



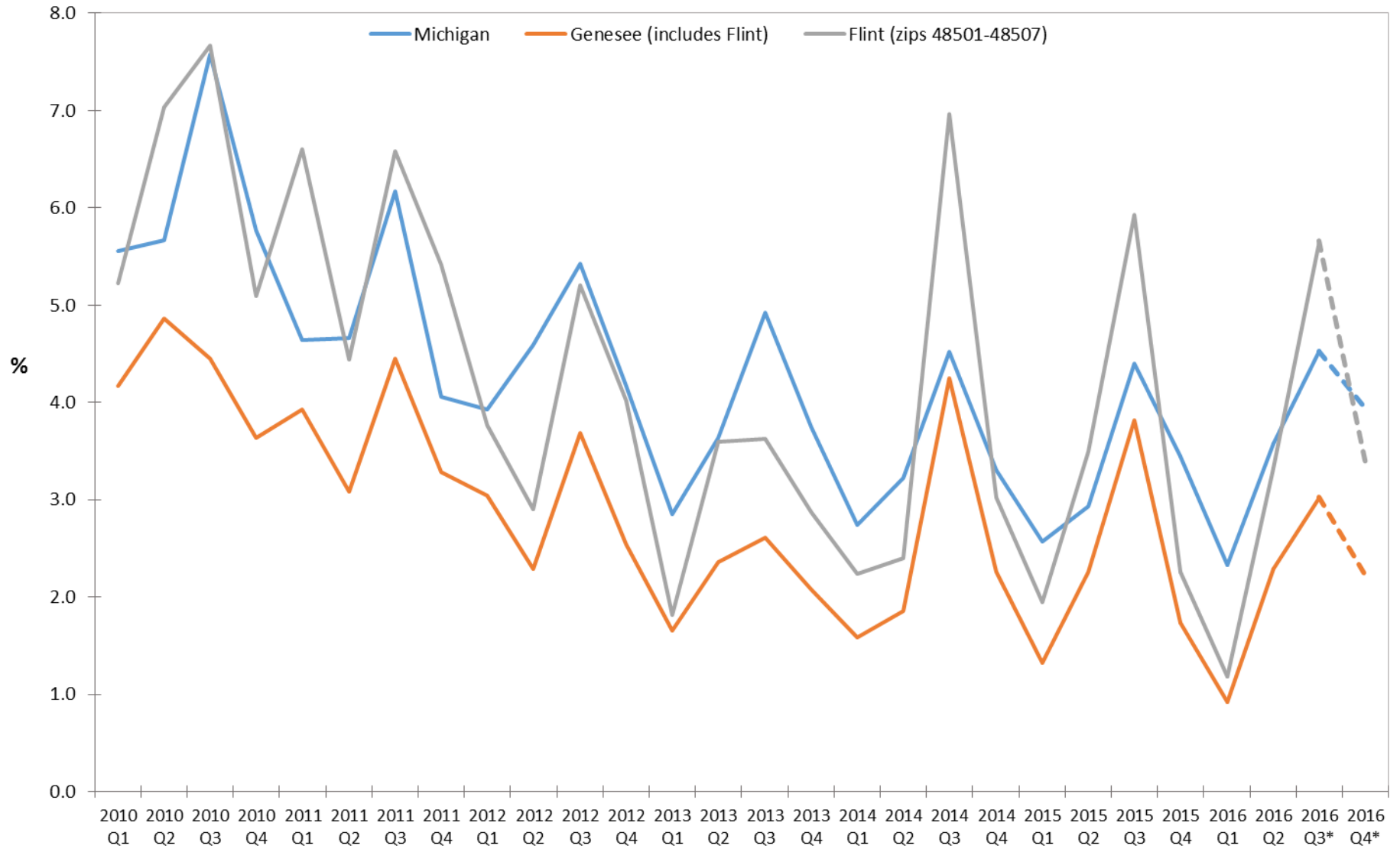
# Michigan Department of Health and Human Services (MDHHS) Blood Lead Level Test Results for Selected Flint Zip Codes, Genesee County, and the State of Michigan Summary as of April 21, 2017

## 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 4/21/2017, 33,325 people were tested in Flint zip codes 48501-48507.
- Continued testing efforts by Genesee County Health Department, MDHHS, and local medical personnel have identified 243 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 4/21/2017, 2.5% from Flint zip codes 48501-48507 had blood lead levels greater than or equal to 5 mcg/dL.
- Fifteen of the 33 (45.5%) 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 3/31/2017) had a previous test result greater than or equal to 5 mcg/dL.

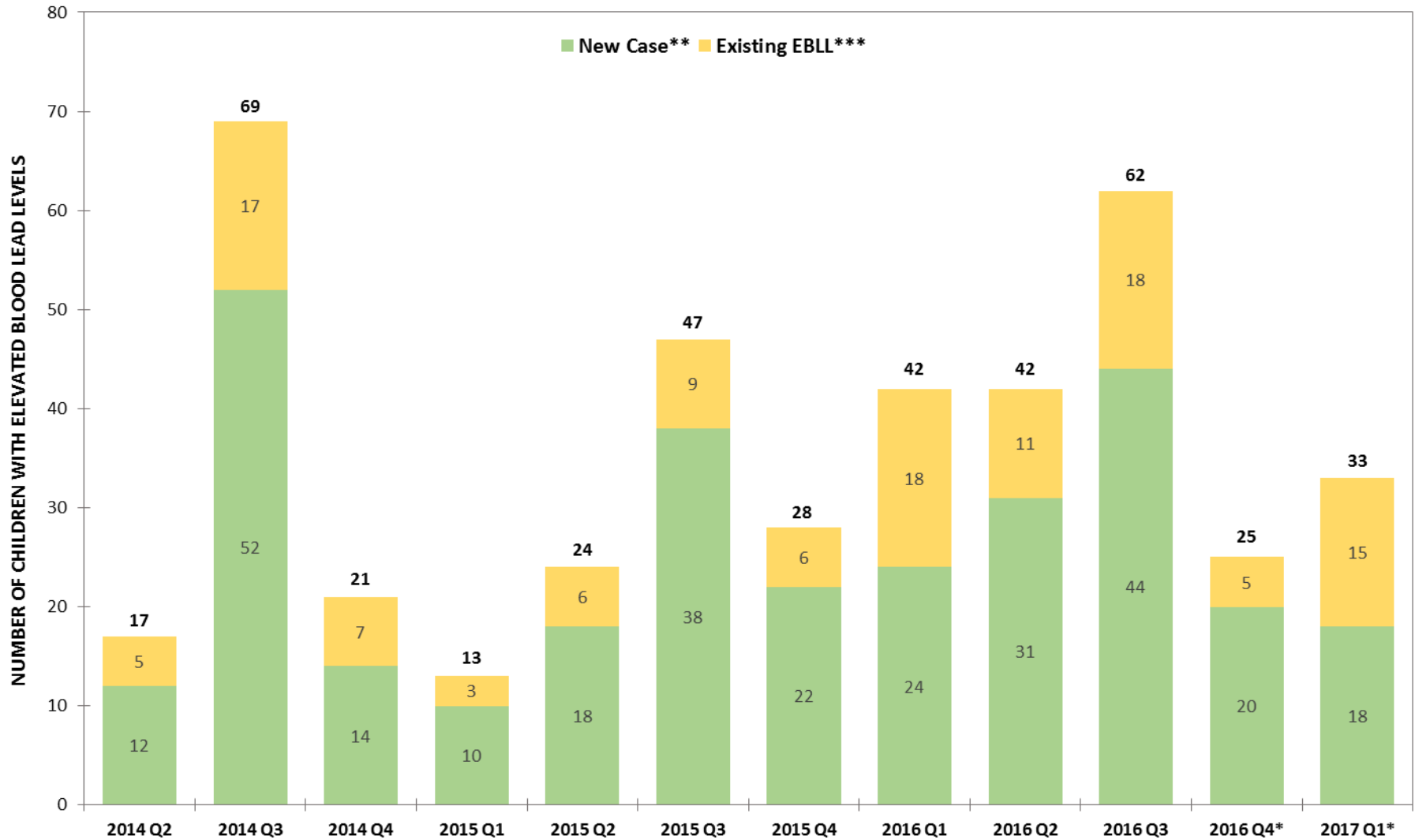
### Annual Incidence of Elevated Blood Lead $\geq 5$ mcg/dL among Children <6 Years of Age by Quarter, Michigan, 2010 - 2016\*



\*Data as of April 21, 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 - 04/21/2017 \*



\* 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 04/21/2017</b>	<b>Total tested for lead</b>	213,613	14,515	7,945
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	7,222	258	201
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.4%	1.8%	2.5%
<b>4/1/2014 to 04/21/2017</b>	<b>Total tested for lead</b>	356,675	19,823	9,687
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	12,849	428	302
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.6%	2.2%	3.1%
<b>1/1/2016 to 04/21/2017</b>	<b>Total tested for lead</b>	201,063	13,702	7,538
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	7,247	261	207
	<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 04/21/2017</b>	<b>Total tested for lead</b>	30,450	10,923	8,214
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	536	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 04/21/2017</b>	<b>Total tested for lead</b>	42,835	11,648	8,496
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	772	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 04/21/2017</b>	<b>Total tested for lead</b>	28,251	10,386	7,812
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	531	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 04/21/2017</b>	<b>Total tested for lead</b>	45,203	22,392	17,166
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	2,147	355	278
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	4.7%	1.6%	1.6%
<b>4/1/2014 to 04/21/2017</b>	<b>Total tested for lead</b>	60,574	22,967	17,317
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	3,564	396	288
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	5.9%	1.7%	1.7%
<b>1/1/2016 to 04/21/2017</b>	<b>Total tested for lead</b>	43,504	22,265	17,053
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	2,081	349	276
	<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 04/21/2017	Total tested for lead	289,266	47,830	33,325
	Number of test results $\geq 5$ mcg/dL	9,905	669	521
	Percent of test results $\geq 5$ mcg/dL	3.4%	1.4%	1.6%
4/1/2014 to 04/21/2017	Total tested for lead	460,084	54,438	35,500
	Number of test results $\geq 5$ mcg/dL	17,185	883	634
	Percent of test results $\geq 5$ mcg/dL	3.7%	1.6%	1.8%
1/1/2016 to 04/21/2017	Total tested for lead	272,818	46,353	32,403
	Number of test results $\geq 5$ mcg/dL	9,859	671	526
	Percent of test results $\geq 5$ mcg/dL	3.6%	1.4%	1.6%