



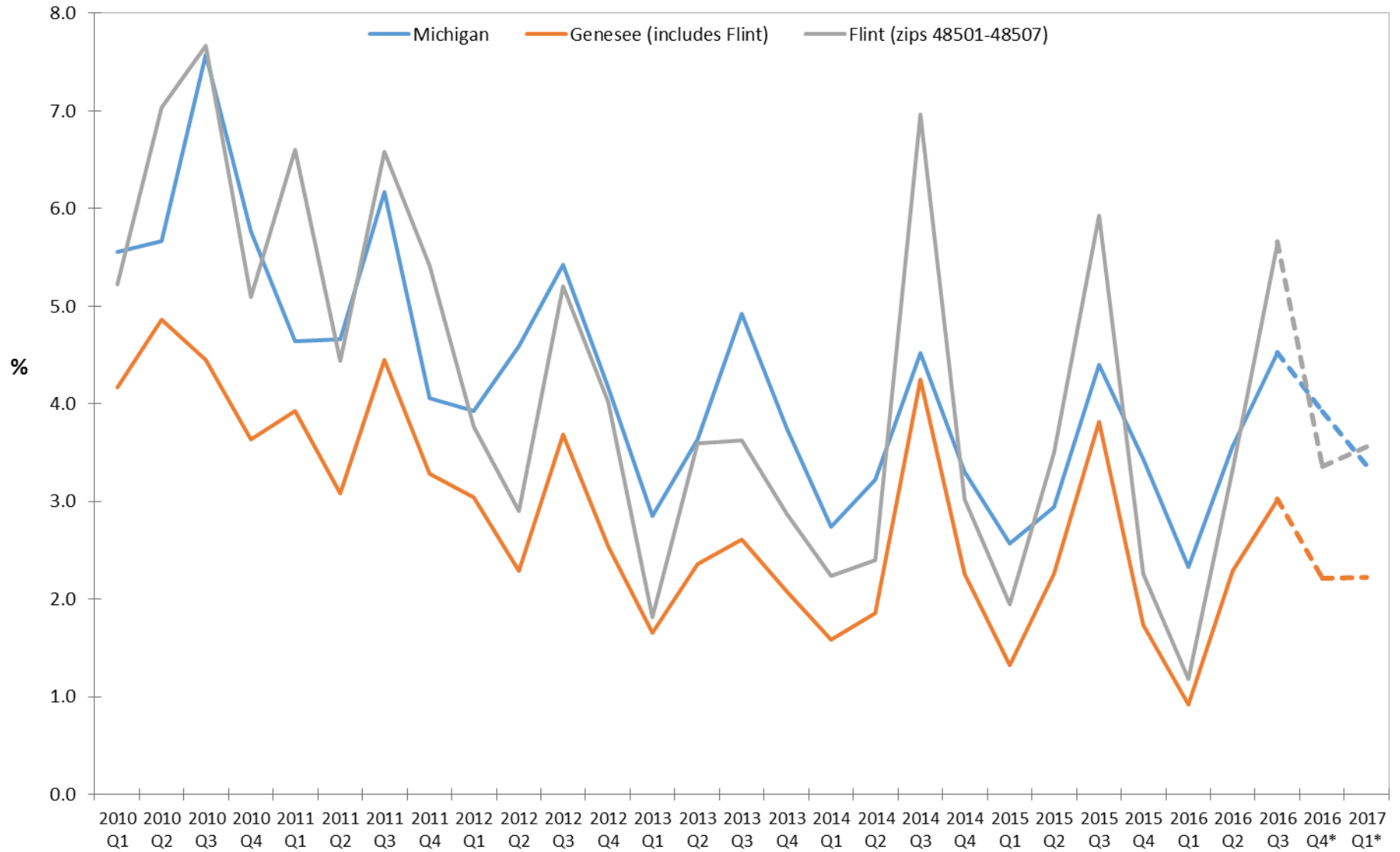
# Michigan Department of Health and Human Services (MDHHS) Blood Lead Level Test Results for Selected Flint Zip Codes, Genesee County, and the State of Michigan Summary as of May 26, 2017

## Executive Summary

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

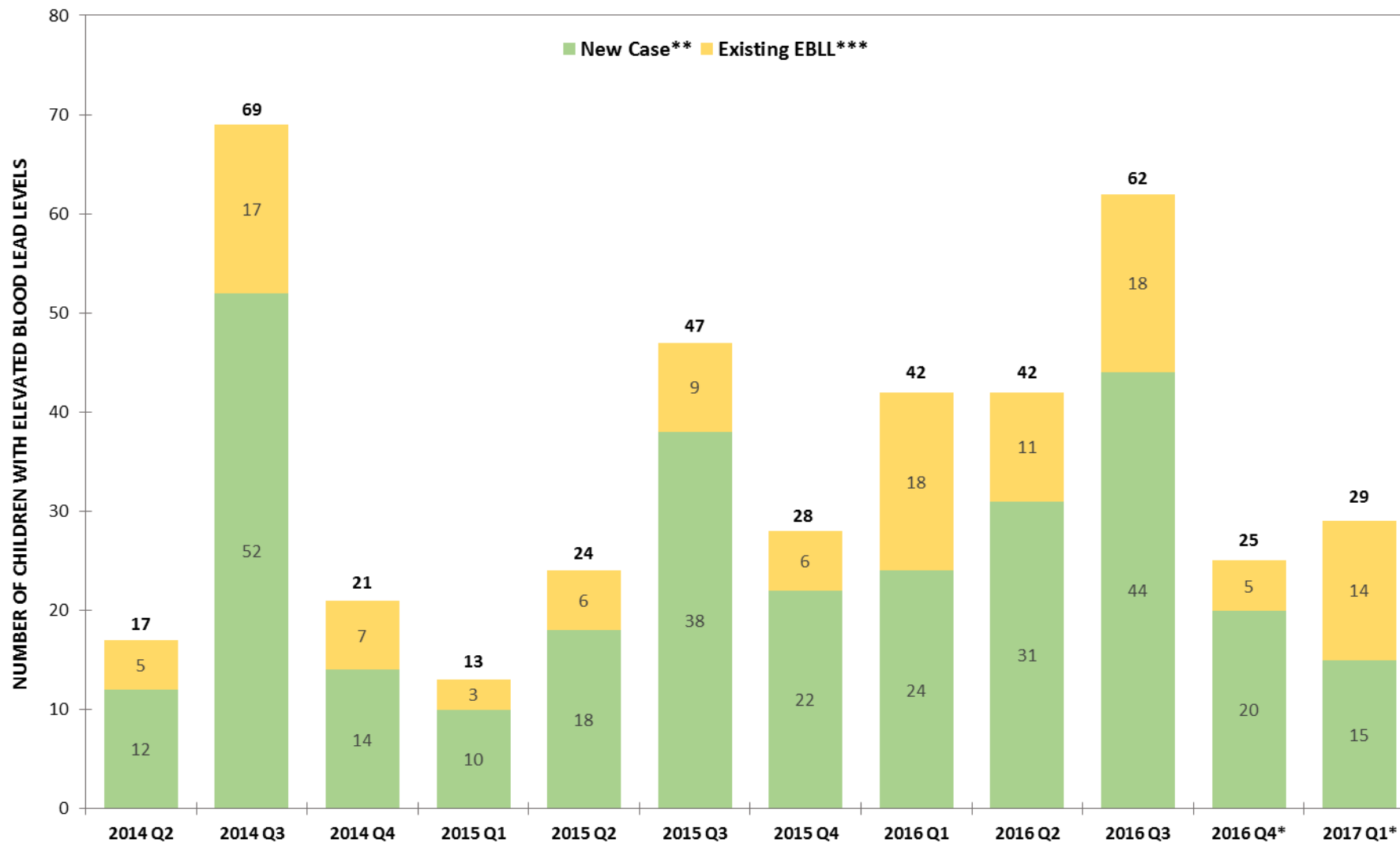
- Blood lead level testing is an important part of our efforts to identify people who have been harmed by drinking water that contained lead. However, MDHHS recognizes that the full community of Flint must be the focus of the public health response.
- People who have had multiple tests are counted only 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 5/26/2017, 33,805 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 5/26/2017, 2.5% from Flint zip codes 48501-48507 had blood lead levels greater than or equal to 5 mcg/dL.
- Fourteen of the 29 (48.3%) 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 - 2017\*



\*Data as of May 26, 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 - 05/26/2017 \*



\* Data for Quarter 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>                              | 141,051         | 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 05/26/2017</b> | <b>Total tested for lead</b>                              | 224,398         | 14,940                | 8,109                    |
|                                | <b>Number of test results <math>\geq 5</math> mcg/dL</b>  | 7,506           | 259                   | 204                      |
|                                | <b>Percent of test results <math>\geq 5</math> mcg/dL</b> | 3.3%            | 1.7%                  | 2.5%                     |
| <b>4/1/2014 to 05/26/2017</b>  | <b>Total tested for lead</b>                              | 366,135         | 20,187                | 9,825                    |
|                                | <b>Number of test results <math>\geq 5</math> mcg/dL</b>  | 13,122          | 429                   | 305                      |
|                                | <b>Percent of test results <math>\geq 5</math> mcg/dL</b> | 3.6%            | 2.1%                  | 3.1%                     |
| <b>1/1/2016 to 05/26/2017</b>  | <b>Total tested for lead</b>                              | 216,539         | 14,366                | 7,836                    |
|                                | <b>Number of test results <math>\geq 5</math> mcg/dL</b>  | 7,692           | 266                   | 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>                              | 10,421          | 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 05/26/2017</b> | <b>Total tested for lead</b>                              | 31,451          | 11,068                | 8,314                    |
|                                | <b>Number of test results <math>\geq 5</math> mcg/dL</b>  | 538             | 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 05/26/2017</b>  | <b>Total tested for lead</b>                              | 43,713          | 11,785                | 8,589                    |
|                                | <b>Number of test results <math>\geq 5</math> mcg/dL</b>  | 774             | 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 05/26/2017</b>  | <b>Total tested for lead</b>                              | 29,460          | 10,601                | 7,968                    |
|                                | <b>Number of test results <math>\geq 5</math> mcg/dL</b>  | 539             | 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>                              | 13,689          | 1,250                 | 811                      |
|                                | <b>Number of test results <math>\geq 5</math> mcg/dL</b>  | 1,370           | 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 05/26/2017</b> | <b>Total tested for lead</b>                              | 46,658          | 22,767                | 17,382                   |
|                                | <b>Number of test results <math>\geq 5</math> mcg/dL</b>  | 2,229           | 360                   | 281                      |
|                                | <b>Percent of test results <math>\geq 5</math> mcg/dL</b> | 4.8%            | 1.6%                  | 1.6%                     |
| <b>4/1/2014 to 05/26/2017</b>  | <b>Total tested for lead</b>                              | 61,915          | 23,334                | 17,527                   |
|                                | <b>Number of test results <math>\geq 5</math> mcg/dL</b>  | 3,633           | 401                   | 291                      |
|                                | <b>Percent of test results <math>\geq 5</math> mcg/dL</b> | 5.9%            | 1.7%                  | 1.7%                     |
| <b>1/1/2016 to 05/26/2017</b>  | <b>Total tested for lead</b>                              | 45,358          | 22,777                | 17,365                   |
|                                | <b>Number of test results <math>\geq 5</math> mcg/dL</b>  | 2,219           | 357                   | 280                      |
|                                | <b>Percent of test results <math>\geq 5</math> mcg/dL</b> | 4.9%            | 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                   | 165,161  | 9,802          | 5,282             |
|                         | Number of test results $\geq 5$ mcg/dL  | 6,421    | 218            | 141               |
|                         | Percent of test results $\geq 5$ mcg/dL | 3.9%     | 2.2%           | 2.7%              |
| 10/1/2015 to 05/26/2017 | Total tested for lead                   | 302,507  | 48,775         | 33,805            |
|                         | Number of test results $\geq 5$ mcg/dL  | 10,273   | 676            | 528               |
|                         | Percent of test results $\geq 5$ mcg/dL | 3.4%     | 1.4%           | 1.6%              |
| 4/1/2014 to 05/26/2017  | Total tested for lead                   | 471,763  | 55,306         | 35,941            |
|                         | Number of test results $\geq 5$ mcg/dL  | 17,529   | 890            | 641               |
|                         | Percent of test results $\geq 5$ mcg/dL | 3.7%     | 1.6%           | 1.8%              |
| 1/1/2016 to 05/26/2017  | Total tested for lead                   | 291,357  | 47,744         | 33,169            |
|                         | Number of test results $\geq 5$ mcg/dL  | 10,450   | 685            | 537               |
|                         | Percent of test results $\geq 5$ mcg/dL | 3.6%     | 1.4%           | 1.6%              |