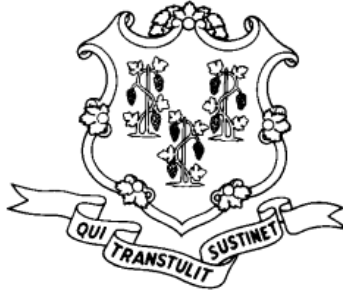


# Occupational Disease in Connecticut, 2022



This report covers data for 2020  
and was prepared under contract for the  
State of Connecticut Workers' Compensation Commission  
Stephen M. Morelli, Chairman

As part of the Occupational Disease Surveillance Program, in cooperation  
with the Connecticut Department of Labor and the Connecticut  
Department of Public Health

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## A. 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 (OIIS), 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			OIIS (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.

**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% (OIISS). **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.

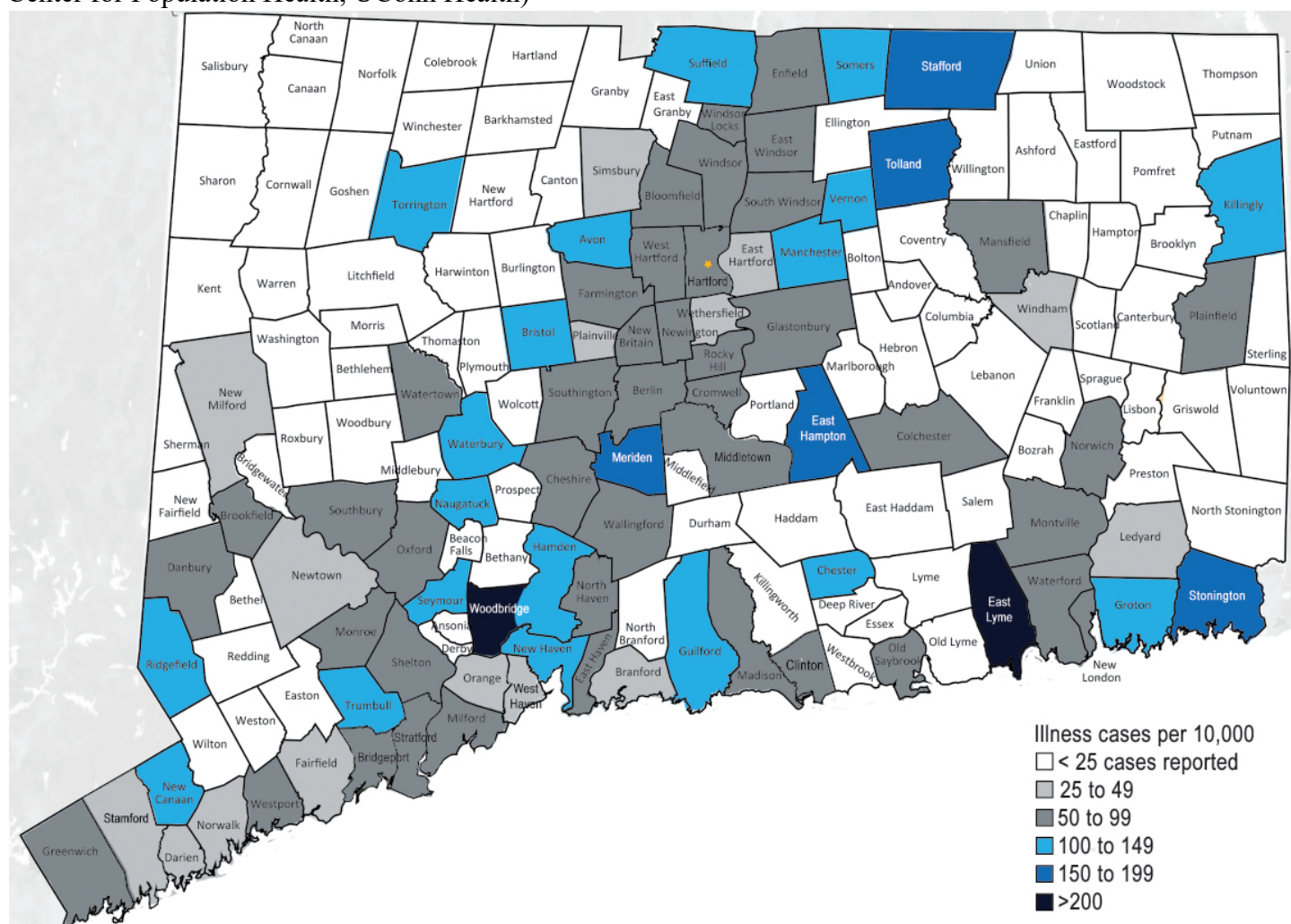
There were 5,409 **COVID-19** cases reported through the FRI (First Report of Injury) employer reports and an additional 1,517 unique reports from a special COVID database from employee reports and requests for hearings. COVID-19 cases accounted for 83% of infectious cases in the FRI data and almost 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)

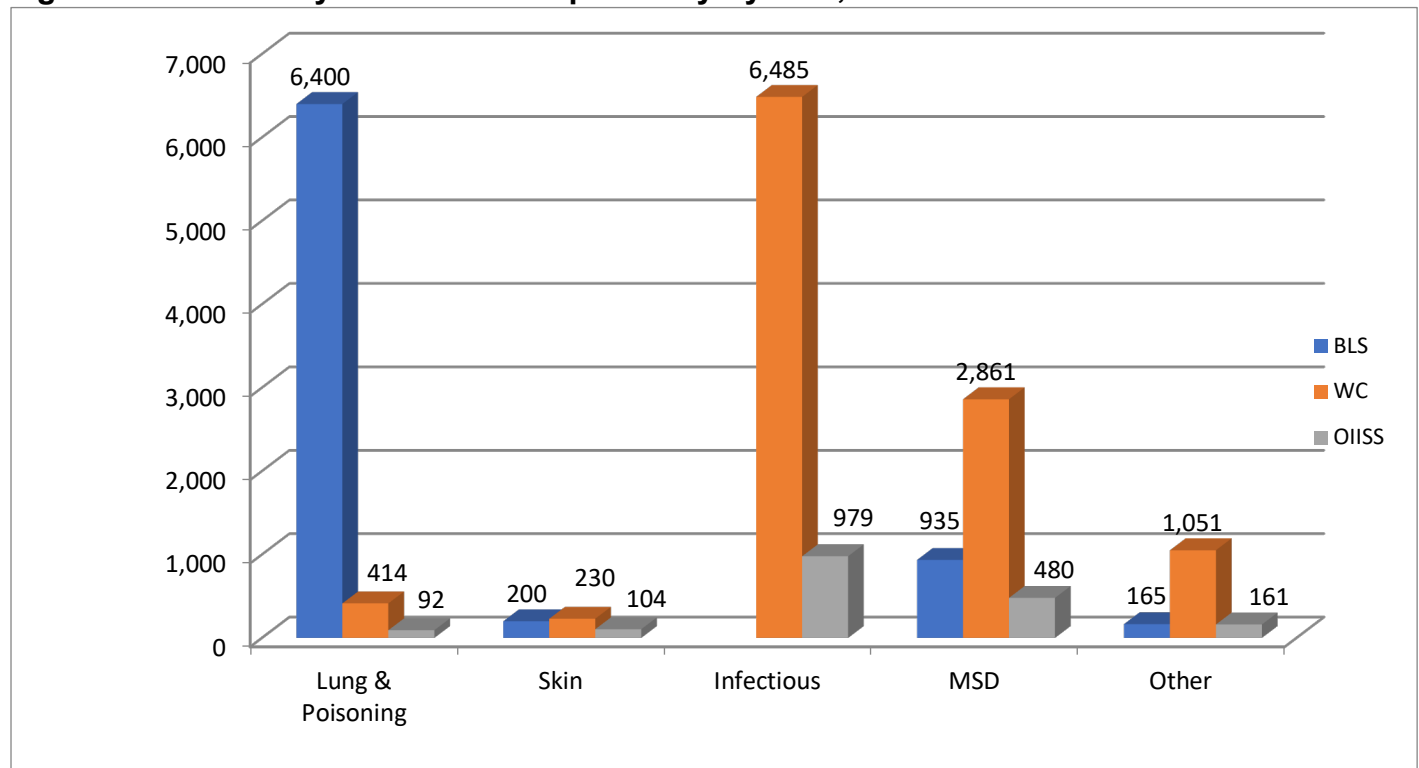


*Special thanks to Amanda Deloreto, Ivan Cherniack, and Tom St. Louis at the CT Dept of Public Health, Erin Wilkins at the CT Dept. of Labor, and Martin Resto and Richard Eighme at the CT Workers' Compensation Commission for their assistance in compiling and reviewing the data.*

## B. Summary of Diseases

Figure B-1 shows the totals by disease category for 2020 for the three reporting systems: the Bureau of Labor Statistics/CT Dept. of Labor (BLS) survey, the Occupational Injury and Illness Surveillance System (OIIS, based on physician reports) and the Workers' Compensation (WC) First Reports of Injury. Categories have been combined to make comparisons as close as possible; however, differences in the systems' definitions make comparisons complex. For example, Workers' Compensation only requires reporting for lost-time or restricted duty cases; the BLS system requires all occupational illnesses to be reported, although the BLS data is based on only a sample of employers. The BLS/CTDOL system discontinued collecting "repetitive trauma" as a category in 2002, so MSD has been estimated based on the proportion of "other illness" in the 2001 dataset, which was 85%. COVID-19 cases were classed under lung conditions for the BLS system and infectious for workers' compensation; the OIIS system did not receive most COVID-19 reports since patients were not typically seen in occupational health clinics. See Appendix 1 for a complete description of methods.

**Figure B-1: Summary of Diseases Reported by System, 2020**



**Notes:** BLS=Bureau of Labor Statistics/ConnOSHA survey; WC=Workers' Compensation First Report of Injury Database; OIIS=Occupational Illness and Injury Surveillance System (physician reports). MSD for the BLS database was estimated using prior proportions from "other" (85%) since they are no longer broken out by BLS. OIIS does not contain most COVID-19 reports, which were classed as lung conditions by BLS and infectious for WCC.

The Workers' Compensation database showed the highest number of cases, with 10,614 total cases reported, 1,389 for the OIIS, and 8,000 for the BLS survey. COVID-19 cases dominated reports in the BLS system (contained in the 6,400 lung and poisoning category) and workers' compensation (contained in the 6,485 infectious disease reports). MSD reports were dramatically higher for the workers' compensation system than the other two sources.

### Case Matching and Total of Unique and Estimated Cases of Occupational Illness

There is a fairly low number of cases that are reported to both workers' compensation and by physicians although in theory they should generally be reported to both. In order to get a better estimate of the total number of cases of occupational illness in Connecticut, cases were matched by name, employer, and type of illness for the WC and OIIS reports (Table B-1). This allows a sum of unique cases that were reported to at least one of



the two systems and an estimate of cases that were not reported to either. Individual level BLS/ConnOSHA data from their survey was not available for matching, and lab-based lead reports did not have enough detail to match, so BLS and lead reports are not included, nor are the additional cases reported in the special workers' compensation COVID-19 dataset.

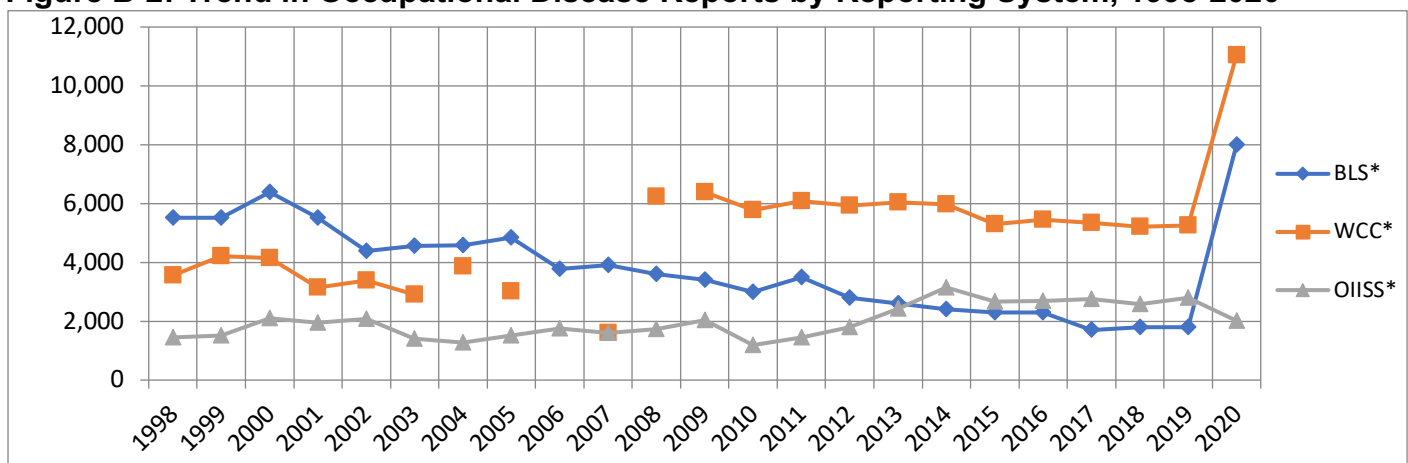
**Table B-1: Matched, Unique, and Estimated Total Cases of Occupational Illness, CT, 2020**

Illness Type	Matched	WC Only	OIISS Only	Unique Cases	Estimated Unreported	Estimated Total
Infectious	173	903	780	1,856	4,071	5,927
Lung	28	386	64	478	882	1,360
MSD	143	2,718	337	3,198	6,405	9,603
Other	44	1,007	117	1,168	2,678	3,846
Skin	28	202	76	306	548	854
<b>Total*</b>	<b>416</b>	<b>5,216</b>	<b>1,374</b>	<b>7,006</b>	<b>17,228*</b>	<b>24,234*</b>
COVID-19 from FRI & OIISS	11	5,398	15	5,424		5,424
Additional COVID Cases		1,517		1,517		1,517
<b>Total*</b>	<b>427</b>	<b>12,131</b>	<b>1,389</b>	<b>13,947</b>	<b>17,228</b>	<b>31,175</b>

\*Total is different than the sum of the categories due to rounding errors in estimating subcategories. Does not include lab-reported lead cases.

Excluding COVID-19 cases, there was a total of 416 cases that were reported to **both** workers' compensation (WC) and by physicians to OIISS; 1,374 cases were reported only to the physician report (OIISS) system, and an additional 5,216 cases were reported only to the workers' compensation system. This gives a total of 7,006 unique (non-COVID) cases that were reported to at least one of the two systems, with approximately 1,856 infectious cases, 478 lung cases, 3,198 musculoskeletal (MSD) cases, 306 skin conditions, and 1,168 "other" cases. Using a statistical method called "capture-recapture" analysis, an estimate was made of the unreported cases (cases not reported to either workers' compensation nor by physicians), which was 17,228 cases. When combined with the unique cases, this provides an estimate of 24,234 non-COVID occupational illness cases and 31,175 total illness cases in Connecticut for 2020.

**Figure B-2: Trend in Occupational Disease Reports by Reporting System, 1998-2020**



**Notes:** BLS= Bureau of Labor Statistics/CTDOL survey; WCC= Workers' Compensation First Report of Injury; OIISS= Occupational Illness and Injury Surveillance System (physician reports).

**\*Notes:**

BLS figures starting in 2002 not comparable to prior years due to changes in data collection.

WCC data was not complete for 2003 and 2005-2007.

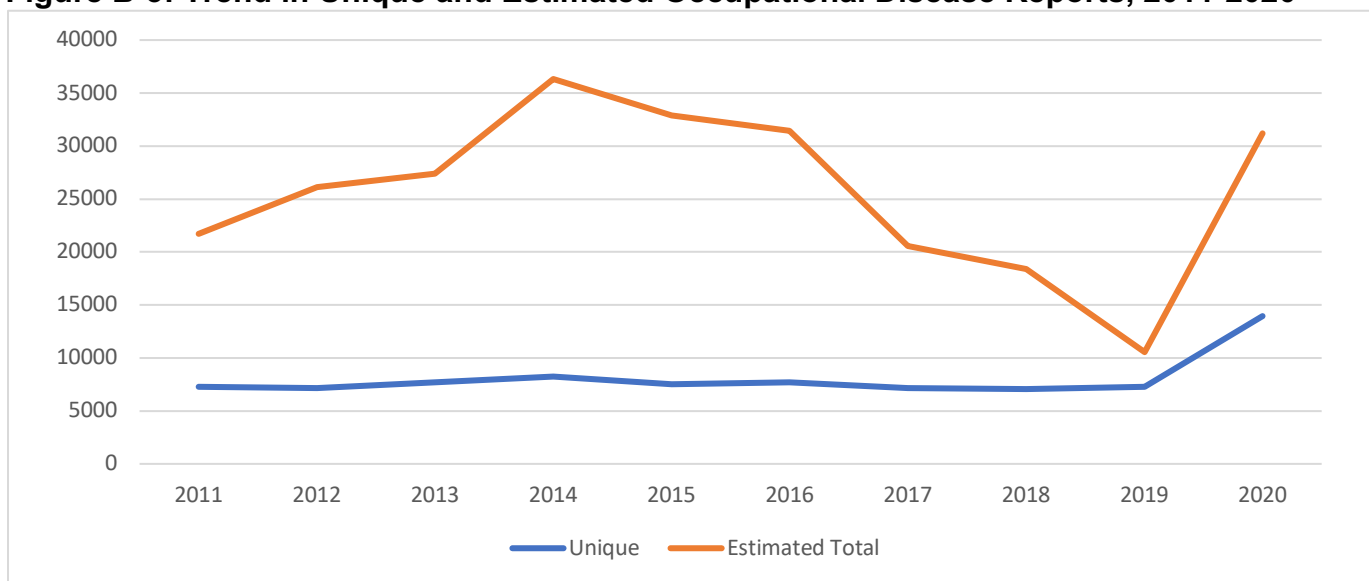
OIISS was not complete for 2010 and did not include most bloodborne infectious diseases/exposures in 2011.

There were an additional 5,424 unique COVID-19 cases reported to either the WC FRI or OIISS systems, and an additional 1,517 unique COVID-19 cases reported to a special workers compensation COVID-19 database for a total of 6,941 unique COVID-19 cases reported to one of the systems. This results in a total number of 13,947 unique occupational illness reports for 2020.

Longer term trends in number of reports are complex (Figure B2) and should be interpreted with caution due to some changing definitions as well as incomplete data for some years (see notes for figure). Up to this year's dramatic increase with COVID-19 cases, BLS reports had plateaued since 2015 after almost two decades of decline; Workers' Compensation data was generally declining between 2008-15 (the Workers' Compensation database appears incomplete in 2003 and 2005-2007) and has been level since 2015; and physician reports (OIISS) have had more fluctuation but generally increased between 2010 and 2014 and then leveled off since 2015. Both workers' compensation and BLS systems had a major increase in 2020 due to COVID-19 cases, while physician/occupational health clinic reports (which did not capture most COVID-19 reports) showed a slight decrease.

Figure B-3 shows the trends since 2011 in unique (cases reported either to workers' compensation or to OIISS) and estimated totals based on an estimate of unreported cases using capture-recapture methods. Unique cases stayed fairly flat (7,000-8,000) over time until the COVID-19 increase shown for 2020. Estimated cases peaked in 2014 and declined until the increase in 2020 due to COVID-19.

**Figure B-3: Trend in Unique and Estimated Occupational Disease Reports, 2011-2020**



## C. Bureau of Labor Statistics/Connecticut Dept. of Labor Surveys

In cooperation with the U.S. Bureau of Labor Statistics (BLS), the Connecticut Department of Labor's (CTDOL) Office of Research conducts an annual survey of employers for job-related injuries and illnesses; data on **injuries** in Connecticut can be accessed through the national Bureau of Labor Statistics website at <https://www.bls.gov/iif/oshstate.htm>. This report focuses on **illnesses** and includes data from CTDOL that is not published in that report. Since these statistics are based on a survey rather than a census, numbers and rates are estimated and rounded. The Connecticut Department of Labor acknowledges that the BLS/CTDOL survey under-counts occupational diseases, particularly chronic diseases, since these are frequently not recognized nor reported.

### Occupational Illnesses in 2020

There were approximately 8,000 reported cases of occupational illnesses in 2020 (Table C-1 and Figure C-1) with an overall rate of 64.4 per 10,000 workers, a dramatic increase (approximately 4 times higher) from the prior year due to the COVID-19 epidemic, as is reflected in the almost 50 times increase in respiratory cases. Skin (-5%) and hearing loss (-41%) rates went down in 2020, while "Other" cases, which includes musculoskeletal cases, increased by 20%.

**Table C-1: Occupational Disease by Type, BLS/CTDOL 2019-2020**

	2019		2020		% Change in Rate
	Cases	Rates	Cases	Rates	
Respiratory	100	1.1	6,400	52.0	4,627%
Skin	300	2.1	200	2.0	-5%
Hearing Loss	300	2.2	200	1.3	-41%
Poisonings					
Other*	1,000	7.5	1,100	9.0	20%
<b>Total</b>	<b>1,700</b>	<b>13.0</b>	<b>8,000</b>	<b>64.4</b>	<b>395%</b>

**Source:** BLS/CTDOL; Rates are per 10,000 workers, adjusted for hours worked. The data includes public sector. Blanks indicate numbers that are too small or unreliable to publish. Total Illnesses may differ from sum due to rounding errors.

\*Musculoskeletal disorders (MSD) are categorized under the "Other" category by BLS.

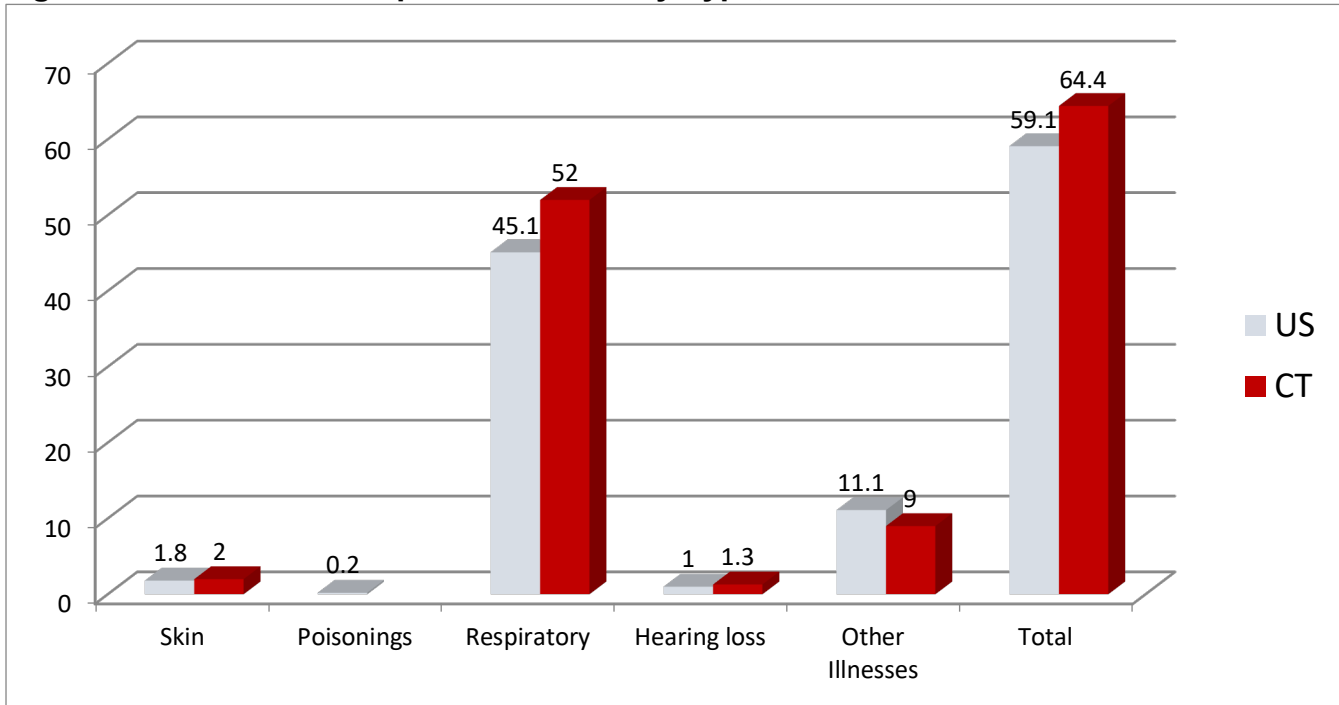
Overall rates for Connecticut in 2020 were slightly higher than the U.S., driven primarily by higher rates of respiratory illnesses. Other Illnesses, which includes repetitive trauma (Figure C-1) were slightly lower than the U.S. rates, while hearing loss and skin cases were slightly higher. The overall Connecticut rate (64.4 cases per 10,000 workers) was 9% higher than the U.S. rate of 59.1. Rates increased dramatically for both Connecticut and the U.S. in 2020 due to COVID-19.

Connecticut's illness rate of 64.4 cases per 10,000 workers ranked 10<sup>th</sup> highest out of 42 states with publishable data (9 states had higher rates and 33 had lower rates). Michigan had the highest rate of 107.3 and Georgia had the lowest at 11.2. Since these rates were driven primarily from COVID-19 and reporting may have been highly variable in relation to work-related COVID-19, these national comparisons should be viewed with caution.

Private sector rates for occupational illness were 67.3 in Connecticut and 55.9 nationally. Connecticut's public sector rate was 41.1 and the U.S. public sector rate was 80.3.

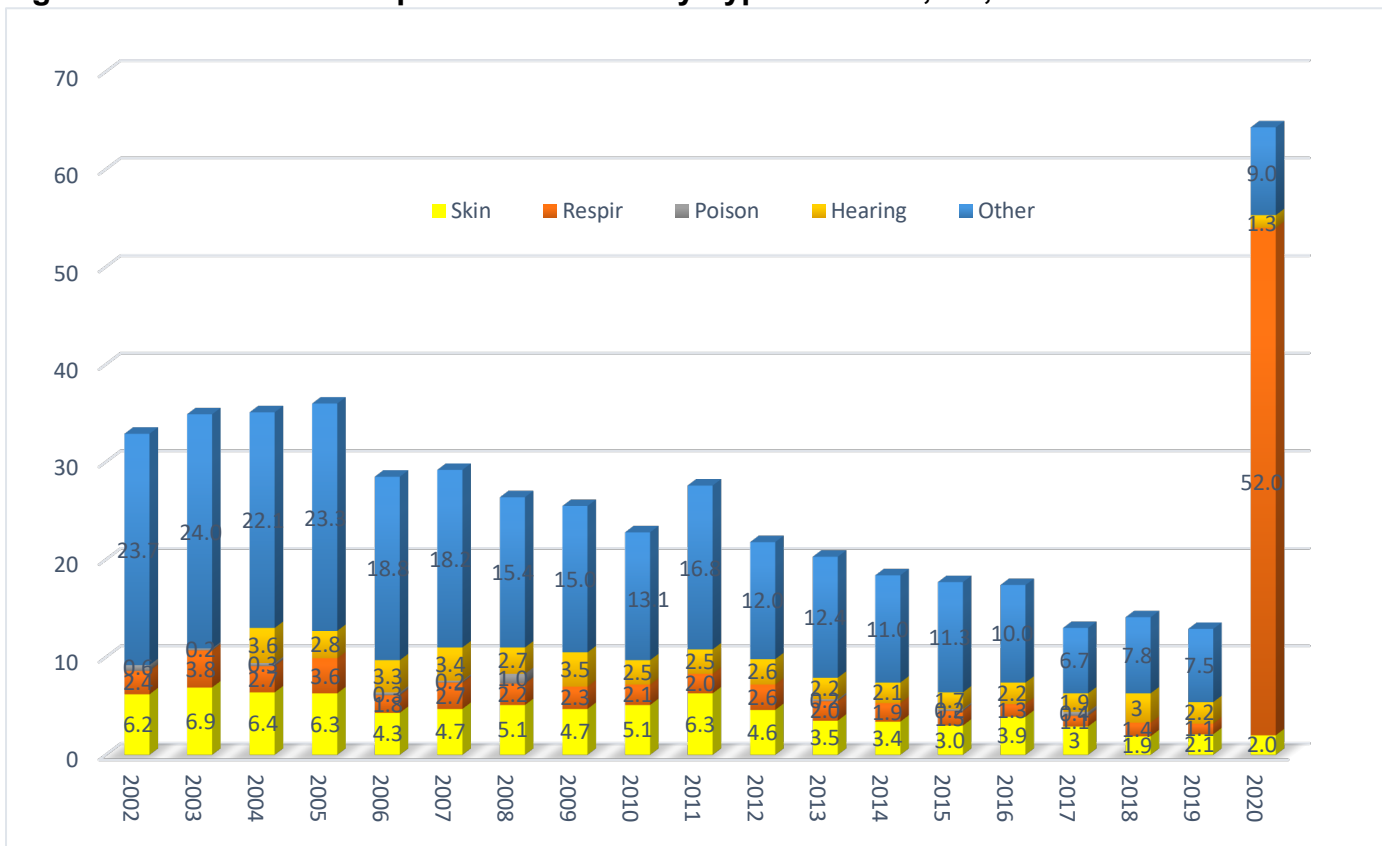
In Connecticut, the rate of illnesses increased slightly from 2002-2005, generally decreased through 2017 with the exception of 2011, then generally level through 2019, with a dramatic increase in 2020 (Figure C-2).

**Figure C-1: Rates of Occupational Illness by Type, US and CT, 2020**



**Source:** BLS and CTDOL. Rates per 10,000 workers, adjusted for hours worked.

**Figure C-2: Rates of Occupational Disease by Type and Year, CT, 2002-2020**



**Source:** BLS and CTDOL. Rates per 10,000 workers, adjusted for hours worked.

## Illnesses by Industry

Numbers and rates by industry sector for 2020 are presented in Table C-2. Overall, the adjusted rate was 64.4 cases of occupational illness per 10,000 CT workers. The overall private sector rate was 67.3, with a government rate of 41.1.

**Table C-2: Illness Rates per 10,000 Workers by Industry and Type of Illness, CT, 2020**

	Total		Skin		Respiratory		Poison		Hearing		Other	
	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.
All industries including state and local government	64.4	8.0	2.0	0.2	52.0	6.4	--	--	1.3	0.2	9.0	1.1
Private industry	67.3	7.4	1.0	0.1	56.9	6.2	--	--	1.4	0.2	8.0	0.9
Goods-producing	42.4	0.9	--	--	25.7	0.5	--	--	6.4	0.1	9.5	0.2
Construction	11.6	0.1	--	--	--	--	--	--	--	--	--	--
Manufacturing	52.2	0.8	--	--	32.2	0.5	--	--	8.6	0.1	10.7	0.2
Service-providing	73.2	6.5	1.1	0.1	64.3	5.7	--	--	0.2	0	7.6	0.7
Trade, transportation, and utilities	14.2	0.3	1.7	0	4.8	0.1	--	--	--	--	7.3	0.2
Wholesale trade	11.3	0.1	--	--	--	--	--	--	--	--	7.1	0
Retail trade	14.4	0.2	2.5	0	6.1	0.1	--	--	--	--	5.8	0.1
Transportation and warehousing	15.6	0.1	--	--	--	--	--	--	--	--	10.7	0
Utilities	28.3	0	--	--	--	--	--	--	--	--	--	--
Professional and business services	16.6	0.3	--	--	14.6	0.3	--	--	--	--	--	--
Professional, scientific, and technical services	--	--	--	--	--	--	--	--	--	--	--	--
Administrative and support and waste management and remediation serv.	13.1	0.1	--	--	11.9	0.1	--	--	--	--	--	--
Educational and health services	244.9	5.7	1.9	0	223.9	5.2	--	--	--	--	18.9	0.4
Educational services	4.1	0	--	--	--	--	--	--	--	--	--	--
Health care and social assistance	293.2	5.7	2.2	0	268.4	5.2	--	--	--	--	22.3	0.4
Leisure, entertainment, and hospitality	--	--	--	--	--	--	--	--	--	--	2.1	0
Arts, entertainment, recreation	16.8	0	--	--	--	--	--	--	--	--	--	--
Accommodation and food services	--	--	--	--	--	--	--	--	--	--	--	--
Other services (except public administration)	--	--	--	--	--	--	--	--	--	--	--	--
State and local government	41.1	0.6	9.7	0.1	13.0	0.2	--	--	--	--	17.6	0.2
State government	31.4	0.1	19.1	0.1	4.5	0	--	--	--	--	7.5	0
Local government	46.0	0.4	5.0	0	17.2	0.2	--	--	--	--	22.7	0.2

**Source:** CTDOL; Rates are adjusted for hours worked and are per 10,000 full-time workers. Number of cases are in thousands (i.e 0.2 means 200 cases). Blanks indicate too little data for reliable estimates. Detailed subcategories with no publishable data are omitted.

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). Similarly, the rates for respiratory conditions were led by Health Care (268), Manufacturing (32), Local Government (17), Professional and Business Services (15), and Administrative and Support (12).

“Other” conditions (which includes chronic musculoskeletal conditions) were dominated by Local Government (23), Health Care (22), Manufacturing (11) and Transportation and Warehousing (11). Skin conditions were highest in State Government (19) and Local Government (5). Hearing loss was primarily reported in Manufacturing (9).

## Lost-Time Illnesses

BLS obtains additional data for the subset of cases that result in lost worktime and provides additional detail on specific conditions and causes. The following draws from this data for conditions that are more chronic in nature (usually classified as occupational illness). Restricted work cases are not included in this data, which is generally about half again the number of lost worktime cases.

## Infectious Disease

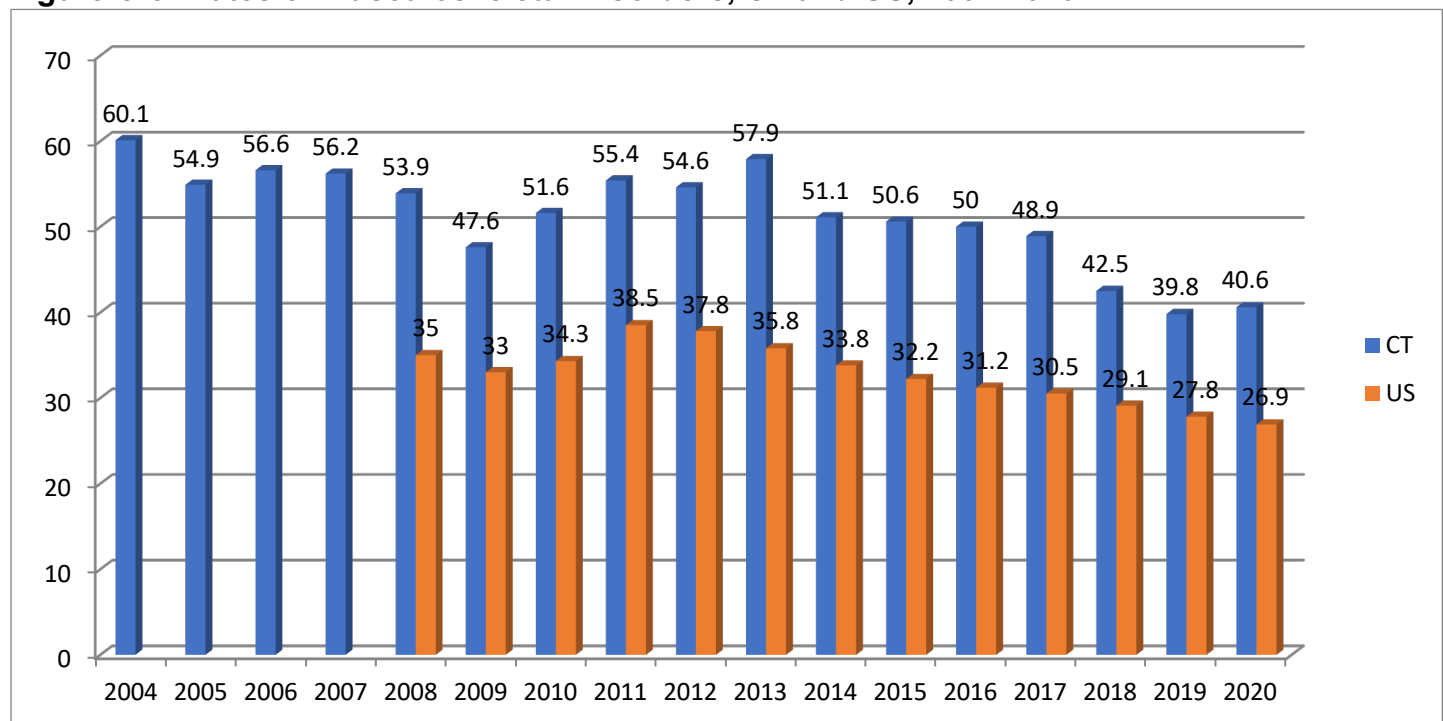
COVID-19 cases could be classified under several different categories, including respiratory and viral cases. Viral diseases with lost time increased dramatically in 2020 due to COVID-19. Connecticut had a rate of viral disease of 40.1 per 10,000 workers, almost identical to the U.S. rate of 40.0, with 4,950 cases reported in that category in Connecticut and an average of 14 days lost time.

## Musculoskeletal Conditions

The rate of musculoskeletal disorders (MSD) with lost time in Connecticut was essentially the same as the previous year at 40.6 cases per 10,000 workers compared to the 2019 rate of 39.8 (Figure C-3). The Connecticut rate is 51% higher than the national MSD rate of 26.9. MSD rates in Connecticut have generally decreased over the last seven years. National rates for all private and public employees have only been available since 2008.

Musculoskeletal conditions are the most common category of specific injury and illness conditions and is a category that includes both chronic conditions and sprains and strains from overexertion. BLS defines this fairly complex category as “includes cases where the nature of the injury or illness is pinched nerve; herniated disc; meniscus tear; sprains, strains, tears; hernia (traumatic and non-traumatic); pain, swelling, and numbness; carpal or tarsal tunnel syndrome; Raynaud's syndrome or phenomenon; musculoskeletal system and connective tissue diseases and disorders, when the event or exposure leading to the injury or illness is overexertion and bodily reaction, unspecified; overexertion involving outside sources; repetitive motion involving microtasks; other and multiple exertions or bodily reactions; and rubbed, abraded, or jarred by vibration.”

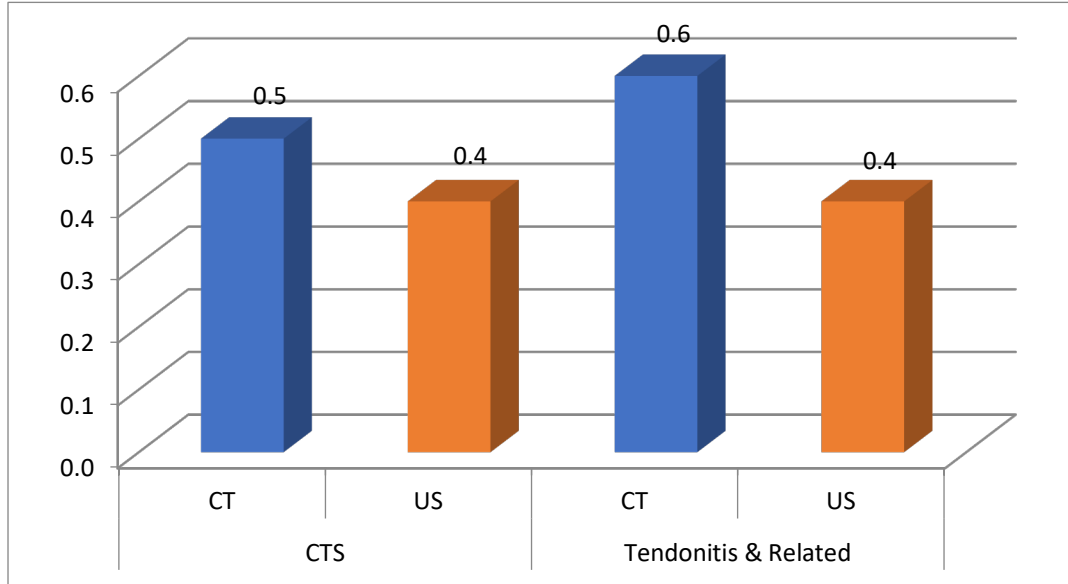
**Figure C-3: Rates of Musculoskeletal Disorders, CT and US, 2004-2020**



**Source:** U.S. Bureau of Labor Statistics (Customized Tables); <http://data.bls.gov>  
Rates are cases per 10,000 full time employees, public and private

**Tendonitis** was the most common specific lost-time illness in CT with a rate of 0.6 cases per 10,000 workers in 2020 (Figure C-4), and 0.5 cases per 10,000 of **Carpal Tunnel Syndrome (CTS)**. The rate of CTS in CT was 25% higher than the national rate and 50% higher for tendonitis. CTS had a very high number of lost work days, with a median of 48 days of lost time per case (compared to 14 days for all cases of injury and illness in 2020) in CT. Tendonitis (and related soft-tissue disorders) was also high at 31 days, and musculoskeletal disorders had 16.

**Figure C-4: Rates of Lost-time Carpal Tunnel (CTS) and Tendonitis, US & CT, 2020**



Source: BLS Website <http://www.bls.gov> customized tables, private and public, cases per 10,000 full time employees.

Connecticut lost time cases coded as “**repetitive motion**” for cause decreased slightly to 1.9 cases per 10,000 workers from 2.3 in the previous year (Table C-3). Microtasks was the largest specific cause of repetitive motion, followed by tool use, grasping, and computer use. The CT rate was 12% higher than the national rate of 1.7. Repetitive motion lost time cases in CT had a median of 27 days away from work in 2019.

**Table C-3: Illnesses Involving Repetitive Motion by Type, 2019-2020**

Repetitive Motion Injuries	2019	2020
Microtasks (unspecified)	0.7	0.6
Tools	0.6	0.5
Grasping, placing, moving	0.5	0.5
Typing and computer	0.4	0.3
All repetitive with microtasks (total)	<b>2.3</b>	<b>1.9</b>

### Lost Time

Average amounts of lost time (for illnesses that had lost time) varied widely. Skin conditions averaged 3 lost days, Carpal Tunnel Syndrome 48 days, tendonitis and related conditions 31 days, musculoskeletal conditions 8 days, viral diseases 14 days, and mental disorders 80 days.

## D. Workers' Compensation First Report of Injury Data

There was a total of 11,041 reports in the Workers' Compensation First Report of Injury (FRI) Database for 2020 (Table D-1), more than double (110%) from 2019, driven by the large number (5,409) of COVID-19 cases. There was a 25% increase in musculoskeletal disorders, a 17% increase in skin disorders, a 4% increase in other conditions such as heart conditions, stress, and hearing loss, but an 8% decrease in lung disorders and an 18% decrease in other infectious disease (excluding COVID-19).

COVID-19 accounted for approximately half (49%) of all occupational illness FRI reports, with an additional 10% of other infectious diseases. Musculoskeletal disorders (MSD) were 26% of total cases, other illnesses 10%, lung conditions 4%, and skin disorders 2%.

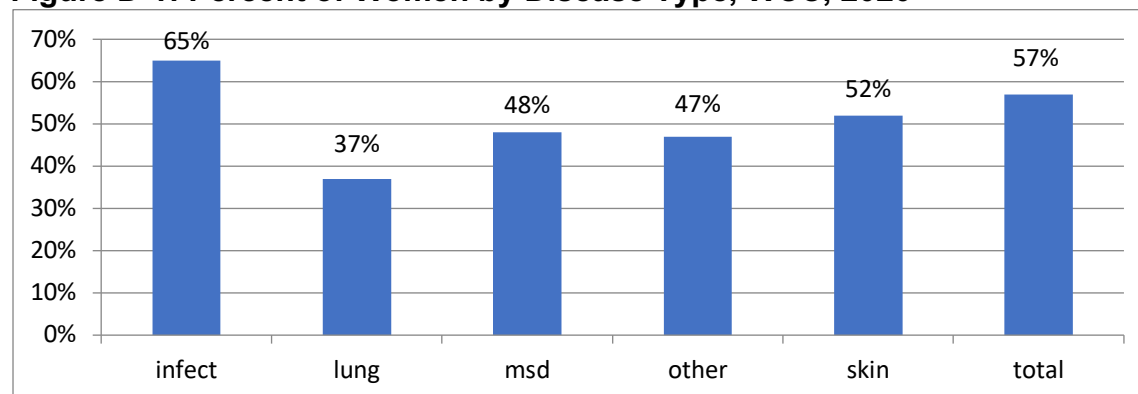
**Table D-1: Occupational Disease by Type, WCC, 2019-2020**

	2019	2020		
Illness type	Cases	Cases	% of Total	% Change
Musculoskeletal Disorders (MSD)	2,291	2,861	26%	25%
Infectious Disease (w/o COVID)	1,309	1,076	10%	-18%
COVID-19*	0	5,409	49%	
Lung Disorders	448	414	4%	-8%
Skin Disorders	197	230	2%	17%
Other Illnesses	1,014	1,051	10%	4%
<b>Total</b>	<b>5,259</b>	<b>11,041</b>	<b>100%</b>	<b>110%</b>
<b>Additional COVID-19 cases*</b>	<b>0</b>	<b>1,517</b>		
<b>Total</b>	<b>5,259</b>	<b>12,558</b>		

\*There were an additional 1,517 cases of COVID-19 reported to the workers' compensation Commission through other reporting mechanisms, including worker notice of claim (Form 30-c) or requests for hearing, resulting in a combined total of 6,926 COVID-19 cases.

Overall, 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 (Figure D-1). Women comprised approximately 48% of the Connecticut workforce in 2020.

**Figure D-1: Percent of Women by Disease Type, WCC, 2020**



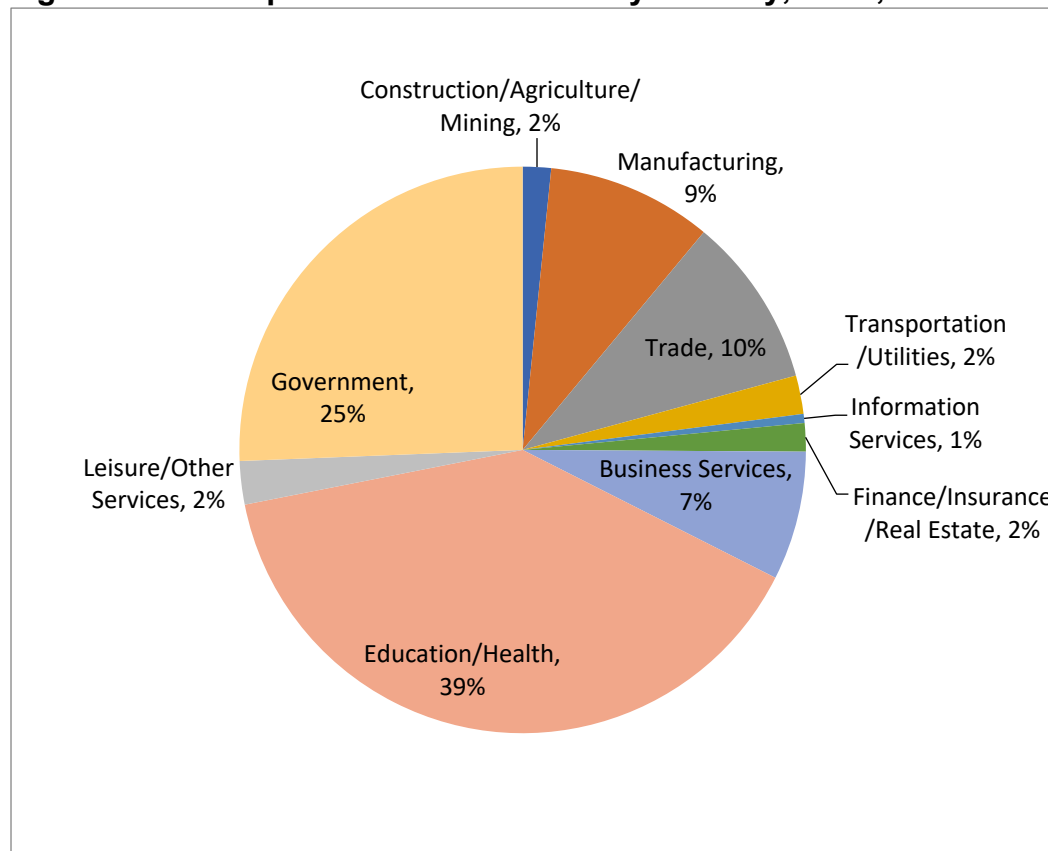
Reported occupational illnesses occurred more in older workers, with almost half (46%) involving workers between 45 and 64 years old (Table D-2), with 21% involving workers between 25-34, and 19% between 35-44. Rates of illness were also higher for older workers, with 69 cases per 10,000 workers for those between 45 and 64.



**Table D-2: Occupational Illness by Age, 2020**

Age	Cases	Percent	Workforce	Rate
16-19	89	1%	69,700	12.8
20-24	585	5%	161,900	36.1
25-34	2,286	21%	386,300	59.2
35-44	2,146	19%	360,900	59.5
45-54	2,537	23%	355,300	71.4
55-64	2,547	23%	386,400	65.9
65+	701	6%	149,100	47.0
Unknown	150	1%		
<b>Total</b>	<b>11,041</b>	<b>100%</b>	<b>1,869,600</b>	<b>59.1</b>

Numbers and rates of occupational illnesses by industry sector are presented by major North American Industry Classification System (NAICS) classifications in Figure D-2 and Table D-3. Ninety-eight percent (98%) of reported cases were able to be coded for major industry sector. The largest sectors in terms of overall numbers were Education/Health (39% of all cases; there are also health and education cases classified under government, such as employees in public schools, so this figure is for private sector schools and healthcare), Government (25%), Trade (10%), and Manufacturing (9%). The number of cases in Education and Health were driven largely by COVID-19 cases in the healthcare sector (see below).

**Figure D-2: Occupational Illness Cases by Industry, WCC, 2020**

The number of illnesses by industry may be compared to the size of employment in those industries to understand which industries are at higher risk for illness. Table D-3 shows these figures, excluding cases where the industry was unknown. Overall, 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.

**Table D-3: Cases of Occupational Disease by Major Industry Sector, WCC, 2020**

Industry Sector	Cases	%	Employment	%	Rate
Construction/Agriculture/Mining	175	2%	62,197	4%	28.1
Manufacturing	1,022	9%	158,826	10%	64.3
Trade	1,054	10%	216,505	14%	48.7
Transportation/Utilities	238	2%	60,120	4%	39.6
Information Services	56	1%	29,238	2%	19.2
Finance/Insurance/Real Estate	175	2%	118,168	8%	14.8
Business Services	797	7%	206,653	13%	38.6
Education/Health	4,275	39%	319,839	21%	133.7
Leisure/Other Services	268	2%	165,661	11%	16.2
Government	2,777	25%	212,961	14%	130.4
Unknown	204	2%	562	0%	
<b>Total</b>	<b>11,041</b>	<b>100%</b>	<b>1,545,731</b>	<b>100%</b>	<b>71.4</b>

**Notes:** Employment is adjusted for hours worked. A small number of reports that could not be coded for industry are categorized as unknown. Rates are illnesses per 10,000 workers. Total employment and percent do not equal the sum of components due to rounding errors. Government sector includes cases that could alternately be classified under health and education (i.e. public schools). NAICS is the North American Industry Classification System.

Table D-4 provides the detail of industry sector by type of condition. Patterns differed by the type of illness, although Government and Education/Health were relatively high in all categories. Table D-4 shows **numbers** of cases and not **rates**, so they are not adjusted for employment size in the different sectors (rates are shown in Tables D-3 and D-5).

**Table D-4: Type of Disease by Industry Sector, WCC, 2020**

	Other		Lung		Infectious		MSD		Skin		Total	
Construction/Agric/Mining	33	3%	18	4%	10	0%	109	4%	5	2%	175	2%
Manufacturing	172	17%	64	16%	73	1%	677	24%	36	16%	1,022	9%
Trade	211	21%	31	8%	162	3%	623	22%	27	12%	1,054	10%
Transport/Utilities	23	2%	5	1%	100	2%	107	4%	3	1%	238	2%
Information Services	13	1%	5	1%	5	0%	31	1%	2	1%	56	1%
Finance/Insurance/RE	21	2%	11	3%	33	1%	105	4%	5	2%	175	2%
Business Services	72	7%	13	3%	488	8%	208	7%	16	7%	797	7%
Education/Health	108	10%	52	13%	3,695	58%	367	13%	53	24%	4,275	39%
Leisure/Other Services	48	5%	13	3%	87	1%	109	4%	11	5%	268	2%
Government	328	32%	194	48%	1,734	27%	457	16%	64	29%	2,777	26%
<b>Subtotal</b>	<b>1,029</b>	<b>100%</b>	<b>406</b>	<b>100%</b>	<b>6,387</b>	<b>100%</b>	<b>2,793</b>	<b>100%</b>	<b>222</b>	<b>100%</b>	<b>10,837</b>	<b>100%</b>
Unknown	22		8		98		68		8		204	
<b>Total</b>	<b>1,051</b>		<b>414</b>		<b>6,485</b>		<b>2,861</b>		<b>230</b>		<b>11,041</b>	

**Table D-5: Specific Industry Sectors with over 25 Cases of Occupational Disease, WCC, 2020**

Specific Industry Sector	NAICS	2020	Employed	Rate	2019	Change
Nursing and Residential Care Facilities	623	1,974	56,511	349.3	157	1,157%
Hospitals	622	1,437	58,914	243.9	409	251%
Local Government		2,179	132,678	164.2	1,253	74%
Non-store Retailers	454	88	7968	110.4	62	42%
Couriers and Messengers	492	120	11,841	101.3	21	471%
Educational Services	611	567	56,280	100.7	92	516%
State Government		598	61,098	97.9	576	4%
Transportation Support	488	31	3,311	93.6	36	-14%
Computer and Electronic Product Manufacturing	334	95	10,281	92.4	79	20%
Electrical Equip, Appliance, Component Manuf	335	63	7,133	88.3	42	50%
Physician Offices	621	750	87,575	85.6	151	397%
Transportation Equipment Manufacturing	336	375	45,878	81.7	277	35%
Administrative and Support Services	561	602	76,150	79.1	220	174%
Hardware Stores	444	114	15,201	75.0	22	418%
Fabricated Metal Product Manufacturing	332	203	27,767	73.1	118	72%
Food Products	311	56	7,726	72.5	33	70%
Food and Beverage Stores	445	294	40,846	72.0	208	41%
Merchant Wholesalers, Nondurable Goods	424	130	19,964	65.1	94	38%
Misc. Retail Stores	453	46	7,460	61.7	25	84%
Electric Power Generation	221	30	5,068	59.2	22	36%
Accommodation	721	40	7,114	56.2	39	3%
Non-residential Construction	236	56	10,262	54.6	22	155%
Chemical Manufacturing	325	40	7,644	52.3	50	-20%
Telecommunications	517	31	6,281	49.4	28	11%
Plastics and Rubber Products Manufacturing	326	26	5,350	48.6	19	37%
General Purpose Machinery Manufacturing	333	62	12,861	48.2	26	138%
Merchant Wholesalers, Durable Goods	423	118	29,386	40.2	86	37%
General Merchandise Stores	452	90	26,477	34.0	87	3%
Clothing and clothing accessories	448	37	10,929	33.9	34	9%
Health and Personal Care Stores	446	37	11,439	32.3	16	131%
Motor Vehicle Dealers	441	53	19,425	27.3	41	29%
Transit and Ground Passenger Transport	485	28	11,040	25.4	31	-10%
Specialty Trade Contractors	238	100	39,652	25.2	86	16%
Residential Building Leasing	531	33	14,024	23.5	23	43%
Repair and maintenance	811	27	12,128	22.3	14	93%
Personal and Laundry Services	812	35	17,102	20.5	26	35%
Professional, Scientific, and Technical Services	541	168	92,785	18.1	78	115%
Financial investment	523	34	21,628	15.7	15	127%
Credit Intermediation and Related Activities (Banks)	522	34	21,899	15.5	18	89%
Social Assistance	624	94	60,560	15.5	39	141%
Insurance Carriers and Related Activities	524	62	55,918	11.1	124	-50%
Food Services and Drinking Places	722	96	90,464	10.6	75	28%

Note: Rates are cases per 10,000 employees.

Government had a high number of cases in all categories of illnesses. **Infectious diseases** were concentrated in Education/Health (58%) primarily due to the very high number of COVID-19 cases, followed by Government with 27% of cases. **Lung diseases** were concentrated in Government (48%), Manufacturing (16%) and Education/Health (13%). **Musculoskeletal disorders** (MSD) were spread across Manufacturing (24%), Trade (22%), Government (16%), and Education/Health (13%). **Skin disorders** were spread across Government (29%), Education/Health (24%), Manufacturing (16%) and Trade (12%). **“Other” illnesses**, including heart conditions and hypertension, stress, and hearing loss cases (see below) were most common in Government (32%), Trade (21%) Manufacturing (17%), and Education/Health (10).

Table D-5 shows those specific industry subsectors (3-digit NAICS code) that reported 25 or more cases of occupational illness in 2020, ordered by the highest *rate* of illness. Industries with the highest rates again largely reflect the incidence of COVID-19. Nursing and Residential Care Facilities had the highest rate of 349.3 per 10,000 workers, a startling 1,157% increase over 2019. This was followed by Hospitals (243.9), Local Government (164.2), Retailers (110.4), Couriers and Messengers (101.3), and Educational Services (100.7). Eleven (11) other sectors were above the state average of 71.4 cases per 10,000: State Government, Transportation Support, Computer and Electronic Product Manufacturing, Electrical Equip, Appliance, Component Manufacturing, Physician Offices, Transportation Equipment Manufacturing, Administrative and Support Services, Hardware Stores, Fabricated Metal Product Manufacturing, Food Products, and Food and Beverage Stores. Thirteen (13) additional subsectors were above last year’s (2019) average rate of 31.5, largely reflecting what are commonly referred to as “frontline workers” who largely could not work remotely during the pandemic.

### Illnesses by Town/Municipality

Occupational illnesses were coded by the town where the illness occurred (typically the town where the employer is located). Table D-6 (and Figure A-1 in the Summary section) show the rates of illness per 10,000 employees per town (based on total employment by town of employment, provided by the CT Dept. of Labor) for all towns and municipalities with at least 25 cases of occupational illness reported in 2020. The table is ordered by rates, with the highest rates first. Rates of illness varied widely by municipality; often high-rate towns appear to have large employers in high-rate industries (and for 2020, this includes large healthcare workplaces such as hospitals and nursing homes). The overall state average was 71.4 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.

**Table D-6: Illnesses by Town/Municipality, 25 or more cases, WCC, 2020**

Town	Employment	Cases	Rate per 10,000	Rank*
Woodbridge	3,498	85	243.0	1
East Lyme	4,672	95	203.3	2
East Hampton	1,886	36	190.9	3
Stafford	3,032	57	188.0	4
Stonington	6,501	102	156.9	5
Tolland	3,050	47	154.1	6
Meriden	20,478	311	151.9	7
Vernon	7,004	98	139.9	8
Chester	1,806	25	138.4	9

Waterbury	35,328	481	136.2	10
Somers	2,363	32	135.4	11
Guilford	6,903	87	126.0	12
Suffield	3,854	46	119.4	13
Torrington	13,663	161	117.8	14
Naugatuck	6,116	71	116.1	15
Trumbull	13,083	150	114.7	16
Bristol	20,424	233	114.1	17
Manchester	29,940	340	113.6	18
Hamden	18,280	206	112.7	19
Seymour	4,031	45	111.6	20
New Haven	81,784	911	111.4	21
New Canaan	5,926	64	108.0	22
Avon	7,404	77	104.0	23
Groton	26,995	279	103.4	24
Ridgefield	9,612	98	102.0	25
Killingly	8,243	83	100.7	26
Colchester	3,562	35	98.3	27
Cromwell	6,534	64	97.9	28
East Haven	5,837	56	95.9	29
Middletown	26,714	246	92.1	30
South Windsor	<b>13,013</b>	<b>119</b>	<b>91.4</b>	31
Oxford	3,335	29	87.0	32
Montville	8,899	77	86.5	33
Rocky Hill	14,856	124	83.5	34
Danbury	39,559	319	80.6	35
Hartford	103,903	829	79.8	36
Cheshire	15,392	121	78.6	37
Clinton	3,705	29	78.3	38
Madison	4,665	36	77.2	39
Westport	12,937	97	75.0	40
Old Saybrook	5,604	41	73.2	41
Southington	15,907	116	72.9	42
<b>Connecticut</b>	<b>1,545,731</b>	<b>11,041</b>	<b>71.4</b>	<b>Average</b>
Watertown	8,202	58	70.7	43
Wallingford	26,344	184	69.8	44
Berlin	10,811	75	69.4	45
Windsor Locks	12,498	86	68.8	46
Milford	24,070	162	67.3	47
Newington	15,869	105	66.2	48
Stratford	23,144	153	66.1	49
North Haven	23,342	154	66.0	50

Waterford	9,449	62	65.6	51
Norwich	15,314	99	64.6	52
Plainfield	4,241	27	63.7	53
Farmington	29,892	183	61.2	54
Windsor	26,244	160	61.0	55
New London	12,158	74	60.9	56
Bridgeport	38,290	227	59.3	57
West Hartford	26,548	153	57.6	58
Bloomfield	19,436	109	56.1	59
Glastonbury	15,247	84	55.1	60
Southbury	6,901	38	55.1	61
Shelton	24,227	130	53.7	62
Monroe	4,723	25	52.9	63
East Windsor	5,885	31	52.7	64
Mansfield	10,958	57	52.0	65
New Britain	23,030	119	51.7	66
Enfield	16,766	85	50.7	67
Brookfield	6,333	32	50.5	68
Greenwich	30,385	153	50.4	69
Orange	9,068	43	47.4	70
Wethersfield	9,139	42	46.0	71
Newtown	7,660	33	43.1	72
Plainville	8,623	37	42.9	73
Ledyard	6,504	26	40.0	74
Windham	9,222	35	38.0	75
Darien	7,299	27	37.0	76
Simsbury	7,266	26	35.8	77
New Milford	7,149	25	35.0	78
Norwalk	38,246	132	34.5	79
West Haven	13,694	47	34.3	80
Fairfield	22,170	68	30.7	81
East Hartford	30,309	82	27.1	82
Stamford	68,604	178	25.9	83
Branford	11,417	28	24.5	84

\*Lower rank indicates higher rates of illness (i.e. the town ranked first has the highest rate of illness). Ranks are based on the towns with at least 25 cases of illness reported for the year. Employment figures are based on the town of employment. The Connecticut rate is the average of all towns, not just those with 25 or more cases.

## Musculoskeletal Disorders (MSD)

“Musculoskeletal disorders” are conditions also known as cumulative trauma disorders or repetitive strain injuries. There were 2,861 cases of MSD reported to Workers’ Compensation in 2020, a 25% increase from 2019 (Table D-7). MSD accounted for 26% of the reported occupational diseases to Workers’ Compensation. MSD do not include cases for conditions determined to be injuries caused from sudden events (this is a different definition than that used by BLS/CTDOL for lost time MSD shown earlier in the report, which includes some acute injuries). Most cases for the lower back are not included (since the descriptions of back conditions are

typically insufficient to be able to distinguish between acute injuries and cumulative back injuries) unless they specifically noted that they were due to repetitive exposures.

Strains and sprains (which do not include acute strains or sprains such as those from single events/accidents) was the most common category of MSD, with 60% of reports (Table D-7). Carpal Tunnel Syndrome (CTS), which is a very debilitating pinching of the median nerve at the wrist, accounted for 13% of total MSD reports. Other nerve-related problems (with descriptions of numbness or tingling) accounted for an additional 5% of cases. Tendon-related problems including tendonitis and tenosynovitis, epicondylitis (“tennis elbow” or “golfer’s elbow”), trigger finger, and rotator cuff accounted for 3% of cases. A large number of cases did not have a specific description other than inflammation, swelling, pain or no specific description.

**Table D-7: Musculoskeletal Disorders (MSD) by Type, WCC, 2019-2020**

	2019	2020		
MSD Type	Cases	Cases	%	Change
Sprain/strain	1,640	1,719	60%	5%
Carpal Tunnel Syndrome	194	380	13%	96%
Inflammation	119	208	7%	75%
Numbness	92	132	5%	43%
Tendonitis/tenosynovitis	23	27	1%	17%
Trigger finger	14	25	1%	79%
Ganglion cyst	7	18	1%	157%
Rotator cuff	19	16	1%	-16%
Epicondylitis	16	13	0%	-19%
Arthritis/bursitis	3	6	0%	100%
Other/Unknown	164	317	11%	93%
<b>Total</b>	<b>2,291</b>	<b>2,861</b>	<b>100%</b>	<b>25%</b>

Approximately two-thirds (69%) of the cases of MSD were in the upper limbs of the body such as hands, arms, elbows, and shoulders (Table D-8). Another 13% were for the lower extremity (legs, knees and feet), and 12% for the neck, upper back, and torso (note that lower back cases were excluded from these figures unless they explicitly indicated they were due to cumulative exposures).

**Table D-8: Musculoskeletal Disorders by Part of Body, WCC, 2020**

Part of body	Cases	Percent
Lower Arm, Wrist, Hand	1,102	39%
Upper Arm, Shoulder, Upper Extremity	700	24%
Legs, Knees, and Feet	383	13%
Elbow	178	6%
Neck, Back, Torso	357	12%
Multiple	106	4%
Other/Unknown	35	1%
<b>Total</b>	<b>2,861</b>	<b>100%</b>

Causes of conditions were often incomplete, overlapping, and not consistently coded nor described. Approximately 85% of MSD cases had enough description to show some cause. Of the MSD that could be classified (Table D-9), the most frequently mentioned cause was the broad category of “repetitive” (39% of cases). This term is often used as a general description to describe any chronic musculoskeletal problem. Repetitive motion was followed by lifting and carrying (18%), tool use (including references specifically to pneumatic tools or vibration exposure; 9%), computing and clerical tasks (7%), and pushing or pulling (7%).

**Table D-9: Musculoskeletal Disorders (MSD) with Identified Cause, WCC, 2020**

<b>Cause of MSD</b>	<b>Reports</b>	<b>%</b>
Repetitive	963	39%
Lifting/carrying	446	18%
Tools/vibration	225	9%
Push/pull	167	7%
Computer/clerical	166	7%
Assembly	92	4%
Walking/running/moving	58	2%
Bending/kneeling/crawling	57	2%
Grasping/gripping/squeezing	44	2%
Driving	42	2%
Reaching	39	2%
Machine	35	1%
Twisting	31	1%
Climbing	27	1%
Cleaning/mopping/sweeping	26	1%
Sitting/standing	25	1%
Patient care	18	1%
Shoveling/raking	12	0%
Scanning/cashier	9	0%
<b>Sub-Total</b>	<b>2,482</b>	<b>100%</b>
Unknown/other	379	
<b>Total</b>	<b>2,861</b>	

## Infectious Diseases

There were 6,485 reports of infectious diseases or exposures in the “First Report of Injury” (FRI) database (the primary database used here) for 2020 (Table D-10) including 5,409 reports of COVID-19 illness and/or exposure, a 395% increase from the previous year. Infectious disease reports include both actual disease and exposure to infectious agents. In addition, there were 1,517 additional COVID-19 cases that were reported through a separate workers’ compensation database of worker reports through 30-C “Notice of Claim” and related reports). Cases were matched between the databases to exclude duplicate reports. Adding in the COVID-19 cases from both databases results in a total of 8,002 infectious disease reported to workers’ compensation in some way.



The 5,409 COVID-19 cases in the FRI database accounted for 83% of infectious disease reports (details of COVID-19 reports are given below). If COVID-19 reports are excluded, there were 1,1031 other infectious diseases reported, a decrease of 18% from 2019.

There were 917 reports of exposure to bloodborne pathogens (including reports of exposure to HIV/AIDS and Hepatitis C), accounting for 14% of all infectious disease reports and a 14% increase from the previous year. These included 491 needlestick injuries or cuts from sharps or surgical instruments that may have resulted in exposure to a patient's blood, 226 reports of exposures to human bites (cases were excluded if they specifically indicated the skin was not broken), and 200 reports of skin or eye exposure to blood or bodily fluids. There were additional reports of exposure to "spit" or "sputum" that are not reported here, since risks tend to be extremely low from such exposures. Diseases that can be contracted through blood and body fluid exposures include hepatitis B and C and HIV.

It is notable that sharps exposures increased by 56% and bite exposures decreased by 56%. This could possibly be indirectly related to the COVID-19 epidemic which greatly increased the burden on hospitals (particularly Emergency and Intensive Care units) which is where most needlesticks occur, in combination with reduced exposures of teachers and other caregivers to potential bites due to remote learning, distancing, masking, and shutdowns. The COVID-19 epidemic also very likely impacted other infectious diseases due to these same factors which would, for example, reduce exposures to other airborne infectious disease.

Human bites are considered to be relatively low risk exposures in terms of bloodborne disease transmission. Exposure to blood and fluids are somewhat higher risk (especially if the worker has open wounds or sores). Sharps (i.e. scalpels) and needlesticks are considered the highest risk (especially if they are deep cuts or injections). Incidents concerning prisoners or clients (including special needs students) accounted for the vast majority of human bites as well as some of the other bloodborne exposures. The data does not have consistent information on whether the source patient is known to be infected with a bloodborne illness such as HIV or hepatitis, so many of these reported incidents will have little or no actual risk of disease transmission. However, preventive efforts focus on universal precautions, so it is important to reduce these incidents regardless of whether patients/clients are known to be infected.

**Table D-10: Infectious Diseases and Exposures by Type, WCC, 2019-2020**

Illness	2019		2020		Change
	Cases	%	Cases	%	
COVID	0	0	5,409	83%	--
Bloodborne: Sharp and needlestick exposures	314	24%	491	8%	56%
Bloodborne: Human bite	529	40%	226	3%	-57%
Bloodborne: Blood/body fluids	220	17%	200	3%	-9%
TB/ppd conversion/exposure	75	6%	52	1%	-31%
Lyme Disease/Tick bite	70	5%	45	1%	-36%
Chicken pox, measles, whooping cough	34	3%	1	0%	-97%
Meningitis exposure	9	1%	1	0%	-89%
Rabies	9	1%	8	0%	-11%
Scabies/lice	7	1%	4	0%	-43%
MRSA/staph/strep	7	1%	2	0%	-71%
Other infectious	35	3%	46	1%	31%
<b>Total</b>	<b>1,309</b>	<b>100%</b>	<b>6,485</b>	<b>100%</b>	<b>395%</b>
COVID: Additional cases from 30C data			1,517		
<b>Total</b>			<b>8,002</b>		

There were 52 cases of tuberculosis (TB) infection (usually determined by PPD conversion, a skin test based on immune response to TB) or exposure to clients with TB; this was a large decrease of 31% from 2019. There were 45 reports of tick bites, rashes from tick bites and/or a diagnosis of Lyme disease attributed to occupational exposures, a 36% decrease. There was only one (1) case of chicken pox, measles or whooping cough (the previous year's numbers were high due to a cluster of 25 exposures to whooping cough (pertussis) at one hospital), 1 report of meningitis exposure or illness, 8 cases of exposure to rabies, 4 cases of scabies or lice exposures/illnesses, and 2 reports of exposure or cases of MRSA (Methicillin-resistant Staphylococcus aureus, or staph infection that responds poorly to antibiotics) or other staph or strep infections.

Court decisions have broadened the definition of compensable disease under Workers' Compensation to include exposures, particularly where exposure requires medical treatment such as prophylactic treatments for tuberculosis (TB) and AIDS (HIV) exposures. It is often difficult to determine whether the first report of injury was actual disease or only exposure (for example, actual Lyme disease or only a report of a tick bite).

## COVID-19

COVID-19 cases dominated all categories of illness in 2020, accounting for 83% of all infectious disease cases.

Pursuant to the Workers' Compensation Act, Governor Lamont's Executive Orders and case law, the Workers' Compensation Commission administered COVID-19 claims in the same manner as claims for other occupational illnesses. Executive Order 7JJJ (<https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Lamont-Executive-Orders/Executive-Order-No-7JJJ.pdf>) stated that "Whereas, health care professionals, grocery store clerks, first responders and other essential workers kept others safe and well throughout height of the COVID-19 pandemic, and it is essential to their health and the broader public health to ensure that they have a timely, straightforward opportunity to claim benefits they may be due through the workers compensation system". It established a "rebuttable presumption" that a claim was compensable in the situation where an employee missed a day or more of work between March 10, 2020 and May 20, 2020 due to a lab-confirmed diagnosis of COVID-19 provided that the employee worked outside the home and that the employer was defined as essential under other executive orders. While other "non-essential" workers who were exposed and/or contracted COVID-19 at work would be potentially eligible for workers' compensation, they would need to establish that the workplace was likely to have been the source of the infection. These legal definitions likely affected the statistics presented here.

In addition, the Connecticut Legislature passed the Essential Workers' COVID-19 Assistance Fund (<https://www.ctessentialworkerrelief.org>) which provided for lost wages, out-of-pocket medical expenses, and burial expenses for essential workers who lived in Connecticut, contracted COVID-19, became ill and were unable to work (or died) between March 10, 2020 and July 20, 2021. For the most part, essential workers were defined based on the categories established by the U.S. CDC for vaccination priority and related issues.

COVID-19 cases were analyzed for industry using the combined cases from both the FRI and 30C datasets. 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).

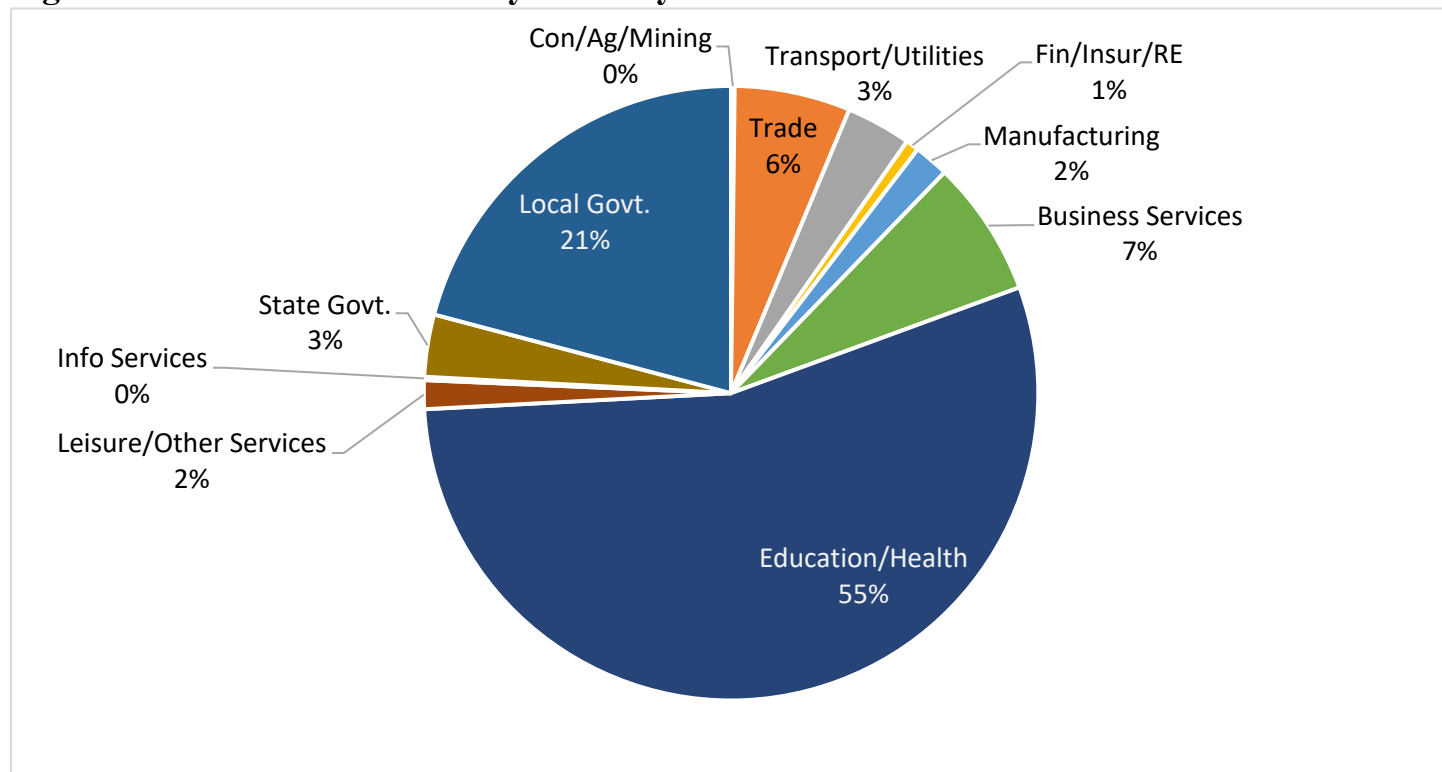
**Table D-11: COVID-19 Cases and Rates by Industry**

<b>Specific Industry Sector</b>	<b>NAICS</b>	<b>Cases</b>	<b>Employed</b>	<b>Rate</b>
Nursing and Residential Care Facilities	623	2,110	56,511	373.4
Hardware Stores	444	322	15,201	211.8
Hospitals	622	940	58,914	159.6
Couriers and Messengers	492	188	11,841	158.8
Local Government		1,423	132,678	107.3
Museums, historical sites, zoos, and parks	712	18	2,262	79.6
Physician Offices	621	616	87,575	70.3
Administrative and Support Services	561	413	76,150	54.2
Transportation Support	488	17	3,311	51.3
State Government		223	61,098	36.5
Beverage and Tobacco Product Manufacturing	312	6	2,329	25.8
Misc. Retail Stores	453	16	7,460	21.4
Computer and Electronic Product Manufacturing	334	22	10,281	21.4
Electrical Equip, Appliance, Component Manuf	335	12	7,133	16.8
Plastics and Rubber Products Manufacturing	326	9	5,350	16.8
Residential Building Leasing	531	23	14,024	16.4
Transit and Ground Passenger Transport	485	18	11,040	16.3
Accommodation	721	11	7,114	15.5
Telecommunications	517	8	6,281	12.7
Personal and Laundry Services	812	18	17,102	10.5
Fabricated Metal Product Manufacturing	332	27	27,767	9.7
Clothing and clothing accessories	448	10	10,929	9.1
Non-store Retailers	454	7	7,968	8.8
Transportation Equipment Manufacturing	336	36	45,878	7.8
Professional, Scientific, and Technical Services	541	72	92,785	7.8
Social Assistance	624	46	60,560	7.6
Health and Personal Care Stores	446	7	11,439	6.1
Merchant Wholesalers, Nondurable Goods	424	12	19,964	6.0
Repair and maintenance	811	7	12,128	5.8
General Purpose Machinery Manufacturing	333	6	12,861	4.7
Food and Beverage Stores	445	19	40,846	4.7
Food Services and Drinking Places	722	42	90,464	4.6
Membership associations and organizations	813	6	14,125	4.2
Motor Vehicle Dealers	441	7	19,425	3.6
Credit Intermediation and Related (Banks)	522	7	21,899	3.2
Educational Services	611	17	56,280	3.0
Insurance Carriers and Related Activities	524	13	55,918	2.3
Merchant Wholesalers, Durable Goods	423	6	29,386	2.0
Specialty Trade Contractors	238	8	39,652	2.0

Sources: Workers' Compensation First Report of Injury (FRI) combined with other workers compensation notifications including employee-filed Notice of Claims (30c); Education and health cases were coded under local and state government if workers worked in the public sector (such as public schools or hospitals).

Reported cases from hardware store were almost all (98%) from one large chain, so there are likely more cases that were not reported by other stores; this was also true for Couriers and Messengers, where one parcel delivery company accounted for 98% of reported cases. Nursing home chains were also relatively concentrated, with the highest 3 systems accounting for over 1/3 of cases and the highest 10 chains accounting for half. Approximately half (46%) of Local Government cases were from 10 specific municipalities.

**Figure D-3: COVID-19 Cases by Industry**



## Respiratory Illness and Poisonings

There were 220 cases of respiratory illnesses (mostly nonspecific respiratory illness from relatively acute chemical or biological exposures) for 2020 (Table D-12), a 6% decrease from 2019. There were 20 cases of poisonings from carbon monoxide, other gases, mercury, or lead, a 26% decrease from the previous year. *Chronic* lung disease such as asbestos-related illnesses, asthma, and lung cancer are addressed in the following section.

Chemical exposures were the most common cause of respiratory illness (41% of cases) followed by smoke or fire (22%), dust or fumes (20%), and general indoor air quality (IAQ) or mold (5%). There were 13 cases of poisoning from exposure to carbon monoxide or other gases and fumes, 1 report of lead poisoning (see the physician report section of this report for lab-based reports of lead poisoning) and 6 other poisonings or exposure in 2020.

There was a large-scale exposure to smoke and fumes from a plane crash and fire at an airport that involved at least 10 workers. In addition to the more general categories of smoke, construction dust and mold, specific substances connected to the respiratory cases included cleaning chemicals or bleach (18 cases), roof repair (6 cases), pepper spray (3 cases), plastic fumes (2 cases), ozone, coating resin, e-mist, air sanitizer, Rapicide, markers, peppermint concentrate, perfume, bug bombs, muriatic acid, aviation fuel, and metracide.

**Table D-12: Respiratory Conditions and Poisonings by Cause, WCC, 2019-2020**

<b>Cause</b>	<b>2019</b>		<b>2020</b>		
<b>Respiratory</b>	<b>Cases</b>	<b>%</b>	<b>Cases</b>	<b>%</b>	<b>Change</b>
Chemical Exposure	62	26%	90	41%	45%
Smoke, Fire	102	44%	49	22%	-52%
Dust/fumes	24	10%	43	20%	79%
IAQ/mold/odor	22	9%	12	5%	-45%
Other Respiratory	24	10%	26	12%	8%
<b>Respiratory subtotal</b>	<b>234</b>	<b>100%</b>	<b>220</b>	<b>100%</b>	<b>-6%</b>
<b>Poisoning</b>	<b>Cases</b>	<b>%</b>	<b>Cases</b>	<b>%</b>	<b>Change</b>
Carbon monoxide/gas	16	59%	13	65%	-19%
Lead	7	26%	1	5%	-86%
Other Poisoning	4	15%	6	30%	50%
<b>Poisoning Subtotal</b>	<b>27</b>	<b>100%</b>	<b>20</b>	<b>100%</b>	<b>-26%</b>
<b>Total Respiratory and Poisoning</b>	<b>261</b>	<b>100%</b>	<b>240</b>	<b>100%</b>	<b>-8%</b>

### Chronic Lung Conditions

There were 174 cases of chronic lung conditions in 2020, a 7% decrease from the previous year (Table D-13). These included asbestos-related diseases and exposures (43 cases) occupational asthma or bronchitis (31 cases), and other chronic lung diseases. Acute respiratory illnesses are classified under respiratory conditions and poisonings (above).

### Asbestos

There were 43 reports of asbestos-related disease or exposures in 2020, a 20% decrease from the prior year. The descriptions of the cases often make it difficult to determine whether the cases are actual disease or exposure to asbestos; the notations may be either describing historic exposures that contributed to current disease, or current exposures that raise the risk of future disease. Cancers, including those caused by asbestos, are noted below (under “other illnesses”). Asbestos exposure is known to increase the risk of lung disease and cancer. If disease occurs as a result, it often appears between 10-40 years after exposure. Diseases caused by asbestos exposure are known to be under-reported by traditional surveillance sources such as Workers’ Compensation.

### Other Chronic Lung Conditions

There were 31 occupational asthma cases reported in 2020, 5 lung-related allergies, and 95 other chronic lung conditions.

**Table D-13: Chronic Lung Diseases by Type, WCC, 2019-2020**

<b>Illness</b>	<b>2019</b>	<b>2020</b>	<b>Change</b>
Asbestos-related	54	43	-20%
Asthma/bronchitis	28	31	11%
Allergies	21	5	-76%
Other chronic lung	84	95	13%
<b>Total</b>	<b>187</b>	<b>174</b>	<b>-7%</b>

## Skin Conditions

There were 230 skin conditions in the database in 2020 (Table D-14), an increase of 17% over the previous year. These included 31 cases of contact dermatitis from poison ivy or other plants (13% of all skin cases), down 59% from the previous year. There were 38 cases of skin conditions caused by chemicals, as well as 24 additional cases attributed specifically to cleaning chemicals. There were 12 cases caused by allergic reactions to clothing, gloves, or latex, and 2 other allergic skin conditions. There were 123 cases of poorly defined skin conditions, frequently just described as rashes.

In addition to cleaning chemicals, bleach and latex, specific substances associated with skin conditions included oil/coolant (2 cases), malathion (2 cases), alcohol, sodium hydroxide, “stucko” powder, Clean 3000, battery acid, phenol, formalin, and Ecolab lotion.

**Table D-14: Skin Diseases by Cause, WCC, 2019-2020**

Category	2019	2020	%	Change
Poison Ivy/plants	76	31	13%	-59%
Chemical	24	38	17%	58%
Soap/Cleaning	21	24	10%	14%
Other Allergic	11	2	1%	-82%
Gloves/Latex/clothing	13	12	5%	-8%
Rash/Other/Unknown	52	123	53%	137%
<b>Total</b>	<b>197</b>	<b>230</b>	<b>100%</b>	<b>17%</b>

## Stress and Heart Conditions

### Heart and Hypertension

There were 280 cases involving heart conditions, stroke, chest pain, hypertension, or stress in the database for 2020 (Table D-15), approximately the same as the previous year. Reports noted 125 cases of heart attacks, myocardial infarctions or acute heart events and 21 reported strokes or blood clots, often associated with emergency care at a hospital. There were 32 cases that described the condition as hypertension or “heart and hypertension” (the usual legal term for heart or hypertension cases that are covered under workers’ compensation for police and fire fighters).

Over half of the heart cases (61% cases) appeared to involve police or firefighters or other municipal and state employees who are frequently covered under heart and hypertension laws that presume those conditions to be work-related for Workers’ Compensation purposes.

**Table D-15: Heart, Hypertension and Stress Conditions by Type, WCC, 2019-2020**

Category	2019	2020	%	Change
Heart attack/severe symptoms	158	125	45%	-21%
Hypertension	16	32	11%	100%
Stroke/clots	15	21	8%	40%
Stress/anxiety/depression	88	102	36%	16%
<b>Total</b>	<b>277</b>	<b>280</b>	<b>100%</b>	<b>1%</b>

## Mental Stress

There was a total of 102 stress-related claims in the database in 2020, a 13% decrease over the previous year. Over half (35 cases, or 59%) of the cases where cause was noted referred to violence or post-traumatic stress disorders after violence or auto accidents (Table D-16), 8 cited either harassment or a hostile work environment, 4 were related to COVID-19 exposures, and 11 noted conflicts with supervisors, co-workers, or customers.

**Table D-16: Stress Conditions by Cause, WCC, 2019-2020**

Sources of Stress Conditions	2019	2020	%
Violence/robbery/trauma/auto accident	19	35	34%
Supervisor/co-worker/customer	3	11	11%
Harassment/hostile work environment	7	8	8%
COVID		4	4%
Excessive work demands	1	1	1%
Unknown/other	58	43	42%
<b>Total</b>	<b>117</b>	<b>102</b>	<b>100%</b>

Stress-related claims that are not also associated with a physical injury are typically not compensable under the Workers' Compensation statute, so it is likely that there are additional unreported (non-compensable) cases. It should be noted that this report is based on First Reports of Injury for compensation, and the number of cases that were ultimately awarded compensation was not determined.

## Other Occupational Diseases

### Hearing Loss

There were 144 reports of hearing loss in 2020 (Table D-17), a 27% increase from the previous year. Of these cases, 35 appeared to be caused by acute (single incident) noises or injuries such as alarms, horns or sirens (12 cases), explosions or high air pressure (6 cases), gunshots (4), machine noise, or loud voices/megaphones. Other reports were from chronic noise exposure. Of all the hearing loss cases, most were from manufacturing (65% cases), in particular transportation equipment manufacturing (81 cases), as well as schools/police/firefighting/government (28 cases).

### Other Disease Conditions

**Table D-17: Other Occupational Illnesses, WCC, 2019-2020**

Type of illness	2019	2020	%	Change
Dizziness/fainting/seizure	178	189	25%	6%
Hearing loss	113	144	19%	27%
Chemicals in eye	157	136	18%	-13%
Cold/heat related conditions	76	81	11%	7%
Cancer	7	68	9%	871%
Allergic	67	39	5%	-42%
Other conditions	139	114	15%	-18%
<b>Total</b>	<b>737</b>	<b>771</b>	<b>100%</b>	<b>5%</b>

There were 189 reports of workers becoming dizzy, fainting, or seizures, a 6% increase. Some of these are likely from pre-existing conditions that occurred while at work (such as epilepsy or diabetes) and some of these were accompanied by an injury from a fall. Some may reflect more serious conditions such as heart attacks but are just described based on initial symptoms.

There were 136 reports of chemical exposures to the eyes (this does not include other physical acute eye injuries such as particles or dust), a 13% decrease.

There were 81 reports of temperature-related problems from heat or cold, a 7% increase from the previous year.

There were 68 cases of cancer reported, which included asbestos-related cancers. This increase is mainly due to a change in method of retrieving cases which involved reviewing cases that were filed in 2020 but with much earlier dates of injury, which found cases such as from asbestos exposures that occurred many years ago.

There were 39 cases of allergic reactions reported in addition to those noted above under respiratory and skin conditions, a 42% decrease from the previous year.

There were 114 “other” conditions that were difficult to classify, usually due to incomplete information.



## E. Occupational Illnesses and Injury Surveillance System (OIISS)

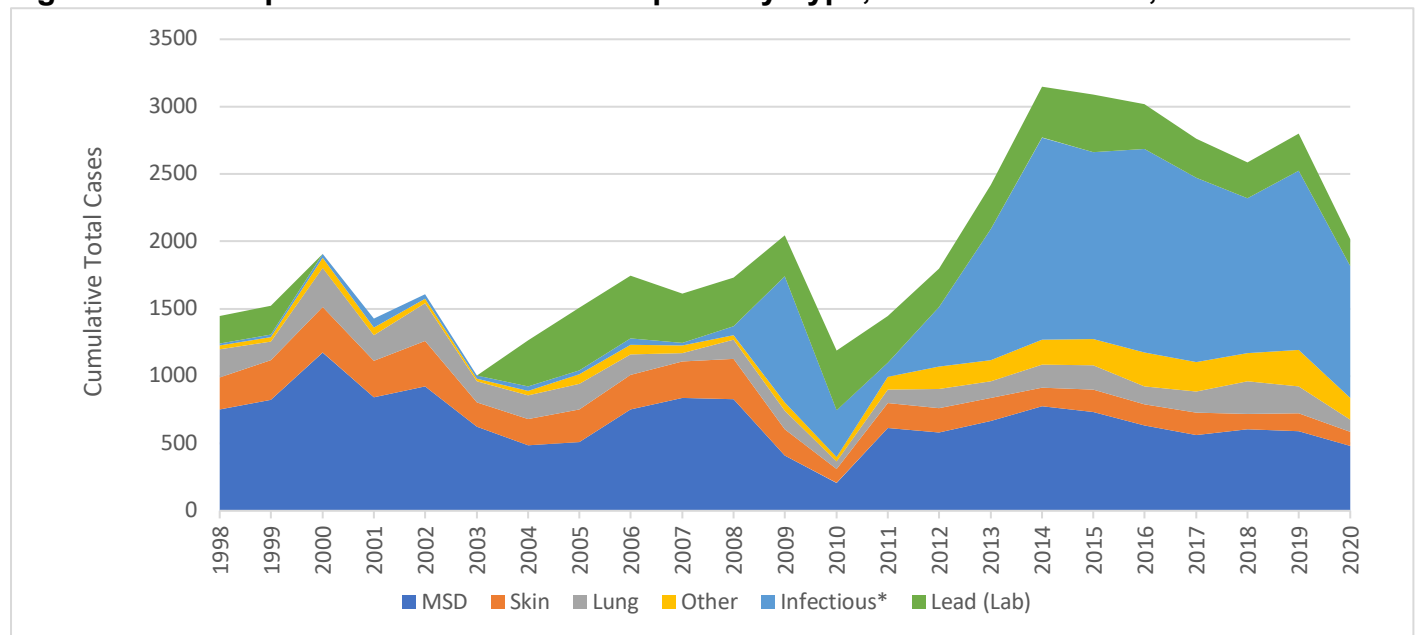
Physicians are required to report known and suspected occupational disease to the Occupational Illnesses and Injury Surveillance System (OIISS) that is maintained by the Department of Public Health. Although all physicians are required to report, most reports are from Connecticut's occupational health clinics and industrial medicine programs. Information on blood lead level laboratory reports is received from the Connecticut Adult Blood Lead Epidemiology and Surveillance (ABLES) program. Data for lead and infectious diseases were incomplete for certain years prior to 2012 (as noted in the table and figure below), so comparisons for total disease with earlier years should be made cautiously. **Most COVID-19 cases were not reported through occupational health clinics since there were separate diagnostic and reporting mechanisms (such as Emergency Departments and testing locations) which do not appear in this database.**

**Table E-1: Occupational Disease Case Reports by Type, OIISS and ABLES, 2011-2020**

Category	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% change 2019-20
MSD	616	580	666	774	734	633	562	603	590	480	-19%
Skin	183	180	174	140	166	158	168	118	134	104	-22%
Lung	101	146	120	171	178	133	155	241	198	92	-54%
Other	96	164	159	184	195	250	220	210	274	161	-41%
Infectious*	103	443	973	1500	1,390	1,513	1,365	1,148	1,329	979	-26%
<b>Sub-total</b>	<b>1,099</b>	<b>1,513</b>	<b>2,092</b>	<b>2,769</b>	<b>2,663</b>	<b>2,687</b>	<b>2,470</b>	<b>2,320</b>	<b>2,525</b>	<b>1,816</b>	<b>-28%</b>
Lead (Lab)	345	283	327	379	425	330	292	268	275	199	-28%
<b>Total</b>	<b>1,444</b>	<b>1,796</b>	<b>2,419</b>	<b>3,148</b>	<b>3,088</b>	<b>3,017</b>	<b>2,762</b>	<b>2,588</b>	<b>2,800</b>	<b>2,015</b>	<b>-28%</b>

\*Infectious did not include most bloodborne pathogen exposures in 2011

**Figure E-1: Occupational Disease Case Reports by Type, OIISS and ABLES, 1998-2020**



\*Infectious category did not include most bloodborne pathogen exposures up to 2008, and again in 2011.

\*Infectious category did not include most COVID-19 cases in 2020

\*\* Lead values for 1998-99 did not include cases in the blood lead level range of 10-19 micrograms per deciliter (ug/dL).

In general, 2020 was a very different year for occupational illnesses due to the COVID-19 epidemic, which resulted in dramatically different workplace patterns including widespread workplace closures, working from home where possible, mask wearing, social distancing, and disruptions to the supply chain. Therefore, comparisons to prior years must be viewed with these patterns in mind and the potential for dramatically different exposures to workplace hazards (for example, skin and musculoskeletal problems from reduced work and telework and other infectious diseases from mask wearing and social distancing).

There were 1,816 occupational illness reports received from physicians for 2020 (Table E-1). Physician reports decreased 28% in 2020 compared to the prior year. Infectious disease (such as bloodborne diseases and exposures) was the largest category of reports, accounting for 54% of the reports (and mostly not including the very large number of COVID-19 cases), followed by musculoskeletal conditions (MSD) such as tendonitis and carpal tunnel syndrome (26%). Skin disorders (including poison ivy and chemicals as causes) accounted for 6% and lung conditions (including respiratory conditions, asthma, and other lung diseases) comprised 5% of the physician reports. “Other” conditions (including heart disease, stress, and noise-induced hearing loss) accounted for 9%. There were 199 laboratory-reported adult blood lead levels of 10 micrograms per deciliter (ug/dl) or greater (a 28% decrease from the prior year), giving a total of 2,015 occupational illnesses reported by physicians or laboratories in 2020.

In 2020, 78 physicians from 17 clinics/clinic networks reported at least one case of occupational illness to the OIIS. Eleven of the physicians reported 50 or more cases, accounting for 52% of the reports. Seven clinics reported 100 or more cases and contributed 78% of the cases.

Many workers with occupationally-related illness seek care from their primary care providers. Although it is a state law that known and suspected occupational diseases diagnosed by any physician in the state must be reported to CT Departments of Labor and Public Health (CGS § 31-40a), in practice the majority of reporters are from the academic occupational health clinics and auxiliary occupational health clinics that are funded under the state occupational disease surveillance network. Therefore, these reports should be viewed as a small portion of physician-diagnosed occupational diseases in Connecticut.

Where certainty was reported, 83% of the cases were classed as “high certainty” for being an occupationally-related disease, 7% were “moderate certainty,” and 9% “low certainty”. There was a fairly low amount of reporting on whether exposure was continuing or if others are likely to be exposed, but 15% of those reported that the exposure that caused the illness was continuing, and 9% reported other workers were likely to be exposed to the same hazard.

Of the reports where race or ethnicity were known, 17% were identified as black and 18% were identified as Hispanic.

**Figure E-2: Occupational Disease by Age, OIISS, 2020**

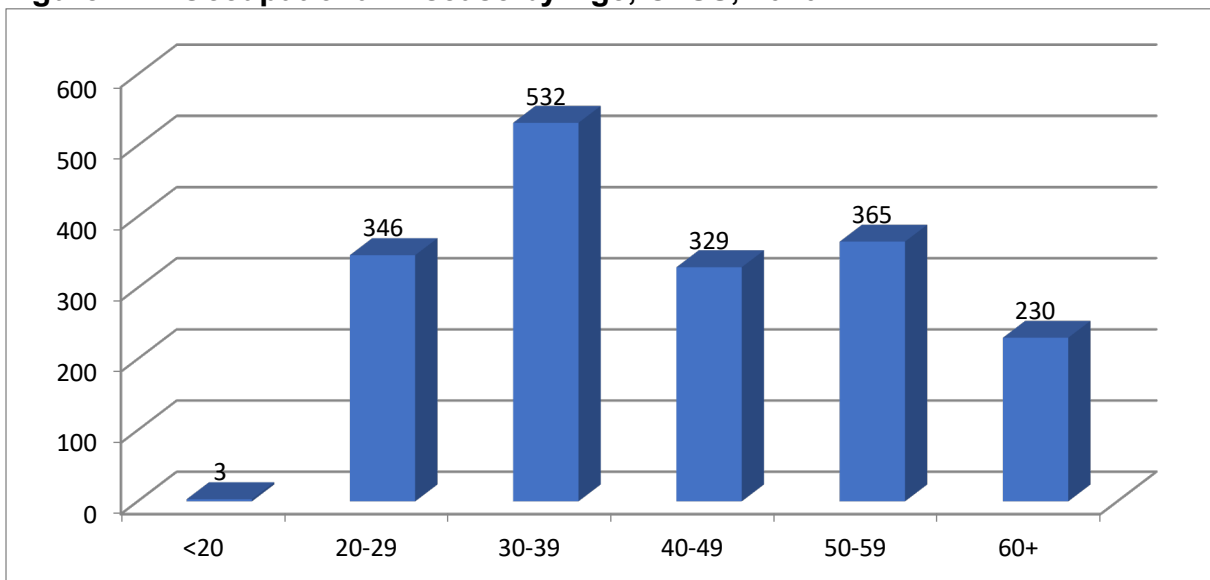
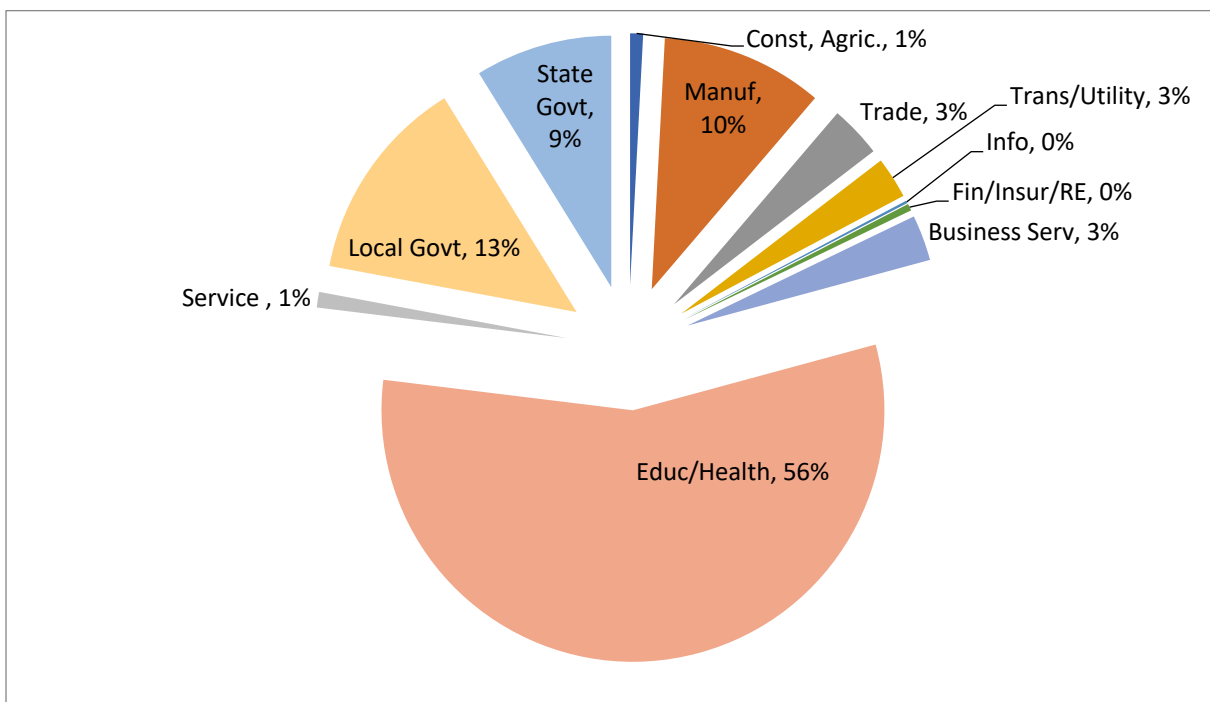


Figure E-2 shows the age distribution of reported cases (where data was available). The most common age was for workers in their 30's with 29% of cases, followed by 50's (20%), 20's (19%), and 40's (18%).

The Education and Health sector had the most cases (56%), followed by Local Government (13%), Manufacturing (10%), and State Government (9%); see Figure E-3 and Table E-2. It should be noted that the Education and Health sector workplaces that were also government workers (such as public schools or hospitals) were counted as government.

**Figure E-3: Occupational Disease by Industry Sector, OIISS, 2020**



**Table E-2: Type of Illness by Industry Sector (NAICS\*), OIISS, 2020**

Industry	All		Infectious		Lung		MSD		Other		Skin	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Construction/ Agriculture	15	1%	1	0%	3	3%	7	1%	1	1%	3	3%
Manufacturing	188	10%	7	1%	5	5%	138	29%	25	16%	13	13%
Trade	60	3%	6	1%	4	4%	41	9%	7	4%	2	2%
Transport/Utilities	48	3%	2	0%	7	8%	28	6%	6	4%	5	5%
Information Services	3	0%	0	0%	0	0%	3	1%	0	0%	0	0%
Finance/Insur/Real Estate	8	0%	1	0%	0	0%	5	1%	1	1%	1	1%
Business Service	53	3%	15	2%	1	1%	26	5%	8	5%	3	3%
Education/Health	1,013	56%	774	79%	18	20%	126	26%	55	34%	40	38%
Other Services	18	1%	4	0%	3	3%	6	1%	5	3%	0	0%
Local Govt	239	13%	89	9%	31	34%	58	12%	38	24%	23	22%
State Govt	159	9%	75	8%	19	21%	38	8%	13	8%	14	13%
Unknown	12	1%	5	1%	1	1%	4	1%	2	1%	0	0%
<b>Total</b>	<b>1,816</b>	<b>100%</b>	<b>979</b>	<b>100%</b>	<b>92</b>	<b>100%</b>	<b>480</b>	<b>100%</b>	<b>161</b>	<b>100%</b>	<b>104</b>	<b>100%</b>

\* North American Industry Classification System. OIISS is the CT Occupational Illness and Injury Surveillance System.

Industry distribution was somewhat different by condition (Table E-2), although Education and Health was prominent in all the categories of illness. **Infectious** disease was highly concentrated in Education and Health (79%), with Local Government contributing another 9% and State Government 8%. **MSD** (musculoskeletal disorders) were primarily from Manufacturing (29%), Education and Health (26%), and Local Government (12%). **Dermatitis** (skin disorders) was primarily from Education and Health (38%), Local Government (22%), State Government (13%), and Manufacturing (13%). **Respiratory** cases (“Lung”) were primarily from Local Government (34%), State Government (21%), and Education and Health (20%). **“Other”** illnesses were from Education and Health (34%), Local Government (24%) and Manufacturing (16%).

## Musculoskeletal Disorders (MSD)

There was a total of 480 reports of musculoskeletal disorders (MSD) in 2020, a decrease of 19% from the previous year (Table E-3). This table does not include MSD caused by acute incidents such as falls or individual lifts and also excludes all lower back diagnoses unless specifically defined as caused by cumulative strain. The most common specific diagnoses for musculoskeletal disorders were strains and sprains (24%), epicondylitis (tennis elbow) with 16% of the cases, carpal tunnel syndrome (10%), and nerve disorders/numbness (8%).

Musculoskeletal disorders (also referred to as cumulative trauma disorders or repetitive strain injuries) include tendon-related conditions, nerve problems, circulatory, as well as combined conditions.

### *Tendon Disorders*

- Tendonitis: swelling of the tendons
- Epicondylitis: tendon irritation in the elbow area, including “golfer’s elbow” and “tennis elbow”
- Rotator Cuff Syndrome: tendonitis in the shoulder area
- Tenosynovitis: inflammation of the tendon sheaths, lubricated covers that surround the tendons, particularly in the hand
- deQuervain’s Syndrome: tendon sheath disorder of side of wrist and base of thumb
- Trigger Finger: a bump on the tendon that catches on the tendon sheath that makes the finger or thumb difficult to move
- Ganglion Cysts: swelling of the tendon sheaths from excess lubricating fluid
- Bursitis: inflammation of the fluid-filled sacs around ligaments and tendons

**Table E-3: Musculoskeletal Disorders (MSD) by Type, OIISS, 2019-2020**

Illness	2019	2020	Percent	Change
Strain/Sprain	105	114	24%	9%
Other MSD	136	84	18%	-38%
Epicondylitis	58	75	16%	29%
Carpal Tunnel Syndrome (CTS)	74	46	10%	-38%
Other Neuropathy & Radiculopathy (nerve disorder)	48	36	8%	-25%
Tendonitis	55	25	5%	-55%
Bursitis/Arthritis	28	25	5%	-11%
Trigger Finger	23	23	5%	0%
DeQuervains syndrome	33	19	4%	-42%
Tenosynovitis	11	14	3%	27%
Rotator Cuff	5	13	3%	160%
Ganglion	8	4	1%	-50%
Plantar fasciitis	6	2	0%	-67%
<b>Total</b>	<b>590</b>	<b>480</b>	<b>100%</b>	<b>-19%</b>

***Nerve Disorders***

- Carpal Tunnel Syndrome: pinching of the median nerve in the wrist, usually by swollen tendons that pass through the carpal tunnel (median and ulnar nerves can also be pinched in the elbow, shoulder, or neck)

***Circulatory/Combined/Other***

- Thoracic Outlet Syndrome: pinching of the nerves and blood vessels in the neck/ shoulder area

**Table E-4: Common causes of MSD, OIISS, 2020**

Cause	Cases
Repetitive	80
Lifting	54
Computer/clerical	31
Tools, Machines & Vibration	21
Push/pull	21
Gripping/grasping/reaching	14
Bending/twisting	7
Assembly	5
Patient-related	5
Standing/walking/climbing	4
Driving	2
Other	2
<b>Sub-Total</b>	<b>246</b>
<b>Unknown</b>	<b>234</b>
<b>Total</b>	<b>480</b>

The most common specific causes noted for MSD (Table E-4) were lifting (54 cases), computer use and data entry (31), tool use (21 cases), pushing or pulling (21), and gripping or grasping (14). Eighty (80) additional cases were attributed to the general description of “repetitive”.

## Skin Conditions

There were 104 reports of skin disorders in 2020 (Table E-5), a 22% decrease from the previous year. The largest single cause was poison ivy or other plant exposures (22% of all cases); other conditions included contact dermatitis (39%) and allergic dermatitis (18%). Specific causes of dermatitis or other skin conditions included cleaning chemicals, oil or coolants, and other chemicals.

**Table E-5: Skin Conditions by Type, OIIS, 2019-2020**

Illness	2019	2020	Percent	Change
Poison ivy & other plants	28	23	22%	-18%
Allergic	2	19	18%	850%
Dermatitis	58	41	39%	-29%
Other skin conditions	46	21	20%	-54%
<b>Total</b>	<b>134</b>	<b>104</b>	<b>100%</b>	<b>-22%</b>

## Lung/Respiratory Diseases and Poisonings

There were 92 cases of respiratory and other lung diseases and poisonings reported by physicians in 2020 (Table E-6), a decrease of 54% from the previous year. Nonspecific respiratory illnesses were the most common type of condition, with 33% of reports, followed by cough or dyspnea (18%), and asthma or reactive airways dysfunction syndrome (RADS) with 13%. There were only 2 reports of asbestos disease or exposures, (cancers caused by asbestos categorized under “other diseases”; below).

Causes of lung conditions included chemicals (25 cases) and mold or indoor air quality (20 cases), dust (3 cases) fumes or carbon monoxide and smoke.

**Table E-6: Respiratory Diseases and Poisoning by Type, OIIS, 2019-2020**

Illness	2019	2020	Percent	Change
Respiratory	80	30	33%	-63%
Cough/dyspnea	17	17	18%	0%
Asthma/RADS	20	12	13%	-40%
Rhinitis/sinusitis	16	8	9%	-50%
Allergic	4	8	9%	100%
Poisoning	5	5	5%	0%
Asbestos exposure/disease/interstitial	15	2	2%	-87%
Bronchitis	1	0	0%	-100%
Other Lung	40	10	11%	-75%
<b>Total</b>	<b>198</b>	<b>92</b>	<b>100%</b>	<b>-54%</b>

## Lead Poisoning (Laboratory Reports)

Connecticut requires laboratories to report all blood lead tests of 10 micrograms per deciliter (ug/dL) of whole blood or greater to the Connecticut Department of Public Health (CGS § 19a-110). These cases are classified into childhood (less than 16 years of age) and adult cases (only adult cases are reported here), with the majority of adult cases being attributed to an individual’s occupation (although some cases occur in individuals engaged

in activities such as home paint removal or target shooting). Up to a third or more of cases in recent years are related to the use of indoor shooting ranges. The numbers are based on the highest level measured for each individual during the calendar year; they do not include multiple tests on the same individual. OSHA medical removal protections apply at the level of 50 ug/dl of whole blood or above (and require a reduction to 40 ug/dl before return to work). Lead can have neurological, reproductive and other negative effects on health at much lower levels of exposure.

The 199 lead poisoning reports in 2020 decreased 28% from the previous year. The lowest category (10-24 ug/dl) of recorded elevated lead levels accounted for 79% of all cases (Table E-7) and decreased by 34%. Almost all of the reported lead poisoning cases (91% of cases) occurred in men; there were only 17 reports for women. Thirty-five percent (35%) were under 40 years old, 38% were between 40 and 59, and 27% were age 60 or older.

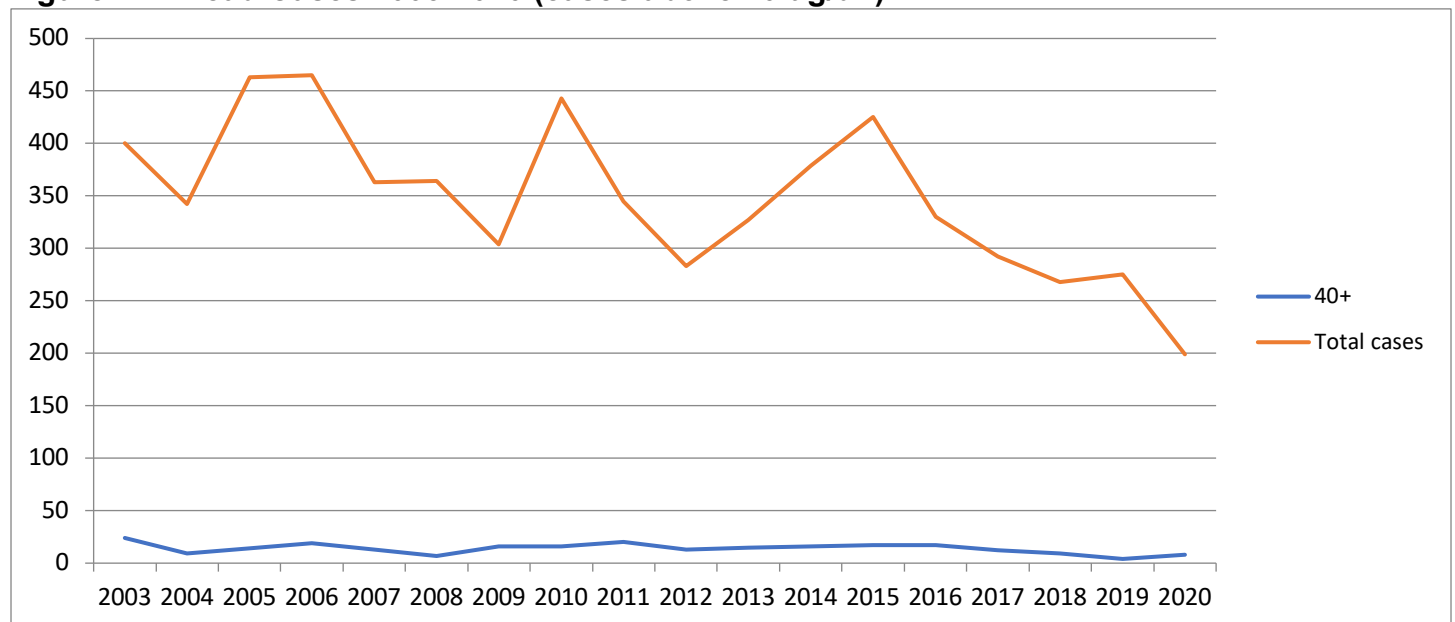
**Table E-2: Lead Cases by Level of Blood Lead, CT ABLES, 2019-2020**

Blood lead level*	2019	2020	Percent	Change
10-24	239	157	79%	-34%
25-39	32	34	17%	6%
40-49	1	3	2%	200%
50-59	1	4	2%	300%
>=60	2	1	1%	-50%
<b>Total</b>	<b>275</b>	<b>199</b>	<b>100%</b>	<b>-28%</b>

**Source:** Connecticut Adult Blood Lead Epidemiology and Surveillance (ABLES program), CT Dept. of Public Health

\* Micrograms per deciliter (ug/dl) of whole blood. Number of individuals with elevated lead levels (multiple tests for individuals were eliminated.)

**Figure E-1: Lead Cases 2003-2020 (cases above 10 ug/dL)**



Lead cases in Connecticut have fluctuated since 2003, from 400 in 2003 to 199 in 2020, with a high of 465 cases in 2006 and a low of 199 cases in 2020. Cases at or above the OSHA level of 40 ug/dl stayed relatively constant at 15 to 20 cases since 2004 (Figure E-5), but have dropped since 2016 to a low of 4 in 2019 (8 in 2020). Fluctuations of reporting in the past have been observed due to lead screening programs and special bridge maintenance projects involving the removal of lead paint.

NIOSH (The National Institute of Occupational Safety and Health) has lead level data for 19 states for 2020 (NIOSH Elevated Blood Levels Charts at <https://wwwn.cdc.gov/NIOSH-WHC/chart/ables-ab/exposure?OU=L03&T=ZS&V=C> ). Connecticut is the 6<sup>th</sup> highest among those states for the rate of lead levels above 10 ug/dl, with a rate of 1.15 per 10,000 employed adults (compared to the mean of 0.92 for the states as a whole). Connecticut was 3rd highest for rates of lead levels equal or above 25 ug/dl, with a rate of 0.23 compared to the overall mean of 0.15.

## Infectious and Other Diseases

Although most COVID-19 cases are not contained in this database since cases were primarily directed to other resources (i.e. Emergency Departments or testing sites), there were 26 cases that were reported by occupational health clinics. Overall, reported infectious diseases decreased 26% to 979 cases in 2020. Bloodborne pathogen exposures (to needlesticks, blood, body fluids or human bites) or diseases (such as HIV or Hepatitis) were the most common infectious diseases reported, with 863 reports in 2020, a 23% decrease from 2019. Bloodborne exposures are of most concern when there is a needlestick or other sharp injury, particularly if there is an injection of blood into the caregiver's body. These reports do not generally specify whether the source patient/client was infected with a bloodborne illness such as HIV or Hepatitis B or C. Other infectious disease reports such as TB and meningitis also may reflect exposures rather than actual illness.

**Table E-8: Infectious and Other Illnesses, 2019-2020**

<b>Illness</b>	<b>2019</b>	<b>2020</b>	<b>% Change</b>
Bloodborne	1,126	863	-23%
TB/PPD	139	56	-60%
Rabies	5	9	80%
Lyme/tick bite	20	7	-65%
COVID-19	0	26	
Meningitis	1	4	300%
Measles/chickenpox	10	1	-90%
Scabies	14	0	-100%
Other infectious	14	13	-7%
<b>Subtotal: Infectious</b>	<b>1,329</b>	<b>979</b>	<b>-26%</b>
<b>Other Illnesses</b>	<b>2019</b>	<b>2020</b>	<b>% Change</b>
Chemicals in eyes	65	48	-26%
Hearing loss	20	15	-25%
Stress/heart/stroke	26	13	-50%
Heat/cold	11	13	18%
Headache/dizzy	28	12	-57%
Allergic	9	7	-22%
Cancer	6	1	-83%
Other	109	52	-52%
<b>Total Other Illnesses</b>	<b>274</b>	<b>161</b>	<b>-41%</b>
<b>Total</b>	<b>1,603</b>	<b>1,140</b>	<b>-29%</b>

\*Does not include most COVID-19 cases



Of the bloodborne exposures where cause was noted, 67% (528 cases) were due to a needlestick or sharps injury, despite OSHA regulations that require safe needle devices where available. Twenty percent (20%; 157 cases) of the reports were due to blood or body fluid exposures, and 13% (98 cases) were from a human bite. Bites often do not have a description on whether these bites penetrated the skin; cases were not counted if it was noted that there was no skin penetration or bleeding or if they were described as contusions. Exposure to saliva is not included in these numbers, since the risk of disease transmission is very low in those cases.

There was a large (60%) decrease in reports of potential exposure to tuberculosis (TB) or positive PPD tests for TB (after a large increase last year) with 56 cases in 2020 compared to 139 cases in 2019. In addition to bloodborne disease/exposures and TB exposures, there were 7 cases of Lyme disease or tick bites and 9 cases/exposures of rabies. Most of the “Other Infectious” cases were not well-defined in the database and may include additional cases of the more common reports (such as COVID-19, bloodborne or TB).

In addition to the infectious diseases, there were 161 other occupational illnesses reported by physicians in 2020 (Table E-8), a decrease of 41%. This included 48 cases of chemical exposures to the eyes, 15 cases of hearing loss, 13 cases of heart, stroke or stress-related conditions, 13 cases of over-exposures to heat or cold, 12 cases of headache, dizziness, or similar symptoms, and 7 cases of allergic reactions to substances or foods.

## F. Appendix 1: Databases and Methods

Determining the incidence of occupational illness is difficult. The problem is two-fold: 1) occupationally-related illness is not consistently recognized as work-related; and 2) the cases reported to either the Department of Labor and/or the Occupational Health Surveillance Division of the Department of Public Health are not complete. Consequently, this assessment of occupational disease reviews a number of sources of information: the Workers' Compensation Commission's First Report of Injury database (WCC), the Bureau of Labor Statistics/Connecticut Dept. of Labor Survey of Occupational Injuries and Illnesses (BLS), the Occupational Illnesses and Injury Surveillance System (OISS), and the Connecticut Adult Blood Level Epidemiology Surveillance Program (ABLES). The Workers' Compensation database was provided in electronic form from the CT Workers' Compensation Commission and the physicians' reports from the CT Department of Public Health. The BLS survey data was provided in table form from the Connecticut Department of Labor and derived from the U.S. BLS website at <https://www.bls.gov/iif/#data>.

### Assumptions and Conventions

The Workers' Compensation Commission's First Reports of Injury database and the Occupational Illnesses and Injury Surveillance System (OISS, referred to as Physicians' Reports) were reviewed in depth. A rationale for the data review was developed to differentiate occupational *illnesses* from acute traumatic *injuries* and to classify the workplace reports by nature and cause of the illness. Each entry was reviewed for internal consistency and reasonableness. Specifically, the process employed the following steps:

- 1) **Clear acute injuries were eliminated.** In assessing the Workers' Compensation First Reports of Injury, a line by line review of injury descriptions, nature descriptions and codes, listed causes, and part of body were used to differentiate whether an injury vs. illness was described. The determination relied most heavily on the text description and then on the other data fields in the order listed above.

The Physician Reports are organized differently. Numerical ICD10 (International Classification of Disease) and "Nature of Injury or Illness" codes from the Bureau of Labor Statistics Occupational Injury and Illness Classification System (ANSI Z16.2-1995, American National Standard for Information Management for Occupational Safety and Health) were used as the primary indicators to evaluate the records. Cause, certainty, diagnosis, ICD codes, suspected agent and symptom fields were also reviewed in determining illness or injury. Categories that were eliminated included all burns, eye problems such as conjunctivitis or objects in the eye (other than chemical exposures), lower back problems (including sciatica) unless clearly and specifically labeled as a cumulative injury, hernias, infected wounds or burns, insect and animal bites (with the exception of tick bites because of the relationship with Lyme disease), and electrical shocks.

- 2) **Validity of remaining records was determined.** Records were reviewed to be sure that the coding of types of disease was consistent with other information in the record. In addition, diseases were categorized by type of disease. Several approaches were utilized to eliminate duplicate records such as line by line review and matching on first and last name, date of birth and employer (to identify reports with misspellings or reversed first and last names), etc.
- 3) **Fields were either revised or added to the databases: *Illness Type* and *Nature of Illness*.** The *Nature of Illness* was based on the information in the databases, research, and general information about the illnesses. Then each entry was categorized by *Illness Type*. The specific nature categories were grouped into broader categories to support graphic representation. For the Workers' Compensation database, the description of injury was used as the key description of the illness if it disagreed with the coding for other variables. This coding was categorized into illness types (i.e.

skin, lung, infectious, MSD, other), specific illness (i.e. Carpal Tunnel Syndrome, heart conditions, asthma), and cause (i.e. chemical exposure, computer use, needlesticks).

- 4) **Employers were coded for industry** utilizing a comprehensive list of Connecticut employers from the CT Department of Labor and coded based on the NAICS (North American Industry Classification System) for the BLS and workers' compensation data. Employers who could not be found from previous datasets from the Dept. of Labor were coded based on an internet search using such databases as Manta or naics.com. Physician reports were coded by the Connecticut Dept. of Labor. Rates were calculated using employment figures from the U.S. Bureau of Labor Statistics based on Connecticut Dept. of Labor figures.
- 5) **Data was cleaned, tabulated and put into presentation form** using Microsoft Excel and Word software.
- 6) **The report is reviewed** and approved by the Connecticut Workers' Compensation Commission prior to publication.

## Appendix 2: Occupational Disease Detail by Type and Year

**Table G-1: Cases of Occupational Disease, by Type,  
Bureau of Labor Statistics/CT Dept. of Labor, 1979 – 2020**

	Employ.*	All Ill	Skin	MSD	Lung-dust	Respir.	Poison	Physical	Other
1979	1,358,000	3,322	1,716	471	25	317	175	250	368
1980	1,394,000	3,066	1,586	513	88	214	66	199	400
1981	1,409,000	3,214	1,509	701	38	290	89	192	395
1982	1,400,000	2,549	1,130	580	31	223	31	216	323
1983	1,419,000	2,930	1,236	665	20	154	152	176	519
1984	1,490,000	2,735	1,109	665	24	273	65	162	432
1985	1,528,000	2,809	928	727	44	233	51	130	693
1986	1,567,000	2,719	808	761	39	274	65	235	538
1987	1,607,000	4,643	1,352	1,430	31	300	62	704	754
1988	1,637,000	4,364	1,257	405	35	332	56	405	733
1989	1,634,000	5,844	1,248	2,629	57	277	74	468	1,087
1990	1,593,000	5,307	1,032	2,535	93	457	54	496	641
1991	1,518,000	6,094	946	3,454	62	422	113	501	591
1992	1,483,000	6,458	1,084	3,852	37	471	53	349	612
1993	1,487,000	8369	965	5526	52	512	166	346	802
1994	1,501,800	7,319	957	4,482	74	410	97	313	986
1995	1,520,000	6,787	884	4,220	80	323	35	349	896
1996	1,538,000	6,021	827	3,711	40	418	34	235	756
1997	1,570,500	5,419	620	3,335	21	287	70	150	936
1998	1,596,900	5,510	989	3,398	10	459	45	92	517
1999	1,630,100	5,513	793	3,306	20	386	71	265	671
2000	1,653,000	6,396	897	3,827	65	438	29	137	1,003
2001	1,571,000	5,514	916	3,220	10	630	29	118	591
	Employ.*	All Ill	Skin			Respir.	Poison	Hearing	Other
2002	1,602,000	4,387	831			320	78		3,159
2003	1,605,000	4,559	903			490	32		3,132
2004	1,603,100	4,572	832			354	35	466	2,886
2005	1,614,100	4,850	848			480	8	381	3,134
2006	1,635,700	3,787	575			235	38	439	2,500
2007	1,666,600	3,904	624			358	22	457	2,443
2008	1,666,600	3,562	690			293	130	360	2,088
2009	1,675,000	3,400	600			300	--	500	2,000
2010	1,639,300	3,000	700			300		300	1,700
2011	1,578,200	3,500	800			300		300	2,100
2012	1,628,028	2,800	600			300		300	1,500
2013	1,640,223	2,600	500			300		300	1,600
2014	1,653,547	2,400	400			200		200	1,400
2015	1,662,822	2,300	400			200		200	1,500
2016	1,666,580	2,300	500			200		300	1,300
2017	1,669,766	1,700	400			100		200	900
2018	1,673,867	1,800	300			200		400	1,000
2019	1,670,639	1,700	300			100		300	1,000
2020	1,545,731	8,000	200			6,400		200	1,100

Source: U.S. Bureau of Labor Statistics (BLS) and the Connecticut Dept. of Labor, Office of Research. Data collection methods and categories changed in 2002 and are not comparable to prior years. Employment in thousands. Since this data is based on a weighted survey, some of these numbers (particularly the smaller numbers) are not reliable.

**Table G-2: Rate per 10,000 Workers of Occupational Disease, by Type,  
Bureau of Labor Statistics/CT Dept. of Labor, 1979-2020**

Year	Employed	Skin	MSD	Resp/Lung	Poisoning	Other	Hearing	Total
1979	1,358,000	12.6	3.5	2.5	1.3	8.2		24.5
1980	1,394,000	11.4	3.7	2.2	0.5	8.6		22.0
1981	1,409,000	10.7	5.0	2.3	0.6	9.4		22.8
1982	1,400,000	8.1	4.1	1.8	0.2	8.2		18.2
1983	1,419,000	8.7	4.7	1.2	1.1	9.7		20.6
1984	1,490,000	7.4	4.5	2.0	0.4	8.6		18.4
1985	1,528,000	6.1	4.8	1.8	0.3	10.4		18.4
1986	1,567,000	5.2	4.9	2.0	0.4	10.0		17.4
1987	1,607,000	8.4	8.9	2.1	0.4	18.2		28.9
1988	1,637,000	7.7	2.5	2.2	0.3	9.6		26.7
1989	1,634,000	7.6	16.1	2.0	0.5	26.0		35.8
1990	1,593,000	6.5	15.9	3.5	0.3	23.6		33.3
1991	1,518,000	6.2	22.8	3.2	0.7	30.4		40.1
1992	1,483,000	7.3	26.0	3.4	0.4	32.7		43.5
1993	1,487,000	6.5	37.2	3.8	1.1	45.2		56.3
1994	1,501,800	6.4	29.8	3.2	0.6	39.0		48.7
1995	1,520,000	5.8	27.8	2.7	0.2	36.5		44.7
1996	1,538,000	5.4	24.1	3.0	0.2	30.8		39.1
1997	1,570,500	3.9	21.2	2.0	0.4	28.3		34.5
1998	1,596,900	6.2	21.3	2.9	0.3	25.2		34.5
1999	1,630,100	4.9	20.3	2.5	0.4	26.1		33.8
2000	1,653,000	5.4	23.2	3.0	0.2	30.4		38.7
2001	1,571,000	5.8	20.5	4.1	0.2	25.1		35.1
Year	Employ	Skin		Respiratory	Poison	Other	Hearing	Total
2002*	1,602,000	6.2	*	2.4	0.6	23.7	*	32.9
2003	1,605,000	6.9	*	3.8	0.2	24.0	*	34.9
2004	1,603,100	6.4	*	2.7	0.3	22.1	3.6	34.9
2005	1,614,100	6.3	*	3.6	*	23.3	2.8	36.0
2006	1,635,700	4.3	*	1.8	0.3	18.8	3.3	28.4
2007	1,666,600	4.7	*	2.7	0.2	18.2	3.4	29.2
2008	1,666,600	4.7	*	2.7	0.2	18.2	3.4	29.2
2009	1,675,000	5.1	*	2.2	1.0	15.4	2.7	26.3
2010	1,639,300	5.1	*	2.1	*	13.1	2.5	23.1
2011	1,578,200	6.3	*	2.0	*	16.8	2.5	27.8
2012	1,628,028	4.6	*	2.6	*	12.0	2.6	21.9
2013	1,640,223	3.5	*	2.0	0.2	12.4	2.2	20.3
2014	1,653,547	3.4	*	1.9	*	11.0	2.1	18.7
2015	1,662,822	3.0	*	1.5	0.2	11.3	1.7	17.7
2016	1,666,580	3.9		1.3		10.0	2.2	17.4
2017	1,669,766	2.9		1.1	0.4	6.7	1.9	12.9
2018	1,673,867	1.9		1.4		7.8	3.0	14.1
2019	1,670,639	2.1		1.1		7.5	2.2	13.0
2020	1,545,731	2.0		52.0		9.0	1.3	64.4

**Source:** U.S. Bureau of Labor Statistics (BLS) and the Connecticut Dept. of Labor, Office of Research. "Other" includes the pre-2002 categories of MSD, Physical, Lung-dust, and Other. \*Data collection methods and categories changed in 2002 and are not comparable to prior years.

## Appendix 3: Internet Resources for Job Safety and Health: 2022

### General Health and Safety Sites

One of the best sources of information for job health and safety on the internet is the **OSHA (Occupational Safety and Health Administration)** homepage, which includes an ergonomics homepage, worker rights, employer assistance, sector-specific and topic-specific standards and advice, a searchable index of standards, e-tools, COVID-19 guidelines and many other resources. <http://www.osha.gov>

To look up **OSHA citations** by company or industry: <http://www.osha.gov/pls/imis/establishment.html>

OSHA funds a number of **training programs for workers**, community groups and managers across the U.S. through their Susan Harwood Training grants at <https://www.osha.gov/dte/sharwood>.

OSHA has a resource page for **medical clinicians** at <https://www.osha.gov/dts/oom/clinicians/index.html>

The **Bureau of Labor Statistics** tracks occupational injuries and illnesses as well as fatalities. Both summaries and the actual data are available at <https://www.bls.gov/iif>.

**NIOSH** (the National Institute for Occupational Safety and Health) is another good general source. A searchable section on diseases and injuries briefly describes conditions with updates on current research and guidance on prevention, including personal protective equipment tests and advice. There are also resources on health hazard evaluations, conferences, state-based materials, rulemaking, chemicals, disease statistics, and many other topics.

<http://www.cdc.gov/niosh/homepage.html>

<http://www.cdc.gov/niosh/topics/diseases.html>

NIOSH supports a large number of **Education and Research Centers (ERCs)** based at universities across the US. Expert centers also include **agriculture, construction, and total worker health centers** (for example, see the link for the UConn CPH-NEW program below). ERCs primary purpose is to train health and safety professionals, so the various ERCs host a broad array of training programs for safety experts, industrial hygienists, ergonomists, occupational physicians and nurses and other professionals. In addition, the programs provide extensive in-service training programs for professionals already in the field as well as occasional programs for workers, health and safety committee members, and managers. They are also home to extensive research programs and consultation programs. The list of ERC's and related centers can be found at <https://www.cdc.gov/niosh/oep/ercportfolio.html>.

NIOSH has a **workplace health promotion** website which includes tools for assessing health and health promotion programs at <https://www.cdc.gov/workplacehealthpromotion/initiatives/resource-center/index.html>

**EPA** (the Environmental Protection Agency) has a number of sites relevant to occupational health on indoor air quality, office and school environments, and other topics. [www.epa.gov](http://www.epa.gov) [www.epa.gov/iaq/](http://www.epa.gov/iaq/)

**American Family Physician** also has a number of articles on occupational health for clinicians at <https://www.aafp.org/afp/topicModules/viewTopicModule.htm?topicModuleId=89>.

The **Veterans Administration (VA)** occupational health department has resources on **safe patient handling, wellness, and workplace violence prevention**. <https://www.publichealth.va.gov/about/occhealth/index.asp>

The **Council of State and Territorial Epidemiologists (CSTE)** has links to reports, contacts and resources in occupational health <https://www.cste.org/group/OHResources>. Occupational health indicators are posted at <https://www.cste.org/page/OHIndicators>.

The **Canadian Centre for Occupational Health and Safety** has hundreds of resources on their health and safety internet resource list, including Cheminfo, occupational mental health and stress. <http://www.ccohs.ca>

**New Jersey Department of Health** has 1,600 excellent **chemical hazard factsheets** that are free, independently researched, and clearly written (900 in Spanish) on hundreds of substances. <http://web.doh.state.nj.us/rtkhsfs/indexfs.aspx>

**MSDSonline** is a commercial website but has free searches for Safety Data Sheets (SDS) under the Globally Harmonized system at <https://www.msdsonline.com/sds-search>.

**Several safety organizations have useful websites:**

<a href="http://www.nsc.org">www.nsc.org</a>	The National Safety Council
<a href="http://www.aiha.org">www.aiha.org</a>	The American Industrial Hygiene Association
<a href="http://www.assp.org">www.assp.org</a>	American Society of Safety Professionals
<a href="http://www.nfpa.org">www.nfpa.org</a>	National Fire Protection Association
<a href="http://www.safetycentral.org">www.safetycentral.org</a>	International Safety Equipment Association

The **national AFL-CIO** includes a health and safety page. <http://www.aflcio.org/Issues/Job-Safety>

**COSH (Coalitions for Occupational Safety and Health)** are labor-oriented nonprofit groups based in many states, including Connecticut, with information on a variety of hazards. They can all be accessed through the National Coalition for Occupational Safety and Health <http://www.coshnetwork.org>

The **Connecticut Business and Industry Association** has a health and safety page that helps businesses with OSHA laws and info on upcoming conferences and events. <https://www.cbia.com/news/category/hr-safety>

The **Cal-OSHA Reporter** (California OSHA) carries current stories on job health and safety. <http://www.cal-oshareporter.com>

Some **blogs carry job health and safety news and commentary.**

The USMWF United Support and Memorial for Workplace Fatalities posts current stories about workers who have been killed on the job and their families <https://www.facebook.com/USMWF> or [www.usmwf.org](http://www.usmwf.org)

The Pump Handle covers public health and occupational health, written by Liz Borkowski and Celeste Monforton <http://www.thepumphandle.org>

Workers' compensation issues are covered at the Workers' Compensation Research Institute at <https://www.wcrinet.org> and at the insider publication <http://workerscompinsider.com>.

The **Toxic Use Reduction Institute** at UMass Lowell has extensive resources on safer alternatives to toxic substances, including a database on alternatives to solvents. <http://www.turi.org>

**UMass-Lowell's Center for Sustainable Production** has information on changing chemical policies. <http://www.sustainableproduction.org/>

The **Health and Safety Executive of Great Britain** has extensive information on the European Union's REACH (Registration, Evaluation, and Authorization of Chemicals). <http://www.hse.gov.uk/reach/index.htm> <http://www.hse.gov.uk/index.htm>

OSHA has a discussion of the US program that responds to the International Globally Harmonized System for Hazard Communication. <http://www.osha.gov/dsg/hazcom/global.html>.

ACOEM (American College of Occupational and Environmental Medicine has an occupational health guide for clinicians <https://acoem.org/Practice-Resources/Basic-Occupational-Health-Guide>

## State of Connecticut and Select Other Resources

The **Connecticut Workers' Compensation Commission** has an excellent website, including information on the locations of offices, a searchable version of the workers' compensation statutes, new decisions, and other information. <http://wcc.state.ct.us>

The **Connecticut (CT)** website allows access to all branches of state government. <https://portal.ct.gov>

The **CT Department of Public Health** occupational health program has database access, health alerts and fact sheets on a variety of occupational health topics including lead. <http://www.ct.gov/dph/occupationalhealth>

The **CT Department of Labor** includes an occupational health services site which includes information on their free Conn-OSHA consultation program and a great set of links to other health and safety sites including regulations, training, and Spanish publications. [www.connosha.com](http://www.connosha.com)

The **Connecticut General Assembly** website lets you search for any bill being considered or get information about relevant committees such as Labor and Public Employees or Public Health. <http://www.cga.ct.gov>

You can track national bills on the **National Library of Congress** site. <https://www.congress.gov/>

Search the medical literature at **US National Library of Medicine**. <http://www.ncbi.nlm.nih.gov/pubmed/>

Search general academic literature through **Google Scholar**. <http://scholar.google.com/schhp?tab=ws>

**UConn Health's Division of Occupational and Environmental Medicine** has information and links on job health and safety. <http://health.uconn.edu/occupational-environmental>

The **Center for the Promotion of Health in the New England Workplace (CPH-NEW)** is a research-to-practice initiative led by investigators from the UMass Lowell and UConn Health.

<http://health.uconn.edu/occupational-environmental/academics-and-research/cph-new/>

**UConn Health's Center for Indoor Environments and Health** provides guidance on environmental exposures in indoor settings including schools and office buildings

<http://health.uconn.edu/occupational-environmental/consultation-and-outreach/cieh/>

## Apps for occupational health

There are a number of apps developed for smart phones (both Android and Apple) that have been developed by government agencies that can be quite useful. Some useful apps include:

- **ILO Ergonomic Checkpoints** from the International Labour Office allows for creating checklists for ergonomic issues in the workplace.
- The **NIOSH Sound Level Meter** is a free, non-ad app developed by NIOSH that lets you use your phone as a sound level meter.



- The **NIOSH Lifting Equation Calculator** (NLE Calc) lets you evaluate jobs based on characteristics of the lifting hazards guidance issued by NIOSH (the International Centre for Safety Ergonomics and Human Factors also has a free NIOSH lifting equation calculator called **MMH Calculator**).
- The **OSHA-NIOSH Heat Safety Tool** combines local weather with NIOSH and OSHA guidance on heat stress.
- Chemical hazards can be evaluated using the **Chemical Safety Data Sheets – ICSC** app which calls up 2-page independently developed chemical data sheets (similar to material safety data sheets) from the UN, the International Labor Office (ILO) and the World Health Organization (WHO).

There are also a wide number of commercial apps on occupational health. **Searching in the app store** on your phone or tablet using terms such as the ergonomics, chemicals, job safety, OSHA, NIOSH, or similar terms will bring up a large number of apps which you can sort by customer ratings.

## Ergonomic Sites and Links

**Thomas Bernard's** website at **University of South Florida** has many of the standards and excellent free electronic ergonomic analysis tools such as the NIOSH lifting equation and heat stress, including apps. <https://health.usf.edu/publichealth/tbernard>

**Ergoweb** has good factsheets, documents, and news. <https://ergoweb.com>

**Tom Armstrong** at the **University of Michigan** runs one of the most respected university training programs for ergonomics, and has extensive information, tools, and lectures. <http://www-personal.umich.edu/~tja>

**Cornell University's Alan Hedge** has an active ergonomics program, with reports posted on graduate student projects and evaluation of ergonomic products. <http://ergo.human.cornell.edu>

**The University of Virginia** has ergonomics training and resources. <http://ehs.virginia.edu/Ergonomics.html>

**Human Factors and Ergonomics Society** is the professional association in ergonomics. <http://www.hfes.org>

The **National Ergonomics Conference & Ergo Expo** has provided a forum on ergonomics, safety and wellness programs. <http://www.ergoexpo.com>

**The National Health Service/UK** has information about repetitive strain injuries/RSI <http://www.nhs.uk/conditions/Repetitive-strain-injury/Pages/Introduction.aspx>

Paul Landsbergis has a good website on job stress. <http://unhealthywork.org/about-us/team/paul-a-landsbergis>

The **European Agency for Health and Safety at Work's Job Stress Network** has info on to increasing job stress and its impact on health <https://osha.europa.eu/data/links/795>

*Internet Resources for Job Safety and Health is compiled by Tim Morse, Ph.D., at UConn Health. To update or add a listing, please contact Tim at [tmorse@uchc.edu](mailto:tmorse@uchc.edu).*

## Appendix 4: Who's Who: Resources in Connecticut on Job Safety and Health

### Academic Programs and Courses

#### **Central Connecticut State University, School of Technology**

**Type of Degree:** Certificate Program in Environmental and Occupational Safety

**Faculty contact:** Dan Kirby, Department Chair

**Address:** Applied Innovation Hub - Room 214, CCSU, 1615 Stanley Rd., New Britain, CT 06050

**Phone:** 860-832-1830

**e-mail:** kirbyerd@ccsu.edu

**Web:** <http://www.ccsu.edu/mcm/environmentalOccupationalSafetyOCP.html>

#### **UConn College of Agriculture, Health and Natural Resources, Department of Allied Health Sciences**

**Type of Degree and Program:** Bachelor in Allied Health Sciences with an Occupational and Environmental Health and Safety Concentration; and an Online Occupational Safety and Health Post-Baccalaureate Certificate Program

**Faculty contact:** Paul Bureau, MS CIH

**Address:** Koons Hall Room 100-G, 358 Mansfield Road, Unit 1101, Storrs, CT 06269-1101

**Phone:** 860-486-8816

**e-mail:** paul.bureau@uconn.edu

**Web:** <http://osh.uconn.edu>

#### **UConn Health, Department of Public Health Sciences**

**Type of Degree:** Masters in Public Health program with ergonomic/occupational health courses

**Director:** David Gregorio, PhD

**Address:** UCONN Health, 263 Farmington Ave., Farmington, CT 06030-6325

**Phone:** (860) 679-5480

**Fax:** (860) 679-1581

**e-mail:** [gregorio@uchc.edu](mailto:gregorio@uchc.edu)

**Web:** <https://mph.uconn.edu>

#### **UConn Health, Department of Public Health Sciences**

**Type of Degree:** Ph.D. in Public Health with courses in Occupational and Environmental Health Sciences

**Faculty Contact:** Helen Swede, Ph.D.

**Address:** UCONN Health, 263 Farmington Ave., Farmington, CT 06030-6325

**Phone:** (860) 679-5568

**Fax:** (860) 679-1581

**e-mail:** [swede@uchc.edu](mailto:swede@uchc.edu)

**Web:** <https://phd.publichealth.uconn.edu>

### OSHA

#### **Connecticut Department of Labor's Division of Occupational Safety and Health/CTDOL:**

CONN-OSHA enforces state occupational safety and health regulations as they apply to state and municipal employees, and offers free consultations to public agencies, school districts and private companies.

**Director:** Kenneth C. Tucker III

**Address:** 38 Wolcott Hill Rd., Wethersfield, CT 06109

**Phone:** (860) 263-6900

**Fax:** (860) 263-6940

**Email:** [Kenneth.tucker@ct.gov](mailto:Kenneth.tucker@ct.gov)

**Web:** [www.connosha.com](http://www.connosha.com)

**Publications:** ConnOSHA Quarterly <https://www.ctdol.state.ct.us/osh/Quarterly/coqtrly.htm>

**OSHA (Occupational Safety and Health Administration):** Federal OSHA inspects workplaces in the private sector for violations of standards, and also has information and pamphlets.

**National Website:** <https://www.osha.gov>

**OSHA Bridgeport Office** (Fairfield, New Haven, and Middlesex counties).

**Area Director:** Joseph LaRose (Acting Director)

**Address:** 915 Lafayette Blvd, Room 309, Bridgeport, Connecticut 06604

**Phone:** (203) 579-5581; National Hotline after hours: (800) 321-OSHA (6742)

**Fax:** (203) 579-5516

**e-mail:** [oshabridgeport@dol.gov](mailto:oshabridgeport@dol.gov)

**OSHA Hartford Office**

**Area Director:** Dale Varney

**Address:** 135 High Street, Suite 361, Hartford, CT 06103

**Phone:** (860) 240-3152; National Hotline after hours, etc.: (800) 321-OSHA (6742)

**Fax:** (860) 240-3155

**e-mail:** [oshahartford@dol.gov](mailto:oshahartford@dol.gov)

### Academic Occupational Health Clinics

**UConn Occupational and Environmental Medicine Clinic**

**Clinic Director:** George W. Moore, M.D., M.Sc., FACPM, FACOEM

**Address:** UCONN Health, 300 UConn Health Blvd, Farmington, CT 06032-2940

**Clinic address:** UCONN Main Building (Hospital Entrance), Room CG228

**Phone:** (860) 679-2893

**Fax:** (860) 679-4587

**e-mail:** [occmedehs@uchc.edu](mailto:occmedehs@uchc.edu)

**Web:** <http://health.uconn.edu/occupational-environmental/clinical-services/>

**Yale Occupational and Environmental Medicine Program**

**Director:** Carrie A Redlich, MD, MPH

**Address:** 367 Cedar Street, ESHA 2nd Floor, New Haven, CT 06510

**Clinic address:** 135 College St. Rm. 392, New Haven, CT 06510

**Phone:** (203) 785-4197 or 203-785-6434

**Fax:** (203) 785-7391

**e-mail:** [Carrie.Redlich@yale.edu](mailto:Carrie.Redlich@yale.edu)

**Web:** <http://medicine.yale.edu/intmed/occmed/> or <https://www.yalemedicine.org/departments/occupational-environmental-medicine-program>

### Other Occupational Health Clinics

**Concentra**

**Medical Director:** David Feinstein, MD

**Address:** 701 Main Street, East Hartford, CT 06108

**Phone:** (860) 289-5561

**Fax:** (860) 291-1895

**e-mail:** [david\\_feinstein@concentra.com](mailto:david_feinstein@concentra.com)

**Web:** <http://www.concentra.com/employers/occupational-health/>

**Other Offices:** 972 West Main Street, **New Britain** (860) 827-0745; 1080 Day Hill Road, **Windsor** (860) 298-8442; 900 Northrop Rd, **Wallingford**, (203) 949-1534; 8 South Commons Rd, **Waterbury** (203) 759-1229; 333 Kennedy Drive, **Torrington** (860) 482-4552; 900 Northrup Rd, **Wallingford** (203) 949-1534; 315 West Main St, **Norwich**, (860) 859-5100; 370 James Street, Suite 304, **New Haven** (203) 503-0482; 60 Watson Blvd, **Stratford** (203) 380-5945; 15 Commerce Road, 3rd Floor, **Stamford**, (203) 324-9100

**Connecticut Occupational Medicine Partners, Trinity Health of New England.**

**Regional Director, President and CEO:** Jeffrey S. Schlosser, MBA

**Business Rep:** Mallory Davis, [Mallory.Davis@trinityhealthofne.org](mailto:Mallory.Davis@trinityhealthofne.org), 860-714-2773

**Address:** St. Francis Hospital and Medical Center, 1000 Asylum Avenue, Suite 4310, Hartford, CT 06105

**Phone:** (860) 714-2801

**Fax:** (860) 714-8138

**Email:** [Jeffrey.Schlosser@TrinityHealthOfNE.org](mailto:Jeffrey.Schlosser@TrinityHealthOfNE.org)

**Web:** [compllc.org](http://compllc.org)

**Clinics:** **St Francis:** 1000 Asylum Ave, Ste 4320, **Hartford**, 860-714-4270; 1598 East Main St, **Torrington**, (860) 482-3467; 100 Deerfield Road, **Windsor**, 860-714-9444

**St. Mary's Hospital:** 1312 West Main St, Waterbury, CT 06708, (203) 709-3740

**Johnson Memorial Medical Center:** 155 Hazard Ave., Suite 6. Enfield, CT 06082, (860) 763-7668

**MedWorks:** 375 East Cedar St., Newington (860) 667-4418

**MedWorks (Bristol Hospital):** 975 Farmington Ave. Bristol, CT 06010, (860) 589-0114

**ECHN CorpCare;** 2800 Tamarack Ave., Suite 001, South Windsor, CT 06074, (860) 647-4796

**Griffin Hospital Occupational Medicine Center**

**Director:** Myra Odenwaelder, DPT

**Address:** 10 Progress Drive, Shelton, CT 06484

**Phone:** (203) 944-3718

**Fax:** (203) 929-3068

**e-mail:** [gkrueger@griffinhealth.org](mailto:gkrueger@griffinhealth.org)

**Web:** <http://www.griffinhealth.org/locations/shelton/griffin-hospital-occupational-medicine-center>

**Hartford HealthCare Medical Group—Occupational Medicine**

**Business Development Director:** Suzanne Cutter

**Admin e-mail:** [hhcmgocc.health@hhchealth.org](mailto:hhcmgocc.health@hhchealth.org)

**Web:** <https://hartfordhealthcaremedicalgroup.org/specialties/primary-care/occupational-medicine>

**East Region HHCMG Occ Medical Director:** William H. Hernandez III MD

**Fairfield Region HHCMG Occ and UC Medical Director:** Syed Z. Hussain MD, MBA, MRO

**Clinic Offices:** **West Hartford:** 445 South Main Street, West Hartford, 06110, Phone: 860.696.2200, option 5;

**Uncasville:** 80 Norwich-New London Tnpk, Uncasville, 06382, Phone: 860-848-1297, option 5; **Shelton:** 15

Armstrong Rd, Shelton, 06484, Phone: 203.929.1109; **Willimantic:** 1703 West Main St., Willimantic, 06226,

Phone: 860.456.1252; **Stratford:** 3272 Main St, Stratford, CT 06614, Phone: 203.380.3920; **Fairfield:** 1262

Post Rd, Fairfield, 06824 Phone: 203.259.3440; **Trumbull:** 900 White Plains Rd, Trumbull, 06611, Phone:

203.696.3500; **Monroe:** 401 Monroe Tpk, Monroe 06468 Phone: 203.268.2501

**THOCC - Occupational Health Network**

**Web:** <https://thocc.org/services/occupational-health>

**OHN Medical Director:** Sandor Nagy Jr., MD

**Practice Manager:** Michelle Cadiz

**Plainville:** 440 New Britain Ave, Plainville, 06062 Phone: 860.747.9441

**Email:** [OHNPlainville@hhchealth.org](mailto:OHNPlainville@hhchealth.org)

**Middlesex Hospital Occupational Medicine**

**Director:** Matthew Lundquist, MD, MPH

**Address:** 534 Saybrook Rd., Middletown, CT 06457

**Phone:** (860) 358-2750; **Fax:** (860) 358-2757

**e-mail:** [matthew.lundquist@midhosp.org](mailto:matthew.lundquist@midhosp.org)

**Web:** <https://middlesexhealth.org/occmed>

**Other Office:** Essex Medical Building, 252 Westbrook Road, Essex (860) 358-3840

## **Yale New Haven Health Occupational Medicine and Wellness Services**

**Medical Director:** Cullen Taplin, MD

**Address:** 52 Hazelnut Hill Rd., Groton, CT 06340

**Phone:** (860) 446-8265 x7074

**Fax:** (860) 448-6961

**Clinical Assistant Manager:** Meghan McManus

**Email:** [meghan.mcmanus@ynhh.org](mailto:meghan.mcmanus@ynhh.org)

## **Yale-New Haven Health Systems**

**Manager for Clinical Operations (St. Raphael campus):** Andrea Santerre, RN

**Address:** 175 Sherman Avenue, New Haven, CT 06511

**Phone:** (203) 789-6216

**Fax:** (203) 789-5174

**e-mail:** [andrea.santerre@ynhh.org](mailto:andrea.santerre@ynhh.org)

**Web:** <https://www.ynhh.org/services/occupational-health.aspx>

### **Other Offices:**

Pequot Health Center, 52 Hazelnut Hill Rd, **Groton**, (860) 446-8265, ext 7074

260 Long Ridge Rd, Suite 2140. **Stamford**, (203) 863-3483

2080 Whitney Ave., Suite 150, **Hamden** (203) 789-6242

**Greenwich Hospital**, 5 Perry Ridge Rd, (203) 863-3483

**Bridgeport Hospital**, (203) 988-2551

20 York St., **New Haven**, 203-688-4242

## **Organizations**

### **American Lung Association (ALA) in Connecticut**

A non-profit association geared towards preventing lung disease including occupational lung disease.

**Director:** Michelle Caul (National Senior Director, Infectious Disease and Immunization/Health Promotion)

**Connecticut Address:** 45 Ash St., East Hartford, CT 06108

**Phone:** (860) 838-4370

**e-mail:** [Michelle.Caul@lung.org](mailto:Michelle.Caul@lung.org)

**Web:** [Lung.org](http://Lung.org)

### **Coalition for a Safe and Healthy Connecticut**

This is a community-based coalition of environmental, public health, and labor organizations providing resources and advocacy for reducing the use of toxic chemicals through substitution of safer alternatives.

**Coordinator:** Anne B. Hulick, RN MS JD

**Address:** c/o Clean Water Action, PO Box 92, Cromwell, CT 06416

**Phone:** (860) 232-6232

**e-mail:** [ahulick@cleanwater.org](mailto:ahulick@cleanwater.org)

**Web:** <https://safehealthyct.wordpress.com>

### **ConnectiCOSH (The Connecticut Council for Occupational Safety and Health)**

CTCOSH is a union-based non-profit organization for education and political action on job safety and health. They have conferences, fact sheets, and speakers.

**Director:** Mike Fitts; Pamela Puchalski (Asst. Director)

**Address:** 683 No. Mountain Rd, Newington, CT 06111

**Phone:** (860) 953-COSH (2674)

**Fax:** (860) 953-1038

**e-mail:** [mike@ctcosh.org](mailto:mike@ctcosh.org)

**Web:** <http://connecticosh.org>

### **The Ergonomic Technology Center (ErgoCenter) at UConn Health**

The ErgoCenter is a center for prevention of repetitive strain injuries based at UCONN Health, which does training, research, and clinical care.

**Contact:** Thomas Varghese, M.S., CPE

**Address:** 263 Farmington Ave, Farmington, CT 06030-2940

**Phone:** (860) 679-4096

**Fax:** (860) 679-1349

**e-mail:** tvarghese@uchc.edu

**Web:** <https://health.uconn.edu/occupational-environmental/consultation-and-outreach/ergonomics-consultation/>

### **The Center for the Promotion of Health in the New England Workplace (CPH-NEW)**

CPH-NEW is a NIOSH-funded center for scientific research and education, based in participatory action research, integrating occupational health and safety with worksite health that is administered by UConn Health with UMass Lowell and UConn Storrs.

**Principal Investigator:** William Shaw, Ph.D.

**Director, HITEC IV Project:** Martin Cherniack, MD, MPH

**Address:** 263 Farmington Ave, Farmington, CT 06030-2940

**Phone:** (860) 679-8946

**Fax:** (860) 679-1349

**e-mail:** [wshaw@uchc.edu](mailto:wshaw@uchc.edu)

**Web:** <http://health.uconn.edu/occupational-environmental/academics-and-research/cph-new/>

### **UConn Health- Center for Indoor Environments and Health (CIEH)**

The CIEH at the University of Connecticut Health Center works with public health agencies, companies, clinics and individuals to promote indoor environments which protect the health of building occupants and provide productive, creative spaces for learning and work.

**Director:** Paula Schenck, MPH

**Address:** 263 Farmington Ave, Farmington, CT 06030-2940

**Phone:** (860) 679-2368

**Fax:** (860) 679-1349

**e-mail:** [schenck@uchc.edu](mailto:schenck@uchc.edu)

**Web:** <http://health.uconn.edu/occupational-environmental/consultation-and-outreach/cieh/>

## **Professional Associations**

### **American Industrial Hygiene Association (AIHA), Connecticut River Valley Section**

AIHA is a professional association for industrial hygienists.

**Contact:** Kristen Cramer

**Phone:** (203) 675-2821

**e-mail:** [kristen.cramer2821@gmail.com](mailto:kristen.cramer2821@gmail.com)

**Web:** <http://www.crvaiha.wildapricot.org>

### **American Society of Safety Professionals (ASSP)**

American Society of Safety Professional members are dedicated to creating safe work environments by preventing workplace fatalities, injuries and illnesses. Sound safety practices are a legal requirement, socially responsible and good business, leading to increased productivity, a better reputation and higher employee satisfaction.

#### ***Connecticut Valley Chapter***

**President:** Liz Velky

**e-mail:** [president@ctvalley.assp.org](mailto:president@ctvalley.assp.org)

**Web:** <http://ctvalley.assp.org>



**Connecticut Safety Society**

A professional association for anyone that promotes occupational safety, health, and accident prevention in CT.

**Treasurer:** Thomas Schinkel

**Phone:** (860) 462-1349

**e-mail:** [schinkfam@gmail.com](mailto:schinkfam@gmail.com)

**Web:** Facebook group – Connecticut Safety Society

**Air & Waste Management Association (AWMA), Connecticut Chapter**

AWMA provides training, information, and networking opportunities to environmental professionals. The

Connecticut Chapter provides periodic forums for discussion and sponsors an annual student scholarship.

**Chair:** David Krochko

**Phone:** (888) 265-8969

**e-mail:** [dkrochko@woodardcurran.com](mailto:dkrochko@woodardcurran.com)

**Web:** <http://awmact.org>

**Connecticut Trial Lawyers Association, Workers' Compensation Committee**

CTLA is a professional association of attorneys whose mission reads *Trial lawyers protecting individual rights through fair laws and access to justice*. The purpose of this section is to ensure that workers who have been injured or suffered illness arising out of and in the course of their employment are provided the benefits to which they are entitled under the Connecticut Workers' Compensation Act.

**Executive Director:** Joan D. Maloney

**Workers' Compensation Section Chair:** Meghan Lyon

**Address:** 150 Trumbull Street, 2<sup>nd</sup> Floor, Hartford, CT 06103

**Phone:** (860) 522-4345

**Fax:** (860) 522-1027

**e-mail:** [jmaloney@cttriallawyers.org](mailto:jmaloney@cttriallawyers.org)

**Web:** <https://www.cttriallawyers.org>

**Connecticut Bar Association, Workers' Compensation Section**

This is a professional association of attorneys who concentrate in workers' compensation.

**Chair:** Colette Griffin

**Phone:** (860) 249-1361

**E-mail:** [cgriffin@HL-Law.com](mailto:cgriffin@HL-Law.com)

**Web:** <https://www.ctbar.org/members/sections-and-committees/sections/workers'-compensation>

**New England College of Occupational and Environmental Medicine/NECOEM**

NECOEM is a not-for-profit organized community of physicians that strives to improve the health and safety of workers, workplaces, and environments and holds an annual conference.

**Executive Director:** Tom Coté, MBA, CAE

**Address:** 22 Mill Street, Groveland, MA 01834

**Phone:** (978) 373-5597

**e-mail:** [executive.director@necoem.org](mailto:executive.director@necoem.org)

**Web:** <http://www.necoem.org/>

**Connecticut Association of Occupational Health Nurses (CTOHN)**

CTAOHN is an association of occupational health nurses, including most of the nurses working in industry.

**CT President:** Richard Sandrib, BSN, MS, APRN

**Address:** BMS, 3551 Lawrenceville Road, Princeton, NJ 08540

**Phone:** (609) 252-3643 (office) or (860) 806-1721 (cell)

**e-mail:** [richard.sandrib@bms.com](mailto:richard.sandrib@bms.com)

**Web:** <https://ctaohn.nursingnetwork.com>

## Connecticut State Agencies

### **Department of Public Health (DPH), Occupational Health Unit**

This unit investigates clusters of occupational diseases. Programs for radon, asbestos, drinking water, lead, asthma, CT Schools Environmental Resource Team, TB control and infectious disease are also at the DPH.

**Director:** Thomas St. Louis, MSPH

**Address:** DPH/ OHP, 410 Capitol Ave, MS #11EOH, PO Box 340308, Hartford, CT 06134-0308

**Phone:** (860) 509-7740

**Fax:** (860) 509-7785

**e-mail:** [Thomas.st.louis@ct.gov](mailto:Thomas.st.louis@ct.gov)

**Web:** <http://www.ct.gov/dph/occupationalhealth>

### **State Department of Emergency Services and Public Protection**

The Department of Emergency Services and Public Protection (DESPP) is comprised of the Commission on Fire Prevention and Control, the CT State Police, Emergency Management and Homeland Security, the Police Officers Standards and Training Council, Scientific Services, and Statewide Emergency Telecommunications.

**Public Information Officer:** Brian Foley

**Address:** 1111 Country Club Rd, Middletown, CT 06457

**Phone:** 860-463-9777

**Fax:** (860) 685-8902

**e-mail:** [brian.foley@ct.gov](mailto:brian.foley@ct.gov)

**Web:** <https://portal.ct.gov/desp>

### **State Emergency Response Commission, Department of Energy and Environmental Protection**

This commission oversees plans for response to chemical accidents and collects chemical information for the public under the Emergency Planning and Community Right to Know Act.

**Chairman:** Gerard P. Goudreau

**Address:** 79 Elm St, Hartford, CT 06106-5127

**Phone:** (860) 424-3373

**e-mail:** [deep.ctepcra@ct.gov](mailto:deep.ctepcra@ct.gov)

**Web:** <https://portal.ct.gov/SERC>

### **Connecticut Fire Academy, Commission on Fire Prevention & Control**

Safety training & standards compliance

**Training Director:** P.J. Norwood, Training Director

**Address:** 34 Perimeter Road, Windsor Locks, CT 06096-1069

**Phone:** 860-264-9272 or toll free (877) 5CT-FIRE (only in CT)

**Fax:** (860) 654-1889

**e-mail:** [paul.norwood@ct.gov](mailto:paul.norwood@ct.gov)

**Web:** <http://www.ct.gov/cfpc/site/default.asp>

### **Connecticut Department of Environmental Protection, Radiation Safety Unit**

**Director:** Jeff Semancik

**Phone:** (860) 424-3029; (860) 424-3333 24/7 Emergency

**Fax:** (860) 706-5339

**e-mail:** [jeffrey.semancik@ct.gov](mailto:jeffrey.semancik@ct.gov)

**Web:** [http://www.ct.gov/deep/cwp/view.asp?a=2713&q=324824&deepNav\\_GID=1639](http://www.ct.gov/deep/cwp/view.asp?a=2713&q=324824&deepNav_GID=1639)



## **Workers' Compensation Commission**

### **Chairman's Office and Compensation Review Board**

The Workers' Compensation Commission (WCC) administers the workers' compensation laws of the State of Connecticut with the ultimate goal of ensuring that workers injured on the job receive prompt payment of wage loss benefits and appropriate medical treatment. To this end, the Commission approves voluntary agreements, adjudicates disputes, issues findings and awards, hears and rules on appeals, and closes out pending cases through full and final stipulated agreements.

The WCC Safety & Health Services unit assists employers with implementation of the workers' compensation regulations regarding "Establishment and Administration of Safety and Health Committees at Work Sites."

**Chairman:** Stephen M. Morelli

**Address:** 21 Oak St., 4<sup>th</sup> Floor, Hartford, CT 06106-8011

**Phone:** (860) 493-1500

**Information:** (800) 223-WORK (9675)

**Fax:** (860) 247-1361

**e-mail:** [wcc.chairmansoffice@po.state.ct.us](mailto:wcc.chairmansoffice@po.state.ct.us)

**Web:** <http://wcc.state.ct.us/>

### **Workers' Compensation District Offices**

- 1.** 999 Asylum Ave., **Hartford**, CT 06105; (860) 566-4154; Fax: (860) 566-6137
- 2.** 55 Main St., **Norwich**, CT 06360; (860) 823-3900; Fax: (860) 823-1725
- 3.** 700 State St., **New Haven**, CT 06511; (203) 789-7512; Fax: (203) 789-7168
- 4.** 350 Fairfield Ave., 2nd Floor, **Bridgeport**, CT 06604; (203) 382-5600; Fax: (203) 335-8760
- 5.** 55 West Main St., **Waterbury**, CT 06702; (203) 596-4207; Fax: (203) 805-6501
- 6.** 24 Washington St., **New Britain**, CT 06051; (860) 827-7180; Fax: (860) 827-7913
- 7.** 111 High Ridge Rd., **Stamford**, CT 06905; (203) 325-3881; Fax: (203) 967-7264
- 8.** 649 South Main St., **Middletown**, CT 06457; (860) 344-7453; Fax: (860) 344-7487

*The Who's Who is compiled by Tim Morse, Ph.D., at UConn Health. To update or add a listing, please contact Tim at [tmorse@uchc.edu](mailto:tmorse@uchc.edu).*