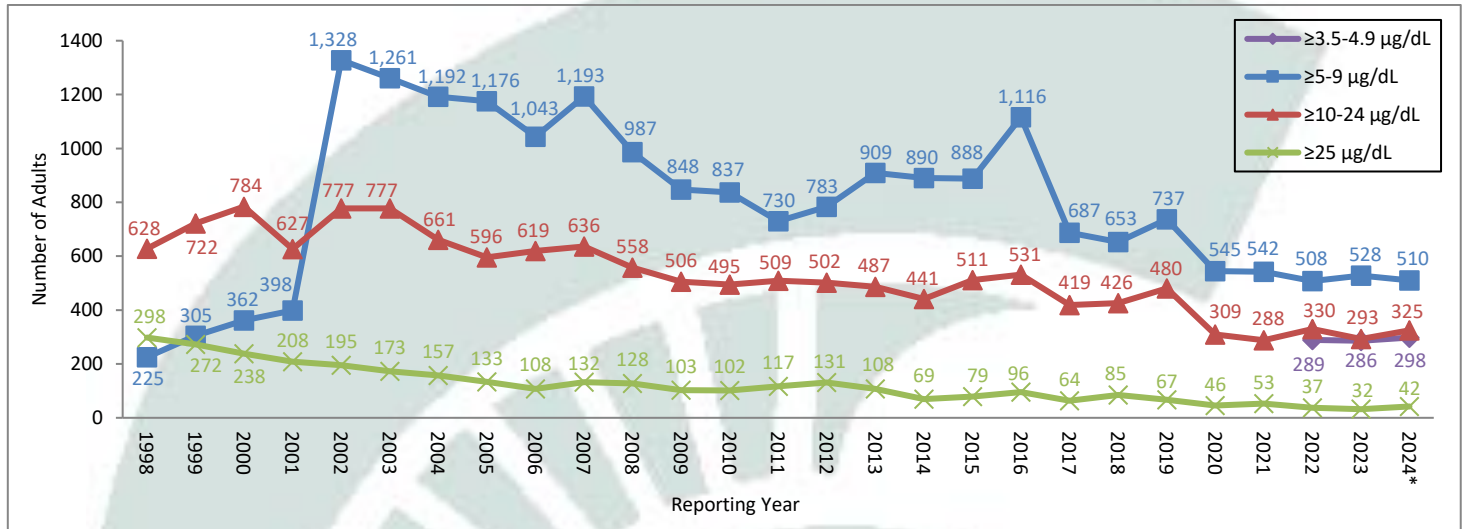


Tracking Adult Blood lead in Michigan

Additional information available at www.oem.msu.edu

Summary Statistics

Number of Individuals with Elevated Blood Lead Levels, Michigan 1998-2024



*2024 preliminary data as of 01/16/2025.

Beginning in 2022, blood lead levels (BLLs) $\geq 3.5\text{--}4.9 \mu\text{g/dL}$ began to be tracked. The 1,175 adults with BLLs $\geq 3.5 \mu\text{g/dL}$ in 2024 were primarily male (86.8%) and white (77.3%). The rate of elevated blood lead was 1.3 times higher among Black/African American adults and 1.2 times higher among American Indian/Alaska Native adults than among White adults. The mean age was 47 years. The most common counties where they live were in Wayne (19.2%), Oakland (9.5%), and Saint Clair (8.6%). Of the 1,020 adults with known exposure, 74% were work-related and 26% were nonwork-related. An additional six adults had an unknown exposure and the exposure source for 149 individuals is still being investigated.

Work-Related Exposure Sources for Individuals with Blood Lead $\geq 3.5 \mu\text{g/dL}$, Michigan 2024

NORA Sector Group ^a	NAICS Code ^b	#	%
Agriculture, Forestry & Fishing (except Wildland Firefighting)	11	0	—
Construction	23	144	21.2
Healthcare & Social Assistance	62, 54194, 81291	0	—
Manufacturing	31-33	229	33.8
Mining (except Oil & Gas Services)	21	0	—
Oil & Gas Extraction	211, 213111, 213112	0	—
Public Safety (including Wildland Firefighting)	92212, 92214, 92216, 62191	15	2.2
Services (except Public Safety)	51, 52, 53, 54, 55, 56, 61, 71, 72, 81, 92	152	22.4
Transportation, Warehousing & Utilities	48-49, 22	100	14.7
Wholesale & Retail Trade	42, 44-45	38	5.6
Total		678^c	100.0

^a National Occupational Research Agenda (NORA). ^b North American Industry Classification System (NAICS).

^c Another 72 were work-related, however, the industry was unknown.



Exposure typically occurs where individuals perform abrasive blasting to remove lead paint on outdoor metal structures such as bridges, overpasses, or water towers; cast brass or bronze fixtures; clean or refurbish batteries; fabricate metal products; or are exposed to lead fumes or dust from firing guns or retrieving spent bullets at firing ranges.

Background

Surveillance of blood lead levels (BLLs) of Michigan citizens is based on regulations promulgated October 11, 1997 by the Michigan Department of Health and Human Services (MDHHS) that require laboratories to report all blood lead analyses, both among adults and children. The Adult Blood Lead Epidemiology and Surveillance (ABLES) Program was founded nationally in 1992 and tracks laboratory reports of elevated BLLs in U.S. adults in 37 states. ABLES in Michigan is maintained by Michigan State University in collaboration with MDHHS and the Michigan Occupational Safety and Health Administration (MIOSHA).

Follow up of Elevated Blood Lead Testing, Michigan 2014-2024

Twenty-nine MIOSHA and two Federal OSHA inspections were conducted at 24 companies because of elevated blood lead laboratory reports. Twenty-one of the 29 (72%) inspections received citations for violation of the lead-related standard.

- 5 shooting ranges
- 4 construction operations
- 1 painting contractor
- 5 of 6 brass/bronze and copper foundries
- 1 recycling service
- 1 of 2 industrial machinery and equipment merchant wholesalers
- 1 rolled steel manufacturer
- 1 of 2 battery manufacturers
- 2 of 5 remediation services

Elevated Blood Lead Narratives, Michigan 2020-2024

- A female in her 40s, employed at a remediation services company had three elevated BLLs between January 2020 and August 2021 ranging from 23 µg/dL to 5 µg/dL.
- A male in his 40s, employed at a remediation services company, had four elevated BLLs ranging from 50 µg/dL and 17 µg/dL in December 2020 thru May 2021.
- A male in his late 30s, employed at a remediation services company, had an elevated BLL of 39 µg/dL in December 2020 and 33 µg/dL in January 2021. He reported he did lead paint abatement and stripping.
- A male in his 40s employed at a metal casting foundry had an elevated BLL of 23 µg/dL in June 2021 and 17 µg/dL in December 2021.
- A male in his mid-40s, employed at an industrial machinery and equipment merchant wholesaler in a battery processing area, had five elevated BLLs ranging between 70 µg/dL and 55 µg/dL in September through November 2021.
- A male in his late-60s, employed at an indoor firing range, had three elevated BLLs ranging between 27 µg/dL and 15 µg/dL in March through November 2022.
- A female in her mid-30s, employed at a recyclable material merchant wholesaler had an elevated BLL of 16 µg/dL in July 2022.
- A male in his teens, employed by a self-employed remodeler, had an elevated BLL of 30 µg/dL in August 2022. He reported that he stripped paint and renovated older homes.
- A male in his 40s, employed at a storage battery manufacturing facility, had eight elevated BLLs ranging between 6 µg/dL and 31 µg/dL in March through August 2023.
- A male in his mid-20s, employed by a painting and wall covering contractor, had three elevated BLLs ranging from 11 µg/dL to 20 µg/dL between July and November 2024.