Occupational Disease in CT 2021: Executive Summary

This report focuses on occupational *disease* reports for 2019 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 (<u>https://www.bls.gov/iif/oshstate.htm</u>). 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 (OIISS), and the Bureau of Labor Statistics/Connecticut Dept. of Labor Annual Survey (BLS/CTDOL).

Due to the COVID-19 epidemic, the physician reports from the Connecticut Dept. of Public Health (DPH) were not available in time for this report. When that data is available this report will be updated and reposted.

	y of Discuses Reported by Oystems, 2011-2015											
Type of Disease	BLS/CTDOL			WCC			OIISS (Physicians)			Unique Cases*		
	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
Lung & poisonings	100	200	100	301	436	448	155	241	NA	431	621	NA
Lead **							292	268	275	292	268	275
Skin	400	300	300	222	184	197	168	118	NA	348	273	NA
Musculoskeletal***	***	***	***	2,501	2,456	2,291	562	603	NA	2,918	2,869	NA
Infectious				1,398	1,201	1,309	1,365	1,148	NA	2,384	2,148	NA
Hearing loss	200	400	300	103	81	113	12	15	NA	111	92	NA
Other***	900	1,000	1,000	810	899	901	208	195	NA	973	1057	NA
Total****	1,700	1,800	1,700	5,335	5,257	5,259	2,762	2,588	NA	7,457	7,328	NA

Table A-1: Summary of Diseases Reported by Systems, 2017-2019

Sources: BLS: Bureau of Labor Statistics/CTDOL survey; WCC: CT Workers' Compensation Commission (First Report of Injury) OIISS: Occupational Illnesses and Injury Surveillance System (physician reports) data are not yet available for 2019. *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 3 years (OIISS data for 2019 is not yet available). 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 OIISS draws from physician reports 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).

Approximately 1,700 cases of occupational disease were reported under the BLS/CTDOL survey and 5,259 through the workers' compensation first report of injuries for 2019. The number of reports in 2019 were essentially unchanged from 2018 in both the BLS system and workers' compensation.

Musculoskeletal disorders (MSD) such as Carpal Tunnel Syndrome and tendonitis dominated the workers' compensation reports, accounting for 44% of 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 9% of cases for workers'

compensation. **Infectious diseases**, which include bloodborne diseases such as HIV and hepatitis, Tb, scabies, Lyme disease (and including exposures as well as diagnosed disease) accounted for 25% in workers' compensation reports (infectious disease is categorized under "other disease" in BLS; also, needlesticks and other bloodborne exposures with lost time are counted under injuries rather than illness in BLS). "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 19% (WCC). **Skin conditions** accounted for 4% (WCC). **Lead poisoning** is tracked separately and is based on laboratory reports to the Connecticut Department of Public Health and is maintained in the ABLES surveillance system; very few of those cases are reported to the other systems.

There was an overall illness rate of 13.0 cases per 10,000 workers based on the BLS survey, 8% lower than the previous year. The CT rate was 11% lower than the average national rate of 14.6. The highest specific sector rate based on the BLS survey was for Agriculture at 48.0 cases per 10,000, followed by Manufacturing (33.1) and Transportation/ warehousing and Local Government (both 21.4). However, workers compensation reports found the highest rates for Government (81.3, 158% higher than the overall rate) and Manufacturing (45.3 or 44% higher), with all other sectors at or below the average rate.

Overall (based on workers' compensation reports) 50% of reports were for women, but this varied by type of case, with a higher proportion than average for infectious diseases (68% women) but lower for all other types of illness. Based on workers' compensation reports, occupational illnesses occurred more in older workers, with almost half (45%) involving workers between 40 and 59 years old (Table D-2), with 21% involving workers in their 30's, and 17% in their 20's.

While the broad term of "strains and sprains" accounted for almost three-quarters of workers' compensation reports of musculoskeletal disorders (MSD), the most common specific types were Carpal Tunnel Syndrome (8%), numbness (4%), 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 52% of reports, followed by asbestos disease or exposures (12%), asthma or reactive airways dysfunction syndrome (RADS) with 6%, poisonings such as from carbon monoxide, lead, or mercury (6%) and allergic conditions (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. The smoke category included a large-scale exposure from a plane crash site that involved at least 10 workers.

Infectious disease and exposures, based on workers' compensation reports, included 1,063 reports of potential exposure to bloodborne pathogens (including reports of exposure to HIV/AIDS and Hepatitis C), accounting for 81% of all infectious disease reports, including 314 needlesticks or sharps exposures. There were 75 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 70 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 54 towns and cities with at least 25 cases of occupational disease reported to workers' compensation, and the overall state mean (average) was 31.5 cases per 10,000 employees. For towns with at least 25 cases, Plainfield had the highest rate at 93 cases per 10,000 employees, almost 3 times higher than the average rate. Plainfield was followed by Vernon (76), Cheshire (70), Windsor Locks (66), Waterbury (65), Groton (60), Guilford (59), Manchester (56), Stratford (56), Putnam (52) and Torrington (50).

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).





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