1995

Annual Epidemiologic Surveillance Report for **Idaho National Engineering and Environmental Laboratory**

Analyze and
Report Findings

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INEEL 1995 Appendices

Introduction

The U.S. Department of Energy's (DOE) conduct of epidemiologic surveillance provides an early warning system for health problems among workers. This program monitors illnesses and health conditions that result in an absence of five or more consecutive workdays, occupational injuries and illnesses, and disabilities and deaths among current workers.

This report summarizes epidemiologic surveillance data collected from the Idaho National Engineering and Environmental Laboratory (INEEL) from January 1, 1995 through December 31, 1995. The data were collected by a coordinator at INEEL and submitted to the Epidemiologic Surveillance Data Center, located at Oak Ridge Institute for Science and Education, where quality control procedures and data analyses were carried out.

The annual report for 1995 has been redesigned from reports for previous years. Most of the information in the previous reports is also in this report, but some material now appears in the appendices instead of the main body of the report. The information presented in the main body of the report provides a descriptive analysis of the data collected from the site and the appendices provide more detail. A new section of the report presents trends in health over time. The Glossary and an Explanation of Diagnostic Categories have been expanded with more examples of health conditions to illustrate the content of each category.

The data presented here apply only to INEEL. The DOE sites are varied, so comparisons of INEEL with other DOE sites should be made with caution. It is important to keep in mind that many factors can affect the completeness and accuracy of health information collected at the sites as well as affect patterns of illness and injury observed.

Idaho National Engineering and Environmental Laboratory (INEEL) AT A GLANCE, 1995

- ✧ A change in personal leave policy in 1994 reduced dramatically the number of health events captured through return-to-work medical clearances. The change affected virtually all types of health events, and makes comparisons of illness and injury rates for 1993 with those of 1994 and 1995 difficult to interpret. Most reductions in illness and nonoccupational injury observed over the three-year period are probably attributable to this change in leave policy.
- ✧ Overall, we noted few changes in illness and injury patterns from those observed in 1994. About 3.2% of INEEL workers reported at least one illness absence in 1995 compared with 4.4% in 1994.
- ✧ While the overall size of the work force changed less than 3% between 1994 and 1995, the number of workers categorized as having an "unknown" occupation increased from 1,679 to 4,114. Epidemiologic surveillance uses occupational information in broadly defined categories to assess worker health and safety. The lack of job title or other occupational information on these workers limits our ability to make health assessments in a meaningful way. The category of occupational "unknown" is of particular concern because these workers were at 2.7 times the risk of other workers for an OSHA-recordable injury in 1995.
- ✧ Service workers, crafts and manual laborers, and the unknown occupational groups were at highest risk for occupational injuries involving sprains and strains.

Site Overview

INEEL is located in two primary areas in Southeastern Idaho: A remote 570,000 acres, or 890 square mile desert site on the Snake River Plain and multiple locations in the city of Idaho Falls. INEEL was established in 1949 as the National Reactor Testing Station to provide an isolated location where various kinds of nuclear reactors and support facilities could be built and tested.

On December 20, 1951, INEEL was the site of a very significant scientific accomplishment: the first use of nuclear fission to produce electricity. This took place at Experimental Breeder Reactor I (EBR-I), now a National Historic Landmark. EBR-I was the first reactor in the world to generate usable amounts of electricity. Three of the nation's commercial power reactor designs—the pressurized water reactor, the boiling water reactor, and the liquid metal-cooled breeder reactor (BORAX III was the first in the world to light a city, Arco, Idaho, in 1955)—were first demonstrated at INEEL. Fifty-two test reactors, the largest concentration of nuclear reactors in the world, were constructed at INEEL over the years. Most reactors were phased out when their missions were completed.

In 1974, the site was named a national engineering laboratory to reflect its expanding application of applied science and engineering capabilities to nonnuclear research.

In 1975, INEEL became the nation's second National Environmental Research Park, one of only five in the nation where scientists conduct ecological studies. All lands within INEEL boundaries comprise a protected outdoor laboratory where scientists from the DOE, other federal and state agencies, universities, and private research foundations conduct ecological studies.

Today, the multipurpose laboratory is solving critical problems related to the environment, energy production and use, U.S. economic competitiveness, and national security. The present mission of INEEL is to develop, demonstrate, deploy, and transfer advanced engineering technology and systems to private industry to improve U.S. competitiveness and security, the efficient production and use of energy, and the quality of life and the environment. It leads national efforts in environmental management, spent fuel management, low-level waste management, mixed waste technologies, the plutonium focus area, and systems engineering.

Management and operation of INEEL is the responsibility of private contractors working under the direction of the DOE Idaho Operations Office. INEEL had been managed by various contractors until 1994 when Lockheed Martin Idaho Technologies Company became the prime contractor. Two other contractors, Argonne National Laboratory-West and Westinghouse Electric Corporation, are also under contract to perform research, waste processing, and support functions for DOE at INEEL.

Timeline of Major Activities at INEEL

The INEEL Work Force

A total of 11,815 INEEL employees were included in epidemiologic surveillance in 1995, an increase of 288 from 1994. There were almost three times as many men (8,796) as women (3,019). The INEEL work force was relatively young compared to the general population. The average age of INEEL workers was 44 for men and 39 for women (figure 1).

Not all occupations pose equal risks for illness or injury, so we compared rates among broad occupational categories to determine whether some occupational groups are at a greater risk than others for these health events. The number of illnesses or injuries reported in any specific occupation may be very small in a given year or the number of workers in a given occupation may be small. These small numbers limit the certainty with which illness and injury rates can be calculated and compared. The analyses in this report use broad occupational categories (figure 2) because there were not enough health events in many specific occupations to permit more detailed analyses. You can find which occupational category you are in by referring to figure 4, which lists many of the job titles that are grouped into each of the categories used for the analyses. Unfortunately, no occupational information was available for many of the workers, limiting the analyses that could be done. Appendix A contains a more detailed distribution of the work force by gender, age, and occupational group.

Figure 1. The Work Force by Gender and Age

Figure 2. The Work Force by Gender and Occupation

Figures 3a and 3b. Percentage of Workers in Different Occupations by Gender

Figure 4. Most Common Job Titles in Each Occupational Group

ADMINISTRATION	TELECOMMUNICATIONS	TECHNICAL	CRAFTS AND MANUAL LABOR
ACCOUNTING	TELEPHONE OPERATOR	COMPLIANCE INSPECTOR	CARPENTER
AUDITING	TRAINING	COMPUTER OPERATIONS	COMPUTER OPERATIONS TECHNICIAN
BENEFITS	TRAVEL RESERVATIONS	WASTE MANAGEMENT	CONSTRUCTION INSPECTION TECHNI
BUDGET & CONTROL		WORK ORDER TRACKING/SCHEDULING	CONSTRUCTION SERVICES
BUILDING/FACILITY MANAGEMENT	PROFESSIONAL		DESIGN
COMPENSATION/EMPLOYMENT RECRUI	AERONAUTICAL/AEROSPACE	SERVICE	DRAFTER
DATA ENTRY	APPLICATIONS PROGRAMMING	BAKER	ELECTRO/MECHANICAL TECHNICIAN
DEPARTMENT/OPERATIONS ADM	APPLICATIONS SYSTEM ANALYSIS	BUS DISPATCHER	ELECTRONIC PUBLICATIONS
DOCUMENT CONTROL	ARCHITECTURAL	BUS DRIVER	ENVIRONMENTAL/FIELD TECHN
EEO/AAP	AVIATION	COOK	FIELD SERVICE TECHNICIAN
EMERGENCY PREPAREDNESS/FACILIT	BIOLOGY	CUSTODIAN	HP TECH, RAD CON
EMPLOYEE AND PUBLIC COMMUNICAT	BIOPROCESS ENGINEERING	FACILITY OPERATIONS, NON-NUCLE	ILLUSTRATOR ARTIST
FINANCIAL ANALYSIS	CHEMISTRY	FIREFIGHTER	INSTRUMENTATION TECHNICIAN
HUMAN FACTORS	COMMUNICATIONS ENGINEERIN	FOOD SERVICES	LABORATORY TECHNICIAN
HUMAN RESOURCES	COMPUTER ENGINEERING, GEN	FOREMAN, OPERATIONS	MANUFACTURING TECHNICIAN
HUMAN RESOURCES ADVISOR	COMPUTER HARDWARE ANALYSIS	HIGH SPEED COPIER OPERATOR	OTHER TECHNICAL
INVENTORY CONTROL	COMPUTER SOFTWARE ANALYSIS	IMAGE PROCESSOR	OTHER TECHNICAL/OPERATORS
LABOR RELATIONS	COMPUTER SYSTEMS-RAPID PR	OPERATOR	P.C. OPERATIONS TECHNICIAN
LEGAL	CONFIGURATION MANAGEMENT	OTHER FACILITY SERVICES	QUALITY INSPECTION TECHNICIAN
LIBRARY SERVICES	DATA BASE ANALYSIS/PROGRAMMING	PRINTING AND REPRODUCTION	R & D TECHNICIAN
MAIL CLERK	DISTRIBUTED SYSTEMS ENGIN	PRODUCTION CONTROL	RADIOLOGICAL CONTROL TECHNICIA
MANAGER, ADMINISTRATIVE S	EARTH & LIFE SCIENCES	SALAD MAKER	WASTE OPERATIONS TECHNICI
MANAGER, FACILITY/OPERATI	ENVIRONMENTAL SCIENCES	SERVICEMAN	X-RAY TECHNICIAN
MANAGER, OPERATIONS	GEOLOGY	SHIPPING OR TRAFFICKING	NUCLEAR
MANAGER, SCIENTIFIC OR EN	HEALTH PHYSICS	SHIPPING/RECEIVING	DECONTAMINATION FACILITY OPERA
MANUF OPS MGMT/SUPPORT	HYDROLOGY	TIRE REPAIRMAN	FACILITY OPERATIONS OR HAZARDO
MATERIAL SPECIALIST	INDUSTRIAL HYGIENE	TOOL CRIB ATTENDANT	FACILITY OPERATIONS, NUCLEAR
MISCELLANEOUS CLERICAL	INDUSTRIAL SAFETY AND HEA	TRANSPORTATION SERVICES	NUCLEAR WASTE PROCESS OPE
OTHER ADMINISTRATIVE SERV	LOGISTICS ENGINEERING	WAREHOUSING AND DISTRIBUTION	NUCLEAR/REACTOR
OTHER ADMINISTRATIVE SUPP	MANUFACTURING ENGINEERING	SECURITY	UNKNOWN
PLANNING & BUDGETING	MATHEMATICS	SECURITY	CERAMIC
PLANNING AND/OR SCHEDULING	MEDICAL	SECURITY GUARD	CHEMICAL
PROCUREMENT	METALLURGICAL	CRAFT FOREMAN	CIVIL
PROJECT MANAGEMENT	MICRO SYSTEMS ANALYSIS	ELECTRICIAN	ELECTRICAL
PROJECT MANAGEMENT SUPPORT	OCCUPATIONAL HEALTH NURSE	EQUIPMENT OPERATOR	ELECTRONIC
PROJECT MANAGEMENT, (NON S&E)	OPERATING SYSTEMS PROGRAMMING	EQUIPMENT OPERATOR, HEAVY	ENVIRON REMED/RESTOR
PROPERTY MANAGEMENT	OTHER COMPUTER SYSTEMS	FACILITY/PLANT MAINTENANCE	ENVIRONMENTAL
PURCHASING AND/OR BUYING	OTHER ENGINEERING	FOREMAN, CRAFTS	EPRO
RECEPTIONIST	OTHER SCIENTIFIC	INSTRUMENT MECHANIC	FITTER
RECORDS MANAGEMENT	PHYSICS	LABORER	INDUSTRIAL
REGULATORY COMPLIANCE	PLANT ENGINEERING	LINEMAN	MATERIALS
SECRETARIAL	RADIOLOGICAL	MATERIAL MOVING EQUIP. OP	MECHANICAL
STRATEGIC PLANNING	SAFETY	MECHANIC	PETROLEUM
SUBCONTRACT ADMINISTRATION	SOFTWARE ENGINEERING	MINING	QUALITY
SUPERVISOR, ADMIN SERVICE	SOFTWARE SYSTEMS ANALYSIS/PROG	OTHER CRAFTS	TEMPORARY OCCUPATION CODE
SUPERVISOR, FAC/OSS	STATISTICS	PAINTER	
SUPERVISOR, OPERATIONS	STRUCTURAL ENGINEERING	SHEET METAL MECHANIC	
SUPERVISOR, SCI/ENG FUNC	SYSTEMS ANALYSIS	UTILITY OPERATOR	
TECHNICAL LEADER	SYSTEMS ENGINEERING	UTILITY SERVICES	
TECHNICAL WRITING AND/OR EDITI	VALUE ENGINEERING	WELDER	
TECHNOLOGY TRANSFER/BUSINESS D	WELDING ENGINEERING		

Work Force Demographics

INEEL reported service and security as separate occupational categories for the first time in 1995. To look at time trends for 1993 to 1995, the two categories were combined for the 1995 data (figures 7 and 8).

From 1993 to 1995, the INEEL work force included in epidemiologic surveillance increased from 7,586 employees in 1993 to 11,815 workers in 1995, an increase of 56% overall for the three-year period. Most of these workers were included in epidemiologic surveillance in 1994 as a result of a contractor consolidation under Lockheed Martin Idaho Technologies Company. The percentage of men and women remained constant over the three-year period, with women making up almost one-third of the work force each year. The age distribution of the workers remained relatively unchanged (figures 5 and 6).

Figure 5. Percentage of Men in Different Age Groups, 1993 to 1995

Figure 6. Percentage of Women in Different Age Groups, 1993 to 1995

The type of jobs also shifted from 1993 to 1995. Men showed an increase in the administration and unknown occupational groups and a decrease in professional, technical, and crafts and manual labor groups (figure 7). Women showed a decrease in the administration, professional, and technical occupational groups and an increase in the unknown group (figure 8). There was a sharp increase for both men and women in the unknown occupational group from 1994 to 1995.

Figure 7. Percentage of Men in Different Occupational Groups, 1993 to 1995

Figure 8. Percentage of Women in Different Occupational Groups, 1993 to 1995

Number and Length of Absences

This section of the report focuses on all illnesses and injuries not considered occupational in nature for which the worker was absent five or more consecutive workdays and cleared back-to-work as required by DOE Order 440.1. Throughout this report, the analyses take gender, age, and occupation into account because the risk of illness and injury varies by these factors. For analyses that examine duration of absence, the reported number of days absent includes weekends unless otherwise stated.

Men had about 66% more health events than women during 1995, but the percentage of women (5%) with at least one health event was greater than men (3%) (figure 9) because the work force contained many more men than women. Overall, the average length of absence for a health event was approximately four days longer for women (33.5 days) than for men (29.1 days) (see figure 12). The average number of days absent showed no consistent relationship with age of the worker. An explanation of how these percentages were calculated is in the shaded box.

The longer average duration of absences among women than men aged 16 to 29 may reflect maternity leave; pregnancy/childbirth was the diagnostic category most frequently reported for these women (figure 16).

The service occupational category had the highest percentage (8.1%) of workers with at least one health event (appendices A and B). Over 6% of the workers in security and crafts and manual labor had at least one health event. Only 1.3% of the nuclear workers reported a health event. In all occupational groups except the nuclear workers, the percentage of women with at least one event was somewhat higher than among men (figures 10 and 11). Workers in the technical (39.2 days), professional (36.7 days), and crafts and manual labor (35.5 days) groups had the highest average number of days absent for each health event. Workers in the unknown occupational category had the shortest average duration of absence (23.3 days, figure 13). Additional information about the number and length of absences for men and women in different age and occupational groups is in appendices B-E. The Rates of Disease Occurrence section of this report examines the diagnoses underlying these absences.

How Are Percentages Calculated?

The percentages are calculated by dividing the number of workers with at least one health event in a given age and gender group by the number of employees in the same group. This number is multiplied by 100 to give a percent. The number of employees in each group is shown in figure 1. An example is given below:

$$\begin{array}{r} 12 \text{ (number of men aged 16-29 with at least one health event from figure 9)} \\ \div 715 \text{ (number of men in the work force aged 16-29 from figure 1)} \\ \hline = .017 \times 100 = 1.7\% \end{array}$$

Figure 9. Percentage of Workers with at Least One Health Event by Gender and Age*

*Numbers in parentheses represent the number of workers with at least one event.

Figure 10. Percentage of Men with at Least One Health Event by Occupation*

*Numbers in parentheses represent the number of men with at least one event.

Figure 11. Percentage of Women with at Least One Health Event by Occupation*

*Numbers in parentheses represent the number of women with at least one event.

Figure 12. Number of Days Absent by Gender and Age

	Age Group	Total Number of Days Absent	Total Number of Health Events	Average Number of Days Absent
Men	16-29	304	13	23.4
	30-39	2,637	80	33.0
	40-49	2,487	100	24.9
	50-59	1,477	49	30.1
	60+	477	12	39.8
	Total	7,382	254	29.1
Women	16-29	598	17	35.2
	30-39	1,641	51	32.2
	40-49	1,574	47	33.5
	50-59	1,227	34	36.1
	60+	92	4	23.0
	Total	5,132	153	33.5

Figure 13. Number of Days Absent by Gender and Occupation

	Occupation	Total Number of Days Absent			Average Number of Days Absent
			Total Number of Health Events		
Men	Administration	1,102	39		28.3
	Professional	931	22		42.3
	Technical	1,066	28		38.1
	Service	423	16		26.4
	Security	879	28		31.4
	Crafts and Manual Labor	488	14		34.9
	Nuclear	256	8		32.0
	Unknown	2,237	99		22.6
	Total	7,382	254		29.1
Women	Administration	2,038	59		34.5
	Professional	426	15		28.4
	Technical	776	19		40.8
	Service	664	19		34.9
	Security	380	9		42.2
	Crafts and Manual Labor	80	2		40.0
	Nuclear	0	0		0
	Unknown	768	30		25.6
	Total	5,132	153		33.5

Diagnostic Categories

Epidemiologic surveillance monitors both occupational and nonoccupational illnesses and injuries among active workers. For many health conditions it is not possible to say with certainty what caused the health problem, so epidemiologic surveillance assesses the health of the work force by including both occupational injuries and illnesses and health problems that are not necessarily attributed to workplace exposures. Most of the diagnoses are reported by the workers when they visit their site's occupational medicine clinic for a return-to-work clearance following an absence. In contrast, health events are recorded on the OSHA 200 Log because they are occupationally related. We conduct separate analyses of the occupational injuries and illnesses recorded in the OSHA 200 Log because they have been designated as occupational, whether or not they involve an absence (see page 26).

This report organizes diagnostic categories based on the type of disease or condition (e.g., cancer) or body system (e.g., lung/respiratory) affected. Categories can be broken down into specific health conditions. For example, rheumatism is one health condition under the diagnostic category of muscles and skeleton. Bronchitis is a condition in the lung/respiratory category. You can find specific health conditions in the Explanation of Diagnostic Categories on pages 35-39 of this report. A health event can involve more than one diagnosis, and epidemiologic surveillance includes all diagnoses reported. If a worker reported more than one health condition for a single absence and all of these health conditions fell into the same diagnostic category, all of them were counted.

In 1995, injury and poisoning was the most often reported health condition for men and women. Among men, the number of diagnoses reported in the muscles and skeleton category tied for first place with injury and poisoning, followed by conditions affecting the lung/respiratory system and the digestive system. For women, the muscles and skeleton category ranked second, followed by pregnancy/childbirth and lung/respiratory. These diagnostic groups tended to have the most calendar days of absence (figure 14). Some of the more common diagnoses within these diagnostic categories for 1995 are shown in figure 15.

The most frequently reported health conditions varied with age and gender (figure 16 and appendix F). Injury and poisoning ranked among the top three for men in all age groups. Almost half of the injuries (43.9%) were sprains and strains, with burns, bruises, dislocations, fractures, and open wounds accounting for most of the remainder. Conditions affecting the muscles and skeleton were the second most commonly reported reasons for absence for men aged 29 to 49, and among older men they were the most common reason given for absence. Arthritis accounted for one-third (32.9%) of these conditions. Back problems, disc disorders, and rheumatism made up most of the remainder. Other sections of this report focus specifically on job-related health events that are reported under Occupational Safety and Health Administration (OSHA) guidelines (see page 26).

Diagnoses associated with pregnancy/childbirth were the most common reasons for absence for 16 to 39 year old women (figure 16). Injury and poisoning was one of the three most commonly reported categories for women aged 30 to 59 and mainly included diagnoses for burns, fractures, and sprains and strains.

Lung/respiratory diagnoses are among the more common diagnoses reported by workers at all of the epidemiologic surveillance sites. At INEEL, they were among the top three conditions reported for women aged 30 or older and men aged 16 to 39 and 50 to 59. The types of conditions reported by women and men were similar and included diagnoses for bronchitis, flu, pneumonia, sinusitis, and upper respiratory infections. Diagnoses involving the digestive system were prominent among both men and women but occurred in different age groups. Men aged 16 to 29 and 40 to 59 years old and women 50 and older reported these health

conditions. The types of diagnoses observed among men and women were similar except for hernias and associated disorders, which were reported mainly among men.

Diagnoses for injury and poisoning occurred relatively frequently in this work force. While poisoning is included in this diagnostic category, only 4 of the 115 diagnoses were related to poisoning. Three diagnoses were allergic reactions and one was carbon monoxide poisoning. Complications of medical care and medical devices are also included in the injury and poisoning category. The workers reported six such diagnoses. Injuries, including both occupational and nonoccupational injuries, affect many occupational groups and are not confined to a narrow age range (figures 16 and 17). Injury and poisoning was among the three most common diagnostic categories for men in all occupational groups except nuclear and for women in all occupational categories except administrative and nuclear (figure 17). Sprains and strains were the predominant type of injury reported, but fractures, burns, and bruises were also reported often.

Figure 14. Total Number of Health Conditions Reported and Total Number of Days Absent from Work by Gender and Diagnostic Category

Diagnostic Category	Men		Women	
	Total Number of Health Conditions Reported	Total Number of Days Absent	Total Number of Health Conditions Reported	Total Number of Days Absent
Benign Growths	7	264	9	361
Blood	0	0	0	0
Cancer	10	279	4	254
Digestive	3 50	3 858	16	341
Endocrine/Metabolic	7	85	4	143
Existing Birth Condition	6	281	0	0
Genitourinary	8	108	24	623
Heart/Circulatory	19	407	2	104
Infections/Parasites	23	765	9	175
Injury and Poisoning	1 82	2 1,965	1 33	3 729
Lung/Respiratory	2 52	580	3 25	271
Mental	9	452	1	22
Muscles and Skeleton	1 82	1 2,906	2 27	2 831
Nervous System	34	736	14	581
Pregnancy/Childbirth	NA	NA	3 25	1 1,278
Skin	7	96	2	59
Unspecified Symptoms	12	157	9	228

Figure 15. Health Conditions Reported Under Selected Diagnostic Categories by Gender

Men		Women
Cancer	Lung/Respiratory	Cancer
<ul style="list-style-type: none"> • Bladder • Colon • Esophagus • Liver • Prostate • Skin • Stomach 	<ul style="list-style-type: none"> • Bronchitis • Flu • Pneumonia • Sinusitis • Tonsillitis • Upper Respiratory Infection 	<ul style="list-style-type: none"> • Brain • Breast • Skin
Digestive	Muscles and Skeleton	Injury and Poisoning
<ul style="list-style-type: none"> • Appendicitis • Gallbladder Disorders • Hernias • Ulcers 	<ul style="list-style-type: none"> • Arthritis • Back Problems • Disc Disorders • Rheumatism 	<ul style="list-style-type: none"> • Burns • Fractures • Sprains and Strains
Injury and Poisoning		Lung/Respiratory
<ul style="list-style-type: none"> • Bruises • Burns • Dislocations • Fractures • Open Wounds • Sprains and Strains 		<ul style="list-style-type: none"> • Bronchitis • Flu • Pneumonia • Sinusitis • Upper Respiratory Infection
		Muscles and Skeleton
		<ul style="list-style-type: none"> • Arthritis • Rheumatism

Figure 16. Three Diagnostic Categories Reported Most Often by Gender and Age

		16-29	30-39	40-49	50-59	60+
Men	Most Common Diagnostic Category	Digestive	Injury and Poisoning	Injury and Poisoning	Muscles and Skeleton	Muscles and Skeleton
	Second Most Common Diagnostic Category	Injury and Poisoning (1)	Muscles and Skeleton	Muscles and Skeleton	Digestive	Benign Growth; Cancer
	Third Most Common Diagnostic Category	Lung/Respiratory	Lung/Respiratory	Digestive	Injury and Poisoning; Lung/Respiratory	Injury and Poisoning (1)
Women	Most Common Diagnostic Category	Pregnancy/Childbirth	Pregnancy/Childbirth	Injury and Poisoning	Muscles and Skeleton	Digestive
	Second Most Common Diagnostic Category	Genitourinary	Lung/Respiratory	Genitourinary; Muscles and Skeleton	Injury and Poisoning	Lung/Respiratory
	Third Most Common Diagnostic Category	(2)	Injury and Poisoning	Lung/Respiratory	Lung/Respiratory	Nervous System (1)

(1) This diagnostic category was reported the same number of times as the one above it.

(2) More than two diagnostic categories tied.

Figure 17. Three Diagnostic Categories Reported Most Often by Gender and Occupation

		Administration	Professional	Technical	Service
Men	Most Common Diagnostic Category	Muscles and Skeleton	Digestive	Muscles and Skeleton	Injury and Poisoning
	Second Most Common Diagnostic Category	Digestive	Injury and Poisoning	Injury and Poisoning	Heart/Circulatory
	Third Most Common Diagnostic Category	Injury and Poisoning	Muscles and Skeleton	Digestive	Lung/Respiratory; Muscles and Skeleton
Women	Most Common Diagnostic Category	Pregnancy/Childbirth	Genitourinary	Genitourinary	Injury and Poisoning; Muscles and Skeleton
	Second Most Common Diagnostic Category	Lung/Respiratory; Muscles and Skeleton	Injury and Poisoning	Injury and Poisoning	Benign Growth; Unspecified Symptoms
	Third Most Common Diagnostic Category	Genitourinary	Lung/Respiratory	(2)	Nervous System
		Security	Crafts and Manual Labor	Nuclear	Unknown
Men	Most Common Diagnostic Category	Muscles and Skeleton	Injury and Poisoning	Digestive	Injury and Poisoning
	Second Most Common Diagnostic Category	Injury and Poisoning; Nervous System	Muscles and Skeleton	Lung/Respiratory (1)	Lung/Respiratory
	Third Most Common Diagnostic Category	Digestive	Lung/Respiratory	Nervous System (1)	Muscles and Skeleton
Women	Most Common Diagnostic Category	Injury and Poisoning	Injury and Poisoning	None	Lung/Respiratory; Muscles and Skeleton
	Second Most Common Diagnostic Category	Digestive; Heart/Circulatory	Nervous System (1)	None	Injury and Poisoning
	Third Most Common Diagnostic Category	Lung/Respiratory (1)	None	None	Digestive; Nervous System

(1) This diagnostic category was reported the same number of times as the one above it.

(2) More than two diagnostic categories tied.

Rates of Disease Occurrence

Some occupational groups had only a small number of workers who reported very few health events in 1995 (see appendix H). Because rates based on health events among a small number of workers can vary widely just by chance, the eight occupational groups were combined into five larger groups. The five age groups were also combined into two age groups for the same reasons (figure 18). The age groups, less than 40 years and 40 years and older, were chosen because the rates of many illnesses begin to change more rapidly among persons over 40 years of age.

The likelihood of getting cancer increases with age, and cancer rates in most occupational categories were higher among older workers (figure 19). Although this report discusses rates of cancer diagnoses, in fact, one cancer diagnosis can be associated with several absences over a year. The rates are not comparable to incidence rates, which reflect the number of new cancer diagnoses in a population over a specified period of time (usually one year). Incidence rates count a cancer diagnosis only once, but a worker who is absent for a week on four different occasions during the same year could have four diagnoses recorded for epidemiologic surveillance. Cancer rates presented in this report are really absence rates related to cancer, and because a worker may experience many absences related to the same cancer diagnosis, the cancer rates in this report can appear substantially higher than the actual incident of cancer.

Of the 14 cancer diagnoses reported during 1995, 4 were among women and 10 among men. Twelve workers reported the 14 diagnoses. We found no evidence of an excess of any one type of cancer or any occupational group at significantly increased risk for this disease (see appendix H).

A good example of why rates based on small numbers of health events must be interpreted cautiously is seen among women over 40 years old in the combined service/security/crafts and manual labor category. This group showed the highest rate of diseases affecting the circulatory system, but the rate is based on only two diagnoses for aneurysms reported by one woman among the 211 women in this combined occupational category (appendices A and H). A high rate does not always indicate a large number of diagnoses.

A Word about Rates...

The previous section considered the number of health events among various groups, but comparing these numbers may be misleading. For example, figure 14 shows that during 1995 men reported 82 diagnoses involving injuries; women reported 33. You can honestly say that men reported almost two and a half times as many injuries as women. Does this mean that men were at greater risk of injury in 1995? Comparing the number of injuries among men versus women will not answer this question. To answer the question, the number of men and women in the work force must be considered (figure 1). Since there are almost three times as many men as women at INEEL, it is reasonable to expect more injuries among men than women. A more accurate way to compare men and women is to calculate the injury rate for each group. The rates are calculated by dividing the number of injuries in a given group by the number of employees in the same group. This number is multiplied by 1,000 to give a rate per 1,000 workers. For example:

Among men,
(82 injuries ÷ 8,796 men) $\times$ 1,000 = 9 injuries per
1,000 men

Among women,
(33 injuries ÷ 3,019 women) $\times$ 1,000 = 11 injuries
per 1,000 women

These rates account for differences in the number of men and women in the work force, and comparing them suggests that the rate of reported injuries among women is slightly higher than among men. They are called **crude rates** because they do not account for possible differences between men and women with regard to age, occupation, and other factors that might affect the individual's risk of getting an injury. Not all age groups are equally susceptible to various diseases and injuries, so epidemiologists often take age into account when calculating rates. **Age-specific rates** are presented in this section of the report. These rates are specific to given age groups (e.g., <40, 40+). Definitions of diagnostic rates and age-specific rates appear in the Glossary of this report.

Service workers were 10.8 times more likely to report a heart/circulatory condition than other workers, but this comparison of service workers' circulatory disease rate with the rates in other groups is based on only four diagnoses. Of these, two were for irregular heart beat and one each for a heart attack and high blood pressure (appendix J).

The lung/respiratory category contains very different kinds of diseases: acute infectious diseases such as colds, influenza, and pneumonia; allergies, sinusitis, and bronchitis; and chronic diseases like asthma and emphysema. Overall, over half of the diagnoses in this category involved acute infections, pneumonia, or flu. Rates of lung/respiratory disease were higher among women than men. The rates were higher among the service/security/crafts and manual labor workers for both men and women. Their diagnoses included three acute infections, five pneumonia/influenza, one bronchitis, one asthma, and two other diseases of the lung (appendix H).

In the injury and poisoning category, only three diagnoses involved poisoning, so this category really focuses on injuries. Injury rates did not change consistently with age. The types of injuries reported by men and women were somewhat different. Sprains and strains made up 44% of the injuries reported by men, and sprains and strains (27%), fractures (21%), and burns (15%) accounted for the majority of diagnoses among women. Two women reported five diagnoses for second-degree burns. Service workers were over 4.4 times as likely to sustain sprains and strains as were workers in other groups, and security workers also were 3.8 times more likely to sustain such injuries. Compared with other workers, both service and crafts and manual labor workers were over 5 times as likely to report sprains and strains of the back. Professional workers had a 4.6 times greater risk of having fractures involving the lower limbs than other occupational groups. Three (38%) of the eight diagnoses for broken legs were reported in this occupational group, which made up 11% of the work force (appendices A, H, and J).

Figure 18. Rates per 1,000 for All Diagnostic Categories Combined by Gender, Age, and Occupation

All Diagnostic Categories	Occupational Group	Age	Rate per 1,000	
			Men	Women
Administration	<40	20	52
		40+	38	67
	Professional/Technical	<40	37	86
		40+	41	65
	Service/Security/ Crafts and Manual Labor	<40	122	97
		40+	69	259
	Nuclear	<40	8	0
		40+	36	0
	Unknown	<40	41	31
		40+	52	70

Figure 19. Rates per 1,000 for Selected Diagnostic Categories by Gender, Age, and Occupation

Diagnostic Category	Occupational Group	Age	Rate per 1,000	
			Men	Women
Cancer	Administration	<40	0	0
		40+	3	3
	Professional/Technical	<40	0	3
		40+	2	0
	Service/Security/ Crafts and Manual Labor	<40	2	0
		40+	0	9
	Nuclear	<40	0	0
		40+	4	0
	Unknown	<40	1	0
		40+	0	0
Heart/Circulatory	Administration	<40	0	0
		40+	0	0
	Professional/Technical	<40	0	0
		40+	4	0
	Service/Security/ Crafts and Manual Labor	<40	6	0
		40+	6	19
	Nuclear	<40	0	0
		40+	0	0
	Unknown	<40	2	0
		40+	2	0

(continued)

Figure 19. Rates per 1,000 for Selected Diagnostic Categories by Gender, Age, and Occupation (continued)

Lung/Respiratory	Administration	<40	3	8
		40+	4	7
	Professional/Technical	<40	4	5
		40+	4	11
	Service/Security/ Crafts and Manual Labor	<40	11	19
		40+	8	9
	Nuclear	<40	0	0
		40+	7	0
	Unknown	<40	7	7
		40+	8	12
Injury and Poisoning	Administration	<40	7	3
		40+	3	7
	Professional/Technical	<40	9	8
		40+	5	19
	Service/Security/ Crafts and Manual Labor	<40	36	39
		40+	16	74
	Nuclear	<40	0	0
		40+	0	0
	Unknown	<40	7	2
		40+	13	15

Disease Rates – Time Trends

INEEL reported service and security as separate occupational categories for the first time in 1995. To look at time trends for 1993 to 1995, the two categories were combined for the data (figures 20 and 21).

Over the 1993 to 1995 time period, the rates for all diagnostic categories combined decreased for all occupational categories except the unknown category. There was no unknown occupational category in 1993. The decrease in the diagnosis rates between 1993 and 1994 was most likely due to a 1994 change in the medical leave policy. INEEL adopted a “personal days off” policy that permitted workers to use personal days off as sick leave as well as vacation leave; the more traditional sick leave was categorized as short-term disability. As a result, fewer health events were reported to the medical clinic, and valid comparisons between

Figure 20. Age-Adjusted Rates for All Diagnostic Categories Combined for Men by Occupation, 1993 to 1995*

1993 and 1994 rates could not be made (figures 20,21,22). All of the selected diagnostic categories for both men and women showed a decrease in rates for 1993 through 1995. Although age can affect the occurrence of certain diseases, it does not appear to be the reason for the decreases seen here. The percentage of workers in each age group remained relatively stable for that time period. The greatest rate decreases occurred in the heart/circulatory category for men and the lung/respiratory category for men and women.

From 1993 to 1995, the overall rate of cardiovascular disease reported among men dropped 68%. Most of this decrease occurred between 1994 and 1995. The reduction was most pronounced for heart attacks and other ischemic heart disease (involving restricted blood flow to the heart). The overall decrease in cardiovascular disease was also seen among women, but no specific form of disease appeared instrumental in reducing the rates. For all three years, cardiovascular disease rates among women were

Figure 21. Age-Adjusted Rates for All Diagnostic Categories Combined for Women by Occupation, 1993 to 1995*

about half those of men. A number of factors could account for the reduced rates observed over the three-year period, but the most probable explanation is that changes in sick leave policy reduced cardiovascular disease reporting (figure 22).

Respiratory diagnoses decreased among both men and women from 1993 to 1995, but the decrease was more dramatic among women (figure 22). The most frequently reported lung/respiratory diagnoses were for bronchitis, pneumonia and influenza, and sinusitis. The percentage of diagnoses for bronchitis and pneumonia and influenza were relatively stable for this period and occurrences of sinusitis showed a sharp decrease in women from 1994 to 1995. Respiratory disease rates remained higher among women than among men over the three years, a difference that has also been noted at other epidemiologic surveillance sites.

Figure 22. Age-Adjusted Rates for Selected Diagnostic Categories by Gender, 1993 to 1995

*For 1993, rate based on external causes of injury data; for 1994 and 1995, rate based on injury and poisoning data.

Occupational Sentinel Health Events

An occupational sentinel health event (SHEO) is a disease, disability, or injury whose occurrence may serve as a warning signal that workplace conditions may need to be changed or additional attention may be required to reduce its occurrence. Injuries and poisonings resulting from accidents in the workplace as well as 64 disease conditions have been identified as SHEOs from studies of workplace exposures and disease in many different industries (appendix K). Although SHEOs may indicate an occupational exposure, many SHEOs can also result from nonoccupational exposures or may reflect the combined effects of both occupational and nonoccupational exposures. Because the occupational status of many SHEOs is uncertain, we assess them in the following three categories (appendix K has additional information about what diseases and conditions are included in each SHEO).

Definitely SHEOs: Consists of diseases that are unlikely to occur in the absence of an occupational exposure. Asbestosis, a lung condition resulting from exposure to asbestos, is an example of this group.

Possibly SHEOs: Includes such conditions as lung cancer and carpal tunnel syndrome, which may or may not be related to occupation. Additional information about the person's hobbies, personal habits, and work history are required to establish a link between disease and occupation. For example, lung cancer can result from asbestos exposure as well as smoking. Carpal tunnel syndrome may result from a job requiring typing or from a hobby such as playing piano.

Accidents: Includes all types of on-the-job accidents and resulting health conditions. Accidents specifically identified as occurring in the home, on the farm, or during recreation are excluded.

Forty-three of the 407 health events (11%) reported in 1995 fit our definition of SHEOs, and 32 of the SHEOs involved accidents (figures 23 and 24). Only one of the accidents was specifically indicated as occurring in the workplace. Over one-third (38%) of these accidents occurred in workers in the 40-49 age group. Of the 11 SHEOs that did not result from a specific accident, 8 involved carpal tunnel syndrome. INEEL workers missed a total of 326 days due to this diagnosis. Women reported six of the diagnoses (75%), and half of the workers with carpal tunnel syndrome were aged 40 to 49. There was no relationship with occupational group.

Figure 23. Characteristics of Health Events for SHEOs and Days Absent by Gender

		Total Number of Workers	Total Number of Health Events	Total Number of Health Conditions	Total Number of Days Absent
Men	Definite	1	1	1	9
	Possible	5	5	5	122
	Accident	24	24	32	618
	Total	30	30	38	749
Women	Definite	0	0	0	0
	Possible	6	6	6	264
	Accident	7	7	15	144
	Total	13	13	21	408

Figure 24. Number of Accidents by Gender, Age, and Occupation*

Occupational Group	Age Group - Men					Age Group - Women					Total
	16-29	30-39	40-49	50-59	60+	16-29	30-39	40-49	50-59	60+	
Administration		1	2						1		4
Professional			2						1		3
Technical		3				1					4
Service		2	1					1			4
Security		1	1				1				3
Crafts and Manual Labor				1							1
Nuclear											0
Unknown	1	1	4	3	2			1	1		13
Total	1	8	10	4	2	1	1	2	3	0	32

*Blank space is equal to zero.

OSHA-Recordable Events

The Occupational Safety and Health Administration (OSHA) requires employers to maintain a record of occupational injuries and illnesses occurring among employees and to make that information available to OSHA on request. Employers maintain the information from these OSHA-recordable events in the OSHA 200 Log. OSHA-recordable events differ from health events captured through return-to-work clearances in at least two important respects: 1) they did not necessarily result in days lost from work, and 2) they are usually accompanied by a specific determination that they are work-related.

The number of workers with at least one OSHA event in 1995 (148) represented an approximate 5% decrease from the number of workers with a recordable event in 1994 (156). There was a 12% decrease in the total number of OSHA events from 1994 (173) to 1995 (152). Men reported over three times as many OSHA events as women in 1995, but the percentage of workers with at least one OSHA event was about the same for both men and women. These events were more likely to occur among men 30-39 years old and women 40-59 years old (figure 25). Men in administrative, professional, or nuclear occupations were somewhat less likely than others to experience an OSHA event (figure 26). Women in the service and technical occupations had a higher percentage of workers with at least one OSHA event than other women (figure 27). The number of workdays lost or with restricted activity averaged at least 28 days longer for men (77.4 days) than for women (49.2 days) (figure 28). Neither women nor men showed a clear relationship between age at injury and average number of days lost or restricted. The large gender difference in the average number of workdays lost or with restricted activity was mostly due to two OSHA events reported by two men in the 60+ age group. The diagnoses for both events were a back sprain and strain that resulted in a combined total of 710 workdays lost or with restricted activity.

The service group (2.3%) had the highest percentage of workers with at least one OSHA event (figures 26 and 27). The crafts and manual laborers, who made up 2.1% of the total work force, had the highest average number of workdays lost or with restricted activity per OSHA event (146.0 days for men and women combined; figure 29). Two workers reported a back sprain and strain resulting in a total of 40 days lost and 180 days restricted. A third worker suffered a bruise to the chest, which resulted in 510 days of restricted work activity. Appendices L-N contain more detailed data about the number of OSHA events and days of work lost or with restricted activity for men and women in different age and occupational groups.

Figure 25. Percentage of Workers with at Least One OSHA Event by Gender and Age*

*Numbers in parentheses represent the number of workers with at least one event.

Figure 26. Percentage of Men with at Least One OSHA Event by Occupation*

*Numbers in parentheses represent the number of men with at least one event.

Figure 27. Percentage of Women with at Least One OSHA Event by Occupation*

*Numbers in parentheses represent the number of women with at least one event.

Figure 28. Lost and Restricted Workdays by Gender and Age

Age Group		Total Number of Days Lost/Restricted	Total Number of OSHA Events		Average Number of Days Lost/Restricted
Men	16-29	620	9	68.9	
	30-39	3,750	46	81.5	
	40-49	3,060	45	68.0	
	50-59	820	12	68.3	
	60+	730	4	182.5	
	Total	8,980	116	77.4	
Women	16-29	520	7	74.3	
	30-39	20	5	4.0	
	40-49	700	16	43.8	
	50-59	530	7	75.7	
	60+	0	1	0.0	
	Total	1,770	36	49.2	

Figure 29. Lost and Restricted Workdays by Gender and Occupation

	Occupation	Total Number of Days Lost/Restricted		Total Number of Health Events		Average Number of Days Lost/Restricted
Men	Administration	50	$\div$	6	$=$	8.3
	Professional	0		1		0.0
	Technical	1,420		17		83.5
	Service	220		7		31.4
	Security	510		7		72.9
	Crafts and Manual Labor	730		5		146.0
	Nuclear	20		1		20.0
	Unknown	6,030		72		83.8
	Total	8,980		116		77.4
Women	Administration	150	$\div$	13	$=$	11.5
	Professional	250		3		83.3
	Technical	300		5		60.0
	Service	190		3		63.3
	Security	0		0		0
	Crafts and Manual Labor	0		0		0
	Nuclear	0		0		0
	Unknown	880		12		73.3
	Total	1,770		36		49.2

Diagnostic and Accident Categories for OSHA-Recordable Events

Over 75% of the health conditions reported were for injury and poisoning (figure 30). Sprains and strains were the most common type of OSHA-recordable injury among both men and women, accounting for 57% of such recordable injuries in 1995 and 55% in 1994. Among men, 86% of the sprains and strains occurred in the 30-39 and 40-49 age groups (appendix O). Open wounds and bruises also occurred fairly frequently among men (figure 31). Occupation did not appear strongly related to the type of injury sustained (figure 32, appendix S). The second most frequently reported OSHA-recordable category was disorders of the nervous system. Of the 19 health conditions reported, 18 were carpal tunnel syndrome. Of the 10 men who were diagnosed with carpal tunnel syndrome, 1 was in the professional occupation category, 4 were in the technical, 1 was in the service, and 4 were in the unknown categories. Half of these men were in the 30-39 age group. Of the 8 women, 6 were in administration, 1 was in the professional category, and 1 was in the unknown category (appendix S). The type of accident was reported for only 1 of the 152 OSHA events. This accident, recorded for a man aged 40-49 in the unknown occupational category, involved a foreign body in his eye.

Figure 30. Health Conditions by Gender and Diagnostic Category*

Diagnostic Category	Total Number of Health Conditions Reported	
	Men	Women
Digestive	1	
Lung/Respiratory	4	1
Muscles and Skeleton	1	1
Nervous System	11	8
Skin	1	
Unspecified Symptoms	3	2
Injury and Poisoning	99	24
• Upper Limb Fractures		1
• Back Sprains and Strains	27	10
• Other Sprains and Strains	29	4
• Open Wounds - Head, Neck, Trunk	10	1
• Open Wounds - Upper Limb	10	1
• Superficial Injuries	3	1
• Bruises	13	3
• Foreign Bodies Entering Orifice	2	
• Burns	3	1
• Unspecified Injuries		1
• Adverse Reaction to External Causes	2	1

*Blank space is equal to zero.

Figure 31. Three Diagnostic Categories Reported Most Often by Gender and Age

		16-29	30-39	40-49	50-59	60+
Men	Most Common Diagnostic Category	Open Wounds	Sprains and Strains	Sprains and Strains	Sprains and Strains	Sprains and Strains
	Second Most Common Diagnostic Category	Bruises	Open Wounds	Open Wounds	Nervous System	Open Wounds
	Third Most Common Diagnostic Category	(2)	Nervous System; Bruises	(2)	Bruises	Bruises (1)
Women	Most Common Diagnostic Category	Sprains and Strains	Nervous System	Sprains and Strains	Sprains and Strains	Sprains and Strains
	Second Most Common Diagnostic Category	(2)	Sprains and Strains (1)	Nervous System	Nervous System	None
	Third Most Common Diagnostic Category	None	Unspecified Symptoms	(2)	Bruises	None

(1) This diagnostic category was reported the same number of times as the one above it.

(2) More than two diagnostic categories tied.

Figure 32. Three Diagnostic Categories Reported Most Often by Gender and Occupation

		Administration	Professional	Technical	Service
Men	Most Common Diagnostic Category	Sprains and Strains	Nervous System	Sprains and Strains	Sprains and Strains
	Second Most Common Diagnostic Category	Open Wounds (1)	None	Nervous System	Open Wounds
	Third Most Common Diagnostic Category	Bruises (1)	None	Open Wounds	Lung/Respiratory; Nervous System
Women	Most Common Diagnostic Category	Nervous System	Nervous System	Sprains and Strains	Sprains and Strains
	Second Most Common Diagnostic Category	Sprains and Strains	Unspecified Symptoms (1)	Lung/Respiratory; Muscles and Skeleton	Burns
	Third Most Common Diagnostic Category	Open Wounds; Bruises	Unspecified Injuries (1)	Bruises (1)	None

		Security	Crafts and Manual Labor	Nuclear	Unknown
Men	Most Common Diagnostic Category	Sprains and Strains	Sprains and Strains	Adverse Reaction to External Causes	Sprains and Strains
	Second Most Common Diagnostic Category	Lung/Respiratory; Nervous System	Superficial Injuries	None	Open Wounds
	Third Most Common Diagnostic Category	Open Wounds (1)	Bruises (1)	None	Bruises
Women	Most Common Diagnostic Category	None	None	None	Sprains and Strains
	Second Most Common Diagnostic Category	None	None	None	(2)
	Third Most Common Diagnostic Category	None	None	None	None

(1) This diagnostic category was reported the same number of times as the one above it.

(2) More than two diagnostic categories tied.

Rates of OSHA-Recordable Events

The rate of all diagnoses combined for OSHA-recordable events was greater for women over 40 years of age and men under 40 with the exception of nuclear workers (figure 33). Similar trends are seen in the rates of occupational injuries considered separately (figure 34). Workers in the unknown category were more likely to have an OSHA event that resulted in days lost from work or with restricted activity than were other groups of workers. Workers with an unknown occupation made up 35% of the work force but had 43% of the days lost and 71% of the days restricted (appendix N). Their risk of sprains and strains was almost 3 times greater than other occupational groups (appendix W). Of the 3,900 days lost or restricted from back sprains and strains, 71% were in the unknown group (appendix T). Compared with other occupational groups, the crafts and manual labor (over 4 times) and service (over 3 times) groups also had a higher risk of sustaining back sprains and strains (appendix W).

Figure 33. Rates per 1,000 for all Diagnostic Categories Combined by Gender, Age, and Occupation

All Diagnostic Categories		Occupational Group	Age	Rate per 1,000	
				Men	Women
Administration		<40	5	5
			40+	2	14
	Professional/Technical		<40	12	8
			40+	9	19
	Service/Security/Crafts and Manual Labor		<40	27	0
			40+	14	28
	Nuclear		<40	0	0
			40+	4	0
	Unknown		<40	24	13
			40+	21	18

Figure 34. Rates per 1,000 for Injury and Poisoning by Gender, Age, and Occupation

Diagnostic Category		Occupational Group	Age	Rate per 1,000	
				Men	Women
Injury and Poisoning	Administration	<40	5	0
			40+	2	10
		Professional/Technical	<40	7	8
			40+	7	4
		Service/Security/Crafts and Manual Labor	<40	19	0
			40+	14	28
		Nuclear	<40	0	0
			40+	4	0
		Unknown	<40	22	11
			40+	17	15

Glossary

Adjustment: A mathematical procedure for rates in which the effects of differences of a characteristic (such as age or gender) between groups have been removed. The purpose of adjustment is to allow comparisons between two or more groups with the effect of the differences for the characteristic removed.

Age-Adjusted Rate: A rate that has been mathematically adjusted to account for the effects of differences in the age composition between groups. This allows one rate per group to be compared.

Age-Specific Rate: A rate that is calculated for a group that is a specific age (e.g., 16 to 29 years old). Only people in the specific age group are included in the calculation of the rate. The purpose of calculating age-specific rates is to identify differences in the rate that occur as the age changes. Any differences that are related to age can be seen by comparing age-specific rates for the different age groups.

Confidence Interval: A mathematical procedure used to determine in what range the true value of an event is likely to be. The width of the confidence interval (i.e., how wide the range is) is affected by the size of the group being studied and how often the event whose true value is sought occurs. Generally, as the size of the group or the frequency of the event increases, the width of the confidence interval decreases. The level of confidence, for example a 95% confidence level, indicates the percentage (e.g., 95%) of time that the true value is expected to fall within the confidence interval if the mathematical procedure is repeated 100 times.

Demographics: Characteristics of human populations related to their size, density, distribution, and health.

Diagnosis (diagnoses): Identification of a disease or health condition from its signs and symptoms.

Diagnosis Rate: The number of occurrences of a given disease or health condition observed among DOE workers during a given time period per 1,000 DOE workers at risk of getting that disease during the time period. It is calculated as follows (using 1995 as the time period):

$$\text{Diagnosis rate for a disease during 1995 (per 1,000 DOE workers)} = \frac{\text{Number of occurrences of the disease reported during 1995}}{\text{Number of DOE workers at risk for the disease during 1995}} \times 1,000$$

Diagnostic Category: A particular type of disease, a group of related health conditions, or diseases that all affect the same organ system. Cancer is an example of a diagnostic category that contains a particular type of disease, and pregnancy/childbirth is an example of one that contains a group of related health conditions. Lung/respiratory is an example of a diagnostic category that contains diseases that all affect the same organ system.

Epidemiologic Surveillance: The ongoing evaluation of the health of a human population which is based on the collection and interpretation of demographic and health information for that population.

Epidemiology: The study of the occurrence and distribution of diseases and health conditions in human populations.

Health Condition: A specific disease or medical condition. Health conditions are grouped together to form diagnostic categories. Tuberculosis is a specific disease that is part of the diagnostic category of infections/parasites. A fractured arm is a specific health condition included in the diagnostic category of injury and poisoning.

Health Event: An absence from work that lasted at least five consecutive workdays.

ICD-9-CM Code: An abbreviation for the *International Classification of Diseases, Ninth Revision, Clinical Modification*. It is internationally accepted as a standardized system for the classification of disease and health data collected from medical records and is useful to describe the disease and health characteristics of a population.

OSHA: An acronym for the Occupational Safety and Health Administration.

OSHA Event: An abbreviation used throughout this report for an OSHA-recordable event.

OSHA-Recordable Event: An accident that occurs on the job and involves fatalities (regardless of time between injury and death), time lost from work, transfer of employment, medical treatment other than first aid, loss of consciousness, or restriction of work or motion. Also included is any diagnosed occupational health event reported to the employer that is neither fatal nor results in workdays lost. By law, these events are recordable in the OSHA 200 Log.

Person-Year: A unit of measurement combining the number of people being studied with the time that each was observed equivalent to one person followed for one year. For example, 5 persons followed for one year contribute five person-years, as do 10 people each followed for half a year. In the epidemiologic surveillance reports, rates are often expressed as the number of events per 1,000 person-years.

Relative Risk: The rate of occurrence of a disease or health condition in one group compared to the rate of occurrence of that same disease or health condition in another group.

Explanation of Diagnostic Categories

Throughout this report, health conditions have been grouped into a number of diagnostic categories which come from the *International Classification of Diseases* (ICD-9-CM). For the text of this report the categories are abbreviated to make the report easier to read. In the appendixes a different set of abbreviations was used for the categories. These names are the same as the ones used in previous annual reports. The table that begins on the next page lists the categories in numeric order according to ICD-9-CM and gives examples of common diseases included in each category. The last column of the table below links the category names in the reports and the appendixes to the table that begins on the next page.

Diagnostic Categories Used in This Report	Diagnostic Categories Used in the Appendix and Previous Annual Reports	ICD-9-CM Codes
Benign Growths	Benign and Other Neoplasms	210-229,235-239
Blood	Blood and Blood Forming Organs	280-289
Cancer	Malignant Neoplasms	140-208,230-234
Digestive	Digestive System	520-579
Endocrine/Metabolic	Endocrine and Metabolic Diseases	240-279
Existing Birth Condition	Congenital Anomalies	740-759
Genitourinary	Genitourinary System	580-629
Heart/Circulatory	Circulatory System	390-459
Infections/Parasites	Infectious and Parasitic Diseases	001-139
Injury and Poisoning	Injury and Poisoning	800-999
Lung/Respiratory	Respiratory System	460-519
Mental	Mental Disorders	290-319
Muscles and Skeleton	Musculoskeletal System	710-739
Nervous System	Nervous System and Sense Organs	320-389
Pregnancy/Childbirth	Pregnancy and Childbirth	630-676
Skin	Skin and Subcutaneous Tissue	680-709
Unspecified Symptoms	Symptoms, Signs and Ill-Defined Conditions	780-799

Categories and Subcategories of Diagnoses	ICD-9-CM Codes	Diseases
All conditions	001-V82	All reported health events
Infectious and parasitic diseases	001-139	Diseases caused by bacteria, viruses, and parasites
• Intestinal infections	001-009	Infections of the bowel or gut
• Tuberculosis	010-018	TB in the lungs and other organs
• Zoonotic bacterial diseases	020-027	Bacterial diseases that animals transmit to humans
• Other bacterial diseases	030-041	Whooping cough, diphtheria, strep throat, and gangrene
• Human Immunodeficiency Virus (HIV) infection	042	AIDS
• Poliomyelitis and other nonarthropod diseases of central nervous system	045-049	Viral meningitis (swelling of the layers covering the brain and spinal cord); viral encephalitis (swelling of the brain); and polio
• Viral diseases accompanied by exanthem	050-057	Diseases accompanied by rashes or blisters like chickenpox, measles, shingles, and herpes
• Arthropod-borne viral diseases	060-066	Encephalitis (swelling of the brain) caused by bites from virus-carrying ticks or mosquitoes
• Other diseases caused by viruses and chlamydiae	070-079	Viral hepatitis, mumps, rabies, and mononucleosis
• Rickettsioses and other arthropod-borne diseases	080-088	Rocky Mountain spotted fever, malaria, and lyme disease
• Other spirochetal diseases	100-104	Trench mouth and Weil's disease (jaundice caused by coil-shaped bacteria)
• Mycoses	110-118	Athlete's foot; fungal infections of fingernails and toenails; and thrush
• Helminthiasis	120-129	Pinworms, tapeworms, roundworms, whipworms
• Other infectious and parasitic diseases	130-136	Lice, chiggers, scabies, and mites
• Late effects of infectious or parasitic diseases	137-139	Side effects of TB, chickenpox, or polio even though the disease is no longer active
Malignant neoplasms	140-208, 230-234	All cancers, regardless of the part of the body affected
• Lip, oral cavity, and pharynx	140-149	Lip, mouth, throat, and tongue
• Digestive organs and peritoneum	150-159	Cancers of the stomach, esophagus (tube that transports food to the stomach), intestines, colon, rectum, anus, liver, pancreas, and gallbladder
• Respiratory system and intrathoracic organs	160-165	Sinuses, throat, voice box, lungs, and heart
• Bone, connective tissue, and skin	170-173	Bone, muscle, ligament, tendon, blood vessels, fat, and skin
• Genitourinary organs	179-189	Cervix, uterus, prostate, kidney, and bladder
• Other and unspecified sites	190-199	Eye, brain, and thyroid
• Lymphatic and hematopoietic tissue	200-208	Leukemia, lymphoma, Hodgkin's disease, multiple myeloma, lymphosarcoma, and reticulum cell sarcoma
• Carcinoma in situ	230-234	A cancer that is confined to the site of origin (has not spread to neighboring tissue)
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature	210-229, 235-239	Tumors that are not cancerous or do not exhibit cancerous behavior, regardless of the part of the body affected
Endocrine, nutritional, and metabolic diseases and disorders of the immune system	240-279	Diseases affecting the hormone secreting glands and organs Overactive thyroid; underactive thyroid; vitamin deficiency; diabetes; gout; and problems affecting the antibody producing system
Disorders of the blood and blood forming organs	280-289	Anemia and hemophilia (excludes leukemia)
Mental disorders	290-319	Psychiatric diagnoses - Nonpsychotic disorders: depression; anxiety, fear, and stress disorders; alcoholism; drug dependence; and eating disorders, such as anorexia; Psychotic disorders: dementia, schizophrenia, and manic depression
Diseases of the nervous system and sense organs	320-389	Huntington's chorea; Alzheimer's and Parkinson's disease; epilepsy; multiple sclerosis; migraine; diseases of the eye, such as cataract and glaucoma
• Inflammatory diseases of the central nervous system	320-326	Bacterial meningitis (swelling of the layers covering the brain and spine); bacterial encephalitis (swelling of the brain); and brain and spinal abscesses

(continued)

Categories and Subcategories of Diagnoses	ICD-9-CM Codes	Diseases
• Hereditary and degenerative diseases of the central nervous system	330-337	Alzheimer's and Parkinson's disease, tremors, and Huntington's chorea
• Other disorders of the central nervous system	340-349	Multiple sclerosis (MS), cerebral palsy, epilepsy, and migraine
• Disorders of the peripheral nervous system	350-359	Nerve disorders of the face, carpal tunnel syndrome, muscular dystrophy
• Disorders of the eye	360-379	Inflammation and ulcers of the eye and eyelid; detached retina; pink eye; problems with tear ducts; glaucoma; and cataracts
• Diseases of the ear and mastoid process	380-389	Infections of the outer, middle, or inner ear; ringing of the ears; hearing loss
Diseases of the circulatory system	390-459	Rheumatic fever, heart murmurs, heart attacks, angina, hardening of the arteries, varicose veins, hemorrhoids, and phlebitis
• Acute rheumatic fever	390-392	High fever and joint pain with possible heart damage
• Chronic rheumatic heart disease	393-398	Long lasting swelling and damage to the heart which results from rheumatic fever
• Hypertensive disease	401-405	High blood pressure
• Ischemic heart disease	410-414	Heart attack and angina
• Diseases of pulmonary circulation	415-417	Blood clots in the lung and pulmonary aneurysm (bulge that develops in the wall of the pulmonary artery, which is the artery that carries blood to the lungs)
• Other forms of heart disease	420-429	Swelling of the inner lining, middle lining, or sac enclosing the heart; heart failure; and irregular heartbeat
• Cerebrovascular disease	430-438	Stroke, bleeding in the brain, and blockage or low blood flow in blood vessels of the brain
• Diseases of the arteries and capillaries	440-448	Hardening of the arteries; aneurysm (bulge that develops in the walls of arteries); and blood clots
• Diseases of the veins, lymphatics, and other	451-459	Phlebitis (swelling of a vein) and thrombophlebitis (swelling of a vein which has a blood clot)
Diseases of the respiratory system	460-519	Colds, sinusitis, laryngitis, pneumonia, influenza, chronic bronchitis, asthma, and emphysema
• Acute respiratory infections	460-466	Colds, sore throat, sinus infections, swollen tonsils, and bronchitis
• Other diseases of the upper respiratory tract	470-478	Allergies, hay fever, sinus infections, bronchitis, and sore throat that continue for a long time
• Pneumonia and influenza	480-487	"The flu" and pneumonia caused by a bacteria or virus
• Chronic obstructive pulmonary diseases and allied conditions	490-496	Emphysema and asthma
• Pneumoconiosis and other lung diseases caused by external agents	500-508	Black lung; miners' asthma; asbestosis; silicosis; berylliosis; and conditions caused by chemical fumes and vapors
• Other diseases of respiratory system	510-519	Pleurisy (swelling of the lining of the lungs), collapsed lung, and respiratory failure
Diseases of the digestive system	520-579	Diseases affecting the teeth and mouth, salivary glands, digestive tract, and the abdominal cavity. Examples include dental abscess, ulcers, appendicitis, hepatitis (excluding viral hepatitis), cirrhosis of the liver, gallstones, pancreatitis, abdominal hernia, and intestinal polyps
• Diseases of the oral cavity, salivary glands, and jaw	520-529	Tooth problems (too many, too few, abnormal shape or size, cavities, bleeding gums, toothaches), and infections and swelling of the mouth, jaw, and tongue
• Diseases of the esophagus, stomach, and duodenum	530-537	Ulcers of the esophagus (tube that transports food to the stomach), stomach, and small intestine; indigestion; and uncontrollable vomiting
• Appendicitis	540-543	Swelling of the appendix (rupture, surgery, or both may result)
• Hernia of the abdominal cavity	550-553	Ruptures of the groin and diaphragm (muscle which separates the chest area from the lower part of the trunk)
• Noninfectious enteritis and colitis	555-558	Crohn's disease and swelling of the intestine and colon
• Other diseases of the intestines and peritoneum	560-569	Irritable bowel syndrome, blockage of the intestine, constipation, and diarrhea
• Other diseases of digestive system	570-579	Diseases of the liver, gallbladder, and pancreas; hepatitis; blood in stool; and bleeding in the stomach and intestine

(continued)

Categories and Subcategories of Diagnoses	ICD-9-CM Codes	Diseases
Diseases of the genitourinary system	580-629	Diseases affecting the kidneys, the prostate, and testes; benign breast diseases; infertility (male and female); diseases of the ovary; pelvic inflammatory disease; and menstrual disorders
· Nephritis, nephrotic syndrome, and nephrosis	580-589	Swelling of the kidney; swelling of the small blood vessels in the kidney; and kidney failure
· Other diseases of the urinary system	590-599	Swelling and infection of the kidney and bladder; kidney stones; and difficulty urinating
· Diseases of the male genital organs	600-608	Enlarged prostate; swelling of the scrotum and prostate; and abscess of the prostate
· Disorders of the breast	610-611	Benign tumors, cysts, and infections of the breast
· Inflammatory disease of the female pelvic organs	614-616	Swelling of the uterus, ovary, fallopian tubes, or cervix
· Other diseases of the female genital tract	617-629	Conditions associated with menopause and postmenopause; PMS; infertility; and cramps
Complications of pregnancy, childbirth, and the puerperium	630-676	Miscarriage; complications of pregnancy, such as hemorrhage, pregnancy-related high blood pressure; preeclampsia; and premature labor or other complications of labor
· Ectopic and molar pregnancy	630-633	Development of fetus outside the uterus and growth of cysts
· Other pregnancy with abortive outcome	634-639	Miscarriage and complications associated with miscarriage
· Complications mainly related to pregnancy	640-648	Abnormal bleeding and possible miscarriage; infections; high blood pressure caused by pregnancy; and premature labor
· Normal delivery, and other indications for care in pregnancy, labor, and delivery	650-659	Delivery requiring little or no assistance; multiple births; breech birth; and problems of the fetus or placenta which affect care of mother
· Complications occurring mainly in the course of labor and delivery	660-669	Long labor; unusually fast delivery; and abnormal bleeding after delivery
· Complications of the puerperium	670-676	Infections of the breast; blood clot in lung; and varicose veins
Diseases of the skin and subcutaneous tissue	680-709	Acne, cellulitis, sunburn, psoriasis, and seborrhea
· Infections of the skin and subcutaneous tissue	680-686	Abscesses, boils, hair-containing cysts, and pus-filled blisters
· Other inflammatory conditions of skin and subcutaneous tissue	690-698	Skin rashes caused by detergents, oils, greases, solvents, sun, food, drugs, or medicine
· Other diseases of the skin and subcutaneous tissue	700-709	Corns, calluses, heat rash, swollen hair follicles, acne, and ingrown fingernails and toenails
Diseases of the musculoskeletal system and connective tissue	710-739	Arthritis, systemic lupus erythematosus, ankylosing spondylitis, herniated intervertebral disc ("slipped disc"), lumbago, sciatica, rheumatism, tendonitis, and osteoporosis
· Arthropathies and related disorders	710-719	Arthritis; joint pain and stiffness; and other diseases of the connective tissue which supports and connects internal organs, forms bones and blood vessel walls, and attaches to bones
· Dorsopathies	720-724	Swelling of the spine; rheumatoid arthritis of the spine; lumbago; and sciatica
· Rheumatism, excluding the back	725-729	Swelling and degeneration of joints, muscles, tendons; tennis elbow; and bursitis
· Osteopathies, chondropathies, and acquired musculoskeletal deformities	730-739	Fracture caused by bone disease; osteoporosis; curvature of the spine; flat foot; hammer toe; and development of deformities of the nose, toes, feet, legs, arms, and hands
Congenital anomalies	740-759	Spina bifida; cleft palate; harelip; and various chromosomal anomalies, such as Klinefelter's syndrome
Certain conditions originating in the perinatal period	760-779	Maternal high blood pressure; maternal malnutrition; ectopic pregnancy; breech birth; fetal malnutrition or slow growth; injuries related to birth trauma; and perinatal jaundice
Symptoms, signs, and ill-defined conditions	780-799	Blackout, chills, dizziness, fatigue, pallor, abnormal weight loss, undiagnosed chest pain, and heartburn
· Symptoms	780-789	Hallucinations, fainting, convulsions, dizziness, fatigue, fever, sleep disturbance, rash, headache, sore throat, chest pain, nausea, vomiting, and heartburn
· Nonspecific abnormal findings	790-796	Abnormal x-ray, blood, stool, and urine test results

(continued)

Categories and Subcategories of Diagnoses	ICD-9-CM Codes	Diseases
• Ill-defined and unknown causes of morbidity and mortality	797-799	Senility; asphyxia; respiratory arrest; nervousness; and unexplained death within 24 hours of onset of symptoms
Injury and poisoning	800-999	Dislocation of joints; sprains and strains of associated muscles; concussions; bruises; cuts, internal injuries from crushing, puncture, tearing or blunt impact; burns; blisters; poisoning; frostbite; heatstroke; and complications of medical or surgical care
• Fractures, all sites	800-829	Cracks or breaks of any bone
• Dislocations	830-839	Separation of a bone from its normal socket or joint
• Sprains and strains of joints and adjacent muscles	840-848	Strains are injuries to muscle from overuse or stretching the muscle beyond its normal limit; sprains are injuries involving tearing or overextending the ligaments of a joint
• Intracranial injuries excluding those with skull fractures	850-854	Concussions; internal bruises; and bleeding within the head without a fracture of the bones of the skull
• Internal injuries of the thorax, abdomen, and pelvis	860-869	Bruising, crushing, tearing, or rupturing the chest, abdomen, and pelvis and the organs within these areas of the body
• Open wounds	870-897	Animal bites; cuts; lacerations; punctures; and amputations, excluding the arteries and veins
• Other injuries and late effects of external causes	900-999	Miscellaneous injuries, including injuries to the arteries and veins; problems that occur an extended period of time after the injury has taken place ("late effects"); superficial bruises and abrasions; burns; post-injury shock; poisoning; toxic side effects of chemicals; heatstroke; electrocution; and altitude sickness
Supplementary classifications related to personal or family history of disease	V10-V19	Covers situations in which the person is not ill or injured but has a personal or family history of problems, such as cancer, mental illness, allergies, or arthritis that may affect his or her risk of illness
Supplementary classifications related to health care for reproduction and child development	V20-V28	Problems related to pregnancy, postpartum care, contraception, outcome of delivery, and physical development of child
Contact with health services for reasons other than illness or injury	V50-V59	Care for workers who have been treated previously for an illness or injury that is no longer present but who receive care to complete treatment or prevent recurrence

Reader Response

To help us serve your information needs better, please take a moment to answer the following questions. Then fold this postage paid form into thirds along the dotted lines, **tape** (do not staple) it together, and return to us. Thank you for sharing your thoughts with us!

- 1) Overall, the information in this report was (circle one...)

Too detailed

About right

Not detailed enough

- 2) Are there additional topics you would like to see covered in future reports?

Yes

No

If yes, please list additional topics:

- 3) Please list suggestions for improving the Epidemiologic Surveillance reports:

- 4) Which of the following occupational categories best describes the type of work you do?
(check one...)

- ☐ Management/Administrative
☐ Technical
☐ Professional/Scientific
☐ Crafts/Trades
☐ Clerical

- 5) I am employed by (check one...)

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☐ Other Federal agency
☐ Military
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INEEL 1995 Appendices

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Appendix A. Work Force by Gender, Age, and Occupation

	Gender												Total
	Women						Men						
	Age Group					Total	Age Group					Total	
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Occupational Group													
Administrative	211	405	418	255	43	1332	74	527	846	556	187	2190	3522
Professional	51	146	92	28	4	321	56	333	358	242	98	1087	1408
Technical	64	112	97	38	3	314	95	280	239	138	47	799	1113
Service	12	30	32	15	4	93	30	103	99	43	16	291	384
Security	9	39	29	11	4	92	37	218	125	58	28	466	558
Crafts and Manual Labor	2	11	10	3	0	26	19	68	77	49	14	227	253
Nuclear	22	16	13	6	3	60	27	102	147	98	29	403	463
Unknown	216	235	193	101	36	781	377	922	1092	652	290	3333	4114
Total	587	994	884	457	97	3019	715	2553	2983	1836	709	8796	11815

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Appendix B. Total Number of Workers Who Reported at Least One Health Event by Gender, Age, and Occupation

	Gender												Total
	Women						Men						
	Age Group					Total	Age Group					Total	
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Occupational Group													
Administrative	6	19	16	12	2	55	1	8	12	13	3	37	92
Professional	2	6	4	2	0	14	0	5	13	1	1	20	34
Technical	4	8	5	0	0	17	2	10	9	5	0	26	43
Service	2	2	8	4	0	16	1	8	5	1	0	15	31
Security	0	2	4	1	0	7	1	16	9	2	0	28	35
Crafts and Manual Labor	0	1	1	0	0	2	0	4	8	2	0	14	16
Nuclear	0	0	0	0	0	0	0	1	2	2	1	6	6
Unknown	2	9	7	9	2	29	7	25	35	21	5	93	122
Total	16	47	45	28	4	140	12	77	93	47	10	239	379

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Appendix C. Total Number of Health Events by Gender, Age, and Occupation

	Gender												Total
	Women						Men						
	Age Group					Total	Age Group					Total	
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Occupational Group													
Administrative	6	20	17	14	2	59	1	8	14	13	3	39	98
Professional	2	7	4	2	0	15	0	6	14	1	1	22	37
Technical	5	9	5	0	0	19	2	11	10	5	0	28	47
Service	2	2	8	7	0	19	1	9	5	1	0	16	35
Security	0	2	5	2	0	9	1	16	9	2	0	28	37
Crafts and Manual Labor	0	1	1	0	0	2	0	4	8	2	0	14	16
Nuclear	0	0	0	0	0	0	0	1	2	2	3	8	8
Unknown	2	10	7	9	2	30	8	25	38	23	5	99	129
Total	17	51	47	34	4	153	13	80	100	49	12	254	407

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Appendix D. Distribution of the Number of Calendar Days Absent/Health Event by Gender and Age

	Gender											
	Women						Men					
	Age Group					Total	Age Group					Total
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +	
# of Calendar Days												
< 15	5	15	13	8	2	43	7	24	49	19	3	102
15 - 28	4	11	15	8	1	39	4	32	23	15	2	76
29 - 42	3	6	6	10	0	25	1	12	15	5	3	36
43 - 56	1	12	5	3	1	22	0	3	3	2	1	9
57 - 91	4	5	5	3	0	17	0	4	6	5	2	17
92 - 182	0	2	3	1	0	6	1	4	3	3	1	12
183 +	0	0	0	1	0	1	0	1	1	0	0	2
Total	17	51	47	34	4	153	13	80	100	49	12	254

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Appendix E. Distribution of the Number of Calendar Days Absent/Health Event by Gender and Occupation*

	Gender																	
	Women								Men									
	Occupational Group							Total	Occupational Group								Total	
	Admin- istra- tive	Profe- ssion- al	Techn- ical	Servi- ce	Secur- ity	Crafts and Manual Labor	Unkno- wn		Admin- istra- tive	Profe- ssion- al	Techn- ical	Servi- ce	Secur- ity	Crafts and Manual Labor	Nucle- ar	Unkno- wn		
# of Calendar Days																		
< 15	17	4	4	5	2	1	10	43	13	6	16	3	8	5	5	46	102	
15 - 28	13	4	4	5	3	0	10	39	11	6	7	7	8	4	2	31	76	
29 - 42	9	3	5	4	1	0	3	25	9	2	2	5	8	0	0	10	36	
43 - 56	13	3	1	1	0	0	4	22	2	2	0	0	0	1	0	4	9	
57 - 91	4	1	3	4	1	1	3	17	1	3	1	0	2	3	0	7	17	
92 - 182	2	0	2	0	2	0	0	6	3	2	1	1	2	1	1	1	12	
183 +	1	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	2	
Total	59	15	19	19	9	2	30	153	39	22	28	16	28	14	8	99	254	

* Only those gender/occupational combinations with at least one health event appear in this table.

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Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Gender												Total
		Women						Men						
		Age Group					Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
INFECTIOUS & PARASITIC DISEASES	001-139	1	2	5	1	0	9	0	9	7	7	0	23	32
-Intestinal Infections	001-009	0	0	0	0	0	0	0	1	1	0	0	2	2
-Other Bacterial Diseases	030-041	0	0	2	0	0	2	0	6	1	6	0	13	15
-Viral Diseases with Exanthem	050-057	0	0	0	0	0	0	0	1	1	0	0	2	2
-Other Viral Diseases & Chlamydiae	070-079	0	2	3	0	0	5	0	1	4	1	0	6	11
-Mycoses	110-118	1	0	0	1	0	2	0	0	0	0	0	0	2
MALIGNANT NEOPLASMS	140-208, 230-234	0	1	1	2	0	4	0	2	1	5	2	10	14
-Digestive Organs	150-159	0	0	0	0	0	0	0	0	0	3	0	3	3
-Bone, Connective Tissue, Skin	170-173, 176	0	0	1	0	0	1	0	2	0	0	0	2	3
-Breast	174-175	0	1	0	1	0	2	0	0	0	0	0	0	2
-Genitourinary	179-189	0	0	0	0	0	0	0	0	1	1	2	4	4

* Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Gender												Total
		Women						Men						
		Age Group					Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
-Other & Unspecified Sites	190, 193-199	0	0	0	0	0	0	0	0	0	1	0	1	1
-Nervous System	191-192	0	0	0	1	0	1	0	0	0	0	0	0	1
BENIGN & OTHER NEOPLASMS	210-229, 235-239	0	3	5	1	0	9	0	2	2	1	2	7	16
ENDOCRINE & METABOLIC DISEASES	240-279	0	2	0	2	0	4	0	3	2	2	0	7	11
-Thyroid Gland	240-246	0	0	0	0	0	0	0	1	0	0	0	1	1
-Other Endocrine Glands	250-259	0	0	0	0	0	0	0	0	2	0	0	2	2
-Nutritional Deficiencies	260-269	0	0	0	0	0	0	0	0	0	1	0	1	1
-Other Metabolic & Immunity Disorders	270-279	0	2	0	2	0	4	0	2	0	1	0	3	7
MENTAL DISORDERS	290-319	0	1	0	0	0	1	1	3	4	1	0	9	10
-Non-Psychotic Conditions	300-302, 306-316	0	1	0	0	0	1	1	2	4	0	0	7	8
-Drug Dependence	304-305	0	0	0	0	0	0	0	1	0	1	0	2	2
NERVOUS SYSTEM & SENSE ORGANS	320-389	1	4	6	2	1	14	0	14	10	9	1	34	48

* Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Gender												Total
		Women						Men						
		Age Group					Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
-Hereditary/Degen- erative Diseases	330-337	0	1	0	0	0	1	0	0	0	0	1	1	2
-Other Disorders of CNS	340-349	0	0	1	0	0	1	0	0	0	0	0	0	1
-Disorders of Peripheral NS	350-359	0	1	5	2	0	8	0	5	1	2	0	8	16
-Disorders of Eye	360-379	0	1	0	0	0	1	0	6	3	3	0	12	13
-Diseases of Ear & Mastoid	380-389	1	1	0	0	1	3	0	3	6	4	0	13	16
CIRCULATORY SYSTEM	390-459	0	0	0	2	0	2	1	5	9	3	1	19	21
-Hypertensive Disease	401-405	0	0	0	0	0	0	0	1	2	0	0	3	3
-Ischemic Heart Disease	410-414	0	0	0	0	0	0	0	1	5	2	0	8	8
-Other Heart Disease	420-429	0	0	0	0	0	0	1	3	1	0	1	6	6
-Cerebrovascular Disease	430-438	0	0	0	1	0	1	0	0	0	0	0	0	1
-Diseases of Arteries & Capillaries	440-448	0	0	0	1	0	1	0	0	0	0	0	0	1

* Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Gender												
		Women						Men						
		Age Group						Age Group						
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
-Diseases of Veins, Lymphatics, Other	451-459	0	0	0	0	0	0	0	0	1	1	0	2	2
RESPIRATORY SYSTEM	460-519	2	10	7	5	1	25	3	16	20	13	0	52	77
-Acute Respiratory Infections	460-466	1	1	1	1	0	4	0	6	5	1	0	12	16
-Other Diseases Upper Respiratory Tract	470-478	0	2	1	3	0	6	0	3	5	1	0	9	15
-Pneumonia and Influenza	480-487	1	6	4	1	0	12	1	4	5	6	0	16	28
-Chronic Obstructive Diseases	490-496	0	1	1	0	1	3	1	3	2	3	0	9	12
-Lung Disease from External Agents	500-508	0	0	0	0	0	0	0	0	1	0	0	1	1
-Other Respiratory Diseases	510-519	0	0	0	0	0	0	1	0	2	2	0	5	5
DIGESTIVE SYSTEM	520-579	1	5	4	4	2	16	4	10	21	15	0	50	66
-Oral Cavity, Saliv. Glands, Jaw	520-529	0	0	0	0	1	1	0	4	0	0	0	4	5

* Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

INL 1995

Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Gender												Total
		Women							Men					
		Age Group					Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
-Esophagus, Stomach, Duodenum	530-537	0	0	0	0	0	0	0	1	4	0	0	5	5
-Appendicitis	540-543	0	1	0	0	0	1	1	1	0	2	0	4	5
-Hernias	550-553	0	0	0	0	1	1	1	1	8	6	0	16	17
-Enteritis, Colitis	555-558	0	0	1	0	0	1	0	0	2	0	0	2	3
-Other Intestinal Diseases	560-569	1	1	0	0	0	2	0	1	1	5	0	7	9
-Other Digestive Diseases	570-579	0	3	3	4	0	10	2	2	6	2	0	12	22
GENITOURINARY SYSTEM	580-629	6	6	8	4	0	24	0	2	0	5	1	8	32
-Other Urinary Diseases	590-599	1	0	2	0	0	3	0	2	0	3	1	6	9
-Male Genital Organs	600-608	0	0	0	0	0	0	0	0	0	2	0	2	2
-Disorders of the Breast	610-611	0	0	0	1	0	1	0	0	0	0	0	0	1
-Other Diseases of Females	617-629	5	6	6	3	0	20	0	0	0	0	0	0	20

* Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

INL 1995

Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Gender												Total
		Women						Men						
		Age Group					Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
PREGNANCY & CHILDBIRTH	630-677	7	16	2	0	0	25	0	0	0	0	0	0	25
-Ectopic & Molar Pregnancy	630-633	0	1	0	0	0	1	0	0	0	0	0	0	1
-Other Pregnancy with Abortive Outcome	634-639	1	0	0	0	0	1	0	0	0	0	0	0	1
-Complications of Pregnancy	640-648	2	1	0	0	0	3	0	0	0	0	0	0	3
-Normal Delivery and Care	650-659	4	14	1	0	0	19	0	0	0	0	0	0	19
-Complications of Labor & Delivery	660-669	0	0	1	0	0	1	0	0	0	0	0	0	1
SKIN & SUBCUTANEOUS TISSUE	680-709	0	0	1	1	0	2	1	2	3	1	0	7	9
-Infections	680-686	0	0	1	1	0	2	1	1	3	1	0	6	8
-Other Inflammatory Conditions	690-698	0	0	0	0	0	0	0	1	0	0	0	1	1
MUSCULOSKELETAL SYSTEM	710-739	2	5	8	12	0	27	0	32	28	16	6	82	109

* Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Gender												
		Women						Men						
		Age Group						Age Group						
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
-Arthropathies	710-719	0	0	2	3	0	5	0	14	8	5	0	27	32
-Dorsopathies	720-724	0	1	1	3	0	5	0	11	9	8	3	31	36
-Rheumatism, Excluding Back	725-729	2	4	4	5	0	15	0	7	8	2	2	19	34
-Acquired Deformities	730-739	0	0	1	1	0	2	0	0	3	1	1	5	7
CONGENITAL ANOMALIES	740-759	0	0	0	0	0	0	1	1	0	3	1	6	6
SYMPTOMS, SIGNS, & ILL-DEFINED COND.	780-799	1	2	5	1	0	9	0	3	5	4	0	12	21
-Symptoms	780-789	1	2	5	1	0	9	0	2	5	3	0	10	19
-Non-Specific Abnormal Findings	790-796	0	0	0	0	0	0	0	1	0	1	0	2	2
INJURY AND POISONING	800-999	2	8	14	9	0	33	4	33	30	13	2	82	115
-Skull Fractures	800-804	0	0	0	0	0	0	0	0	1	0	0	1	1
-Neck and Trunk Fractures	805-809	0	0	1	2	0	3	0	1	0	0	0	1	4
-Upper Limb Fractures	810-819	0	0	0	0	0	0	0	0	0	2	0	2	2

* Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

INL 1995

Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Gender												Total
		Women						Men						
		Age Group					Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
-Lower Limb Fractures	820-829	0	1	1	2	0	4	0	1	2	1	0	4	8
-Dislocations	830-839	0	1	0	0	0	1	0	2	2	1	0	5	6
-Back Sprains & Strains	846-847	0	0	3	2	0	5	3	2	7	2	1	15	20
-Other Sprains & Strains	840-845, 848	0	1	3	0	0	4	0	8	11	1	1	21	25
-Intracranial Injuries	850-854	1	0	0	0	0	1	0	0	0	0	0	0	1
-Open Wound Head, Neck, Trunk	870-879	0	0	1	0	0	1	0	1	0	0	0	1	2
-Open Wound Upper Limb	880-887	1	1	0	0	0	2	1	2	1	2	0	6	8
-Late Effects	905-909	0	0	0	0	0	0	0	2	0	0	0	2	2
-Contusions	920-924	0	1	1	0	0	2	0	3	3	1	0	7	9
-Burns	940-949	0	3	2	0	0	5	0	5	0	0	0	5	10
-Unspecified Injuries	958-959	0	0	2	1	0	3	0	1	0	1	0	2	5

* Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Gender													
		Women							Men						
		Age Group							Age Group						
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total		
Diagnostic Category	ICD-9-CM Code														
-Toxic Effects Nonmedical Substances	980-989	0	0	0	1	0	1	0	0	0	0	0	0	0	1
-Unspecified Effects External Causes	990-995														
-Complications of Surgical/Medical Care	996-999	0	0	0	0	0	0	0	0	3	2	0	0	5	5
HEALTH STATUS/HEALTH SERVICE CONTACT	V01-V02	1	2	2	2	0	7	2	6	3	3	2	16	23	
-Personal & Family History	V10-V19	0	1	1	0	0	2	1	4	3	3	1	12	14	
-Health Services Reproduction/Development	V20-V29	0	0	0	0	0	0	0	2	0	0	0	2	2	
-Health Status	V40-V49	1	0	0	1	0	2	0	0	0	0	0	0	2	
-Specific Procedure/Aftercare	V50-V59	0	1	1	1	0	3	1	0	0	0	0	1	4	
-Other Health Services	V60-V69	0	0	0	0	0	0	0	0	0	0	0	1	1	
Total		24	67	68	48	4	211	17	143	145	101	18	424	635	

* Only those diagnostic categories with at least one occurrence appear in this table.

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Appendix G. Total Number of Calendar Days Absent in Each Diagnostic Category by Gender and Age*

	Gender											
	Women						Men					
	Age Group					Total	Age Group					Total
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +	
Diagnostic Category												
Infectious & Parasitic Diseases	35	25	85	30	0	175	0	628	65	72	0	765
Malignant Neoplasms	0	20	13	221	0	254	0	64	29	131	55	279
Benign & Other Neoplasms	0	109	216	36	0	361	0	124	59	36	45	264
Endocrine & Metabolic Diseases	0	42	0	101	0	143	0	21	27	37	0	85
Mental Disorders	0	22	0	0	0	22	117	23	283	29	0	452
Nervous System & Sense Organs	14	161	286	106	14	581	0	375	143	154	64	736
Circulatory System	0	0	0	104	0	104	15	66	224	23	79	407
Respiratory System	22	129	68	39	13	271	32	192	194	162	0	580
Digestive System	35	75	71	95	65	341	82	94	336	346	0	858
Genitourinary System	133	234	181	75	0	623	0	20	0	74	14	108
Pregnancy & Childbirth	356	758	164	0	0	1278	0	0	0	0	0	0
Skin & Subcutaneous Tissue	0	0	29	30	0	59	11	30	47	8	0	96
Musculoskeletal System	59	144	194	434	0	831	0	1375	838	471	222	2906
Congenital Anomalies	0	0	0	0	0	0	15	13	0	213	40	281
Symptoms, Signs, & Ill-defined Cond.	28	7	184	9	0	228	0	50	37	70	0	157
Injury and Poisoning	36	77	386	230	0	729	30	1149	442	284	60	1965
Health Status/Health Service Contact	28	32	75	53	0	188	51	46	27	115	8	247

* Absences with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories with at least one occurrence appear in this table.

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Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender																	Total
		Women								Men									
		Occupational Group							Total	Occupational Group								Total	
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Unkn- own		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Nucl- ear	Unkn- own		
Diagnostic Category	ICD-9-CM Code																		
INFECTIOUS & PARASITIC DISEASES	001-139	6	0	1	0	0	0	2	9	3	0	3	1	3	0	1	12	23	3
-Intestinal Infections	001-009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
-Other Bacterial Diseases	030-041	2	0	0	0	0	0	0	2	3	0	3	1	1	0	1	4	13	1
-Viral Diseases with Exanthem	050-057	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
-Other Viral Diseases & Chlamydiae	070-079	3	0	0	0	0	0	2	5	0	0	0	0	2	0	0	4	6	1
-Mycoses	110-118	1	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	
MALIGNANT NEOPLASMS	140-208, 230-234	2	1	0	1	0	0	0	4	4	1	1	0	1	0	1	2	10	1
-Digestive Organs	150-159	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	
-Bone, Connective Tissue, Skin	170-173, 176	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	2	

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender																				
		Women							Men													
		Occupational Group							Occupational Group													
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Unkn- own	Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Nucl- ear	Unkn- own	Total					
Diagnostic Category	ICD-9-CM Code	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	2	4
-Breast	174-175	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	4	4	4	4	4
-Genitourinary	179-189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	4
-Other & Unspecified Sites	190, 193-199	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	4
-Nervous System	191-192	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	4
BENIGN & OTHER NEOPLASMS	210-229, 235-239	4	0	2	3	0	0	0	9	1	2	0	1	0	1	1	1	7	16	7	16	16
ENDOCRINE & METABOLIC DISEASES	240-279	2	0	1	0	0	0	1	4	1	1	0	0	0	1	0	4	7	11	7	11	11
-Thyroid Gland	240-246	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1
-Other Endocrine Glands	250-259	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	2	2	2	2
-Nutritional Deficiencies	260-269	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	1
-Other Metabolic & Immunity Disorders	270-279	2	0	1	0	0	0	1	4	0	0	0	0	0	0	0	3	7	7	7	7	7
MENTAL DISORDERS	290-319	1	0	0	0	0	0	0	1	3	3	3	0	0	0	0	0	9	10	9	10	10

* Only these diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

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Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender																	Total	
		Women								Men										
		Occupational Group							Total	Occupational Group								Total		
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Unkn- own		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Nucl- ear	Unkn- own			Total
Diagnostic Category	ICD-9-CM Code																			
-Non-Psychotic Conditions	300-302, 306-316	1	0	0	0	0	0	0	1	2	3	2	0	0	0	0	0	0	7	8
-Drug Dependence	304-305	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	2
NERVOUS SYSTEM & SENSE ORGANS	320-389	3	1	3	2	0	1	4	14	8	2	2	0	7	2	2	11	34	48	
-Hereditary/Degen- erative Diseases	330-337	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	1	2	
-Other Disorders of CNS	340-349	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	
-Disorders of Peripheral NS	350-359	1	1	2	2	0	1	1	8	1	2	1	0	2	0	0	2	8	16	
-Disorders of Eye	360-379	0	0	0	0	0	0	1	1	3	0	0	0	2	1	0	6	12	13	
-Diseases of Ear & Mastoid	380-389	2	0	0	0	0	0	1	3	3	0	1	0	3	1	2	3	13	16	
CIRCULATORY SYSTEM	390-459	0	0	0	0	2	0	0	2	0	1	4	4	1	1	0	8	19	21	
-Hypertensive Disease	401-405	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	3	

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

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Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender																	Total
		Women								Men									
		Occupational Group							Total	Occupational Group								Total	
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Unkn- own		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Nucl- ear	Unkn- own		
Diagnostic Category	ICD-9-CM Code																		
-Ischemic Heart Disease	410-414	0	0	0	0	0	0	0	0	0	0	4	1	1	0	0	2	8	8
-Other Heart Disease	420-429	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	2	6	6
-Cerebrovascular Disease	430-438	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1
-Diseases of Arteries & Capillaries	440-448	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1
-Diseases of Veins, Lymphatics, Other	451-459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
RESPIRATORY SYSTEM	460-519	10	3	2	1	2	0	7	25	8	3	4	3	3	3	2	26	52	77
-Acute Respiratory Infections	460-466	0	1	0	0	0	0	3	4	1	1	0	1	1	1	1	6	12	16
-Other Diseases Upper Respiratory Tract	470-478	1	2	1	0	0	0	2	6	1	2	2	0	0	0	1	3	9	15

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

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Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender																Total	
		Women								Men									
		Occupational Group							Total	Occupational Group							Total		
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Unkn- own		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Nucl- ear			Unkn- own
Diagnostic Category	ICD-9-CM Code																		
-Pneumonia and Influenza	480-487	8	0	1	1	1	0	1	12	4	0	2	0	2	1	0	7	16	28
-Chronic Obstructive Diseases	490-496	1	0	0	0	1	0	1	3	2	0	0	1	0	0	0	6	9	12
-Lung Disease from External Agents	500-508	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
-Other Respiratory Diseases	510-519	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	5	5
DIGESTIVE SYSTEM	520-579	6	1	2	1	2	0	4	16	10	7	6	0	4	0	2	21	50	66
-Oral Cavity, Saliv. Glands, Jaw	520-529	0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	0	4	5
-Esophagus, Stomach, Duodenum	530-537	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	5	5
-Appendicitis	540-543	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	3	4	5
-Hernias	550-553	1	0	0	0	0	0	0	1	2	2	2	0	2	0	1	7	16	17
-Enteritis, Colitis	555-558	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	2	3

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

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Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender																		
		Women									Men									
		Occupational Group								Occupational Group										
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Unkn- own		Total	Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor		Nucl- ear		Unkn- own
Diagnostic Category	ICD-9-CM Code																			
-Other Intestinal Diseases	560-569	0	0	1	1	0	0	0	2	2	0	2	0	0	0	0	3	7	9	
-Other Digestive Diseases	570-579	4	0	1	0	2	0	3	10	2	2	2	0	0	0	0	6	12	22	
GENITOURINARY SYSTEM	580-629	9	5	6	1	0	0	3	24	0	0	1	0	1	1	1	4	8	32	
-Other Urinary Diseases	590-599	2	0	1	0	0	0	0	3	0	0	1	0	1	1	1	2	6	9	
-Male Genital Organs	600-608	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	
-Disorders of the Breast	610-611	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
-Other Diseases of Females	617-629	6	5	5	1	0	0	3	20	0	0	0	0	0	0	0	0	0	20	
PREGNANCY & CHILDBIRTH	630-677	18	2	3	1	0	0	1	25	0	0	0	0	0	0	0	0	0	25	
-Ectopic & Molar Pregnancy	630-633	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender															
		Women								Men							
		Occupational Group								Occupational Group							
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Unkn- own	Total	Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Unkn- own	Total
Diagnostic Category	ICD-9-CM Code																
-Other Pregnancy with Abortive Outcome	634-639	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
-Complications of Pregnancy	640-648	2	0	1	0	0	0	0	3	0	0	0	0	0	0	0	3
-Normal Delivery and Care	650-659	14	2	1	1	0	0	1	19	0	0	0	0	0	0	0	19
-Complications of Labor & Delivery	660-669	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
SKIN & SUBCUTANEOUS TISSUE	680-709	1	0	1	0	0	0	0	2	3	0	0	1	0	2	7	9
-Infections	680-686	1	0	1	0	0	0	0	2	3	0	0	1	0	1	0	6
-Other Inflammatory Conditions	690-698	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
MUSCULOSKELETAL SYSTEM	710-739	10	1	3	6	0	0	7	27	16	4	10	3	18	6	1	82
-Arthropathies	710-719	2	0	0	3	0	0	0	5	3	2	4	2	6	0	0	27

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

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Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender																	Total
		Women								Men									
		Occupational Group							Total	Occupational Group								Total	
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Unkn- own		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Nucl- ear	Unkn- own		
Diagnostic Category	ICD-9-CM Code																		
-Dorsopathies	720-724	2	0	0	2	0	0	1	5	9	1	2	1	8	5	0	5	31	36
-Rheumatism, Excluding Back	725-729	5	1	3	1	0	0	5	15	3	1	2	0	4	1	0	8	19	34
-Acquired Deformities	730-739	1	0	0	0	0	0	1	2	1	0	2	0	0	0	1	1	5	7
CONGENITAL ANOMALIES	740-759	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	6	6
SYMPTOMS, SIGNS, & ILL-DEFINED COND.	780-799	1	2	1	3	0	0	2	9	3	3	0	0	1	0	0	5	12	21
-Symptoms	780-789	1	2	1	3	0	0	2	9	3	3	0	0	1	0	0	3	10	19
-Non-Specific Abnormal Findings	790-796	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
INJURY AND POISONING	800-999	7	4	4	6	5	1	6	33	9	6	7	10	7	8	0	35	82	115
-Skull Fractures	800-804	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
-Neck and Trunk Fractures	805-809	1	2	0	0	0	0	0	3	0	0	1	0	0	0	0	0	1	4

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

Diagnostic Category		Gender													
		Women							Men						
		Occupational Group							Occupational Group						
		Admi- nist- rati- ve	Prof- essi- onal	Tech- Serv- ice	Secu- rity	Manu- al Labor	Craf- ts and Unkn- own	Total	Admi- nist- rati- ve	Prof- essi- onal	Tech- Serv- ice	Secu- rity	Manu- al Labor	Nucl- ear	Unkn- own Total
ICD-9-CM Code															
-Upper Limb Fractures	810-819	0	0	0	0	0	0	0	1	0	0	0	0	0	2
-Lower Limb Fractures	820-829	2	2	0	0	0	0	4	1	1	1	0	1	0	8
-Dislocations	830-839	0	0	1	0	0	0	1	0	1	0	0	2	0	6
-Back Sprains & Strains	840-847	2	0	0	2	0	0	5	1	1	1	0	2	0	20
-Other Sprains & Strains	840-845, 848	0	0	1	0	1	0	4	3	3	0	3	4	0	25
-Intracranial Injuries	850-854	0	0	1	0	0	0	1	0	0	0	0	0	0	1
-Open Wound Head, Neck, Trunk	870-879	0	0	0	0	1	0	1	0	0	0	0	0	0	2
-Open Wound Upper Limb	880-887	1	0	0	0	0	0	2	0	0	1	1	0	0	8
-Late Effects	905-909	0	0	0	0	0	0	0	1	0	0	0	0	0	2
-Contusions	920-924	0	0	0	1	0	1	2	1	0	1	0	2	0	9

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

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Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender																	Total
		Women								Men									
		Occupational Group							Total	Occupational Group								Total	
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Unkn- own		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts and Manu- al Labor	Nucl- ear	Unkn- own		
Diagnostic Category	ICD-9-CM Code																		
-Burns	940-949	0	0	0	2	3	0	0	5	0	0	0	4	1	0	0	0	5	10
-Unspecified Injuries	958-959	1	0	1	1	0	0	0	3	0	0	1	0	0	0	0	1	2	5
-Toxic Effects Nonmedical Substances	980-989	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1
-Unspecified Effects External Causes	990-995	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	2	5	5
-Complications of Surgical/Medical Care	996-999	0	0	0	0	0	0	1	1	1	0	1	1	0	0	0	2	5	6
HEALTH STATUS/HEALTH SERVICE CONTACT	V01-V82	0	1	1	2	2	0	1	7	1	0	0	0	4	3	2	6	16	23
-Personal & Family History	V10-V19	0	1	0	0	1	0	0	2	1	0	0	0	3	3	1	4	12	14
-Health Services Reproduction/ Development	V20-V29	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	2

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

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Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender																		
		Women									Men									
		Occupational Group								Occupational Group										
		Admi-nist-rati-ve	Prof-essional	Tech-nical	Serv-ice	Secu-rity	Craf-ts and Manu-al Labor	Unkn-own		Total	Admi-nist-rati-ve	Prof-essional	Tech-nical	Serv-ice	Secu-rity	Craf-ts and Manu-al Labor		Nucl-ear		Unkn-own
Diagnostic Category	ICD-9-CM Code																			
-Health Status	V40-V49	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
-Specific Procedure/ Aftercare	V50-V59	0	0	0	1	1	0	1	3	0	0	0	0	0	0	0	0	1	1	4
-Other Health Services	V60-V69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	
Total		80	21	30	27	13	2	38	211	73	33	41	23	50	27	13	164	424	635	

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

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Appendix I. Total Number of Calendar Days Absent in Each Diagnostic Category by Gender and Occupation*

Diagnostic Category	Gender																	
	Women									Men								
	Occupational Group								Total	Occupational Group								Total
	Admin- istra- tive	Profe- ssion- al	Techn- ical	Servi- ce	Secur- ity	Crafts and Manual Labor	Unkno- wn	Admin- istra- tive		Profe- ssion- al	Techn- ical	Servi- ce	Secur- ity	Crafts and Manual Labor	Nucle- ar	Unkno- wn		
Infectious & Parasitic Diseases	114	0	35	0	0	0	26	175	22	0	545	22	31	0	13	132	765	
Malignant Neoplasms	221	20	0	13	0	0	0	254	118	29	13	0	31	0	19	69	279	
Benign & Other Neoplasms	203	0	94	64	0	0	0	361	115	80	0	9	0	15	19	26	264	
Endocrine & Metabolic Diseases	62	0	20	0	0	0	61	143	29	19	0	0	0	8	0	29	85	
Mental Disorders	22	0	0	0	0	0	0	22	66	254	132	0	0	0	0	0	452	
Nervous System & Sense Organs	50	15	123	165	0	67	161	581	150	117	26	0	169	8	27	239	736	
Circulatory System	0	0	0	0	104	0	0	104	0	79	85	99	22	16	0	106	407	
Respiratory System	79	18	28	8	41	0	97	271	69	21	56	50	20	39	14	311	580	
Digestive System	113	12	49	15	36	0	116	341	134	132	60	0	68	0	26	438	858	
Genitourinary System	229	84	199	13	0	0	98	623	0	0	13	0	11	8	14	62	108	
Pregnancy & Childbirth	807	103	253	71	0	0	44	1278	0	0	0	0	0	0	0	0	0	
Skin & Subcutaneous Tissue	30	0	29	0	0	0	0	59	31	0	0	14	0	25	0	26	96	
Musculoskeletal System	225	51	88	245	0	0	222	831	301	226	631	136	472	255	162	723	2906	
Congenital Anomalies	0	0	0	0	0	0	0	0	162	0	0	0	0	0	0	119	281	
Symptoms, Signs, & Ill-defined Cond.	8	7	28	121	0	0	64	228	58	8	0	0	22	0	0	69	157	
Injury and Poisoning	101	116	63	209	124	13	103	729	180	121	574	180	158	161	0	591	1965	
Health Status/Health Service Contact	0	7	28	53	75	0	25	188	29	0	0	0	51	23	8	136	247	

* Absences with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

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Appendix J. Relative Risk Estimates for Selected Diagnostic Categories Among Five-Day Absences

Diagnostic Category	Administrative 3,522 Person-Years				Professional 1,408 Person-Years				Technical 1,113 Person-Years			
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***
All Diagnostic Categories	92	0.6	0.5	0.8	34	0.7	0.5	1.1	43	1.2	0.9	1.7
Infectious & Parasitic Diseases	7	0.7	0.3	1.8	0				4	1.5	0.5	4.5
Malignant Neoplasms	4	0.9	0.2	3.6	2	1.5	0.3	7.0	1	1.0	0.1	7.2
Benign & Other Neoplasms	5	0.7	0.2	2.3	2	1.0	0.2	4.6	2	1.3	0.3	6.0
Endocrine & Metabolic Diseases	3	0.8	0.2	3.3	1	0.8	0.1	6.5	1	1.1	0.1	9.1
Nervous System & Sense Organs	9	0.6	0.3	1.3	3	0.6	0.2	2.0	4	1.1	0.4	3.1
Circulatory System	0				1	0.5	0.1	4.1	1	0.7	0.1	5.4
Respiratory System	11	0.5	0.2	0.9	4	0.5	0.2	1.5	6	1.1	0.5	2.5
Digestive System	11	0.6	0.3	1.1	6	1.0	0.4	2.2	7	1.5	0.7	3.4
Genitourinary System	7	0.6	0.2	1.5	3	1.1	0.3	3.5	5	2.2	0.8	6.0
Skin & Subcutaneous Tissue	4	2.0	0.5	7.7	0				1	1.2	0.1	9.8
Musculoskeletal System	19	0.6	0.4	1.0	4	0.4	0.1	1.0	10	1.3	0.7	2.6
Symptoms, Signs, & Ill-defined Conditions	4	0.5	0.2	1.5	2	0.9	0.2	4.2	1	0.6	0.1	4.2
Injury & Poisoning	16	0.4	0.3	0.8	8	0.7	0.4	1.5	8	0.9	0.4	1.9
Lower Limb Fractures	3	1.0	0.2	3.9	3	4.6	1.2	17.9	1	1.4	0.2	10.9
Back Sprains & Strains	3	0.4	0.1	1.3	1	0.4	0.1	3.4	1	0.5	0.1	4.1
Other Sprains & Strains	3	0.4	0.1	1.3	3	1.1	0.3	3.7	1	0.5	0.1	3.5
Open Wound Upper Limb	1	0.4	0.04	3.3	0				1	1.3	0.2	10.6
Contusion	1	0.3	0.04	2.5	0				1	1.4	0.2	11.6

* Persons with multiple absences during the time period were counted only once.

** RR= Relative Risk. Adjusted for age and gender; compared with all occupational categories.

***CI= Confidence Limit.

(CONTINUED)

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Appendix J. Relative Risk Estimates for Selected Diagnostic Categories Among Five-Day Absences

Diagnostic Category	Service 384 Person-Years				Security 558 Person Years				Crafts and Manual Labor 253 Person-Years			
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***
All Diagnostic Categories	31	2.6	1.8	3.8	35	2.2	1.5	3.1	16	2.2	1.3	3.6
Infectious & Parasitic Diseases	1	1.0	0.1	7.8	3	2.2	0.7	7.2	0			
Malignant Neoplasms	1	3.0	0.4	23.5	1	2.2	0.2	19.4	0			
Benign & Other Neoplasms	4	10.2	3.2	32.4	0				1	4.0	0.5	31.9
Endocrine & Metabolic Diseases	0				0				1	5.8	0.7	48.3
Nervous System & Sense Organs	2	1.5	0.4	6.4	4	2.3	0.8	6.6	2	2.6	0.6	10.7
Circulatory System	4	10.8	3.4	34.8	2	2.9	0.6	12.7	1	2.8	0.4	21.8
Respiratory System	4	2.1	0.8	5.8	4	1.5	0.5	4.0	3	2.6	0.8	8.5
Digestive System	1	0.6	0.1	4.2	5	2.3	0.9	5.7	0			
Genitourinary System	1	1.4	0.2	9.9	1	1.2	0.2	8.6	1	3.2	0.4	24.7
Skin & Subcutaneous Tissue	1	3.4	0.4	27.2	0				1	5.5	0.7	45.2
Musculoskeletal System	6	2.2	1.0	5.2	13	3.8	2.0	7.0	5	3.0	1.2	7.3
Symptoms, Signs, & Ill-defined Conditions	3	6.2	1.7	21.6	1	1.4	0.2	11.4	0			
Injury & Poisoning	12	4.3	2.4	8.0	8	1.9	0.9	3.9	6	3.2	1.4	7.5
Lower Limb Fractures	0				1	3.4	0.4	27.9	0			
Back Sprains & Strains	3	5.4	1.6	18.5	0				2	5.5	1.2	24.3
Other Sprains & Strains	3	4.4	1.3	15.2	4	3.8	1.3	11.2	0			
Open Wound Upper Limb	1	4.2	0.5	32.9	0				0			
Contusion	1	4.1	0.5	33.9	0				2	13.8	2.9	65.4

* Persons with multiple absences during the time period were counted only once.

** RR= Relative Risk. Adjusted for age and gender; compared with all occupational categories.

***CI= Confidence Limit.

(CONTINUED)

INL 1995

Appendix J. Relative Risk Estimates for Selected Diagnostic Categories Among Five-Day Absences

Diagnostic Categories	Nuclear 463 Person-Years				Unknown 4,114 Person-Years				Total Persons with 1+ Event
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	
All Diagnostic Categories	6	0.4	0.2	1.0	122	1.0	0.8	1.2	379
Infectious & Parasitic Diseases	1	0.9	0.1	6.6	13	1.7	0.8	3.6	29
Malignant Neoplasms	1	2.5	0.3	19.4	2	0.4	0.1	2.0	12
Benign & Other Neoplasms	1	2.4	0.3	18.5	1	0.1	0.02	1.3	16
Endocrine & Metabolic Diseases	0				4	1.5	0.4	5.5	10
Nervous System & Sense Organs	2	1.4	0.3	6.1	13	1.0	0.5	2.0	39
Circulatory System	0				6	1.1	0.4	3.2	15
Respiratory System	1	0.5	0.1	3.4	26	1.6	1.0	2.8	59
Digestive System	2	0.9	0.2	3.8	21	1.2	0.7	2.2	53
Genitourinary System	1	1.4	0.2	10.7	6	0.8	0.3	1.9	25
Skin & Subcutaneous Tissue	0				2	0.5	0.1	2.8	9
Musculoskeletal System	1	0.3	0.04	2.2	26	0.9	0.6	1.4	84
Symptoms, Signs, & Ill-defined Conditions	0				7	1.4	0.6	3.8	18
Injury & Poisoning	0				34	1.2	0.8	1.8	92
Lower Limb Fractures	0				0				8
Back Sprains & Strains	0				9	1.8	0.7	4.5	19
Other Sprains & Strains	0				8	1.1	0.5	2.6	22
Open Wound Upper Limb	0				5	2.9	0.7	12.1	8
Contusion	0				3	1.2	0.3	5.6	8

* Persons with multiple absences during the time period were counted only once.

** RR= Relative Risk. Adjusted for age and gender; compared with all occupational categories.

***CI= Confidence Limit.

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Appendix K: Occupational Sentinel Health Events (SHEO)

The following two tables list the disease conditions that have been identified as definitely SHEOs or as possibly SHEOs, respectively (Rutstein, D.D., et al., Sentinel Health Events [Occupational]: A Basis for Physician Recognition and Public Health Surveillance, *American Journal of Public Health*, 1983, 73[9]:1054-1062). To make these categories more meaningful to the DOE workplace environment, these two SHEO categories have been evaluated taking into account workplace exposures in the DOE complex to define two additional groups of health conditions called *production* and *nonproduction*. These are designated in the last column of each table, labeled *DOE Complex Exposure Potential*. Each group is defined as follows:

Production: Disease conditions that can result from exposures that may occur during production or cleanup activities within the DOE complex. Twenty-two conditions are included in this group.

Nonproduction: Disease conditions that can be related to occupations within the DOE complex but not exposures related to production or cleanup activities. There are 11 conditions in this group.

Conditions for which neither designation has been assigned may occur in the work force but are less likely to be related to exposures in the DOE complex than those conditions with a designation of *production or nonproduction*.

Health Conditions - Definitely SHEOs		
ICD-9	Condition	DOE Complex Exposure Potential
155	Hemangiosarcoma of the liver	
158, 163	Mesothelioma (MN of peritoneum and pleura)	Production
187.7	Malignant neoplasm of scrotum	Production
354M	Carpal tunnel syndrome	Nonproduction
354.0	Mononeuritis of upper limb and mononeuritis multiplex	
495.4	Maltworker's lung	
495.5	Mushroom worker's lung	
495.8	Grain handler's lung, Sequoiosis	
495.9	Unspecified allergic alveolitis	
500	Coalworker's pneumoconiosis	
501	Asbestosis	Production
502	Silicosis, Talcosis	Production
503	Chronic beryllium disease of the lung	
504	Byssinosis	
506.0	Acute bronchitis, pneumonitis, and pulmonary edema due to fumes and vapors	Nonproduction

(CONTINUED)

Health Conditions - <i>Possibly SHEOs</i>		
ICD-9	Condition	DOE Complex Exposure Potential
011	Pulmonary tuberculosis	
011,502	Silicotuberculosis	Production
020	Plague	
021	Tularemia	
022	Anthrax	
023	Brucellosis	
031.1	Fish-fancier's finger	
054.6	Herpetic whitlow	
037	Tetanus	Nonproduction
042	Human immunodeficiency virus	
056	Rubella	
070.0, 070.1	Hepatitis A	
070.2, 070.3	Hepatitis B	
070.4	Non-A, non-B hepatitis	
071	Rabies	Nonproduction
073	Ornithosis	
082.0	Rocky Mountain spotted fever	
100.8	Leptospirosis	
115	Histoplasmosis	Nonproduction
117.1	Sporotrichosis	
147	Malignant neoplasm of nasopharynx	Nonproduction
160.0	Malignant neoplasm of nasal cavities	Nonproduction
161	Malignant neoplasm of larynx	Production
162	Malignant neoplasm of trachea, bronchus, and lung	Production
170	Malignant neoplasm of bone	Production

(CONTINUED)

Health Conditions - <i>Possibly SHEOs (continued)</i>		
ICD-9	Condition	DOE Complex Exposure Potential
188	Malignant neoplasm of bladder	Production
189	Malignant neoplasm of kidney, other, and unspecified urinary organs	Nonproduction
204.0	Acute lymphoid leukemia	Production
205.0	Acute myeloid leukemia	Production
207.0	Erythroleukemia	Production
283.1	Hemolytic anemia, nonautoimmune	
284.8	Aplastic anemia	Production
288.0	Agranulocytosis or neutropenia	Production
289.7	Methemoglobinemia	Nonproduction
323.7	Toxic encephalitis	Production
332.1	Parkinson's disease (secondary)	
334.3	Cerebellar ataxia	Production
357.7	Inflammatory and toxic neuropathy	Production
366.4	Cataract	Production
388.11	Noise effects on inner ear	Production
443.0	Raynaud's phenomenon (secondary)	Nonproduction
493.0, 507.8	Extrinsic asthma	Nonproduction
570, 573.3	Toxic hepatitis	Production
584, 585	Acute or chronic renal failure	Production
606	Infertility, male	
692	Contact and allergic dermatitis	Production
733.9	Skeletal fluorosis	

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OSHA DATA

Appendix L. Number of Workers with at Least One OSHA Event by Gender, Age, and Occupation

	Gender												
	Women						Men						
	Age Group						Age Group						
	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	Total
Occupational Group													
Administrative	1	2	5	4	1	13	0	3	2	1	0	6	19
Professional	1	0	2	0	0	3	0	0	1	0	0	1	4
Technical	1	1	3	0	0	5	1	8	6	1	1	17	22
Service	0	0	2	1	0	3	2	3	1	0	0	6	9
Security	0	0	0	0	0	0	0	5	2	0	0	7	7
Crafts and Manual Labor	0	0	0	0	0	0	0	2	2	1	0	5	5
Nuclear	0	0	0	0	0	0	0	0	1	0	0	1	1
Unknown	4	2	4	2	0	12	6	24	27	9	3	69	81
Total	7	5	16	7	1	36	9	45	42	12	4	112	148

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OSHA DATA

Age Group	Gender								
	Women			Men			Total		
	# of Events	Days Restr- icted	Days Lost	# of Events	Days Restr- icted	Days Lost			
16 - 29	7	220	300	9	620	0	16	840	300
30 - 39	5	20	0	46	3230	520	51	3250	520
40 - 49	16	410	290	45	2460	600	61	2870	890
50 - 59	7	370	160	12	810	10	19	1180	170
60 +	1	0	0	4	140	590	5	140	590
Total	36	1020	750	116	7260	1720	152	8280	2470

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OSHA DATA

Appendix N. Total Number of Workdays Lost or with Restricted Activity from OSHA Events by Gender and Occupation

	Gender						Total		
	Women			Men					
	# of Events	Days Restr- icted	Days Lost	# of Events	Days Restr- icted	Days Lost	# of Events	Days Restr- icted	Days Lost
Occupational Group									
Administrative	13	90	60	6	0	50	19	90	110
Professional	3	90	160	1	0	0	4	90	160
Technical	5	60	240	17	1200	220	22	1260	460
Service	3	10	180	7	170	50	10	180	230
Security	0	0	0	7	110	400	7	110	400
Crafts and Manual Labor	0	0	0	5	690	40	5	690	40
Nuclear	0	0	0	1	20	0	1	20	0
Unknown	12	770	110	72	5070	960	84	5840	1070
Total	36	1020	750	116	7260	1720	152	8280	2470

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OSHA DATA

Appendix O. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Gender												Total
		Women						Men						
		Age Group					Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
NERVOUS SYSTEM & SENSE ORGANS	320-389	1	2	3	2	0	8	1	6	1	3	0	11	19
-Disorders of Peripheral NS	350-359	1	2	3	2	0	8	1	5	1	3	0	10	18
-Disorders of Eye	360-379	0	0	0	0	0	0	0	1	0	0	0	1	1
RESPIRATORY SYSTEM	460-519	0	0	1	0	0	1	0	2	2	0	0	4	5
-Other Diseases Upper Respiratory Tract	470-478	0	0	0	0	0	0	0	2	0	0	0	2	2
-Chronic Obstructive Diseases	490-496	0	0	1	0	0	1	0	0	1	0	0	1	2
-Other Respiratory Diseases	510-519	0	0	0	0	0	0	0	0	1	0	0	1	1
DIGESTIVE SYSTEM	520-579	0	0	0	0	0	0	0	0	1	0	0	1	1
-Hernias	550-553	0	0	0	0	0	0	0	0	1	0	0	1	1
SKIN & SUBCUTANEOUS TISSUE	680-709	0	0	0	0	0	0	0	0	1	0	0	1	1

* Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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OSHA DATA

Appendix O. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Gender												
		Women						Men						
		Age Group						Age Group						
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	Total
Diagnostic Category	IOD-9-CM Code													
-Other Inflammatory Conditions	690-698	0	0	0	0	0	0	0	0	0	1	0	0	1
MUSCULOSKELETAL SYSTEM	710-739	0	0	1	0	0	1	0	0	0	1	0	0	2
-Rheumatism, Excluding Back	725-729	0	0	1	0	0	1	0	0	0	1	0	0	2
SYMPTOMS, SIGNS, & ILL-DEFINED COND.	780-799	0	1	1	0	0	2	0	0	1	2	0	0	5
-Symptoms	780-789	0	1	1	0	0	2	0	0	1	2	0	0	5
INJURY AND POISONING	800-999	6	2	10	5	1	24	8	38	40	9	4	99	123
-Upper Limb Fractures	810-819	0	0	1	0	0	1	0	0	0	0	0	0	1
-Back Sprains & Strains	846-847	2	0	5	3	0	10	1	12	10	2	2	27	37
-Other Sprains & Strains	840-845, 848	0	2	0	1	1	4	0	11	15	3	0	29	33
-Open Wound Head, Neck, Trunk	870-879	0	0	1	0	0	1	3	3	3	1	0	10	11

* Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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OSHA DATA

Appendix O. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Gender												
		Women						Men						
		Age Group						Age Group						
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
-Open Wound Upper Limb	880-887	1	0	0	0	0	1	1	4	4	0	1	10	11
-Superficial Injury	910-919	1	0	0	0	0	1	1	0	1	1	0	3	4
-Contusion	920-924	1	0	1	1	0	3	2	6	2	2	1	13	16
-Foreign Body Entering Orifice	930-939	0	0	0	0	0	0	0	1	1	0	0	2	2
-Burns	940-949	0	0	1	0	0	1	0	1	2	0	0	3	4
-Unspecified Injuries	958-959	1	0	0	0	0	1	0	0	0	0	0	0	1
-Unspecified Effects External Causes	990-995	0	0	1	0	0	1	0	0	2	0	0	2	3
Total		7	5	16	7	1	36	9	47	48	12	4	120	156

* Only those diagnostic categories with at least one occurrence appear in this table.

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OSHA DATA

Appendix P. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Age*

		Gender																			
		Women										Men									
		Age Group										Age Group									
		16 - 29		30 - 39		40 - 49		50 - 59		60 +		16 - 29		30 - 39		40 - 49		50 - 59		60 +	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diagnostic Category	ICD-9-CM Codes																				
-Disorders of Peripheral NS	350-359	0	0	0	0	90	100	0	0	0	0	140	0	780	110	0	0	480	0	0	0
-Chronic Obstructive Diseases	490-496	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Respiratory Diseases	510-519	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
-Hernias	550-553	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0
-Symptoms	780-789	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	50	0	0	0	0
-Back Sprains & Strains	846-847	170	110	0	0	110	80	230	160	0	0	30	0	1120	280	600	210	110	0	130	580
-Other Sprains & Strains	840-845, 848	0	0	20	0	0	0	140	0	0	0	0	0	730	90	540	140	150	0	0	0
-Open Wound Head, Neck, Trunk	870-879	0	0	0	0	0	0	0	0	0	0	410	0	0	40	0	0	0	0	0	0

* OSHA events with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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OSHA DATA

Appendix P. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Age*

		Gender																			
		Women										Men									
		Age Group										Age Group									
		16 - 29		30 - 39		40 - 49		50 - 59		60 +		16 - 29		30 - 39		40 - 49		50 - 59		60 +	
		Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost
Diagnostic Category	ICD-9-CM Codes																				
-Open Wound Upper Limb	880-887		0	0	0	0	0	0	0	0	0	0	0	0	70	0	110	0	0	0	0
-Superficial Injury	910-919		0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0	0
-Contusion	920-924		50	190	0	0	210	0	0	0	0	0	40	0	530	0	1090	90	0	10	10
-Burns	940-949		0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0
-Unspecified Effects External Causes	990-995		0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	60	0	0	0

* OSHA events with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories with at least one occurrence appear in this table.

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OSHA DATA

**Appendix Q. Number of Occurrences in Each Accident
Category by Gender and Age***

		Gender	
		Men	
		Age Group	Total
		40 - 49	
Type of Accident	E Codes		
Submersion/ Suffocation/ Foreign Bodies	E910-E915	1	1

* Only the accident type and gender/age combination
with at least one occurrence appear in this table.

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OSHA DATA

Appendix R. Number of Workdays Lost or with Restricted Activity for Each Accident Category by Gender and Age*

		Gender	
		Men	
		Age Group	
		40 - 49	
		Days Rest- rict- ed	Days Lost
Type of Accident	E Codes	0	0
Submersion/ Suffocation/ Foreign Bodies	E910-E915		

* OSHA events with >1 E Code in the same accident type were counted only once. Only the accident type and gender/age combination with at least one occurrence appear in this table.

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OSHA DATA

Appendix S. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender															
		Women						Men									
								Occupational Group									
		Occupational Group					Total	Admi-nist-rati-ve	Prof-essi-onal	Tech-nical	Serv-ice	Secu-rity	Craf-ts and Manu-al Labor	Nucl-ear	Unkn-own	Total	
		Admi-nist-rati-ve	Prof-essi-onal	Tech-nical	Serv-ice	Unkn-own											
Diagnostic Category	ICD-9-CM Code																
NERVOUS SYSTEM & SENSE ORGANS	320-389	6	1	0	0	1	8	0	1	4	1	1	0	0	4	11	
-Disorders of Peripheral NS	350-359	6	1	0	0	1	8	0	1	4	1	0	0	0	4	10	
-Disorders of Eye	360-379	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
RESPIRATORY SYSTEM	460-519	0	0	1	0	0	1	0	0	0	1	1	0	0	2	4	
-Other Diseases Upper Respiratory Tract	470-478	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	
-Chronic Obstructive Diseases	490-496	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	
-Other Respiratory Diseases	510-519	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
DIGESTIVE SYSTEM	520-579	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
-Hernias	550-553	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

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OSHA DATA

Appendix S. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

Diagnostic Category		Gender											
		Women						Men					
		Occupational Group						Occupational Group					
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Unkn- own	Total	Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Craf- ts and Manu- al Labor	Unkn- own
ICD-9-CM Code													
SKIN & SUBCUTANEOUS TISSUE	680-709	0	0	0	0	0	0	0	0	0	0	0	1
-Other Inflammatory Conditions	690-698												
MUSCULOSKELETAL SYSTEM	710-739	0	0	1	0	0	1	0	0	0	0	0	1
-Rheumatism, Excluding Back	725-729	0	0	1	0	0	1	0	0	0	0	0	1
SYMPTOMS, SIGNS, & ILL-DEFINED COND.	780-799	0	1	0	0	1	2	0	0	1	0	0	2
-Symptoms	780-789	0	1	0	0	1	2	0	0	1	0	0	2
INJURY AND POISONING	800-999	7	1	3	3	10	24	6	0	13	5	6	63
-Upper Limb Fractures	810-819	0	0	0	0	1	1	0	0	0	0	0	0

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

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OSHA DATA

Appendix S. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender															
		Women							Men								
									Occupational Group								
		Occupational Group					Total	Admi-nist-rati-ve	Prof-essional	Tech-nical	Serv-ice	Secu-rity	Craf-ts and Manu-al Labor	Nucl-ear	Unkn-own		
		Admi-nist-rati-ve	Prof-essional	Tech-nical	Serv-ice	Unkn-own											
Diagnostic Category	ICD-9-CM Code																
-Back Sprains & Strains	846-847	4	0	1	2	3	10	0	0	3	2	1	3	0	18	27	
-Other Sprains & Strains	840-845, 848	1	0	1	0	2	4	2	0	3	1	4	0	0	19	29	
-Open Wound Head, Neck, Trunk	870-879	1	0	0	0	0	1	2	0	0	1	1	0	0	6	10	
-Open Wound Upper Limb	880-887	0	0	0	0	1	1	0	0	3	1	0	0	0	6	10	
-Superficial Injury	910-919	0	0	0	0	1	1	0	0	0	0	0	1	0	2	3	
-Contusion	920-924	1	0	1	0	1	3	2	0	2	0	0	1	0	8	13	
-Foreign Body Entering Orifice	930-939	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
-Burns	940-949	0	0	0	1	0	1	0	0	2	0	0	0	0	1	3	
-Unspecified Injuries	958-959	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

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OSHA DATA

Appendix S. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Gender														
		Women							Men							
									Occupational Group							
		Occupational Group					Total	Admi-nist-rati-ve	Prof-essi-onal	Tech-nical	Serv-ice	Secu-rity	Craf-ts and Manu-al Labor	Nucl-ear	Unkn-own	Total
		Admi-nist-rati-ve	Prof-essi-onal	Tech-nical	Serv-ice	Unkn-own										
Diagnostic Category	ICD-9-CM Code															
-Unspecified Effects External Causes	990-995	0	0	0	0	1	1	0	0	0	0	0	0	1	1	2
Total		13	3	5	3	12	36	6	1	18	7	8	5	1	74	120

* Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

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OSHA DATA

Appendix T. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Occupation*

		Gender																																	
		Women										Men																							
												Occupational Group																							
		Occupational Group										Administ- rative		Professi- onal		Technical		Service		Security		Crafts and Manual Labor		Nuclear		Unknown									
		Administ- rative		Professi- onal		Technical		Service		Unknown																									
		Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost								
		Diagnos- tic Category	ICD-9-CM Codes																																
-Disord- ers of Periphe- ral NS	350-359	0	0	90	100	0	0	0	0	0	0	0	0	0	0	730	110	140	0	0	0	0	0	0	0	0	0	0	0	530	0				
-Chronic Obstruc- tive Diseases	490-496	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
-Other Respira- tory Diseases	510-519	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50		
-Hernias	550-553	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0			
-Sympto- ms	780-789	0	0	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50		

* OSHA events with >1 ICD-9-CM Code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

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OSHA DATA

Appendix T. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Occupation*

		Gender																									
		Men																									
		Occupational Group																									
		Women										Occupational Group															
		Occupational Group					Occupational Group					Occupational Group				Occupational Group											
		Administ- rative		Professi- onal		Technical		Service		Unknown		Administ- rative		Professi- onal		Technical		Service		Security		Crafts and Manual Labor		Nuclear		Unknown	
Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost	Days Res- tri- cted Lost		
Diagnos- tic Category	ICD-9-CM Codes																										
-Back Sprains & Strains	846-847	90	60	0	0	10	0	180	400	110	0	0	0	130	30	20	50	110	210	180	40	0	0	1550	740		
-Other Sprains & Strains	840-845, 848	0	0	0	0	0	0	0	160	0	0	0	0	240	30	0	0	0	190	0	0	0	0	0	1180	10	
-Open Wound Head, Neck, Trunk	870-879																										
-Open Wound Upper Limb	880-887	0	0	0	0	0	0	0	0	0	40	0	0	0	0	10	0	0	0	0	0	0	0	0	400	0	

* OSHA events with >1 ICD-9-CM Code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

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OSHA DATA

Appendix T. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Occupation*

		Gender																																			
		Women										Men																									
												Occupational Group																									
		Occupational Group										Administ- rative		Professi- onal		Technical		Service		Unknown		Administ- rative		Professi- onal		Technical		Service		Security		Crafts and Manual Labor		Nuclear		Unknown	
		Administ- rative		Professi- onal		Technical		Service		Unknown																											
		Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost						
Diagnos- tic Category	ICD-9-CM Codes																																				
-Superf- icial Injury	910-919	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	0					
-Contus- ion	920-924	0	0	0	0	50	190	0	0	210	0	0	10	0	0	100	0	0	0	0	0	0	510	0	0	0	0	1060	100								
-Burns	940-949	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
-Unspec- ified Effects External Causes	990-995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	60						

* OSHA events with >1 ICD-9-CM Code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

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 Appendix U. Number of Occurrences in Each Accident
 Category by Gender and Occupation*

		Gender	
		Men	
		Occu- pati- onal Group	Total
		Unkn- own	
Type of Accident	E Codes		
Submersion/ Suffocation/ Foreign Bodies	E910-E915	1	1

* Only the accident type and gender/occupational combination with at least one occurrence appear in this table.

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Appendix V: Number of Workdays Lost or With Restricted Activity in Each Accident Category by Gender and Occupation*

		Gender	
		Men	
		Occupational Group	
		Unknown	
		Days Res-tri-cted	Days Lost
Type of Accident	E Codes		
Submersion/ Suffocation/ Foreign Bodies	E910-E915	0	0

* Only the accident type and gender/occupational combination with at least one occurrence appear in this table.

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Appendix W. Relative Risk Estimates for Selected Diagnostic Categories Among OSHA Events

Diagnostic Category	Administrative 3,522 Person-Years				Professional 1,408 Person-Years				Technical 1,113 Person-Years			
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***
All Diagnostic Categories	19	0.3	0.2	0.5	4	0.2	0.1	0.6	22	1.6	1.0	2.5
Nervous System & Sense Organs	6	0.9	0.3	2.9	2	0.9	0.2	3.9	4	2.4	0.8	7.1
Injury & Poisoning	13	0.3	0.2	0.5	1	0.1	0.01	0.5	15	1.4	0.8	2.3
Back Sprains & Strains	4	0.2	0.1	0.7	0				4	1.1	0.4	3.3
Other Sprains & Strains	3	0.3	0.1	0.9	0				4	1.5	0.5	4.3
Open Wound Head, Neck, Trunk	3	1.3	0.3	5.6	0				0			
Open Wound Upper Limb	0				0				3	3.4	0.9	12.2
Contusion	3	0.6	0.2	2.3	0				3	2.1	0.6	7.2

Diagnostic Category	Service 384 Person-Years				Security 558 Person-Years				Crafts and Manual Labor 253 Person-Years			
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***
All Diagnostic Categories	9	1.8	0.9	3.6	7	0.9	0.4	1.9	5	1.6	0.6	3.8
Nervous System & Sense Organs	1	1.6	0.2	12.2	1	1.1	0.1	8.6	0			
Injury & Poisoning	7	1.8	0.8	3.8	6	1.0	0.4	2.2	5	1.9	0.8	4.8
Back Sprains & Strains	4	3.4	1.2	9.7	1	0.5	0.1	3.8	3	4.2	1.3	13.8
Other Sprains & Strains	1	0.9	0.1	6.8	4	2.7	0.9	8.0	0			
Open Wound Head, Neck, Trunk	1	2.6	0.3	20.9	1	1.7	0.2	12.8	0			
Open Wound Upper Limb	1	2.8	0.4	22.6	0				0			
Contusion	0				0				1	2.9	0.4	22.5

* Persons with multiple absences during the time period were counted only once.

** RR= Relative Risk. Adjusted for age and gender; compared with all occupational categories.

***CI= Confidence Limit.

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Appendix W. Relative Risk Estimates for Selected Diagnostic Categories Among OSHA Events

Diagnostic Categories	Nuclear 463 Person-Years				Unknown 4,114 Person-Years				Total Persons with 1+ Event
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	
All Diagnostic Categories	1	0.2	0.02	1.2	81	2.3	1.7	3.3	148
Nervous System & Sense Organs	0				5	0.8	0.3	2.1	19
Injury & Poisoning	1	0.2	0.03	1.5	70	2.7	1.9	4.0	118
Back Sprains & Strains	0				21	2.7	1.4	5.4	37
Other Sprains & Strains	0				19	2.9	1.4	6.0	31
Open Wound Head, Neck, Trunk	0				6	1.9	0.6	6.5	11
Open Wound Upper Limb	0				7	2.9	0.8	9.9	11
Contusion	0				9	2.3	0.8	6.4	16

* Persons with multiple absences during the time period were counted only once.

** RR= Relative Risk. Adjusted for age and gender; compared with all occupational categories.

***CI= Confidence Limit.