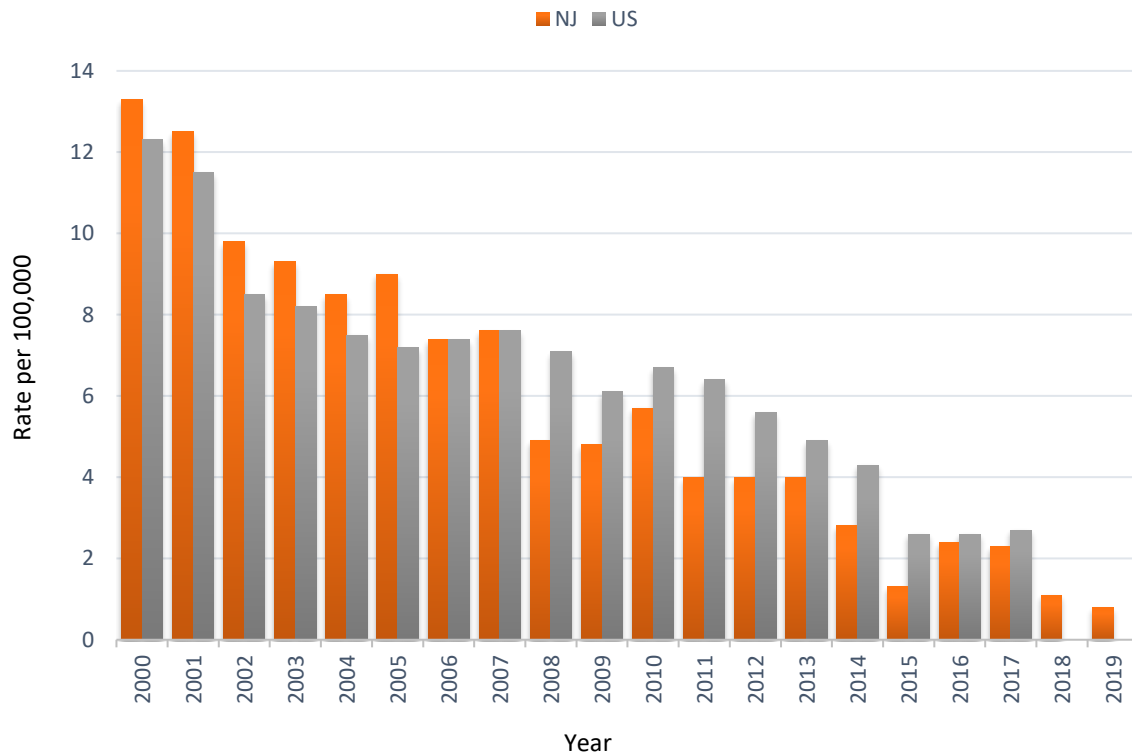


## OHI #13: Elevated Blood Lead Levels (BLL) Among Adults

Annual Prevalence Rate\* of Residents with Elevated Blood Lead Levels ( $\geq 25 \mu\text{g/dL}$ ), New Jersey and United States, 2000-2019



\*Rate per 100,000 employed persons, age 16 years or older

Annual Number and Prevalence Rate\* of Residents with Elevated Blood Lead Levels ( $\geq 25 \mu\text{g/dL}$ ), New Jersey and United States, 2000-2019

Year	Number		Rate*	
	NJ	US	NJ	US
2000	535	11,077	13.3	12.3
2001	499	9,943	12.5	11.5
2002	403	9,915	9.8	8.5
2003	382	9,884	9.3	8.2
2004	357	9,170	8.5	7.5
2005	383	8,902	9.0	7.2
2006	315	9,555	7.4	7.4
2007	330	9,898	7.6	7.6
2008	210	9,325	4.9	7.1
2009	199	N/A	4.8	N/A
2010	232	8,432	5.7	6.7
2011	181	8,366	4.0	6.4
2012	161	7,332	4.0	5.6
2013	149	4,836	4.0	4.9
2014	118	5,172	2.8	4.3
2015	54	2,907	1.3	2.6
2016	104	2,563	2.4	2.6
2017	101	3,260	2.3	2.7
2018	45	N/A	1.1	N/A
2019	35	N/A	0.8	N/A

\* Rate per 100,000 employed persons, age 16 years or older

N/A: not available

Data Source: NJ Adult Blood Lead Epidemiology Surveillance (ABLES) Project; Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment [<https://www.bls.gov/opub/geographic-profile/home.htm>].

## Technical Notes:

- The NJDOH routinely finds elevated blood lead values  $\geq 25\mu\text{g}/\text{dL}$  in workers employed in certain industries despite a trend that indicates decreasing blood lead levels in adults over time. This downward trend should be interpreted cautiously for a variety of reasons including the closing of a large lead acid battery manufacturing facility, an overall decrease in manufacturing in New Jersey, and the implementation of an electronic reporting system which more efficiently collects, and de-duplicates reported lead cases.
- An elevated blood lead level (BLL) is defined as a blood lead concentration of  $\geq 5$  five micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ) of whole blood, in a venous blood sample.
- A prevalent case (new plus old case) is a person with an elevated blood lead level greater than or equal to the listed level who was reported at least once in the calendar year. An incident case (new case) is a person with an elevated blood lead level greater than or equal to the listed level who was reported in the calendar year, but not in the immediately preceding calendar year.
- The numerator includes persons age 16 or older regardless of employment; the denominator includes only employed persons.
- Annual prevalence rates of BLLs are presented per 100,000 employed persons age 16 years or older in Figure 13. Rates are calculated by using the number of cases identified from the ABLES Program and the estimated number of employed persons from the Geographic Profile of Employment and Unemployment, which is based on the Current Population Survey.

## Limitations:

- Data from the Adult Blood Lead Epidemiology and Surveillance (ABLES) program is subject to certain limitations:
  - Blood lead levels (BLLs) reflect the contributions of acute external exposure to lead as well as the release of internal bone lead stores into the blood. For persons with significant body burden, a single BLL may not be an accurate indicator of recent external exposure, as lead is also being released into the blood from bone stores.
  - Data from laboratories are frequently incomplete.
  - Not all states may be able to distinguish occupationally exposed individuals from non-occupationally exposed individuals. Furthermore, states may not be able to determine state of employment/exposure or state of residence of their reported cases.
  - Many workers with significant occupational lead exposure are not appropriately tested. Some workers may not be tested using appropriate methods.
  - An individual's lead exposure and BLL testing may be done in the same or in different states. These states may not reflect individual's state of residence.

Approximately 10–15% of elevated BLLs among adults can be caused by non-occupational exposures.