

# Occupational Disease in CT, 2022: Executive Summary

This report focuses on occupational *disease* reports for 2020 and recent trends in reported cases. It does not address traumatic occupational *injuries*; data for Connecticut injuries can be found at the national Bureau of Labor Statistics (<https://www.bls.gov/iif/oshstate.htm>). Occupational diseases are typically harder to detect than injuries, since they often occur over longer periods of time, and can have multiple (including non-occupational) risks. Therefore, this report uses data from three primary sources as a way of establishing a more complete picture of occupational disease: Workers' Compensation First Report of Injury cases (WCC), physician reports under the Occupational Illnesses and Injury Surveillance System (OISS), and the Bureau of Labor Statistics/Connecticut Dept. of Labor Annual Survey (BLS/CTDOL).

**Table A-1: Summary of Diseases Reported by Systems, 2018-2020**

Type of Disease	BLS/CTDOL			WCC			OISS (Physicians)			Unique Cases		
	2018	2019	2020	2018	2019	2020	2018	2019	2020	2018	2019	2020
Lung & poisonings	200	100	6,400	436	448	414	241	198	92	621	605	478
Lead **							268	275	199	268	275	199
Skin	300	300	200	184	197	230	118	134	104	273	295	306
Musculoskeletal***	***	***	***	2,456	2,291	2,861	603	590	480	2,869	2,741	3,198
Infectious*				1,201	1,309*	6,485	1,148	1,329	979	2,148	2,387	7,280*
Hearing loss	400	300	200	81	113	144	15	20	15	92	130	159
Other***	1,000	1,000	1,100	899	901	907	195	254	146	1,057	1,096	1,009
<b>Total****</b>	<b>1,800</b>	<b>1,700</b>	<b>8,000</b>	<b>5,257</b>	<b>5,259</b>	<b>11,041</b>	<b>2,588</b>	<b>2,800</b>	<b>2,015</b>	<b>7,328</b>	<b>7,529</b>	<b>12,629</b>

\*There were also an additional 1,517 COVID-19 reports to workers' compensation from a unique database separate from the First Report of Injury database traditionally used for this report.

Sources: BLS: Bureau of Labor Statistics/CTDOL survey; WCC: CT Workers' Compensation Commission (First Report of Injury); OIIS: Occupational Injury and Illness Surveillance System (physician reports primarily reported through occupational health clinics) Unique cases are the combined total of workers' compensation cases and physician reports, adjusted for cases reported to both systems

\*\*Laboratory reports of adult blood lead levels are from the Connecticut Adult Blood Lead Epidemiology and Surveillance (ABLES) program

\*\*\* Musculoskeletal Disorders (MSD) definitions vary somewhat between systems. MSD is included in the "Other" category for BLS/CTDOL data

\*\*\*\*BLS data sometimes does not sum to total due to rounding errors in the survey reporting

Table A-1 summarizes the data from the three different sources for the past three years. The BLS/CTDOL survey rounds to the nearest 100, so the subcategories do not always sum exactly to the total and yearly changes should be viewed with caution. The OIIS draws from the Physician's Report of Occupational Disease for known or suspected occupational illnesses and are required of all physicians but in practice are mostly from the network of occupational health clinics (and therefore are likely to greatly undercount cases seen in other hospitals or by community physicians).

Data from 2020 was heavily affected by the COVID-19 pandemic and resulted in dramatic changes in the workplace including shutdowns, remote work, masking, social distancing, and supply chain issues. COVID-19 reports were handled differently in the three databases: BLS coded them primarily under lung conditions, workers' compensation under infectious disease (and which also had a supplemental database detailed below), and physician reports from occupational health clinics for the most part did not include COVID-19 cases which went through other sources such as emergency departments and special testing sites.

Approximately 8,000 cases of occupational disease were reported under the BLS/CTDOL survey, 11,041 through the workers' compensation first report of injuries (and an additional 1,517 COVID-19 cases reported through the supplemental database), and 2,015 reported by physicians for 2020. The number of reports in 2020

were dramatically higher than 2019 in both the BLS system and workers' compensation systems due to COVID-19 reports but lower for physician reports (which did not include COVID-19). Without COVID-19, reports were lower for all systems, as detailed below. After case matching between the workers' compensation and physician reports with adjustments made for reporting to both systems, there were 12,629 unique reports (plus the 1,517 supplemental reports for a grand total of 14,146 reports) made to either or both of those two systems.

**Infectious diseases** dominated workers' compensation, with COVID-19 accounting for almost half (49%) of cases and other infectious diseases an additional 10% of cases. Non-COVID-19 infectious disease accounted for 47% of physician reports with an additional 1% of COVID. Infectious disease is not broken out in the BLS system, but COVID-19 has pushed lung disease to account for 80% of those reports.

**Musculoskeletal disorders (MSD)** such as Carpal Tunnel Syndrome and tendonitis dominated other workers' compensation reports, accounting for 26% of reports and 24% of physician reports. MSD has not been broken out by BLS since 2002, but MSD cases are presumed to be the main portion of the "other illness" category, which is by far the largest BLS category. **Respiratory diseases and poisonings**, which include respiratory conditions and lung disease such as asthma, as well as poisonings such as from carbon monoxide and lead, accounted for 4% of cases for workers' compensation and 5% of physician reports. **"Other diseases"**, which includes infectious diseases and MSD in BLS, physical hazards such as heat and cold exposures, allergies, cancer, and others in workers' compensation and physician reports, accounted for 10% (WCC) and 8% of physician reports. **Skin conditions** accounted for 2% (WCC) and 5% (OISS). **Lead poisoning** is tracked separately and is based on laboratory reports to the Connecticut Department of Public Health and is maintained by the Adult Blood Lead Epidemiology and Surveillance (ABLES) surveillance system; very few of those cases are reported to the other systems.

There was an overall illness rate of 64.4 cases per 10,000 workers based on the BLS survey, 395% higher than the previous year. The CT rate was 9% higher than the average national rate of 59.1 which was the 10<sup>th</sup> highest out of the 42 states reporting data. As would be expected with numbers so driven by COVID-19, the highest specific sector rate was for Health Care (245 cases per 10,000), followed by Manufacturing (52), Local Government (46), State Government (31) and Utilities (28). In the workers' compensation data, the rate of illness in 2020 was 71.4 cases per 10,000 workers, 125% higher than the 31.5 cases per 10,000 in 2019. The highest illness rates by industry sector were for Education and Health (133.7 cases per 10,000 workers, 187% higher than the overall rate) and Government (130.4), with all other sectors below the average rate.

Overall (based on workers' compensation reports) 57% of reports were for women, but this varied by type of case, with a higher proportion than average for infectious diseases (65% women) and skin conditions (52%), but lower for all other types of illness. Based on workers' compensation reports, occupational illnesses occurred more in older workers, with almost half (46%) involving workers between 45 and 64 years old (Table D-2), with 21% involving workers between 25-34, and 19% between 35-44.

While the broad term of "strains and sprains" accounted for over half (60%) of workers' compensation reports of musculoskeletal disorders (MSD), the most common specific types were Carpal Tunnel Syndrome (13%), numbness (5%), and various types of tendonitis (3%). The most common specific **causes** (aside from the commonly used terms "repetition" or "cumulative") for MSD in workers' compensation reports were lifting and carrying, tool use, computer use and data entry, and pushing or pulling.

Nonspecific respiratory illnesses were the most common type of lung condition, with 53% of reports, followed by asbestos disease or exposures (10%), asthma or reactive airways dysfunction syndrome (RADS) with 7%, and poisonings such as from carbon monoxide, lead, or mercury (5%). Exposures associated with respiratory conditions included smoke, fumes (including gas, carbon monoxide, metals, and lead), chemicals (including solvents, cleaning chemicals, paint, and oil), and mold or indoor air quality.

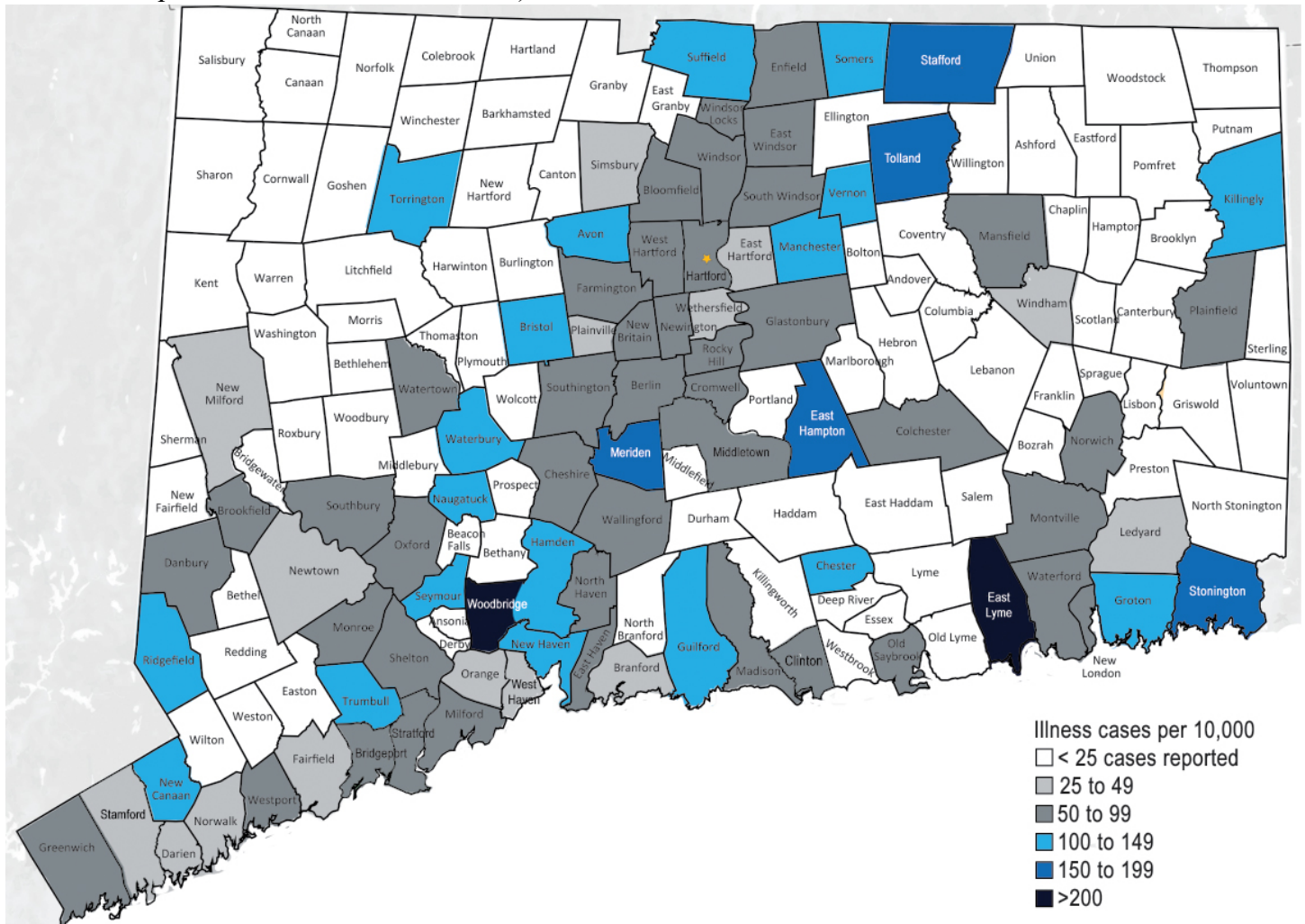
There were 5,409 **COVID-19** cases reported through the FRI (First Report of Injury) employer reports and an additional 1,517 unique reports from a special COVID database from employee reports and requests for hearings. COVID-19 cases accounted for 83% of infectious cases in the FRI data and almost half of all occupational illness reports overall. Over half (55%) of cases were in the Education/Health sector (see Figure D-3), with 11% in Local Government and 7% in Business Services. When the sector is broken down into more detail (see Table D-11) for subsectors with 25 or more cases, by far the largest rate (and number) is for Nursing and Residential Care Facilities with a rate of 373.4 cases per thousand (and 2,110 cases), followed by Hardware Stores (rate of 211.8), Hospitals (159.6), Couriers and Messengers (158.8), and Local Government (107.3; local government also had a very high number of cases at 1,423). Reporting was clearly incomplete (for example, 98% of cases from hardware stores came from just one large chain), so there was a large amount of under-reporting. However, reports included a large number of close exposures (for example from emergency responders) which did not necessarily result in actual illness. Outcomes (for example lost time or fatalities) were not available from these datasets.

Other infectious disease and exposures, based on workers' compensation reports, included 917 reports of potential exposure to bloodborne pathogens (including reports of exposure to HIV/AIDS and Hepatitis C), accounting for 14% of all infectious disease reports (and 88% of physician/clinic reports), including 491 needlestick or sharps exposures. There were 52 cases of tuberculosis infection, usually determined by PPD conversion (which is a skin test based on immune response) or based on exposure to patients or clients with TB. There were 45 reports of tick bites, rashes from tick bites and/or a diagnosis of Lyme disease attributed to occupational exposures.

Rates of illness varied widely by **municipality** based on workers' compensation reports. Often the highest rates appear to be related to having large employers in high-rate industries. There were 84 towns and cities with at least 25 cases of occupational disease reported to workers' compensation, and the overall state mean (average) was 72.4 cases per 10,000 employees. For towns with at least 25 cases, Woodbridge had the highest rate at 243 cases per 10,000, over three times the state average. This was followed by East Lyme (203.3), East Hampton (190.9), Stafford (188.0), Stonington (156.9), Tolland (154.1), Meriden (151.9), Vernon (139.9), Chester (138.4), and Waterbury (136.2). Overall, 42 towns had rates higher than the state average.

Figure A-1, a map of the rates by town is below, with rates listed in Table D-6. The map is based on a minimum of 25 or more cases per town (prepared by Connie Cox Cantor at the Center for Population Health of UConn Health).

**Figure A-1: Map of Occupational Illness Rates by Town, 2020** (map prepared by Connie Cox Cantor, Center for Population Health, UConn Health)



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