<b>0.6%</b>
	1/1/2017 to 12/31/2017	Total # of children tested for lead	13,694	2,497	1,671
		Children with test results $\geq 5 \mu\text{g}/\text{dL}$	279	16	13
		<b>% of children with results <math>\geq 5 \mu\text{g}/\text{dL}</math></b>	<b>2.0%</b>	<b>0.6%</b>	<b>0.8%</b>
	1/1/2016 to 12/31/2016	Total # of children tested for lead	24,324	9,680	7,318
		Children with test results $\geq 5 \mu\text{g}/\text{dL}$	420	54	38
		<b>% of children with results <math>\geq 5 \mu\text{g}/\text{dL}</math></b>	<b>1.7%</b>	<b>0.6%</b>	<b>0.5%</b>
	1/1/2015 to 12/31/2015	Total # of children tested for lead	10,439	1,573	1,085
		Children with test results $\geq 5 \mu\text{g}/\text{dL}$	255	9	7
		<b>% of children with results <math>\geq 5 \mu\text{g}/\text{dL}</math></b>	<b>2.4%</b>	<b>0.6%</b>	<b>0.6%</b>
1/1/2014 to 12/31/2014	Total # of children tested for lead	10,577	788	372	
	Children with test results $\geq 5 \mu\text{g}/\text{dL}$	287	6	5	
	<b>% of children with results <math>\geq 5 \mu\text{g}/\text{dL}</math></b>	<b>2.7%</b>	<b>0.8%</b>	<b>1.3%</b>	
<b>During Flint River Use</b>	4/1/2014 to 9/30/2015	Total # of children tested for lead	14,902	1,180	582
		Children with test results $\geq 5 \mu\text{g}/\text{dL}$	352	8	6
		<b>% of children with results <math>\geq 5 \mu\text{g}/\text{dL}</math></b>	<b>2.4%</b>	<b>0.7%</b>	<b>1.0%</b>
<b>After Flint River Use</b>	10/01/2015 to 09/27/2019	Total # of children tested for lead	52,586	13,560	9,639
		Children with test results $\geq 5 \mu\text{g}/\text{dL}$	866	65	49
		<b>% of children with results <math>\geq 5 \mu\text{g}/\text{dL}</math></b>	<b>1.6%</b>	<b>0.5%</b>	<b>0.5%</b>

**Table 3. Percentage of elevated blood lead levels ( $\geq 5 \mu\text{g/dL}$ ) among tested adults at least 18 years of age, 2014 - 2019**

			Michigan	Genesee County	Flint 48501-48507
<b>Annual Results</b>	1/01/2019 to 09/27/2019	Total # of adults tested for lead	10,448	2,567	1,381
		Adults with test results $\geq 5 \mu\text{g/dL}$	689	37	16
		<b>% of adults with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>6.6%</b>	<b>1.4%</b>	<b>1.2%</b>
	1/1/2018 to 12/31/2018	Total # of adults tested for lead	18,638	4,663	2,533
		Adults with test results $\geq 5 \mu\text{g/dL}$	1,028	56	24
		<b>% of adults with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>5.5%</b>	<b>1.2%</b>	<b>0.9%</b>
	1/1/2017 to 12/31/2017	Total # of adults tested for lead	18,160	5,342	3,216
		Adults with test results $\geq 5 \mu\text{g/dL}$	1,132	91	58
		<b>% of adults with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>6.2%</b>	<b>1.7%</b>	<b>1.8%</b>
	1/1/2016 to 12/31/2016	Total # of adults tested for lead	34,559	20,233	15,840
		Adults with test results $\geq 5 \mu\text{g/dL}$	1,383	307	247
		<b>% of adults with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>4.0%</b>	<b>1.5%</b>	<b>1.6%</b>
	1/1/2015 to 12/31/2015	Total # of adults tested for lead	11,818	1,251	811
		Adults with test results $\geq 5 \mu\text{g/dL}$	1,147	49	21
		<b>% of adults with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>9.7%</b>	<b>3.9%</b>	<b>2.6%</b>
	1/1/2014 to 12/31/2014	Total # of adults tested for lead	10,778	437	112
		Adults with test results $\geq 5 \mu\text{g/dL}$	1,192	44	12
		<b>% of adults with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>11.1%</b>	<b>10.1%</b>	<b>10.7%</b>
<b>During Flint River Use</b>	4/1/2014 to 9/30/2015	Total # of adults tested for lead	15,676	676	203
		Adults with test results $\geq 5 \mu\text{g/dL}$	1,554	57	15
		<b>% of adults with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>9.9%</b>	<b>8.4%</b>	<b>7.4%</b>
<b>After Flint River Use</b>	10/01/2015 to 09/27/2019	Total # of adults tested for lead	74,748	29,674	20,837
		Adults with test results $\geq 5 \mu\text{g/dL}$	3,272	420	311
		<b>% of adults with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>4.4%</b>	<b>1.4%</b>	<b>1.5%</b>

**Table 4. Percentage of elevated blood lead levels ( $\geq 5 \mu\text{g/dL}$ ) among tested residents of all ages, 2014 – 2019**

			Michigan	Genesee County	Flint 48501-48507
<b>Annual Results</b>	1/01/2019 to 09/27/2019	Total # of people tested for lead	107,865	7,334	3,707
		People with test results $\geq 5 \mu\text{g/dL}$	3,506	121	76
		<b>% of people with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.3%</b>	<b>1.6%</b>	<b>2.1%</b>
	1/1/2018 to 12/31/2018	Total # of people tested for lead	173,093	12,835	6,661
		People with test results $\geq 5 \mu\text{g/dL}$	5,409	159	103
		<b>% of people with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.1%</b>	<b>1.2%</b>	<b>1.5%</b>
	1/1/2017 to 12/31/2017	Total # of people tested for lead	182,317	14,571	8,003
		People with test results $\geq 5 \mu\text{g/dL}$	6,138	231	163
		<b>% of people with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.4%</b>	<b>1.6%</b>	<b>2.0%</b>
	1/1/2016 to 12/31/2016	Total # of people tested for lead	216,925	41,623	29,782
		People with test results $\geq 5 \mu\text{g/dL}$	7,472	570	454
		<b>% of people with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.4%</b>	<b>1.4%</b>	<b>1.5%</b>
	1/1/2015 to 12/31/2015	Total # of people tested for lead	164,017	9,816	5,289
		People with test results $\geq 5 \mu\text{g/dL}$	6,222	218	140
		<b>% of people with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.8%</b>	<b>2.2%</b>	<b>2.6%</b>
1/1/2014 to 12/31/2014	Total # of people tested for lead	165,540	8,045	3,583	
	People with test results $\geq 5 \mu\text{g/dL}$	6,569	228	138	
	<b>% of people with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>4.0%</b>	<b>2.8%</b>	<b>3.9%</b>	
<b>During Flint River Use</b>	4/1/2014 to 9/30/2015	Total # of people tested for lead	228,477	11,128	4,943
		People with test results $\geq 5 \mu\text{g/dL}$	8,911	317	188
		<b>% of people with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.9%</b>	<b>2.8%</b>	<b>3.8%</b>
<b>After Flint River Use</b>	10/01/2015 to 09/27/2019	Total # of people tested for lead	561,779	66,922	42,232
		People with test results $\geq 5 \mu\text{g/dL}$	17,836	898	675
		<b>% of people with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.2%</b>	<b>1.3%</b>	<b>1.6%</b>