

## Blood Lead Level Test Results for Selected Flint Zip Codes, Genesee County, and the State of Michigan Executive Summary as of October 27, 2017\*

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 in the tables, 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.

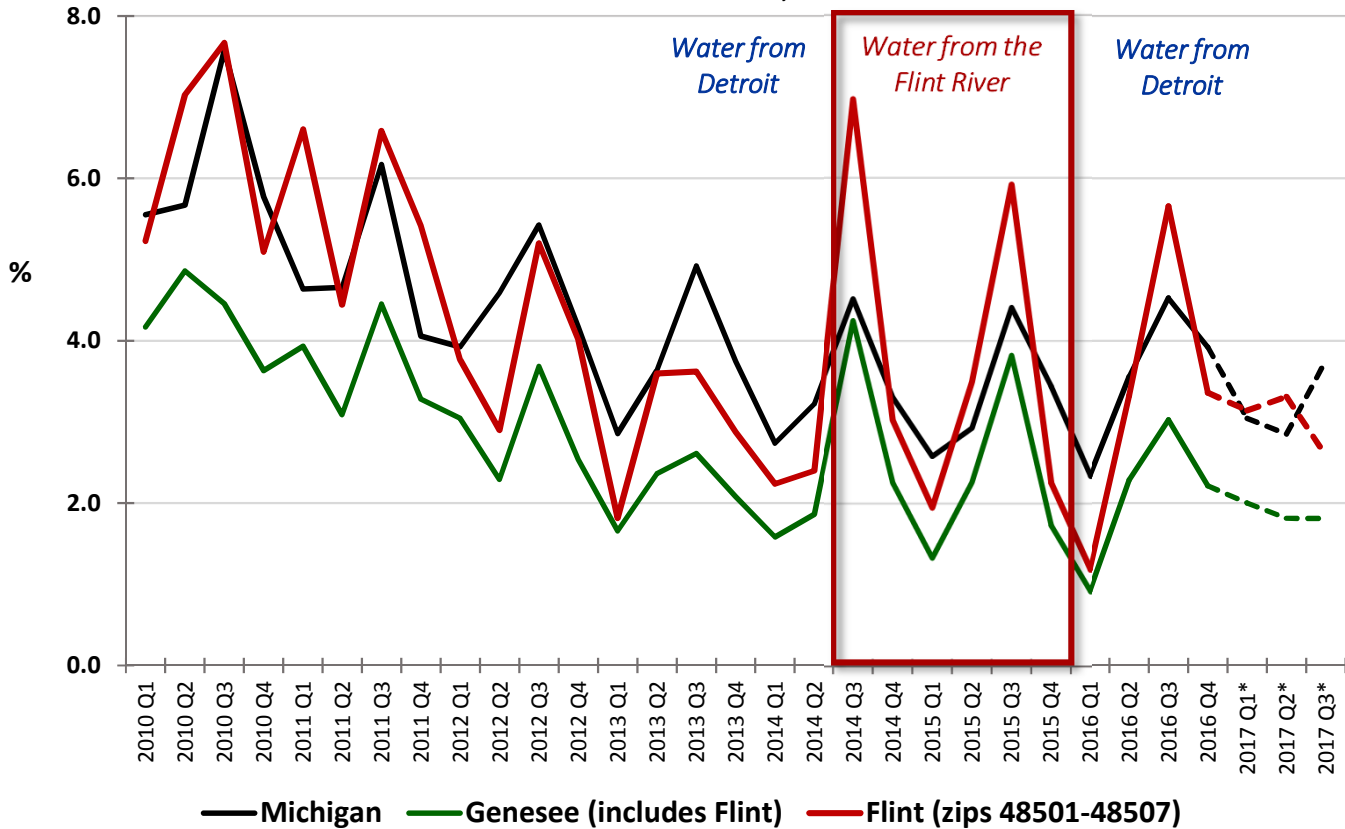
### Summary of Findings

- Between 10/1/2015 and 10/27/2017, 35,959 people had a blood lead test in Flint (zip codes 48501-48507).
- Since 10/1/2015, 282 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 mcg/dL (micrograms lead per deciliter of blood).
- Of the 8,911 children younger than 6 years old tested since 10/1/2015, 2.6% had blood lead levels greater than or equal to 5 mcg/dL.
- Of the 24 children younger than 6 from the Flint zip codes that had elevated blood lead levels in the second quarter of 2017 (April – June), 6 (25%) had a previous elevated blood lead test.

\* **Starting July 11, 2017**, this report includes the following revisions: 1) The graph of the annual incidence of EBLL in Flint children under six now includes lines marking the time period when Flint River water was in use. 2) The bar chart of the numbers of new and existing EBLL cases is removed. 3) The tables of EBLL percentages no longer include data before 2014, and they now include numbers specifically for the time periods during and after Flint water usage, rather than the reporting period from April 2014 to the present.

## Annual Incidence of Elevated Blood Lead $\geq 5$ mcg/dL among Children <6 Years of Age by Quarter, Michigan, 2010 - 2017\*

\*Data as of October 27, 2017



† Blood lead levels greater than 5  $\mu\text{g}/\text{dL}$  (micrograms per deciliter of blood) are classified as elevated. People who have had multiple tests are counted only once per year for annual counts. Counts on this report include both capillary and venous blood tests.

\* Data for Quarters 1, 2 and 3 of 2017 are provisional and subject to change.

**Table 1. Incidence of elevated blood lead levels ( $\geq 5$  mcg/dL) among children less than 6 years of age, 2014 – 2017**

			Michigan	Genesee County	Flint 48501-48507
<b>Annual Results</b>	01/01/2017 to 10/27/2017	Total tested for lead	118,412	5,342	2,455
		Number of test results $\geq 5$ mcg/dL	3,839	100	73
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>3.2%</b>	<b>1.9%</b>	<b>3.0%</b>
	1/1/2016 to 12/31/2016	Total tested for lead	158,103	11,732	6,640
		Number of test results $\geq 5$ mcg/dL	5,726	211	171
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>3.6%</b>	<b>1.8%</b>	<b>2.6%</b>
	1/1/2015 to 12/31/2015	Total tested for lead	141,659	6,984	3,388
		Number of test results $\geq 5$ mcg/dL	4,816	160	112
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>3.4%</b>	<b>2.3%</b>	<b>3.3%</b>
	1/1/2014 to 12/31/2014	Total tested for lead	143,987	6,820	3,102
		Number of test results $\geq 5$ mcg/dL	5,063	178	122
		<b>Percent of test results <math>\geq 5</math> mcg/dL</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 tested for lead	201,039	9,418	4,262
		Number of test results $\geq 5$ mcg/dL	7,266	264	177
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>3.6%</b>	<b>2.8%</b>	<b>4.2%</b>
<b>After Flint River Use</b>	10/01/2015 to 10/27/2017	Total tested for lead	271,296	16,819	8,911
		Number of test results $\geq 5$ mcg/dL	9,163	303	236
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>3.4%</b>	<b>1.8%</b>	<b>2.6%</b>

**Table 2. Incidence of elevated blood lead levels ( $\geq 5$  mcg/dL) among children 6 to 17 years of age, 2014 – 2017**

			Michigan	Genesee County	Flint 48501-48507
<b>Annual Results</b>	01/01/2017 to 10/27/2017	Total tested for lead	10,797	2,038	1,383
		Number of test results $\geq 5$ mcg/dL	232	15	12
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>2.1%</b>	<b>0.7%</b>	<b>0.9%</b>
	1/1/2016 to 12/31/2016	Total tested for lead	24,404	9,681	7,313
		Number of test results $\geq 5$ mcg/dL	422	56	40
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>1.7%</b>	<b>0.6%</b>	<b>0.5%</b>
	1/1/2015 to 12/31/2015	Total tested for lead	10,448	1,569	1,083
		Number of test results $\geq 5$ mcg/dL	254	9	7
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>2.4%</b>	<b>0.6%</b>	<b>0.6%</b>
	1/1/2014 to 12/31/2014	Total tested for lead	10,563	788	372
		Number of test results $\geq 5$ mcg/dL	285	6	5
		<b>Percent of test results <math>\geq 5</math> mcg/dL</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 tested for lead	14,963	1,189	593
		Number of test results $\geq 5$ mcg/dL	363	8	6
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>2.4%</b>	<b>0.7%</b>	<b>1.0%</b>
<b>After Flint River Use</b>	10/01/2015 to 10/27/2017	Total tested for lead	36,655	11,887	8,768
		Number of test results $\geq 5$ mcg/dL	623	60	46
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>1.7%</b>	<b>0.5%</b>	<b>0.5%</b>

**Table 3. Incidence of elevated blood lead levels ( $\geq 5$  mcg/dL) among adults at least 18 years of age, 2014 - 2017**

			Michigan	Genesee County	Flint 48501-48507
<b>Annual Results</b>	01/01/2017 to 10/27/2017	Total tested for lead	15,637	4,351	2,656
		Number of test results $\geq 5$ mcg/dL	1,062	71	48
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>6.8%</b>	<b>1.6%</b>	<b>1.8%</b>
	1/1/2016 to 12/31/2016	Total tested for lead	37,015	20,247	15,760
		Number of test results $\geq 5$ mcg/dL	1,654	310	249
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>4.5%</b>	<b>1.5%</b>	<b>1.6%</b>
	1/1/2015 to 12/31/2015	Total tested for lead	13,707	1,250	811
		Number of test results $\geq 5$ mcg/dL	1,369	48	21
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>10.0%</b>	<b>3.8%</b>	<b>2.6%</b>
	1/1/2014 to 12/31/2014	Total tested for lead	12,576	436	111
		Number of test results $\geq 5$ mcg/dL	1,419	44	12
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>11.3%</b>	<b>10.1%</b>	<b>10.8%</b>
<b>During Flint River Use</b>	4/1/2014 to 9/30/2015	Total tested for lead	18,525	679	204
		Number of test results $\geq 5$ mcg/dL	1,911	56	15
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>10.3%</b>	<b>8.2%</b>	<b>7.4%</b>
<b>After Flint River Use</b>	10/01/2015 to 10/27/2017	Total tested for lead	53,644	24,461	18,280
		Number of test results $\geq 5$ mcg/dL	2,591	379	290
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>4.8%</b>	<b>1.5%</b>	<b>1.6%</b>

**Table 4. Incidence of elevated blood lead levels ( $\geq 5$  mcg/dL) among residents of all ages, 2014 – 2017**

			Michigan	Genesee County	Flint 48501-48507
<b>Annual Results</b>	01/01/2017 to 10/27/2017	Total tested for lead	144,846	11,731	6,494
		Number of test results $\geq 5$ mcg/dL	5,133	186	133
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>3.5%</b>	<b>1.6%</b>	<b>2.0%</b>
	1/1/2016 to 12/31/2016	Total tested for lead	219,522	41,660	29,713
		Number of test results $\geq 5$ mcg/dL	7,802	577	460
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>3.6%</b>	<b>1.4%</b>	<b>1.5%</b>
	1/1/2015 to 12/31/2015	Total tested for lead	165,814	9,803	5,282
		Number of test results $\geq 5$ mcg/dL	6,439	217	140
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>3.9%</b>	<b>2.2%</b>	<b>2.7%</b>
	1/1/2014 to 12/31/2014	Total tested for lead	167,126	8,044	3,585
		Number of test results $\geq 5$ mcg/dL	6,767	228	139
		<b>Percent of test results <math>\geq 5</math> mcg/dL</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 tested for lead	234,527	11,286	5,059
		Number of test results $\geq 5$ mcg/dL	9,540	328	198
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>4.1%</b>	<b>2.9%</b>	<b>3.9%</b>
<b>After Flint River Use</b>	10/01/2015 to 10/27/2017	Total tested for lead	361,595	53,167	35,959
		Number of test results $\geq 5$ mcg/dL	12,377	742	572
		<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	<b>3.4%</b>	<b>1.4%</b>	<b>1.6%</b>