



Executive Summary for Quarter 3, Calendar Year 2024

Data as of December 19, 2024

This report is generated by MDHHS to track blood lead level test results in Flint, Michigan.

Background

- Blood lead level testing is an important part of efforts to identify people who have been harmed by lead in drinking water and other sources of lead exposure in the home. MDHHS recognizes that the full community of Flint must be the focus of the public health response.
- The CDC announced a change in the blood lead reference value (BLRV) from 5 µg/dL (micrograms lead per deciliter of blood) to 3.5 µg/dL in October 2021. MDHHS adopted the new reference value on May 1, 2022 (for more information see <https://www.michigan.gov/mdhhs/inside-mdhhs/newsroom/2022/04/29/mdhhs-updating-definition-of-elevated-blood-lead-levels>).
- This report includes counts of BLLs above the BLRV of 3.5 µg/dL.

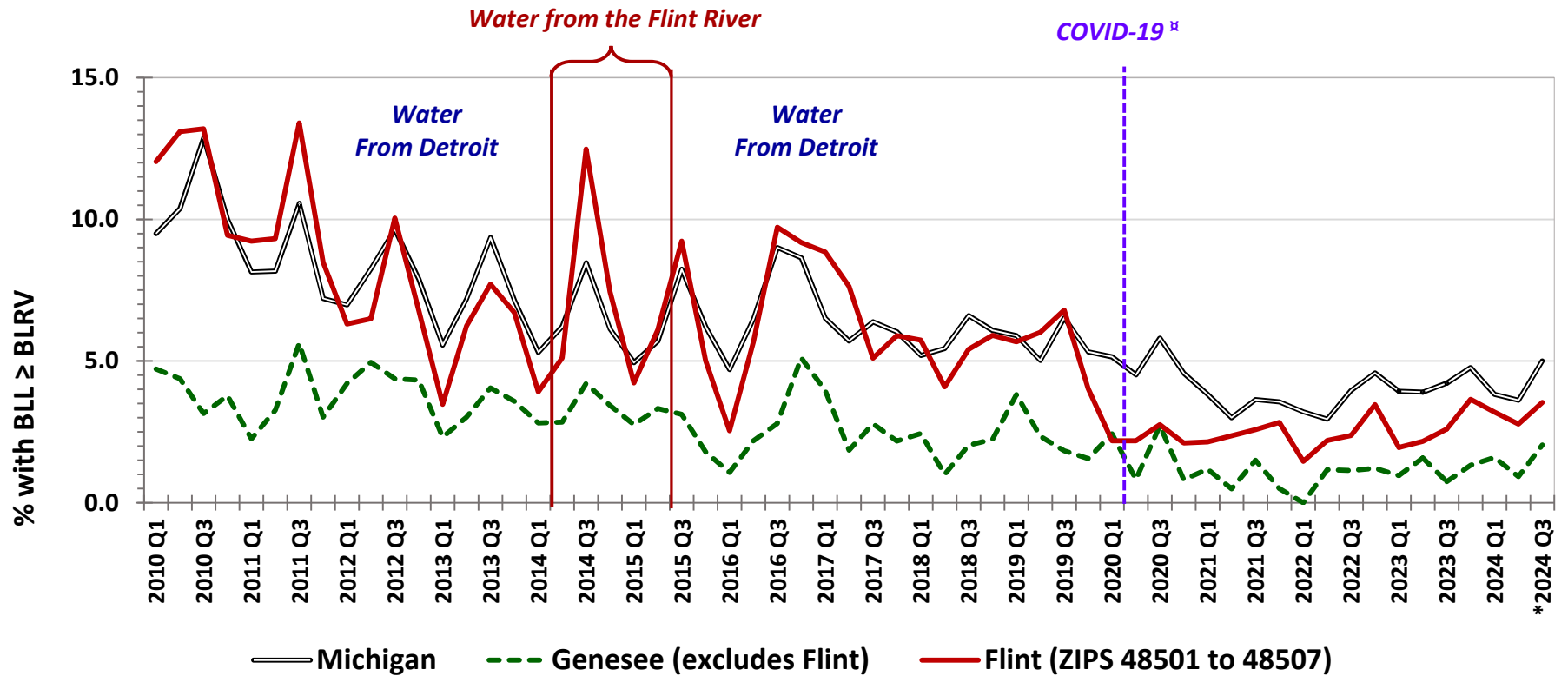
Data Presentation

- Each person is included only once per time period in this table.
 - If a person had multiple tests in the time period, the highest blood lead level from a venous test was counted.
 - If no venous test was performed, the highest blood lead level from a capillary test was counted.

Summary of Findings

- Between 10/1/2015 and 09/30/2024, 50,302 people had a blood lead test in the City of Flint in zip codes 48501-48507.
- Since 10/1/2015, 930 children under age 18 in Flint in zip codes 48501-48507 had BLLs greater than or equal to 3.5 µg/dL.
- Of the 16,650 children under age 6 tested for lead in Flint since 10/1/2015, 4.9% had BLLs greater than or equal to the BLRV of 3.5 µg/dL.

Figure 1. Percentage of Children < 6 Years of Age^A with Blood Lead Levels Greater Than or Equal to the Blood Lead Reference Value (3.5 µg/dL) by Quarter^B, Michigan, 2010 - 2024



* Data source: MDHHS Data Warehouse, Data current as of December 19, 2024

^A Counts on this chart include both capillary and venous blood tests.

^B People who have had multiple tests are counted only once per year; if they are tested in more than one year, they will be counted once in each year they were tested.

⌘ Beginning of COVID-19 lockdowns and movement restrictions in Michigan

Table 1. Percentage of Blood Lead Levels $\geq 3.5 \mu\text{g/dL}$ Among Michigan Residents in the Time Periods Before and After Exposure to Flint River Water, 2014 – 2024*

				Michigan	Genesee County	Flint in ZIPs 48501-48507
Children Less Than Six Years of Age	During Flint River Use	4/1/2014 to 9/30/2015	Total # of children tested for lead	197,456	9,249	4,154
			Children with test results $\geq 3.5 \mu\text{g/dL}$	13,405	494	316
			% of children with results $\geq 3.5 \mu\text{g/dL}$	6.8	5.3	7.6
	After Flint River Use	10/01/2015 to 09/30/2024	Total # of children tested for lead	818,431	36,658	16,650
			Children with test results $\geq 3.5 \mu\text{g/dL}$	45,289	1,226	811
			% of children with results $\geq 3.5 \mu\text{g/dL}$	5.5	3.3	4.9
Children Ages 6 to 17	During Flint River Use	4/1/2014 to 9/30/2015	Total # of children tested for lead	14,881	1,179	580
			Children with test results $\geq 3.5 \mu\text{g/dL}$	611	14	10
			% of children with results $\geq 3.5 \mu\text{g/dL}$	4.1	1.2	1.7
	After Flint River Use	10/01/2015 to 09/30/2024	Total # of children tested for lead	86,321	15,658	10,622
			Children with test results $\geq 3.5 \mu\text{g/dL}$	2,627	157	119
			% of children with results $\geq 3.5 \mu\text{g/dL}$	3.0	1.0	1.1
Adults 18 Years and Older	During Flint River Use	4/1/2014 to 9/30/2015	Total # of adults tested for lead	15,653	672	201
			Adults with test results $\geq 3.5 \mu\text{g/dL}$	1,977	67	19
			% of adults with results $\geq 3.5 \mu\text{g/dL}$	12.6	10.0	9.5
	After Flint River Use	10/01/2015 to 09/30/2024	Total # of adults tested for lead	135,572	34,588	23,030
			Adults with test results $\geq 3.5 \mu\text{g/dL}$	7,386	835	569
			% of adults with results $\geq 3.5 \mu\text{g/dL}$	5.4	2.4	2.5
Residents of All Ages	During Flint River Use	4/1/2014 to 9/30/2015	Total # of people tested for lead	227,990	11,100	4,935
			People with test results $\geq 3.5 \mu\text{g/dL}$	15,993	575	345
			% of people with results $\geq 3.5 \mu\text{g/dL}$	7.0	5.2	7.0
	After Flint River Use	10/01/2015 to 09/30/2024	Total # of people tested for lead	1,040,324	86,904	50,302
			People with test results $\geq 3.5 \mu\text{g/dL}$	55,302	2,218	1,499
			% of people with results $\geq 3.5 \mu\text{g/dL}$	5.3	2.6	3.0

* Data source: MDHHS Data Warehouse, Data current as of December 19, 2024

Table 2. Percentage of Blood Lead Levels (BLL) $\geq 3.5 \mu\text{g/dL}^1$ Among Tested Children Less Than 6 Years of Age, 2014 – 2024*

Year	Michigan			Genesee County			Flint in ZIPs 48501-48507		
	# Tested for lead	# with BLL $\geq 3.5 \mu\text{g/dL}$	% with BLL $\geq 3.5 \mu\text{g/dL}^1$	# Tested for lead	# with BLL $\geq 3.5 \mu\text{g/dL}$	% with BLL $\geq 3.5 \mu\text{g/dL}^1$	# Tested for lead	# with BLL $\geq 3.5 \mu\text{g/dL}$	% with BLL $\geq 3.5 \mu\text{g/dL}^1$
2014	143,875	9,589	6.7	6,810	362	5.3	3,095	237	7.7
2015	141,536	9,038	6.4	6,983	305	4.4	3,388	206	6.1
2016	157,637	11,439	7.3	11,664	458	3.9	6,583	334	5.1
2017	150,249	9,267	6.2	6,722	308	4.6	3,108	210	6.8
2018	142,168	8,334	5.9	6,360	221	3.5	2,980	157	5.3
2019	143,256	8,197	5.7	6,078	237	3.9	2,784	159	5.7
2020	97,201	4,940	5.1	3,857	80	2.1	1,635	38	2.3
2021	98,103	3,436	3.5	3,939	62	1.6	1,644	40	2.4
2022	108,285	4,014	3.7	4,373	67	1.5	1,819	43	2.4
2023	126,561	5,325	4.2	4,255	73	1.7	1,723	44	2.6
2024*	113,572	4,714	4.2	2,823	62	2.2	1,126	36	3.2

Table 3. Percentage of Blood Lead Levels (BLL) $\geq 3.5 \mu\text{g/dL}^1$ Among Tested Children 6 to 17 Years of Age, 2014 – 2024*

Year	Michigan			Genesee County			Flint in ZIPs 48501-48507		
	# Tested for lead	# with BLL $\geq 3.5 \mu\text{g/dL}$	% with BLL $\geq 3.5 \mu\text{g/dL}^1$	# Tested for lead	# with BLL $\geq 3.5 \mu\text{g/dL}$	% with BLL $\geq 3.5 \mu\text{g/dL}^1$	# Tested for lead	# with BLL $\geq 3.5 \mu\text{g/dL}$	% with BLL $\geq 3.5 \mu\text{g/dL}^1$
2014	10,556	460	4.4	786	9	1.1	371	6	1.6
2015	10,433	466	4.5	1,575	21	1.3	1,085	18	1.7
2016	24,312	806	3.3	9,677	117	1.2	7,316	89	1.2
2017	13,680	481	3.5	2,495	27	1.1	1,672	21	1.3
2018	12,068	436	3.6	1,807	20	1.1	1,140	16	1.4
2019	11,601	395	3.4	1,352	16	1.2	862	10	1.2
2020	7,382	242	3.3	778	10	1.3	463	4	0.9
2021	9,013	271	3.0	839	7	0.8	524	4	0.8
2022	9,472	345	3.6	691	10	1.4	405	8	2.0
2023	10,472	447	4.3	685	10	1.5	359	8	2.2
2024*	7,760	350	4.5	425	6	1.4	234	5	2.1

* Data source: MDHHS Data Warehouse, Data current as of December 19, 2024

¹ Percent calculated as the number with BLL divided by the number tested

Table 4. Percentage of Blood Lead Levels (BLL) $\geq 3.5 \mu\text{g/dL}^1$ Among Adults at Least 18 Years of Age, 2014 – 2024*

Year	Michigan			Genesee County			Flint in ZIPs 48501-48507		
	# Tested for lead	# with BLL $\geq 3.5 \mu\text{g/dL}$	% with BLL $\geq 3.5 \mu\text{g/dL}^1$	# Tested for lead	# with BLL $\geq 3.5 \mu\text{g/dL}$	% with BLL $\geq 3.5 \mu\text{g/dL}^1$	# Tested for lead	# with BLL $\geq 3.5 \mu\text{g/dL}$	% with BLL $\geq 3.5 \mu\text{g/dL}^1$
2014	10,761	1,523	14.2	435	49	11.3	111	14	12.6
2015	11,821	1,436	12.1	1,251	66	5.3	810	30	3.7
2016	34,532	1,978	5.7	20,221	548	2.7	15,825	433	2.7
2017	18,363	1,449	7.9	5,377	145	2.7	3,233	96	3.0
2018	18,594	1,293	7.0	4,668	92	2.0	2,535	42	1.7
2019	17,465	1,357	7.8	3,677	87	2.4	1,955	32	1.6
2020	13,757	1,126	8.2	1,951	35	1.8	1,052	12	1.1
2021	15,246	1,139	7.5	1,612	42	2.6	881	19	2.2
2022	14,751	1,121	7.6	1,116	38	3.4	556	13	2.3
2023	15,900	1,147	7.2	981	41	4.2	476	12	2.5
2024*	13,107	1,002	7.6	757	34	4.5	333	13	3.9

Table 5. Percentage of Blood Lead Levels (BLL) $\geq 3.5 \mu\text{g/dL}^1$ Among Tested Residents of All Ages, 2014 – 2024*

Year	Michigan			Genesee County			Flint in ZIPs 48501-48507		
	# Tested for lead	# with BLL $\geq 3.5 \mu\text{g/dL}$	% with BLL $\geq 3.5 \mu\text{g/dL}^1$	# Tested for lead	# with BLL $\geq 3.5 \mu\text{g/dL}$	% with BLL $\geq 3.5 \mu\text{g/dL}^1$	# Tested for lead	# with BLL $\geq 3.5 \mu\text{g/dL}$	% with BLL $\geq 3.5 \mu\text{g/dL}^1$
2014	165,192	11,572	7.0	8,031	420	5.2	3,577	257	7.2
2015	163,790	10,940	6.7	9,809	392	4.0	5,283	254	4.8
2016	216,481	14,223	6.6	41,562	1,123	2.7	29,724	856	2.9
2017	182,292	11,197	6.1	14,594	480	3.3	8,013	327	4.1
2018	172,830	10,063	5.8	12,835	333	2.6	6,655	215	3.2
2019	172,322	9,949	5.8	11,107	340	3.1	5,601	201	3.6
2020	118,340	6,308	5.3	6,586	125	1.9	3,150	54	1.7
2021	122,362	4,846	4.0	6,390	111	1.7	3,049	63	2.1
2022	132,508	5,480	4.1	6,180	115	1.9	2,780	64	2.3
2023	152,933	6,919	4.5	5,921	124	2.1	2,558	64	2.5
2024*	134,439	6,066	4.5	4,005	102	2.5	1,693	54	3.2

* Data source: MDHHS Data Warehouse, Data current as of December 19, 2024

¹ Percent calculated as the number with BLL divided by the number tested