



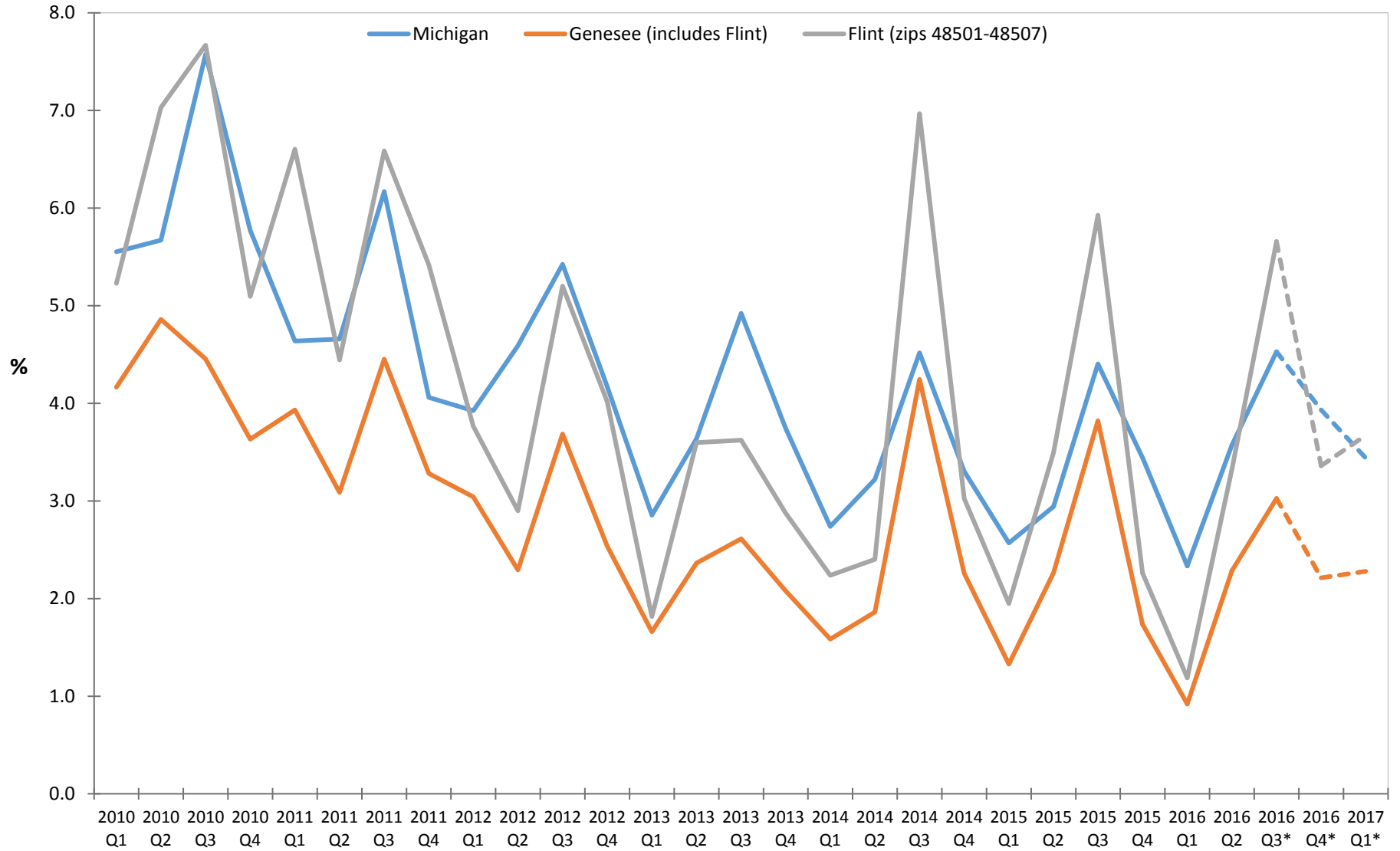
# Michigan Department of Health and Human Services (MDHHS) Blood Lead Level Test Results for Selected Flint Zip Codes, Genesee County, and the State of Michigan Summary as of May 19, 2017

## 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 5/19/2017, 33,662 people were tested in Flint zip codes 48501-48507.
- Continued testing efforts by Genesee County Health Department, MDHHS, and local medical personnel have identified 247 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 5/5/2017, 2.5% from Flint zip codes 48501-48507 had blood lead levels greater than or equal to 5 mcg/dL.
- Fifteen of the 30 (50.0%) 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.

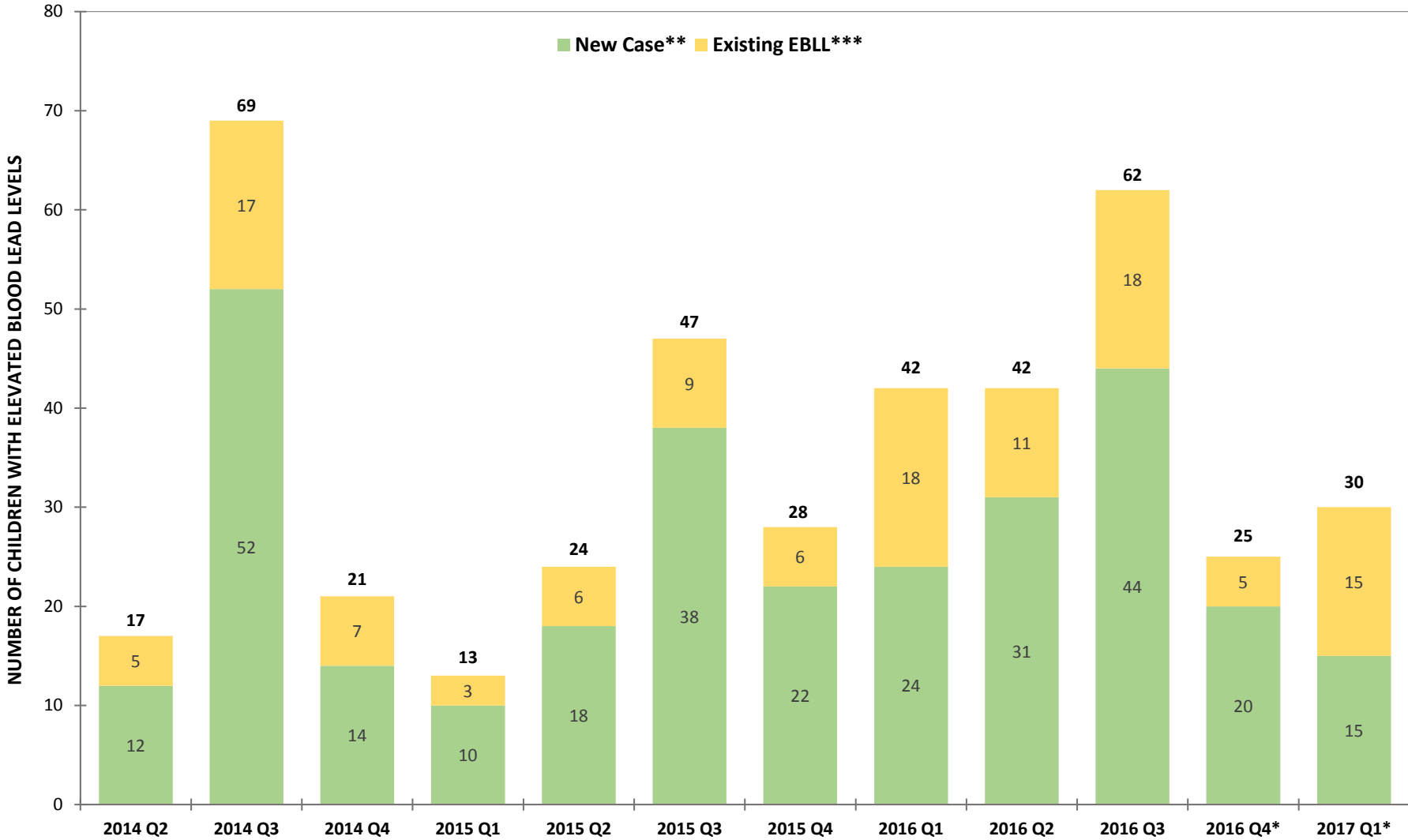
### Annual Incidence of Elevated Blood Lead $\geq 5$ mcg/dL among Children <6 Years of Age by Quarter, Michigan, 2010 - 2016\*



\*Data as of May 19, 2017 - data for Quarter 4 of 2016 and Quarter 1 of 2017 are incomplete and subject to change.

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 - 05/19/2017 \*



\* 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**

		<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>	141,009	6,982	3,387
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	4,796	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 05/19/2017</b>	<b>Total tested for lead</b>	221,841	14,848	8,074
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	7,462	260	204
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.4%	1.8%	2.5%
<b>4/1/2014 to 05/19/2017</b>	<b>Total tested for lead</b>	364,029	20,111	9,800
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	13,085	430	305
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.6%	2.1%	3.1%
<b>1/1/2016 to 05/19/2017</b>	<b>Total tested for lead</b>	212,960	14,221	7,765
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	7,605	267	213
	<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>	10,420	1,570	1,084
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	255	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 05/19/2017</b>	<b>Total tested for lead</b>	31,092	11,017	8,278
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	536	57	43
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	1.7%	0.5%	0.5%
<b>4/1/2014 to 05/19/2017</b>	<b>Total tested for lead</b>	43,410	11,738	8,557
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	772	60	45
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	1.8%	0.5%	0.5%
<b>1/1/2016 to 05/19/2017</b>	<b>Total tested for lead</b>	29,036	10,528	7,915
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	536	62	44
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	1.8%	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>	13,684	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 05/19/2017</b>	<b>Total tested for lead</b>	46,137	22,645	17,310
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	2,191	359	281
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	4.7%	1.6%	1.6%
<b>4/1/2014 to 05/19/2017</b>	<b>Total tested for lead</b>	61,452	23,219	17,461
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	3,604	400	291
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	5.9%	1.7%	1.7%
<b>1/1/2016 to 05/19/2017</b>	<b>Total tested for lead</b>	44,708	22,613	17,266
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	2,165	355	279
	<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**

		<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>	184,426	8,401	4,218
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	11,878	365	260
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	6.4%	4.3%	6.2%
<b>1/1/2011 to 12/31/2011</b>	<b>Total tested for lead</b>	178,405	8,247	3,776
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	9,412	314	211
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	5.3%	3.8%	5.6%
<b>1/1/2012 to 12/31/2012</b>	<b>Total tested for lead</b>	174,684	8,950	3,907
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	8,598	256	150
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	4.9%	2.9%	3.8%
<b>1/1/2013 to 12/31/2013</b>	<b>Total tested for lead</b>	172,214	8,726	3,780
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	7,517	219	115
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	4.4%	2.5%	3.0%
<b>1/1/2014 to 12/31/2014</b>	<b>Total tested for lead</b>	167,126	8,044	3,585
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	6,767	228	139
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	4.0%	2.8%	3.9%
<b>1/1/2015 to 12/31/2015</b>	<b>Total tested for lead</b>	165,113	9,802	5,282
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	6,419	218	141
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.9%	2.2%	2.7%
<b>10/1/2015 to 05/19/2017</b>	<b>Total tested for lead</b>	299,070	48,510	33,662
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	10,189	676	528
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.4%	1.4%	1.6%
<b>4/1/2014 to 05/19/2017</b>	<b>Total tested for lead</b>	468,891	55,068	35,818
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	17,461	890	641
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.7%	1.6%	1.8%
<b>1/1/2016 to 05/19/2017</b>	<b>Total tested for lead</b>	286,704	47,362	32,946
	<b>Number of test results <math>\geq 5</math> mcg/dL</b>	10,306	684	536
	<b>Percent of test results <math>\geq 5</math> mcg/dL</b>	3.6%	1.4%	1.6%