



## Blood Lead Level Test Results for Selected Flint Zip Codes, Genesee County, and the State of Michigan Executive Summary as of May 31, 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

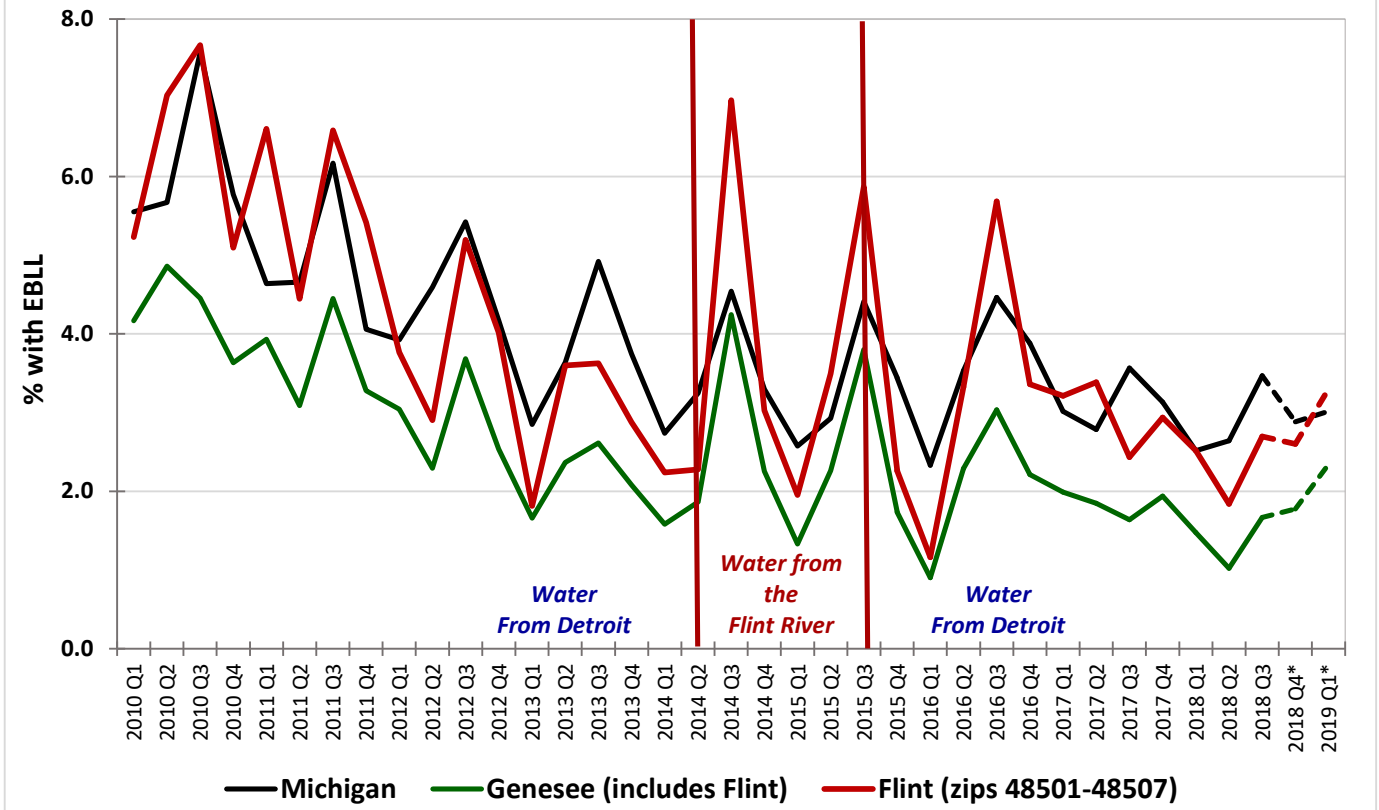
- Between 10/1/2015 and 05/31/2019, 41,442 people had a blood lead test in Flint (zip codes 48501-48507).
- Since 10/1/2015, 342 children under age 18 in the Flint zip codes 48501-48507 had elevated blood lead levels: blood lead levels greater than or equal to 5 µg/dL (micrograms lead per deciliter of blood).
- Of the 11,335 children younger than 6 years old tested since 10/1/2015, 2.6% had blood lead levels greater than or equal to 5 µg/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 May 31, 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 Quarter 4 of 2018 and Quarter 1 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 05/31/2019	Total # of children tested for lead	51,723	2,261	1,072
		Children with test results $\geq 5 \mu\text{g/dL}$	1,543	46	32
		<b>% of children with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.0%</b>	<b>2.0%</b>	<b>3.0%</b>
	1/1/2018 to 12/31/2018	Total # of children tested for lead	142,344	6,362	2,984
		Children with test results $\geq 5 \mu\text{g/dL}$	4,131	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	158,043	11,711	6,625
		Children with test results $\geq 5 \mu\text{g/dL}$	5,669	210	170
		<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	141,761	6,992	3,392
		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	144,187	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	197,900	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 05/31/2019	Total # of children tested for lead	409,440	22,620	11,335
		Children with test results $\geq 5 \mu\text{g/dL}$	12,817	385	294
		<b>% of children with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.1%</b>	<b>1.7%</b>	<b>2.6%</b>

**Table 2. Percentage of elevated blood lead levels ( $\geq 5 \mu\text{g/dL}$ ) 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 05/31/2019	Total # of children tested for lead	3,783	493	315
		Children with test results $\geq 5 \mu\text{g/dL}$	90	3	2
		<b>% of children with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>2.4%</b>	<b>0.6%</b>	<b>0.6%</b>
	1/1/2018 to 12/31/2018	Total # of children tested for lead	12,098	1,810	1,144
		Children with test results $\geq 5 \mu\text{g/dL}$	253	9	7
		<b>% of children with results <math>\geq 5 \mu\text{g/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 $\geq 5 \mu\text{g/dL}$	279	16	13
		<b>% of children with results <math>\geq 5 \mu\text{g/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	9,677	7,315
		Children with test results $\geq 5 \mu\text{g/dL}$	420	54	38
		<b>% of children with results <math>\geq 5 \mu\text{g/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 $\geq 5 \mu\text{g/dL}$	255	9	7
		<b>% of children with results <math>\geq 5 \mu\text{g/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 $\geq 5 \mu\text{g/dL}$	287	6	5	
	<b>% of children with results <math>\geq 5 \mu\text{g/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 $\geq 5 \mu\text{g/dL}$	352	8	6
		<b>% of children with results <math>\geq 5 \mu\text{g/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 05/31/2019	Total # of children tested for lead	50,496	13,394	9,550
		Children with test results $\geq 5 \mu\text{g/dL}$	829	63	48
		<b>% of children with results <math>\geq 5 \mu\text{g/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 05/31/2019	Total # of adults tested for lead	6,248	1,621	881
		Adults with test results $\geq 5 \mu\text{g/dL}$	455	17	9
		<b>% of adults with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>7.3%</b>	<b>1.0%</b>	<b>1.0%</b>
	1/1/2018 to 12/31/2018	Total # of adults tested for lead	18,642	4,663	2,533
		Adults with test results $\geq 5 \mu\text{g/dL}$	1,030	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	18,161	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	34,561	20,185	15,820
		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 05/31/2019	Total # of adults tested for lead	71,470	29,045	20,557
		Adults with test results $\geq 5 \mu\text{g/dL}$	3,130	410	307
		<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 05/31/2019	Total # of people tested for lead	61,754	4,375	2,268
		People with test results $\geq 5 \mu\text{g/dL}$	2,088	66	43
		<b>% of people with results <math>\geq 5 \mu\text{g/dL}</math></b>	<b>3.4%</b>	<b>1.5%</b>	<b>1.9%</b>
	1/1/2018 to 12/31/2018	Total # of people tested for lead	173,084	12,835	6,661
		People with test results $\geq 5 \mu\text{g/dL}$	5,414	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	182,318	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	216,928	41,573	29,760
		People with test results $\geq 5 \mu\text{g/dL}$	7,472	571	455
		<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	164,018	9,816	5,288
		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	165,542	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	228,478	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 05/31/2019	Total # of people tested for lead	531,406	65,059	41,442
		People with test results $\geq 5 \mu\text{g/dL}$	16,776	858	649
		<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>