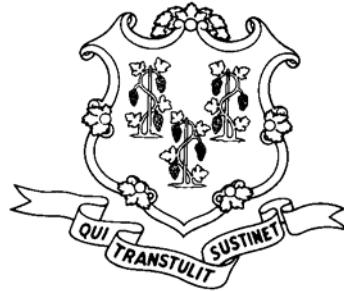


Occupational Disease in Connecticut, 2006



This report covers data for 2004
and was prepared under contract for the
State of Connecticut Workers' Compensation Commission
John A. Mastropietro, Chairman
as part of the Occupational Disease Surveillance Program
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A. Executive Summary

This report focuses on occupational *disease* reports from 2004, and recent trends in reported cases. It does not address traumatic occupational *injuries*, which are addressed in the annual report on occupational injuries and illnesses by the Connecticut Department of Labor. 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, Physicians' Reports under the Occupational Disease Surveillance System (ODSS), and the Bureau of Labor Statistics/Conn-OSHA Annual Survey. Occupational disease can have major impacts on worker health, ability to work, and employer costs. Some diseases, such as cancers from asbestos exposure or HIV or hepatitis from exposure to bloodborne agents in health care, can be fatal. Other diseases, such as Carpal Tunnel Syndrome from ergonomic problems, can result in high levels of disability from loss of use of the hands. Prevention efforts, such as effective health and safety committees, ergonomic programs, or use of safe needle devices can reduce both disease and costs; in theory, all occupational diseases are preventable.

Table A-1: Summary of Diseases Reported by Systems, 2003-4

Type of Disease	BLS/Conn-OSHA		Workers' Comp.		ODSS (Physicians)	
	2003	2004	2003	2004	2003	2004
Lung & Poisoning	522	389	252	323	156	173
Lead					400	342
Skin	903	832	147	222	181	194
MSD	*	*	1,858	2,114	624	488
Other	3,132	3,352	640	1,208	41	69
Total	4,559	4,572	2,897	3,867	1,402	1,266

Sources: BLS: Bureau of Labor Statistics/Conn-OSHA; Total differs due to rounding for the survey

WCC: CT Workers' Compensation Commission, First Report of Injury database

ODSS: Occupational Disease Surveillance System, Connecticut Departments of Public Health and Labor

Notes: MSD= Musculoskeletal Disorders; Definitions vary somewhat between systems; ODSS infectious does not include bloodborne;

ODSS lead cases are from the lab reporting system.

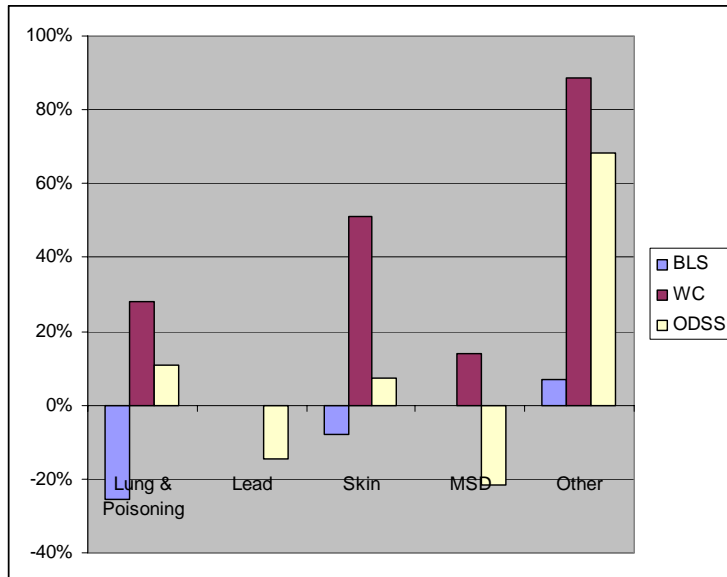
*MSD is included in "other"

Table A-1 and Figure A-1 summarize the data from the three different sources for 2003 and 2004. Over 4,500 cases of occupational diseases were reported under the BLS/Conn-OSHA survey, with 3,800 reported by employers under Workers' Compensation, and 1,300 reported by physicians to the ODSS. Reports from the BLS system were overall level across the two years, increased in workers' compensation, and decreased based on physician reports. The number of cases increased in all categories in Workers' Compensation from 2003 to 2004. However, it should be noted that there had been some difficulties with the electronic exchange of reports from insurers in 2003, so 2003 data may be based on an incomplete database.

All systems were dominated by reports of **musculoskeletal disorders** (MSDs) such as Carpal Tunnel Syndrome and tendonitis, which accounted for between 39%-55% of cases reported (MSD was not broken out by BLS starting in 2002, and is partially included under "other illness"). **Lung diseases** such as acute respiratory conditions and asthma accounted for 8-14%

of cases. “Other diseases”, which includes **infectious diseases**, physical hazards such as heat and cold, allergies, cancer, and others, accounted for 5-73% of cases (the number in workers’ compensation is due primarily to infectious, and MSD for BLS). **Skin conditions** accounted for 6-18% of the conditions reported. **Lead poisoning** is tracked based on laboratory reports to the Connecticut Department of Public Health, and accounted for 27% of ODSS cases.

Figure A-1: Increase/Decrease in Reports by Type of Condition and System, 2003-2004



There was an overall illness rate of 28.5 per 10,000 workers based on the BLS survey and 24.1 based on workers’ compensation. Illness rates were highest for local government (77.8 cases per 10,000 full time employees), followed by Education and health services (63.7), Manufacturing (58.1), Information (30.7), and Other services (20.3), based on BLS data. The highest sectors based on workers’ compensation data were Local Government at 77 per 10,000 workers, followed by Manufacturing (33.6), and three sectors (Transportation and Utilities, Information Services, and Education and Health Services) at approximately 24.

About half of cases were women, but they accounted for 54% of MSDs and lower numbers skin conditions (25%), and “other” diseases such as heart and hypertension and stress cases (29%) (WC). Based on physician reports, 9% of cases were from Hispanics, and 18% were from Blacks, with 33% of cases for those 40-49 years old.

The most common MSDs diagnosed by physicians were epicondylitis, Carpal Tunnel Syndrome, and tendonitis (ODSS). The most common causes of MSD were “repetition” (295 reports), lifting (234), computers (206), tool use (171), assembly (65) and pushing and pulling (62) (WC). The most common lung diseases were respiratory conditions, asthma, and asbestos-related cases (ODSS). Chemicals (including cleaning chemicals), fumes, asbestos, and mold were the most common causes (ODSS). Causes of skin conditions included poison ivy, chemicals, and cleaning products (ODSS). The most common infectious diseases were bloodborne diseases and exposures (378 cases), and Lyme Disease or tick bites (50 cases), TB exposures/conversions (49), and meningitis exposures (31) (WC).

B. Introduction

This report provides an overview of what is known about occupational disease in Connecticut based on 2004 data. It is one of a series of annual reports on occupational disease developed for the Connecticut Workers' Compensation Commission under the Occupational Disease Surveillance System. By monitoring trends, this system helps prevent occupational disease by targeting prevention activities such as education, encouraging effective safety and health committees and programs, and investigating of clusters of disease. The system is a cooperative venture by the Department of Public Health, Department of Labor, Workers' Compensation Commission, and a number of occupational health clinics (Connecticut General Statutes 31-396 to 31-402). Physicians are required to report occupational disease under Connecticut General Statute 31-399.

This report combines available data from a number of systems:

- Bureau of Labor Statistics/Connecticut Occupational Safety and Health Administration (BLS/Conn-OSHA) Survey of Occupational Injuries and Illnesses
- Connecticut Adult Blood Lead Epidemiology Surveillance System (ABLES)
- Connecticut Occupational Disease Surveillance System (referred to as Physicians' Reports or ODSS in this report)
- Connecticut Workers' Compensation Employer First Reports of Injury (referred to as Workers' Compensation or WCC in this report)

Acknowledgements

Several people have contributed data and other help to this report. We would like to thank especially Joe Weber of the Department of Labor; Bob Artus, and Peter Miecznikowski of the Workers' Compensation Commission; and Thomas St. Louis of the Department of Public Health. Colleagues at the Division of Occupational and Environmental Medicine at the University of Connecticut Health Center have contributed ideas and resolved questions, with special thanks to Cheryl Steciak for her clerical support.

Overview of Report

This report covers occupational disease data for calendar year 2004. It is divided into three primary sections based on the data source. It begins with the BLS/Conn-OSHA time trends, followed by data from the Workers' Compensation First Reports of Injury, followed by data from the Physicians' Reports.

All three data sources provide somewhat different information. For example, the BLS/Conn-OSHA provides comparisons to U.S. data, but is based on a survey, rather than all reports. Workers' Compensation data includes all lost-time cases for all employers, but does not include physicians' diagnosis. The Physicians' reporting system has more precise diagnoses, but according to the Department of Public Health, a large number of physicians do not report into the system. Prior studies of cumulative trauma reports in Connecticut have found that there is only a small overlap between the Workers' Compensation Reports and the Physicians' Reports.

C. Bureau of Labor Statistics/Connecticut Occupational Safety and Health Administration Surveys

In cooperation with the U.S. Bureau of Labor Statistics (BLS), Conn-OSHA conducts an annual survey of employers for job-related injuries and illnesses. Conn-OSHA issues an annual report that focuses on the injuries (available at <http://www.ctdol.state.ct.us/osha/shstats.htm>). The Connecticut Department of Labor acknowledges that the survey under-counts occupational diseases, particularly chronic diseases.

Occupational Illnesses in 2004

There were 4,572 reported cases of occupational illnesses in 2004 (Figure C-1 and Table C-1), essentially unchanged from 2003 for both number and rate. Cases of skin conditions declined by 8%, and respiratory cases declined by 28%, but these were offset by an increase of 7% in the much larger category of “other illnesses”, which is dominated by repetitive trauma cases. “Other illnesses” also includes 466 cases of hearing loss, which was split out for the first time in 2004.

Table C-1: Occupational Disease by Type, 2003 and 2004, BLS/Conn-OSHA

	2003		2004		% Change in Cases
	Cases	Rates	Cases	Rates	
Skin	903	5.6	832	5.2	-8%
Poisonings	32	0.2	35	0.2	9%
Respiratory	490	3.1	354	2.2	-28%
Other Illnesses	3,132	19.5	3,352	20.9	7%
Total	4,559	28.4	4,572	28.5	0%

Source: BLS/Conn-OSHA; Rates are per 10,000 workers, not adjusted for hours worked. Total differs due to rounding for the survey. Includes public sector.

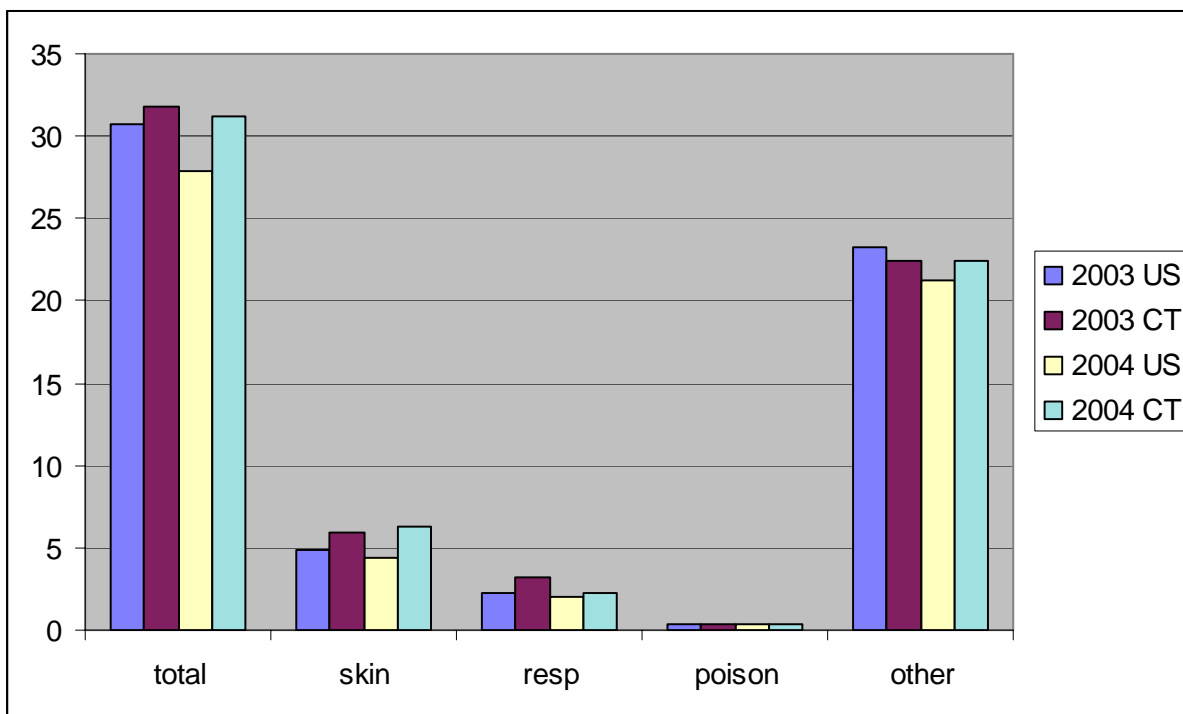
Recordkeeping Changes in 2002

The BLS survey had a number of changes in 2002 that make it more difficult to compare with previous years, and the BLS has advised that the statistics for 2002 (and following years) are not comparable to prior years as a result of those changes. As part of that new recordkeeping rule, several categories of occupational illness were no longer tracked, including the previously most common category of “repetitive trauma”, as well as “dust diseases of the lung” and “disorders due to physical agents”. In addition, the definition of what must be recorded for illnesses has changed to be the same as for injuries; previous to 2002, all illnesses needed to be recorded, regardless of lost time status. The newer definitions require recording for only conditions that result in lost time or medical attention beyond first aid. In addition, now only previously-existing conditions that are “significantly” aggravated by work need to be recorded (prior to 2002, the definition did not include “significantly”). The new guidance reinforces the requirement that all fatal heart attacks that occur on the job need to be reported (not only work-related cases if it is later determined that it was solely due to events or exposures outside of work, then it not recordable). There were numerous other changes as

well, including hearing loss, needlesticks, TB conversion, and other issues that are likely to affect the data. In general, it is likely that the “occupational illness” category as a whole is substantially smaller than previously due to these changes, but the extent cannot be known.

Long-term trend data is therefore broken out into two sets of figures, one for through 2001, and the other for 2002 - 2004.

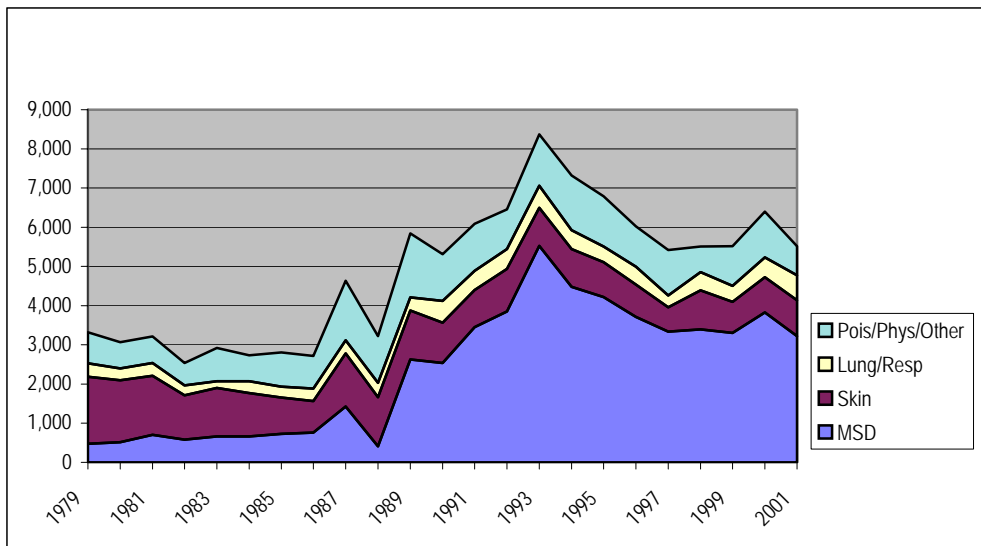
Figure C-1: Rates of Occupational Illness by Type, Private Sector, US and CT, 2003-2004



Source: BLS and Conn-OSHA. Rates per 10,000 workers, adjusted for hours worked.

Overall rates for the private sector in Connecticut for 2003 and 2004 are compared to the U.S. rates in Figure C-2 (public sector rates are not available on the national level for comparison). The Connecticut rate was slightly higher than U.S. rates for both years overall. For 2004, all subcategory rates were also slightly higher for Connecticut than the U.S. (except for the very small category of poisonings, which was approximately the same). Rates are adjusted for hours worked, and are for the private sector only since government sector statistics are not available for the U.S. Rates of reported illnesses in CT have remained mostly constant over the past 3 years (Figure C-3), with some fluctuations in the rate of respiratory conditions.

Figure C-2: Cases of Occupational Disease by Type and Year, CT, 1979-2001



Source: BLS/Conn-OSHA Survey

* BLS has advised that 2002 figures are not comparable to prior years due to changes in recordkeeping requirements.

Figure C-3: Rates of Occupational Disease by Type and Year, CT, 2002-2004

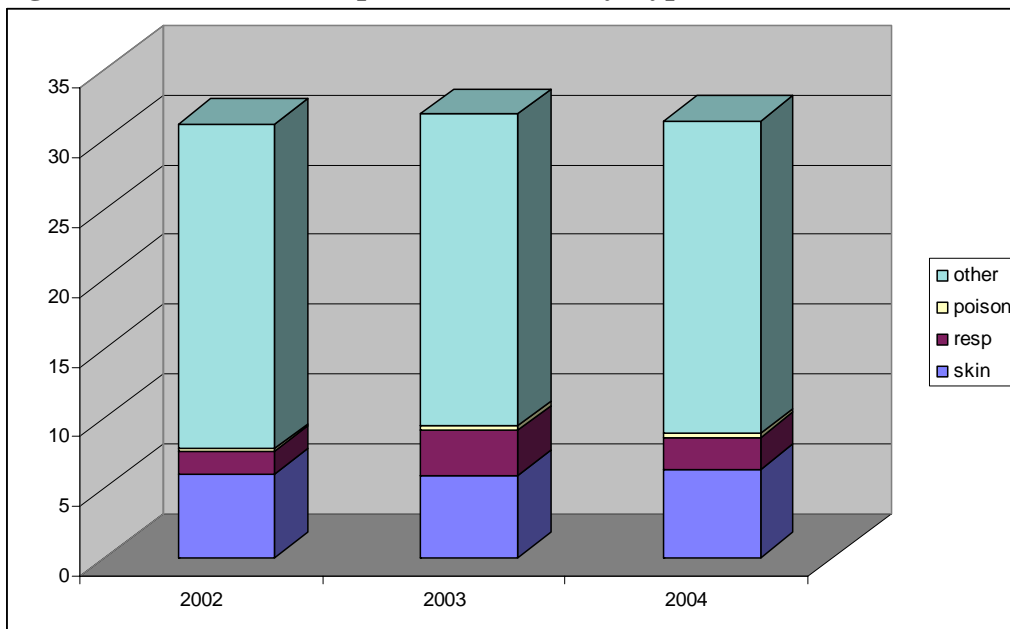


Table C-2: Illness Rates per 10,000 Workers by Industry and Type of Illness, CT, 2004

	Total		Skin		Respiratory		Poison		Hearing		Other	
	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.
Total, all industries	34.9	4.6	6.4	0.8	2.7	0.4	0.3	*	3.6	0.5	22.1	2.9
Private Industry only	31.2	3.6	6.3	0.7	2.3	0.3	0.3	*	3.7	0.4	18.7	2.1
Goods Producing	47.5	1.3	9.4	0.2	3.4	0.1	**	**	15.4	0.4	18.8	0.5
Natural resources and mining	**	**	**	**	**	**	**	**	**	**	**	**
Construction	13.3	0.1	2.9	*	**	**	**	**	**	**	10.4	0.1
Manufacturing	58.1	1.2	11.2	0.2	4.4	0.1	**	**	20.3	0.4	21.7	0.4
Service Providing	26.4	2.3	5.4	0.5	2	0.2	0.2	*	0.2	*	18.6	1.6
Trade, transport, utilities	18	0.5	1.9	*	2.2	0.1	**	**	**	**	13.6	0.3
Information	30.7	0.1	**	**	**	**	**	**	**	**	27.3	0.1
Financial activities	17.3	0.2	**	**	**	**	1.2	*	**	**	14.8	0.2
Professional/business services	--	--	--	--	1.2	*	**	**	**	**	1.8	*
Education and health	63.7	1.2	14.1	0.3	4.2	0.1	**	**	--	--	45.3	0.9
Leisure and hospitality	7.5	0.1	3.4	*	**	**	**	**	**	**	3.5	*
Other services	20.3	0.1	**	**	**	**	**	**	**	**	17.9	0.1
Government total	61	1	6.7	0.1	5.6	0.1	**	**	2.8	*	45.8	0.7
State Government	17.6	0.1	**	**	**	**	**	**	**	**	13.6	0.1
Local Government	77.8	0.9	8.8	0.1	6.8	0.1	**	**	3.8	*	58.3	0.7

Source: Conn-OSHA;
 Rates are adjusted for hours worked, and are per 10,000 full-time workers.
 Cases are in 1,000's
 *less than 50 cases; **less than 15 cases.

Numbers and rates by industry sector are presented in Table C-2, based on the new NAICS (North American Industrial Classification System), which replaced the previously used SIC (Standard Industrial Classification) system in 2003. Overall, the adjusted rate is 34.9 cases of occupational illness per 10,000 CT workers.

Education/health services and Manufacturing had the highest number of cases of illness, (both with approximately 1,200 cases), followed by local government with 900. However, local government had the highest rate (77.8 cases per 10,000 full time employees), followed by Education and health services (63.7), Manufacturing (58.1), Information (30.7), and Other services (20.3).

Manufacturing had almost equal numbers of hearing loss and “other” illnesses, with approximately 400 cases of each, and also had skin and respiratory conditions. Education/health services had mainly “other illnesses”, with lesser numbers of skin and respiratory conditions. Local government had the highest rate of respiratory conditions (probably related to firefighter exposures), and the highest rate of “other” illnesses.

Repetitive trauma cases have historically been the highest contributor to occupational illness rates, but this category of illness stopped being collected in 2002. Some of these cases appear as “other illnesses”, but the BLS instructions are not clear on whether they need to be recorded there or not since they do not give specific examples of these conditions (such as Carpal Tunnel Syndrome or tendonitis) in their instructions, although chronic conditions are supposed to be recorded as illnesses. It is likely that these cases are under-recorded in comparison to previous years. Some information is available on lost-time conditions (see below).

Reported rates were the highest for larger workplaces in 2004, with 5.0 cases per 10,000 workers for 10 or fewer employees, 38.0 for 11-49 employees, 32.6 for 50-249 employees, 39.8 with 250-999 employees, and 54.4 for 1,000 employees and over (Table C-3). Compared to 2003, reported rates increased greatly for employers in the 11-49 size category (from 20 to 38) and slightly for the largest employers; rates for all other size categories decreased, with the largest decrease for the 50-249 category (from 47.7 to 32.6). However, studies in Connecticut have shown that the smallest employers tend to under-report, so some of these differences may be due to variable reporting.

Table C-3: Rates by size of employer, BLS/ConnOSHA, 2004

	Cases	Rate
1-10 employees	86	5.0
11-49 employees	1,217	38.0
50-249 employees	1,257	32.6
250-999 employees	908	39.8
1,000+ employees	1,103	54.4
Total	4,572	34.9

Lost-Time Illnesses

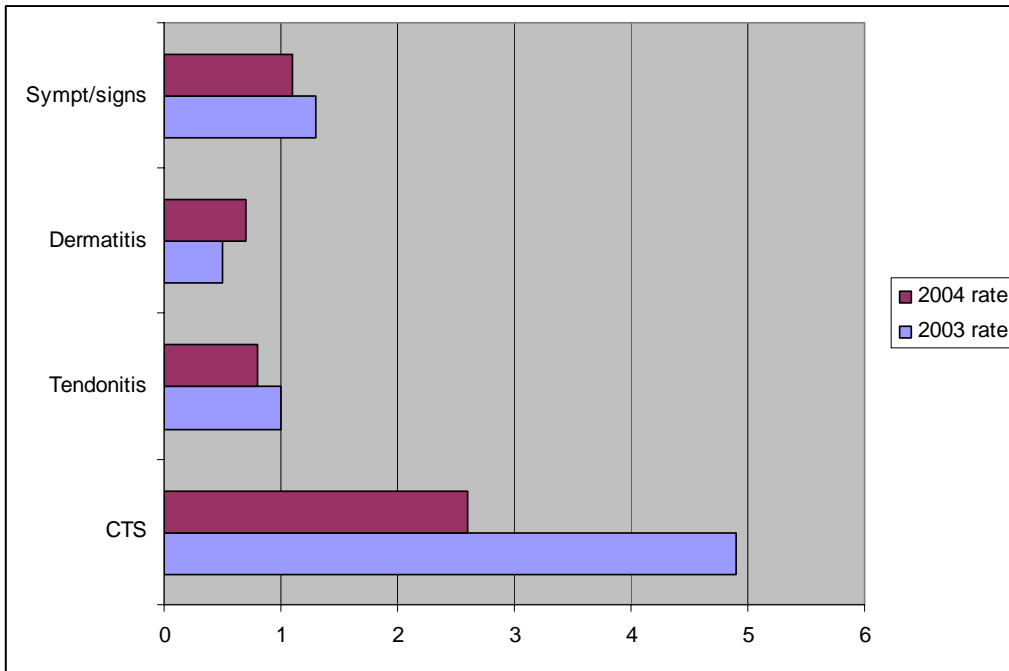
BLS obtains additional data for the subset of cases that result in lost worktime (restricted work cases are not included in this section, which is about half again the number of lost worktime cases), that provide additional detail on specific conditions and causes. We are presenting here this data for 2003 and 2004 for conditions that are more chronic in nature (usually classified as occupational illness).

Musculoskeletal Conditions

Musculoskeletal conditions are the most common category of specific illness conditions, and is a category that includes both chronic conditions and sprains and strains from overexertion (approximately 75% of these cases nationally). BLS defines this fairly complex category as “Includes cases where the nature of injury is: sprains, strains, tears; back pain, hurt back; soreness, pain, hurt, except back; carpal tunnel syndrome; hernia; or musculoskeletal system and connective tissue diseases and disorders and when the event or exposure leading to the injury or illness is: bodily reaction/bending, climbing, crawling, reaching, twisting; overexertion; or repetition. Cases of Raynaud's phenomenon, tarsal tunnel syndrome, and herniated spinal discs are not included.”

Private sector musculoskeletal conditions decreased from 7,030 in 2003 to 6,420 in 2004 (the rate per 10,000 workers decreased from 61.3 to 56.1). MSD accounted for 34.5% of all lost time injuries and illnesses. While 57% of MSD were for males, females had a much higher proportion of MSD in relation to all injuries and illnesses (MSD was 40% of all lost-time injuries for women, and 31% for men). Almost 90% of MSD were for strains and sprains, with the back accounting for over half of the cases, and with lifting the most common source. Rates were highest for Transportation and Warehousing (177 per 10,000), Health Care and Social Assistance (126), and Construction (85).

Figure C-4: Rates of Conditions, Lost-time Only, Private Sector, CT, 2003 and 2004



Source: BLS Website <http://www.bls.gov/iif/home.htm>

Rates are cases per 10,000 full time employees

CTS=Carpal Tunnel Syndrome:

Sympt/signs= Symptoms, signs, and ill-defined conditions

Carpal Tunnel Syndrome (CTS) was the most common specific illness, with a rate dropping from just under 5.0 per 10,000 workers to 2.6 (Figure C-4) and approximately 300 lost-time cases (plus 30 in the public sector). CTS also had the second highest average lost work days of any condition (hernia was highest), with a median of 35 days of lost time per case (compared to an average of 7 days for all cases of injury and illness). Tendonitis dropped slightly from 1.0 cases per 10,000 to 0.8, and averaged 30 days of lost time per case.

Dermatitis

Lost-time dermatitis cases increased slightly from 0.5 to 0.7 cases per 10,000.

D. Workers' Compensation First Report of Injury Data

There were a total of 3,867 Workers' Compensation reports for occupational illness in 2004, a 33% increase from 2003, at least in part as a result of improved reporting to the Workers' Compensation Commission. (There may have been some difficulties with the electronic exchange of reports from insurers in 2003, so the comparisons to 2003 may not be completely accurate). However, the 2004 figures are also an increase over 2002, so part of this, (in addition to improved reporting), may represent a real increase. Occupational illness cases are a subset of illnesses combined with traumatic injuries, representing 10.7% of the 36,003 total reports filed in 2004 (there were 37,720 in 2002 and 29,772 in 2003).

Table D-1 and Figure D-1 show the total reports for the previous six years, indicating a steady increase in reports between 1996-1999, with a leveling in 2000, overall decrease to 2003, then a 34% increase in 2004. There were increases in all categories of illness in 2004 based on these reports, including increases of 36% in lung conditions, 51% for skin, 171% for infectious conditions, 55% in stress and heart reports, and 14% in musculoskeletal disorders (MSD). Employment rates were fairly stable in 2004, so the overall illness rate also increased by 33%.

Table D-1: Occupational Disease by Type, WCC, 1996-2004

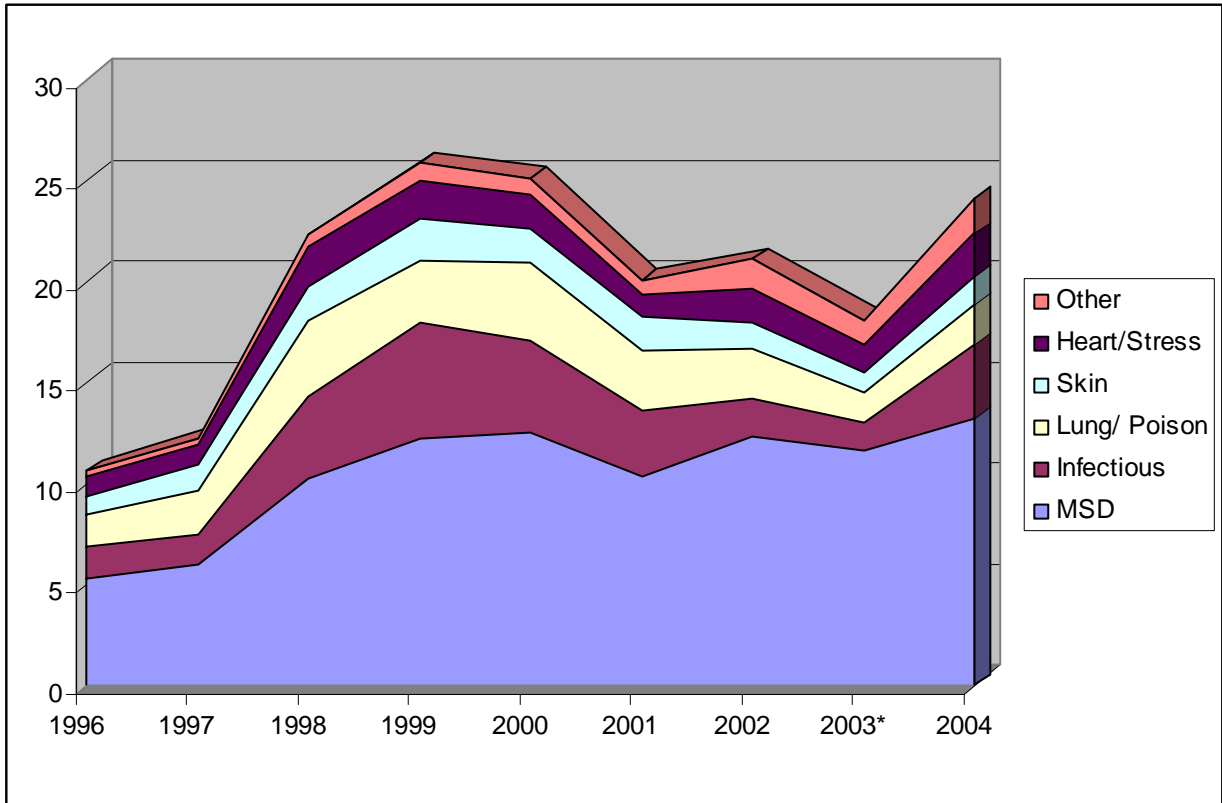
	1996	1997	1998	1999	2000	2001	2002	2003*	2004
MSD	807	936	1,634	1,998	2,075	1,619	1,978	1,858	2,114
Infectious	249	242	653	930	748	516	291	218	590
Lung/ Poison	249	329	603	497	630	463	409	246	335
Skin	136	202	270	343	291	268	196	147	222
Heart/Stress	145	161	301	298	274	171	280	220	344
Other	45	48	95	148	129	119	226	202	262
Total Illnesses	1,631	1,918	3,556	4,214	4,147	3,156	3,380	2,891	3,867
Employment	1,538,000	1,570,500	1,596,900	1,630,000	1,653,000	1,571,664	1,602,000	1,598,200	1,603,100
Illness Rate per 10,000	10.6	12.2	22.3	25.9	25.1	20.1	21.1	18.1	24.1

Note: Employment figures are not adjusted for hours worked

* This may be an incomplete database

Illness reports were dominated by musculoskeletal disorders with 2,114 cases in 2004 (55% of the total occupational illnesses). There were 590 cases of infectious diseases (15%), 323 (8%) cases of lung diseases, (which includes acute respiratory diseases, chronic lung diseases, and poisonings), 222 cases of skin conditions (6%), and 340 cases of heart disease, stress disorders, and hypertension (9%). There were increases in all categories in reference to 2003, and in all but lung illnesses in reference to 2002. The current overall rate of 24.1 cases per 10,000 workers is back up near the peak of 25.8 in 1999.

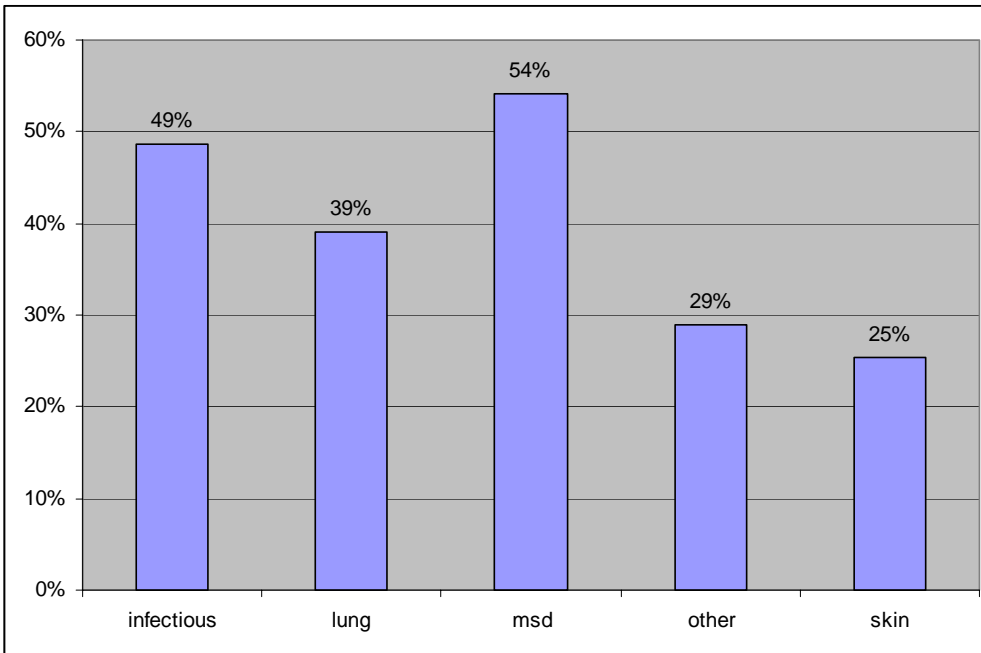
Figure D-1: Rate of Occupational Disease by Type, WCC, 1996-2004



Rate per 10,000 workers, not adjusted for hours worked.

*2003 may be an incomplete database

Figure D-2: Percent of Women by Disease Type, WCC, 2004



Overall, 46% of reports were by women, but this varied by type of case (Figure D-2), with higher proportions of women for MSD, but lower levels for skin, “other”, and lung.

Figure D-3 Occupational Illness Cases by Industry, WC, CT, 2003

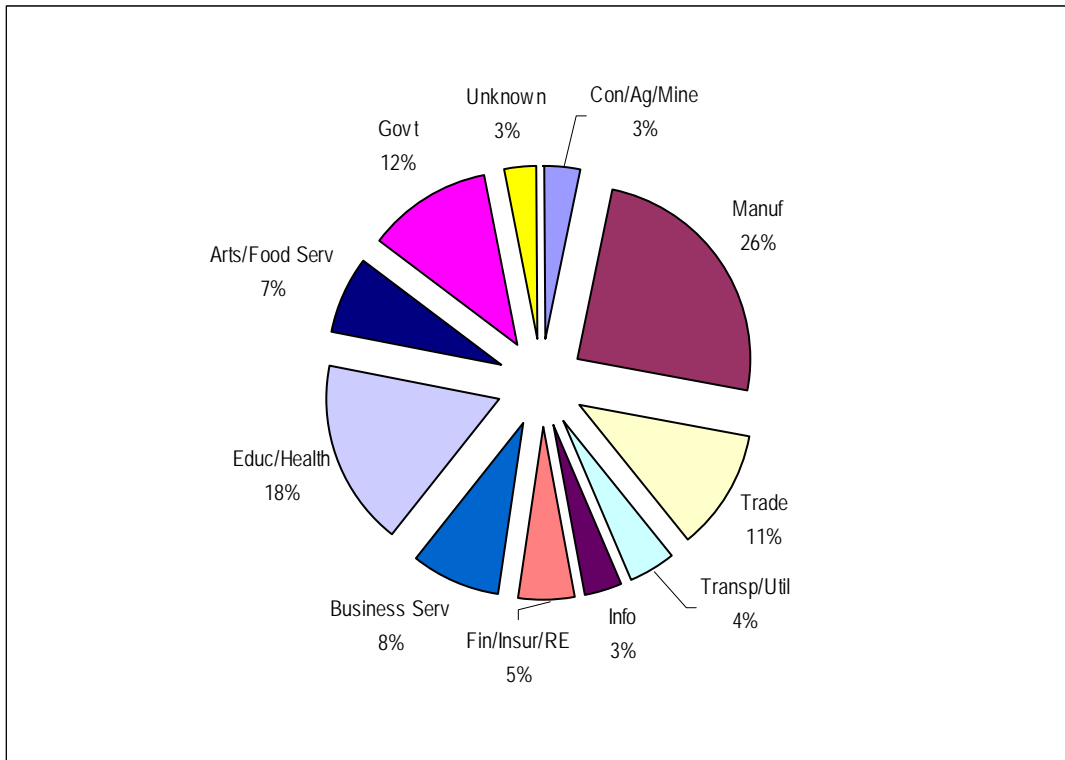


Table D-2: Cases/Rates of Occupational Disease by Major Industry Sector, WCC, 2004

NAICS Sector	Cases	Percent	Employ	Rate
Construction/Ag/Mine	120	3%	71,200	16.9
Manufacturing	661	17%	197,000	33.6
Trade	422	11%	258,700	16.3
Transport/Utilities	113	3%	47,500	23.8
Information Services	97	3%	38,900	24.9
Finance/Insurance/RE	214	6%	140,700	15.2
Business Services	234	6%	197,300	11.9
Education/Health	650	17%	262,500	24.8
Services	261	7%	176,400	14.8
Government*	942	24%	213,000	44.2
Unknown	153	4%		
Total	3867	100%	1,598,200	24.2

Notes: Employment is not adjusted for hours worked. Rows do not add up to total due to reports that could not be coded for industry. Rates are per 10,000 employees.

*Government illnesses do not include those that are classified under other categories, such as education and health services.

Numbers and rates of occupational illnesses are presented by major NAICS industry sector in Figure D-3 and Table D-2. Ninety six percent (90%) of reported cases were able to be coded for major industry sector. State and local government had the highest number of cases (942), even with not accounting for other government cases allocated to other sectors such as education. Including those allocated in other sectors back to government results in 1,220 for local government and 33 for state government. This latter figure for State Government seems very low for the state sector, which typically has much higher numbers (252 in 2003), and may indicate some reporting artifact. Manufacturing had the next highest number of reports with 661, followed closely by Education and Health Services (650), and then Wholesale and Retail Trade (422).

The rate per 10,000 workers factors in the size of employment in each sector. Government (primarily local government) had by far the highest rate at 44 per 10,000 workers, followed by Manufacturing (33.6). Three sectors (Transportation and Utilities, Information Services, and Education and Health Services) had a rate of approximately 24.

Table D-3 provides the detail of industry sector by type of condition, breaking out state and local government from the other sectors.

Table D-3: Type of Disease by Industry Sector, WCC, 2004

Industry	Infectious		Lung		MSD		Skin		Other	
	Cases	Percent	Cases	Percent	Cases	Percent	Cases	Percent	Cases	Percent
Con/Ag/Mine	5	1%	7	2%	90	4%	5	2%	13	2%
Manuf		0%	44	13%	493	23%	38	17%	86	14%
Trade	3	1%	30	9%	309	15%	20	9%	59	10%
Transp/Util	1	0%	3	1%	91	4%	3	1%	15	2%
Info	3	1%		0%	82	4%	4	2%	8	1%
Fin/Insur/RE	5	1%	15	4%	151	7%	1	0%	24	4%
Business Serv	22	4%	17	5%	156	7%	10	5%	29	5%
Educ/Health	126	21%	19	6%	166	8%	18	8%	30	5%
Arts/Food Serv	15	3%	29	9%	171	8%	21	9%	24	4%
Local Govt	401	68%	154	46%	283	13%	95	43%	287	47%
State Govt	2	0%	2	1%	14	1%		0%	15	2%
Unknown	7	1%	15	4%	108	5%	7	3%	16	3%
Total	590	100%	335	100%	2114	100%	222	100%	606	100%

Patterns of illness by industry differed by the type of illness (see Table D-3), although Local Government was high in all categories. Infectious diseases were concentrated in Local Government (68%) and Health/Education (21%). Lung diseases were concentrated in Local Government (45%) and Manufacturing (13%). Musculoskeletal disorders were most prevalent in Manufacturing (23%), followed by Trade (15%), and Local Government (15%). Skin cases were most common in Local Government (43%) and Manufacturing (17%). Other Illnesses, which includes heart and hypertension cases as well as other illnesses (see below) were most common in Local Government (48%), Manufacturing (14%), and Trade (10%).

Table D-4: Specific Industry Sectors with over 30 Cases of Occupational Disease, WCC, 2004

Specific Sector	NAICS Code	Cases
Local Government		1220*
Educational Services	611	329
Transportation Equipment Manufacturing	336	234
Fabricated Metal Product Manufacturing	332	125
Administrative and Support Services	561	107
Amusement, Gambling, and Recreation Industries	713	103
Hospitals	622	98
Nursing and Residential Care Facilities	623	98
Insurance Carriers and Related Activities	524	97
Professional, Scientific, and Technical Services	541	91
Credit Intermediation and Related Activities (Banks)	522	77
Ambulatory Health Care Services	621	73
Merchant Wholesalers, Durable Goods	423	72
General Merchandise Stores	452	64
Telecommunications	517	57
Electrical Equipment, Appliance, and Component Manufacturing	335	52
Food and Beverage Stores	445	52
Merchant Wholesalers, Nondurable Goods	424	51
Specialty Trade Contractors	238	49
Couriers and Messengers	492	46
Computer and Electronic Product Manufacturing	334	42
Social Assistance	624	41
Personal and Laundry Services	812	37
Food Services and Drinking Places	722	36
Non residential construction	236	32
Miscellaneous Manufacturing	339	31

*Local government includes cases that may also appear in other specific sectors, such as educational services.

Table D-4 shows those specific industry sectors that reported over 30 cases of occupational illness. Local government had by far the largest number of illnesses at 1,220 reports, a sharp increase from the 216 reported in 2003, and which includes many of the 329 cases reported under educational services. Transportation Equipment Manufacturing (which includes both shipbuilding and aircraft manufacturing) had the next largest number of cases at 234, followed by Fabricated Metal Product Manufacturing (125), Administrative and Support Services (107), Amusement, Gambling, and Recreation Industries (103), Hospitals (98), Nursing and Residential Care Facilities (98), Insurance Carriers and Related Activities (97) and Professional, Scientific, and Technical Services (91).

It should be noted that those sectors that employ large numbers of workers are more likely to have higher numbers of cases; rates reported below adjust for industry size.

Table D-5: Industry Sectors with Highest Rates of Disease, WCC, 2004

Industry	NAICS	Cases	Employ	Rate
Local Government		1220	155,000	78.7
Educational Services	611	329	45,100	72.9
Couriers and Messengers	492	46	7,200	63.9
Transportation Equipment Manufacturing	336	234	43,100	54.3
Electrical Equipment, Appliance, and Component Manufacturing	335	52	10,400	50
Amusement, Gambling, and Recreation Industries	713	103	24,500	42
Telecommunications	517	57	13,800	41.3
Fabricated Metal Product Manufacturing	332	125	33,700	37.1
Computer and Electronic Product Manufacturing	334	42	15,400	27.3
Miscellaneous Manufacturing	339	31	12,600	24.6
Credit Intermediation and Related Activities (Banks)	522	77	31,600	24.4

Table D-5 shows the sectors from Table D-4 with rates of occupational diseases that were above the overall average rate of 24.1 per 10,000 workers. Local government was highest with the overlapping category of educational services (schools), followed by Couriers and Messengers (63.9), Transportation Equipment Manufacturing (54.3), and Electrical Equipment Manufacturing (50.0),

Musculoskeletal Disorders (MSDs)

“Musculoskeletal disorders” is the currently-used term for conditions also known as cumulative trauma disorders or repetitive strain injuries. There were 2,114 MSDs reported in 2004, an increase of 14% over 2003. MSDs accounted for over half of the reported occupational diseases to Workers’ Compensation. MSDs presented here do not include any cases for the lower back, (since the descriptions of back conditions are typically not sufficient to be able to distinguish between acute and cumulative back injuries), nor do MSDs include any acute injury condition from sudden events.

Carpal Tunnel Syndrome (CTS), which is a pinching of the median nerve at the wrist, was the most common specific diagnosis with 396 cases reported, or 19% of total MSD reports, for an increase of 15% over 2003 (Table D-6). Other nerve-related problems (with symptoms of numbness or tingling) accounted for an additional 55 cases, with a decrease of 38%. Tendon-related problems included 62 cases of tendonitis and tenosynovitis, 23 cases of ganglion cysts, and 25 cases of epicondylitis (“tennis elbow” or “golfer’s elbow”). There were 13 cases of trigger finger. A large number (1,533) of cases did not have a specific description other than “pain”, “inflammation”, “strain or sprain” (this category does not include acute strains or sprains), or no description

Table D-6: Musculoskeletal Disorders (MSDs) by Type, WCC, 2003-4

MSD Type	2003	2004	%	Change
Strain/sprain	667	1,136	54%	70%
Carpal Tunnel Syndrome (CTS)	346	397	19%	15%
Pain	175	88	4%	-50%
Inflammation	109	116	5%	6%
Numbness/Tingling	88	55	3%	-38%
Tendonitis	75	62	3%	-17%
Trigger finger	16	13	1%	-19%
Ganglion/cyst	14	23	1%	64%
Epicondylitis	11	25	1%	127%
Arthritis/Bursitis	6	7	0%	17%
Other MSD	351	192	9%	-45%
Total	1,858	2,114	100%	14%

Almost all the cases of MSD were in the upper extremity of the body (note that lower back cases were excluded from these figures). Half (50%) of total MSD cases were for the hand, wrist, and lower arm (see Table D-7). Other affected parts of the body included 8% elbow and 20% shoulder, neck, and “upper extremity”. Only 7% were for the legs, knees and feet.

Table D-7: Musculoskeletal Disorders by Part of Body, WCC, 2004

Part of body	Cases	Percent
Lower Arm, Wrist, Hand	1054	50%
Upper Arm, Shoulder, Upper Extremity	427	20%
Elbow	174	8%
Neck and Upper Back	60	3%
Legs, Knees, and Feet	157	7%
Multiple	208	10%
Other/Unknown	34	2%
Total	2114	100%

Causes of conditions were often incomplete and not consistently coded nor described. Approximately two-thirds of MSD cases had enough description to show some cause. Of the

MSDs that could be classified, the most frequently mentioned cause was the broad category of “repetition” (295 cases), although this was frequently just from a general description, and often used to describe any chronic musculoskeletal problem (see Table D-8). This was followed by lifting (234 cases) and computing and clerical tasks that included typing, keying, mouse use, phone use, etc, with 206 cases. There were 171 cases that mentioned use of some type of tool, including many references specifically to pneumatic tools that have been associated with vibration exposure as well as biomechanical risks. Assembly tasks and pushing or pulling was mentioned in about 65 cases each, machine use in 58, selecting processes in 37, kneeling or squatting in 29, cleaning activities (including mopping and sweeping) in 29, driving in 26, gripping in 23, and dealing cards (in casinos) was specifically mentioned in 21 cases.

Table D-8: Causes of Musculoskeletal Disorders (MSD), WCC, 2004

Cause of MSD	Reports	Cause of MSD	Reports
Repetitive	295	Walking	20
Lifting	234	Reaching	18
Computer	206	Standing	17
Tools	171	Shoveling	14
Assembly	65	Twisting	12
Push/Pull	62	Cashier	10
Machine	58	Climbing	9
Selecting	37	Patient Care	7
Kneeling	29	Packing	6
Cleaning	29	Other	6
Driving	26	Posture	5
Gripping	23	Bending	5
Dealing	21	Sitting	5

Infectious Diseases

There were a total of 590 reports of infectious diseases or exposures in 2004, an increase of 171% over 2003. There were increases in all categories of infectious reports, including a 181% increase in bloodborne disease and exposures from blood, body fluids, and needlesticks, a 35% increase in Lyme disease or tick bites, a 717% increase in TB exposures or PPD tests (indicating a new infection of TB), and a cluster of 31 reports of exposure to meningitis.

Infectious disease reports include both actual disease and exposure to potentially infectious agents. Recent court decisions have broadened the definition of compensable disease to include exposures, particularly where exposure requires medical treatment such as prophylactic treatments such as for tuberculosis (TB) and AIDS (HIV) exposures. There has recently been considerable attention paid to Lyme Disease among outdoor workers, resulting in more reports of tick bites. 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). Similarly, it is usually not clear in the reports for needlestick and sharps injuries

whether the source patient or client was actually infected with any of the known bloodborne diseases. There were additional reports of exposure to “spit” or “sputum” that are not reported here, since risks tend to be very low from such exposures.

Bloodborne diseases or blood exposures were the most common infectious disease category reported, with 233 cases in 2004 (see Table D-9), including 66 that specifically mentioned a needlestick or other sharp exposure. Diseases that can be contracted through blood and body fluid exposures include hepatitis B, C and HIV. Human bites or exposures to body fluids such as urine are also related to bloodborne diseases, with 145 cases reported. Transmission is much less likely when a worker is exposed to urine or a human bite than transmission occurring from blood, particularly for HIV. Blood to blood exposure is the highest risk, such as from needlesticks or sharps injuries. Altercations or arrests with prisoners or clients accounted for the vast majority of human bites as well as some of the other bloodborne exposures.

Table D-9: Infectious Diseases and Exposures by Type, WCC, 2004

Illness	Cases	%
Blood/body fluids	167	28%
Sharp and needlestick exposures	66	11%
Human bite/Urine	145	25%
Lyme Disease/Tick bite	50	8%
TB/ppd conversion/exposure	49	8%
Meningitis exposure	31	5%
Scabies	19	3%
Other infectious	63	11%
Total	590	100%

There were 50 reports of tick bites, rashes from tick bites, and Lyme Disease attributed to occupational exposures. There were 49 cases of tuberculosis infection (PPD conversion) or exposures to clients with TB. There were also 113 other infectious diseases or exposures reported, including reports relating to meningitis, scabies, MRSA, shingles, Fifth Disease, and rabies.

Acute Respiratory Conditions and Poisonings

There were 168 cases of acute respiratory conditions reported for 2004 and 28 cases of poisonings from carbon monoxide, pesticides, mercury, lead, or other causes, overall a 20% increase over 2003. Because descriptions vary, causes are difficult to precisely classify (see Table D-10). Chemical exposures were the most common cause of illness, followed by exposure to fumes, smoke, cleaning products, and pesticides. In addition to the 5 cases attributed to mold in acute respiratory conditions, there were a number of cases of chronic lung conditions and allergies also attributed to mold (see below).

Table D-10: Acute Respiratory Conditions and Poisonings by Cause, WCC, 2004

Cause	Cases	%
Chemical Exposure	43	22%
Fumes Exposure	35	18%
Smoke, Fire	30	15%
Cleaning	13	7%
Odor	10	5%
Air Quality	6	3%
Dust	5	3%
Construction/paint	5	3%
Mold	5	3%
Other Respiratory	16	4%
Pesticides	13	7%
Carbon Monoxide	8	4%
Mercury/lead	5	3%
Other Poisoning	2	1%
Total	196	100%

Specific chemical exposures mentioned included pool chemicals, sulfuric acid, hydrogen chloride, ink mist, degreasing agents, Freon, pepper spray, chlorine, fluorine, formaldehyde, methanol, muriatic acid, anesthetic gases, and ammonia.

Chronic Lung Conditions

There were 139 cases of chronic lung conditions in 2004, an increase of 67% from 2003. These included asbestos-related diseases and exposures, occupational asthma, and other chronic lung diseases, including lung cancer. Acute lung diseases are classified under respiratory disease (above). Allergies, such as those caused by latex or mold, that often include lung effects, are classified under allergies, under “Other occupational diseases” below, although those that are described as having specific lung effects are shown here (under “other lung”).

Asbestos

There were 35 reports of asbestos-related disease or exposures in 2004 (Table D-11). The descriptions of the cases made it impossible to determine whether the cases were actual disease or only exposure to asbestos, although many describe chronic exposure or actual disease, including at least one fatality and one cancer. 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. Asbestos disease is thought to be under-reported by traditional surveillance sources such as Workers’ Compensation. Industries for asbestos conditions included shipyards, hospital, construction, telecommunications, and the state.

There were 27 occupational asthma cases reported in 2003. Causes included dust, chemicals, mold, smoke, odors, and pesticides.

“Other lung” conditions included 16 reports of respiratory conditions that were not clearly defined, but were attributed to mold or indoor air quality. There were also 11 reports of allergic conditions involving lung effects, pneumonia, and poorly-described conditions.

Table D-11: Chronic Lung Diseases by Type, WCC, 2003-4

Illness	2003	2004	%	Change
Asbestos-related	29	35	25%	21%
Asthma	24	27	19%	13%
Other lung	30	77	55%	157%
Total	83	139	100%	67%

Skin Conditions

There were 222 skin conditions reported in 2004, an increase of 51% from 2003, driven primarily by an increase in poison ivy cases. There were 109 cases of contact dermatitis from poison ivy or other plants, 19 cases that were specified as allergic reactions, and 94 cases of the more general dermatitis. For cause ((Table D-12), in addition to the poison ivy cases,

Table D-12: Skin Diseases by Cause, WCC, 2003-4

Category	2003	2004	Percent	Change
Poison Ivy/plants	42	109	49%	160%
Chemical	17	20	9%	18%
Gloves/Latex/clothing	10	11	5%	10%
Coolant/Oil	6	9	4%	50%
Allergic	6	13	6%	117%
Soap/Cleaning	4	11	5%	175%
Dusts/Metals	3	5	2%	67%
Mold/wet	3	2	1%	-33%
Other/Unknown	56	42	19%	-25%
Total	147	222	100%	51%

Stress and Heart Conditions

Heart and Hypertension

There were 344 cases involving heart conditions, stroke, chest pain, hypertension, or stress reported in 2004, an increase of 181% over 2003 (Table D-13 and D-14). Thirty-eight (38) cases specifically mentioned heart attacks or myocardial infarctions, 24 described a physician diagnosis of heart problems, 10 reported strokes or clots, 93 described symptoms of chest pain, often associated with emergency care at a hospital. There were 93 cases that described the condition as hypertension or “heart and hypertension” (the usual legal term for heart or hypertension cases that are covered for police and fire fighters).

Though not generally well described, causes of the heart cases included cases due to physical exertion including lifting and unloading, shoveling snow, pushing and pulling, running to stop

an altercation or responding to a code, and firefighting. Approximately 100 of the cases involved police or firefighters who are covered under heart and hypertension laws that consider those conditions to be work-related for workers' compensation purposes. At least 2 of the heart attack cases resulted in death.

Table D-13: Heart and Hypertension Conditions by Type, WCC, 2004

Category	Cases	Percent
Heart Attack	38	15%
Heart diagnosis	24	9%
Chest pain/symptoms	93	35%
Stroke	10	4%
Hypertension	93	37%
Total	258	100%

Mental Stress

There were a total of 86 stress-related claims in 2004, the same number as in 2003. There were 10 cases related to harassment, including sexual harassment. There were 8 cases which cited violence or robbery, and an additional 8 which were ascribed to job demands and workload. There were 7 cases that were attributed to conflicts with supervisors or co-workers, 7 described as depression, and 3 attributed to unwelcome changes in job assignments or job insecurity. There were 43 other reports which were simply defined as “stress” without further explanation (See Table D-14). There were also several stress-related cases that are classified under heart conditions (See Table D-13, above).

Table D-14: Stress Conditions by Source, WCC, 2004

Sources of Stress Conditions	Cases
Harassment/ hostile environment	10
Violence/robbery	8
Job Demands & workload	8
Supervisor/co-worker conflict	7
Depression	7
Job changes/insecurity	3
Unknown/other	43
Total	86

Other Occupational Diseases

Hearing Loss

There were 117 cases of hearing loss in 2004 (Table D-15), an increase of 43% over 2003. Of these cases, 10 appeared to be caused by acute noises or conditions such as very loud noises such as gunfire. The rest appeared due to long-term exposure to noise, mostly from manufacturing workplaces, or were noted as being found on routine audiograms.

Table D-15: Other Occupational Illnesses, WCC, 2003-4

Type of illness	2003	2004	%	Change
Hearing loss	82	117	45%	43%
Dizziness/passing out	38	45	17%	18%
Allergic	27	19	7%	-30%
Cold/heat related conditions	12	26	10%	117%
Cancer	2	6	2%	200%
Other conditions	42	49	19%	17%
Total	203	262	100%	29%

Other Disease Conditions

There were 26 reports of temperature-related problems from heat or cold (primarily heat). There were 45 reports of workers becoming dizzy, fainting, or similar conditions.

There were 19 additional cases of allergic reactions reported in addition to those noted above under lung and skin conditions, attributed to foods, cleaning products, dust, medications, mold, or latex.

There were 6 cases of cancer reported, two attributed to chemicals and 2 attributed to firefighting.

There were 49 “other” conditions. These included a number of reports of chemical and biological exposures, including pesticides, chlordane, sewage, white powder, and mold. A number of conditions were serious, including 2 brain aneurisms, kidney and bladder conditions, coughing up blood, seizures, and blood clots.

E. Occupational Disease Surveillance System (Physicians' Reports)

Physicians are required to report known and suspected occupational disease to the Occupational Disease Surveillance System that is maintained by the Departments of Labor and Public Health. Although all physicians are required to report, most reports are received from the occupational health clinics and industrial medicine programs.

There were 924 occupational illness reports received from physicians in 2004, a decrease of 8% from 2003 (Table E-1), with an additional 342 reports of lead poisoning cases through the laboratory reporting system. Overall, there was an 8% decrease in disease reports and a 15% decline in lead reports. The overall decrease was driven by a 22% drop in musculoskeletal (MSD, also called "Repetitive Trauma") reports. All other categories increased in 2004, including an 11% increase in lung conditions, a 57% increase in the infectious disease category (which does not include bloodborne conditions), and a 7% rise in skin conditions.

Table E-1: Occupational Disease by Type, ODSS, 1998-2004

Category	1998	1999	2000	2001	2002	2003	2004	% Change 2003-4
MSD	754	823	1174	841	921	624	488	-22%
Skin	237	295	339	274	338	181	194	7%
Lung	206	139	291	190	283	156	173	11%
Other	31	31	74	56	30	20	36	80%
Infectious*	13	22	27	68	34	21	33	57%
Sub-total ODSS	1,241	1,310	1,905	1,429	1,606	1,002	924	-8%
Lead (Lab)	203	212	616**	530**	476**	400**	342**	-15%
Total	1,444	1,522	2,521	1,959	2,082	1,402	1,266	-10%

*Does not include bloodborne pathogens exposure

** Lead values for 2000 - 2004 include cases in the blood lead level range of 10-19ug/dl that were not included in prior years.

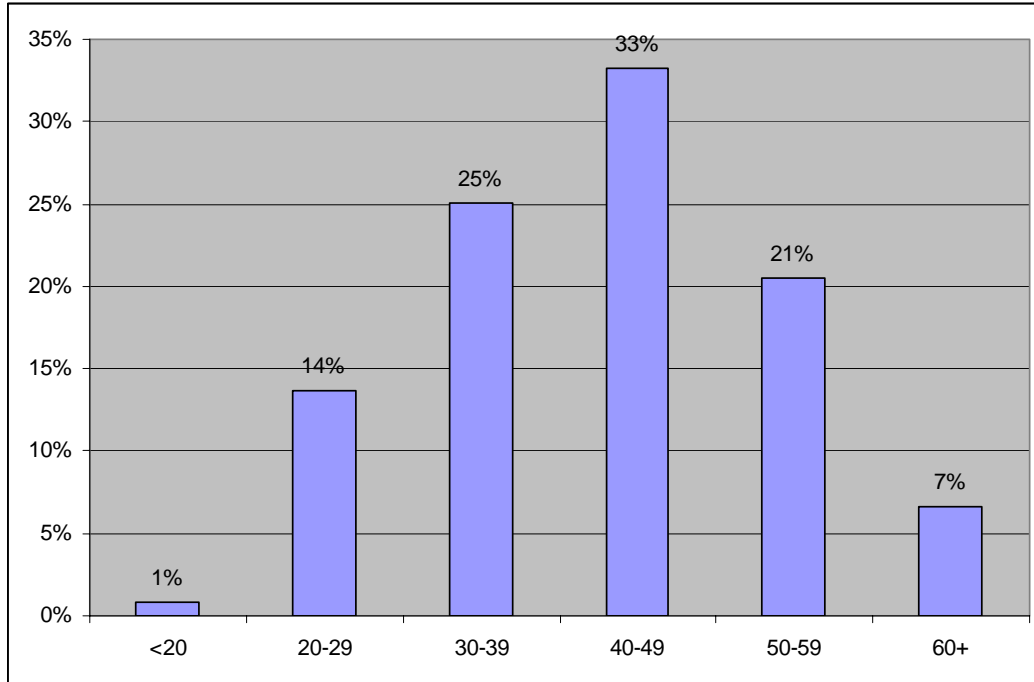
In 2004, 71 physicians from 25 clinics (at 33 locations) reported at least one case into the ODSS system, approximately the same numbers as 2003. Seven clinics contributed 82% of the cases; three clinics contributed 60%. Although it is a state law that known and suspected occupational diseases diagnosed by any physician in the state must be reported to this system (CGS § 31-40a), the primary reporters are the occupational health clinics and auxiliary occupational health clinics. Therefore, these reports should be viewed as just a small portion of physician-diagnosed occupational diseases in Connecticut.

Physicians only reported on whether exposures causing the condition were continuing for approximately 20% of the reports; of these, 36% of cases were known to have continuing exposure. In 36% of the cases it was reported that other workers were likely to be exposed to the same hazard (where this was known). Sixty-one percent (61%) of the cases were classed as "high certainty" for being an occupationally-related disease, 35% were "moderate certainty," and 5% "low certainty."

Of the 643 cases where race was known, 113 (17.6%) were identified as Black, and 73 (8.6%) of 845 cases (where ethnicity was known) were identified as Hispanic.

The largest number of cases were in the age range of 40-49 years old (33% of all cases), followed by those in their 30's (25%), 50's (21%) and 20's (14%; Figure E-1). Only 8 cases were reported in workers less than 20 years of age.

Figure E-1: Occupational Disease by Age Range, ODSS, 2004



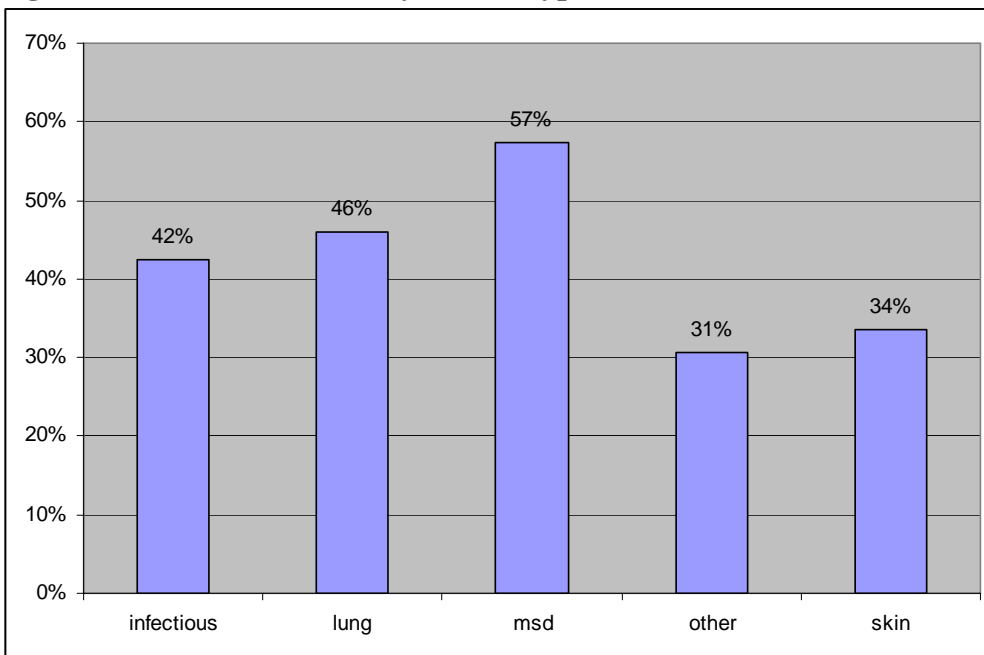
Patterns of age were different for different types of illness. Skin conditions and infectious diseases affected mainly those aged 20-39 (33%), while lung disease and MSD cases were on average somewhat older, with the largest number in the 40-49 year range (Table E-2).

Table E-2: Occupational Disease Type by Age, 2004

Age	Infectious	Lung	MSD	Other	Skin
<20	0%	1%	0%	3%	3%
20-29	27%	8%	11%	17%	24%
30-39	33%	24%	23%	26%	30%
40-49	21%	38%	35%	34%	27%
50-59	12%	25%	24%	11%	10%
60+	6%	5%	7%	9%	7%
Total Cases	33	173	487	35	193

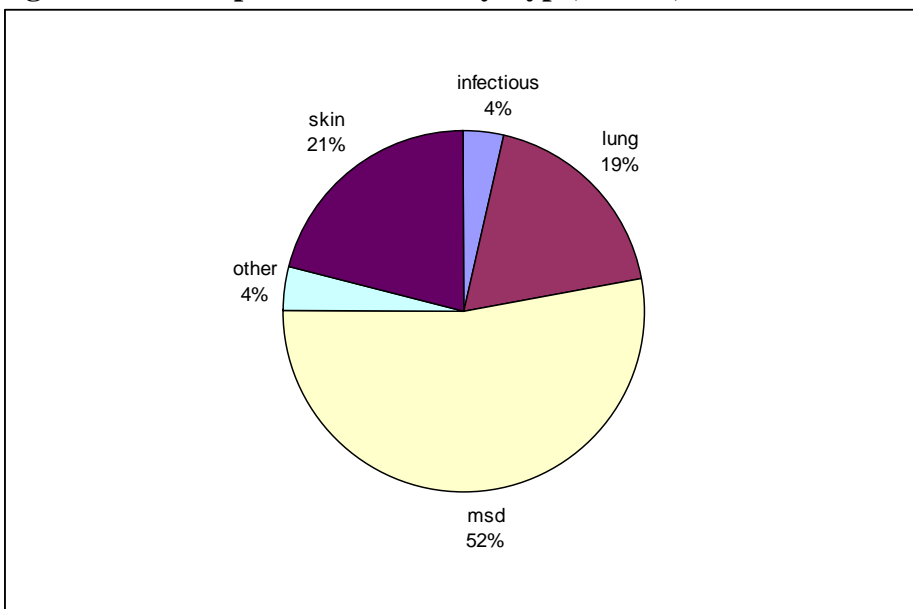
Overall, cases were virtually evenly distributed by gender, with 49% of cases being female. However, this differed somewhat by condition: 57% of MSD reports were for women, but only 34% of skin disease cases were female. (Figure E-2).

Figure E-2: Percent Female by Illness Type, ODSS, 2004



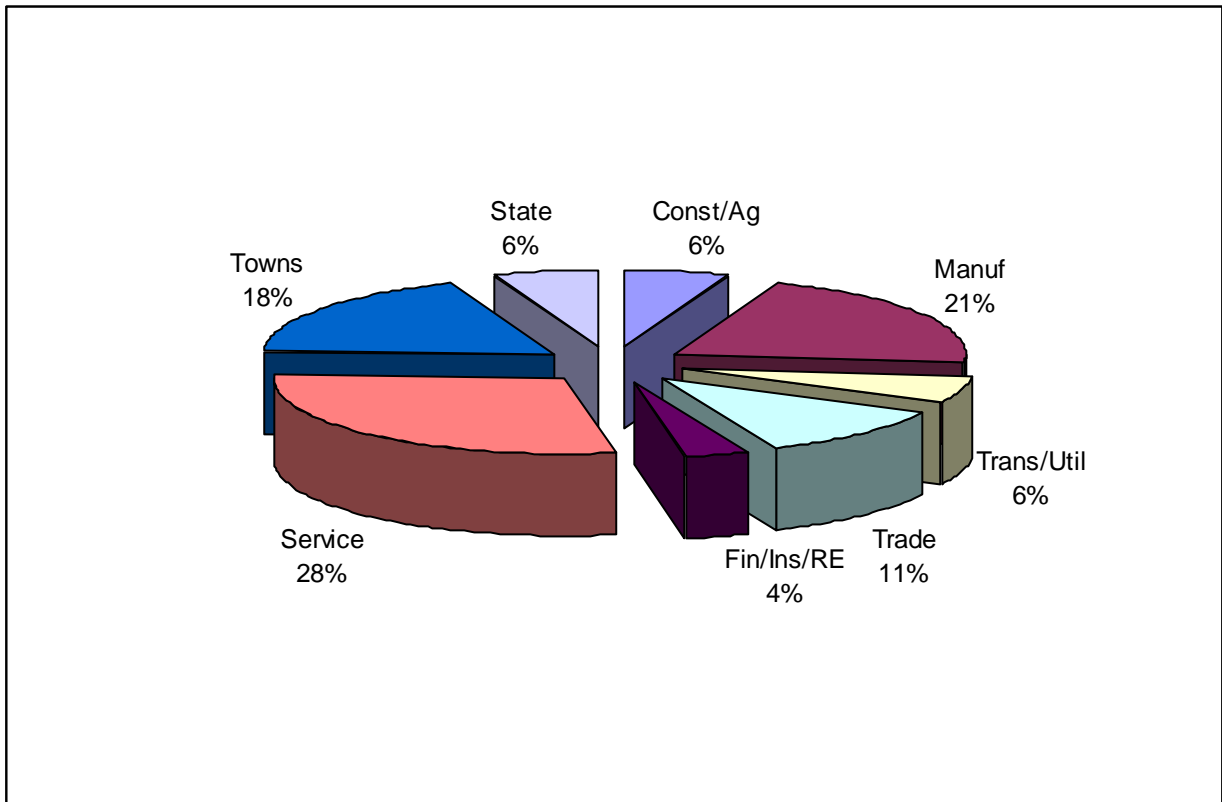
Reports were dominated by musculoskeletal disorders (MSD; 52%), followed by skin (21%), lung/respiratory (19%), infectious (4%), and “other” conditions (see Figure E-3). Lead cases are not included in the figure since they are from a different type of reporting system.

Figure E-3: Occupational Disease by Type, ODSS, 2004



Reported cases were predominately from the Services industry sector (28%), followed by Manufacturing (21%), Municipalities (18%), retail and wholesale trade (11%), and Transportation/Utilities and State employees, both with 6% (Figure E-4).

Figure E-4: Occupational Disease by Industry Sector, ODSS, 2004



However, industry distribution was somewhat different by condition (Table E-3), although the number of reports from the Services sector dominates due to the large number of employees in that sector. The Services sector accounted for 58% of infectious disease cases (primarily due to diseases such as TB conversions in health care facilities), 28% of lung disease cases, and 29% of skin disease cases.

Table E-3: Type of Illness by Industry Sector (SIC), 2004

Industry	Infectious	Lung	MSD	Other	Skin
Const/Ag	3%	9%	4%	8%	7%
Manuf	0%	9%	26%	14%	21%
Trans/Util	9%	4%	5%	14%	7%
Trade	3%	5%	14%	8%	9%
Fin/Ins/RE	0%	5%	5%	0%	2%
Service	58%	28%	26%	17%	29%

Towns	18%	29%	11%	31%	22%
State	9%	9%	6%	8%	1%
Total Cases	33	173	488	36	194

Manufacturing and Wholesale and Retail Trade were both higher for MSD than for other categories, with 26% of MSD in Manufacturing and 14% for Trade. Skin conditions were fairly equally distributed across services, municipalities, and manufacturing, with between 21-29% of cases. Municipalities also had a high proportion of lung disease cases, with 29%.

Musculoskeletal Disorders (MSDs)

Musculoskeletal Disorders (MSDs) decreased (for the second consecutive year) by 22% to 488 cases in 2004. This figure only includes upper-extremity MSD (does not include MSD caused by acute incidents such as falls or individual lifts), and excludes lower back diagnoses, even if caused by cumulative strain. The most common specific diagnoses for musculoskeletal disorders were epicondylitis (20%), Carpal Tunnel Syndrome (19%), and tendonitis (15%), and also the less specific category of strain or sprain (16%); (Table E-4, see descriptions of conditions below). There were decreases from 2003 in most of the diagnostic categories, including tendonitis (52% decrease), DeQuervains (41%), Carpal Tunnel Syndrome (35%) and epicondylitis (35%). There was a large increase in strains and sprains (558%), and a smaller increase in ganglion cysts (64%).

Illness	Cases	Percent
Epicondylitis	95	19.5%
Carpal Tunnel Syndrome (CTS)	93	19.1%
Strain/Sprain	79	16.2%
Tendonitis	72	14.8%
Other MSD	37	7.6%
DeQuervains	32	6.6%
Bursitis/Arthritis	25	5.1%
Tenosynovitis	24	4.9%
Ganglion	18	3.7%
Cubital Tunnel Syndrome	11	2.3%
HAVS	2	0.4%
Total	488	100%

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. Specific descriptions of these disorders include:

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
- De Quervain’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

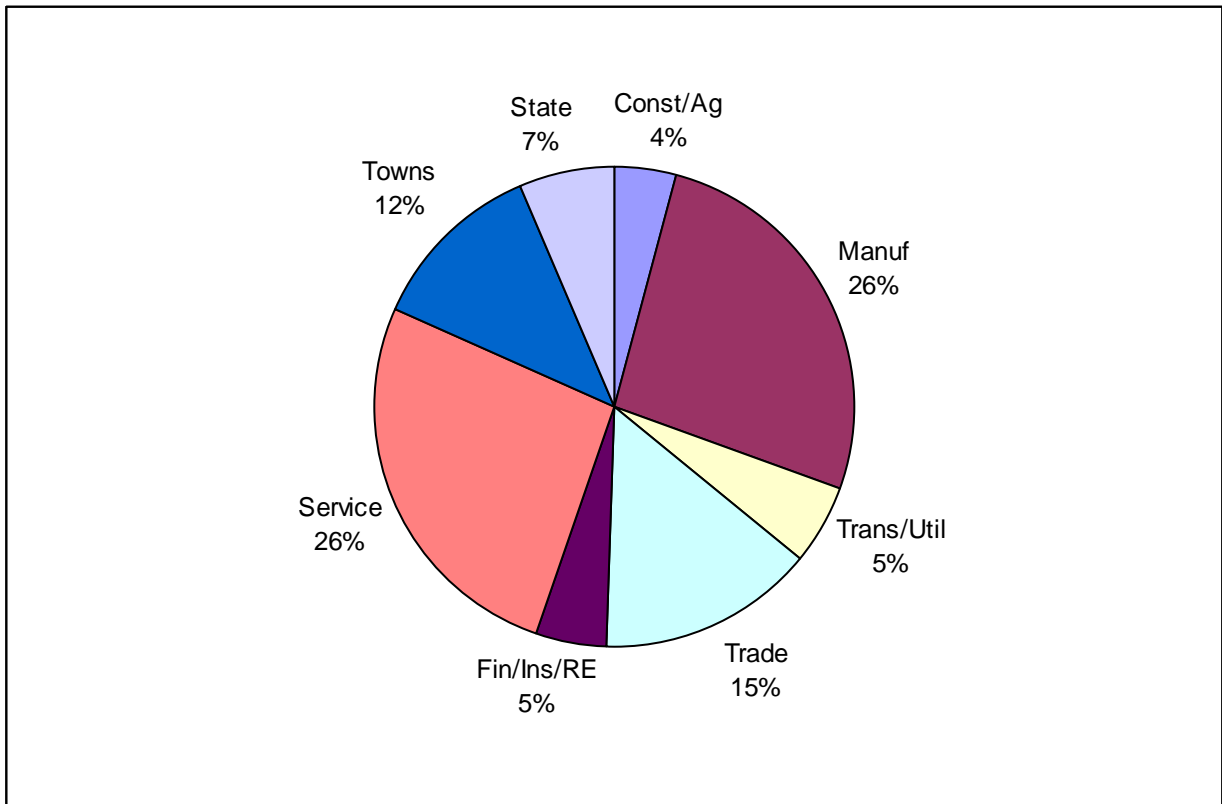
Nerve Disorders

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

Circulatory/Combined/Other

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

Figure E-5: Musculoskeletal Disorders by Industry Sector, ODSS, 2004



The largest number of MSDs was from the Services sector (including private schools and health care; 26%), followed by Manufacturing (26%), Trade (15%), and Municipalities (12%) (Figure E-5).

Specific industries with 10 or more MSDs reported are shown in Table E-5. These included hospitals, state government, nursing homes, grocery stores, surgical and medical instrument manufacturing, schools, and motor vehicle part manufacturing. In the detail presented in Table E-4, municipal and State employees are broken into subcategories (general administration, education, health care, etc.), and so their totals are higher than indicated in this table. Several industries that had 15 or more MSD last year had less than 10 this year, including shipbuilding, amusements, colleges, and fire departments. It should also be noted that some of these industries are Connecticut's larger employers. Because of higher employment, larger employers and sectors are likely to have more reported cases.

Table E-5: Specific Industries with 15 or more MSDs Reported, ODSS, 2004

Industry	SIC	Cases
Hospitals	8062	68
State government	9110	47
Nursing Homes	8051	27
Grocery Stores	5411	17
Surgical Instrument Manuf.	3841	10
Schools	8211	10
Motor Vehicle Parts	3714	10

Occupations are difficult to assess since the occupational descriptions vary by the person notating them. However, several occupations were consistently reported for MSDs (Table E-6). These included clerical and computer operators (46 cases), health care workers such as nurses and aides (37 cases), machinists and machine operators (35 cases), assembly workers (25 cases), packers (21 cases), laborers (19 cases), custodians (18 cases), drivers (17 cases), and technicians (14 cases).

Table E-6: Occupations with over 10 MSDs Reported, ODSS, 2004

Occupation	Cases
Clerical	46
Nurse and CNA	37
Machine operator	35
Assembler	25
Packer	21
Laborer	19
Maintenance & custodial	18
Driver	17
Technician	14

Table E-7: Common causes of MSD, ODSS, 2004

Cause	Cases
Repetition	76
Lifting	41
Computer	33
Tools & Vibration	26
Push/pull	9
Gripping	9

Causes for MSDs are also difficult to classify since they are frequently described differently. The most common causes noted for MSDs were “repetitive motions” or “cumulative”, followed by lifting, computer use and data entry, tools and vibration, pushing or pulling, and gripping (Table E-7). “Repetitive motion” tends to be a common term to describe MSDs, which may not clearly indicate a cause.

Skin Conditions

Skin condition reports increased slightly to 194 cases in 2004 (Table E-8). The largest category was simply described as dermatitis (68%), followed by poison ivy or other plant exposure (23%) and cases labeled as allergic dermatitis (7%).

Table E-8: Skin Conditions by Type, ODSS, 2004

Illness	Cases	Percent
Dermatitis	132	68%
Poison ivy & other plants	44	23%
Allergic	13	7%
Other	5	3%
Total	194	100%

Table E-9: Skin Conditions by Cause, ODSS, 2004

Cause	Cases	%
Poison ivy & other plants	44	46%
Chemical	25	26%
Cleaners & solvents	14	15%
Gloves/latex/clothing	7	7%
Other/unknown	6	6%
Total	96	100%

The most common cause of skin conditions was poison ivy and other plant exposures with 44 cases, followed by cleaning, coolants, and other chemicals with 39 cases, and latex, gloves and clothing with 7 cases (Table E-9).

Skin conditions (Figure E-6) occurred most commonly in the Services industry sector (30%) and Municipalities (23%), both of which includes many outdoor occupations which may expose workers to poison ivy, and Manufacturing (22%), which includes many potential chemical exposures.

Figure E-6: Skin Conditions by Industry Sector, ODSS, 2004

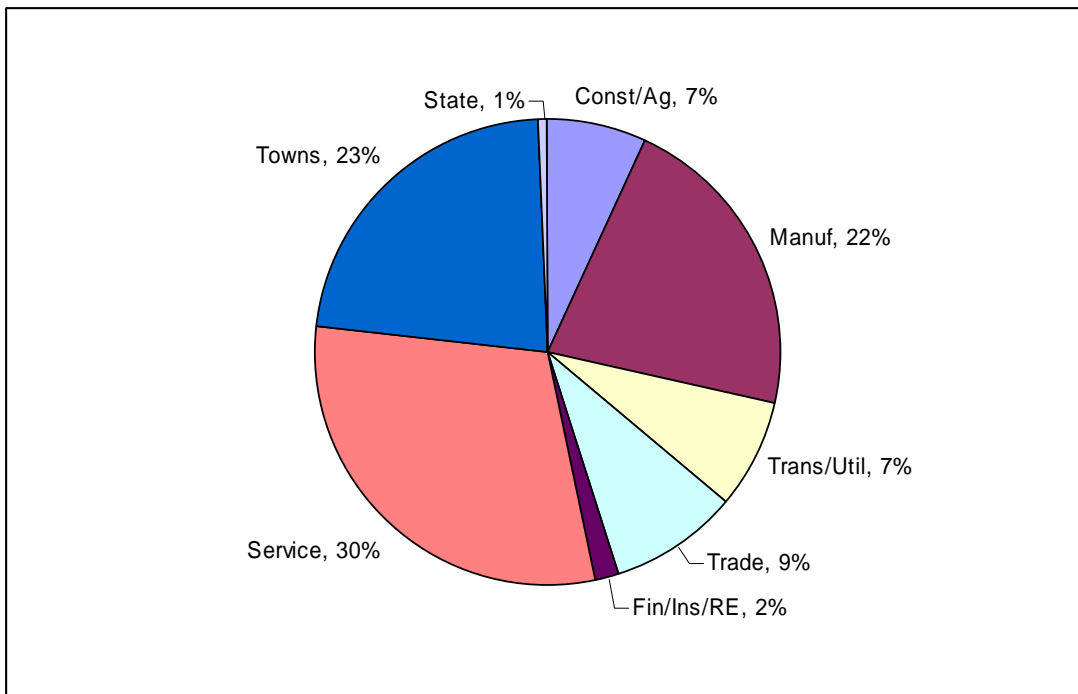


Table E-10: Clusters of Skin Disease by Specific Industry, ODSS, 2004

Specific Industry	SIC	Cases
Municipalities (excluding schools)		34
Hospitals	8062	22
Nursing homes	8051	9
Schools	8211	9
Industrial machinery manufure	3599	7
Nursery	0181	7

There were 6 specific industries in which over 5 cases were reported (Table E-10): Municipalities (34 cases), hospitals (22), skilled nursing care facilities (9), schools (9), Industrial machine manufacturing (7) and nurseries (7). Municipal cases were primarily due to Public Works employees coming into contact with poison ivy or other plants. The hospital and nursing home cases included latex or gloves as well as cleaning products or soaps/detergents. Specific occupations for which over 5 cases were reported included laborers, machinist/machine operator, custodians, maintenance and grounds workers, and nurses and health care workers.

Lung Diseases and Poisonings

There were 173 cases of lung disease and poisonings reported in 2004, an increase of 11% from the previous year. The most commonly reported condition was acute respiratory disease (50%), typically caused by exposure to chemicals or fumes (Table E-11). Asthma and a

similar condition called reactive airways dysfunction syndrome (RADS) was the next most common category (15%). There were 20 asbestos-related conditions reported, which include exposures as well as illnesses and findings suggestive of asbestos-related lung disease, including pleural plaques and shortness of breath. In addition to lung conditions, there were 11 cases of poisonings from various causes, including mercury, lead, gasoline, and inadvertent drinking of chemicals that were reported by physicians (lead reports from labs are considered separately below).

Table E-11: Lung Diseases and Poisoning by Type, ODSS, 2003-2004

Illness	2003	Percent	2004	Percent
Respiratory	83	53%	83	48%
Asthma/RADS	18	12%	25	14%
Asbestos-related	2	1%	20	12%
Rhinitis/sinusitis	6	4%	12	7%
Poisoning	6	3%	11	6%
Bronchitis	6	4%	5	3%
Allergy	16	10%	3	2%
Multiple Chemical Sensitivity	1	1%	2	1%
Chronic Obstructive Pulmonary	2	1%	1	1%
Hypersensitivity Pneumonitis	4	3%	0	0%
Other Lung	12	8%	11	6%
Total	156	100%	173	100%

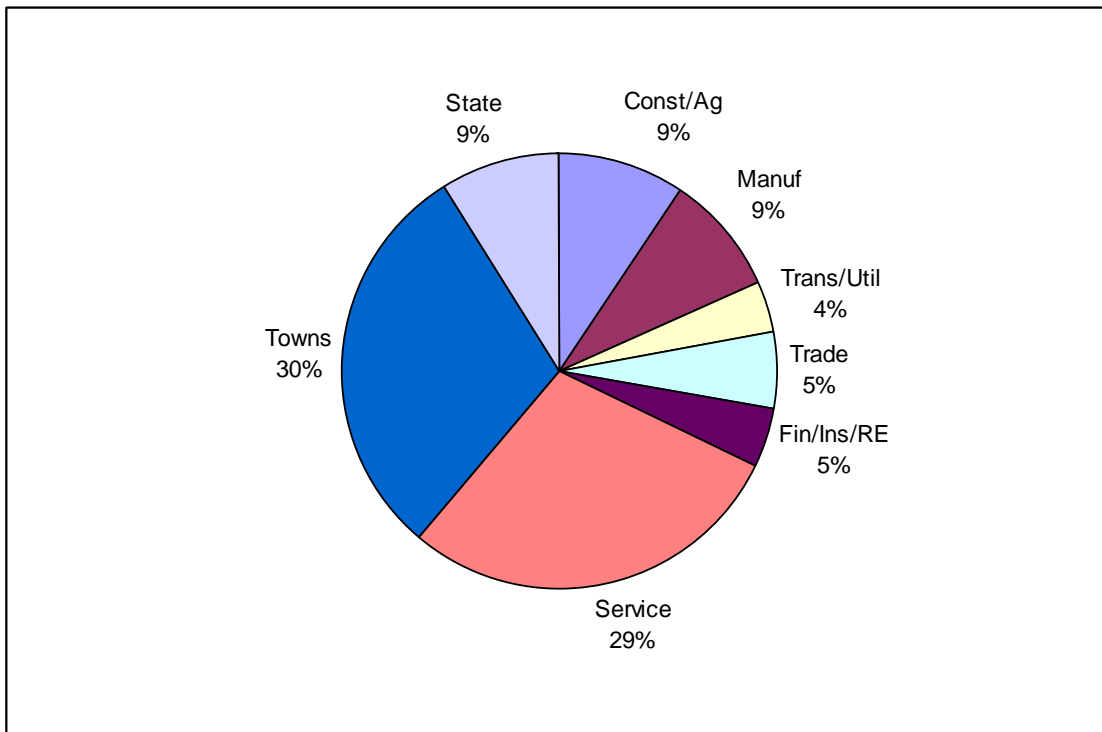
Causes of lung problems were highly varied (Table E-12). There were 35 reports of lung conditions due to fumes, the most common category. Fumes included battery fumes, carbon monoxide, gas and diesel fumes. There were also 30 reports of lung conditions due to chemicals, 21 connected to asbestos exposure, plus 12 attributed to cleaners, and 3 to solvents. Chemicals mentioned included ammonia, acetone, xylene, paint removal, chlorine, chloroform, ammonium hydroxide, and sodium hydroxide. Mold and wet conditions were cited for 17 cases, an increase over the 11 reported for 2003, but less than the 70 reported in 2002. Indoor Air Quality (IAQ) was the reported cause for 5 cases.

Table E-12: Causes of Lung and Poisoning Conditions, ODSS, 2004

Cause of Lung Condition	Cases
Fumes	35
Chemical	30
Asbestos	21
Mold	17
Cleaning	12
Dust	9
IAQ	5
Solvents	3

Odor	3
Heat	3
Mercury	2
Poison	2
Exercise	1
Pesticide	1
Smoke	1
Allergens	1

Figure E-7: Lung Disease by Industry, ODSS, 2004



Lung disease cases mainly occurred in Municipalities (30%), and the Services industry sector (29%), with Manufacturing, State Government, and Construction all having 9% (Figure E-7). This represents a decrease in Services and Manufacturing compared to 2003. In addition to the State of Connecticut (15 cases), specific industries with 5 or more cases included schools (23 cases), hospitals (20 cases), skilled nursing facilities (6 cases), social service (5 cases), special trade contractors (5 cases) and life insurance (4 cases).

Lead Poisoning

There was a 15% decrease in elevated blood lead levels reported based on laboratory reports, dropping from 400 cases in 2003 to 342 cases in 2004. This was the fourth consecutive year that a decrease was observed. Decreases occurred in all categories of lead levels. The lowest level (10-24 ug/dl) of lead levels accounted for 85% of all cases (Table E-13). Despite decreases, there were still 24 reports of blood leads of 40 or greater.

Connecticut requires laboratories to report all blood lead tests of 10 micrograms per deciliter 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, with the majority of adult cases being attributed to an individual's occupation (although some cases occur in individuals engaged in hobbies such as home improvement or target shooting). OSHA medical removal protections apply at the level of 50 micrograms per deciliter of whole blood or above (40 micrograms per deciliter to return to work), although lead can have neurological and other negative effects on health at much lower levels of exposure

**Table E-13:
Lead Cases by Level of Blood Lead, Lead Surveillance System, 2003-2004**

BLL*	2003	2004	Percent
10 - 24	339	298	87%
25-39	37	35	10%
40-49	12	3	1%
50-59	7	3	1%
>=60	5	3	1%
Total	400	342	100%

*ug/dl of whole blood

Infectious and Other Diseases

Since 1998, bloodborne disease exposures such as needlesticks have not been reported into the ODSS, so this report only includes other infectious diseases. There were 33 reports of infectious diseases in 2004, a 57% increase from 2003. Reports included 13 tuberculosis (TB) infections or PPD conversions (a test for tuberculosis infection), 7 scabies cases, and 5 cases of influenza among healthcare workers (Table E-14). Infectious diseases occurred mainly in the Service sector (13 cases).

Table E-14: Infectious and Other Occupational Diseases by Type, ODSS, 2004

Illness	Cases
TB/PPD	13
Scabies	7
Flu	5
Herpes	3
Other infectious	5
Hearing loss	8
Stress	6
Headache/dizzy	5
Heat/cold	3
Heart	3
Other	11
Total	69

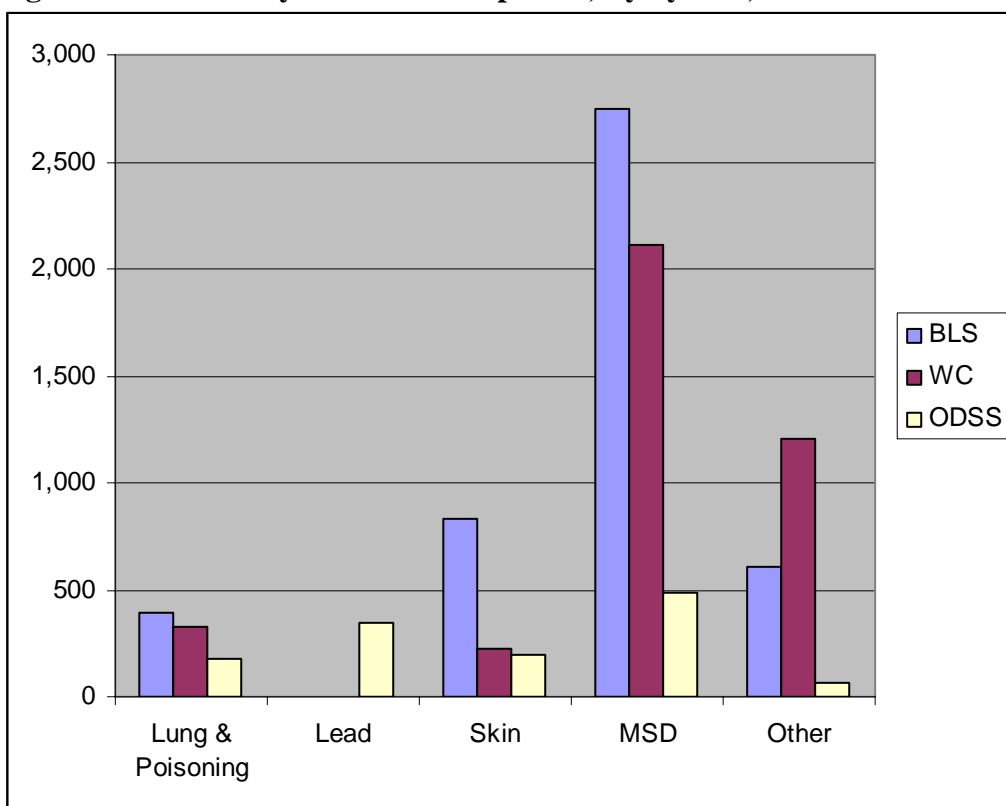
There were 36 “Other” occupational diseases reported, an 80% increase over 2003. There were 8 cases of hearing loss reported, 6 cases of mental stress, 5 cases of headaches or dizziness, and 3 cases of heat-related conditions. One of the “other” cases was a report of lung cancer from silica exposure.

Infectious and “Other” conditions occurred primarily in the Services industry sector (36%), Municipalities (25%), and Transportation/Utilities (12%).

F. Summary of Diseases

Figure F-1 shows the totals by disease category for 2004 for the three reporting systems of the Bureau of Labor Statistics/Conn-OSHA (BLS), Workers' Compensation (WC), and the Occupational Disease Surveillance System (ODSS, physician reports). Categories have been combined to make comparisons as close as possible; however, differences in the three systems' definitions make comparisons incomplete. For example, Workers' Compensation only requires reporting for lost-time or restricted duty cases, while the other two reporting systems require all occupational illnesses to be reported. According to the Department of Public Health, although all physicians are legally required to report occupational disease, only a small minority does report. Lead reports from the laboratory reporting system are presented separately, since there are very few lead reports in any of the other systems. The BLS/Conn-OSHA system has discontinued collecting "repetitive trauma" as a category beginning in 2002, so MSD has been estimated based on the proportion of "other illness" in the 2001 dataset, which was 82%. Appendix 1 details differences in the data systems.

Figure F-1: Summary of Diseases Reported, By System, 2004



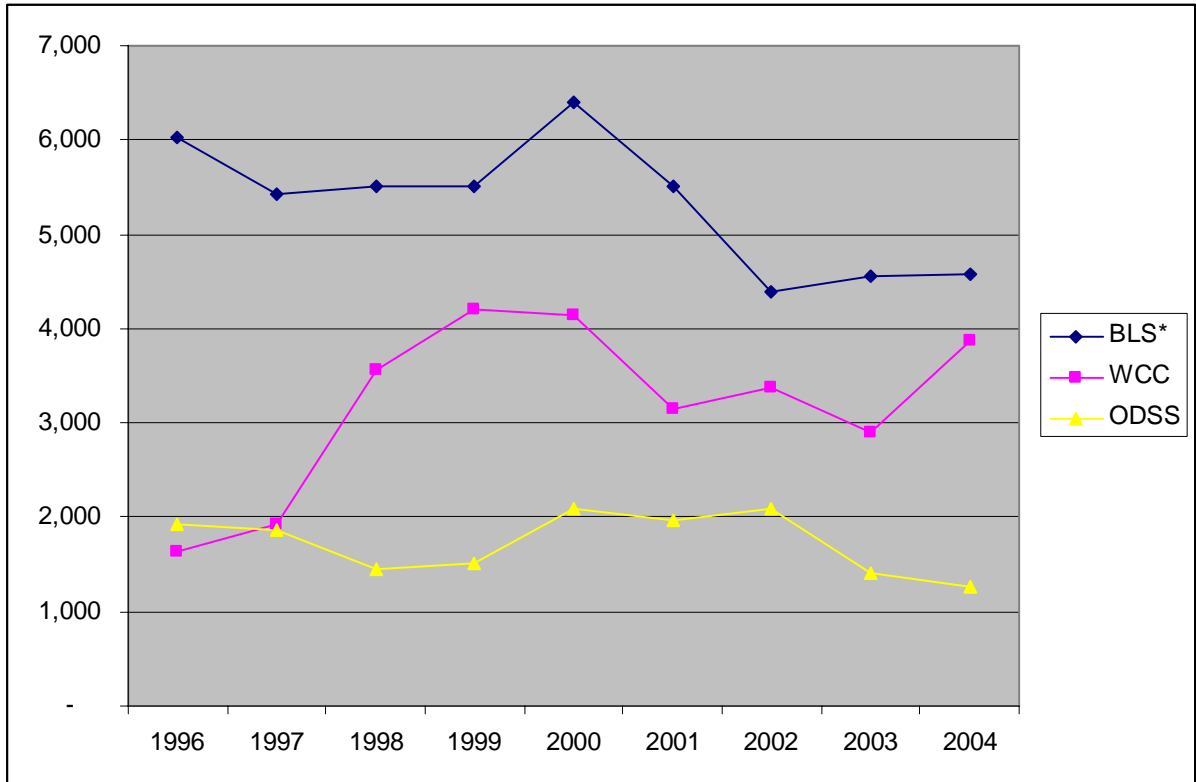
Notes: BLS=Bureau of Labor Statistics/ConnOSHA survey; WC=Workers' Compensation First Report of Injury Database; ODSS= Physicians reports from the Occupational Disease Surveillance System. MSD for the BLS database was estimated using prior proportions from "other".

The BLS/Conn-OSHA database showed the highest number of cases, with 4,572 cases reported, followed by the Workers' Compensation database with 3,867 cases, and the

Physicians' reporting database with 1,266 cases, an ordering that holds for most of the conditions.

Overall, BLS reports stayed about the same as 2003, while Workers' Compensation reports increased sharply and ODSS decreased slightly. Longer term trends are complex, with BLS trends generally declining, Workers' Compensation showing an early increase, then a decrease, and then an increase in 2004 (it should be noted that the workers' compensation database appeared incomplete in 2003).

Figure F-2 Nine-year trend in Occupational Disease Reports, by Reporting System



Notes: BLS= Bureau of Labor Statistics/Conn-OSHA survey; WCC= Workers' Compensation First Report of Injury; ODSS= Occupational Disease Surveillance System (physician reports).

*Note: BLS figures in 2002 not comparable to prior years due to changes in data collection. WCC data may not be complete for 2003.

G. Appendix: Databases and Methods

Determining the incidence of occupational illness in Connecticut 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, the Bureau of Labor Statistics/Connecticut Occupational Safety and Health Administration Survey of Occupational Injuries and Illnesses, the Connecticut Occupational Disease Surveillance Program, and the Connecticut Adult Blood Level Epidemiology Surveillance Program. The Workers' Compensation and Physicians' Report databases were provided in electronic form from the Workers' Compensation Commission and from the Department of Public Health. The BLS/Conn-OSHA survey data was provided in table form from the Connecticut Department of Labor.

Assumptions and Conventions

The Workers' Compensation Commission's First Reports of Injury database and the Connecticut Occupational Disease Surveillance System (referred to as Physicians' Reports) were reviewed in depth. A rationale for the data review was developed to differentiate occupational disease from 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** (approximately 90% of the Workers' Compensation database, and 30% of the Physicians Reports). 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 determine whether an injury or illness was described. The determination relied most heavily on the injury description and then on the other data fields in the order listed above.

The Physicians' Reports are organized differently. Numerical "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 indicator 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 chemical exposures, lower back problems (including sciatica), hernias, infected wounds or burns, insect and animal bites (with the exception of tick bites because of the Lyme Disease concern), 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. References

used include Occupational Health, Recognizing and Preventing Work-Related Disease, Fourth Edition; Levy, Barry S. and Wegman, David H.; Little, Brown and Company; 2000 and Chemical Hazards of the Workplace; Proctor, Nick H. and Hughes, James P.; J.P. Lippincott Company; 1978. Physicians at the University of Connecticut Health Center's Division of Occupational Medicine reviewed specific data records where there were questions about diagnoses..

- 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.
- 4) **Employers were coded for industry** utilizing a comprehensive list of Connecticut employers from the CT Department of Labor. Prior to 2003, this coding utilized the SIC (Standard Industry Classification), but beginning in 2003 this was changed to the NAICS (North American Industry Classification System) for the BLS and workers' compensation data in response to the national change to that system for BLS data. Rates were calculated using employment figures from the Occupational Safety and Health Statistics Division of the CT Labor Dept.
- 5) **Data was cleaned, tabulated and put into presentation form** using SPSS for Windows, Microsoft Access, Excel, and Word software.
- 6) **The report is reviewed** by the Connecticut Workers' Compensation Commission prior to publication.

Appendix H: Occupational Disease Detail by Type and Year
Table H-1: Cases of Occupational Disease, by Type, Bureau of Labor
Statistics/Conn-OSHA, 1979-2004

	Employ.*	All III	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 III	Skin			Respir.	Poison		Other
2002	1,602	4,387	831			320	78		3,159
2003	1,605	4,559	903			490	32		3,132
	Employ.*	All III	Skin			Respir.	Poison	Hearing	Other
2004	1,603	4572	832			354	35	466	2,886

Source: BLS/Conn-OSHA. Data collection methods and categories changed in 2002, and are not comparable to prior years. Employment in thousands

Table H-2: Rate per 10,000 Workers of Occupational Disease, by Type, Bureau of Labor Statistics/Conn-OSHA, 1979-2004

Year	Employed	Skin	MSD	Resp/Lung	Poisoning	Other
1979	1,358,000	12.6	3.5	2.5	1.3	8.2
1980	1,394,000	11.4	3.7	2.2	0.5	8.6
1981	1,409,000	10.7	5	2.3	0.6	9.4
1982	1,400,000	8.1	4.1	1.8	0.2	8.2
1983	1,419,000	8.7	4.7	1.2	1.1	9.7
1984	1,490,000	7.4	4.5	2	0.4	8.6
1985	1,528,000	6.1	4.8	1.8	0.3	10.4
1986	1,567,000	5.2	4.9	2	0.4	10.0
1987	1,607,000	8.4	8.9	2.1	0.4	18.2
1988	1,637,000	7.7	2.5	2.2	0.3	9.6
1989	1,634,000	7.6	16.1	2	0.5	26.0
1990	1,593,000	6.5	15.9	3.5	0.3	23.6
1991	1,518,000	6.2	22.8	3.2	0.7	30.4
1992	1,483,000	7.3	26	3.4	0.4	32.7
1993	1,487,000	6.5	37.2	3.8	1.1	45.2
1994	1,501,800	6.4	29.8	3.2	0.6	39.0
1995	1,520,000	5.8	27.8	2.7	0.2	36.5
1996	1,538,000	5.4	24.1	3	0.2	30.8
1997	1,570,500	3.9	21.2	2	0.4	28.3
1998	1,596,900	6.2	21.3	2.9	0.3	25.2
1999	1,630,100	4.9	20.3	2.5	0.4	26.1
2000	1,653,000	5.4	23.2	3	0.2	30.4
2001	1,571,000	5.8	20.5	4.1	0.2	25.1
2002*	1,602,000	5.2	*	2	0.5	19.7
2003	1,605,000	5.6	*	3.1	0.2	19.5
2004	1,603,100	5.2	*	2.2	0.2	20.9

Source: BLS/Conn-OSHA

*Data collection methods and categories changed in 2002, and are not comparable to prior years.

“Other” includes the pre-2002 categories of MSD, Physical, Lung-dust, and Other.

I: Internet Resources for Job Safety and Health

Compiled by Tim Morse, Ph.D., at the ErgoCenter at the University of Connecticut Health Center, tmorse@nso.uhc.edu, 860-679-4720. Please send suggestions for additions.

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, a searchable index of standards, and a listing of health and safety sites on the internet. <http://www.osha.gov>

To look up **OSHA citations** by company or industry:
<http://www.osha.gov/cgi-bin/est/est1>

NIOSH (the National Institute for Occupational Safety and Health) is another good general source. <http://www.cdc.gov/niosh/homepage.html>

EPA has a number of sites relevant to occupational health on indoor air quality, asbestos, and other topics. www.epa.gov <http://www.epa.gov/iaq/homes/index.html>

The **Duke Occupational & Environmental Medicine and the Association of Occupational & Environmental Clinics (AOEC)** on-line text resources. The site includes links to other professional occupational medicine web sites, subscribing information to the e-mail info service, access to the Duke occupational medicine gopher with tons of info, MMWR articles, federal documents, a list of lending library resources, and more.
<http://dukeocmed.mc.duke.edu>

The **Canadian Centre for Occupational Health and Safety** has hundreds of resources on their health and safety internet resource list. Start at their home page, then choose Resources (on the top bar), then Internet Directory. <http://www.ccohs.ca>

New Jersey Health Dept. has excellent **chemical hazard factsheets** that are free, independently researched, and clearly written on hundreds of substances.
<http://www.state.nj.us/health/eoh/rtkweb/rtkhsfs.htm>

Vermont safety information resources has a database of **material safety data sheets (MSDS)** from a large number of chemical companies. <http://www.siri.org>

Several safety organizations have useful websites:

http://www.nsc.org	The National Safety Council
www.aiha.org	The American Industrial Hygiene Association
www.asse.org	American Society of Safety Engineers
www.nfpa.org	National Fire Protection Assoc.
www.safetycentral.org	International Safety Equipment Association

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

NYCOSH (New York Council for Occupational Safety and Health) covers a lot of news from a labor perspective. <http://www.nycosh.org>

Jordan Barab has labor health and safety commentary. <http://spewingforth.blogspot.com>

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. <http://www.cbia.com/hr/SafetyAndHealth>

The **Environmental Defense Fund** has a scorecard page with information about the health effects of chemical emissions from 17,000 industrial facilities and the testing of chemicals, with maps and interactive databases. <http://www.scorecard.org/>

State of Connecticut 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 **ConneCT** website allows access to all state agencies: <http://www.state.ct.us>

The **State Department of Public Health** includes a site for the occupational health program, including versions of the occupational lung disease newsletter, factsheets, and other information. <http://www.dph.state.ct.us/BRS/EOHA/HPEEOH.html>

The **Connecticut Labor Department** includes an occupational health services site, which includes information on their free consultation program and a great set of links to other health and safety sites. <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 Medicine site known as Thomas <http://thomas.loc.gov/>

You can search the medical literature at PubMed. www.pubmed.gov

UConn Health Center's Occupational and Environmental Health Center has information and links on job health and safety. <http://www.oehc.uchc.edu>

Ergonomic Sites and Links

ErgoCenter at UConn Health Center. <http://www.oehc.uchc.edu/ergo>

Ergoweb has a lot of good factsheets, documents, and news. <http://www.ergoweb.com>

Tom Bernard's website at USF with many of the standards and typical ergonomic analysis tools <http://hsc.usf.edu/~tbernard/ergotools>

Medical Multimedia Group has patient education materials with good graphics and explanations. <http://www.medicalmultimedigroup.com>

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

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

CTD News Monthly Newsletter homepage. <http://www.ctdnews.com>

Occupational Overuse Syndrome/RSI resources <http://www.comp.vuw.ac.nz/General/OOS>

University of Virginia Ergonomics Training and Resources
<http://keats.admin.virginia.edu/ergo/home.html>

Lots of links and info from injured workers at the **Typing Injury FAQ**. <http://www.tifaq.com>

RSI/UK Information about Repetitive Stress Injuries (RSI) originating from the UK, with information gathered from sources around the globe. <http://www.rsi-uk.org.uk>

Usernomics Ergonomics for hardware, software, and training. <http://www.usernomics.com>

The **Job Stress Network** web page is dedicated to increasing communication among researchers and others interested in job stress and its impact on health.
<http://www.workhealth.org>

IBM's website. <http://www.pc.ibm.com/ww/healthycomputing/index.html>

A download of an interesting ergonomics software program developed by Battelle Labs for the Dept. of Energy called **ErgoEaser** is available for free. The program lets you input measurements of workstations and operators to help analyze computer workstations and lifting. <http://www.eh.doe.gov/ergoeaser/download.html>

J: Who's Who: Resources in Connecticut on Job Safety and Health

ACADEMIC PROGRAMS

Central Connecticut State University, School of Technology

Undergraduate program in environmental and occupational safety.

Chairman: George Ku, Ed.D.

Address: Copernicus Hall, CCSU, 1615 Stanley Rd., New Britain, CT 06050

Phone: (860) 832-1852

Fax: (860) 832-1806

e-mail: Kug@ccsu.edu

Web:

http://www.technology.ccsu.edu/programs/information/mcm_ocs_index.html

Labor Education Center, Occupational and Environmental Safety and Health Program

Based at UConn in Storrs, the LEC does education on job health and safety, including undergraduate and master's classes and certificates; includes on-line programs.

Director: Anthony Joseph

Address: 1 Bishop Circle, Unit 406, UConn, Storrs, CT 06269

Phone: 860-486-4338

Fax: (860) 486-5221

e-mail: Anthony.joseph@uconn.edu

Web: <http://continuingstudies.uconn.edu/centers/labor/index.htm>

University of Connecticut Health Center, Department of Community Medicine, MPH Program

Masters in Public Health program with ergonomic/occupational health certificate.

Director: David Gregorio, Ph.D.

Address: Farmington, CT 06030-6325

Phone: (860) 679-5480

Fax: (860) 679-5463

e-mail: mph@nso.uchc.edu

Web: http://grad.uchc.edu/mph/mph_intro.html

University of New Haven, Department of Occupational Safety and Health Management

Undergraduate and graduate programs in occupational safety and health, MS in Industrial Hygiene.

Director: Dr. Howard J. Cohen

Address: 300 Orange St., New Haven, CT 06516

Phone: (203) 932-7238

Fax: (203) 931-6054

e-mail: hcohen@newhaven.edu

Web: www.newhaven.edu/psps/gradosha.html

ACADEMIC OCCUPATIONAL HEALTH CLINICS

University of Connecticut Occupational and Environmental Health Center

Clinic Director: Dr. John Meyer

Address: UConn Health Center, 263 Farmington Ave., Dowling North, Farmington, CT 06030-6210

Phone: (860) 679-4947

Fax: (860) 679-1349

e-mail: meyer@uchc.edu;
csteciak@uchc.edu

Web: www.oehc.uchc.edu

Yale Occupational and Environmental Medicine Program

Director: Dr. Mark Cullen

Address: Occupational Medicine, 135 College St., New Haven, CT 06510

Phone: (203) 785-4197 Clinic

(203) 785-5885 Office

Fax: (203) 785-7391

Web: www.info.med.yale.edu/intmed/cardio/occmed/

OCCUPATIONAL HEALTH CLINICS

CorpCare Occupational Health Center

Director: Kristopher Popvitch
Address: 1075 Tolland Turnpike,
Manchester, CT 06040
Phone: 860.647.4796
Fax: (860) 646-3945
Web: <http://www.echn.org>

Hartford Medical Group

Director: Dr. Kent Stahl
Address: 1260 Silas Deane Highway,
Wethersfield, CT 06109
Phone: (860) 258-3600
Fax: (860)571-7253
e-mail: krouill@harthosp.org
Other Offices: Avon (860) 284-5111, East
Hartford (860) 569-8800, Manchester
(860) 646-8595, Simsbury (860) 658-2207,
West Hartford (860) 232-4891, (860) 523-
0538 and (860) 561-7111, Windsor (860)
683-2690

US Health Works

Director: Joseph L. Charlot, MD, MPH
Address: 144 North Main Street,
Branford, CT 06405
Phone: 203 481-0818
Fax: (203) 483-9843
e-mail: Joseph.Charlot@USHWorks.com
Web: www.ushealthworks.com

Occupational Health Plus, St. Raphael Hospital

Contact person: Debbie Borisjuk
Director: Dr. Peter Amato
Address: 175 Sherman Ave., New Haven,
CT 06511
Phone: (203) 789-3721
Fax: (203) 867-5455
e-mail: pamato@srhs.org
Web:
www.srhs.org/services_business.asp
Other Offices: Branford (203) 789-5195;
Hamden (203) 789-6240

Concentra

Address: 701 Main Street, East Hartford,
CT 06108
Medical Director: David Seinstein

Phone: (860) 289-5561
Fax: (860) 291-1895
e-mail: concentra@.com
Web: www.concentra.com
Other Offices: Plainville
(860)7479441 Norwich (860) 859-5100;
Stamford (203) 276-7889 Stratford
(203) 380-5945; Wallingford (203) 949-
1534; Windsor (860) 298-8442;
Waterbury (203) 759-1229

Eastern Rehabilitation Network, Hartford Hospital

Director: Robert Fitzpatrick, DO
Address: 181 Patricia M Genova Drive,
Newington, CT 06111
Phone: (860) 667-5450-Corporate Office
Fax: (860) 667-8416
e-mail: mail@easternrehab.net
Web: www.easternrehab.net
Other Offices: Avon (860) 674-0255;
Bristol (860) 584-1485; East Hartford (860)
291-2789; Glastonbury (860) 657-4723;
Granby (860) 653-2301; Hartford (860)
545-5130; Manchester (860) 643-3562;
Meriden (860) 235-9622; Milford (203)
882-5109; West Hartford (860) 521-8800
and 236-7771; Wethersfield (860) 529-
3179; Windsor (860) 688-0236

Griffin Hospital Occupational Medicine

Address: 100 Commerce Drive. Shelton,
CT 064484
Director: Dave Maffei
Phone: (203) 944-3718
Fax: (203) 929-3068
e-mail: dmaffei@griffinhealth.org
Web: [www.griffinhealth.org/
OccupationalMedicine.html](http://www.griffinhealth.org/OccupationalMedicine.html)

Middlesex Hospital Occupational Med.

Director: Thomas J. Danyliw, M.D.
Address: 534 Saybrook Rd., Middletown,
CT 06457
Phone: (860) 358-2750
Fax: (860) 348-2757
Web: [www.midhosp.org/health/
occupational/index.cfm](http://www.midhosp.org/health/occupational/index.cfm)
Other Office: Essex (860) 358-3840

Johnson Occupational Medicine
Director- Michael Erdil, MD
Coordinator: Kathleen Heim, R.N.
Address: 3 Weymouth Rd. Enfield, CT
06083-2252
Phone: (860) 763-7668
Fax: (860) 763-7676
e-mail: MichaelErdil@jmhosp.org
Web: www.johnsonhealthnetwork.com/jomc.htm

Lawrence and Memorial Occupational Health Center
Medical Director: Geraldine Ruffa, MD
Contact: Ruth Moreau
Address: 52 Hazlenut Hill Rd., Groton, CT
06340
Phone: (860) 446-8265 x7074
Fax: (860) 448-6961
Email: OHCinfo@lmhosp.org
Web: www.lmhospital.org/patient-services/ohc.html

MedWorks
Contact: Mary Lou Oshana
Address: 975 Farmington Ave.
Bristol, CT 06010
Phone: 860-589-0114

OSHA

ConnOSHA

ConnOSHA is a state agency that inspects in the public sector, and does consultations in the private sector.

Director: Richard Palo
Address: Labor Dept., 38 Wolcott Hill Rd.,
Wethersfield, CT 06109
Phone: (860) 232-6990
Fax: (860) 263-6940
e-mail: Richard.Palo@OSHA.gov
Web: <http://www.ctdol.state.ct.us/osh/osh.htm>

Publications: ConnOSHA Quarterly

OSHA (Occupational Safety and Health Administration)

Federal OSHA inspects workplaces in the private sector for violations of

Fax: 860-589-1936
e-mail: moshana@brishosp.org
Web: www.bristolhospital.org/services/medworks.htm
Other Office: Newington (860) 667-4418

Connecticut Occupational Medicine Partners, St. Francis Hospital and Medical Center

Medical Director: James Mazo, MD
Contact: Diane Tanguay
Address: 1000 Asylum St., Hartford,
CT 06105
Phone: (860) 714-4270
Fax: (860) 714-8068
Web: www.stfranciscare.org
Other Offices: Windsor (860) 714-9444

St. Mary's Hospital Occ. Health Center

Medical Director: Erica Martinucci, MD
Contact: Renee Young
Address: 1320 West Main St.
Waterbury, CT 06706
Phone: 203 709-4580
Fax: (203) 709-3741
e-mail: ryoung@stmh.org
Web: www.stmh.org

standards, and also has information and pamphlets.

OSHA Bridgeport Office

(Fairfield, New Haven, and Middlesex counties).

Director: Robert W. Kowalski
Address: 1057 Broad Street, 4th Floor
Bridgeport, Connecticut 06604
Phone: (203) 579-5581; National Hotline
after hours, etc.: (800) 321-OSHA
Fax: (203) 579-5516
Web: www.osha.gov (national)

OSHA Hartford Office

Director: Tom Guilmartin
Address: 450 Main St., Room 613,
Hartford, CT 06103
Phone: (860) 240-3152; National Hotline
after hours, etc.: (800) 321-OSHA
Fax: (860) 240-3155

ORGANIZATIONS

American Lung Association, Connecticut

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

Director: John Zinn

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

Phone: (860) 289-5401, (800) 536-4872

Fax: (860) 289-5405

e-mail: alaofct@aol.com

Web: <http://www.alact.org/>

Connecticut Safety Council/Safety Roundtable

Associated with the Connecticut Business and Industry Association, the Council offers seminars, training courses, consulting, and policy discussions on safety and regulations.

Director: John Rathgeber

Address: 350 Church St. Hartford, CT
06103-1126

Phone: (860) 244-1900

Fax: (860) 278-8562

e-mail: rathgeberj@cbia.com

Web: <http://www.cbia.com/hr/>

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

Fax: (860) 953-1038

e-mail: connecticosh@snet.net

Ergonomic Technology Center (ErgoCenter)

This is a center for prevention of repetitive strain injuries based at UConn Health Center, which does training, research, consulting, and clinical care.

Director: Martin Cherniack, MD, MPH

Address: DOEM, UCHC, Farmington,
CT 06030-6210

Phone: (860) 679-4916

Fax: (860) 679-1349

e-mail: tmorse@nso.uchc.edu

Web: <http://www.oehc.uchc.edu/ergo>

PROFESSIONAL ORGANIZATIONS

American Industrial Hygiene Association (AIHA)

A professional association for industrial hygienists.

CT River Section Contact: Sally Likar,
President

Contact : Denese Deeds

Phone: 203-929-3473

Address: UConn, Environmental Health & Safety, 3102 Horsebarn Hill Road, Unit 4097, Storrs, CT 06269-4097

Phone: (860) 215-0779

Fax: (203) 929-5823

e-mail: sally.a.likar@pzifer.com

Web: <http://www.aihacrv.org/>

American Society of Safety Engineers

(ASSE): A non-profit association for enhancing the competence and knowledge of the safety profession.

Connecticut Valley Chapter

Address: Box 106, 1131-0 Tolland Turnpike, Manchester, CT 06040

President: Scott Kuhnly

Communications Chair: David Gelpke,
CSP

Phone: (203) 639-2440

e-mail: dgelpke@canberra.com

Web: www.ctvalley.asse.org

Nutmeg Chapter: Dick Pfeiffer, 203-271-2690
or safety@cyberbury.net

ASSE Student Section (CCSU)

Contact: Dr. George Ku

Phone: (860) 832-1852

Address: 1615 Stanley St., P. O. Box 4010,

New Britain, CT 06050-4010

e-mail: kug@ccsu.edu

Web: www.asse.ccsu.edu

Connecticut Air & Waste Management Association

Forum on environmental/waste issues.

Chairman: Douglas Murray

Phone: (860) 298-6240

e-mail: TRCSolutions.com

Web: <http://www.awma-nes.org>

Connecticut Trial Lawyers Association, Workers' Compensation Committee

An association of attorneys specializing in workers' compensation, mostly for claimants.

Chairman: Robert Sheldon, Nathan J. Shafner, Co-Chairs

Address: 100 Wells St., Suite 2H, Hartford, CT 06103

Phone: 860-522-4345

Fax: 860-522-1027

Web: www.cttriallawyers.org

CT Bar Association, Workers' Compensation Section

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

Chair: David Morrissey

Phone: (203) 723-6691

e-mail: davidm.law@snet.net

Web: www.ctbar.org

Connecticut Safety Society

A professional association for safety inspectors, etc.

President: Tom Hozebin

Contact: Tom Schinkel, Treasurer

Address: 390 Brook St., Bristol, CT 06010

Phone: (860) 584-0477

Occupational and Environmental Medical Association of CT (OEMAC)

The association for occupational medicine doctors, including many of the physicians working for industry.

Executive Director, Nancy L. Sullivan

President: Connie Walker

e-mail: 76032.660@compuserve.com

Web: www.acoem.org

Occupational Health Nurses Association

The association of occupational health nurses, including most of the nurses working in industry.

State President: Eileen Holihan

email: eholihan@sikorsky.com

Hartford: Joyanne Durham,
joy.durham@hs.utc.com

Web: www.aohn.org

STATE AGENCIES

Department of Public Health, Environ. and Occupational Health Assessment

Investigates clusters of occupational diseases, with programs for radon, asbestos, AIDS, lead, TB control and infectious diseases also at the DPH.

Director: Tom St. Louis

Address: DPH/ OHP,
410 Capitol Ave, MS #11OSP, Hartford,
CT 06134-0308

Phone: 860) 509-7744

Fax: (860) 509-7785

Web: [www.state.ct.us/dph/BCH/
EEOH/HPPEEOH.html](http://www.state.ct.us/dph/BCH/EEOH/HPPEEOH.html)

Publication: "CT Occupational Health e-News

State Office of Emergency Management and Homeland Security

Director: Kerry Flaherty

Phone: 860-566-3180

Fax: 860-247-0664

e-mail: kerry.flaherty@po.state.ct.us

Web:

<http://www.ct.gov/hls/site/default.asp>

State Emergency Response Commission

Oversees plans for response to chemical accidents and collects chemical information for the public under Community Right to Know.

DEP/ Bureau of Waste Management

Administrator: Joseph Pulaski

Address: 79 Elm St., 4th Floor,
Hartford, CT 06106-5127

Phone: (860) 424-3373

Fax: (860) 424-4059

Connecticut Fire Academy, Commission on Fire Prevention & Control

Safety Training & Standards compliance.

Training Director: Adam Piskura

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

Phone: 860-627-6363 X 272 or toll free 877-5CT-FIRE –only in CT

Fax: 860-654-1889

e-mail: adam.piskura@po.state.ct.us

Web: www.state.ct.us/cfpc

CT Department of Environmental Protection, Radiation Safety Unit

Director: Edward L. Wilds Jr.

Phone: (860) 424-3029

860-424-3333 24/7 Emergency

Fax: (860) 424-4065

e-mail: edward.wilds@po.state.ct.us

Web: <http://dep.state.ct.us/>

Workers' Compensation Commission Chairman's Office and Review Board

The Commission oversees Workers' Compensation benefits, and provides educational services on occupational safety and health, safety and health committees.

The Commission also provides rehabilitation services for workers injured on the job.

Chairman: John A. Mastropietro

Contact person: Stephanie

Address: 21 Oak St., 4th Floor, Hartford, CT
06106-8011

Phone: (860) 493-1500

Information: (800) 223-WORK

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. 90 Sachem 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) 596-4318
6. 233 Main St., New Britain, CT 06051; (860) 827-7180; Fax: (860) 827-7913
7. 111 High Ridge Rd., Stamford, CT 06905-5111; (203) 325-3881; Fax: (203) 967-7264
8. 90 Court St., Middletown, CT 06457; (860) 344-7453; Fax: (860) 344-7487

