

*Project

S.E.N.S.O.R.

News

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Data on COVID-19 Cases in Michigan; What Percentage of COVID-19 Cases in Michigan are Associated with Work Exposure?

Understanding how individuals are exposed to SARS CoV-2 is important to ensure that COVID-19 prevention strategies are effective.

As of 8/3/21, there have been 906,538 confirmed and 107,549 probable cases, including 19,947 confirmed and 1,297 probable deaths of COVID-19 in Michigan (https://www.michigan.gov/coronavirus/0,9753,7-406-98163_98173---,00.html). Skilled Nursing, Home for the Aged and Adult Foster Care facilities have reported 25,055 cases and 5,681 deaths among residents and 23,475 cases and 77 deaths among staff (https://www.michigan.gov/coronavirus/0,9753,7-406-98163_98173-526911--,00.html). As of May 2021, there were 331 reported outbreaks in schools, with 8,139 of the outbreaks involving both students and staff cases, 2,767 involving student cases only and 25 involving staff cases only.

In 2020 through 8/3/21, there were 19,947 deaths attributed to COVID-19, 11.3% of all 177,237 Michigan deaths from any cause during this time period (<https://vitalstats.michigan.gov/osr/Provisional/CvdTable2.asp>). Of the 19,947 deaths, 4,004 (20.1%) died from COVID-19 between the ages of 25-64. Although people begin working at an earlier age and may continue working to an older age, and certainly not all COVID-19 deaths within the 25-64 age group were work-related, this number and percent provide a potential of COVID -19 deaths that might have been work-related.

The above numbers provide a framework of possible work-related COVID-19 cases in Michigan: 23,475 cases and 77 deaths among long term care facility staff; 8,139 school outbreaks involving both students and staff cases; and 4,004 deaths among those aged 25-64.

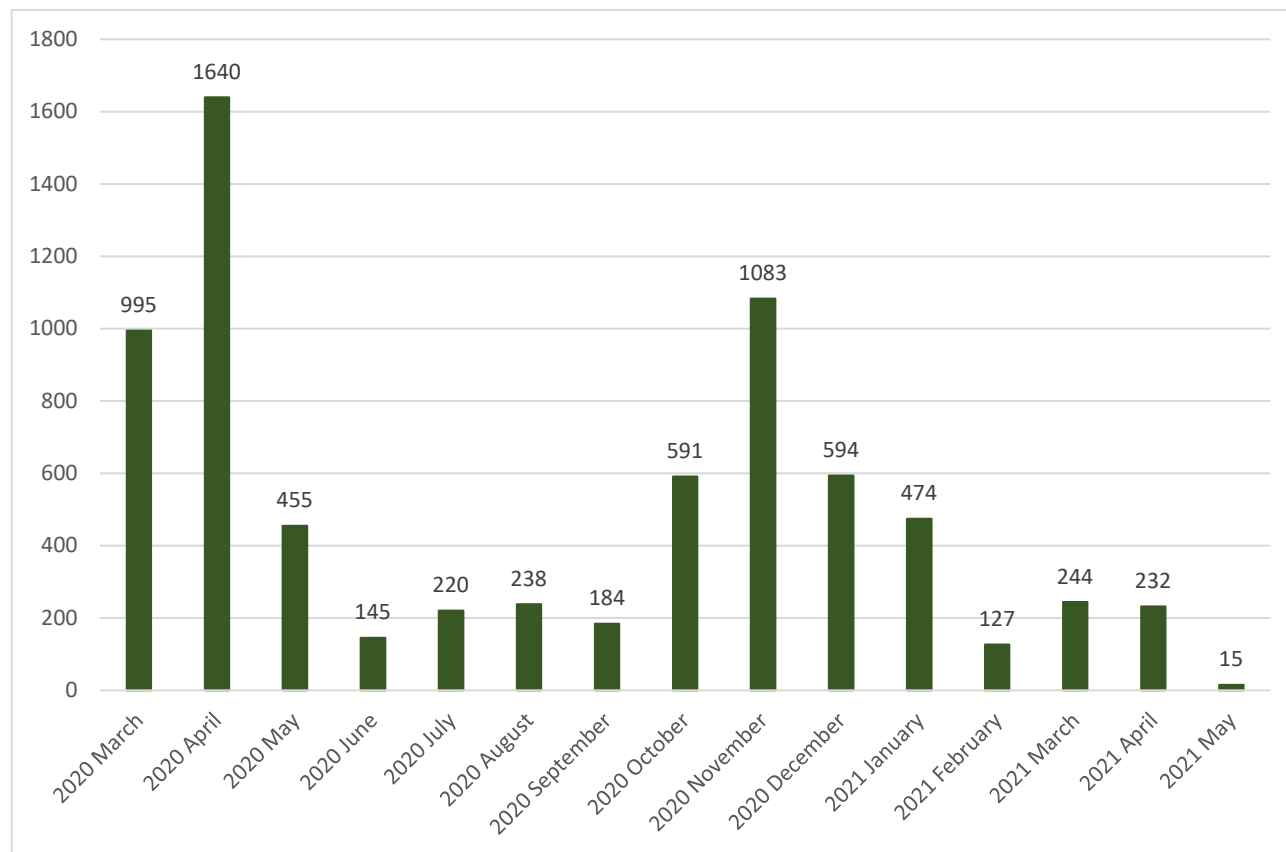
To determine what gets counted as a work-related COVID-19 case, we compiled the Michigan data on work-related COVID-19 cases from: 1) workers' compensation paid claims for COVID-19 where seven or more consecutive days in a row of work were missed; 2) direct reports by employers of COVID-19 cases and deaths submitted to Michigan OSHA; and 3) reports of Occupational Disease submitted to MIOSHA by hospitals and emergency medical services (EMS).

Health care workers, first responders and correction officers who were diagnosed with COVID-19 between March 30, 2020 and March 20, 2021 were presumed to have developed their COVID-19 from a work exposure unless proven otherwise. This presumption ended on March 20, 2021 and now all workers are required to provide the same proof of work exposure to receive workers' compensation for COVID-19.

From 3/1/20 through 5/15/21, there were 7,238 paid workers' compensation claims for COVID-19, including 30 fatalities. Figure 1 shows the number of paid workers' compensation claims per month.

The median age was 42 (range 16-88), 71% were women, 70% worked in health care (37% hospitals, 22% long term care facility, 9% outpatient, 2% other), 19% worked in government (police, fire and correctional officers) and 8% in administrative, employment and building services. Forty-two percent of the paid claims were in the spring of 2020 during the first surge of COVID-19 and 31% during the second surge in the fall of 2021.

Figure 1. Month of the Date of Injury for Individuals who Received Workers' Compensation for COVID-19 for Seven or More Consecutive Days Away from Work, Michigan 3/1/20 - 5/15/21.

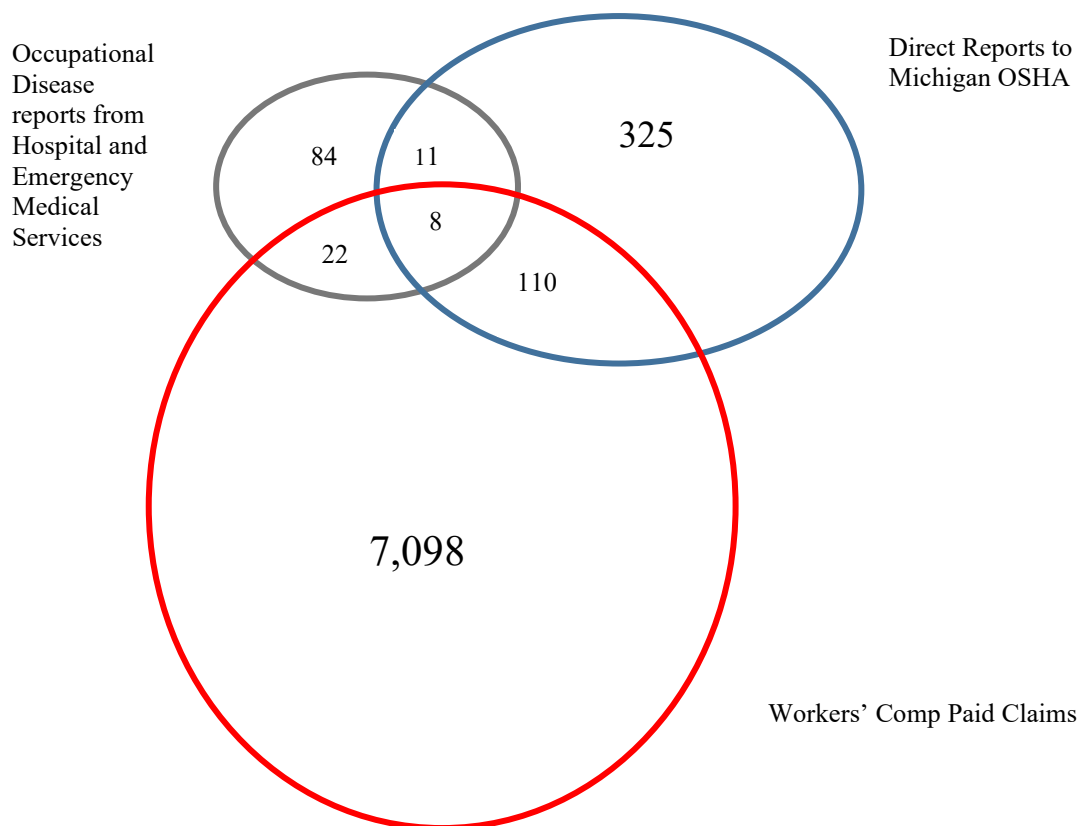


For 2020 through 05/31/21, there were 454 reports, including 80 fatalities made by employers to Michigan OSHA. The median age was 56 (range 24-83), 62% were women, 79% worked in health care (59% hospitals, 14% long term care facility, 5% outpatient, 1% other), 11% worked in government and 4% in manufacturing. Forty-seven percent of the employer reports were in the spring of 2020 during the first surge of COVID-19 and 30% during the second surge in the fall of 2021.

For 2020 through 03/31/21, hospitals and emergency medical responders reported 125 work-related COVID-19 cases including six fatalities. The median age was 49 (range 20-77), 67% were women, 76% worked in health care (55% hospitals, 12% long term care facility, 9% outpatient, 1% other), 13% worked in government and 2% in manufacturing. Twenty-one percent of the hospital and emergency medical responders' reports were in the spring of 2020 during the first surge of COVID-19 and 34% during the second surge in the fall of 2021.

Figure 2 shows a Venn diagram of the overlap of cases from the three sources. The total unique number after accounting for reports from more than one source was 7,658 cases, including 86 fatalities. This number is presumed to be a marked undercount as these 7,658 cases, which included first responders, all health workers and correction officers is smaller than just the 23,475 COVID-19 cases on the MDHHS website among staff from long term care facilities, all of whom met the workers' compensation criteria that their COVID-19 was presumed to have developed from a work exposure unless proven otherwise.

**Figure 2. Venn Diagram of Sources of Work-Related COVID-19 Cases, Michigan.
Total 7,817 Cases Representing 7,658 Unique Individual Cases**



Another measure of the connection of COVID-19 to work is the number of complaints and referrals received by Michigan OSHA about COVID-19. Since March 2020, Michigan OSHA processed a total of 16,871 complaints and referrals for COVID-19. In 2021 an estimated 85% of this year's complaints/referrals were COVID-related. MIOSHA mailed 4,387 recommendation letters, conducted 3,131 letter investigations, and conducted 1,876 COVID-19 onsite inspections, issuing 370 citations. In comparison, for the five preceding years 2015-2019, the agency processed 15,415 total complaints and referrals, which amounts to approximately 3,100 complaints and referrals per year.

The availability of COVID-19 vaccines, employer mandates and incentive programs for the vaccine have reduced the potential for the spread of COVID-19 in the workplace. Proper personal protective equipment (PPE), work practices and home isolation for contacts and symptomatic workers remain important interventions. Overall and industry specific guidance documents on PPE and work practices are available on the NIOSH web site (https://www.cdc.gov/niosh/emres/2019_ncov_byindustry.html), including specific recommendations for health care facilities, including ambulatory care settings (<https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control.html>).

Inclusion of industry and occupation information on COVID-19 cases would allow assessment of possible work outbreaks across all industries and improve our understanding of how to prevent workplace spread. How the cessation of the workers' compensation presumption for health care workers, first responders and correction officers affects the number and distribution of workers' compensation claims for COVID-19, the possibility of long-term effects from COVID-19 among work-related cases and vaccination rates by industry and occupations will be issues we will monitor in the future.

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***PS** Remember to report all cases of occupational disease!

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