Occupational Disease in Connecticut, 2021

This report covers data for 2019
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

By

Tim Morse, PhD, Professor Emeritus
Division of Occupational and Environmental Medicine
and Department of Public Health Sciences
UConn Health
Farmington, CT 06030
tmorse@uchc.edu

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A. Executive Summary

This report focuses on occupational *disease* reports for 2019 and recent trends in reported cases. It does not address traumatic occupational *injuries*; data for Connecticut injuries can be found at the national Bureau of Labor Statistics (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 (OIISS), and the Bureau of Labor Statistics/Connecticut Dept. of Labor Annual Survey (BLS/CTDOL).

This is an updated report (May, 2022) that includes physician-reported illnesses that were not previously available due to reporting delays caused by the COVID-19 epidemic.

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

Type of Disease	BLS/CTDOL			WCC			OIISS (Physicians)			Unique Cases*		
	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
Lung & poisonings	100	200	100	301	436	448	155	241	198	431	621	605
Lead **							292	268	275	292	268	275
Skin	400	300	300	222	184	197	168	118	134	348	273	295
Musculoskeletal***	***	***	***	2,501	2,456	2,291	562	603	590	2,918	2,869	2,741
Infectious				1,398	1,201	1,309	1,365	1,148	1,329	2,384	2,148	2,387
Hearing loss	200	400	300	103	81	113	12	15	20	111	92	130
Other***	900	1,000	1,000	810	899	901	208	195	254	973	1,057	1,096
Total**	**1,700**	**1,800**	**1,700**	**5,335**	**5,257**	**5,259**	**2,762**	**2,588**	**2,800**	**7,457**	**7,328**	**7,529**

Sources: BLS: Bureau of Labor Statistics/CTDOL survey; WCC: CT Workers' Compensation Commission (First Report of Injury)
OIISS: Occupational Illnesses and Injury Surveillance System (physician reports) data are not yet available for 2019.
*Unique cases are the combined total of workers' compensation cases and physician reports, adjusted for cases reported to both systems
**Laboratory reports of adult blood lead levels are from the Connecticut Adult Blood Lead Epidemiology and Surveillance (ABLES) program
*** Musculoskeletal Disorders (MSD) definitions vary somewhat between systems. MSD is included in the "other" category for BLS/CTDOL data
****BLS data sometimes does not sum to total due to rounding errors in the survey reporting

Table A-1 summarizes the data from the three different sources for the past 3 years. The BLS/CTDOL survey rounds to the nearest 100, so the subcategories do not always sum exactly to the total and yearly changes should be viewed with caution. The OIISS draws from physician reports for known or suspected occupational illnesses and are required of all physicians but in practice are mostly from the network of occupational health clinics (and therefore are likely to greatly undercount cases seen in other hospitals or by community physicians).

Approximately 1,700 cases of occupational disease were reported under the BLS/CTDOL survey, 5,259 through the workers' compensation first report of injuries, and 2,800 reported by physicians for 2019. The number of reports in 2019 were essentially unchanged from 2018 in both the BLS system and workers' compensation systems and slightly higher for physician reports. After case matching between the workers' compensation and physician reports with adjustments made for reporting to both systems, there were 7,529 unique reports made to either or both of those two systems.

Musculoskeletal disorders (MSD) such as Carpal Tunnel Syndrome and tendonitis dominated the workers' compensation reports, accounting for 44% of reports and 21% of physician reports. MSD has not been broken out by BLS since 2002, but MSD cases are presumed to be the main portion of the "other illness" category,

which is by far the largest BLS category. **Respiratory diseases and poisonings,** which include respiratory conditions and lung disease such as asthma, as well as poisonings such as from carbon monoxide and lead, accounted for 9% of cases for workers' compensation and 7% of physician reports. **Infectious diseases**, which include bloodborne diseases such as HIV and hepatitis, Tb, scabies, Lyme disease (and including exposures as well as diagnosed disease) accounted for 25% in workers' compensation reports and 47% of physician reports (infectious disease is categorized under "other disease" in BLS; also, needlesticks and other bloodborne exposures with lost time are counted under injuries rather than illness in BLS). "Other diseases", which includes infectious diseases and MSD in BLS, physical hazards such as heat and cold exposures, allergies, cancer, and others in workers' compensation and physician reports, accounted for 19% (WCC) and 10% of physician reports. **Skin conditions** accounted for 4% (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 in the ABLES surveillance system; very few of those cases are reported to the other systems.

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

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

While the broad term of "strains and sprains" accounted for almost three-quarters of workers' compensation reports of musculoskeletal disorders (MSD), the most common specific types were Carpal Tunnel Syndrome (8%), numbness (4%), and various types of tendonitis (3%). The most common specific **causes** (aside from the commonly used terms "repetition" or "cumulative") for MSD in workers' compensation reports were lifting and carrying, tool use, computer use and data entry, and pushing or pulling.

Nonspecific respiratory illnesses were the most common type of lung condition, with 52% of reports, followed by asbestos disease or exposures (12%), asthma or reactive airways dysfunction syndrome (RADS) with 6%, poisonings such as from carbon monoxide, lead, or mercury (6%) and allergic conditions (5%). Exposures associated with respiratory conditions included smoke, fumes (including gas, carbon monoxide, metals, and lead), chemicals (including solvents, cleaning chemicals, paint, and oil), and mold or indoor air quality. The smoke category included a large-scale exposure from a plane crash site that involved at least 10 workers.

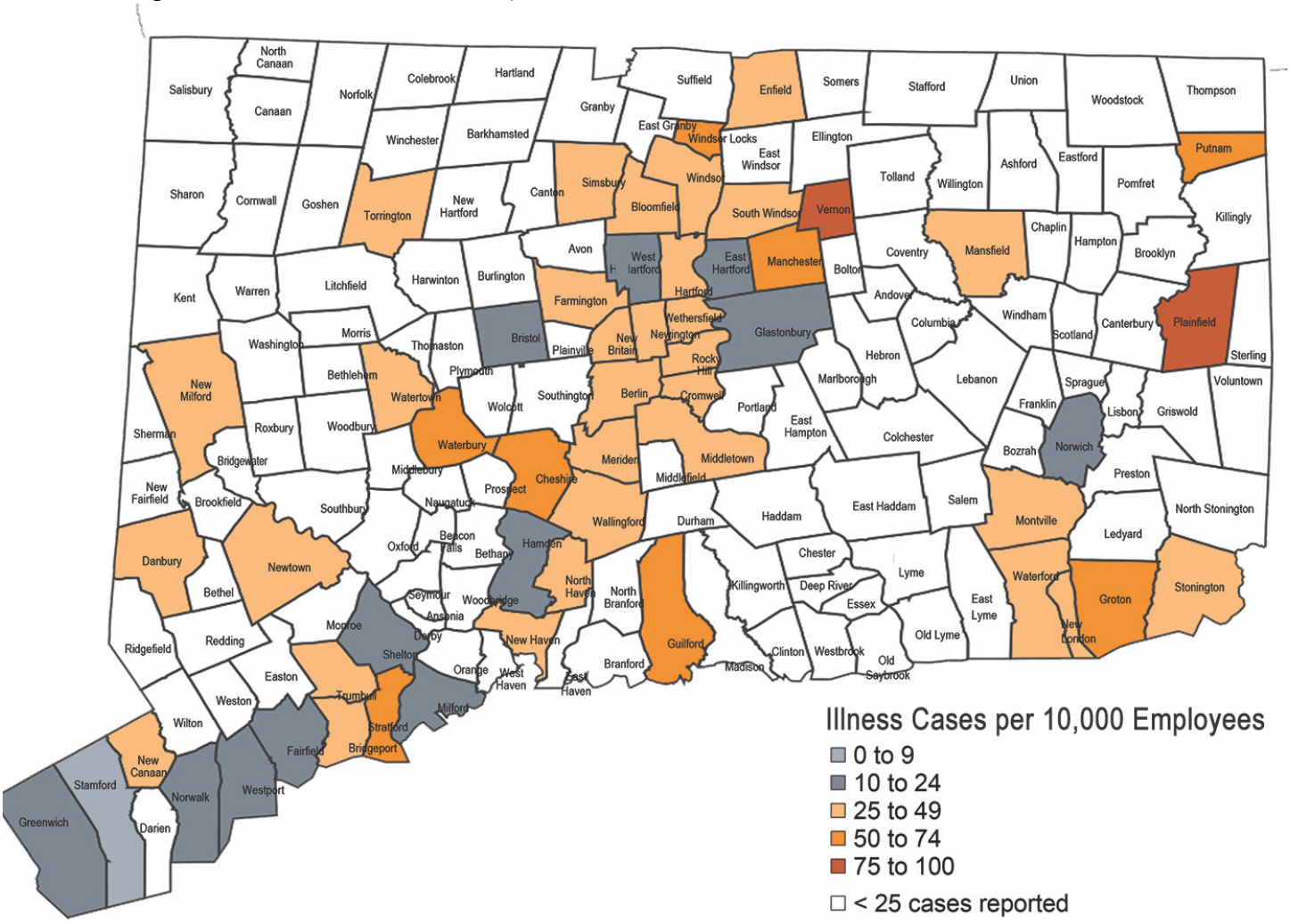
Infectious disease and exposures, based on workers' compensation reports, included 1,063 reports of potential exposure to bloodborne pathogens (including reports of exposure to HIV/AIDS and Hepatitis C), accounting for 81% of all infectious disease reports (and 85% of physician reports), including 314 needlesticks or sharps exposures. There were 75 cases of tuberculosis infection, usually determined by PPD conversion (which is a skin test based on immune response) or based on exposure to patients or clients with TB. There were 70 reports of tick bites, rashes from tick bites and/or a diagnosis of Lyme disease attributed to occupational exposures.

Rates of illness varied widely by **municipality** based on workers' compensation reports. Often the highest rates appear to be related to having large employers in high rate industries. There were 54 towns and cities with at least 25 cases of occupational disease reported to workers' compensation, and the overall state mean (average) was 31.5 cases per 10,000 employees. For towns with at least 25 cases, Plainfield had the highest rate at 93 cases per 10,000 employees, almost 3 times higher than the average rate. Plainfield was followed by Vernon

(76), Cheshire (70), Windsor Locks (66), Waterbury (65), Groton (60), Guilford (59), Manchester (56), Stratford (56), Putnam (52) and Torrington (50).

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

Figure A-1: Map of Occupational Illness Rates by Town, 2019 (map prepared by Connie Cox Cantor, Center for Population Health, UConn Health)

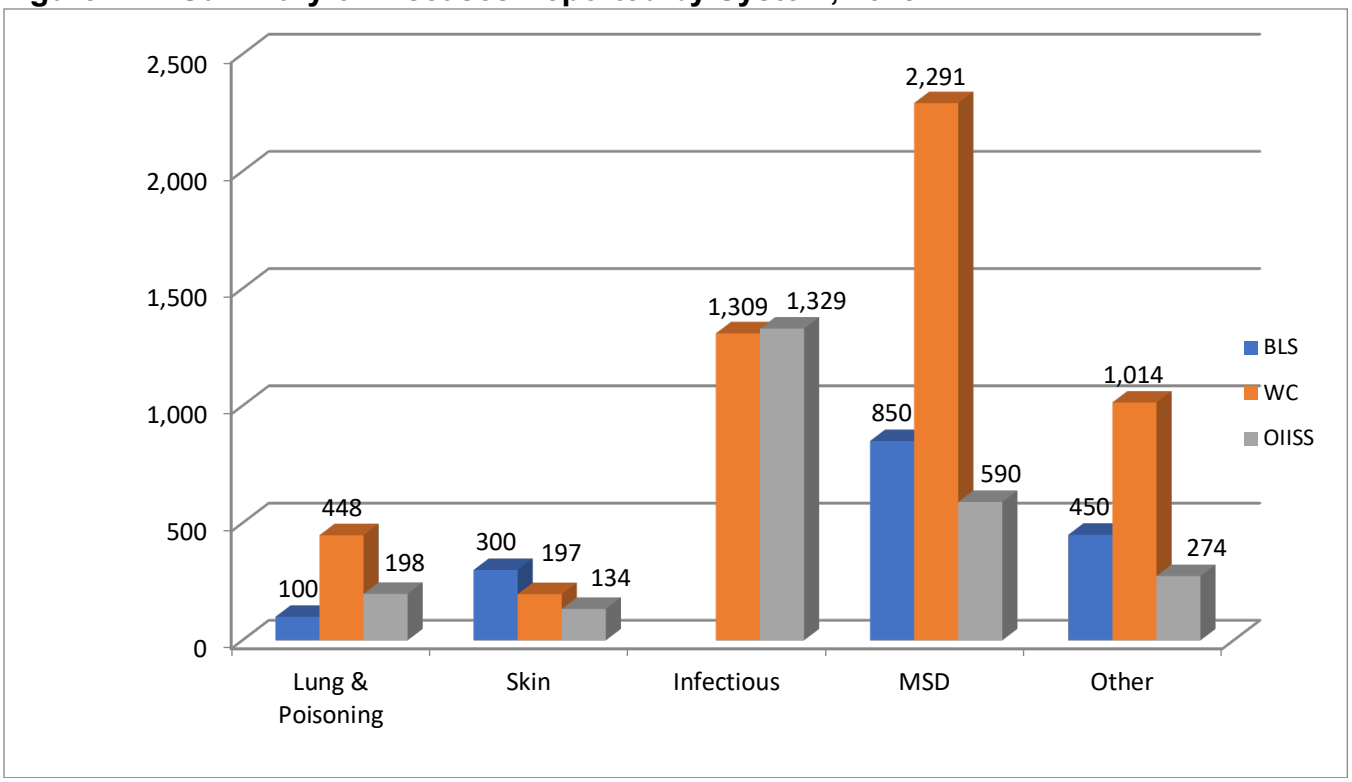


Special thanks to Amanda Deloreto, Ivan Cherniack, and Tom St. Louis at the CT Dept of Public Health, Erin Wilkins at the CT Dept. of Labor, and Martin Resto and Richard Eighme at the CT Workers' Compensation Commission for their assistance in compiling and reviewing the data.

B. Summary of Diseases

Figure B-1 shows the totals by disease category for 2019 for the three reporting systems: the Bureau of Labor Statistics/CT Dept. of Labor (BLS) survey, the Occupational Injury and Illness Surveillance System (OIISS, 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%. See Appendix 1 for a complete description of methods.

Figure B-1: Summary of Diseases Reported by System, 2019



Notes: BLS=Bureau of Labor Statistics/ConnOSHA survey; WC=Workers' Compensation First Report of Injury Database; OIISS= **Physicians reports from the Occupational Illnesses and Injury Surveillance System were not yet available**. MSD for the BLS database was estimated using prior proportions from "other" (85%) since they are no longer broken out by BLS.

The Workers' Compensation database showed the highest number of cases, with 5,259 total cases reported, 2,800 for the OIISS, and 1,700 for the BLS survey. MSD reports were dramatically higher for the workers' compensation system than the other two sources, while infectious disease was essentially the same for workers' compensation and physician reports (infectious disease is not broken out in the BLS survey).

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 OIISS 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.

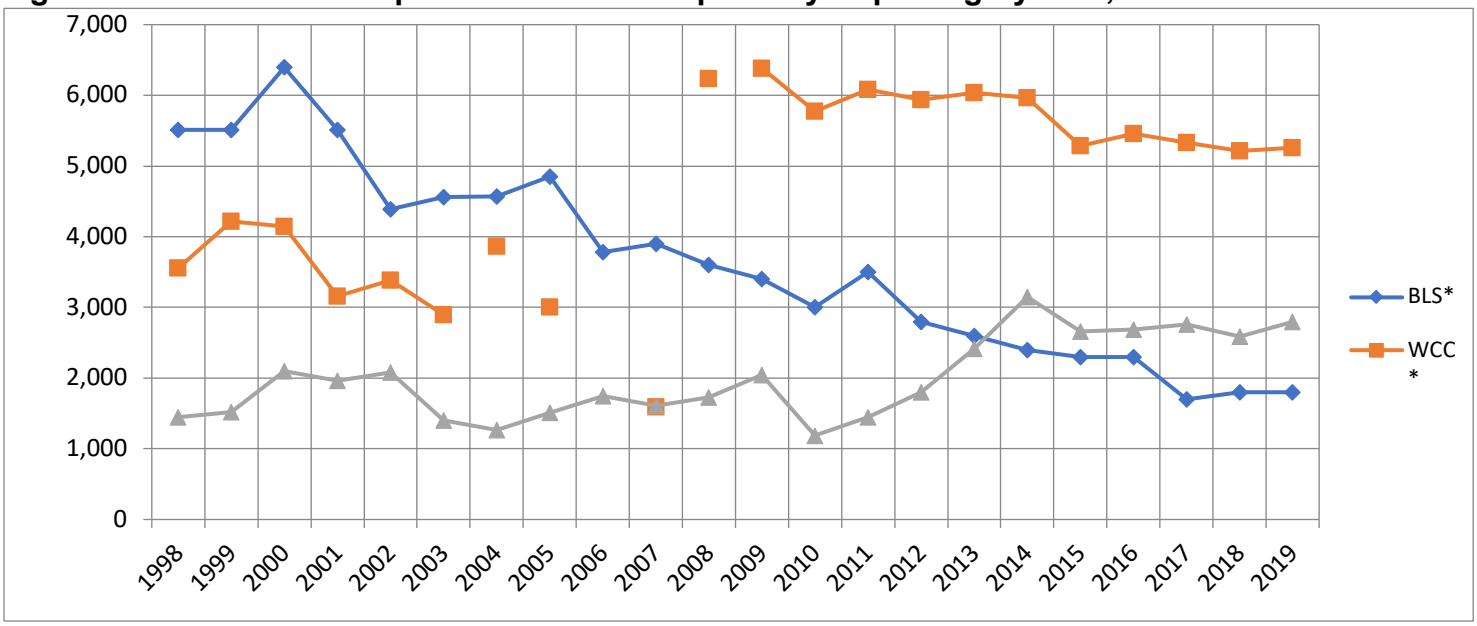
Table B-1: Matched, Unique, and Estimated Total Cases of Occupational Illness, CT, 2019

Illness Type	Matched	WC Only	OIISS Only	Unique Cases	Estimated Unreported	Estimated Total
Infectious	251	1,058	1078	**2,387**	2,157	**4,544**
Lung	41	407	157	**605**	954	**1,559**
MSD	140	2,151	450	**2,741**	4,173	**6,914**
Other	62	952	212	**1,226**	2,180	**3,406**
Skin	36	161	98	**295**	143	**438**
Total*	**530**	**4,729**	**1,995**	**7,254**	**10,547**	**17,801**

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

There was a total of 530 cases that were reported to **both** workers' compensation (WC) and by physicians to OIISS; 1,995 cases were reported only to the physician report system, and an additional 4,729 cases were reported only to the workers' compensation system. This gives a total of 7,254 unique cases that were reported to at least one of the two systems, with approximately 2,100 infectious cases, 1,000 lung cases, 4,000 musculoskeletal (MSD) cases, 150 skin conditions, and 2,000 "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 about 10,000 cases. When combined with the unique cases, this provides an estimate of approximately 18,000 occupational illness cases in Connecticut for 2019.

Figure B-2: Trend in Occupational Disease Reports by Reporting System, 1998-2019



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.

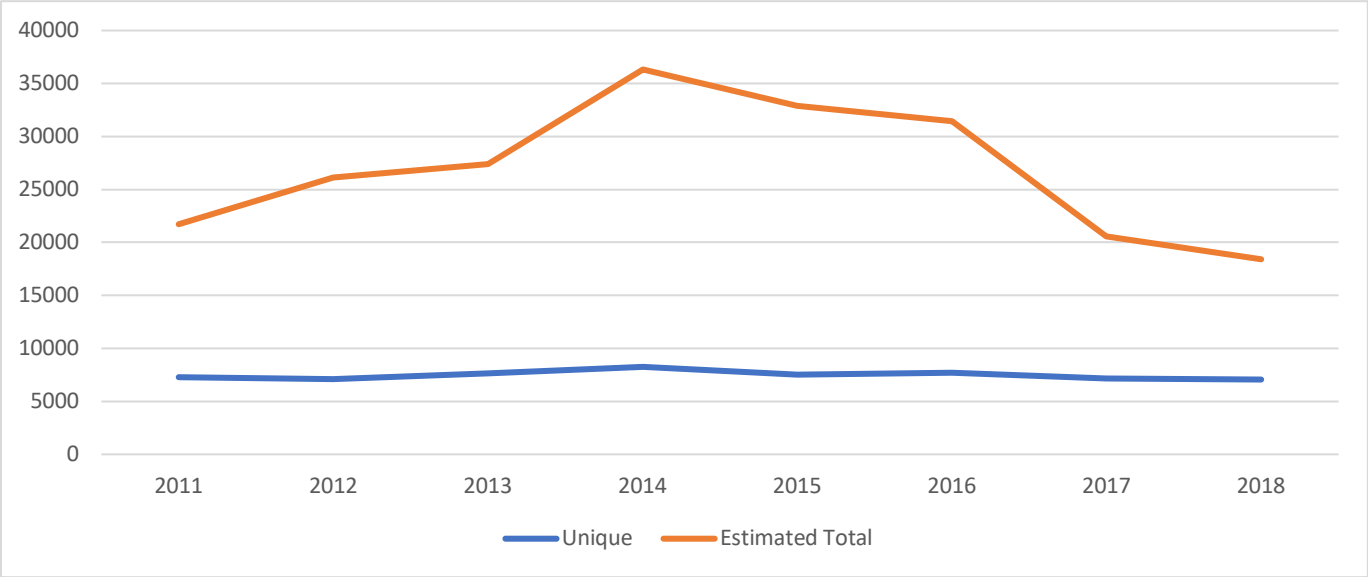
OIISS was not complete for 2010 and did not include most bloodborne infectious diseases/exposures in 2011. Data is not yet available for 2019.

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). BLS trends generally were generally declining then level since 2015; Workers' Compensation data generally declining

between 2008-15 (the Workers' Compensation database appears incomplete in 2003 and 2005-2007) and then level since 2015; and physician reports (OIISS) fluctuating but generally increasing since 2010 with a peak in 2014 and then a slight drop and leveling since 2015.

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. Estimated cases peaked in 2014 and declined since.

Figure B-3: Trend in Unique and Estimated Occupational Disease Reports, 2011-2018



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. Our report focuses on ***illnesses*** (rather than traumatic injuries) 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 2019

There were approximately 1,700 reported cases of occupational illnesses in 2019 (Table C-1 and Figure C-1) with an overall rate of 13.0 per 10,000 workers, an 8% decrease from the prior year.

Table C-1: Occupational Disease by Type, BLS/CTDOL 2018-2019

	2018		2019		% Change in Rate
	Cases	Rates	Cases	Rates	
Respiratory	200	1.4	100	1.1	-21%
Skin	300	1.9	300	2.1	11%
Hearing Loss	400	3.0	300	2.2	-27%
Poisonings	--	--	--	--	--
Other*	1,000	7.8	1,000	7.5	-4%
Total	**1,800**	**14.1**	**1,700**	**13.0**	**-8%**

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) is categorized under the "Other" category by BLS.

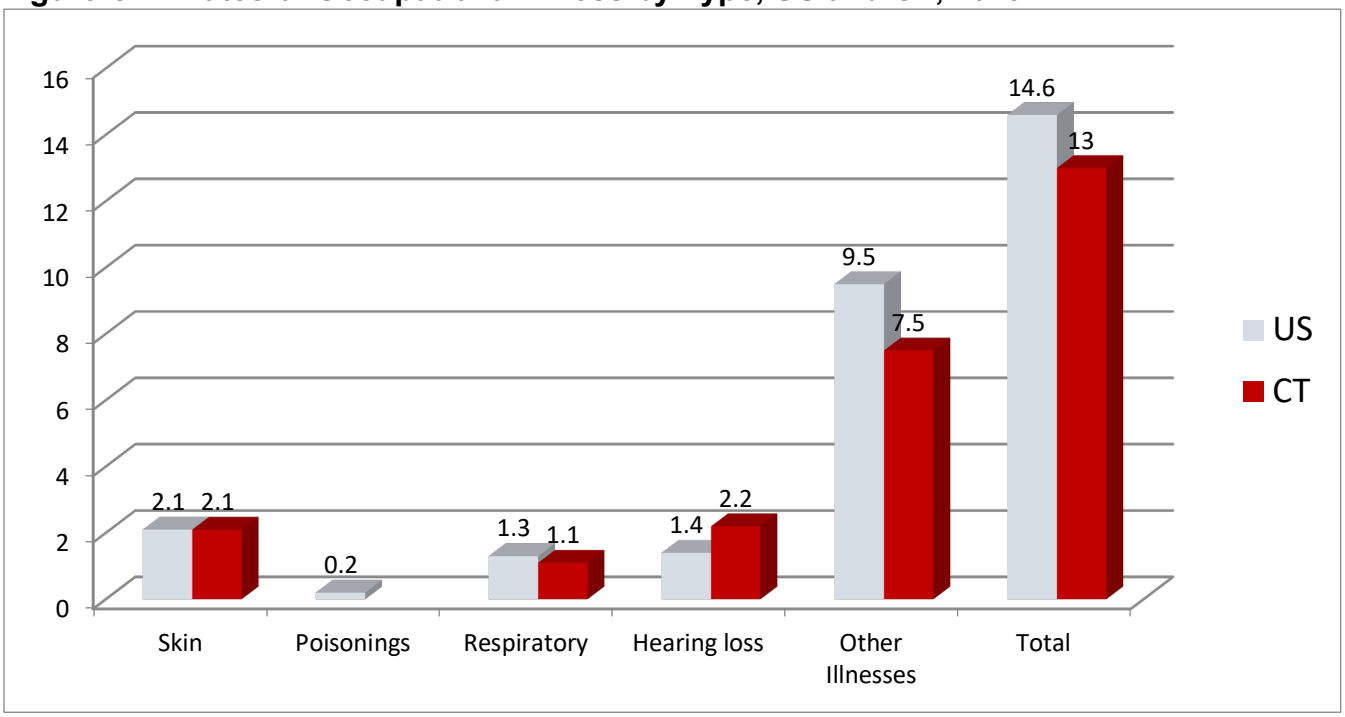
Overall rates for Connecticut in 2019 were lower than the U.S., driven primarily by lower rates of Other Illnesses, which includes repetitive trauma (Figure C-1). The overall Connecticut rate (13.0 cases per 10,000 workers) was 11% lower than the U.S. rate of 14.6. Rates decreased in 2019 for both Connecticut and the U.S.

Connecticut's illness rate of 13.0 cases per 10,000 workers ranked 21th highest out of 42 states with publishable data (20 states had higher rates and 21 had lower rates). Maine had the highest rate of 29.5 and the Louisiana had the lowest at 8.9.

Private sector rates for occupational illness were 12.2 in Connecticut and 12.4 nationally. Connecticut's public sector rate was 19.8 (a 38% decrease from 2018); the U.S. public sector rate was 29.7.

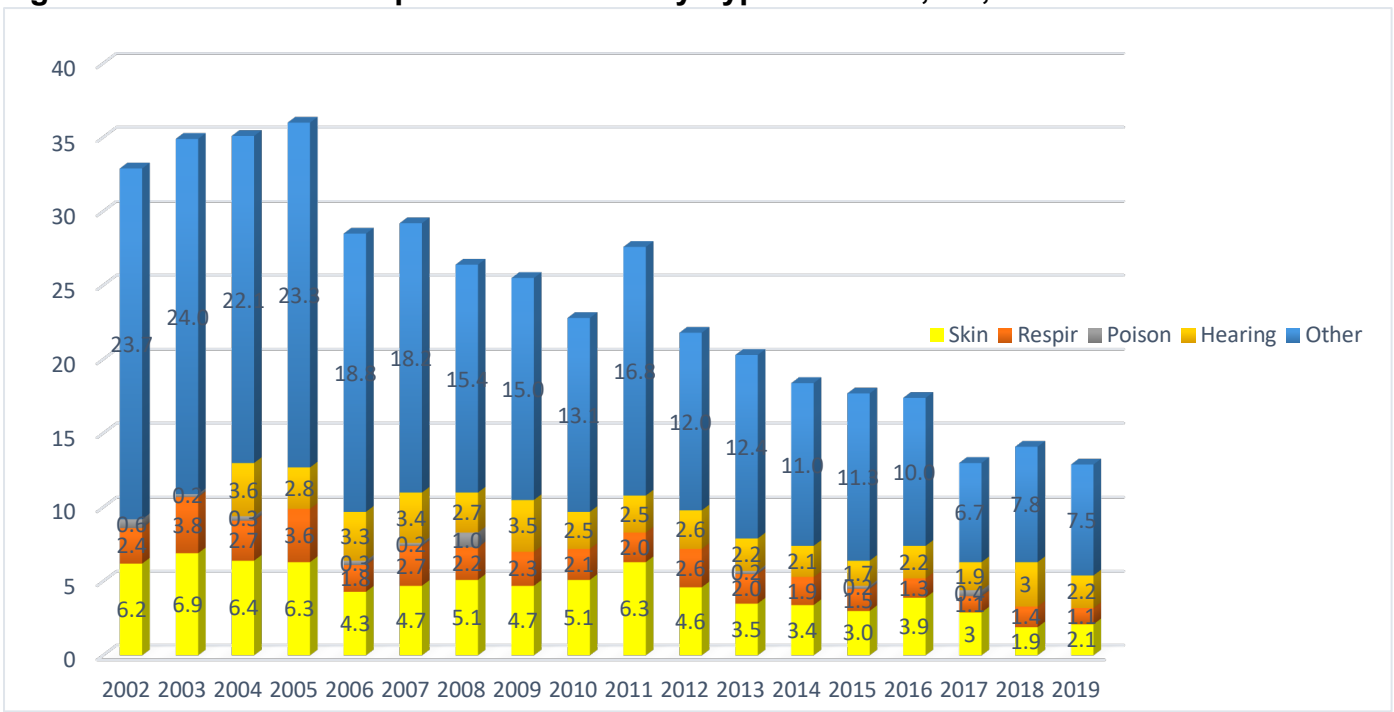
In Connecticut, the rate of illnesses increased slightly from 2002-2005, generally decreased through 2017 with the exception of 2011, then generally level through 2019 (Figure C-2).

Figure C-1: Rates of Occupational Illness by Type, US and CT, 2019



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, 2002-2019



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

Illnesses by Industry

Numbers and rates by industry sector for 2019 are presented in Table C-2. Overall, the adjusted rate was 13.0 cases of occupational illness per 10,000 CT workers, 8% lower than the 2018 rate of 14.1. The overall private sector rate was 12.2, with a government rate of 19.8 (62% higher than the private sector rate).

Table C-2: Illness Rates per 10,000 Workers by Industry and Type of Illness, CT, 2019

	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	13.0	1.7	2.1	0.3	1.1	0.1	--	--	2.2	0.3	7.5	1.0
Private industry	12.2	1.4	1.8	0.2	1.0	0.1	--	--	2.4	0.3	7.0	0.8
Goods-producing	28.1	0.6	4.0	0.1	1.4	--	--	--	12.1	0.3	10.6	0.2
Natural resources and mining	43.1	--	--	--	--	--	--	--	--	--	--	--
Agriculture, forestry, fishing and hunting	48.0	--	--	--	--	--	--	--	--	--	--	--
Mining, quarrying, and oil and gas extraction	--	--	--	--	--	--	--	--	--	--	--	--
Construction	11.4	0.1	--	--	--	--	--	--	--	--	--	--
Manufacturing	33.1	0.5	3.2	0.1	1.1	--	--	--	16.4	0.3	12.5	0.2
Service-providing	8.5	0.8	1.3	0.1	0.9	0.1	--	--	--	--	6.2	0.6
Trade, transportation, and utilities	8.3	0.2	0.7	--	1.0	--	--	--	--	--	6.3	0.1
Wholesale trade	--	--	--	--	--	--	--	--	--	--	--	--
Retail trade	7.6	0.1	--	--	--	--	--	--	--	--	5.8	0.1
Transportation and warehousing	21.4	0.1	--	--	--	--	--	--	--	--	16.3	0.1
Utilities	--	--	--	--	--	--	--	--	--	--	--	--
Information	--	--	--	--	--	--	--	--	--	--	--	--
Finance, insurance, and real estate	2.7	--	--	--	--	--	--	--	--	--	2.4	--
Finance and insurance	2.9	--	--	--	--	--	--	--	--	--	2.5	--
Real estate and rental and leasing	--	--	--	--	--	--	--	--	--	--	--	--
Professional and business services	2.4	--	--	--	--	--	--	--	--	--	1.4	--
Professional, scientific, and technical services	--	--	--	--	--	--	--	--	--	--	--	--
Management of companies and enterprises	--	--	--	--	--	--	--	--	--	--	--	--
Administrative and support and waste management and remediation services	3.7	--	--	--	--	--	--	--	--	--	--	--
Educational and health services	14.1	0.3	2.6	0.1	1.7	--	--	--	--	--	9.7	0.2
Educational services	8.4	--	--	--	--	--	--	--	--	--	5.5	--
Health care and social assistance	15.3	0.3	2.8	0.1	1.9	--	--	--	--	--	10.6	0.2
Leisure, entertainment, and hospitality	16.9	0.2	--	--	--	--	--	--	--	--	13.9	0.1
Accommodation and food services	18.1	0.2	--	--	--	--	--	--	--	--	14.8	0.1
Other services (except public administration)	--	--	--	--	--	--	--	--	--	--	--	--
State and local government	19.8	0.3	5.1	0.1	1.9	--	--	--	--	--	11.9	0.2
State government	16.4	0.1	8.8	--	--	--	--	--	--	--	5.4	--
Local government	21.4	0.2	3.3	--	2.1	--	--	--	--	--	14.9	0.1

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.

The highest specific sector rate was for Agriculture at 48.0 cases per 10,000, followed by Manufacturing (33.1), Transportation/warehousing and Local Government (both 21.4), Accommodation and food services (18.1), State Government (16.4), and Health Care (15.3). Specific conditions varied by which sector was highest (for example, Transportation was highest for "Other" conditions (which includes chronic musculoskeletal conditions), but Local Government was highest for respiratory conditions and State Government highest for skin conditions, though these are difficult to evaluate since so many sectors had too few cases in the sample to generate a meaningful rate.

Lost-Time Illnesses

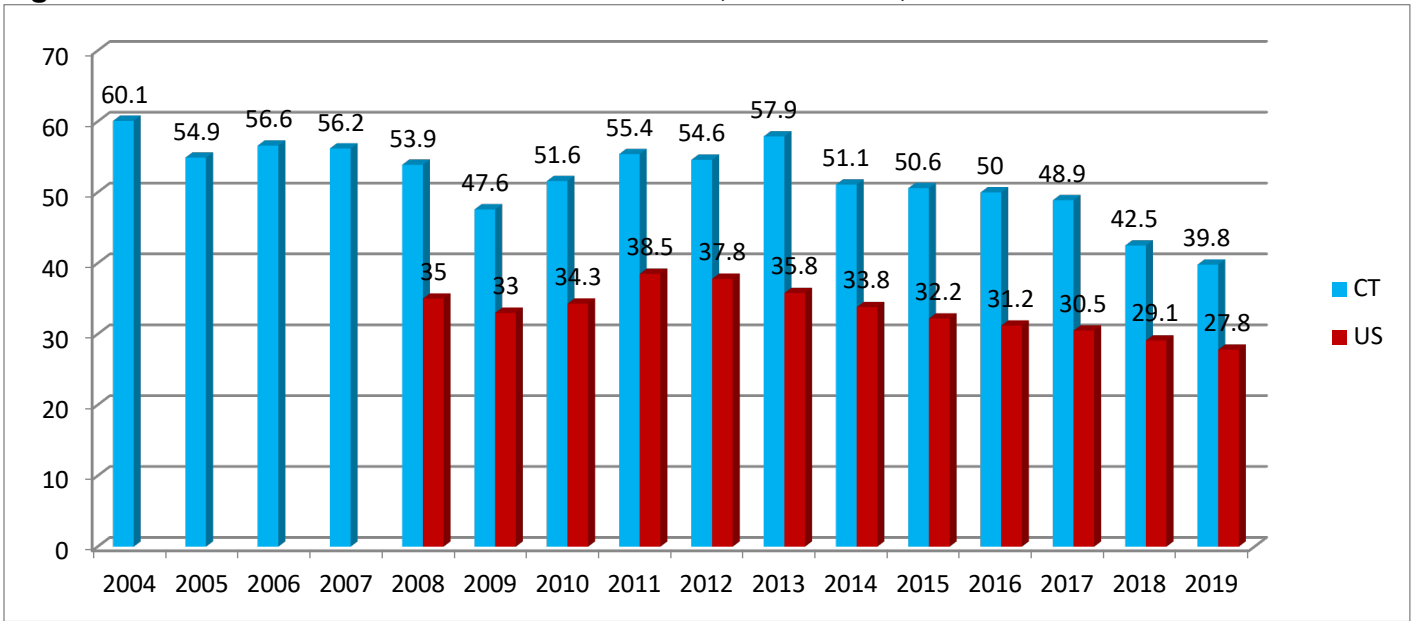
BLS obtains additional data for the subset of cases that result in lost worktime and provides additional detail on specific conditions and causes. The following draws from this data for conditions that are more chronic in nature (usually classified as occupational illness). Restricted work cases are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

Musculoskeletal Conditions

The rate of musculoskeletal disorders (MSD) with lost time in Connecticut was 6% lower than the previous year at 39.8 cases per 10,000 workers (Figure C-3). The Connecticut rate is 43% higher than the national MSD rate of 27.8. MSD rates in Connecticut have generally decreased over the last six 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."

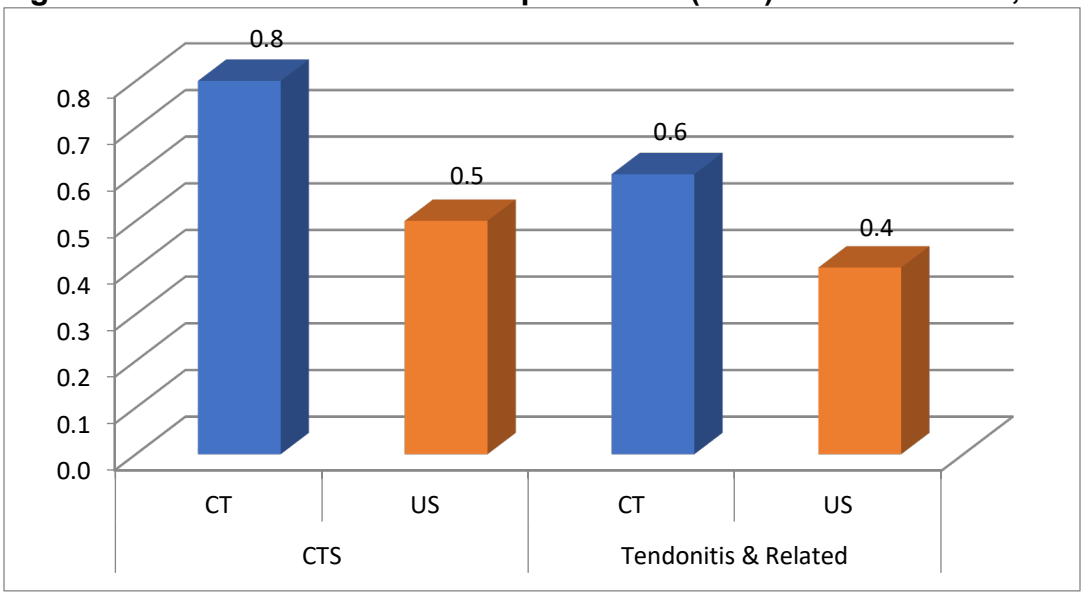
Figure C-3: Rates of Musculoskeletal Disorders, CT and US, 2004-2019



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

Carpal Tunnel Syndrome (CTS) was the most common specific lost-time illness in CT, with a rate of 0.8 cases per 10,000 workers in 2019 (Figure C-4), and 0.6 cases per 10,000 of tendonitis. The rate of CTS in CT was 60% higher than the national rate and 50% higher for tendonitis. CTS had a very high number of lost work days, with a median of 33 days of lost time per case (compared to 8 days for all cases of injury and illness) in CT. Tendonitis (and related soft-tissue disorders) was also high at 21 lost days, and musculoskeletal disorders had 11.

Figure C-4: Rates of Lost-time Carpal Tunnel (CTS) and Tendonitis, US & CT, 2019



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 2.6 cases per 10,000 workers from 2.9 in the previous year. Microtasks was the largest specific cause of repetitive motion (Table C-3). The CT rate was 35% higher than the national rate of 1.7. Repetitive motion lost time cases in CT had a median of 25 days away from work in 2019.

Table C-3: Illnesses involving Repetitive Motion by Type, 2018-2019

Repetitive Motion Injuries	2018	2019
Microtasks (unspecified)	0.6	0.7
Typing and computer	0.5	0.4
Tools	0.7	0.6
Grasping, placing, moving	0.9	0.5
Hand use (not tools)	0.1	0.1
Multiple types of repetitive motions	0.1	0.2
Other microtasks		
All repetitive with microtasks (total)	**2.9**	**2.3**

D. Workers' Compensation First Report of Injury Data

There was a total of 5,259 reports in the Workers' Compensation First Report of Injury Database for 2019 (Table D-1), unchanged from 2018, with a 7% decrease in musculoskeletal disorders but a 9% increase in infectious disease, a 7% increase in skin disorders, and 3% increases in lung disorders and "other illnesses" such as heart conditions, stress, and hearing loss.

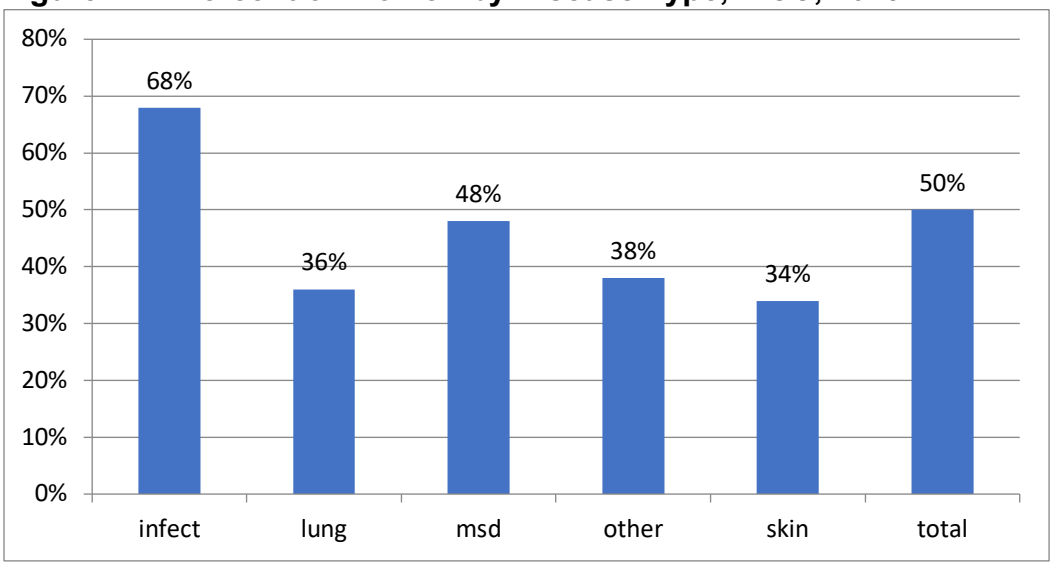
Approximately half (44%) of the reports were due to chronic musculoskeletal disorders (MSD) such as carpal tunnel syndrome and tendonitis. Infectious diseases accounted for 25% of the cases, lung diseases (including nonspecific respiratory illness and chronic lung conditions such as asthma and asbestos-related illnesses and exposures) 9%, skin disorders 4%, and "Other Illnesses" 19%.

Table D-1: Occupational Disease by Type, WCC, 2018-2019

	2018	2019		
Illness type	Cases	Cases	% of Total	% Change
Musculoskeletal Disorders (MSD)	2,456	2,291	44%	-7%
Infectious Disease	1,201	1,309	25%	9%
Lung Disorders	436	448	9%	3%
Skin Disorders	184	197	4%	7%
Other Illnesses	980	1,014	19%	3%
Total	**5,257**	**5,259**	**100%**	**0%**

Overall, 50% of reports were for women, but this varied by type of case, with a higher proportion than average for infectious diseases (68% women) but lower for all other types of illness (Figure D-1). Women comprised 52% of the Connecticut workforce in 2019.

Figure D-1: Percent of Women by Disease Type, WCC, 2019



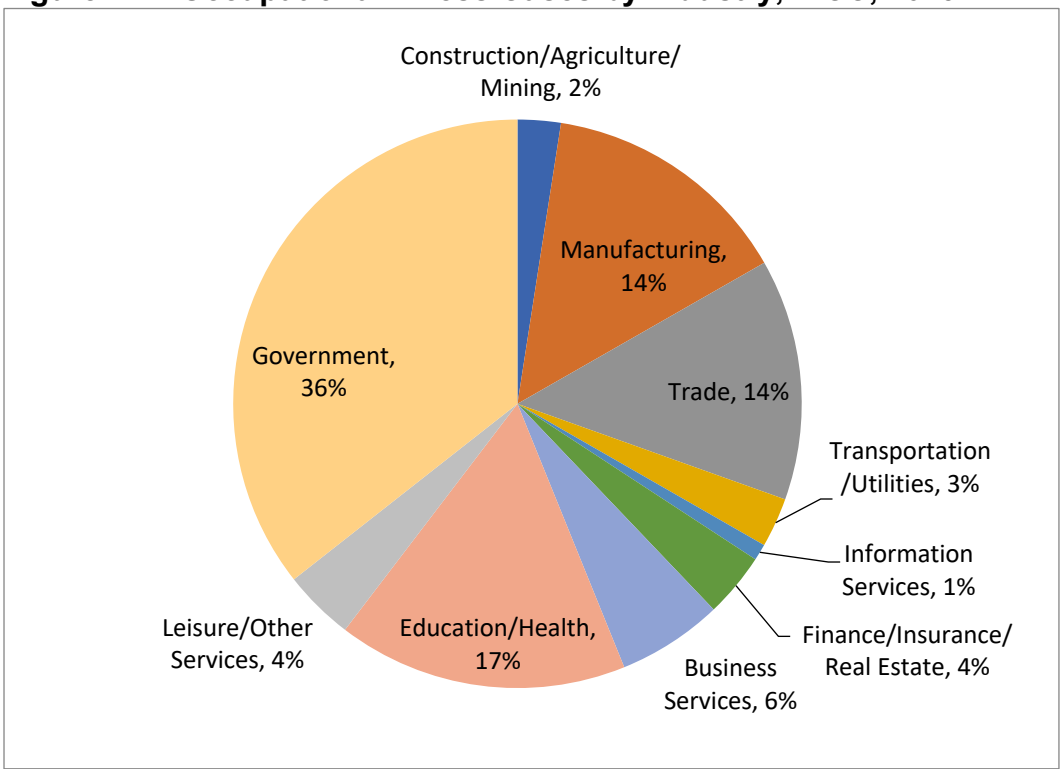
Reported occupational illnesses occurred more in older workers, with almost half (45%) involving workers between 45 and 64 years old (Table D-2), with 21% involving workers between 25-34, and 19% between 35-44. Rates of illness were also higher for older workers, with over 30 cases per 10,000 workers for those between 45 and 64.

Table D-2: Occupational Illness by Age, 2019

Age Range	Cases	Percent	Workforce	Rate
16-19	54	1%	71,900	7.5
20-24	344	7%	138,300	24.9
25-34	1,118	21%	386,700	28.9
35-44	991	19%	369,600	26.8
45-54	1,193	23%	349,500	34.1
55-64	1,176	23%	370,300	31.8
65+	333	6%	154,500	21.6
Unknown	50	1%		
Total	**5,259**	**100%**	**1,840,700**	**28.6**

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 Government (36%), Education/Health (17% of all cases; there are also health and education cases classified under government, such as employees in public schools), Manufacturing (14%), and Trade (14%).

Figure D-2: Occupational Illness Cases by Industry, WCC, 2019



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 2019 was 31.5 cases per 10,000 workers, essentially the same as the 31.4 cases per 10,000 in 2018. The highest illness rates by industry sector were for Government (81.3, 158% higher than the overall rate) and Manufacturing (45.3 or 44% higher), with all other sectors at or below the average rate.

Table D-3: Cases of Occupational Disease by Major Industry Sector, WCC, 2019

NAICS Sector	Cases	%	Employment	%	Rate
Construction/Agriculture/Mining	126	2%	64,989	4%	19.4
Manufacturing	734	14%	161,899	10%	45.3
Trade	705	14%	235,331	14%	30.0
Transportation/Utilities	145	3%	56,635	3%	25.6
Information Services	48	1%	31,469	2%	15.3
Finance/Insurance/Real Estate	188	4%	121,869	7%	15.4
Business Services	308	6%	218,711	13%	14.1
Education/Health	848	17%	330,458	20%	25.7
Leisure/Other Services	207	4%	224,071	13%	9.2
Government	1,829	36%	224,886	13%	81.3
Unknown	121		321		
Total	**5,259**	**100%**	**1,670,639**	**100%**	**31.5**

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 was 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).

Government had a high number of cases in all categories of illnesses. **Infectious diseases** were concentrated in Government (51%) and Education/Health (35%). **Lung diseases** were concentrated in Government (44%) and Manufacturing (17%). **Musculoskeletal disorders** (MSD) were spread across Manufacturing (23%), Government (22%), Trade (21%), and Education/Health (12%). **Skin disorders** were spread across Government (38%), Education/Health (17%), Manufacturing (13%) and Trade (11%). **"Other" illnesses**, including heart conditions and hypertension, stress, and hearing loss cases (see below) were most common in Government (42%), Trade (17%) and Manufacturing (12%).

Table D-4: Type of Disease by Industry Sector, WCC, 2019

	Other		Lung		Infectious		MSD		Skin		**Total**	
Construction/Agric/Mining	24	**2%**	8	**2%**	4	**0%**	85	**4%**	5	**3%**	126	**2%**
Manufacturing	117	**12%**	72	**17%**	8	**1%**	513	**23%**	24	**13%**	734	**14%**
Trade	173	**17%**	36	**8%**	11	**1%**	465	**21%**	20	**11%**	705	**14%**
Transport/Utilities	32	**3%**	39	**9%**	5	**0%**	67	**3%**	2	**1%**	145	**3%**
Information Services	10	**1%**	5	**1%**	6	**0%**	23	**1%**	4	**2%**	48	**1%**
Finance/Insurance/RE	34	**3%**	11	**3%**	64	**5%**	76	**3%**	3	**2%**	188	**4%**
Business Services	54	**5%**	19	**4%**	69	**5%**	150	**7%**	16	**8%**	308	**6%**
Education/Health	73	**7%**	32	**7%**	453	**35%**	257	**12%**	33	**17%**	848	**17%**
Leisure/Other Services	61	**6%**	23	**5%**	14	**1%**	99	**4%**	10	**5%**	207	**4%**
Government	416	**42%**	190	**44%**	659	**51%**	491	**22%**	73	**38%**	1,829	**36%**
Subtotal	**994**	**100%**	**435**	**100%**	**1,293**	**100%**	**2,226**	**100%**	**190**	**100%**	**5,138**	**100%**
Unknown	20		13		16		65		7		121	
Total	**1,014**		**448**		**1,309**		**2,291**		**197**		**5,259**	

Table D-5: Specific Industry Sectors with over 25 Cases of Occupational Disease, WCC, 2019

Specific Industry Sector	NAICS Code	2019 Cases	Employed	Rate	2018 Cases	Change
Transportation Support	488	36	3,538	101.8	10	260%
State Government		576	61,696	93.4	526	10%
Local Government		1,253	144,995	86.4	1,238	1%
Non-store Retailers	454	62	8462	73.3	60	3%
Computer and Electronic Product Manufacture	334	79	10,919	72.4	96	-18%
Hospitals	622	409	59,078	69.2	310	32%
Chemical Manufacturing	325	50	7,910	63.2	33	52%
Transportation Equipment Manufacturing	336	277	46,971	59.0	233	19%
Credit & Related Activities (Banks)	522	124	22,653	54.7	35	254%
Electrical Equip, Appliance, Component Manuf.	335	42	7,855	53.5	46	-9%
Food and Beverage Stores	445	208	41,958	49.6	239	-13%
Merchant Wholesalers, Nondurable Goods	424	94	21,011	44.7	82	15%
Telecommunications	517	28	6,847	40.9	36	-22%
Food Products	311	33	8,204	40.2	40	-18%
Fabricated Metal Product Manufacturing	332	118	29,780	39.6	114	4%
Accommodation	721	39	11,683	33.4	34	15%
General Merchandise Stores	452	87	27,649	31.5	100	-13%
Merchant Wholesalers, Durable Goods	423	86	31,270	27.5	83	4%
Misc. Retail Stores	453	25	9,301	26.9	29	-14%
Administrative and Support Services	561	220	83,670	26.3	277	-21%
Nursing and Residential Care Facilities	623	157	60,783	25.8	192	-18%
Clothing and clothing accessories	448	34	15,167	22.4	34	0%
Transit and Ground Passenger Transportation	485	31	14,442	21.5	33	-6%
Specialty Trade Contractors	238	86	41,994	20.5	62	39%
General Purpose Machinery Manufacturing	333	26	13,099	19.8	46	-43%
Motor Vehicle Dealers	441	41	21,876	18.7	48	-15%
Physician Offices	621	151	93,671	16.1	189	-20%
Educational Services	611	92	59,333	15.5	99	-7%
Personal and Laundry Services	812	26	22,546	11.5	45	-42%
Professional, Scientific, and Technical Services	541	78	95,777	8.1	96	-19%
Social Assistance	624	39	57,594	6.8	44	-11%
Food Services and Drinking Places	722	75	117,313	6.4	77	-3%

Table D-5 shows those specific industry subsectors (3-digit NAICS code) that reported 25 or more cases of occupational illness in 2019, ordered by the highest ***rate*** of illness. Local Government and State Government do not show detailed sector (such as Education or Health) since the data did not provide reliable detail. The highest rates were in Transportation Support (101.8 cases per 10,000 workers), State government (93.4), Local Government (86.4), Non-store retailers (73.3), Computer and Electronic Product Manufacturing (72.4) Hospitals (69.2) and Chemical Manufacturing (63.2). Rates for sectors listed below General Merchandise Stores are below the average overall state rate of 31.5 per 10,000 workers (the high number of cases for those lower-rate subsectors is primarily because they employ large numbers of workers).

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 2019. 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. The overall state average was 31.5 cases per 10,000 employees.

For towns with at least 25 cases, Plainfield had the highest rate at 93 cases per 10,000 employees, almost 3 times higher than the average rate. Plainfield was followed by Vernon (76), Cheshire (70), Windsor Locks (66), Waterbury (65), Groton (60), Guilford (59), Manchester (56), Stratford (56), Putnam (52) and Torrington (50).

Table D-6: Illnesses by Town/Municipality, 25 or more cases, WCC, 2019

Town	Cases	Employment	Rate per 10,000	Rank
Plainfield	41	4,397	93	1
Vernon	61	8,053	76	2
Cheshire	117	16,794	70	3
Windsor Locks	87	13,276	66	4
Waterbury	253	39,067	65	5
Groton	171	28,306	60	6
Guilford	47	8,033	59	7
Manchester	155	27,731	56	8
Stratford	136	24,431	56	9
Putnam	31	5,927	52	10
Torrington	74	14,841	50	11
New Milford	39	7,941	49	12
Cromwell	36	7,517	48	13
Mansfield	55	11,739	47	14
Meriden	103	22,727	45	15
Farmington	144	32,136	45	16
Waterford	47	10,604	44	17
Stonington	32	7,740	41	18
Middletown	116	28,112	41	19
Trumbull	57	14,894	38	20
Newtown	32	8,461	38	21
New Canaan	25	6,685	37	22
South Windsor	52	14,212	37	23
Watertown	32	8,890	36	24
New London	47	13,509	35	25
Newington	58	17,077	34	26
Hartford	370	110,997	33	27
Berlin	39	11,809	33	28
Simsbury	26	8,216	32	29

Connecticut	5259	1,670,354	31	Average
Bloomfield	62	19,821	31	30
New Haven	263	84,205	31	31
Windsor	81	26,528	31	32
North Haven	62	20,713	30	33
Danbury	125	43,886	28	34
Wethersfield	27	9,558	28	35
Bridgeport	107	42,048	25	36
Rocky Hill	41	16,130	25	37
Wallingford	71	28,172	25	38
Montville	31	12,427	25	39
Enfield	44	18,045	24	40
New Britain	58	24,599	24	41
Glastonbury	40	17,216	23	42
Norwalk	98	43,536	23	43
West Hartford	64	29,143	22	44
Norwich	36	17,410	21	45
Milford	53	27,752	19	46
Hamden	39	20,567	19	47
Greenwich	62	33,671	18	48
Westport	27	14,929	18	49
Shelton	46	25,873	18	50
East Hartford	57	34,438	17	51
Bristol	36	22,420	16	52
Fairfield	30	25,739	12	53
Stamford	67	76,189	9	54

*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 2,291 cases of MSD reported to Workers' Compensation in 2019, a 6% decrease from 2018 (Table D-7). MSD accounted for just under half (44%) 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 72% of reports (Table D-7). Carpal Tunnel Syndrome (CTS), which is a very debilitating pinching of the median nerve at the wrist, accounted for 8% of total MSD reports. Other nerve-related problems (with descriptions of numbness or tingling) accounted for an additional 4% 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, 2018-2019

	2018	2019		
MSD Type	**Cases**	**Cases**	**%**	**Change**
Sprain/strain	1,718	1,640	72%	-5%
Carpal Tunnel Syndrome	255	194	8%	-24%
Numbness	118	92	4%	-22%
Tendonitis/tenosynovitis	34	23	1%	-32%
Trigger finger	25	14	1%	-44%
Epicondylitis	20	16	1%	-20%
Ganglion cyst	15	7	0%	-53%
Rotator cuff	9	19	1%	111%
Arthritis/bursitis	9	3	0%	-67%
Other/Unknown	226	283	12%	25%
Total	**2,429**	**2,291**	**100%**	**-6%**

Approximately two-thirds (66%) of the cases of MSD were in the upper limbs of the body such as hands, arms, elbows, and shoulders (Table D-8). Another 15% were for the lower extremity (legs, knees and feet), and 14% 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, 2019

Part of body	Cases	Percent
Lower Arm, Wrist, Hand	803	35%
Upper Arm, Shoulder, Upper Extremity	575	25%
Legs, Knees, and Feet	337	15%
Elbow	134	6%
Neck, Back, Torso	314	14%
Multiple	113	5%
Other/Unknown	15	1%
Total	**2,291**	**100%**

Causes of conditions were often incomplete, overlapping, and not consistently coded nor described. Approximately 80% 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" (33% 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 (17%), tool use (including references specifically to pneumatic tools or vibration exposure; 9%), computing and clerical tasks (7%), and pushing or pulling (6%).

Table D-9: Musculoskeletal Disorders (MSD) with Identified Cause, WCC, 2019

Cause of MSD	Reports	%
Repetitive	671	33%
Lifting/carrying	334	17%
Tools/vibration	183	9%
Computer/clerical	140	7%
Push/pull	117	6%
Bending/kneeling/crawling	60	3%
Reaching	55	3%
Assembly	53	3%
Walking/running/moving	52	3%
Machine	48	2%
Grasping/gripping/squeezing	48	2%
Twisting	46	2%
Driving	40	2%
Sitting/standing	37	2%
Shoveling	33	2%
Cleaning/mopping/sweeping	31	2%
Patient care	21	1%
Climbing	19	1%
Selecting/sorting/inspecting/packing	19	1%
Scanning/cashier	14	1%
Sub-Total	**2,021**	**100%**
Unknown/other	**270**	
Total	**2,291**	

Infectious Diseases

There were 1,309 reports of infectious diseases or exposures in the database for 2019 (Table D-10), a 9% increase from the previous year. Infectious disease reports include both actual disease and exposure to infectious agents. There were 1,063 reports of exposure to bloodborne pathogens (including reports of exposure to HIV/AIDS and Hepatitis C), accounting for 81% of all infectious disease reports and a 6% increase from the previous year. These included 314 needlestick injuries or cuts from sharps or surgical instruments that may have resulted in exposure to a patient's blood, 529 reports of exposures to human bites (cases were excluded if they specifically indicated the skin was not broken), and 220 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.

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, 2018-2019

	2018		2019		
Illness	**Cases**	**%**	**Cases**	**%**	**Change**
Bloodborne: Human bite	476	40%	529	40%	11%
Bloodborne: Sharp and needlestick exposures	372	31%	314	24%	-16%
Bloodborne: Blood/body fluids	153	13%	220	17%	44%
TB/ppd conversion/exposure	30	2%	75	6%	150%
Lyme Disease/Tick bite	72	6%	70	5%	-3%
Chicken pox, measles, whooping cough	2	0%	34	3%	1600%
Meningitis exposure	21	2%	9	1%	-57%
Rabies	9	1%	9	1%	0%
Scabies/lice	13	1%	7	1%	-46%
MRSA/staph/strep	12	1%	7	1%	-42%
Other infectious	41	3%	35	3%	-15%
Total	**1,201**	**100%**	**1,309**	**100%**	**9%**

There were 75 cases of tuberculosis 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 increase of 150% from 2018. There were 70 reports of tick bites, rashes from tick bites and/or a diagnosis of Lyme disease attributed to occupational exposures, a 3% decrease. In addition, there were 34 cases of chicken pox, measles or whooping cough (25 of these were a cluster of exposures to whooping cough (pertussis) at one hospital), 9 reports of meningitis exposure or illness, 9 cases of exposure to rabies, 7 cases of scabies or lice exposures/illnesses, and 7 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).

Respiratory Illness and Poisonings

There were 234 cases of respiratory illnesses (mostly nonspecific respiratory illness from relatively acute chemical or biological exposures) for 2019 (Table D-11), a 9% decrease from 2018. There were 27 cases of poisonings from carbon monoxide, other gases, mercury, or lead, a 43% decrease from the previous year. In addition, *chronic* lung disease such as asbestos-related illnesses, asthma, and lung cancer are addressed in the following section.

Smoke or fire was the most common cause of respiratory illness (44% of cases) followed by chemical exposures (26%), dust or fumes (10%), and general indoor air quality (IAQ) or mold (9%). There were 16 cases of poisoning from exposure to carbon monoxide or other gases and fumes, 7 reports of lead poisoning and 4 other poisonings or exposure in 2019.

There was a large-scale exposure to smoke and fumes from a plane crash and fire at an airport that involves at least 10 workers. In addition to the more general categories of smoke, construction dust and mold, specific substances were reported as connected to the respiratory cases: cleaning chemicals or bleach (17), formalin (3), oil/coolant (3), battery fumes (3), pepper spray (3), unknown powders (3), inadvertent drug exposure to marijuana with pcp (2), perfume (2), paint (2), propane, asphalt, epinephrine, fire extinguisher fumes, acetone, flowers, peroxide, pesticides, insulation, photographic chemicals, dry erase marker, firefighting foam, and sulphur hexafloride.

Table D-11: Respiratory Conditions and Poisonings by Cause, WCC, 2018-2019

Cause	2018		2019		
Respiratory	**Cases**	**%**	**Cases**	**%**	**Change**
Smoke, fire	42	16%	102	44%	143%
Chemical exposure	107	41%	62	26%	-42%
Dust/fumes	16	6%	24	10%	50%
IAQ/mold/odor	28	11%	22	9%	-21%
Other respiratory	65	25%	24	10%	-63%
Respiratory subtotal	**258**	**100%**	**234**	**100%**	**-9%**
Poisoning	**Cases**	**%**	**Cases**	**%**	**Change**
Carbon monoxide/gas	34	72%	16	59%	-53%
Lead	5	11%	7	26%	40%
Other Poisoning	8	17%	4	15%	-50%
Poisoning Subtotal	**47**	**100%**	**27**	**100%**	**-43%**
Total Respiratory and Poisoning	**305**	**100%**	**261**	**100%**	**-14%**

Chronic Lung Conditions

There were 187 cases of chronic lung conditions in 2019, a 43% increase from the previous year (Table D-12). These included asbestos-related diseases and exposures, occupational asthma, and other chronic lung diseases. Acute respiratory illnesses are classified under respiratory conditions and poisonings (above).

Asbestos

There were 54 reports of asbestos-related disease or exposures in 2019, a 32% increase 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 28 occupational asthma cases reported in 2019, (approximately the same as the previous year), 21 lung-related allergies, and 84 other chronic lung conditions.

The specific causes mentioned for asthma and other chronic lung conditions were mold and indoor air quality (14), construction dust and fumes (5), smoke (2), inadvertent drug exposure (2), sewage, bleach and cleaning chemicals, food allergens, unknown powders, coolant, boiler ash, plants, and perfume.

Table D-12: Chronic Lung Diseases by Type, WCC, 2018-19

Illness	2018	2019	Change
Asthma/bronchitis	29	28	-3%
Asbestos-related	41	54	32%
Allergies	11	21	91%
Other chronic lung	50	84	68%
Total	**131**	**187**	**43%**

Skin Conditions

There were 197 skin conditions in the database in 2019 (Table D-13), an increase of 8% over the previous year. These included 76 cases of contact dermatitis from poison ivy or other plants (36% of all skin cases). There were 24 cases of skin conditions caused by chemicals, as well as 21 additional cases attributed specifically to cleaning chemicals. There were 13 cases caused by allergic reactions to clothing, gloves, or latex, and 11 other allergic skin conditions. There were 52 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 (5), wet conditions (3), ink (2), pullorum/formaldehyde, sawdust, a battery leak, solvent, potting soil, oven cleaner, and concrete.

Table D-13: Skin Diseases by Cause, WCC, 2018-2019

Category	2018	2019	%	Change
Poison Ivy/plants	56	76	39%	36%
Chemical	31	24	12%	-23%
Soap/cleaning	10	21	11%	110%
Other allergic	9	11	6%	22%
Gloves/latex/clothing	9	13	7%	44%
Rash/other/unknown	68	52	26%	-24%
Total	**183**	**197**	**100%**	**8%**

Stress and Heart Conditions

Heart and Hypertension

There were 277 cases involving heart conditions, stroke, chest pain, hypertension, or stress in the database for 2018 (Table D-14), a 10% decrease from the previous year. Reports noted 158 cases of heart attacks, myocardial infarctions or acute heart events and 15 reported strokes or blood clots, often associated with emergency care at a hospital. There were 16 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 one-third of the heart cases (105 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. Though not generally well described, causes or activities related to the heart cases included exertion (10 cases), driving (6), stress (6), travel (3), violence (2), and heat.

Table D-14: Heart, Hypertension and Stress Conditions by Type, WCC, 2018-2019

Category	2018	2019	%	Change
Heart attack/severe symptoms	168	158	57%	-5%
Hypertension	19	16	6%	-16%
Stroke/clots	6	15	5%	150%
Stress/anxiety/depression	117	88	32%	-24%
Total	**310**	**277**	**100%**	**-10%**

Mental Stress

There was a total of 88 stress-related claims in the database in 2019, a 25% decrease over the previous year. Approximately two-thirds (63%) of the cases where cause was noted referred to violence or post-traumatic stress disorders after violence (Table D-15), 7 cited either harassment or a hostile work environment, and 3 noted conflicts with supervisors, co-workers, or customers.

Table D-15: Stress Conditions by Cause, WCC, 2018-2019

Sources of Stress Conditions	2018	2019	%
Violence/robbery/trauma/auto accident	35	19	63%
Harassment/hostile work environment	16	7	23%
Supervisor/co-worker/customer	13	3	10%
Excessive work demands	2	1	3%
Unknown/other	51	58	
Total	**117**	**88**	**100%**

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 113 reports of hearing loss in 2019 (Table D-16), a 40% increase from the previous year. Of these cases, 37 appeared to be caused by acute (single incident) noises or injuries such as a gun discharge (10 cases), a student screaming in the ear of a teacher (5), feedback/noise through headphones (4), an alarm sounding (3), a tire exploding (3), an air brake on a train, construction noise, a truck back-up beeping, a fryer exploding, and a gas explosion. Other reports were from chronic noise exposure. Of all the hearing loss cases, most were from manufacturing (61 cases), in particular transportation equipment manufacturing (51), as well as schools/police/firefighting/government (37).

Other Disease Conditions

There were 178 reports of workers becoming dizzy, fainting, or seizures, a 16% 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.

Table D-16: Other Occupational Illnesses, WCC, 2018-2019

Type of illness	2018	2019	%	Change
Dizziness/fainting/seizure	154	178	24%	16%
Chemicals in eye	99	157	21%	59%
Hearing loss	81	113	15%	40%
Cold/heat related conditions	73	76	10%	4%
Allergic	68	67	9%	-1%
Cancer	9	7	1%	-22%
Other conditions	184	139	19%	-24%
Total	**668**	**737**	**100%**	**10%**

There were 157 reports of chemical exposures to the eyes (this does not include other physical acute eye injuries such as particles or dust), a 59% increase.

There were 76 reports of temperature-related problems from heat or cold, a 4% increase from the previous year.

There were 67 cases of allergic reactions reported in addition to those noted above under respiratory and skin conditions, essentially the same as the previous year.

There were 7 cases of cancer reported, which included asbestos-related cancers.

There were 139 “other” conditions that were difficult to classify, usually due to incomplete information.

E. Occupational Illnesses and Injury Surveillance System (OIISS)

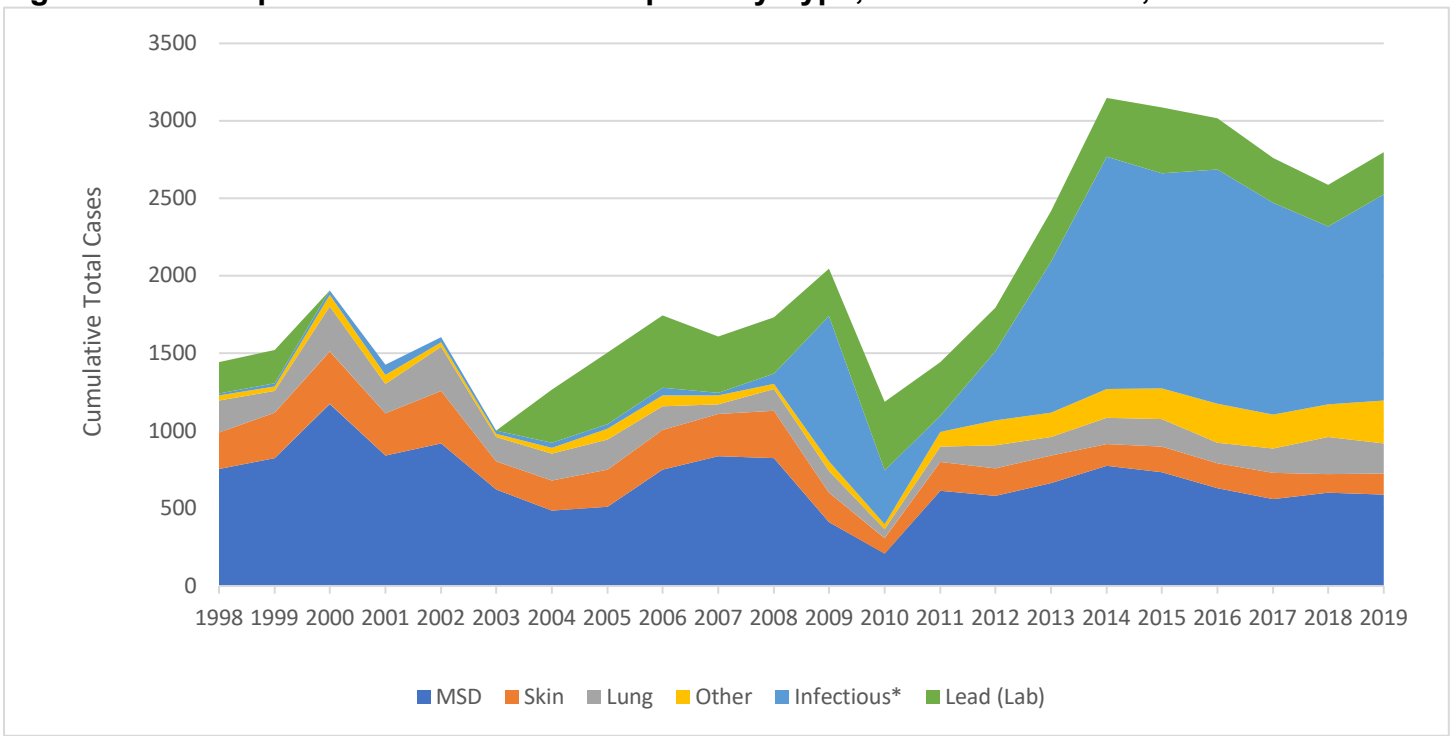
Physicians are required to report known and suspected occupational disease to the Occupational Illnesses and Injury Surveillance System (OIISS) that is maintained by the Department of Public Health. Although all physicians are required to report, most reports are from Connecticut's occupational health 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.

Table E-1: Occupational Disease Case Reports by Type, OIISS and ABLES, 2010-2019

Category	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	% change 2018-19
MSD	208	616	580	666	774	734	633	562	603	590	-2%
Skin	102	183	180	174	140	166	158	168	118	134	14%
Lung	56	101	146	120	171	178	133	155	241	198	-18%
Other	33	96	164	159	184	195	250	220	210	274	30%
Infectious*	347	103	443	973	1500	1,390	1,513	1,365	1,148	1,329	16%
Sub-total	746	1,099	1,513	2,092	2,769	2,663	2,687	2,470	2,320	2,525	9%
Lead (Lab)	443	345	283	327	379	425	330	292	268	275	3%
Total	1,189	1,444	1,796	2,419	3,148	3,088	3,017	2,762	2,588	2,800	8%

*Infectious did not include most bloodborne pathogen exposures in 2011

Figure E-1: Occupational Disease Case Reports by Type, OIISS and ABLES, 1998-2019



*Infectious category did not include most bloodborne pathogen exposures up to 2008, and again in 2011.
** Lead values for 1998-99 did not include cases in the blood lead level range of 10-19 micrograms per deciliter (ug/dL).

There were 2,525 occupational illness reports received from physicians for 2019 (Table E-1). Physician reports increased 9% in 2019 compared to the prior year. Infectious disease (such as bloodborne diseases and exposures) was the largest category of reports, accounting for 53% of the reports, followed by musculoskeletal conditions (MSD) such as tendonitis and carpal tunnel syndrome (23%). Skin disorders (including poison ivy and chemicals as causes) accounted for 5% and lung conditions (including respiratory conditions, asthma, and other lung diseases) comprised 8% of the physician reports. "Other" conditions (including heart disease, stress, and noise-induced hearing loss) accounted for 11%. There were 275 laboratory-reported adult blood lead levels of 10 micrograms per deciliter (ug/dl) or greater (a 3% increase from the prior year), giving a total of 2,800 occupational illnesses reported by physicians or laboratories in 2019.

In 2019, 86 physicians from 16 clinics/clinic networks reported at least one case of occupational illness to the OIISS. Seventeen of the physicians reported 50 or more cases, accounting for 62% of the reports. Nine clinics reported 100 or more cases and contributed 88% 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), 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, 78% of the cases were classed as "high certainty" for being an occupationally-related disease, 11% were "moderate certainty," and 11% "low certainty". There was a fairly low amount of reporting on whether exposure was continuing or if others are likely to be exposed, but 23% of those reported that the exposure that caused the illness was continuing, and 16% 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 12% were identified as Hispanic.

Figure E-2: Occupational Disease by Age, OIISS, 2019

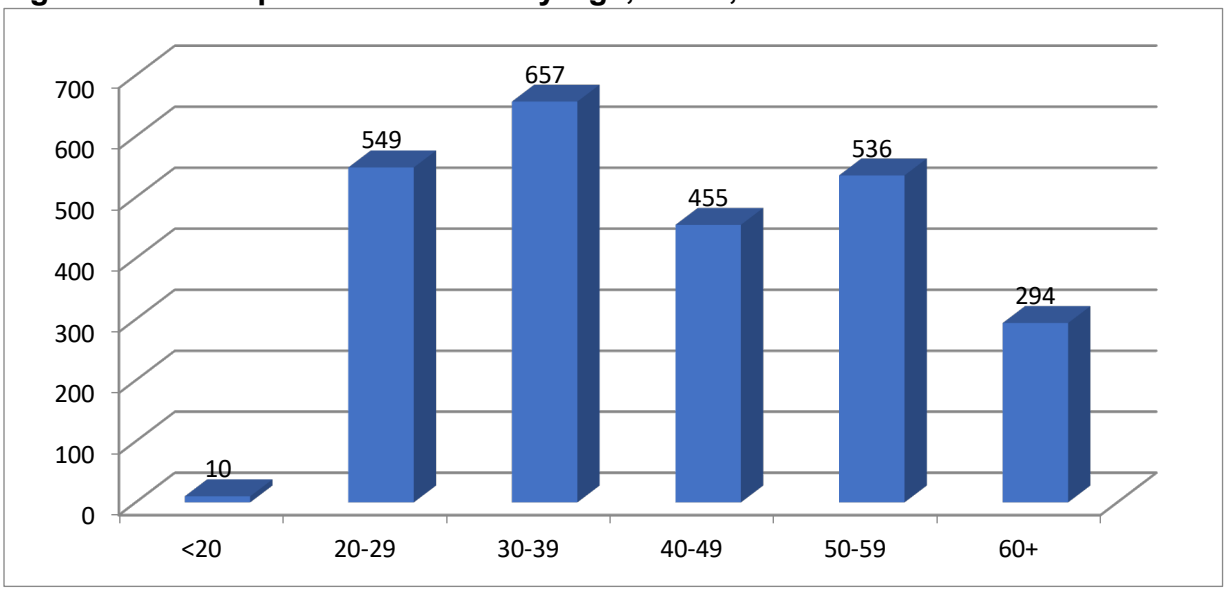


Figure E-2 shows the age distribution of reported cases (where data was available). The most common age was for workers in their 30's with 26% of cases, followed by 20's (22%), 50's (21%), and 40's (18%).

The Education and Health sector had the most cases (52%), followed by Local Government (17%), Manufacturing (11%), and State Government (6%); 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, 2019

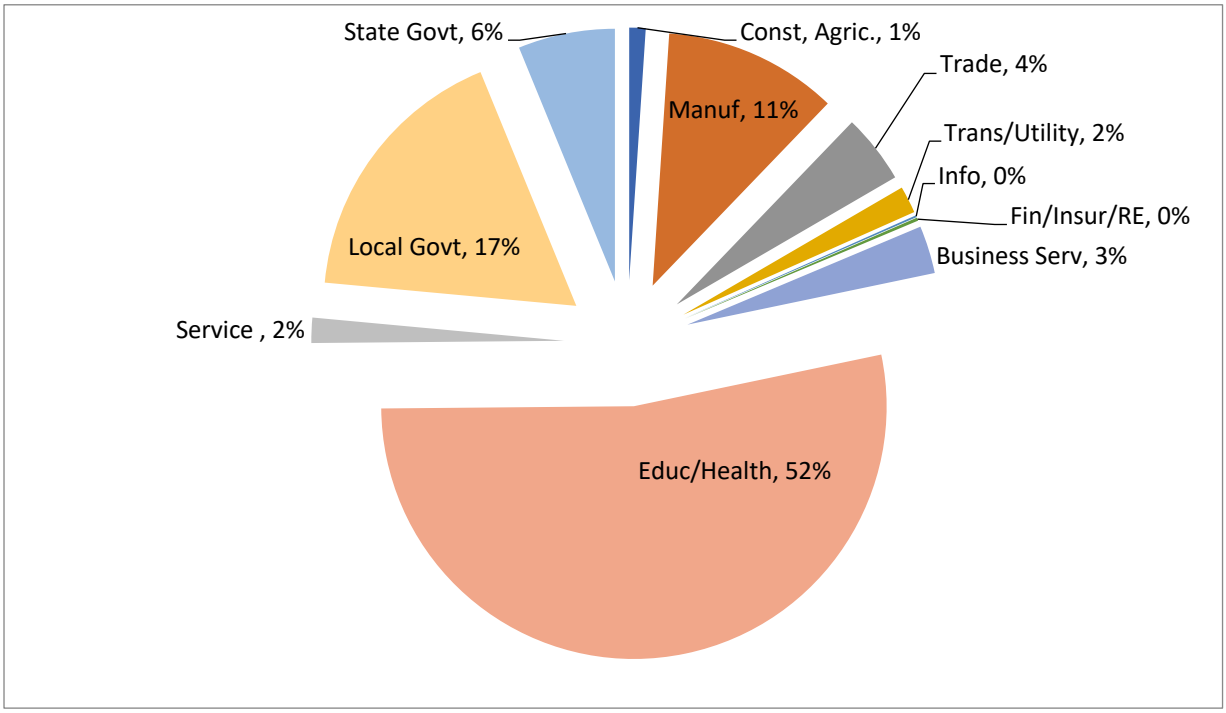


Table E-2: Type of Illness by Industry Sector (NAICS*), OIISS, 2019

Industry	All		Infectious		Lung		MSD		Other		Skin	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Construction/ Agriculture	26	1%	1	0%	5	3%	11	2%	7	3%	2	1%
Manufacturing	277	11%	7	1%	38	19%	166	28%	35	13%	31	23%
Trade	110	4%	12	1%	10	5%	64	11%	12	4%	12	9%
Transport/Utilities	43	2%	2	0%	8	4%	19	3%	11	4%	3	2%
Information Services	3	0%	0	0%	0	0%	2	0%	0	0%	1	1%
Finance/Insur/Real Estate	5	0%	1	0%	0	0%	3	1%	1	0%	0	0%
Business Service	76	3%	25	2%	6	3%	25	4%	12	4%	8	6%
Education/Health	1,321	52%	1,015	76%	35	18%	157	27%	78	28%	36	27%
Other Services	40	2%	11	1%	6	3%	15	3%	7	3%	1	1%
Local Govt	431	17%	185	14%	50	25%	87	15%	76	28%	33	25%
State Govt	154	6%	58	4%	28	14%	32	5%	31	11%	5	4%
Unknown	39	2%	12	1%	12	6%	9	2%	4	1%	2	1%
Total	2,525	100%	1,329	100%	198	100%	590	100%	274	100%	134	100%

* North American Industry Classification 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

(76%), with Local Government contributing another 14%. MSD were primarily from Manufacturing (28%), Education and Health (27%), and Local Government (15%). Dermatitis (skin disorders) was primarily from Education and Health (27%), Local Government (25%), and Manufacturing (23%). Respiratory cases ("Lung") were primarily from Local Government (25%), Manufacturing (19%), and Education and Health (18%). "Other" illnesses were from Education and Health (28%), Local Government (28%) Manufacturing (13%), and State Government (11%).

Musculoskeletal Disorders (MSD)

There was a total of 590 reports of musculoskeletal disorders (MSD) in 2019, a decrease of 2% 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 (18%), carpal tunnel syndrome (13%), epicondylitis (tennis elbow) with 10% of the cases, tendonitis (9%), nerve disorders/numbness (8%), and tenosynovitis/deQuervain's (7%).

Table E-3: Musculoskeletal Disorders (MSD) by Type, OIISS, 2018-2019

Illness	2018	2019	Percent	Change
Strain/Sprain	56	105	18%	88%
Carpal Tunnel Syndrome (CTS)	62	74	13%	19%
Epicondylitis	110	58	10%	-47%
Tendonitis	32	55	9%	72%
Other Neuropathy & Radiculopathy (nerve disorder)	59	48	8%	-19%
Tenosynovitis (including deQuervain's)	47	44	7%	-6%
Bursitis/Arthritis	32	28	5%	-13%
Trigger Finger	38	23	4%	-39%
Ganglion	25	8	1%	-68%
Plantar fasciitis	13	6	1%	-54%
Rotator Cuff	9	5	1%	-44%
Other MSD	120	136	23%	13%
Total	**603**	**590**	**100%**	**-2%**

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

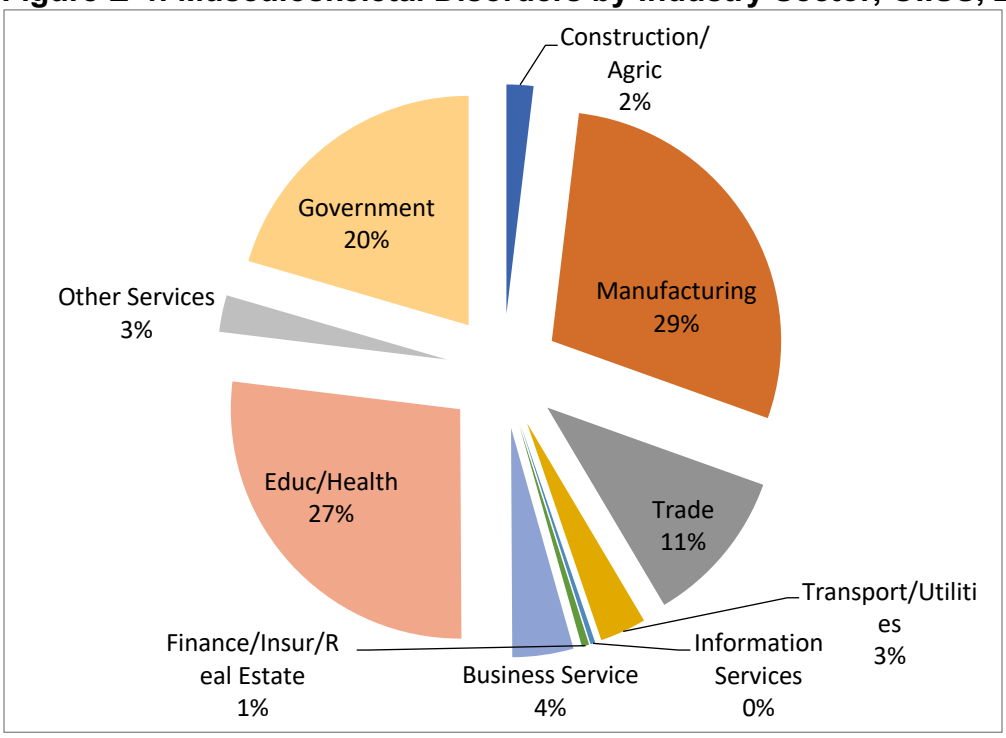
Nerve Disorders

- 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

Figure E-4: Musculoskeletal Disorders by Industry Sector, OIISS, 2019



Note: Government includes education and health care facilities such as city schools and state hospitals

Table E-4: Common causes of MSD, OIISS, 2019

Cause	Cases
Repetitive	98
Lifting	57
Computer/clerical	56
Tools, Machines & Vibration	41
Gripping/grasping/reaching	18
Assembly	16
Patient-related	15
Push/pull	13
Standing/walking/climbing	11
Driving	8
Kneeling	4
Other	3
Sub-Total	**340**
Unknown	**250**
Total	**590**

The largest number of MSD's were in Manufacturing (29%), followed by Education and Health (27%), Government (20%), and Trade (11%); see Figure E-4 and Table E-2.Causes for MSD are difficult to classify since they are frequently described differently by the various people recording the case, and most case reports do not describe cause. The most common specific causes noted for MSD (Table E-4) were lifting (57 cases), tool use (41 cases), computer use and data entry (56), gripping or grasping (18), assembly tasks (16), patient-related causes often including lifting (15), and pushing or pulling (13). Ninety-eight (98) additional cases were attributed to the general description of "repetitive".

Skin Conditions

There were 134 reports of skin disorders in 2019 (Table E-5), a 14% increase from the previous year. The largest single cause was poison ivy or other plant exposures (21% of all cases); other conditions included contact dermatitis (43%) and allergic dermatitis (1%). Other causes of dermatitis or other skin conditions included cleaning chemicals, oil or coolants, and other chemicals.

Table E-5: Skin Conditions by Type, OIISS, 2018-2019

Illness	2018	2019	Percent	Change
Poison ivy & other plants	47	28	21%	-40%
Allergic	23	2	1%	-91%
Dermatitis	36	58	43%	61%
Other skin conditions	12	46	34%	283%
Total	**118**	**134**	**100%**	**14%**

Lung/Respiratory Diseases and Poisonings

There were 198 cases of respiratory and other lung diseases and poisonings reported by physicians in 2019 (Table E-6), a decrease of 18% from the previous year. Nonspecific respiratory illnesses were the most common type of condition, with 40% of reports, followed by asthma or reactive airways dysfunction syndrome (RADS) with 10%, cough (9%), and rhinitis (8%). and asbestos disease or exposures (8%; cancers caused by asbestos are categorized under "other diseases" below).

Causes of lung conditions included mold or indoor air quality (30 cases), chemicals (31 cases), dust (10 cases) fumes or carbon monoxide (10 cases), and smoke (5 cases).

Table E-6: Respiratory Diseases and Poisoning by Type, OIISS, 2018-2019

Illness	2018	2019	Percent	Change
Respiratory	62	80	40%	29%
Asthma/RADS	20	20	10%	0%
Cough/dyspnea	18	17	9%	-6%
Rhinitis/sinusitis	12	16	8%	33%
Asbestos exposure/disease/interstitial	12	15	8%	25%
Poisoning	13	5	3%	-62%
Allergic	7	4	2%	-43%
Bronchitis	1	1	1%	0%
Other Lung	96	40	20%	-58%
Total	**241**	**198**	**100%**	**-18%**

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.

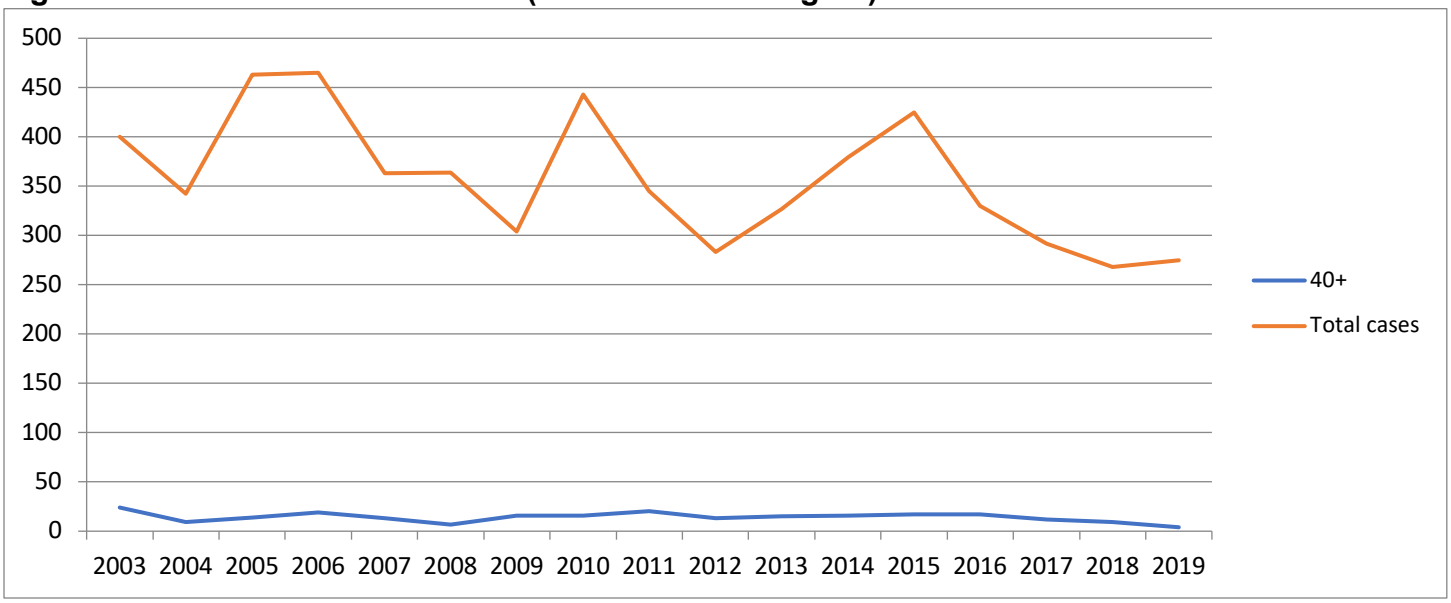
The 275 lead poisoning reports in 2019 increased 3% from the previous year. The lowest category (10-24 ug/dl) of recorded elevated lead levels accounted for 87% of all cases (Table E-7). There was a decrease in all categories of lead levels except for the lowest category, which increased by 11%. Almost all of the reported lead poisoning cases (94% of cases) occurred in men; there were only 16 reports for women. Thirty-one percent (31%) were under 40 years old, 41% were between 40 and 59, and 28% were age 60 or older.

Table E-7: Lead Cases by Level of Blood Lead, CT ABLES, 2018-2019

Blood lead level*	2018	2019	Percent	Change
10-24	215	239	87%	11%
25-39	44	32	12%	-27%
40-49	5	1	0%	-80%
50-59	2	1	0%	-50%
>=60	2	2	1%	0%
Total	**268**	**275**	**100%**	**3%**

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-5: Lead Cases 2003-2019 (cases above 10 ug/dL)



Lead cases in Connecticut have fluctuated since 2003, from 400 in 2003 to 275 in 2019, with a high of 465 cases in 2006 and a low of 268 cases in 2018. 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. Fluctuations 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 17 states for 2019 (NIOSH Elevated Blood Levels Charts). Connecticut is the 5th highest among those 17 states for the rate of lead levels above 10 ug/dl, with a rate of 1.50 per 10,000 employed adults (compared to the mean of 1.56 and median of 1.22 for the 17 states as a whole). Connecticut was 10th highest for rates of lead levels equal or above 25 ug/dl, with a rate of 0.20 compared to the overall mean of 0.24.

Infectious and Other Diseases

Infectious diseases increased 16% to 1,329 cases in 2019. 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 1,126 reports in 2019, a 9% increase over 2018. 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, 2018-2019, OIISS

Illness	2018	2019	% Change
Bloodborne	1,033	1,126	9%
TB/PPD	30	139	363%
Lyme/tick bite	23	20	-13%
Scabies	31	14	-55%
Measles/chickenpox	6	10	67%
Rabies	1	5	400%
Meningitis	6	1	-83%
c-diff	2		-100%
Other infectious	16	14	-13%
Subtotal: Infectious	**1,148**	**1,329**	**16%**
Other Illnesses	**2018**	**2019**	**% Change**
Chemicals in eyes	33	65	97%
Headache/dizzy	27	28	4%
Stress/heart/stroke	24	26	8%
Hearing loss	15	20	33%
Heat/cold	12	11	-8%
Allergic	15	9	-40%
Cancer		6	
Other	84	109	30%
Total Other Illnesses	**210**	**274**	**30%**
Total	**1,358**	**1,603**	**18%**

Of the bloodborne exposures where cause was noted, 51% (573 cases) were due to a needlestick or sharps injury, despite OSHA regulations that require safe needle devices where available. Thirty-two percent (31%;

350 cases) of the reports were due to blood or body fluid exposures, and 18% (203) 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 (363%) increase in reports of potential exposure to tuberculosis (TB) or positive PPD tests for TB (after a large decrease last year) with 139 cases in 2019 compared to 30 cases in 2018 and 172 cases in 2017. In addition to bloodborne disease/exposures and TB exposures, there were 20 cases of Lyme disease or tick bites and 14 cases of scabies. 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 bloodborne or TB).

In addition to the infectious diseases, there were 274 other occupational illnesses reported by physicians in 2019 (Table E-8), an increase of 30%. This included 65 cases of chemical exposures to the eyes, 28 cases of headache, dizziness, or similar symptoms, 26 cases of heart, stroke or stress-related conditions, 20 cases of hearing loss, 11 cases of over-exposures to heat or cold, and 9 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 (OIISS), 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 (OIISS, 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.

G. 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 – 2019

	Employ.*	All Ill	Skin	MSD	Lung-dust	Respir.	Poison	Physical	Other
1979	1,358	3,322	1,716	471	25	317	175	250	368
1980	1,394	3,066	1,586	513	88	214	66	199	400
1981	1,409	3,214	1,509	701	38	290	89	192	395
1982	1,400	2,549	1,130	580	31	223	31	216	323
1983	1,419	2,930	1,236	665	20	154	152	176	519
1984	1,490	2,735	1,109	665	24	273	65	162	432
1985	1,528	2,809	928	727	44	233	51	130	693
1986	1,567	2,719	808	761	39	274	65	235	538
1987	1,607	4,643	1,352	1,430	31	300	62	704	754
1988	1,637	4,364	1,257	405	35	332	56	405	733
1989	1,634	5,844	1,248	2,629	57	277	74	468	1,087
1990	1,593	5,307	1,032	2,535	93	457	54	496	641
1991	1,518	6,094	946	3,454	62	422	113	501	591
1992	1,483	6,458	1,084	3,852	37	471	53	349	612
1993	1,487	8369	965	5526	52	512	166	346	802
1994	1,502	7,319	957	4,482	74	410	97	313	986
1995	1,520	6,787	884	4,220	80	323	35	349	896
1996	1,538	6,021	827	3,711	40	418	34	235	756
1997	1,570	5,419	620	3,335	21	287	70	150	936
1998	1,597	5,510	989	3,398	10	459	45	92	517
1999	1,630	5,513	793	3,306	20	386	71	265	671
2000	1,653	6,396	897	3,827	65	438	29	137	1,003
2001	1,572	5,514	916	3,220	10	630	29	118	591
	Employ.*	All Ill	Skin			Respir.	Poison	Hearing	Other
2002	1,602	4,387	831			320	78		3,159
2003	1,605	4,559	903			490	32		3,132
2004	1,603	4,572	832			354	35	466	2,886
2005	1,614	4,850	848			480	8	381	3,134
2006	1,636	3,787	575			235	38	439	2,500
2007	1,667	3,904	624			358	22	457	2,443
2008	1,675	3,562	690			293	130	360	2,088
2009	1,629	3,400	600			300	--	500	2,000
2010	1,629	3,000	700			300	--	300	1,700
2011	1,578	3,500	800			300	--	300	2,100
2012	1,628	2,800	600			300	--	300	1,500
2013	1,640	2,600	500			300	--	300	1,600
2014	1,653	2,400	400			200	--	300	1,400
2015	1,663	2,300	400			200	--	200	1,500
2016	1,667	2,300	500			200	--	300	1,300
2017	1,670	1,700	400			100		200	900
2018	1,673	1,800	300			200		400	1,000
2019	1,671	1,700	300			100		300	1,000

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, 1979-2019

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
1981	1,409,000	10.7	5	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	0.4	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	0.4	10		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	0.5	26		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	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		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	0.2	30.8		39.1
1997	1,570,500	3.9	21.2	2	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	0.2	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	*	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
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	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	*	16.8	2.5	27.8
2012	1,628,028	4.6	*	2.6	*	12	2.6	21.9
2013	1,640,223	3.5	*	2	0.2	12.4	2.2	20.3
2014	1,653,545	3.4	*	1.9	*	11	2.1	18.7
2015	1,662,822	3.0	*	1.5	0.2	11.3	1.7	17.7
2016	1,666,580	3.0	*	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	14.1
2019	1,670,639	2.1	*	1.4	*	7.5	2.2	13.0

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.

H. Appendix 3: Internet Resources for Job Safety and Health: 2021

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 information and 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 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:

www.nsc.org	The National Safety Council
www.aiha.org	The American Industrial Hygiene Association
www.assp.org	American Society of Safety Professionals
www.nfpa.org	National Fire Protection Association
www.safetycentral.org	International Safety Equipment Association

For a labor perspective, 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 understand what OSHA laws apply to them and provides information 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-osha.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

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 including agencies.
https://portal.ct.gov

The **CT Department of Public Health** includes a site for the occupational health program, including database access, health alerts and fact sheets on a wide 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. CTDOL offers a variety of consulting services to both public and private employers in Connecticut, available at no charge. http://www.ctdol.state.ct.us/osha/osha.htm

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/

You can search the medical literature at **US National Library of Medicine PubMed**.
http://www.ncbi.nlm.nih.gov/pubmed/

You can 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/

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. 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 main professional association in ergonomics.
http://www.hfes.org

Since 1994, 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** web page is dedicated to increasing communication among researchers and others interested in 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.

I. 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: Ravindra Thamma, Department Chair
Address: Copernicus Hall - Room 2120900, CCSU, 1615 Stanley Rd., New Britain, CT 06050
Phone: 860-832-3516
e-mail: thammarav@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
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
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
Web: www.connosha.com
Publications: ConnOSHA Quarterly https://www.ctdol.state.ct.us/osha/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: Steven Biasi
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

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

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 06032-8077
Clinic address: UCONN Main Building (Hospital Entrance), Room CG228
Phone: (860) 679-2893
Fax: (860) 679-4587
e-mail: 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
Fax: (203) 785-7391
e-mail: Carrie.Redlich@yale.edu
Web: http://medicine.yale.edu/intmed/occmed/

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
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
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
315 West Main St, Norwich, (860) 859-5100

Connecticut Occupational Medicine Partners, St. Francis Hospital and Medical Center
CEO and Administrative Director: Jeff Schlosser
Address (corporate): 114 Woodland St, CT 06105, Suite 4310
Phone: (860) 714-6188 or 860 714 4270
Fax: (860) 714-2775
email. jeffery.schlosser@trinityhealthofne.org
Web: https://www.trinityhealthofne.org/location/occupational-health-at-saint-francis-hospital
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 Occupational Health, 1312 West Main St, Waterbury, CT 06708**, (**203) 709-3740; 1154 Highland Ave, Cheshire, 06410, 203-709-4834
ECHN Corporate Care; 2800 Tamarack Ave., Suite 001, South Windsor, CT 06074, (860) 647-4796
MedWorks of Bristol Hospital; 975 Farmington Ave. Bristol (860) 589-0114
MedWorks; 375 East Cedar St., Newington (860) 667-4418
Johnson Memorial Medical Center: Manager: Michelle Stevens, 155 Hazard Ave., Suite 5-6. Enfield, CT 06082, (860) 763-7668

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

Hartford Medical Group—Occupational Medicine
Business Development Director: Suzanne Cutter
Clinic Address: 445 South Main Street, West Hartford, (860) 696-2200
Phone: (860) 696-2200, option 5 (clinic)
e-mail: hhcmgocc.health@hhchealth.org
Web: https://hartfordhealthcaremedicalgroup.org/specialties/primary-care/occupational-medicine

Other Offices; 80 Norwich-New London Tnpk, Uncasville, 06382, 860-848-1297, option 5

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
Web: https://middlesexhealth.org/occmed
Other Office: Essex Medical Building, 252 Westbrook Road, Essex (860) 358-3840

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
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

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

Organizations

American Lung Association (ALA) in Connecticut
A non-profit association geared towards preventing lung disease including occupational lung disease.
Director, Health Promotion: Michelle Caul
Connecticut Address: 45 Ash St., East Hartford, CT 06108
Phone: (860) 838-4370
e-mail: Michelle.Caul@lung.org
Web: 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
Fax: (860) 232-6334
e-mail: 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
Address: 683 No. Mountain Rd, Newington, CT 06111
Phone: (860) 953-COSH (2674)
Fax: (860) 953-1038
e-mail: mike.ctcosh@snet.net
Web: http://connecticosh.org

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 jointly by UMass Lowell and UConn Health.
Co-Director: Martin Cherniack, MD, MPH
Address: 263 Farmington Ave, Farmington, CT 06030-2017
Phone: (860) 679-4916
Fax: (860) 679-1349
e-mail: cherniack@uchc.edu
Web: http://health.uconn.edu/occupational-environmental/academics-and-research/cph-new/

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, Ergonomist
Address: 263 Farmington Ave, Farmington, CT 06030-8077
Phone: (860) 679-4096
Fax: (860) 679-1349
Phone: 860-679-5418
e-mail: tvarghese@uchc.edu
Web: https://health.uconn.edu/occupational-environmental/consultation-and-outreach/ergonomics-consultation/

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. The website on hurricane health (below) provides educational materials on protecting workers from exposures when addressing flooded buildings after severe wet weather.
Director: Paula Schenck, MPH
Address: 263 Farmington Ave, Farmington, CT 06030-8077
Phone: (860) 679-2368
Fax: (860) 679-1349
e-mail: schenck@ uchc.edu
Web: http://health.uconn.edu/occupational-environmental/consultation-and-outreach/cieh/
http://hurricane-weather-health.doem.uconn.edu

Professional Associations

American Industrial Hygiene Association (AIHA), Connecticut River Valley Section
AIHA is a professional association for industrial hygienists.
Contact: Kristin Cramer
Phone: (203) 675-2821
e-mail: kristen.cramer2821@gmail.com
Web: http://www.crvaiha.wildapricot.org

Connecticut Safety Society
This society is 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
Web: Facebook Group – Connecticut Safety Society

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
Web: http://ctvalley.assp.org

Air & Waste Management Association (AWMA), Connecticut Chapter
AWMA provides training, information, and networking opportunities to environmental professionals. The Connecticut Chapter, New England Section, provides periodic forums for discussion and sponsors an annual student scholarship.
Chair: David Krochko
Phone: (888) 265-8969
e-mail: 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: D.J. Skuret
Address: 150 Trumbull Street, 2nd Floor, Hartford, CT 06103
Phone: (860) 522-4345
Fax: (860) 522-1027
e-mail: 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
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: Dianne Plantamura, MSW, CSS
Address: 22 Mill Street, Groveland, MA 01834
Phone: (978) 373-5597
e-mail: 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
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
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
Web: https://portal.ct.gov/despp

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 Community Right to Know.
Chairman: Gerard P. Goudreau
Address: 79 Elm St, Hartford, CT 06106-5127
Phone: (860) 424-3373
Fax: (860) 424-4062
e-mail: deep.ctepcra@ct.gov
Web: http://www.ct.gov/serc

Connecticut Fire Academy, Commission on Fire Prevention & Control
Safety training & standards compliance.
Training Director: Jeffrey J. Morrissette (Acting)
Address: 34 Perimeter Road, Windsor Locks, CT 06096-1069
Phone: 860-264-9230 or toll free (877) 5CT-FIRE (only in CT)
Fax: (860) 654-1889
e-mail: jeff.morrissette@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
Web: 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 lost work time benefits and attendant medical expenses. To this end, the Commission holds hearings on disputed matters, facilitates voluntary agreements, makes findings and awards, hears and rules on appeals, and closes out cases through full and final stipulated settlements.

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., 4th 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
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. 90 Court 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.