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Current Trends

Changes in the Cigarette Brand Preferences of Adolescent Smokers — United States, 1989–1993

Approximately three million U.S. adolescents are smokers, and they smoke nearly one billion packs of cigarettes each year (1). The average age at which smokers try their first cigarette is $14^{1}/_{2}$ years, and approximately 70% of smokers become regular smokers by age 18 years (2). Evaluating the changes in the brand preferences of young smokers can help identify factors that influence adolescents' brand choice and may suggest smoking-prevention strategies (3,4). This report examines changes in the brand preferences of teenaged smokers from 1989 to 1993 using data from CDC's 1993 Teenage Attitudes and Practices Survey (TAPS-II) and comparing them with data from the 1989 TAPS.

For TAPS, data on knowledge, attitudes, and practices regarding tobacco use were collected from a national household sample of adolescents (aged 12–18 years) by telephone interviews. For TAPS-II, interviews were conducted during February–May 1993. Of the 9135 respondents to the 1989 TAPS, 7960 (87.1%) participated in TAPS-II (respondents were aged 15–22 years when TAPS-II was conducted).* In addition, 4992 (89.3%) persons from a new probability sample (n=5590 persons aged 10–15 years) participated in TAPS-II. Data for the 12–18-year-olds in each survey were analyzed (n=9135 for TAPS; n=7311 for TAPS-II). Because numbers for other racial groups were too small for meaningful analysis, data are presented for black, white, and Hispanic adolescents only. Data were weighted to provide national estimates, and confidence intervals (CIs) were calculated by using the standard errors estimated by SUDAAN (5). Adolescent current smokers[†] were asked if they usually bought their own cigarettes, and if so, which brand they usually bought.

Of the 1031 current smokers aged 12–18 years interviewed in 1993, 724 (70%) reported that they usually bought their own cigarettes; the brand they usually bought was ascertained for 702 (97%). Marlboro, Camel, and Newport were the most fre-

^{*}TAPS respondents who completed the survey by mail questionnaire were not eligible for the TAPS-II survey. TAPS-II included household interviews of persons who did not respond by telephone.

[†]Adolescents who reported smoking cigarettes on 1 or more of the 30 days preceding the survey.

TABLE 1. Percentage* distribution of cigarette brands usually bought by current smokers† aged 12–18 years who reported usually buying their own cigarettes, by demographic characteristic — United States, Teenage Attitudes and Practices Survey-II, 1993, and overall cigarette brand market shares, § 1993

							Perc	entage								
		Marlboro	Camel	Newport	w	inston		Kool	5	Salem	Virgi	inia Slims		enson & ledges	Othe	er brands
Characteristic	No.	% (95% CI [¶])	% (95% CI)	% (95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Sex																
Male Female	370 332	59.2 (± 6.0) 60.7 (± 5.8)	16.1 (± 5.0) 10.3 (æ 3.0)	10.7 (± 3.2) 14.7 (æ 3.9)	1.6 0.7	(±1.5) (±1.0)	2.3 0	(± 2.0)	0.4 1.7	(±0.5) (±1.4)	0 2.0	(±1.9)	0.6 0	(±0.8)	9.1 9.9	(±3.3) (±3.9)
Race** White Black	646 45	63.5 (± 4.3) 8.5 (± 8.5)	14.4 (± 3.1) 0	8.7 (± 2.4) 70.4 (±14.1)	1.2 0	(±1.0)	0.5 11.9	(± 0.8) (±10.9)	1.0 1.4	(±0.8) (±2.7)	1.0 0.5	(±1.0) (±1.0)	0.2 1.7	(±0.4) (±3.3)	9.4 5.5	(±2.8) (±6.0)
Ethnicity ^{††} Hispanic Non-Hispanic	50 647	45.4 (±14.9) 60.9 (± 4.3)	10.1 (± 7.7) 13.6 (± 3.1)	34.0 (±15.1) 11.0 (± 2.5)	6.0 0.8	(±8.1) (±0.7)	4.5 0.9	(± 8.6) (± 0.8)	0 1.1	(±0.8)	0 1.1	(±1.0)	0 0.3	(±0.4)	0 10.4	(±2.9)
Age (yrs) 12–15 16–18	140 562	49.5 (± 9.2) 63.1 (± 4.4)	13.0 (± 7.1) 13.4 (± 3.0)	19.4 (± 6.9) 10.6 (± 2.6)	2.8 0.7	(±3.1) (±0.7)	3.7 0.4	(± 3.8) (± 0.6)	0.4 1.2	(±0.7) (±0.9)	0.1 1.2	(±0.3) (±1.2)	0 0.4	(±0.5)	11.1 9.0	(±5.3) (±2.9)
Region ^{§§}																
Northeast Midwest South West	146 223 217 116	54.1 (±10.7) 61.6 (± 6.7) 67.1 (± 6.5) 50.3 (±10.6)	5.1 (± 3.6) 15.0 (± 4.6) 9.5 (± 3.9) 27.1 (±10.8)	30.1 (± 8.8) 11.6 (± 4.8) 8.0 (± 3.1) 3.2 (± 3.1)	0.6 0.9 0.9 2.6	(±1.2) (±1.3) (±1.3) (±3.6)	0 1.2 1.5 2.0	(± 1.8)	0.6 2.4 0.6 0	(±1.3) (±1.9) (±1.2)	1.8 0.8 1.0 0.2	(±2.5) (±1.1) (±2.0) (±0.4)	0 0.4 0.5 0	(±0.7) (±1.1)	7.6 6.1 10.7 14.7	(±6.5) (±4.1) (±4.4) (±7.4)
Total	702	60.0 (± 4.2)	13.3 (± 2.9)	12.7 (± 2.7)	1.2	(±0.9)	1.2	(± 1.0)	1.0	(±0.7)	1.0	(±0.9)	0.3	(±0.4)	9.5	(±2.6)
Overall market share, 1993 [§]		23.5	3.9	4.8	6.7		3.0		3.9		2.3		2.5		49.4	

^{*}Percentages and confidence intervals are based on weighted data.

[†] Adolescents who reported smoking cigarettes on 1 or more of the 30 days preceding the survey.

Source: reference 8; based on total estimated brand-specific cigarette sales in the United States.

[¶]Confidence interval.

^{**}Excludes the category "other" (n=11); numbers for these racial groups were too small for meaningful analysis.

††Excludes five persons for whom ethnicity was unknown.

Northeast=Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; Midwest=Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; South=Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; and West=Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Adolescent Smokers — Continued

quently purchased brands for 86% of the adolescents (Table 1). Marlboro was the most commonly purchased brand for both male (59% [95% Cl=±6.0%]) and female (61% [95% Cl=±5.8%]) adolescents; the second most commonly purchased brand among males was Camel (16% [95% Cl=±5.0%]) and among females was Newport (15% [95% Cl=±3.9%]). Marlboro was the most commonly purchased brand among white (64% [95% Cl=±4.3%]) and Hispanic (45% [95% Cl=±14.9%]) adolescents; black adolescents most frequently purchased Newport (70% [95% Cl=±14.1%]). Younger smokers (aged 12–15 years) were more likely than older smokers (aged 16–18 years) to buy Newport and less likely to buy Marlboro; purchasing frequency for Camel cigarettes was similar among all adolescents.

Among adolescents nationwide, Marlboro was the most commonly purchased brand (Table 1). However, by region[§], Camel was most commonly purchased in the West (27% [95% CI=±10.8%]), and Newport, in the Northeast (30% [95% CI=±8.8%]).

From 1989 to 1993, substantial changes in brand preference occurred among adolescents (Table 2). The percentage of adolescents purchasing Marlboro cigarettes decreased 8.7 percentage points (13% decrease), the percentage of adolescents purchasing Camel cigarettes increased 5.2 percentage points (64% increase), and the percentage purchasing Newport cigarettes increased 4.5 percentage points (55% increase). These changes did not completely correlate with changes in overall cigarette market share during 1989–1993. During this period, the overall market share for Camel and Newport remained nearly unchanged, but the overall market share for Marlboro decreased by 2.8 percentage points (11% decrease).

For Marlboro cigarettes, the decreases in brand preference were greatest among white adolescents, younger smokers, and adolescents residing in the Northeast, Midwest, and West (Table 1) (6). Increases in brand preference for Camel cigarettes were greatest among white adolescents and adolescents residing in the Midwest and West, and increases for Newport cigarettes were greatest among younger smokers and adolescents residing in the Northeast.

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Editorial Note: Because cigarette sales to adolescents constitute a small percentage of the total market, overall market share can only be used to estimate the brand preferences of adults. TAPS and TAPS-II indicate that brand preference is more tightly concentrated among adolescents than among adults. In both surveys, at least 85% of adolescent current smokers purchased one of three brands (i.e., Marlboro, Camel, or Newport); however, the three most commonly purchased brands among all smokers accounted for only 35% of the overall market share in 1993.

The three most commonly purchased brands among adolescent smokers were the three most heavily advertised brands in 1993 (7), suggesting that cigarette advertising influences adolescents' brand preference. In 1993, Marlboro, Camel, and Newport

[§]The four regions were Northeast (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont), Midwest (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin), South (Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia), and West (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming).

Adolescent Smokers — Continued

TABLE 2. Change in self-reported cigarette brand preference among adolescents aged 12–18 years* and change in overall cigarette brand market share[†] from 1989 to 1993 — United States, Teenage Attitudes and Practices Survey (TAPS), 1989 and 1993

Brand	Adolescent brand preference, 1989	Rank	Adolescent brand preference, 1993	Rank	Change in adolescent brand preference, 1989 to 1993
Marlboro	68.7	1	60.0	1	-8.7
Camel	8.1	3	13.3	2	+5.2
Newport	8.2	2	12.7	3	+4.5
Winston	3.2	4	1.2	4	-2.0
Kool	1.0	7	1.2	4	+0.2
Salem	1.5	5	1.0	6	-0.5
Benson & Hedges	1.4	6	0.3	7	-1.1

Brand	Overall market share, 1989	Rank [§]	Overall market share, 1993	Rank [§]	Change in overall market share, 1989 to 1993
Marlboro	26.3	1	23.5	1	-2.8
Camel	3.9	6	3.9	7	0
Newport	4.7	5	4.8	5	+0.1
Winston	9.1	2	6.7	2	-2.4
Kool	5.9	4	3.0	9	-2.9
Salem	6.2	3	3.9	7	-2.3
Benson & Hedges	3.9	6	2.5	10	-1.4

^{*}Data were weighted to provide national estimates. Unweighted sample size for 1989 was 865 and for 1993 was 702.

ranked first, second, and third (7), respectively, in advertising expenditures. However, Camel and Newport ranked seventh and fifth, respectively, in overall market share (8).

Similarly, the increases in adolescents' brand preference for Camel cigarettes and the decrease in preference for Marlboro cigarettes from 1989 to 1993 are not explained by changes in overall market share for these brands. These changes reflect variability in brand-specific advertising expenditures: from 1989 to 1993, Marlboro advertising decreased from \$102 million to \$75 million (7,9), while Camel advertising increased from \$27 million to \$43 million (7,9). In contrast, the increased preference for Newport cigarettes does not reflect the decrease in Newport advertising expenditures from \$49 million to \$35 million from 1989 to 1993 (7,9). The regional differences in brand preference of adolescents and changes in those preferences during 1989–1993 suggest that analysis of the relation between regional advertising expenditures and brand preferences may help to clarify the role of cigarette advertising in influencing adolescents' brand preference.

The findings that black adolescents most commonly purchased mentholated brands (i.e., Newport and Kool) and that Hispanic adolescents most commonly purchased Marlboro are consistent with a previous report (6). Racial/ethnic differences in brand preferences of adolescents may be influenced by differences in socioeconomic status and by social and cultural phenomena that require further explanation.

The findings of TAPS-II are subject to at least two limitations. First, the potential exists for nonresponse bias in the follow-up of TAPS respondents. For example, smoking prevalence estimates derived from TAPS-II are lower than those based on other national surveys; TAPS respondents who were successfully followed up in TAPS-II

[†]From reference 8. Based on total estimated brand-specific cigarette sales in the United States. §Rank for brands listed is based on the Maxwell Consumer Report (8). Only brands for which data on adolescent brand preference were available in 1989 and 1993 are listed in the table. Missing ranks are for generic brands.

Adolescent Smokers — Continued

were less likely to be smokers in 1989 than those who could not be reinterviewed (Office on Smoking and Health, unpublished data, 1994). Second, the small number of black and Hispanic adolescents in TAPS-II lessens the reliability of the brand preference estimates for these subgroups.

Because cigarette advertising may influence brand choice of adolescents (an important component of smoking behavior), legislation may be needed to restrict cigarette advertising to which young persons are likely to be exposed (10). In addition, antitobacco advertising may be an effective public health strategy to prevent smoking initiation and encourage smoking cessation among adolescents. Understanding the influence of advertising on adolescent smoking behavior may assist in clarifying the potential role of antismoking advertisements. At least two states (California and Massachusetts) have allocated resources derived from state excise cigarette tax for paid antismoking advertising campaigns aimed at young persons.

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Effectiveness in Disease and Injury Prevention

Medical-Care Spending — United States

One aspect of health-care reform is the role of prevention in controlling costs. To evaluate data on medical spending by disease category, the National Public Services Research Institute examined data from the 1987 National Medical Expenditure Survey (NMES-2), with emphasis on the Medical Provider Survey supplement. This report presents the findings of that analysis.

The NMES-2 was a population-based longitudinal survey in which data were gathered for the civilian, noninstitutionalized U.S. population for January 1–December 31,

1987 (the most recent year for which complete data were available), about sociodemographic factors; use of medical care; and medical-care expenditures for hospital inpatient, outpatient, and emergency department care; physician and allied health professional services; prescribed medication; emergency transport; and medical supplies and equipment (1). The Medical Provider Survey supplement provided confirmation of self-reported medical-care costs and information about costs that survey respondents were unable to report. The analysis presented in this report was restricted to the household survey sample of the NMES-2, a subset of the data that included face-to-face interviews of approximately 35,000 persons in 14,000 households regarding use of and expenses for health services during 1987. Not included in this analysis were dental costs, mental health services without a medical component, and administrative costs and overhead for insurance claims. All medical expenditure estimates were adjusted to December 1993 dollars using medical-care spending per capita for all medical treatment as the inflator.

Cardiovascular disease accounted for \$80 billion (14%) of the \$572 billion (in 1993 dollars) in medical spending for services other than nursing-home care, dental care, and insurance claims processing (Table 1). Injuries accounted for \$69 billion (12%), including spending attributed to longer term musculoskeletal deterioration resulting from injury. Spending for each of these categories exceeded that for cancer and for genitourinary disease (including kidney disease) (\$49 billion each). Medical spending for well care, including preventive care, was 3% of the total costs (\$17 billion).

Excluding live births, injury was the largest contributor to health-care expenditures for persons aged 5–49 years (Figure 1). Injury was the second largest contributor to health-care costs among persons aged <5 years and >85 years; cardiovascular disease and cancer were the two largest contributors for those aged 50–85 years.

Medical spending on injury treatment averaged \$284 per person. Injury costs increased for those aged >65 years, with the highest per capita spending for injury being for those aged ≥70 years (Figure 2). However, increases in spending for cardiovascular disease and cancer for those age groups were higher than those for injury.

Inpatient hospital costs were the largest component of medical spending (\$329 billion [57%]), with ambulatory-care visits contributing \$90 billion (16%) and hospital outpatient services, \$66 billion (11%). Prescriptions were the fourth largest component (\$38 billion [7%]). Home-health-care (\$20 billion), emergency department (\$15 billion), and other medical (\$15 billion) costs each contributed approximately 3%.

By type of care, cardiovascular disease accounted for 15% of the hospital costs; cancer, 11%; and injury, 10% (Table 2). Cardiovascular disease also contributed the most in prescription costs (27%) and home-health-care costs (27%) (Table 2). Injury costs were the largest component of spending for emergency department visits (46%), hospital outpatient visits (16%), and ambulatory care (16%). Of the ambulatory-care visit costs, 14% were for well care.

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Editorial Note: The findings in this report indicate that the largest source of health-care spending in the U.S. population is cardiovascular disease. This reflects the high

TABLE 1. Medical expenditures, by diagnostic category,* — United States, 1987[†]

Diagnostic category	Medical expenditures§	% Total costs¶	
Cardiovascular	\$ 79.6	13.9	
Injury and long-term			
effects	69.1	12.1	
Neoplasm	49.6	8.7	
Genitourinary	49.3	8.7	
Pregnancy/Birth-related	39.7	6.9	
Respiratory	38.3	6.7	
Digestive	35.9	6.3	
Musculoskeletal**	27.7	4.8	
Other circulatory			
diagnosis	20.2	3.5	
Mental health ^{††}	19.3	3.4	
Well care	17.4	3.0	
Congenital anomalies	8.7	1.5	
Medical misadventure	6.9	1.2	
Miscellaneous§§	110.6	19.3	
Total	572.3	100.0	

^{*} International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes used to define diagnostic categories: Cardiovascular: 390–429, 451–459; Injury and long-term effects: 800–994, 294.0, 304.6, 310.2, 344.0, 344.1, 366.2, 507.1, 508.0, 521.2, 525.1, 719.0, 719.5, 722.0–722.2, 724.2, 724.3, 724.5, 724.6, 724.8, 780.0, 799.0, V71.3–V71.5; Neoplasms: 140–239, V58.0, V58.1; Genitourinary: 580–629, 250.0, V56; Pregnancy and birth-related conditions, including live births and normal delivery: 630–674, V22.2; Respiratory: 460–519, 786.0 (excluding codes used for the injury diagnostic category); Digestive: 520–579 (excluding codes used for the injury diagnostic category); Musculoskeletal: 710–739 (excluding codes used for the injury diagnostic category); Well care: V40–V49, V70–V82 (excluding codes used for the injury diagnostic category); Congenital anomalies: 740–779; Medical misadventure: 995–999; and Miscellaneous: all other ICD-9-CM codes

prevalence of coronary or ischemic heart disease, which is the leading cause of death in the United States. However, the influences and risk factors for cardiovascular disease potentially can be modified through public policy and preventive practice (e.g., smoking and diet).

Injury, the leading cause of death for persons in all age groups from 1 year through 44 years (2), is also a large contributor to health-care costs. The data in this report corroborate the finding that medical-care payments for injury are the second leading source of direct medical costs in the noninstitutionalized U.S. population (3). In addition, the cost burden for injuries is spread across all age groups (4). Because direct medical costs do not include the reduced or lost productivity in the working-age popu-

[†]Adjusted to December 1993 dollars. Excludes nursing home, dental, and insurance claims processing costs.

[§]in billions.

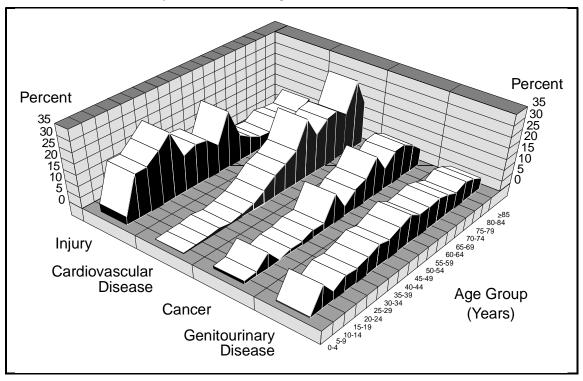
[¶]Costs of incidents without diagnoses were allocated in proportion to cost of known diagnoses.

^{**} Musculoskeletal problems traceable to earlier injury were classified as injury.

^{††}Excludes mental health services without a medical component.

^{§§}Miscellaneous includes carpal tunnel syndrome, endocrine disorders other than diabetes, anemia, conditions that were not clearly attributable to an underlying cause (e.g., unconsciousness, headache, and fitting and adjustment of prostheses), cataracts, and glaucoma.

FIGURE 1. Percentage of medical-care spending, by age group and selected causes — National Medical Expenditures Survey, United States, 1987*



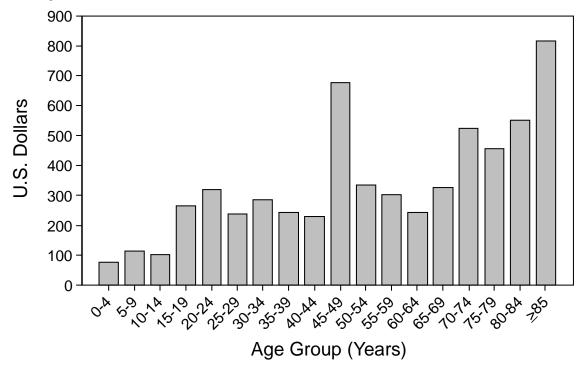
^{*}Excludes nursing home, dental, and insurance claims processing costs.

lation, this analysis does not adequately present the total economic burden attributable to injury.

This study is subject to at least four limitations. First, the data underestimate total direct medical costs because institutionalized persons, military members and their families, and homeless persons were excluded. Second, nursing home costs—approximately \$60 billion annually across all disease categories (5)—also were omitted from this analysis. Third, the unitary, systems-based categorization of each illness or injury used in this analysis masks the potential importance of some categories, such as infectious diseases. Infectious diseases were subsumed under the injury or system category that they affect; for example, pulmonary infections tended to be classified in the respiratory category, urinary tract infections in the genitourinary category, and human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS) in the categories of affected systems or as miscellaneous. Similarly, spending for outpatient visits for complications of diabetes mellitus may appear as cardiovascular disease costs. Fourth, the direct costs related to infectious diseases are underestimated because the incidence of HIV infection and AIDS resulted in substantially increased spending after 1987 (6).

Numerous prevention measures reduce direct medical costs while saving lives. For example, approximately \$2 are saved in medical-care costs for every \$1 spent on child-safety seats (7); from 1982 through 1990, child-safety seats and safety belts saved the lives of approximately 1300 infants and toddlers in the United States (8).

FIGURE 2. Injury cost per person, by age group — National Medical Expenditure Survey, United States, 1987*



^{*} Adjusted to December 1993 dollars. Excludes nursing home, dental, and insurance claims processing costs.

The data in this report underscore the impact of different disease categories and the need to evaluate the relative effectiveness and the cost-effectiveness of interventions that prevent and control the effects of disease; such data can assist in making decisions regarding treatment and prevention programs (9).

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TABLE 2. Percentage of expenditures for different types of care, by diagnostic category* — United States, 1987[†]

Diagnostic category	Hospital inpatient care	Emergency department	Outpatient care	Ambulatory visits	Home care	Prescriptions	Other
Cardiovascular	15.1	4.6	9.6	7.3	27.3	27.1	3.5
Injury and long-term							
effects	10.1	45.9	16.1	16.4	7.3	3.4	7.7
Neoplasm	10.7	10.2	11.3	4.4	7.7	3.0	1.8
Genitourinary	8.8	5.7	12.6	6.4	10.4	7.5	4.9
Pregnancy/							
Birth-related	10.2	1.2	0.5	4.1	0.0	0.2	0.1
Respiratory	6.2	10.7	6.2	7.7	3.0	10.5	5.0
Digestive	8.4	4.4	4.2	2.8	1.0	4.9	0.8
Musculoskeletal [§]	3.3	2.7	7.8	6.4	11.9	7.3	3.5
Other circulatory	5.1	0.9	1.2	1.0	3.4	1.6	0.9
Mental health [¶]	3.2	1.2	2.6	5.5	3.1	3.8	0.1
Well care	0.1	<0.1	1.5	13.6	1.8	1.4	1.0
Congenital anomalies	2.1	0.2	1.0	0.5	0.3	1.2	0.4
Medical misadventure	1.3	2.1	1.4	1.0	0.3	1.1	0.5
Miscellaneous**	14.5	18.8	24.1	22.9	22.5	27.0	69.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

^{*}International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes used to define diagnostic categories: Cardiovascular: 390–429, 451–459; Injury and long-term effects: 800–994, 294.0, 304.6, 310.2, 344.0, 344.1, 366.2, 507.1, 508.0, 521.2, 525.1, 719.0, 719.5, 722.0–722.2, 724.2, 724.3, 724.5, 724.6, 724.8, 780.0, 799.0, V71.3–V71.5; Neoplasms: 140–239, V58.0, V58.1; Genitourinary: 580–629, 250.0, V56; Pregnancy and birth-related conditions, including live births and normal delivery: 630–674, V22.2; Respiratory: 460–519, 786.0 (excluding codes used for the injury diagnostic category); Digestive: 520–579 (excluding codes used for the injury diagnostic category); Musculoskeletal: 710–739 (excluding codes used for the injury diagnostic category); Well care: V40–V49, V70–V82 (excluding codes used for the injury diagnostic category); Congenital anomalies: 740–779; Medical misadventure: 995–999; and Miscellaneous: all other ICD-9-CM codes

[†]Adjusted to December 1993 dollars. Excludes nursing home, dental, and insurance claims processing costs.

[§]Musculoskeletal problems traceable to earlier injury were classified as injury.

[¶]Excludes mental health services without a medical component.

^{**}Miscellaneous includes carpal tunnel syndrome, endocrine disorders other than diabetes, anemia, conditions that were not clearly attributable to an underlying cause (e.g., unconsciousness, headache, and fitting and adjustment of prostheses), cataracts, and glaucoma.

^{8.} National Highway Traffic Safety Administration. Occupant protection facts. Washington, DC: US Department of Transportation, National Highway Traffic Safety Administration, 1990.

^{9.} Public Health Service/Battelle. For a healthy nation: returns on investment in public health. Atlanta: US Department of Health and Human Services, Public Health Service, Office of Disease Prevention and Health Promotion and CDC/Battelle, Center for Public Health Research and Evaluation, 1994.

Current Trends

Occupational Injury Deaths of Postal Workers — United States, 1980–1989

Extensive media coverage of work-related homicides at U.S. Postal Service facilities raised the concern about whether postal workers are at increased risk for work-related homicide, particularly from those committed by disgruntled coworkers. Based on national surveillance data, neither the Postal Service industry nor postal occupations are among the groups at increased risk for work-related homicide (1,2). To further assess this concern and to determine the relative magnitude of occupational injury deaths in the Postal Service, CDC's National Institute for Occupational Safety and Health (NIOSH) used data from its National Traumatic Occupational Fatalities (NTOF) surveillance system* to examine occupational injury deaths in the Postal Service and compare Postal Service fatality rates with overall rates for all U.S. industries. This report summarizes the results of that analysis.

NTOF data for 1980 through 1989 (the most recent year for which complete data are available) were analyzed. Employment data for the calculation of rates were derived from the Current Population Survey (4). Rates were calculated only for 1983–1989 because reporting of Postal Service employment data changed in 1983.

NTOF recorded 169 occupational injury deaths among U.S. Postal Service workers during 1980–1989. During 1983–1989, the average annual rate of occupational injury death in the Postal Service was 2.1 per 100,000 workers, less than half the rate of 5.4 per 100,000 workers for all industries combined. Men accounted for 130 (77%) of the occupational injury deaths in the Postal Service and had a higher rate of fatal injury than did women (2.3 per 100,000 workers, compared with 1.8). A total of 98 (58%) of the decedents were aged >45 years.

Motor-vehicle-related events (n=72) were the leading cause of fatal occupational injury, followed by homicide (n=40) (Figure 1, page 593). Cause-specific rates for Postal Service employees were consistently lower than rates for all industries, with the largest differential in the category of machine-related deaths (Figure 2, page 593).

Collisions between motor vehicles caused 43 (60%) of the motor-vehicle-related deaths among Postal Service workers. Three (4%) deaths occurred to pedestrians on the job who were struck by motor vehicles. Fifty-one (71%) deaths occurred among mail carriers and eight (11%) among drivers.

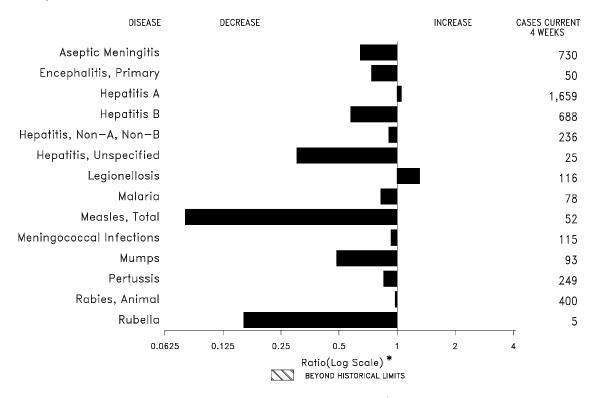
Among homicide victims, 26 (65%) were men. The homicide rate for men was 0.5 per 100,000, compared to 0.6 for women. Firearms were used in 34 (85%) of the homicides. Seventeen (43%) of the victims were mail carriers; nine (23%), postal clerks; five (13%), postmasters and mail superintendents; and three (8%), other specified occupations. Occupation was unknown or not specified for six (15%) of the victims.

Reported by: Div of Safety Research, National Institute for Occupational Safety and Health, CDC.

(Continued on page 593)

^{*}NTOF is based on death certificates compiled from all 52 vital statistics reporting units in the United States that meet three criteria: the decedent was ≥16 years of age, the cause of death was an injury or poisoning according to the *International Classification of Diseases, Ninth Revision*, and the certifier responded positively to the "Injury at Work?" question (3).

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending August 13, 1994, with historical data — United States



^{*}Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending August 13, 1994 (32nd Week)

	Cum. 1994		Cum. 1994
AIDS* Anthrax Botulism: Foodborne Infant Other Brucellosis Cholera Congenital rubella syndrome Diphtheria Encephalitis, post-infectious Gonorrhea Haemophilus influenzae (invasive disease)† Hansen Disease Leptospirosis Lyme Disease	45,801 41 42 6 58 9 2 71 229,379 734 68 18 5,195	Measles: imported indigenous Plague Poliomyelitis, Paralytic [§] Psittacosis Rabies, human Syphilis, primary & secondary Syphilis, congenital, age < 1 year [¶] Tetanus Toxic shock syndrome Trichinosis Tuberculosis Tularemia Typhoid fever Typhus fever, tickborne (RMSF)	154 634 10 1 23 1 13,156 532 21 118 26 12,846 50 230 217

through first quarter 1994.

^{*}Updated monthly to the Division of HIV/AIDS, National Center for Infectious Diseases; last update July 26, 1994.

†Of 693 cases of known age, 196 (28%) were reported among children less than 5 years of age.

§The remaining 5 suspected cases with onset in 1994 have not yet been confirmed. In 1993, 3 of 10 suspected cases were confirmed. Two of the confirmed cases of 1993 were vaccine-associated and one was classified as imported.

Total reported to the Division of Sexually Transmitted Diseases and HIV Prevention, National Center for Prevention Services,

TABLE II. Cases of selected notifiable diseases, United States, weeks ending August 13, 1994, and August 14, 1993 (32nd Week)

Reporting Area AlDS Aseptic Meningtits Primary Post-ingtits Primary Rectious Reporting Area AlDS Primary Primary Rectious Rect	Lyme Disease Cum. 1994 5,195 1,549 10 15 6 137 252 1,129 2,909 1,965 9 508 427
NEW ENGLAND	1994 5,195 1,549 10 15 6 137 252 1,129 2,909 1,965 9 508 427
NEW ENGLAND 1,811 127 11 4 4,909 4,497 194 230 90 15 25 Maine 70 18 2 - 54 53 21 11 - - 2 N.H. 37 16 - 2 69 39 12 16 8 - - Vt. 21 11 - - 17 16 5 - - - - - Mass. 934 45 7 1 1,842 1,795 80 151 63 14 17 R.I. 146 37 2 1 290 241 15 6 19 1 6 Conn. 603 - - - 2,637 2,353 61 46 - - - MID. ATLANTIC 13,256 319 29 11 24,625 26,867 843 </th <th>1,549 10 15 6 137 252 1,129 2,909 1,965 9 508 427</th>	1,549 10 15 6 137 252 1,129 2,909 1,965 9 508 427
Maine 70 18 2 - 54 53 21 11 - - 2 N.H. 37 16 - 2 69 39 12 16 8 - - Vt. 21 11 - - 17 16 5 - - - - Mass. 934 45 7 1 1,842 1,795 80 151 63 14 17 R.I. 146 37 2 1 290 241 15 6 19 1 6 Conn. 603 - - - 2,637 2,353 61 46 - - - MID. ATLANTIC 13,256 319 29 11 24,625 26,867 843 765 294 5 138 Upstate N.Y. 1,145 157 17 2 6,068 5,409 371 2	10 15 6 137 252 1,129 2,909 1,965 9 508 427
N.H. 37 16 - 2 69 39 12 16 8 Vt. 21 11 17 16 5	15 6 137 252 1,129 2,909 1,965 9 508 427
Vt. 21 11 - - 17 16 5 - </td <td>6 137 252 1,129 2,909 1,965 9 508 427</td>	6 137 252 1,129 2,909 1,965 9 508 427
R.I. 146 37 2 1 290 241 15 6 19 1 6 Conn. 603 2,637 2,353 61 46	252 1,129 2,909 1,965 9 508 427
Conn. 603 - - - 2,637 2,353 61 46 - - - - MID. ATLANTIC 13,256 319 29 11 24,625 26,867 843 765 294 5 138 Upstate N.Y. 1,145 157 17 2 6,068 5,409 371 241 143 2 32 N.Y. City 8,180 24 2 1 7,812 7,880 188 84 - - - N.J. 2,786 - - - 3,005 3,041 187 225 125 - 17 Pa. 1,145 138 10 8 7,740 10,537 97 215 26 3 89	1,129 2,909 1,965 9 508 427
Upstate N.Y. 1,145 157 17 2 6,068 5,409 371 241 143 2 32 N.Y. City 8,180 24 2 1 7,812 7,880 188 84 - - - N.J. 2,786 - - - 3,005 3,041 187 225 125 - 17 Pa. 1,145 138 10 8 7,740 10,537 97 215 26 3 89	1,965 9 508 427
N.Y. City 8,180 24 2 1 7,812 7,880 188 84 - - - N.J. 2,786 - - - 3,005 3,041 187 225 125 - 17 Pa. 1,145 138 10 8 7,740 10,537 97 215 26 3 89	9 508 427
N.J. 2,786 3,005 3,041 187 225 125 - 17 Pa. 1,145 138 10 8 7,740 10,537 97 215 26 3 89	427
INICUNITION 24AE 4E1 D1 14 44.700 ED 14D 1.04.2 710 2D1 4 270	
E.N. CENTRAL 3,645 651 91 16 44,728 50,169 1,263 713 201 6 272 Ohio 649 165 25 1 13,473 13,256 475 102 14 - 134	58 41
Ind. 389 95 6 1 5,216 4,981 241 127 9 - 58	9
III. 1,759 135 30 5 11,385 17,492 271 140 42 3 13 Mich. 650 249 26 9 10,677 10,489 175 245 133 3 51	3 5
Wis. 198 7 4 - 3,977 3,951 101 99 3 - 16	-
W.N. CENTRAL 981 220 19 5 12,292 13,288 631 374 104 8 86	79
Minn. 256 16 2 - 1,964 1,438 145 41 14 1 1 Iowa 51 62 840 1,048 32 18 7 6 25	33 7
Mo. 431 85 7 4 7,351 7,709 276 277 65 1 40	28
N. Dak. 18 2 2 - 18 33 3 4 S. Dak. 10 - 2 - 106 167 21	-
Nebr. 57 9 4 1 - 484 81 18 7 - 13	8
Kans. 158 46 2 - 2,013 2,409 73 20 11 - 3	3
S. ATLANTIC 10,074 855 63 23 62,144 62,455 838 1,531 417 26 226 Del. 163 20 853 839 13 4 1 - 20	449 18
Md. 1,284 112 14 2 11,200 9,666 107 205 21 5 59	185
D.C. 879 27 - 1 4,479 2,857 17 39 8 Va. 725 130 16 5 6,495 7,389 95 74 18 3 5	3 85
W. Va. 27 15 2 - 472 379 6 25 22 - 1	12
N.C. 719 129 30 1 16,265 15,395 70 177 40 - 13 S.C. 665 20 7,985 6,498 28 23 6 - 9	49 7
Ga. 1,186 38 1 4,660 23 505 159 - 79	80
Fla. 4,426 364 - 14 14,395 14,772 479 479 150 18 32	10
E.S. CENTRAL 1,239 289 23 2 27,838 27,383 294 651 493 2 40 Ky. 207 89 9 1 2,990 2,862 98 55 18 - 6	25 14
Ténn. 390 54 10 - 8,206 8,378 117 548 466 1 21	8
Ala. 366 115 4 1 10,180 9,933 54 48 9 1 9 Miss. 276 31 6,462 6,210 25 4	3
W.S. CENTRAL 4,667 481 35 2 29,012 26,662 1,859 833 322 50 29	70
Ark. 160 36 4,277 3,972 48 16 5 1 7	3
La. 740 23 5 - 7,692 7,065 94 109 95 1 8 Okla. 183 2,419 2,829 167 196 188 1 10	38
Tex. 3,584 422 30 2 14,624 12,796 1,550 512 34 47 4	29
MOUNTAIN 1,405 162 6 3 5,201 6,874 2,537 391 264 37 62	7
Mont. 17 1 52 42 15 18 5 - 14 Idaho 30 3 53 119 214 61 57 1 1	2
Wyo. 13 2 1 2 50 55 17 17 85 - 3	1
Colo. 529 66 1 - 1,735 2,349 329 64 44 12 14 N. Mex. 106 6 - - 599 577 707 131 38 9 3	3
Ariz. 380 44 1,934 2,506 803 24 8 9 3	-
Utah 93 20 - 1 166 71 306 42 16 1 7 Nev. 237 20 4 - 612 1,155 146 34 11 5 17	1
PACIFIC 8,723 951 70 5 18,630 23,167 4,503 1,417 410 113 44	49
Wash. 588 1,687 2,394 214 43 38 1 5	-
Oreg. 386 570 783 309 30 8 1 - Calif. 7,613 854 69 4 15,412 19,294 3,797 1,312 359 109 36	49
Alaska 29 16 1 - 531 349 148 8	-
Hawaii 107 81 - 1 430 347 35 24 5 2 3	-
Guam 1 9 77 68 16 2 - 4 2 P.R. 1,424 22 - 3 301 297 43 217 96 7 -	-
V.I. 34 15 71 - 1	-
Amer. Samoa 18 33 4	-

N: Not notifiable U: Unavailable

C.N.M.I.: Commonwealth of Northern Mariana Islands

^{*}Updated monthly to the Division of HIV/AIDS, National Center for Infectious Diseases; last update July 26, 1994.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending August 13, 1994, and August 14, 1993 (32nd Week)

			Measle	s (Rube	eola)		Menin-								
Reporting Area	Malaria	Indige	enous	Impo	orted*	Total	gococcal Infections	Mu	mps	F	Pertussi	s		Rubella	1
	Cum. 1994	1994	Cum. 1994	1994	Cum. 1994	Cum. 1993	Cum. 1994	1994	Cum. 1994	1994	Cum. 1994	Cum. 1993	1994	Cum. 1994	Cum. 1993
UNITED STATES	566	1	634	-	154	235	1,761	58	890	76	1,967	2,706	1	201	150
NEW ENGLAND	47	-	14	-	12	58	87	-	14	3	184	448	-	125	1
Maine N.H.	2 3	-	1 1	-	4	1	13 6	-	3 4	- 1	2 44	8 110	-	-	1 -
Vt. Mass.	1 23	-	2	-	1 4	31 16	2 36	-	-	2	28 86	60 225	-	- 122	-
R.I.	5	-	4	-	3	1	-	-	1	-	5	4	-	2	-
Conn.	13	-	3	-	-	9	30	-	6	-	19	41	-	1	-
MID. ATLANTIC Upstate N.Y.	89 30	-	165 25	-	22 3	13 1	171 60	1	72 19	14 7	337 131	363 116	-	9 6	54 13
N.Y. City	22	-	14	-	2	4	11	-	5	-	65	42	-	1	21
N.J. Pa.	19 18	-	122 4	-	14 3	8	40 60	1	6 42	- 7	8 133	47 158	-	2	15 5
E.N. CENTRAL	57	-	59	-	40	24	277	2	141	11	276	665	-	11	4
Ohio Ind.	8 11	-	15	-	- 1	9	75 47	1	42 6	5 6	104 47	160 46	-	-	1 1
III.	20	-	17	-	38	9	93	-	57	-	54	226	-	3	-
Mich. Wis.	16 2	-	24 3	-	1 -	5 1	37 25	1	32 4	-	25 46	27 206	-	8 -	1 1
W.N. CENTRAL	29	-	116	-	42	3	124	-	40	3	96	185	-	2	1
Minn. Iowa	9 4	-	- 6	-	- 1	-	10 16	-	4 11	-	39 6	82 4	-	-	-
Mo.	11	-	108	-	40	1	60	-	21	1	28	70	-	2	1
N. Dak. S. Dak.	1	-	-	-	-	-	1 7	-	2	2	6 3	3 6	-	-	-
Nebr.	3 1	-	1 1	-	1	2	9 21	-	2	-	5	7 13	-	-	-
Kans. S. ATLANTIC	107	-	45	-	4	21	299	4	136	- 7	209	267	-	9	- 5
Del.	3	-	-	-	-	-	4	-	-	-	1	4	-	-	-
Md. D.C.	48 8	-	1	-	2	4	25 3	2	38	- 1	59 5	85 3	-	-	2
Va.	15	-	1	-	1	1	51	-	30	6	23	35	-	-	-
W. Va. N.C.	2	-	36 2	-	1	-	11 41	2	3 36	-	3 58	8 44	-	-	-
S.C. Ga.	2 13	-	2	-	-	-	16 60	-	6 8	-	11 17	8 24	-	-	-
Fla.	16	-	3	-	-	16	88	-	15	-	32	56	-	9	3
E.S. CENTRAL	20	-	28	-	-	1	108	-	15	-	99	125	-	-	-
Ky. Tenn.	7 7	-	28	-	-	-	31 25	-	6	-	53 18	19 54	-	-	-
Ala. Miss.	5 1	-	-	-	-	1	52	-	3 6	-	22 6	42 10	-	-	-
W.S. CENTRAL	31	_	9	_	7	5	223	1	178	4	89	75	_	12	16
Ark.	3	-	-	-	1	-	36	-	1	-	14	7	-	-	-
La. Okla.	5 2	-	-	-	1	1	27 23	-	20 23	1	9 22	6 43	-	4	1 1
Tex.	21	-	9	-	5	4	137	1	134	3	44	19	-	8	14
MOUNTAIN Mont.	22	1	148	-	17	4	119 6	48	103	27	270 4	213 1	- U	5	9
Idaho	2	-	-	-	-	-	15	-	7	9	33	60	-	-	1
Wyo. Colo.	1 10	-	16	-	3	3	5 23	1	2	-	108	1 66	-	-	2
N. Mex.	3	- 1	1	-	- 1	-	12 40	N	N 71	- 18	17 95	26 39	-	1	2
Ariz. Utah	4	-	131	-	2	-	13	47 -	11	-	11	20	-	3	3
Nev.	1	-	-	-	11	1	5	-	9	-	2	-	-	1	1
PACIFIC Wash.	164 6	-	50	-	10	106	353 24	2	191 6	7 3	407 20	365 28	1	28	60
Oreg. Calif.	8 137	-	- 16	-	- 8	3 83	56	N	N 173	4	29 345	26 304	1	2 22	- 35
Alaska	1	-	46 4	-	-	1	265 2	2	2	-	-	3	-	1	1
Hawaii	12	-	-	-	2	19	6	-	10	-	13	4	-	3	24
Guam P.R.	2 2	U	211 13	U	-	2 318	1 7	U	4 2	U -	- 1	- 1	U	1	-
V.I. Amer. Samoa	-	- U	-	- U	-	-	-	- U	- 1	- U	1	2	- U	-	-
C.N.M.I.	1	U	26	U	-	1	-	U	2	U	-	-	U		<u>-</u>

^{*}For measles only, imported cases include both out-of-state and international importations. N: Not notifiable U: Unavailable † International § Out-of-state

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending August 13, 1994, and August 14, 1993 (32nd Week)

Reporting Area		ohilis Secondary)	Toxic- Shock Syndrome		culosis	Tula- remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
nopolinig / nou	Cum. 1994	Cum. 1993	Cum. 1994	Cum. 1994	Cum. 1993	Cum. 1994	Cum. 1994	Cum. 1994	Cum. 1994
UNITED STATES	13,156	16,302	118	12,846	13,584	50	230	217	3,708
NEW ENGLAND	143	219	3	282	291	-	18	9	1,128
Maine N.H.	4 3	3 21	-	- 14	12 15	-	-	-	106
Vt.	-	1	1	3	3	-	-	-	97
Mass. R.I.	59 12	94 9	2	145 32	152 36	-	14 1	7	429 5
Conn.	65	91	-	88	73	-	3	2	491
MID. ATLANTIC	795	1,499	21	2,363	2,880	1	55	5	370
Upstate N.Y. N.Y. City	94 346	133 781	11 -	112 1,580	435 1,714	1	7 33	1	79
N.J.	120	202	-	470	293	-	15	1	184
Pa.	235	383	10	201	438	-	-	3	107
E.N. CENTRAL Ohio	1,802 748	2,734 725	24 8	1,289 202	1,391 200	4 1	43 5	31 20	33
Ind.	161	228	2	105	136	1	4	3	9
III.	502	1,085	5	660	735	- 1	23	6	8 9
Mich. Wis.	176 215	381 315	9	285 37	263 57	1 1	4 7	2	7
W.N. CENTRAL	735	1,050	19	324	294	20	1	22	133
Minn.	29 36	43 49	1 7	72 28	37 37	1	-	- 1	13 55
Iowa Mo.	636	849	5	28 149	151	13	1	9	55 11
N. Dak.	-	2	1	6	5	- 1	-	- 10	6
S. Dak. Nebr.	-	2 10	2	17 10	11 16	1 1	-	10 1	22
Kans.	34	95	3	42	37	4	-	1	26
S. ATLANTIC	3,776	4,276	6	2,359	2,737	1	34	101	1,265
Del. Md.	13 161	83 242	-	192	30 237	-	1 5	10	29 345
D.C.	149	225	-	77	104	-	1	-	2
Va. W. Va.	420 8	399 7	1	206 52	267 49	-	5	9 2	237 51
N.C.	1,072	1,205	1	278	320	-	-	36	105
S.C. Ga.	474 956	625 728	-	228 539	256 462	1	2	9 32	117 249
Fla.	523	762	4	787	1,012	-	20	3	130
E.S. CENTRAL	2,288	2,395	2	774	980	-	2	16	116
Ky. Tenn.	131 603	200 688	1 1	202 207	238 294	-	1 1	4 9	10 34
Ala.	408	524	-	254	298	-	-	1	72
Miss.	1,146	983	-	111	150	-	-	2	-
W.S. CENTRAL Ark.	2,952 314	3,117 354	1	1,833 177	1,454 116	14 13	10 -	22 4	454 19
La.	1,111	1,527	-	94	99	-	3	-	47
Okla. Tex.	93 1,434	207 1,029	1	170 1,392	93 1,146	1 -	2 5	14 4	24 364
MOUNTAIN	172	151	6	303	331	9	9	11	70
Mont.	3	1	-	9	13	3	-	4	-
ldaho Wyo.	1	6	1	11 5	9 2	-	-	2	2 14
Colo.	90	44	3	21	52	1	3	3	8
N. Mex. Ariz.	18 31	21 64	-	43 141	35 134	2	1 1	1	2 31
Utah	6	1	2	29	19	2	2	-	8
Nev.	23	14	-	44	67	1	2	1	5
PACIFIC Wash.	493 36	861 35	36	3,319 174	3,226 149	1 -	58 3	- -	139 -
Oreg.	21	32	-	90	-	1	2	-	6
Calif. Alaska	430 4	785 6	33	2,854 34	2,871 40	-	51 -	- -	104 29
Hawaii	2	3	3	167	166	-	2	-	-
Guam	4	2	-	58	39	-	1	-	
P.R. V.I.	182 22	343 31	-	86	132 2	-	-	-	51
Amer. Samoa	1	-	-	3	3	-	1	-	-
C.N.M.I.	1	3	-	22	20	-	1	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending August 13, 1994 (32nd Week)

	ı	All Cau	ises, By	, Age (Y	ears)		P&I [†]		,	All Cau	ises, By	/ Age (Y	ears)		P&I [†]
Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	Total	Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND Boston, Mass. Bridgeport, Conn. Cambridge, Mass. Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass. Waterbury, Conn. Worcester, Mass. MID. ATLANTIC Albany, N.Y.	512 137 62 16 34 U 10 17 5. 18 42 29 6 53 29 59 2,401 51	358 85 41 12 30 U 7 13 15 24 18 5 39 24 45	29 17 3 4 U 3 4 - 8 7 - 7 3 7	44 16 4 1 U - 3 5 3 1 5 2 4	5 1 - - - U - - 1 1 1 - - - 1 2 68 4	12 5 - - - - - - - - - - - - - - - - - -	42 21 5 1	S. ATLANTIC Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla. Tampa, Fla. Washington, D.C. Wilmington, Del. E.S. CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn.	178 191 6 856 136	711 96 107 55 58 87 40 U 19 40 114 92 3 556 78 542	257 33 45 12 28 26 8 U 6 8 38 50 3 166 33 13	166 27 42 12 9 20 6 U 4 3 14 29 - 77 16 6	50 6 7 5 3 6 3 U - 1 8 11 - 3 3 7 4 3	35 4 3 6 - 4 2 U - 3 4 9 - 2 2 2	56 3 17 4 9 - 2 U - 3 13 5 - 62 3 2 4
Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa.§	24 100 34 19 46	18 65 21 13 36	3 25 7 3	2 3 3 3 2	1 5 - - 1	2 3	3 1	Lexington, Ky. Memphis, Tenn. Mobile, Ala. Montgomery, Ala. Nashville, Tenn.	94 246 76 55 115	66 153 51 36 76	18 43 14 11 24	7 27 5 6 9	2 10 4 1 2	1 13 1 1 4	14 23 10 1 5
Jersey City, N.J. New York City, N.Y. Newark, N.J. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	38 1,224 64 28 393 60 13 108 29 27 87 36 20 U	24 746 27 12 254 42 11 83 22 21 65 24 15 U	15 74 74 1 12 4 5 15 6	4 159 19 8 45 5 11 3 - 5 4	37 2 - 11 3 - 2 - 1 - 1	3 22 1 1 9 3 1 - - 2 1	35 7 26 6 1 7 1 10 5	W.S. CENTRAL Austin, Tex. Baton Rouge, La. Corpus Christi, Tex. Dallas, Tex. El Paso, Tex. Ft. Worth, Tex. Houston, Tex. Little Rock, Ark. New Orleans, La. San Antonio, Tex. Shreveport, La. Tulsa, Okla.	1,213 82 19 41 181 76 92 377 80 122 U 35 108	726 50 10 33 100 49 62 208 52 73 U 24 65	259 13 6 6 46 15 11 98 15 19 U 7 23	150 15 2 2 26 6 7 50 8 18 U 3	47 1 5 4 8 15 3 6 U	28 3 1 4 2 4 6 2 3 U	84 8 3 3 10 7 40 6 - U 3 4
E.N. CENTRAL Akron, Ohio Canton, Ohio Canton, Ohio Chicago, III. Cincinnati, Ohio Cleveland, Ohio Columbus, Ohio Dayton, Ohio Dayton, Ohio Detroit, Mich. Evansville, Ind. Fort Wayne, Ind. Gary, Ind. Grand Rapids, Micl Indianapolis, Ind. Madison, Wis. Milwaukee, Wis. Peoria, III. Rockford, III. South Bend, Ind. Toledo, Ohio Youngstown, Ohio W.N. CENTRAL Des Moines, Iowa Duluth, Minn. Kansas City, Kans. Kansas City, Kans. Kansas City, Mo. Lincoln, Nebr. Minneapolis, Minn. Omaha, Nebr. St. Louis, Mo. St. Paul, Minn. Wichita, Kans.	198 51 109 39 35 43 95 U 751 U 300 59 90	1,143 28 29 127 78 94 16 90 116 41 127 36 70 26 24 31 524 U 27 41 56 26 140 77 78 37 42	6 61 28 33 20 26 46 8 9 35 10 21 8 6 9 13 U 21 7 19 18 17 17 18	204 4 2 62 6 17 18 4 31 3 5 2 6 20 1 9 3 1 7 7 7 7 14 8 8	122 -68 2 9 2 1 10 2 4 -2 9 1 2 7 U 22 U -1 3 -7 1 4 4 4 2 7 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1	63 2 10 7 8 8 2 2 2 8 8 1 1 2 7 7 3 3 7 7 1 1 2 2 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	105 16 15 25 11 11 15 19 44 8 22 8 U 32 U 4 4 11 11 4 6 2	MOUNTAIN Albuquerque, N.M. Colo. Springs, Colo. Denver, Colo. Las Vegas, Nev. Ogden, Utah Phoenix, Ariz. Pueblo, Colo. Salt Lake City, Utah Tucson, Ariz. PACIFIC Berkeley, Calif. Fresno, Calif. Glendale, Calif. Honolulu, Hawaii Long Beach, Calif. Los Angeles, Calif. Portland, Oreg. Sacramento, Calif. San Diego, Calif. San Jose, Calif. San Jose, Calif. Santa Cruz, Calif. Seattle, Wash. Spokane, Wash. Tacoma, Wash.	95 179 21 141 21 195 119 1,828 19 72 35 49 71 610 21 144 U 169	535 70 29 52 110 13 106 16 55 84 1,131 12 41 26 63 31 39 370 10 102 105 79 103 107 94 348 84 7,217	147 188 9 26 37 1 9 4 22 21 358 5 9 8 10 19 120 7 19 40 7 25 9 21 2,225	74 8 3 7 20 6 11 11 7 236 2 15 10 90 3 18 U 25 26 13 5 18 4 1 1,302	37 1 8 10 1 9 - 4 4 64 - 5 - 2 1 2 4 U 7 3 5 5 2 4 1 6 4 1 6 6 4 1 6 6 6 7 8 7 8 8 8 8 8 9 8 9 8 8 8 8 8 8 8 8 8	21 3 2 2 2 2 6 - 3 3 3 3 1 1 2 2 3 3 1 1 0 5 7 7 5 6 6 1 1 2 2 2 2 2 3 1 2 2 3 1 2 3 1 2 2 3 1 2 2 3 2 3	47 7 2 5 8 2 10 1 7 5 94 5 6 3 14 11 2 24 11 19 3 4 2 629

^{*}Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not

more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

Pneumonia and influenza.

Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

Total includes unknown ages.

U: Unavailable.

Occupational Injury Deaths — Continued

FIGURE 1. Number of occupational injury deaths among Postal Service employees, by external causes — United States, 1980–1989

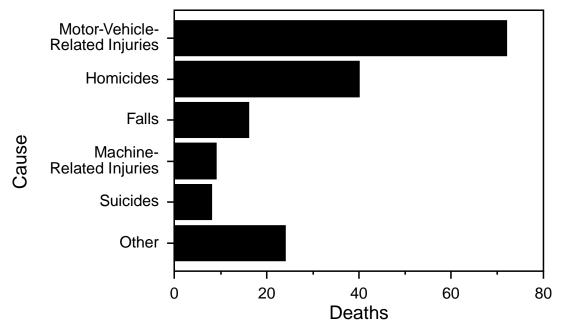
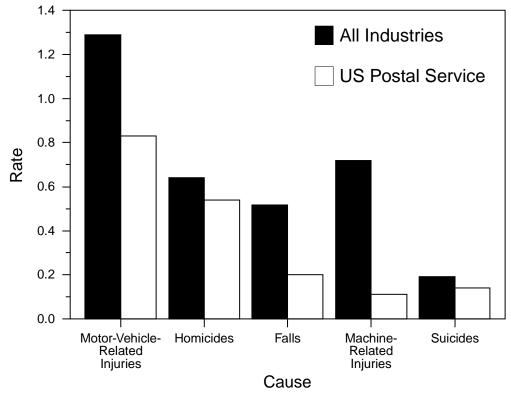


FIGURE 2. Rate* of occupational injury death among workers in all industries and among Postal Service employees, by external causes — United States, 1983–1989



^{*}Per 100,000 workers.

Occupational Injury Deaths — Continued

Editorial Note: The findings in this report indicate that the occupational fatality rate for U.S. Postal Service workers is approximately 2.5 times lower than that for all workers combined. Motor-vehicle-related events and homicides combined accounted for 66% of occupational injury deaths in the Postal Service. This analysis indicated an occupational homicide rate among Postal Service workers that did not exceed the rate for all U.S. workers.

Media attention to violence in Postal Service facilities resulted in press reports that enumerated violent incidents over a defined period (1983 through 1993). By comparing a newspaper review of occupational violence in the Postal Service (5) with cases reported in NTOF, NIOSH identified five work-related homicides not included in the NTOF database. Incorporating these five cases into the calculation of a work-related homicide rate for the Postal Service increased the rate to 0.63 per 100,000 workers, nearly equal to the average overall national rate (0.64) for the same period. However, it was not practical to similarly identify work-related homicides that were not included in NTOF for other industries; such an enumeration of missed cases would probably increase the average annual all-industries rate.

Although the occupational homicide rate for the Postal Service industry is similar to the national rate for all industries, coworkers appear to be disproportionately responsible for homicides that occur in the Postal Service. During 1992, 82% of work-related homicides were associated with robberies or miscellaneous crimes; only 4% were committed by coworkers or former coworkers (6). By comparison, the NTOF data in this report, supplemented with information from the newspaper review (5), indicated that 57% (20/35) of work-related homicides of postal workers from 1983 through 1989 were committed by coworkers or former coworkers. However, 14 of the 20 coworker homicides occurred in a single incident. The remaining 15 postal worker homicides were presumed to have been committed by persons who were not Postal Service employees.

The findings in this report are subject to at least three limitations (3). First, because the NTOF surveillance system is based only on data from death certificates, occupational injury deaths are undercounted; on average, death certificate-based surveillance systems capture approximately 81% of occupational injury deaths (7). Second, previous studies have demonstrated 60%–76% agreement between industry and occupation information listed on death certificates and actual employment status at the time of death (3), which could be a source of misclassification. Third, death certificates provide only limited data about the circumstances of traumatic fatalities.

Although postal workers do not appear to be at increased risk for occupational homicide, homicide was the third leading cause of occupational injury death in the United States from 1980 through 1989 (1,3). Developing strategies for the prevention of work-related homicide will require examination of the circumstances (e.g., location and working conditions) in which violence has previously occurred. Factors that may increase the risk for homicide among mail carriers are working alone in a community setting, carrying currency and other valuables, and working in high-crime areas (1,2). Enhanced security measures and devices may be appropriate to reduce assaults occurring within Postal Service facilities. Determining the risk factors for coworker violence will require assessing individual incidents to determine whether there were preceding indications of impending violence (e.g., threats) and evaluating work conditions and management practices that could reduce the risk for violence. As part of

Occupational Injury Deaths — Continued

such an effort, additional study is needed of behavioral factors that can lead to violence between coworkers and improved surveillance of nonfatal occupational injuries incurred through violence.

In addition to addressing occupational injury deaths resulting from violence, the NTOF data reported here highlight a need to continue to address the risk for motor-vehicle-related injuries. Postal Service employees drive approximately 1.5 billion miles on the job each year (J. Jones, Office of Safety and Health, U.S. Postal Service, personal communication, 1994). Use of safety belts, maintaining mechanical integrity of the fleet (both Postal Service and personal vehicles used in the performance of duties), and training should be evaluated to identify means by which the Postal Service can reduce the risk for motor-vehicle-related fatalities.

References

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- 3. NIOSH. Fatal injuries to workers in the United States, 1980–1989: a decade of surveillance—national profile. Cincinnati: US Department of Health and Human Services, Public Health Service, CDC, 1993; DHHS publication no. (NIOSH)93-108.
- 4. US Department of Labor. Employment and earnings. Vols 31–37 (issue no. 1 for each year). Washington, DC: US Department of Labor, Bureau of Labor Statistics, 1984–1990.
- 5. Barringer F. Anger in the post office: killings raise questions. New York Times, 1993 May 7: 1(col 3), 6(col 1).
- 6. Windau J, Toscano G. Workplace homicides in 1992. In: US Department of Labor, ed. Compensation and working conditions, 1994. Vol 46, issue 2. Washington, DC: US Department of Labor, Bureau of Labor Statistics, 1994.
- 7. Stout NA, Bell C. Effectiveness of source documents for identifying fatal occupational injuries: a synthesis of studies. Am J Public Health 1991;81:725–8.

Notice to Readers

Limited Supplies of Inactivated Poliovirus Vaccine — United States

There is a shortage of inactivated poliovirus vaccine (IPV) in the United States. The Food and Drug Administration (FDA), the manufacturers (Pasteur Merieux Serums & Vaccines, S.A. [Lyon, France] [IPOLTM]*, and Connaught Laboratories, Limited [Willowdale, Ontario, Canada] [POLIOVAXTM]), and the distributor, Connaught Laboratories, Inc. (Swiftwater, Pennsylvania), are working to resolve the shortage.

Until IPV becomes readily available, CDC recommends that its use be restricted to 1) never-vaccinated persons aged >18 years who are at risk for exposure to wild poliovirus (e.g., who will be traveling to areas in which poliomyelitis is endemic), and 2) persons for whom oral polio vaccine (OPV) is contraindicated (i.e., persons diag-

^{*}Use of trade names and commercial sources is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

Notices to Readers — Continued

nosed with or living in a household with a person with a congenital or acquired immune deficiency). Inadequately or fully vaccinated adults who have previously received IPV or OPV and need poliovirus vaccine can be given OPV (1,2). OPV continues to be recommended routinely for all children, except as noted above.

If supplies are not available locally, poliovirus vaccination of persons for whom OPV is contraindicated should be delayed until IPV becomes available. Because no case of polio resulting from indigenously transmitted wild poliovirus has been reported in the United States since 1979, postponing vaccination for these persons until IPV is available is not likely to pose a risk to those persons. Unvaccinated adults who may be exposed to wild poliovirus during travel to polio-endemic areas and cannot obtain IPV should consider vaccination with OPV but should be informed that the risk for vaccine-associated paralytic polio is slightly higher in adults than in children (1,2). Otherwise, these persons should avoid activities or travel that might result in exposure to wild poliovirus.

Information about obtaining IPV for high-risk persons is available from the distributor, Connaught Laboratories, Inc., telephone (800) 822-2463. *MMWR* will provide updated information when the shortage is alleviated.

Reported by: Center for Biologics Evaluation and Research, Food and Drug Administration. National Immunization Program, CDC.

References

- 1. ACIP. Poliomyelitis prevention. MMWR 1982;31:22-6,31-4.
- 2. ACIP. Poliomyelitis prevention: enhanced-potency inactivated poliomyelitis vaccine—supplementary statement. MMWR 1987;36:795–8.

Notice to Readers

Quality Standards Compliance for Mammography Facilities

By October 1, 1994, all U.S. mammography facilities, except those managed by the Department of Veterans Affairs, must be certified by the Food and Drug Administration (FDA) to legally continue to provide mammography services. The requirement is a result of the Mammography Quality Standards Act of 1992 (MQSA), which requires national, uniform quality standards for mammography facilities* and is intended to ensure that all women have access to safe and effective mammography services for early detection of breast cancer. The law requires that:

- To be certified, a facility must first be accredited by a federally approved private nonprofit or state accrediting body. As of August 18, FDA had approved the American College of Radiology (ACR) and the Bureau of Radiological Health, Iowa Department of Public Health, as accrediting bodies.
- To be accredited, a facility must apply to an FDA-approved accrediting body; undergo periodic review of its clinical images; have an annual survey by a medical physicist; and meet quality standards for equipment, personnel qualifications, quality-assurance programs, and recordkeeping and reporting.

^{*}Public Law 102-539

Notices to Readers — Continued

 To maintain its certification, the facility must be inspected annually by federal or state personnel.

FDA was delegated the authority to implement MQSA in June 1993. On December 21, 1993, FDA published interim standards in the *Federal Register* covering equipment, personnel, quality assurance, and recordkeeping and reporting (1). The interim standards also set requirements that must be met by accrediting bodies. FDA is collaborating with the National Mammography Quality Assurance Advisory Committee to develop more comprehensive, final standards.

The accrediting bodies will provide FDA with the names and addresses of the facilities they have accredited. FDA will then issue certificates to all accredited facilities. FDA is also providing a series of training courses for federal and state inspectors, who must pass three written and two practical proficiency examinations before conducting inspections. Facilities will be subject to MQSA inspections as of October 1.

The MQSA program combines the elements of the ACR's voluntary Mammography Accreditation Program and the Medicare Screening Mammography Benefit program of the Health Care Financing Administration (HCFA). After October 1, HCFA will accept FDA certification as the basis for Medicare reimbursement, and HCFA inspections will cease.

Additional information about the MQSA program and subscriptions for FDA's quarterly newsletter, *Mammography Matters*, is available by calling (301) 443-4190; fax (301) 594-3306.

Reported by: Div of Mammography Quality and Radiation Programs, Office of Health and Industry Programs, Center for Devices and Radiological Health, Food and Drug Administration.

Reference

 Food and Drug Administration. Mammography facilities: requirements for accrediting bodies and quality standards and certification requirements—interim rules. Federal Register 1993; 58:67558–72. (CFR 21, Part 900).

Notice to Readers

Final 1993 Reports of Notifiable Diseases

The notifiable diseases table on pages 598–603 summarizes final data for 1993. These data, final as of July 29, 1994, will be published in more detail in the *MMWR* Summary of Notifiable Diseases, 1993 (1).

Population estimates for the states are from the July 1, 1993, estimates by the U.S. Bureau of the Census, Population Division, Population Estimates Branch, Press Release CB93-219. Population estimates for territories are from the 1990 Census, U.S. Bureau of the Census, Press Releases CB91-142, 242, 243, 263, and 276.

Reference

CDC. Summary of notifiable diseases, United States, 1993. MMWR 1994;42(no. 53) (in press).

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1993

	Total resident population	İ			Aseptic	Во	tulism		Brucel-	
Area	(in thousands)) AIDS	Amebiasis	Anthrax	meningitis	Foodborne	Infant	Other	losis	
United States	257,908	103,533*	2,970	-	12,848	27	65	5 [†]	120	
New England	13,230	5,156	112	-	425	-	-	-	1	
Maine	1,239	149	11	-	41	-	-	-	-	
N.H.	1,125	124	5	-	55	-	-	-	-	
Vt.	576	74	7	-	45	-	-	-	-	
Mass.	6,012	2,703	87	-	177	-	-	-	1	
R.I.	1,000	348	2	-	107	-	-	-	-	
Conn.	3,277	1,758	NN	-	NN	-	-	-	-	
Mid. Atlantic	38,125	26,115	619	-	1,133	-	8	1	3	
N.Y.(excl.NYC)§	18,197	3,565	116	-	575	-	-	-	1	
N.Y.C.	NA	13,902	457	-	257	-	2	1	-	
N.J.	7,879	5,434	16	-	NN	-	3	-	1	
Pa.	12,048	3,214	30	-	301	-	3	-	1	
E.N. Central	43,017	8,069	208	-	2,234	-	6	1	10	
Ohio	11,091	1,585	18	-	720	-	5	1	1	
Ind.	5,713	954	25	-	244	-	1	-	-	
III.	11,697	2,959	50	-	562	-	-	-	6	
Mich.	9,478	1,840	48	-	643	-	-	-	1	
Wis.	5,038	731	67	-	65	-	-	-	2	
W.N. Central	18,054	3,181	173	-	817	-	-	-	3	
Minn.	4,517	659	58	-	118	-	-	_	-	
Iowa	2,814	202	31	-	159	-	-	-	2	
Mo.	5,234	1,745	54	-	275	-	-	-	-	
N. Dak.	635	11	3	-	20	-	-	-	-	
S. Dak.	715	29	1	-	22	-	-	-	1	
Nebr.	1,607	179	4	-	21	-	-	-	-	
Kans.	2,531	356	22	-	202	-	-	-	-	
S. Atlantic	45,738	22,783	198	-	2,645	6	2	-	36	
Del.	700	375	2	-	70	-	1	_	-	
Md.	4,965	2,528	9	-	220	-	-	_	-	
D.C.	578	1,585	-	-	37	-	-	_	-	
Va.	6,491	1,625	34	-	343	-	-	-	-	
W. Va.	1,820	106	2	-	56	-	-	-	-	
N.C.	6,945	1,368	11	-	273	-	-	-	27	
S.C.	3,643	1,476	NN	-	35	-	-	-	-	
Ga.	6,917	2,789	90	-	173	5	1	-	5	
Fla.	13,679	10,931	50	-	1,438	1	-	-	4	
E.S. Central	15,717	2,720	7	-	774	2	4	-	1	
Ky.	3,789	323	1	-	335	1	1	-	_	
Tenn.	5,099	1,203	NN	-	166	1	-	_	-	
Ala.	4,187	733	1	-	192	-	-	-	1	
Miss.	2,643	461	5	-	81	-	3	-	-	
W.S. Central	27,983	10,136	102	-	1,500	-	3	-	40	
Ark.	2,424	404	4	_	79	_	1	_	3	
La.	4,295	1,464	5	_	91	_		_	2	
Okla.	3,231	725	7	-	ĺ	_	_	-	1	
Tex.	18,031	7,543	86	_	1,329	-	2	-	34	
Mountain	14,776	3,913	177	_	732	3	4	_	6	
Mont.	839	32	.,,	_	1	J		_	Ū	
Idaho	1,099	77	7	-	11	-	2	-	-	
Wyo.	470	46	3	-	8	1	_	-	-	
Colo.	3,566	1,324	66		240	i			3	
N. Mex.	1,616	294	21	_	115			_	1	
Ariz.	3,936	1,238	70	_	202	_	1		2	
Utah	1,860	264	4		74	1	i		-	
Nev.	1,389	638	6	_	81			_	_	
Pacific					2,588	14	38	3	20	
	41,269	21,460	1,374	-		16		J	20	
Wash.	5,255	1,564	49	-	NN	4	5	-		
Oreg.	3,032	778	95 1 102	-	NN 2.429	-	2	2	- 10	
Calif.	31,211	18,689	1,193	-	2,428	3	29	3	19	
Alaska	599 1 172	70 250	6	-	23	9	2	-	- 1	
Hawaii	1,172	359	31	-	137	-	2		I	
Guam	133	2 100	-	-	7	-	-	-	-	
P.R.	3,522	3,199	-	-	72	-	-	-	-	
V.I.	102	57	-	-	- 2	-	-	-	-	
C.N.M.I.	43	-	-	-	2	-	-	-	-	
American Samo	a 47	-	-	-	-	-	-	-	-	

^{*}Total reported to Division of HIV/AIDS, National Center for Infectious Diseases, through December 31, 1993.

†Includes wound and unspecified botulism.

§NY population estimate includes NYC.

NN: Not notifiable NA: Not available

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1993 (continued)

			•	Encepl	nalitis				Hansen
Area (Chancroid	Cholera	Diphtheria	Primary infections	Post- infectious	Gonor- rhea	Granuloma inguinale	Haemophilus influenzae	disease (leprosy)
UNITED STATES	1,399*	18	-	919	170	439,673*	19*	1,419	187
New England	5	2	-	26	8	8,391	-	59	7
Maine	-	-	-	3	-	80	-	4	-
N.H.	3	-	-		2	83	-	6	-
Vt.	-	-	-	6	-	25	-	3	-
Mass. R.I.	2	1	-	12 5	4 2	3,118 427	-	35 2	7
Conn.	-	i	_	-	-	4,658	_	9	_
Mid. Atlantic	618		_	63	11	54,796	_	135	18
N.Y.(excl.NYC)		_	_	45	6	10,887	_	43	1
N.Y.C.	613	-	-	3	-	19,240	-	34	14
N.J.	-	-	-	-	-	6,444	-	27	3
Pa.	-	-	-	15	5	18,225	-	31	-
E.N. Central	115	3	-	226	22	80,638	1	221	4
Ohio	21	1	-	72	4	22,286	1	125	1
Ind.	3	-	-	20	5	8,656	-	12	-
III. Mich.	91	2	-	62 54	3 10	28,412 18,014	-	57 18	2
Wis.	-	-		18	-	3,270	-	9	1
W.N. Central	3	_	_	56	17	22,415	1	180	1
Minn.	1			18	-	2,543		21	
lowa		_	_	7	2	1,915	1	8	_
Mo.	1	-	-	11	15	13,148	-	135	-
N. Dak.	-	-	-	5	-	54	-	-	-
S. Dak.	-	-	-	7	-	270	-	2	-
Nebr.	-	-	-	1	-	714	-	9	1
Kans.	1	-	-	7		3,771	-	5	-
S. Atlantic	86	2	-	231	78	124,475	13	244	13
Del.	1	-	-	3	-	1,586	-	- 52	- 1
Md. D.C.	1	-	-	25	1	13,548 6,162	-	52 1	
Va.	3	1	_	44	7	12,022	-	28	_
W. Va.	1	-	_	117	-	635	_	10	_
N.C.	13	-	-	31	-	24,187	1	23	1
S.C.	-	-	-	-	-	10,953	-	40	-
Ga.	21	-	-	2		31,483	12	71	-
Fla.	46	1	-	9	70	23,899	-	19	11
E.S. Central	35	-	-	37	7	45,173	-	56	2
Ky.	4 8	-	-	21	6	4,627	-	16	-
Tenn. Ala.	23	-	-	10 3	-	14,285 15,793		12 18	2
Miss.	-	-	_	3	1	10,468	-	10	-
W.S. CENTRAL	517	2	_	80	2	55,7 9 5	1	109	33
Ark.	170	-	_	3	-	7,590		8	-
La.	310	-	-	10	-	13,323	1	4	-
Okla.	-	-	-	8	-	4,759	-	46	2
Tex.	37	2	-	59	2	30,123	-	51	31
Mountain	8	3	-	21	5	11,549	1	125	6
Mont.	-	-	-	-	1	81	-	5	-
Idaho	-	-	-	-	-	171	-	3	1
Wyo.	1	-	-	-	-	85	-	5	-
Colo. N. Mex.	-	1	-	14 4	2	3,803 1,014	-	24 9	-
Ariz.	3	-	-	-	-	4,176	1	31	3
Utah	4	2	-	1	1	350	-	12	1
Nev.	-	-	-	2	i	1,869	-	36	1
PACIFIC	12	6	-	179	20	36,441	2	290	103
Wash.	-	-	-	1	-	3,740	-	19	9
Oreg.	-	-	-	-	-	1,189	-	11	-
Calif.	12	6	-	167	20	29,970	2	240	75
Alaska	-	-	-	10	-	678	-	6	1
Hawaii	-	-	-	1	-	864	-	14	18
Guam	- 2E	-	-	-	-	83	-	-	4
P.R. V.I.	25 5	-	-	-	-	527 84	1	3	-
	ິນ	-	-	-	-	84	-	-	-
C.N.M.I.	_	_	_	1	_	_	_	24	2

^{*}Cases updated through Division of Sexually Transmitted Diseases and HIV Prevention, National Center for Prevention Services, as of February 28, 1994.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1993 (continued)

Area	Hepatitis A	Hepatitis B	Hepatitis non-A, non-B	Hepatitis unsp.	Legionel- losis	Lepto- spirosis	Lyme disease	Lympho- granuloma venereum	Malaria
United States	24,238	13,361	4,786	627	1,280	51	8,257	285*	1,411
New England	448	356	106	13	66	-	1,815	8	97
Maine	14	11	2	-	6	-	18	-	7
N.H. Vt.	18 9	27 10	8 6	-	2 3	-	15 12	1	4
vı. Mass.	213	214	0 77	13	3 32	-	148	7	3 46
R.I.	77	19	13	-	23		272	-	7
Conn.	117	75	-	-	NN	-	1,350	-	30
Mid. Atlantic	1,665	1,574	398	7	253	3	4,689	184	325
N.Y.(excl.NYC) N.Y.C.	464 722	457 353	259 3	1	89 3	2	2,758 60	12 172	123 126
N. I.C. N.J.	722 295	407	98	-	33	1	786	172	51
Pa.	184	357	38	6	128	-	1,085	-	25
E.N. Central	2,727	1,497	595	15	327	5	505	4	93
Ohio	338	192	37	-	154	2	30	4	15
Ind.	646	249	15	1	49	-	32	-	2
III.	1,023	344	102	7	26	3	19	-	46
Mich. Wis.	213 507	393 319	400 41	7	62 36	-	23 401	-	19 11
W.N. Central	2, 372	802	79	27	95	8	319	2	45
Minn.	497	96	14	4	3	-	141	-	21
lowa	60	36	9	4	19	3	8	-	5
Mo.	1,443	585	25	19	33	3	108	1	9
N. Dak.	80	1	3	-	2	-	2	-	1
S. Dak. Nebr.	18 195	- 19	- 11	-	30	2	6	1	2 4
Kans.	79	65	17	-	8	-	54	-	3
S. Atlantic	1,329	2,408	723	95	219	2	639	60	338
Del.	12	18	1	-	4	1	143	-	2
Md.	159	265	42	3	56	-	180	2	48
D.C.	.11	43	_3		15	-	2	8	11
Va.	156	157	54	43	11	-	95 50	7	41
W. Va. N.C.	29 94	44 315	43 80	-	4 27	1	86	16	2 145
S.C.	18	51	5	1	19	-	9	-	7
Ga.	145	670	451	1	36	-	44	22	20
Fla.	705	845	44	47	47	-	30	5	62
E.S. Central	364	1,748	1,025	4	44	2	40	3	29
Ky.	142	99	16 994	-	19	-	16	1	5
Tenn. Ala.	104 58	1,152 107	994 5	3 1	17 2	1 1	20 4	1 1	12 7
Miss.	60	390	10	-	6	-	-		5
W.S. Central	3,190	1,909	645	173	51	6	78	14	65
Ark.	74	90	5	3	6	1	8	-	4
La.	105	269	178	4	10	5	3	12	7
Okla.	213	195	50	9	13 22	-	19 48	2	6
Tex. Mountain	2,798 4,164	1,355 686	412 366	157 79	22 81	-	48 20	2 1	48 40
Mont.	4,104 77	28	300		7	-	20		2
Idaho	298	26 89	- -	3	1	-	2	-	1
Wyo.	17	34	119	-	7	-	9	-	-
Colo.	877	81	62	44	9	-	-	-	25
N. Mex.	400	215	107	3	6	-	2	- 1	5
Ariz. Utah	1,493 828	96 69	13 42	14 13	17 16	-	2	1	1 2
Nev.	174	74	20	2	18	-	5	-	4
Pacific	7,979	2,381	849	214	144	25	152	9	379
Wash.	926	247	219	11	12	-	9	4	41
Oreg.	532	221	55	2	1	1	8 [†]	1	14
Calif.	5,677	1,876	560	198	121	-	134	4	314
Alaska Hawaii	775 69	15 22	12 3	3	- 10	24	1	-	3 7
Guam	3	6	-	11	-	-	-	-	3
P.R. V.I.	79 1	412	90	2	-	11	-	1	-
	ı	6 2	-	1	-	1	-	-	
C.N.M.I.							_	-	2

^{*}Cases updated through Division of Sexually Transmitted Diseases and HIV Prevention, National Center for Prevention Services, as of February 28, 1994. †Voluntarily reportable for this state.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1993 (continued)

	Measles		Meningo- coccal		Murine typhus			Polio- myelitis,
Area	Indigenous	Imported	infections	Mumps	fever	Pertussis	Plague	paralytic
United States	237	75*	2,637	1,692	25	6,586	10	3†
New England	54	9	133	15	-	834	-	-
Maine	1	-	15	-	-	20	-	-
N.H.	2	-	6	3	-	168	-	-
Vt.	30	1 7	7	1 1	-	122	-	-
Mass. R.I.	11 1	1	72	2	-	408 14	-	-
Conn.	9		33	8	-	102	-	-
Mid. Atlantic	22	19	310	135	2	991		1
N.Y.(excl.NYC)	4	7	126	46	1	373		
N.Y.C.	12	7	37	2	i	116	_	1
N.J.	6	5	50	17	-	85	_	-
Pa.	-	-	97	70	-	417	-	-
E.N. Central	20	11	375	259	-	1,627	-	-
Ohio	6	3	108	74	-	523	_	_
Ind.	1	-	51	8	-	178	_	_
III.	5	4	104	74	-	434	-	-
Mich.	5	1	65	80	-	116	-	-
Wis.	3	3	47	23	-	376	-	-
N.N. Central	1	2	142	67	-	626	-	-
Minn.	-	-	23	2	-	393	-	-
lowa	-	-	28	11	-	38	-	-
Mo.	1	-	34	46	-	144	-	-
N. Dak.	-	-	3	6	-	5	-	-
S. Dak.	-	-	7	-	-	8	-	-
Nebr.	-	-	11	1	-	14	-	-
Kans.	-	2	36	1	-	24	-	-
S. Atlantic	25	8	470	463	1	673	-	1
Del.	-	-	15	1	-	11	-	-
Md.	-	4	60	82	-	133	-	1
D.C. Va.	-	4	6 52	1 40	- 1	14 75	-	-
va. W. Va.	-	4	52 19	23	! -	/5 8	-	-
N.C.	1		67	231	_	199		
S.C.		-	31	17	-	73	-	_
Ga.	_	_	94	20	-	56	_	_
Fla.	24	_	126	48	-	104	-	-
E.S. Central	1	-	154	58	1	297	-	-
Ky.	_	_	25	-	-	38	-	-
Tenn.	-	-	45	19	1	183	-	-
Ala.	1	-	53	22	-	65	-	-
Miss.	-	-	31	17	-	11	-	-
N.S. Central	8	3	264	274	13	239	1	-
Ark.	-	-	27	10	1	18	-	-
La.	1	-	46	20	-	14	-	-
Okla.	-	-	34	13		86		-
Tex.	7	3	157	231	12	121	1	-
Mountain	4	3	211	81	-	464	10	-
Mont.	-	-	13	-	-	11	-	-
Idaho	-	-	21	6	-	101	-	-
Wyo.	-	-	5	5	-	2	-	-
Colo.	3	-	41	18 NN	-	187	2	-
N. Mex. Ariz.	-	3	8 86	NN 19	-	43 70	6	-
Utah	-	-	24	6	-	45	1	-
Nev.	1	-	13	27	-	5	-	-
Pacific	102	20	578	340	8	835	_	1
Wash.	-	-	97	14	-	91	-	1
Oreg.	_	4	110	NN	_	106	_	
Calif.	89	7	346	285	8	619	-	-
Alaska	2	-	15	11	-	5	-	-
Hawaii	11	9	10	30	-	14	-	-
Guam	22	3	1	13	-	-	-	-
P.R.	356	-	14	3	-	11	-	-
V.I.	-	-	-	5	-	-	-	-
C.N.M.I.	92	1	-	15	-	1	-	-
American Samoa	-	-	-	5	-	2	-	-

^{*}For measles only, imported includes both out-of-state and international importations.

†Ten suspected cases were reported in 1993. Three cases have been confirmed as of August 12, 1994, two of which were vaccine-associated, and one was classified as imported.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1993 (continued)

		_		Rheumatic	Rubella						
Area	Psitta- cosis	Ra Animal	bies Human	fever, acute	RMSF*	Rubella	Cong. syndrome	Salmonel- losis	Shigel- losis		
United States	60	9,377	3	112	456	192	5	41,641	32,198		
New England	2	1,695	-	2	4	10	-	3,882	605		
Maine	-	· -	-	1	-	1	-	158	8		
N.H.	-	148	-	NN	-	-	-	220	17		
Vt.	1 1	45	-	-	4	9	-	421	8		
Mass. R.I.	-	720 2	-	-	4	-	-	2,041 231	285 42		
Conn.	-	780	-	1	-	-	-	811	245		
Mid. Atlantic	16	3,585	1	-	28	59	2	7,005	2,218		
N.Y.(excl.NYC)	5	2,692	1	NN	7	17	1	2,390	790		
N.Y.C.	-	53	-	NN	1	22	-	1,601	554		
N.J.	2	458	-	-	10	15	-	1,215	347		
Pa.	9	382	-	NN	10	5	1	1,799	527		
E.N. Central	8	110	-	33	18	8 1	-	5,810	5,111		
Ohio Ind.	4	6 12	-	5	8 4	3	-	1,214 543	1,411 811		
III.	1	23	_	2	4	1	-	2,232	1,722		
Mich.	i	18	-	21	2	2	-	815	829		
Wis.	2	51	-	5	-	1	-	1,006	338		
W.N. Central	3	351	-	26	34	1	-	1,924	1,509		
Minn.		45	-	7	1	-	-	551	240		
lowa	2	79	-	2	7	-	-	241	69		
Mo. N. Dak.	1	35 57	-	NN	20	1	-	529 60	674 7		
S. Dak.	-	49	-	14	3	-	-	99	111		
Nebr.	-	7	-	NN	2	-	-	145	200		
Kans.	-	79	-	3	1	-	-	299	208		
S. Atlantic	8	2,165	-	-	215	7	-	8,502	7,049		
Del.	-	135	-	NN	-	-	-	185	178		
Md.	2	605	-	NN	14	3	-	936	384		
D.C. Va.	- 1	18 387	-	NN NN	- 14	-	-	102 1,055	87 776		
va. W. Va.	-	90	-	-	6	-	-	1,055	38		
N.C.	4	107	_	NN	129	_	-	1,121	2,305		
S.C.	1	165	-	NN	11	-	-	738	414		
Ga.	-	471	-	NN	37	-	-	1,316	474		
Fla.	-	187	-	NN	4	4	-	2,940	2,393		
E.S. Central	1	260	-	-	63	1	-	1,879	1,849		
Ky. Tenn.	- 1	20 124	-	NN NN	16 32	1	-	302 558	171 938		
Ala.	-	116	-	NN	4	-	-	554	375		
Miss.	-	-	-	-	11	-	-	465	365		
W.S. Central	2	635	1	-	77	24	-	3,297	5,748		
Ark.	-	42	-	-	17	-	-	402	201		
La.	-	17	-	NN	2	1	-	650	482		
Okla.	1	65	-	NN	51	1	-	321	484		
Tex.	1	511	1	NN	7	22	-	1,924	4,581		
Mountain	3	178	-	28	16	12	-	2,018	1,921		
Mont. Idaho	- 1	24 8	-	NN NN	2	2	-	106 173	56 46		
Wyo.	-	25	-	1	10	-	-	59	22		
Colo.	_	29	_	5	4	3	_	550	611		
N. Mex.	1	9	-	3	-	-	-	326	411		
Ariz.	-	60	-	NN	-	2	-	519	693		
Utah	1	8	-	19	-	4	-	154	42		
Nev.	-	15	-	NN	-	1	-	131	40		
Pacific	17	398	1	23	1	70	3	7,324	6,188		
Wash. Oreg.	4 4	- 7	-	NN	1	-	-	832 349	797 169		
Calif.	9	363	1	20	-	41	3	5,739	5,093		
Alaska	-	28	-	3	-	1	-	59	30		
Hawaii	-	-	-	NN	-	28	-	345	99		
Guam	-	-	-	2	-	-	-	119	35		
P.R.	-	43	-	-	-	-	-	734	46		
V.I.	-	-	-	- 10	-	-	-	5 E4	1		
C.N.M.I. American Samoa	-	-	-	10 1	-	-	-	54 55	73 17		
AITICITUALI SAITIOA	-		-	ı	-	-	-	ວວ	1 /		

^{*}Rocky Mountain spotted fever.

NN: Not notifiable

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1993 (continued)

		yphilis			Toxic-					Varicella
Area	Primary & secondary	Cong. (<1 yr.)	All stages	Tetanus	shock syndrome	Trich- inosis	Tuber- culosis	Tularemia	Typhoid fever	(chicken- pox)
United States	26,498*	3,211*	101,259*	48	212	16	25,313	132	440	134,722
New England	330	17	1,713	2	13	-	649	-	31	12,655
Maine	7	-	19	-	3	-	27	-	-	1,733
N.H. Vt.	26 1	-	50 1	-	3 1	-	26 7	-	2	1,635 NN
Mass.	122	6	935	2	5	-	370	-	23	6,619
R.I.	16	1	146	-	1	-	64	-		2,668
Conn.	158	10	562	-	-	-	155	-	6	NN
Mid. Atlantic N.Y.(excl.NYC)	2,415 258	1,070 94	19,306 1,980	2	33 17	4 4	5,611 718	2 2	139 20	4,773 NA
N.Y.C.	1,132	654	10,513	-	17	-	3,235	-	95	4,773
N.J.	328	161	2,556	-	-	-	912	-	18	NN
Pa.	697	161	4,257	2	15	-	746	-	6	NN
E.N. Central	4,070	527 70	11,789	7 2	48 12	2	2,385	5	40	64,380
Ohio Ind.	1,180 362	70 1	2,889 1,019	1	12	-	315 248	1	7 2	5,472 NN
III.	1,489	368	4,881	i	11	2	1,242	3	23	26,447
Mich.	543	84	1,952	3	24	-	480	1	7	32,461
Wis.	496	4	1,048	-	-	-	100	-	1	NA
W.N. Central	1,631	111 9	3,271	10	15 3	-	582 141	39	2	16,814
Minn. Iowa	66 64	1	261 175	6 1	3 7	-	59	-	-	NN 5,057
Mo.	1,354	97	2,500	i	2	-	257	17	2	9,609
N. Dak.	1	-	4	-	-	-	7	. =	-	37
S. Dak.	2	-	3	-	-	-	16	17	-	420
Nebr. Kans.	14 130	1 3	35 293	2	3	-	22 80	2 3	-	4 1,687
S. Atlantic	6,513	586	24,237	8	24	6	4,626	4	63	8,332
Del.	94	3	274	-		-	66	-	1	3
Md.	359	30	1,865	2	1	3	406	-	8	NN
D.C. Va.	291 660	74 23	1,652 1,970	-	- 7	- 1	161 458	-	- 7	4 2,917
wa. W. Va.	8	23 6	1,970	-	-	-	75	-	-	5,288
N.C.	1,937	54	4,448	-	4	-	594	2	3	NN
S.C.	921	82	2,339	1	-	-	401	-	-	120
Ga. Fla.	1,052 1,191	79 235	4,077 7,417	- 5	2 10	2	810 1,655	2	3 41	NN NN
E.S. Central	4,117	158	10,494	3	11	-	1,727	4	7	3,981
Ky.	331	9	651	-	3	-	405	1	2	1,429
Tenn.	1,156	52	3,241	2	4	-	556	2	2	2,552
Ala. Miss.	869 1 741	27 70	2,333	1	2 2	-	487 279	1	3	NN NN
W.S. Central	1,761 5,969	4 09	4,269 19,079	9	2	-	3,181	58	19	14,292
Ark.	559	8	1,600	1	-	-	209	36	2	NN
La.	2,598	144	6,854	-	-	-	367	_	1	NN
Okla.	282	11	721	1	2	-	209	17	1	14.001
Tex. Mountain	2,530 256	246 27	9,904	7 1	- 16	- 1	2,396 592	5 12	15 11	14,291
Mont.	1	-	1,251 4		10		22	5	- ''	7,192 84
Idaho	2	-	15	-	2	-	12	-	-	NN
Wyo.	4	-	9	-	-	1	7	3	-	NN
Colo.	90	8	287	1	2	-	102	1	5	NN
N. Mex. Ariz.	34 95	- 16	172 557	-	1 2	-	74 231	-	2 3	NN 6,811
Utah	10	-	68	-	7	-	46	2	1	297
Nev.	20	3	139	-	2	-	98	1	-	NN
Pacific	1,197	306	10,119	6	50	3	5,960	8	128	2,303
Wash.	67 20	4	360 170	1	7	-	286	2	8	NN
Oreg. Calif.	39 1,073	4 298	179 9,488	5	42	- 1	154 5,212	3 3	4 113	NN NN
Alaska	11	-	51	-	-	-	57	-	-	NN
Hawaii	7	-	41	-	1	2	251	-	3	2,303
Guam	470	- 10	5	-	-	-	NA	-	4	553
P.R. V.I.	470 12	18 1	2,482 39	2 1	-	-	253 4	-	-	8,228 486
C.N.M.I.	-	-	-	-	-	-	NA	-	-	178
American San	noa -	-	-	-	-	-	NA	-	1	176

^{*}Cases updated through Division of Sexually Transmitted Diseases and HIV Prevention, National Center for Prevention Services, as of February 28, 1994.

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