Tracking Adult Blood Lead in Michigan
Additional information available at www.oem.msu.edu

Summary Statistics

**Number of Individuals with Elevated Lead, Michigan 1998-2016***

The adults with Blood Lead Levels (BLLs) ≥10 μg/dL in 2014 were likely to be men (92.3%) and white (89.5%). Their mean age was 45.2. They were most likely to live in Wayne (15.4%), Saint Clair (11.8%), or Wayne (9.5%) counties.

**Work-Related Exposure Sources for Individuals with Blood Lead ≥ 10 μg/ dL, Michigan 2014**

<table>
<thead>
<tr>
<th>Exposure Source --- Industry (SIC Code)*</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction (15-17)</td>
<td>96</td>
<td>30.7</td>
</tr>
<tr>
<td>Painting (17)</td>
<td>95</td>
<td>30.4</td>
</tr>
<tr>
<td>Manufacturing (20-39)</td>
<td>138</td>
<td>44.1</td>
</tr>
<tr>
<td>Fabricated and Primary Metals (33-34)</td>
<td>120</td>
<td>38.3</td>
</tr>
<tr>
<td>Transportation and Public Utilities (40-49)</td>
<td>23</td>
<td>7.3</td>
</tr>
<tr>
<td>Wholesale and Retail Trade (50-59)</td>
<td>13</td>
<td>4.2</td>
</tr>
<tr>
<td>Services (60-89)</td>
<td>21</td>
<td>6.7</td>
</tr>
<tr>
<td>Public Administration (91-97)</td>
<td>22</td>
<td>7.0</td>
</tr>
<tr>
<td>Justice, Public Order, Safety</td>
<td>18</td>
<td>5.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>313</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Standard Industrial Classification
** Another 48 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; fabricate metal products; or are exposed to lead fumes or dust from firing guns or retrieving spent bullets at firing ranges.

August 5, 2016
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 41 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 2012-2016
Fifteen MIOSHA and one federal OSHA inspection were conducted and reports completed at sixteen companies referred by ABLES due to elevated blood lead laboratory reports.
*Ten of the sixteen (62.5%) received lead related citations for violation of lead-related standards.
- *4 of 5 shooting ranges (one police department)
- *2 construction operations
- *1 metal storage warehouse
- *1 brass/bronze foundry
- *1 recycling services
- *1 motor vehicle supplies and parts wholesaler
- 1 plumbing fixture fitting and trim manufacturer
- 1 recyclable material merchant wholesaler
- 1 metal heat treating plant
- 1 remediation services
- 1 marine cargo handling

Elevated Blood Lead Narratives, Michigan 2012-2016
- A male in his mid-50s, employed at a police department, had an elevated BLL of 50 μg/dL in February 2012. The employee was involved in a cleanup of a firing range.
- A male in his mid-30s, employed as a HiLo driver at a metal storage warehouse, had an elevated BLL of 69 μg/dL in August 2013. He reported that the warehouse stored aluminum, aluminum alloys, zinc and lead, which were stacked from the floor to the ceiling.
- A male in his late 30s, employed at a hazardous waste treatment and disposal company, had an elevated BLL of 61 μg/dL in October 2013. His job assignment was to go to shooting fields or target practice fields and recover all the lead bullet pellets and to grind those up into a machine that separates the dirt from the lead.
- A male in his late 30s, employed at an industrial machinery and equipment merchant wholesaler, had an elevated BLL of 56 μg/dL in May 2014.
- A male in his mid-50s, had an elevated BLL of 53 μg/dL in March 2015 due to a gunshot wound to his leg.
- Two men employed by a remediation services company who worked at an indoor police department gun range, had elevated BLLs. The first employee, in his early 30s, had an elevated BLL of 33 μg/dL in June 2016. The second employee, also in his early 30s, had an elevated BLL of 34 in June 2016.
- A male in his early 70s, doing renovation work in an old farmhouse, had an elevated BLL of 89 μg/dL in July 2016.