



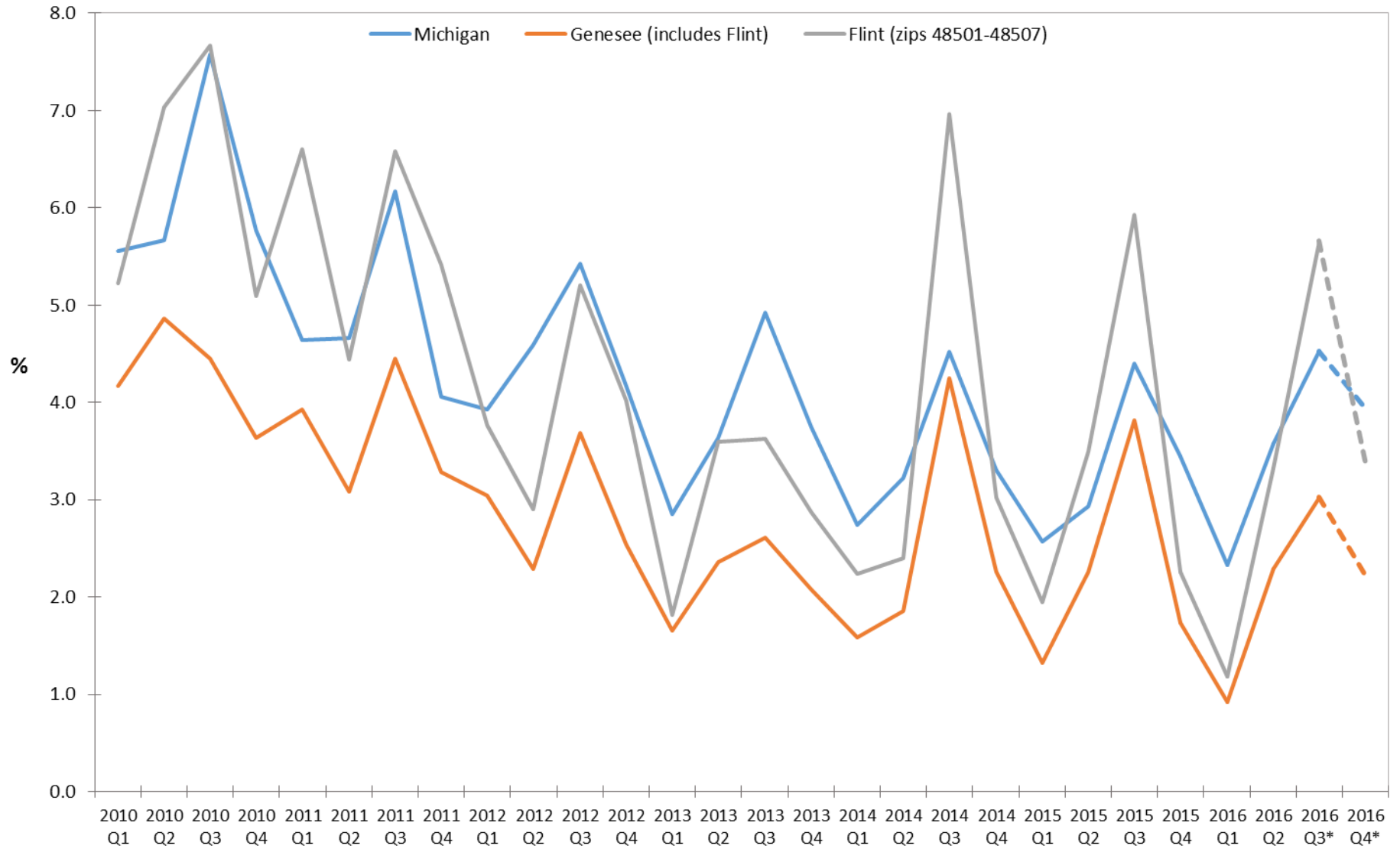
# Michigan Department of Health and Human Services (MDHHS) Blood Lead Level Test Results for Selected Flint Zip Codes, Genesee County, and the State of Michigan Summary as of April 7, 2017

## Executive Summary

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

- Blood lead level testing is an important part of our efforts to identify people who have been harmed by drinking water that contained lead. However, MDHHS recognizes that the full community of Flint must be the focus of the public health response.
- People who have had multiple tests are counted only once per year for the annual counts. People counted in 2015 who were tested again after 1/1/2016 are counted in both years.
- Counts on this report include both capillary and venous blood tests.
- As of 5/2/2016, this report will no longer include test results for “Additional Impacted Locations” (48509, 48519, 48529, and 48532) because it has been demonstrated by CDC geographers that almost none of the addresses in these areas were serviced by water from the Flint River.
- Between 10/1/2015 and 4/7/2017, 33,132 people were tested in Flint zip codes 48501-48507.
- Continued testing efforts by Genesee County Health Department, MDHHS, and local medical personnel have identified 242 children under age 18 in Flint zip codes 48501-48507 with blood lead levels greater than or equal to 5 mcg/dL (micrograms lead per deciliter of blood) since 10/1/2015.
- Of children younger than 6 years old tested between 10/1/2015 and 4/7/2017, 2.5% from Flint zip codes 48501-48507 had blood lead levels greater than or equal to 5 mcg/dL.
- Fifteen of the 32 (46.9%) children younger than 6 years old from Flint zip codes 48501-48507 with an elevated blood lead level in Quarter 1 of 2017 (tested between 1/1/2017 and 4/7/2017) had a previous test result greater than or equal to 5 mcg/dL.

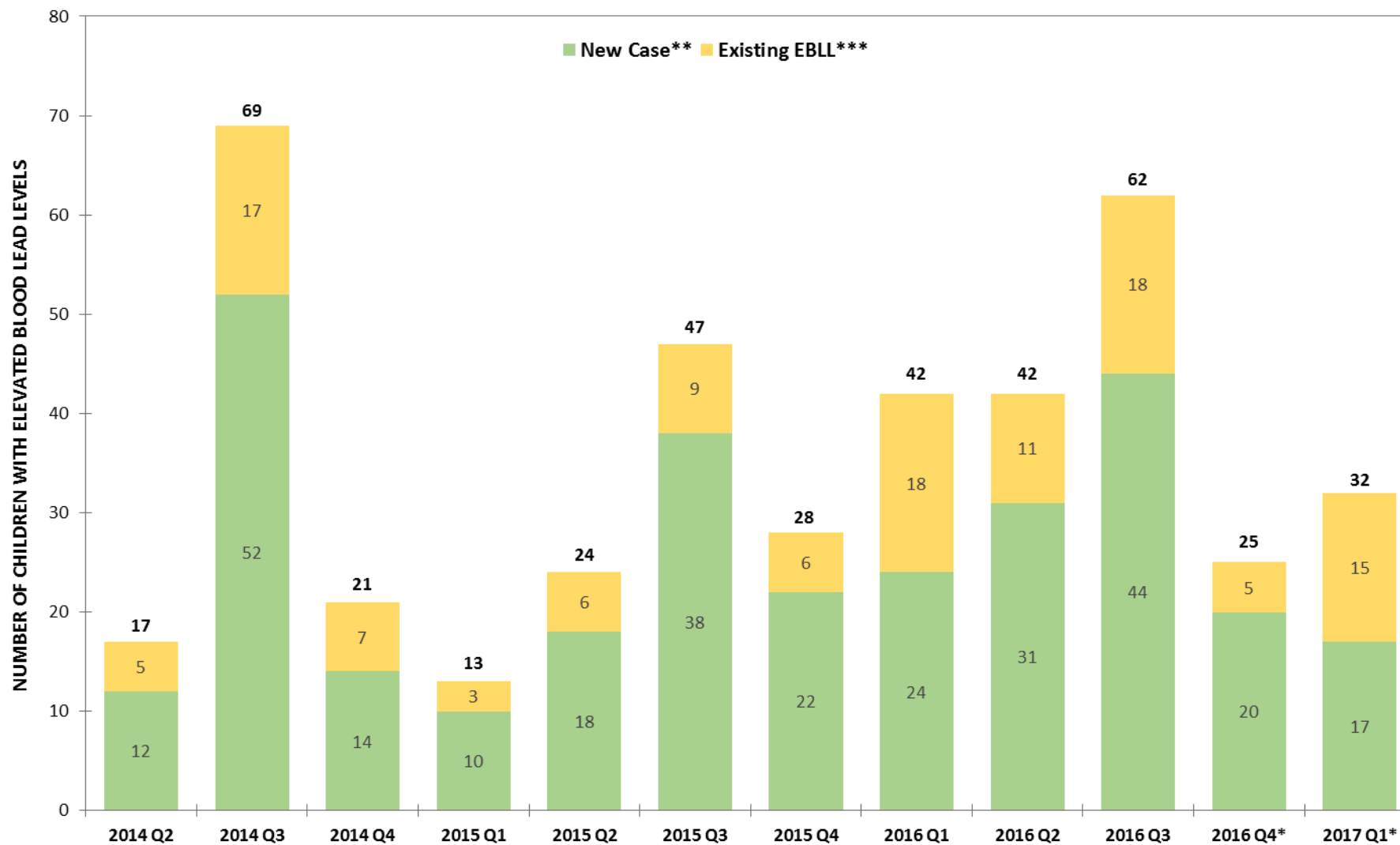
## Annual Incidence of Elevated Blood Lead $\geq 5$ mcg/dL among Children <6 Years of Age by Quarter, Michigan, 2010 - 2016\*



\*Data as of April 07, 2017 - data for Quarters 3 and 4 of 2016 are incomplete and subject to change. Data for 2017 will be reported starting after the middle of the second quarter of 2017 (May 2017).

People who have had multiple tests are counted only once per year for annual counts. For example, people counted in 2015 who were tested again after 1/1/2016 are counted in both years. Counts on this report include both capillary and venous blood tests.

## Elevated Blood Lead Levels ( $\geq 5$ mcg/dL) among Children <6 Years of Age by Quarter, Flint (48501-48507), 04/01/2014 - 04/7/2017 \*



\* Data for Quarters 3 and 4 of 2016 and Quarter 1 of 2017 are incomplete and subject to change.

\*\* Child has never had a previous elevated blood lead level

\*\*\* Child has a pre-existing elevated blood lead level that has not yet been brought down to <5 mcg/dL

People who have had multiple tests are counted only once per year for annual counts. People counted in 2015 who were tested again after 1/1/2016 are counted in both years. Counts on this report include both capillary and venous blood tests.

**Table 1. Incidence of elevated blood lead levels ( $\geq 5$  mcg/dL) among children less than 6 years of age, 2010 – 201**

		<b>Michigan</b>	<b>Genesee County</b>	<b>Flint 48501-48507</b>
<b>1/1/2010 to 12/31/2010</b>	<b>Total tested for lead</b>	156,015	7,053	3,630
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	9,754	306	230
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	6.3%	4.3%	6.3%
<b>1/1/2011 to 12/31/2011</b>	<b>Total tested for lead</b>	152,334	6,760	3,145
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	7,571	252	182
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	5.0%	3.7%	5.8%
<b>1/1/2012 to 12/31/2012</b>	<b>Total tested for lead</b>	149,061	7,152	3,198
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	6,834	210	130
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	4.6%	2.9%	4.1%
<b>1/1/2013 to 12/31/2013</b>	<b>Total tested for lead</b>	148,684	7,133	3,143
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	5,747	158	96
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.9%	2.2%	3.1%
<b>1/1/2014 to 12/31/2014</b>	<b>Total tested for lead</b>	143,987	6,820	3,102
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	5,063	178	122
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.5%	2.6%	3.9%
<b>1/1/2015 to 12/31/2015</b>	<b>Total tested for lead</b>	140,962	6,982	3,387
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	4,792	160	112
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.4%	2.3%	3.3%
<b>10/1/2015 to 04/07/2017</b>	<b>Total tested for lead</b>	210,223	14,390	7,899
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	7,187	257	200
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.4%	1.8%	2.5%
<b>4/1/2014 to 04/07/2017</b>	<b>Total tested for lead</b>	353,669	19,713	9,653
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	12,818	426	301
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.6%	2.2%	3.1%
<b>1/1/2016 to 04/07/2017</b>	<b>Total tested for lead</b>	196,165	13,514	7,453
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	7,139	257	203
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.6%	1.9%	2.7%

**Table 2. Incidence of elevated blood lead levels ( $\geq 5$  mcg/dL) among children 6 to 17 years of age, 2010 – 2017**

		<b>Michigan</b>	<b>Genesee County</b>	<b>Flint 48501-48507</b>
<b>1/1/2010 to 12/31/2010</b>	<b>Total tested for lead</b>	14,730	760	400
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	665	17	12
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	4.5%	2.2%	3.0%
<b>1/1/2011 to 12/31/2011</b>	<b>Total tested for lead</b>	12,959	959	499
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	474	19	13
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.7%	2.0%	2.6%
<b>1/1/2012 to 12/31/2012</b>	<b>Total tested for lead</b>	12,711	1,259	561
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	351	13	9
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	2.8%	1.0%	1.6%
<b>1/1/2013 to 12/31/2013</b>	<b>Total tested for lead</b>	11,449	1,109	505
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	271	7	3
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	2.4%	0.6%	0.6%
<b>1/1/2014 to 12/31/2014</b>	<b>Total tested for lead</b>	10,563	788	372
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	285	6	5
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	2.7%	0.8%	1.3%
<b>1/1/2015 to 12/31/2015</b>	<b>Total tested for lead</b>	10,418	1,570	1,084
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	254	10	8
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	2.4%	0.6%	0.7%
<b>10/1/2015 to 04/07/2017</b>	<b>Total tested for lead</b>	29,983	10,854	8,169
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	525	56	42
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	1.8%	0.5%	0.5%
<b>4/1/2014 to 04/07/2017</b>	<b>Total tested for lead</b>	42,425	11,582	8,451
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	763	59	44
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	1.8%	0.5%	0.5%
<b>1/1/2016 to 04/07/2017</b>	<b>Total tested for lead</b>	27,716	10,292	7,743
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	513	61	43
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	1.9%	0.6%	0.6%

**Table 3. Incidence of elevated blood lead levels ( $\geq 5$  mcg/dL) among adults at least 18 years of age, 2010 – 2017**

		<b>Michigan</b>	<b>Genesee County</b>	<b>Flint 48501-48507</b>
<b>1/1/2010 to 12/31/2010</b>	<b>Total tested for lead</b>	13,681	588	188
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	1,459	42	18
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	10.7%	7.1%	9.6%
<b>1/1/2011 to 12/31/2011</b>	<b>Total tested for lead</b>	13,112	528	132
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	1,367	43	16
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	10.4%	8.1%	12.1%
<b>1/1/2012 to 12/31/2012</b>	<b>Total tested for lead</b>	12,912	539	148
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	1,413	33	11
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	10.9%	6.1%	7.4%
<b>1/1/2013 to 12/31/2013</b>	<b>Total tested for lead</b>	12,081	484	132
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	1,499	54	16
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	12.4%	11.2%	12.1%
<b>1/1/2014 to 12/31/2014</b>	<b>Total tested for lead</b>	12,576	436	111
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	1,419	44	12
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	11.3%	10.1%	10.8%
<b>1/1/2015 to 12/31/2015</b>	<b>Total tested for lead</b>	13,683	1,250	811
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	1,368	48	21
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	10.0%	3.8%	2.6%
<b>10/1/2015 to 04/07/2017</b>	<b>Total tested for lead</b>	44,535	22,226	17,064
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	2,121	352	275
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	4.8%	1.6%	1.6%
<b>4/1/2014 to 04/07/2017</b>	<b>Total tested for lead</b>	59,968	22,802	17,216
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	3,539	393	285
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	5.9%	1.7%	1.7%
<b>1/1/2016 to 04/07/2017</b>	<b>Total tested for lead</b>	42,575	22,030	16,897
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	2,034	347	274
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	4.8%	1.6%	1.6%

Table 4. Total incidence of elevated blood lead levels ( $\geq 5$  mcg/dL), 2010 – 2017

		Michigan	Genesee County	Flint 48501-48507
1/1/2010 to 12/31/2010	Total tested for lead	184,426	8,401	4,218
	Number of test results $\geq 5$ mcg/dL	11,878	365	260
	Percent of test results $\geq 5$ mcg/dL	6.4%	4.3%	6.2%
1/1/2011 to 12/31/2011	Total tested for lead	178,405	8,247	3,776
	Number of test results $\geq 5$ mcg/dL	9,412	314	211
	Percent of test results $\geq 5$ mcg/dL	5.3%	3.8%	5.6%
1/1/2012 to 12/31/2012	Total tested for lead	174,684	8,950	3,907
	Number of test results $\geq 5$ mcg/dL	8,598	256	150
	Percent of test results $\geq 5$ mcg/dL	4.9%	2.9%	3.8%
1/1/2013 to 12/31/2013	Total tested for lead	172,214	8,726	3,780
	Number of test results $\geq 5$ mcg/dL	7,517	219	115
	Percent of test results $\geq 5$ mcg/dL	4.4%	2.5%	3.0%
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
	Percent of test results $\geq 5$ mcg/dL	4.0%	2.8%	3.9%
1/1/2015 to 12/31/2015	Total tested for lead	165,063	9,802	5,282
	Number of test results $\geq 5$ mcg/dL	6,414	218	141
	Percent of test results $\geq 5$ mcg/dL	3.9%	2.2%	2.7%
10/1/2015 to 04/07/2017	Total tested for lead	284,741	47,470	33,132
	Number of test results $\geq 5$ mcg/dL	9,833	665	517
	Percent of test results $\geq 5$ mcg/dL	3.5%	1.4%	1.6%
4/1/2014 to 04/07/2017	Total tested for lead	456,062	54,097	35,320
	Number of test results $\geq 5$ mcg/dL	17,120	878	630
	Percent of test results $\geq 5$ mcg/dL	3.8%	1.6%	1.8%
1/1/2016 to 04/07/2017	Total tested for lead	266,456	45,836	32,093
	Number of test results $\geq 5$ mcg/dL	9,686	665	520
	Percent of test results $\geq 5$ mcg/dL	3.6%	1.5%	1.6%