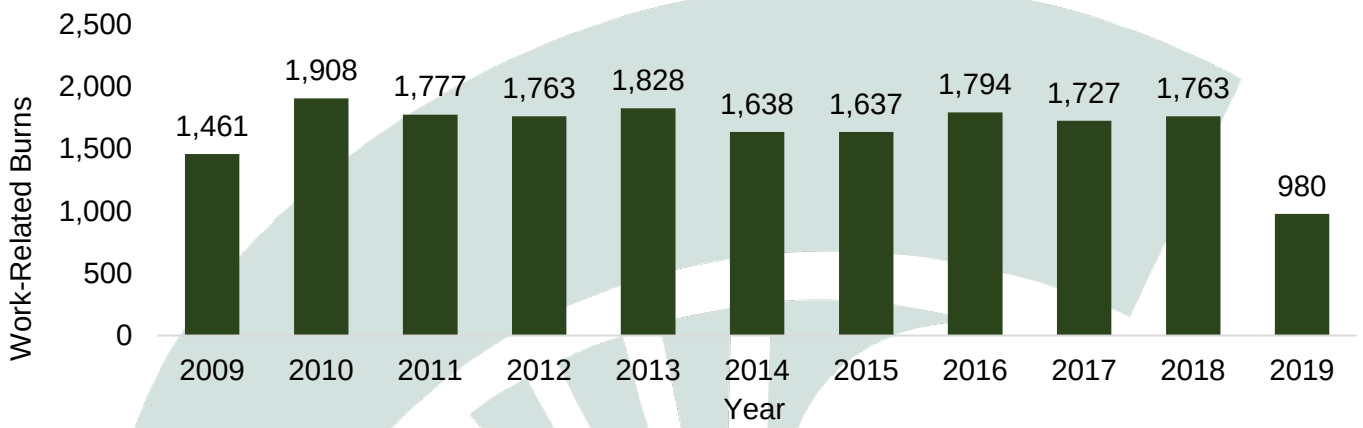
Tracking Work-Related Burns in Michigan

www.oem.msu.edu

Summary Statistics



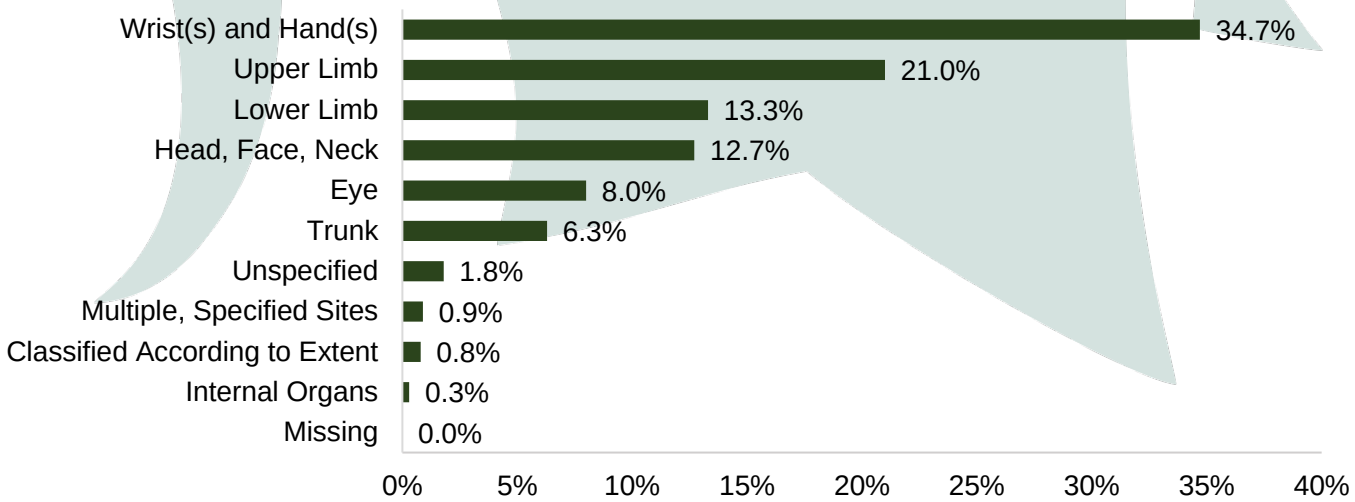
*2017, 2018, and 2019 preliminary data as of 1/30/20

There were 5,069 work-related burns in Michigan from 2014 through 2016. Occupational burns are a preventable cause of work-related injury. Males accounted for 64.1% of work-related burns. Among workers with a reported race, 81.6% were non-Hispanic white. The age of individuals with a work-related burn varied from 13 to 87 years. The average age was 33.6 years and the median age was 30 years.

From 2014 through 2016, the Bureau of Labor Statistics, the official source of work-related statistics estimated that 2,070 work-related burns in occurred Michigan based on employer reports, much fewer than the number that MSU OEM identified.

Molten metal is one of the causes of occupational burns

Work-Related Burns by Part of Body Injured, Michigan 2015-2016*



*Prior to 2015, only the primary burn injury diagnosis was recorded. Beginning in 2015, all burn injury codes were recorded for each case. Therefore, only the 2015 and 2016 data representing the number of injuries related to each body part are displayed (n=4,139 burns).

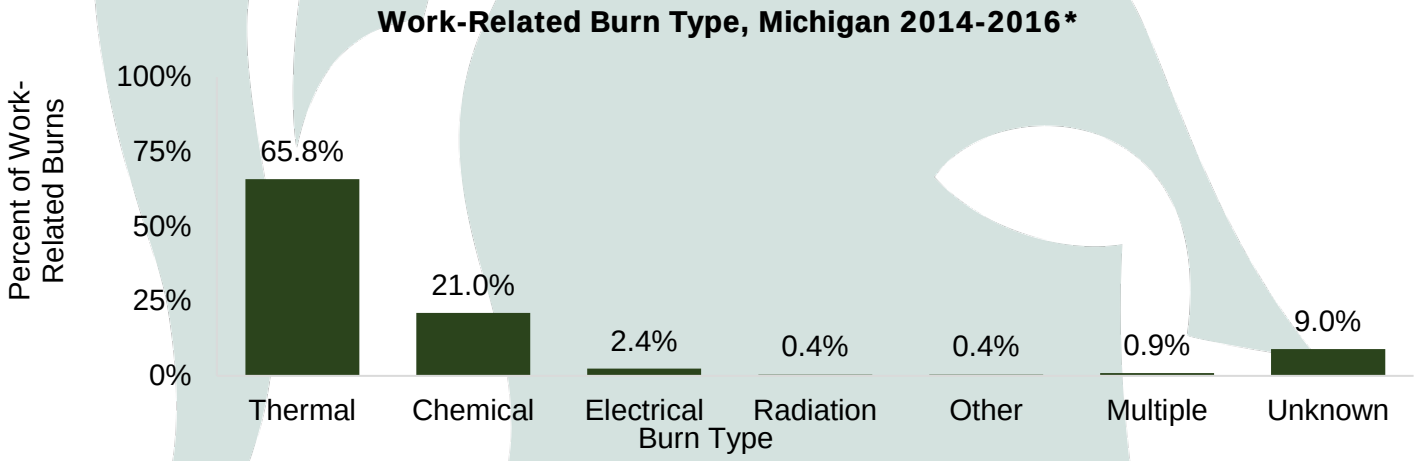
January 31, 2020

Background

In September 2010, The Michigan Department of Health and Human Services promulgated rules requiring health facilities and health providers to report traumatic injuries when requested by the Department. Occupational burns are an important injury that may occur at a workplace. Michigan's hospitals, Workers' Compensation Agency, and the state's sole Poison Control Center are the sources for occupational burns. The Occupational and Environmental Medicine Division at Michigan State University prepares periodic reports on work-related burns, available at www.oem.msu.edu.

2014-2016 Results

- 5,050 individuals had a work-related burn, with 19 workers experiencing more than one burn incident.
- The highest number of burns were thermal burns (3,337), followed by chemical burns (1,066), electrical burns (111), and radiation burns (18).
- 1,135 workers were diagnosed with first-degree burns, 2,584 with second-degree burns, 221 with third-degree burns. No workers experience a fourth-degree burn. There were 1,129 work-related burn cases with an unknown burn-degree.
- From 2015 through 2016, the most common affected parts of the body injured were wrists and hands (1,437 injuries), followed by upper limbs (870 injuries), and lower limbs (551 injuries). 2014 data is not comparable to data collected in 2015 and 2016 because prior to 2015, only the primary burn diagnosis was recorded.
- The most common type of medical encounter was an emergency department visit (4,175), followed by 162 inpatient hospitalizations (overnight), 63 outpatient hospital visits, 193 other visit types, and 17 unknown visit types.
- Accommodation and Food Services had the highest number (1,333) of work-related burns. Mining, Quarrying, and Oil and Gas Extraction had the highest rate (251.9 per 100,000).
- Among cases identified by medical records, Workers' Compensation paid lost work time and medical costs for 7.3% of cases and medical cost only for 50.7% of cases.



Work-Related Burns Narratives

- A 45-year-old male was working at a hospital, assisting a patient with a decontamination shower after exposure to a methamphetamine manufacturing accident, when he came into contact with chemical residue, resulting in a chemical burn.
- A 36-year-old-male was working to repair a live electrical power line using a truck-mounted aerial lift bucket when the bucket was moved into the power lines, resulting in third-degree electrical burns to roughly 11% of his total body surface area.
- A 30-year-old female was cleaning a deep fryer when her hand was exposed to the hot grease, resulting in second-degree burns to her hand.