



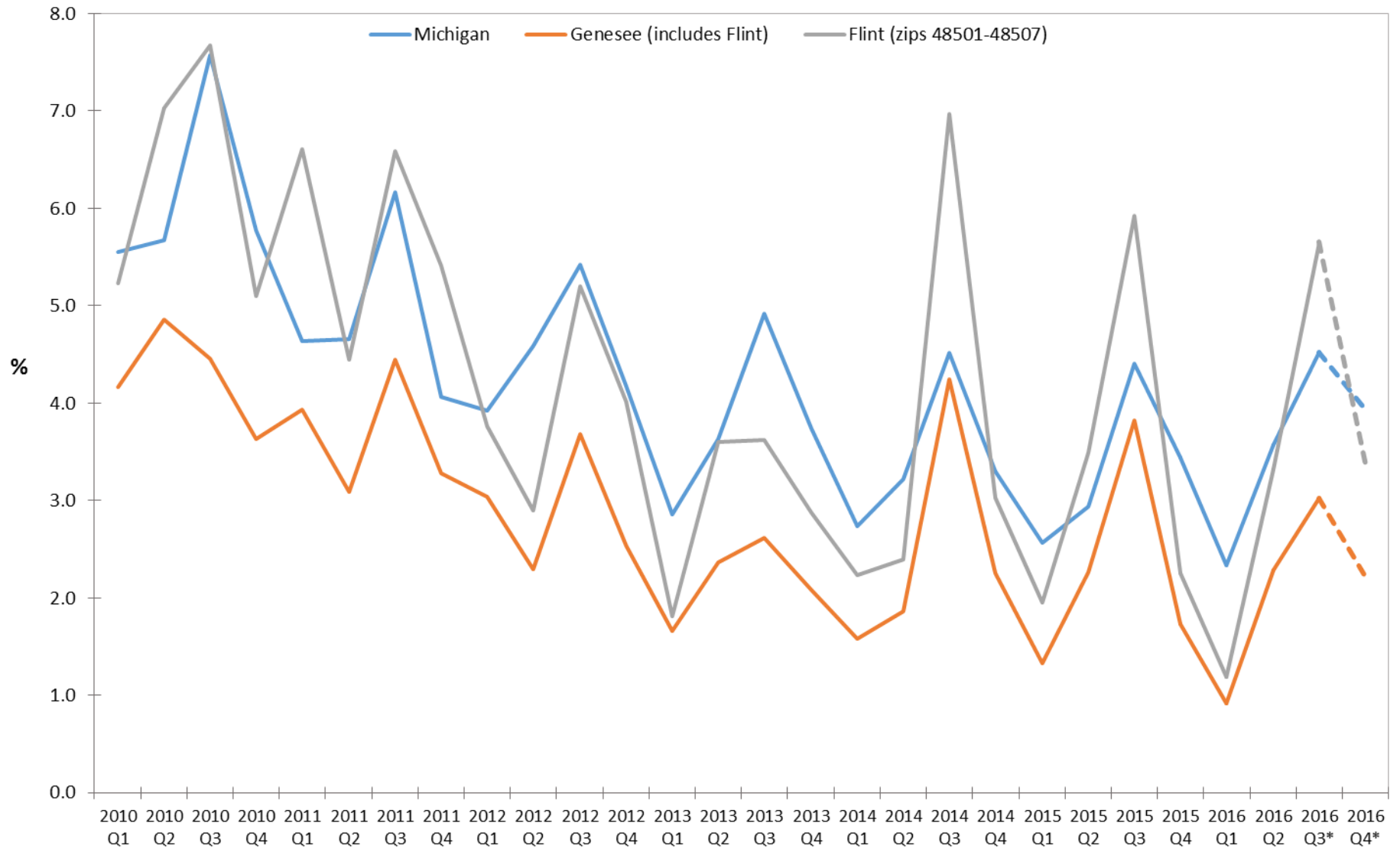
# Michigan Department of Health and Human Services (MDHHS) Blood Lead Level Test Results for Selected Flint Zip Codes, Genesee County, and the State of Michigan Summary as of March 3, 2017

## 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 3/3/2017, 32,567 people were tested in Flint zip codes 48501-48507.
- Continued testing efforts by Genesee County Health Department, MDHHS, and local medical personnel have identified 240 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 3/3/2017, 2.6% from Flint zip codes 48501-48507 had blood lead levels greater than or equal to 5 mcg/dL.
- Five of the 25 (20.0%) children younger than 6 years old from Flint zip codes 48501-48507 with an elevated blood lead level (tested between 10/1/2016 and 12/31/2016) in Quarter 4 of 2016 had a previous test result greater than or equal to 5 mcg/dL.

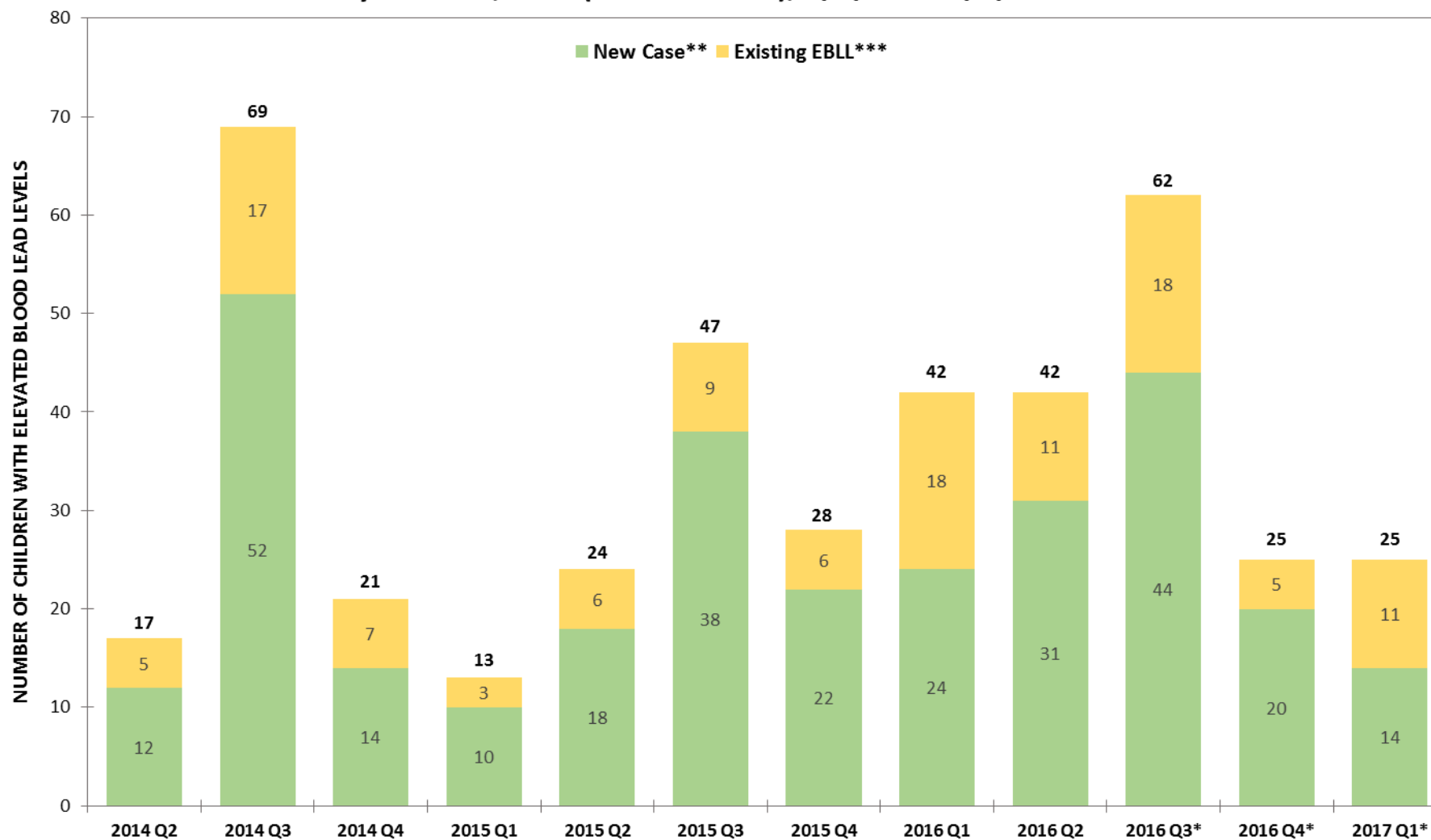
### Annual Incidence of Elevated Blood Lead $\geq 5$ mcg/dL among Children <6 Years of Age by Quarter, Michigan, 2010 - 2016\*



\*Data for Quarters 3 and 4 of 2016 are incomplete and subject to change. Data for 2017 will be reported starting in March 2017.

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.

## Elevated Blood Lead Levels ( $\geq 5$ mcg/dL) among Children <6 Years of Age by Quarter, Flint (48501-48507), 4/1/14 - 03/3/2017 \*



\* 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 – 2017**

		Michigan	Genesee County	Flint 48501-48507
1/1/2010 to 12/31/2010	Total tested for lead	156,015	7,053	3,630
	Number of test results $\geq 5$ mcg/dL	9,754	306	230
	Percent of test results $\geq 5$ mcg/dL	6.3%	4.3%	6.3%
1/1/2011 to 12/31/2011	Total tested for lead	152,334	6,760	3,145
	Number of test results $\geq 5$ mcg/dL	7,571	252	182
	Percent of test results $\geq 5$ mcg/dL	5.0%	3.7%	5.8%
1/1/2012 to 12/31/2012	Total tested for lead	149,061	7,152	3,198
	Number of test results $\geq 5$ mcg/dL	6,834	210	130
	Percent of test results $\geq 5$ mcg/dL	4.6%	2.9%	4.1%
1/1/2013 to 12/31/2013	Total tested for lead	148,684	7,133	3,143
	Number of test results $\geq 5$ mcg/dL	5,747	158	96
	Percent of test results $\geq 5$ mcg/dL	3.9%	2.2%	3.1%
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
	Percent of test results $\geq 5$ mcg/dL	3.5%	2.6%	3.9%
1/1/2015 to 12/31/2015	Total tested for lead*	140,960	6,982	3,387
	Number of test results $\geq 5$ mcg/dL	4,792	160	112
	Percent of test results $\geq 5$ mcg/dL	3.4%	2.3%	3.3%
10/1/2015 to 03/03/2017	Total tested for lead*	199,950	13,910	7,699
	Number of test results $\geq 5$ mcg/dL	6,970	254	199
	Percent of test results $\geq 5$ mcg/dL	3.5%	1.8%	2.6%
4/1/2014 to 03/03/2017	Total tested for lead*	344,741	19,282	9,477
	Number of test results $\geq 5$ mcg/dL	12,616	424	300
	Percent of test results $\geq 5$ mcg/dL	3.7%	2.2%	3.2%
1/1/2016 to 03/03/2017	Total tested for lead*	181,418	12,769	7,116
	Number of test results $\geq 5$ mcg/dL	6,711	246	196
	Percent of test results $\geq 5$ mcg/dL	3.7%	1.9%	2.8%

**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>	10,419	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 03/03/2017</b>	<b>Total tested for lead*</b>	28,868	10,693	8,073
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	508	55	41
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	1.8%	0.5%	0.5%
<b>4/1/2014 to 03/03/2017</b>	<b>Total tested for lead*</b>	41,410	11,424	8,356
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	747	58	43
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	1.8%	0.5%	0.5%
<b>1/1/2016 to 03/03/2017</b>	<b>Total tested for lead*</b>	26,382	10,037	7,569
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	484	58	40
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	1.8%	0.6%	0.5%

**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 03/03/2017</b>	<b>Total tested for lead*</b>	42,793	21,758	16,795
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	2,029	340	267
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	4.7%	1.6%	1.6%
<b>4/1/2014 to 03/03/2017</b>	<b>Total tested for lead*</b>	58,326	22,337	16,948
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	3,454	381	277
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	5.9%	1.7%	1.6%
<b>1/1/2016 to 03/03/2017</b>	<b>Total tested for lead*</b>	40,346	21,367	16,496
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	1,891	331	264
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	4.7%	1.5%	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*	165,062	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 03/03/2017	Total tested for lead*	271,611	46,361	32,567
	Number of test results $\geq 5$ mcg/dL	9,507	649	507
	Percent of test results $\geq 5$ mcg/dL	3.5%	1.4%	1.6%
4/1/2014 to 03/03/2017	Total tested for lead*	444,477	53,043	34,781
	Number of test results $\geq 5$ mcg/dL	16,817	863	620
	Percent of test results $\geq 5$ mcg/dL	3.8%	1.6%	1.8%
1/1/2016 to 03/03/2017	Total tested for lead*	248,146	44,173	31,181
	Number of test results $\geq 5$ mcg/dL	9,086	635	500
	Percent of test results $\geq 5$ mcg/dL	3.7%	1.4%	1.6%