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Trends in Elevated Blood and Urine Mercury Levels in Michigan, 2006–2023

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Abstract **Mining and fossil fuel combustion release mercury into the environment, where it enters the food chain and can lead to adverse human health effects. Michigan began requiring clinical laboratories to report all blood and urine mercury results in 2005. For levels that exceeded the action thresholds, the source of exposure was investigated and categorized as work-related and nonwork-related exposures. Between 2006 and 2023, 398 individuals had elevated blood and/or urine mercury levels. Elevated blood levels ranged from 11 µg/L to 94 µg/L and elevated urine levels ranged from 11 µg/L to 4,813 µg/L. Among the 271 individuals with an identified exposure source, 254 (94%) were nonwork-related exposures and 17 (6%) were work-related exposures. Of the nonwork-related exposures, 229 (90%) were from the consumption of fish. Work exposures included recycling fluorescent bulbs, laboratory spills, hazardous waste disposal, and the manufacture of mercury-containing products. Laboratory tracking of elevated mercury provides a mechanism for educating the public about the recommended quantity and species of fish to eat to minimize exposure as well as a way to identify cases that could require a public health response.**

Keywords: mercury, public health surveillance, heavy metals, occupational health, environmental health

Introduction

Mercury is a naturally occurring element found in air, soil, and water. An estimated 6,000 to 11,000 tons of mercury are released into the environment globally every year due to natural processes and human activity, with human activity accounting for up to 80% of these emissions (Yang et al., 2020). Industrial processes such as mining and fossil fuel burning release mercury into the air and water. Mercury has no functional purpose in the human body. Human exposure to mercury can result in a multitude of adverse health effects that primarily affect the central nervous system, including numbness or tremor in the hands and feet, loss of coordination, unsteady gait, impaired vision, hearing loss, and in severe cases, death. The primary source of mercury exposure among the general population is from consumption of fish (Agency for Toxic Substances and Disease Registry [ATSDR], 2024).

When mercury enters a body of water, it is methylated by anaerobic bacteria, which converts it to methylmercury that then biomagnifies up the aquatic food chain beginning with plankton and protozoa, followed by aquatic insects, smaller fish, larger fish, and lastly, bird and mammal predators, including humans (ATSDR, 2024; Clarkson & Strain, 2020; Yang et al., 2020). Biomagnification is the process by which mercury concentrations in the tissues of fish and animals increase as the trophic level increases (ATSDR, 2024; Clarkson & Strain, 2020). Bioaccumulation of mercury can also occur as the methylmercury builds up within individual organisms over time, especially among large predator fish with longer lifespans (ATSDR, 2024; Clarkson & Strain, 2020).

Historically, mercury has been used in a variety of industrial processes due to its useful properties, including its high surface tension, volume expansion in response to temperature increases, fluidity at room temperature, and its ability to conduct electricity and alloy with other metals (ATSDR, 2024). These properties allowed for mercury to be used in alkaline batteries, thermometers and other medical devices, electronic switches, vaccines, and dental amalgams. Mercury was also used in paints and pigments as a fungicide until it was banned by the U.S. Environmental Protection Agency (U.S. EPA) in 1990 after a 4-year-old child in Michigan was hospitalized for several months due to mercury poisoning from the inhalation of mercury vapors from paint that had been recently applied in his home (Centers for Disease Control and Prevention, 1990; Meier, 1990).

Occupational exposure to elemental mercury has occurred as a result of industrial processes such as chloralkali production, fluorescent lighting manufacturing, mercury battery production, natural gas production, gold mining, and recycling (ATSDR, 2024). This type of exposure is exemplified by a 2020 case report from Michigan of acute respiratory distress syndrome (ARDS) in a man who had been purifying gold in an electric pottery kiln on his front porch (Hammerling et al., 2020).

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Fortunately, use of mercury has been largely reduced or eliminated entirely due to a decrease in demand and the introduction of mercury alternatives that can perform similar functions and pose a lower health risk. Historic uses of mercury that have been discontinued or are being phased out include use in dental amalgams, alkaline batteries, electronic switches and relays, fluorescent lighting, pesticides, paints, thermometers, and other medical devices (ATSDR, 2024). Although these uses of mercury have been reduced or discontinued, they are still a source of environmental emissions due to the need for recycling services to dispose of mercury-containing products (ATSDR, 2024).

Legislative interventions have also contributed to a decrease in industrial uses of mercury. The U.S. Congress passed the Mercury Export Ban Act of 2008, which terminated the export of elemental mercury, and five mercury-containing compounds were added to the export ban beginning January 1, 2020 (ATSDR, 2024). The use of mercury in batteries began to be phased out after the Mercury-Containing and Rechargeable Battery Management Act was passed in 1996. The Occupational Safety and Health Administration (OSHA) attempted to lower the permissible exposure limit (PEL) for mercury in the 1980s, but the rule was remanded by the courts. Still, the marked reduction in the use of mercury in industrial practices has reduced the likelihood of occupational exposure to mercury.

Medical knowledge about adverse effects of mercury exposure has been gleaned from various populations: a fishing population in Japan who got methylmercury poisoning from a factory (Minamata disease); farmers in Iraq who ingested wheat treated with a mercury fungicide; populations with high fish and whale consumption including peoples in the Faroe Islands and the Republic of Seychelles, the Amazon River basin, and the Nunavik region of Canada; and workers at chloralkali production facilities, felt hat manufacturers, and mercury-containing paint manufacturers (ATSDR, 2024; Clarkson & Strain, 2020).

This article summarizes the findings of ongoing laboratory tracking of elevated blood and urine mercury levels in the general population in Michigan.

Methods

In September 2005, the Michigan Department of Health and Human Services (MDHHS), under the statutory authority of Michigan's Public Health Code, announced rules requiring clinical laboratories to report all results of arsenic, cadmium, and mercury in blood and urine. The reporting requirement was announced to improve the tracking and prevention of the negative effects on human health that can result from environmental and occupational exposures to these heavy metals. MDHHS and Michigan State University partnered to collect, analyze, and respond to reports from in-state clinical laboratories.

Clinical laboratories that conduct business in Michigan were required to report blood and urine sample analysis results, patient demographics, and employer information electronically to MDHHS within 5 working days. The healthcare provider who ordered the blood or urine mercury analysis was responsible for completing the laboratory test requisition, which included patient information, healthcare provider information, and specimen collection information. On receipt of the blood or urine sample for analysis, the clinical laboratory was responsible for completion of the laboratory information.

Action Thresholds

To prioritize public health follow-up, action thresholds for mercury exposures were determined. These levels were selected based on medical literature about when acute adverse health effects can begin to occur in humans. For adults, the blood action threshold selected was ≥15 µg/L and the urine threshold was >20 µg/L. For children (<18 years), both the blood and urine action thresholds were set at >10 µg/L. Values at or above these levels were used to initiate case follow-up.

Data Management

The electronic record of all blood and urine mercury levels at or above the action thresholds were uploaded to a Microsoft Access database that included demographics, information about the source of exposure to mercury, and name and address of the employer for work-related exposures. Only blood or urine mercury results that met or exceeded the action thresholds were imported into the database and reviewed for completeness. For mercury reports that were incomplete, requests were sent to the analyzing laboratory and/or to the ordering healthcare provider to obtain the missing information.

Case Follow-Up

For all imported mercury reports where the ordering healthcare provider was known, a request form was sent to that provider to ask how their patient was exposed to mercury, unless the source of exposure had already been identified from a previous follow-up conducted within the last 5 years. If the ordering provider was unknown, a request form was sent to the analyzing laboratory to request the ordering healthcare provider's name plus any missing demographic information, which could include patient address, phone number, race and ethnicity, and employer. Postage-paid postcards requesting the source of mercury exposure were also sent to all patients with an elevated mercury level whose source of exposure was unidentified. Included with the postcards were two brochures that provided guidelines for purchasing and consuming safe fish.

Patients were contacted by mail for an interview if the healthcare provider who ordered the mercury test was unable to provide the source of exposure, if the source provided by the patient or healthcare provider was not considered a likely source of mercury (e.g., Chernobyl), or if the patient did not respond to three postcard mailings. The telephone questionnaire collected information on demographics, symptoms related to the mercury exposure, and environmental and occupational history. After five attempts to interview the patient at varying times and days, the individual was considered unreachable.

Information obtained from the analyzing laboratory, ordering healthcare provider, and the returned postcard from the patient or patient interview was entered both in a paper file and into the Microsoft Access database. The source of mercury exposure was assigned based on a review of information collected within the previous 5 years or new information collected from either the analyzing laboratory, ordering healthcare provider, postcard response from the patient, or patient interview.

Results

In all, 398 individuals had 646 blood and urine mercury tests with results at or above the action thresholds between the years of

2006 and 2023. Of these 398 individuals, 262 (66%) were male and 377 (95%) were ≥18 years (Table 1). The total number of individuals reported with a mercury level at or above the action thresholds varied between the years 2006 and 2023, with a general downward trend except that the highest number of reported individuals with an elevated mercury (n = 48) was in 2014 (Figure 1).

Of the 393 patients with a known specimen type, 359 (91%) had a blood test and 34 (9%) had a urine test (Table 1). Of these 359 patients, 3 individuals had both a blood and urine test completed on the same date. For these three patients, the test result with the highest value was used for analysis, all three of which were a urine test and therefore these three were included in the urine results data.

Table 1 and Figure 2 show the distribution of elevated mercury by age group. The age group with the largest number of individuals (n = 121) was ages 50–59 years, while adults ≥80 years had the fewest individuals. The ages of the adults ranged from 19 to 85 years with an average age of 55 years. The majority of patients were adults ages 40–69 years (71%, n = 266) and only 5% (n = 18) of the patients were children ages 2–17 years. Among the children, elevated blood mercury levels ranged from 11 µg/L to 48 µg/L with a median of 14 µg/L, and elevated urine levels ranged from 11 µg/L to 111 µg/L with a median of 67 µg/L. Among the adults, elevated blood mercury levels ranged from 15 µg/L to 94 µg/L with a median of 20 µg/L, and elevated urine levels ranged from 21 µg/L to 4,813 µg/L with a median of 46 µg/L.

Of the 271 individuals with an identified source of mercury exposure, 17 (6%) were work-related exposures (Table 1 and Figure 3) and included 6 (35%) in manufacturing, 2 (12%) in hazardous waste disposal, 2 in recycling facilities, 1 (6%) in a dental clinic (i.e., individual was a dental assistant), and 1 (6%) at a college laboratory. For 5 (29%) of these patients who had a confirmed work exposure, information about their employer could not be determined. For these work-related exposures, elevated blood mercury levels ranged from 16 µg/L to 77 µg/L, and elevated urine levels ranged from 33 µg/L to 642 µg/L.

The remaining 254 (94%) of patients had nonwork-related mercury exposures (Figure 4). Fish consumption accounted for 229 (90%) of the nonwork-related exposures. Information on the type of fish consumed was available for only 21 individuals. The 15 patients who reported eating tuna had mercury levels ranging from 15 µg/L to 49 µg/L with an average level of 23 µg/L. Of the 8 patients with information available about frequency of tuna consumption, 4 patients reported daily consumption and 4 patients reported that they had eaten tuna 3–5 times per week prior to the mercury test.

Additionally, 4 patients reported having eaten salmon prior to mercury testing and had levels ranging from 15 µg/L to 50 µg/L with an average level of 28 µg/L. Of the 3 patients with information available on frequency of salmon consumption, they reported eating salmon 3–5 times per week prior to mercury testing.

Moreover, 3 patients reported consuming swordfish and had mercury levels ranging from 15 µg/L to 47 µg/L with an average level of 33 µg/L. One person reported daily swordfish consumption and 2 patients reported consumption of swordfish 3–5 times per week.

For trout, 2 patients reported eating this freshwater fish 3–5 times per week and had an average mercury level of 33 µg/L. Having

TABLE **1**

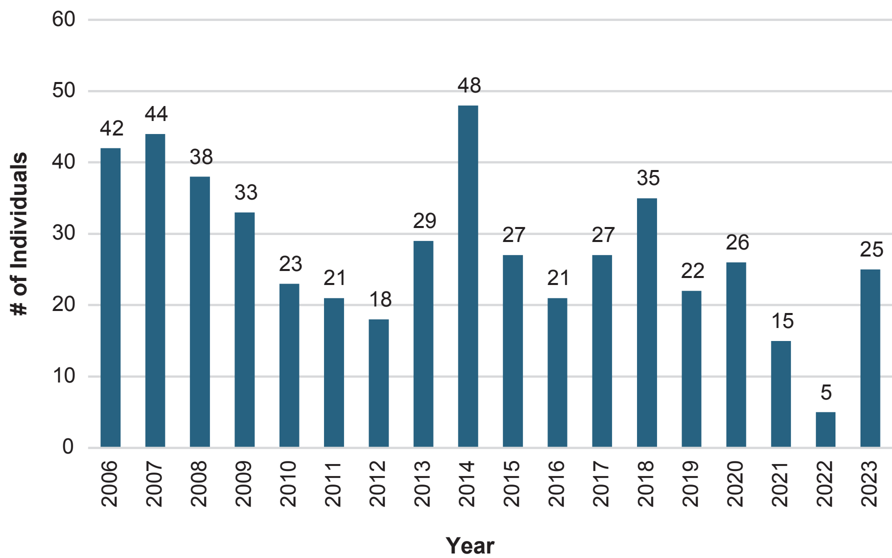
Characteristics of Individuals With Elevated Mercury in Michigan, 2006–2023

Characteristic	Total[a] # (%)	Blood Tests # (%)	Urine Tests # (%)
Sex			
Male	262 (65.8)	237 (66.0)	23 (67.6)
Female	136 (34.2)	122 (34.0)	11 (32.4)
Age range (years)[b]			
<18	18 (4.6)	7 (2.0)	11 (32.4)
18–29	18 (4.6)	16 (4.5)	2 (5.9)
30–39	35 (8.9)	30 (8.4)	5 (14.7)
40–49	65 (16.5)	56 (15.7)	9 (26.5)
50–59	121 (30.6)	115 (32.3)	3 (8.8)
60–69	80 (20.3)	76 (21.3)	2 (5.9)
70–79	47 (11.9)	45 (12.6)	2 (5.9)
≥80	11 (2.8)	11 (3.1)	0
Source of exposure[c]			
Work	17 (6.3)	13 (5.2)	3 (14.3)
Nonwork	254 (93.7)	235 (94.8)	18 (85.7)
Mercury level range (µg/L)			
11–19	174 (43.7)	169 (47.1)	1 (2.9)
20–29	135 (33.9)	126 (35.1)	8 (23.5)
30–39	45 (11.3)	41 (11.4)	4 (11.8)
40–59	20 (5.0)	15 (4.2)	5 (14.7)
60–79	11 (2.8)	6 (1.7)	5 (14.7)
80–99	4 (1.0)	2 (0.6)	2 (5.9)
≥100	9 (2.3)	0	9 (26.5)
Total	398 (100)	359 (91.1)	34 (8.9)

[a] It was unknown for five individuals if they had an elevated blood or urine mercury test.
[b] A total of three individuals had an unknown date of birth.
[c] Includes only individuals with an identified exposure source.

FIGURE **1**

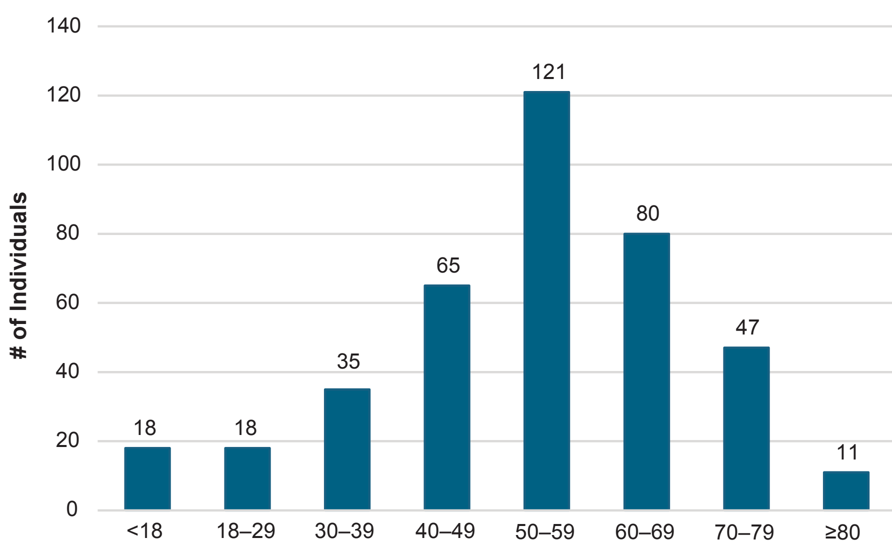
Number of Individuals With Elevated Mercury Levels Above Action Thresholds in Michigan, 2006–2023



Note. The reporting period for the year 2006 spanned from October 10, 2025, through December 31, 2006.

FIGURE **2**

Number of Individuals With Elevated Mercury by Age Group in Michigan, 2006–2023



Note. Date of birth was unknown for three individuals.

eaten sushi was reported by 2 patients, who had an average mercury level of 15.5 µg/L, with no information available on the type of fish or frequency of consumption.

The remaining seven types of fish and seafood consumed were each reported once and include canned sardines, wahoo, perch, oyster, cod, halibut, and sea bass. Frequency of consumption for these foods ranged from 3–5 times per week, and mercury levels for the patients ranged from 15 µg/L to 50 µg/L with an average level of 33 µg/L. Of the 3 patients who were asked about the advice the y received from their healthcare provider prior to their mercury test, none had been advised to avoid consuming fish in the days before the mercury test.

Of the 25 remaining nonwork-related exposures: 10 were the result of children finding and playing with a jar of mercury; 2 were the result of a mercury spill at school; 2 were from the use of mercury-containing skin lightening facial creams; 2 were from the use of herbal supplements (of which 1 was Ayurvedic medicine); 1 was an unintentional ingestion; 1 was from a broken thermometer; 1 was from self-injection through intravenous access; and 1 was from an esophageal bougie (a mercury-containing medical device used to dilate the esophagus) that ruptured during a medical procedure. There were also other exposures reported that were not considered a likely source: 3 from individuals who had mercury amalgam removed from previously treated dental cavities (patient mercury levels of 16 µg/L, 21 µg/L, and 28 µg/L), 1 exposure to Chernobyl in the 1980s (patient mercury level of 27 µg/L), and 1 exposure from chelation therapy (patient mercury level of 28 µg/L).

Figure 4 depicts the source of mercury exposure by age group. Overall, 73% (n = 168) of mercury exposures due to fish consumption were among individuals 40–69 years; the age group with the highest number of exposures from fish was in individuals 50–59 years at 35% (n = 81). Environmental exposures were primarily among children <18 years at 77% (n = 10). The majority of work-related exposures were among individuals ages 40–59 years at 65% (n = 11), with the highest work-related exposures among individuals ages 50–59 at 41% (n = 7).

Case Study

An Albanian woman in her 70s with very limited English who had been living in the U.S. for 40 years sought medical care for attacks of nausea, vomiting, and diarrhea associated with elevated blood pressure. After negative

Photo 1. Noncommercial skin cream container found in patient's bedroom. Photo courtesy of J. Bognar, Oakland County Health Division, Michigan.

radiographic and endoscopic studies, her gastroenterologist tested her for heavy metals. Her initial blood mercury level was 91 µg/L (laboratory reference value <10 µg/L) and her 24-hr urine mercury level was 627 µg/L (laboratory reference value <20 µg/L). Her arsenic and lead levels were normal. The patient rarely ate fish, did not work outside of the home, denied any history of spilled mercury (e.g., broken thermometer), denied using Ayurveda or similar alternative medical products, and stated through a translator that all the skin products she used were purchased from commercial department stores in Michigan. Repeat blood and urine mercury tests were completed 4 months after the initial tests and were lower but still abnormal. Her second blood mercury result was 71 µg/L, and her second 24-hr urine result was 405 µg/L.

The patient had lived in the same house with her son and daughter for 20 years. Her two children were in their 40s, worked in food services and retail, and reported no mercury exposure. Her daughter's blood mercury level was normal, but the son had not yet been tested. The patient continued to have gastrointestinal symptoms. After the second elevated mercury test, her daughter had her mother see an occupational and environmental medicine physician to whom the patient, again, denied use of noncommercial skin creams. No other source of exposure was identified. Given the patient's elevated mercury levels and the lack of any identified exposure to mercury, the occupational and environmental medicine physician asked MDHHS to conduct a home inspection.

The Agency for Toxic Substances and Disease Registry's (ATSDR, 2012) recommended action level for mercury vapor in the air in residential settings is 1 µg/m^3. The health department inspector used a Lumex mercury analyzer to measure the mercury vapor level. When the front door initially was opened to greet him, the mercury level was 3.8 µg/m^3. Air levels were 1.8 µg/m^3 in the basement and 6.6 µg/m^3 in the patient's bedroom, where a container of noncommercial skin cream was located (Photo 1). When the container of skin cream was opened, the air level spiked to 59.7 µg/m^3 of mercury. The patient was wearing the skin cream at the time of the inspection and the air near her face measured 8 µg/m^3.

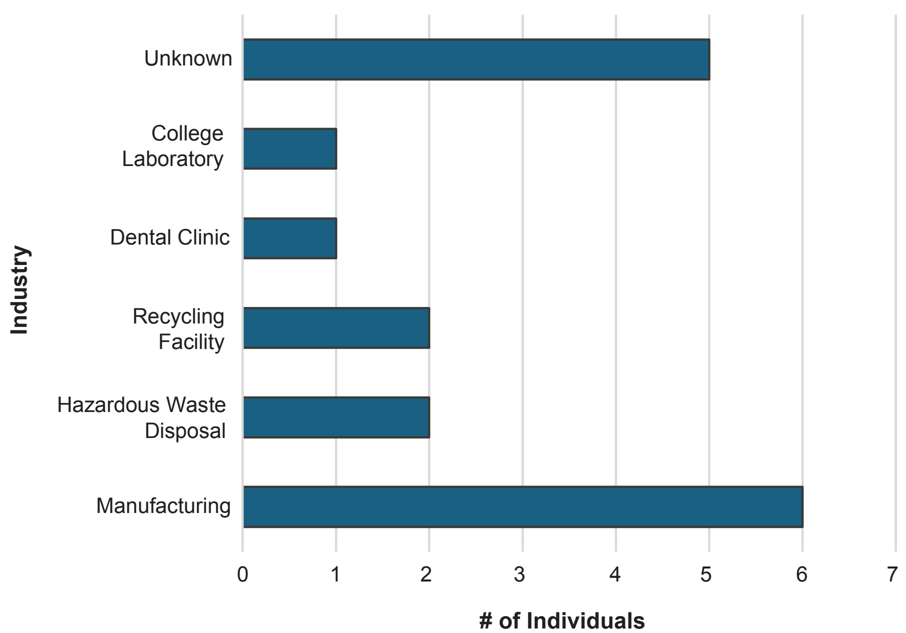
Once these results were obtained, the patient indicated that she used a skin product sent to her by a relative in Europe in addition to the commercial skin products she purchased in Michigan department stores. At the advice of MDHHS, she discarded her skin cream products. Despite discarding the skin cream products, her blood mercury level 3 weeks after the home inspection—although decreased—remained elevated at 27 µg/L.

MDHHS was asked to return to her home and found that repeat air levels in her bedroom remained high at 4.6–10.0 µg/m^3. At this time, MDHHS advised her to discard all her towels, bedding, and jewelry. After following the recommendations to discard the above items, she had another repeat blood mercury level 3 weeks later, which had further decreased to 17 µg/L.

The Food and Drug Administration (FDA) was notified. FDA determined there was no domestic supplier of the product, which was consistent with what the patient had indicated for the source of the skin cream. The FDA Imports Program did not open a compliance case because no laboratory testing of the product had been performed before the skin cream was discarded.

FIGURE 3

Work-Related Mercury Exposures by Industry in Michigan, 2006–2023



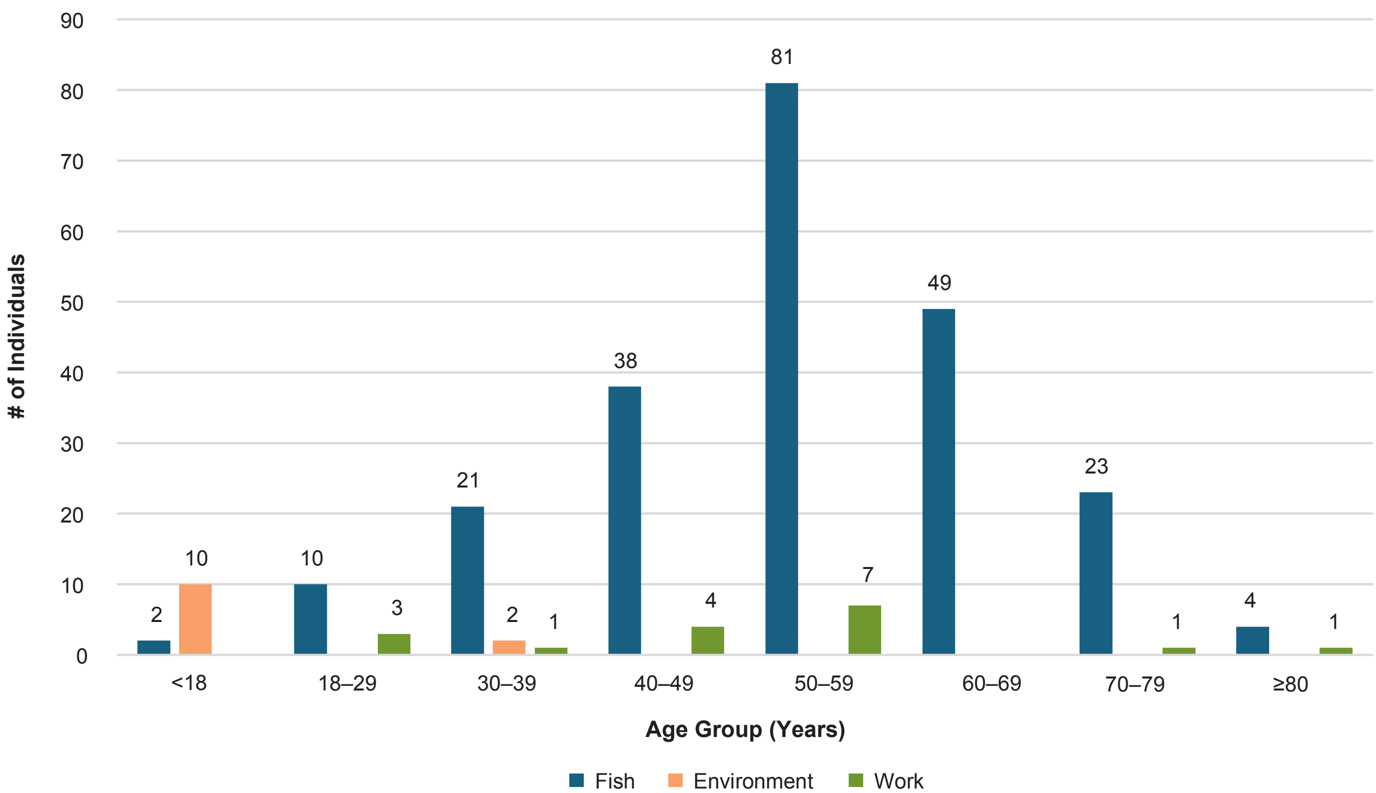
Discussion and Conclusion

The Michigan Public Health Code requires clinical laboratories to report all blood and urine mercury analysis results to MDHHS. Between 2006 and 2023, 398 individuals had a blood or urine mercury test result showing an elevated level. Among these individuals, 262 (68%) were male and 377 (95%) were individuals ≥18 years. Elevated blood mercury levels ranged from 11 µg/L to 94 µg/L, and elevated urine levels ranged from 11 µg/L to 4,813 µg/L.

Of the 271 cases with an identified source of exposure, 17 (6%) were work-related and

FIGURE **4**

Source of Mercury Exposure by Age Group in Michigan, 2006–2023



Note. Date of birth was unknown for three individuals.

254 (94%) were nonwork-related exposures. For nonwork-related exposures, the most common source of mercury was consumption of fish at 229 (85%), followed by mercury spills either at home or in school at 12 (4%). For work-related exposures, manufacturing had the highest number of work-related mercury exposures at 6 (2%).

In general, the total number of individuals with an elevated mercury level at or above the action thresholds decreased from the initial year of laboratory reporting—except for a spike in 2014 to a high of 48 individuals. This peak likely is due in part to the onset of the Flint water crisis in April 2014 when the municipal drinking water source in Flint, Michigan, was changed from the Detroit Water and Sewerage Department to the Flint River (Ruckart et al., 2019). As a result, lead testing in Michigan increased throughout the state in addition to in the Flint area because of increased concern about and awareness of lead contamination. The increase in lead testing affected testing for all metals because some healthcare professionals ordered heavy metal panels, which test for arsenic and lead in addition to mercury (Labcorp, 2025).

The decline in the use of mercury for industrial, commercial, and pharmaceutical purposes has contributed to the decrease in human exposure. The U.S. stopped producing mercury as a mineral commodity in 1992 and the export of elemental mercury ceased in 2013 due to the Mercury Export Ban Act of 2008, which prohibited the export of elemental mercury starting on January 1, 2013 (ATSDR, 2024). Additionally, imports of mercury decreased significantly—from 636 metric tons imported in 1987 to 10 metric tons in 2019 (ATSDR, 2024).

Additionally, many historical industrial uses of mercury such as alkaline batteries, thermometers, pesticides, paints, electrical switches, and medical devices no longer use mercury. Consistent with decreased use of mercury in industrial products, work-related mercury exposures over time also decreased from 5 work-related cases in 2006 to only 1 case in 2021. No work-related cases were identified in 2022 or 2023.

As there is no Michigan or federal (i.e., OSHA) requirement that employers who use mercury provide employees with blood or urine testing for mercury, it is possible that more work exposures are occurring than we could identify in the Michigan laboratory reporting system.

From 1976 to 2016, mercury concentrations in tissues of fish decreased significantly but have since begun to level off, or even increase (Grieb et al., 2020). The environmental impacts of climate change—including rising water temperatures, increased runoff, and unstable water levels that can impact the uptake and methylation of mercury—have contributed to this change (Grieb et al., 2020). Coal burning accounts for approximately one half of all global mercury emissions (Landrigan et al., 2020; Rallo et al., 2012).

Federal regulations such as the Clean Air Act of 1963 and the U.S. EPA's Clean Air Mercury Rule implemented in March 2005 successfully resulted in reduced mercury emissions in the U.S.; by the end of 2007, 23 states (not including Michigan) had implemented their own rules that restricted mercury emissions in their state (Rallo et al., 2012). In April 2006, Michigan's governor proposed a new rule that would take effect October 2009 to reduce mercury emissions from power plants by 90% by 2015 (Michigan Department of Environment, Great Lakes, and Energy, 2025; State of Michigan, 2006). The continued phasing out of burning coal and other fossil fuels will mitigate the environmental burden of mercury pollutants and decrease mercury deposition into oceans and lakes, thereby reducing exposure to humans (Landrigan et al., 2020).

The Michigan laboratory reporting system has a number of limitations. One limitation is that many of the patients or their healthcare providers did not respond to MDHHS inquiries about the source of exposure (in particular, responses were lacking in naming the fish species and quantity eaten). When it was available, the individual's level of mercury did not differ by fish species, even though public health advisories recommend that specific species such as tuna and swordfish be eaten less frequently due to their higher mercury content. A problem we noted was that individuals were not told to avoid eating fish for at least 48 hours prior to the mercury testing, so the laboratory testing results likely reflect the acute increase in mercury level after fish ingestion rather than being an accurate measure of chronic mercury exposure.

Another limitation was that the results are not representative of the general population, but rather consist of individuals who had requested mercury testing because they had become concerned about their fish ingestion—or some other exposure or a healthcare professional suspected that their patient's symptoms could be secondary to mercury exposure.

Laboratory results from the National Health and Nutrition Examination Survey (NHANES) data set from a sample of the U.S. population in 2017–2018 (the most recent data set available) showed that the weighted proportion of adults with a blood mercury ≥15 µg/L was 0.25% and the weighted proportion of children with a blood mercury >10 µg/L was 0.09% (National Center for Environmental Health, 2021).

From 2021 to 2023, 10,900 adults and 423 children had their blood tested for mercury; in this sample, 0.64% of adults had a blood mercury ≥15 µg/L, and 0% of children had a blood mercury >10 µg/L. The increase in the number of elevated mercury levels in relation to increased testing for heavy metals during the Flint water crisis indicates that the laboratory-based reporting system misses an unknown number of individuals who are never tested for mercury.

Decreased use of mercury due to the development of safer alternatives to mercury, coupled with the promulgation of federal and state regulations restricting mercury use have decreased occupational mercury exposure, which is the likely reason for the decrease in work-related mercury exposures, despite the courts not allowing OSHA to lower the occupational exposure standard.

In Michigan, most mercury exposure is due to fish consumption. Laboratory monitoring of elevated mercury levels provides public health professionals with the opportunity to distribute educational materials about specific species of fish and the accompanying recommended serving size to minimize mercury exposure (MDHHS, 2025). Laboratory tracking also provides a mechanism for identifying fewer common sources of mercury exposure (such as the face cream case) that could require a public health response.

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Did You Know?

We are covering rodent control in our next National Webinar Series. Join us on October 28 for a webinar on the foundational principles of rodent control. We will host a second webinar on rodent control on November 12. The webinar will offer a forward-looking view on how digital tools and data-driven insights are transforming rodent control and giving professionals the upper hand in this century-long battle with pests. Learn more about these upcoming webinars and access recordings from previous webinars at www.neha.org/National-Webinar-Calendar.