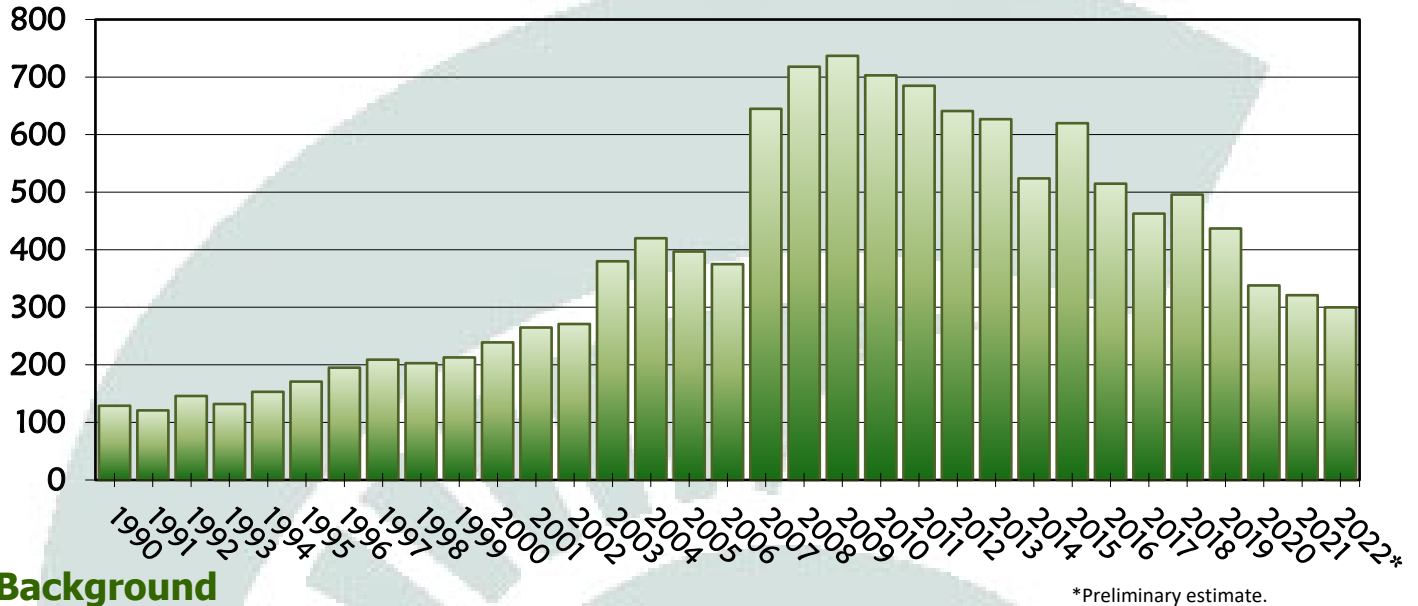


Tracking Asbestos-Related Lung Disease in Michigan

Additional Information Available at: www.oem.msu.edu

Summary Statistics

Hospital Discharges of Inpatients with Asbestosis, Michigan: 1990-2022



Background

In 1978, the State of Michigan instituted an occupational disease reporting law. To help administer the law and encourage reporting, funding was obtained from the National Institute for Occupational Safety and Health (NIOSH) in 1988. This is a joint project of the Michigan Occupational Safety and Health Administration (MIOSHA) and the Michigan State University (MSU) Department of Medicine. In an effort to continue to identify, understand and prevent work-related disease, the tracking program was expanded in 2010 from silicosis and work-related asthma to include all work-related lung diseases such as **Asbestosis**, Chronic Beryllium Disease, Hypersensitivity Pneumonitis (HP) and Hard Metal Lung Disease. Newly identified cases of occupational lung disease are interviewed about their exposures and work history; MIOSHA enforcement inspections may be conducted to determine if others are at risk of developing lung disease.

From 1993 to 2006 there was a steady increase in hospitalizations for asbestosis; from 2007 to 2014 the overall increase in hospitalizations is largely due to the availability of additional secondary discharge diagnosis codes from up to six codes through 2006, to up to 29 codes since 2007. The number of patients hospitalized with asbestosis decreased since 2009 until 2015 when there was an increase in the number of hospitalizations. 2016 and 2017 had a decrease in the number of hospitalizations for asbestosis. In 2018 there was a slight increase and decreases in 2019, 2020 and 2021. 2022 data is provisional.

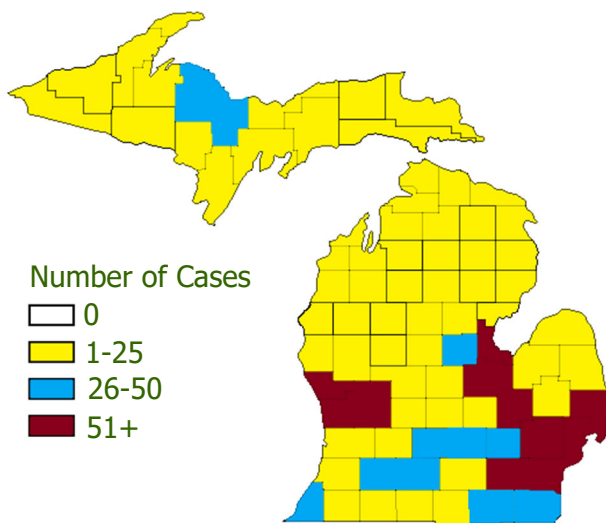
Program Highlights: Asbestosis

- 96% of asbestos-related hospitalizations in 2021 in Michigan were men; 85% were Caucasian.
- The top 5 counties with the greatest number of asbestos-related cases in Michigan in 2021 were: Wayne, Saginaw, Oakland, Macomb and Marquette.
- No asbestos-related hospitalization in 2021 was paid for by Workers' Compensation. Medicare paid for 84%, private insurance covered 7%, Medicaid covered 2% of hospital costs and the remaining 7% were covered by other government insurance, other insurance, self-pay or auto insurance.
- Construction and Manufacturing are the industries that are most frequently associated with asbestos exposure. Plumbing and pipefitting are the most frequently reported occupations.
- Individuals with asbestos exposure are at increased risk of developing lung cancer.

Asbestos-Related Lung Disease Case Narratives

- A male in his 70s died from asbestos-related lung disease. He had acute on chronic respiratory failure with emphysema and pneumonia. His death certificate mentioned silicosis, but an expert B Reading of his chest radiograph showed changes more consistent with asbestos exposure. He worked at a foundry for over 30 years with jobs including grinding, painting, and operating an overhead crane. He was exposed to asbestos from the furnaces at the foundry. He formerly smoked a pack and a half of cigarettes per day for over 30 years but quit in his 50s. His FVC was 51% of predicted and his FEV1 was 19% of predicted.
- A male in his 50s was diagnosed with asbestosis. He worked for the state department of natural resources.
- A male in his 70s was diagnosed with asbestosis and COPD. He was retired from the military. He formerly smoked cigarettes.

Distribution of MI Residents Diagnosed with Mesothelioma, by County: 1999-2019



Asbestos-covered pipes. As asbestos pipe lagging ages, it deteriorates and asbestos fibers can be inhaled, especially during repair work to pipes.

Image Source Page: <http://www.asbestos-contractors-group.com/2009/10/pipe-insulation/>

Summary

- The latency from first exposure to development of asbestos-related disease is long, generally 20 to over 40 years. Accordingly, despite the marked reduction in asbestos use in the United States since the 1970s and implementation of work regulations, asbestos-related conditions continue to occur. Some projections estimate that mortality from asbestos will not peak until 2025.
- The top 5 counties with the highest rates of mesothelioma are: Clare, Marquette, Bay, Midland and St. Clair; the top 5 counties with the largest number of cases are: Wayne, Oakland, Macomb, Kent and Genesee. These counties are associated with the historical location of shipyards, underground mining, chemical facilities and foundries.
- Although most asbestos-related lung disease is caused by exposure to asbestos at work, most individuals never apply for workers' compensation; because of this, Medicare or private insurance companies typically end up covering the medical costs associated with asbestos exposure.
- Studies indicate that chest CT scan screening for lung cancer is of benefit to asbestos-exposed workers (Chest 2014;145:1339-1346).