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# Incidence and Costs to Medicare of Fractures Among Medicare Beneficiaries Aged ≥65 Years — United States, July 1991–June 1992

An estimated 850,000 fractures occur annually in the United States among persons aged ≥65 years (*1,2*). Osteoporosis, an age-associated condition resulting in decreased bone density, is a major cause of these fractures, which typically result from a fall to the floor (*2*); approximately 25 million persons may be at increased risk for fracture because of low bone mass (*3*). During 1986–1995, annual medical-care costs for fractures among older adults ranged from $7 billion to $10 billion in 1986 (*4*) to $13.8 billion in 1995 (*5*). To determine more accurately the incidence of fractures at 10 anatomical sites among persons aged ≥65 years during July 1991–June 1992 and to estimate the excess costs to Medicare of these fractures during the 1-year period following the fracture, claims data were analyzed for a 5% systematic sample (n=1,288,618) of Medicare beneficiaries. This report summarizes the findings, which indicate that excess costs to Medicare for the 10 incident fracture types represent 3% of all Medicare costs for 1992.

Medicare is a national health insurance program that includes coverage for persons aged ≥65 years, and the Medicare dataset comprises claims for 97% of persons in this age group (*6*). Medicare data include claims from inpatient hospitals, physicians/suppliers, outpatient-care facilities, skilled-nursing facilities (SNF), home-health agencies, and hospice care. Claims files for hospital inpatient services, outpatient hospitals, and physicians' services were reviewed to identify persons with a single fracture at one of 10 sites: ankle, nonankle tibia-fibula, patella, nonhip femur, hip, pelvis, distal forearm (wrist), nonwrist radius-ulna, shaft-distal humerus, and proximal humerus. These persons were identified through use of algorithms employing fracture diagnosis codes from the *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM), and current procedure codes indicating a particular treatment for fracture (*6,7*).

Denominators used to compute incidence rates were obtained from the annual Medicare denominator files that include demographic and entitlement information for the beneficiary population. Incidence rates were age-adjusted by 5-year age groups to the 1990 U.S. population aged ≥65 years. Fracture incidence was analyzed by race because previous studies have documented race-specific differences in age-related fractures. The race categories (black, white, and other/unknown) included in this

*Fractures — Continued*

analysis reflect categories coded in the Medicare dataset. Data were excluded for persons with incomplete information (i.e., health-maintenance organization enrollees, Railroad Retirement Board enrollees, non-U.S. residents, and persons without continuous part A and part B coverage), with bone cancer, or with evidence of previous fracture (i.e., prevalent fractures).

Costs to Medicare were determined for the 10 types of incident fractures by using claims data listing the amount reimbursed by Medicare (including per diem adjustments for inpatient and SNF care) (*8*). Two types of costs were calculated for three specific time intervals pre- and post-fracture: the 6-month baseline before fracture, an initial 12-week episode of care (i.e., the usual healing time for a simple fracture), and a 40-week follow-up period. Mean costs to Medicare per person per day were computed for each of the 10 fracture sites, and excess costs per person were determined by comparing costs during the initial episode and follow-up periods to baseline costs for the 6-month period before fracture. Excess costs for each fracture site were extrapolated to the entire population that met the criteria for inclusion in this analysis.

**Incidence Rates**

From July 1991 through June 1992, a total of 26,785 single fractures at the 10 sites were identified among the 1,288,618 Medicare beneficiaries in the 5% sample (Table 1). Hip fracture occurred most frequently (incidence rate: 73.9 per 10,000 population), followed by fracture of the wrist (37.8) and of the proximal humerus (21.8). The incidence rate was lowest for fracture of the patella (5.5). Sex-specific rates were higher for women than for men for all fracture sites and for all races: race-specific rates were higher for whites than for blacks and other/unknown races for all fracture sites; for most fracture sites, rates were highest for white women and lowest for blacks.

**Cost of Fractures**

From July 1991 through June 1992, the mean daily cost to Medicare for a beneficiary was greatest during the initial 12-week period following a fracture; the daily costs were highest for persons with a fracture of the hip ($191.50) and of the lower femur ($153.98) (Table 2). Mean daily costs were lower during the 40-week follow-up period; however, for most fracture sites, these costs were higher than mean daily costs during the 6-month baseline preceding the fracture. Total excess costs to Medicare for a person during the year following a fracture ranged from $2564 following wrist fracture to $15,294 following hip fracture. The total excess cost to Medicare for the 10 fracture sites among beneficiaries aged ≥65 years meeting inclusionary criteria was $4.2 billion; $2.9 billion (69%) of this excess was associated with hip fracture (Table 3).

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**Editorial Note:** The overall national incidence of fractures cannot be readily estimated because many types of fractures are treated in outpatient settings, which are not linked to integrated databases (*3*). For Medicare beneficiaries aged ≥65 years, however, the Medicare dataset provides a means for estimating the occurrence and costs of fractures among nearly the entire population, and for fracture types not previously

**TABLE 1. Incidence rate* of fractures among Medicare beneficiaries aged ≥65 years, by fracture site, race,† and sex — United States, July 1991–June 1992§**

| Characteristic | Ankle (n=2432) | | Nonankle tibia-fibula (n=976) | | Patella (n=712) | | Nonhip femur (n=924) | | Hip (n=10,139) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Rate | (95% CI¶) | Rate | (95% CI) | Rate | (95% CI) | Rate | (95% CI) | Rate | (95% CI) |
| **Race** | | | | | | | | | | |
| White | 19.2 | (18.4–20.1) | 7.5 | ( 7.0– 8.1) | 5.6 | ( 5.1– 6.1) | 6.9 | ( 6.3– 7.4) | 77.4 | (75.8–79.0) |
| Black | 15.8 | (13.2–18.4) | 7.0 | ( 5.3– 8.8) | 3.6 | ( 2.3– 4.9) | 6.8 | ( 5.1– 8.5) | 37.0 | (33.2–40.9) |
| Other/Unknown | 17.6 | (13.3–22.0) | 4.1 | ( 1.9– 6.3) | 4.5 | ( 2.3– 6.7) | 4.5 | ( 2.1– 6.9) | 54.8 | (46.2–63.3) |
| **Sex** | | | | | | | | | | |
| Male | 10.2 | ( 9.3–11.2) | 3.7 | ( 3.1– 4.3) | 2.5 | ( 2.0– 3.0) | 2.9 | ( 2.4– 3.4) | 48.0 | (45.9–50.0) |
| Female | 24.8 | (23.6–26.0) | 9.5 | ( 8.8–10.3) | 7.4 | ( 6.7– 8.0) | 8.8 | ( 8.2– 9.5) | 88.0 | (86.0–90.1) |
| **Total** | **18.9** | **(18.1–19.7)** | **7.4** | **( 6.9– 7.9)** | **5.5** | **( 5.0– 5.9)** | **6.8** | **( 6.3– 7.3)** | **73.9** | **(72.4–75.4)** |

| Characteristic | Pelvis (n=1783) | | Distal forearm (wrist) (n=4980) | | Non-wrist radius-ulna (n=1100) | | Shaft distal humerus (n=831) | | Proximal humerus (n=2908) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Rate | (95% CI) | Rate | (95% CI) | Rate | (95% CI) | Rate | (95% CI) | Rate | (95% CI) |
| **Race** | | | | | | | | | | |
| White | 13.7 | (13.0–14.4) | 39.6 | (38.4–40.8) | 8.8 | ( 8.2– 9.4) | 6.5 | ( 6.0– 7.0) | 22.9 | (22.0–23.8) |
| Black | 5.3 | ( 3.8– 6.8) | 17.3 | (14.6–20.0) | 3.2 | ( 2.0– 4.4) | 3.7 | ( 2.4– 5.0) | 7.6 | ( 5.8– 9.4) |
| Other/Unknown | 11.3 | ( 7.5–15.2) | 33.5 | (27.2–39.8) | 7.2 | ( 4.3–10.1) | 5.3 | ( 2.7– 8.0) | 22.7 | (17.4–27.9) |
| **Sex** | | | | | | | | | | |
| Male | 5.1 | ( 4.4– 5.8) | 11.7 | (10.7–12.7) | 3.7 | ( 3.1– 4.3) | 3.2 | ( 2.7– 3.8) | 9.5 | ( 8.5–10.4) |
| Female | 17.3 | (16.3–18.2) | 54.0 | (52.4–55.7) | 11.4 | (10.6–12.2) | 8.1 | ( 7.4– 8.7) | 29.2 | (28.0–30.4) |
| **Total** | **13.0** | **(12.4–13.7)** | **37.8** | **(36.7–38.9)** | **8.4** | **( 7.8– 8.9)** | **6.2** | **( 5.8– 6.7)** | **21.8** | **(20.9–22.6)** |

* Per 10,000 Medicare beneficiaries. Age-adjusted by 5-year age groups to the 1990 U.S. population aged ≥65 years.
† The race categories (black, white, and other/unknown) included in this analysis reflect categories coded in the Medicare dataset.
§ Data were analyzed for a 5% systematic sample (n=1,288,618) of Medicare beneficiaries. Data were excluded for persons with incomplete information (i.e., health-maintenance organization enrollees, Railroad Retirement Board enrollees, non-U.S. residents, and persons without continuous part A and part B coverage), with bone cancer, or with evidence of previous fracture (i.e., prevalent fractures).
¶ Confidence interval.

**TABLE 2. Estimated mean daily costs and estimated total excess costs to Medicare* per person for beneficiaries aged ≥65 years with an incident fracture, by fracture site — United States, July 1991–June 1992†**

| Type of Cost/ Time period | Ankle (n=2247) | Nonankle tibia-fibula (n=809) | Patella (n=595) | Nonhip femur (n=752) | Hip (n=9343) | Pelvis (n=1523) | Distal forearm (wrist) (n=4405) | Nonwrist radius-ulna (n=869) | Shaft distal humerus (n=639) | Proximal humerus (n=2477) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Mean daily cost** | | | | | | | | | | |
| Baseline (6 mos pre-fracture) | $ 9.14 | $ 12.84 | $ 10.47 | $ 20.43 | $ 16.16 | $ 18.37 | $ 9.00 | $ 9.43 | $ 12.26 | $ 12.22 |
| 12 wks post-fracture | 47.71 | 82.01 | 54.00 | 153.98 | 191.50 | 93.62 | 27.86 | 38.60 | 66.86 | 52.13 |
| 13–52 wks post-fracture | 13.37 | 17.96 | 15.15 | 20.52 | 18.17 | 16.89 | 12.48 | 13.18 | 16.63 | 16.36 |
| **Total excess cost** | | | | | | | | | | |
| 12 wks post-fracture | 3,240.00 | 5,811.00 | 3,656.00 | 11,218.00 | 14,729.00 | 6,321.00 | 1,584.00 | 2,450.00 | 4,586.00 | 3,352.00 |
| 13–52 wks post-fracture | 1,188.00 | 1,438.00 | 1,316.00 | 25.00 | 565.00 | –414.00§ | 979.00 | 1,054.00 | 1,227.00 | 1,163.00 |
| **Total excess costs 0–52 wks post-fracture** | **$4,328.00** | **$7,249.00** | **$4,972.00** | **$11,242.00** | **$15,294.00** | **$5,907.00** | **$2,564.00** | **$3,505.00** | **$5,814.00** | **$4,515.00** |

* Medicare costs are the amounts the program paid institutions (inpatient hospitals, outpatient hospitals, skilled-nursing facilities, home-health agencies, and hospices) or providers (physicians/suppliers). These costs include costs for fractures plus excess costs of complications or comorbid conditions. Excess costs were calculated by subtracting baseline costs from post-fracture costs.

† Data were analyzed for a 5% systematic sample (n=1,288,618) of Medicare beneficiaries. Data were excluded for persons with incomplete information (i.e., health-maintenance organization enrollees, Railroad Retirement Board enrollees, non-U.S. residents, and persons without continuous part A and part B coverage), with bone cancer, or with evidence of previous fracture (i.e., prevalent fractures). The sample size for each type of fracture in this table is lower than in Table 1 because of the exclusion of persons with fewer than 6 months of data before the fracture.

§ Negative excess costs during the 40-week follow-up period may be the result of a high proportion of deaths among persons with a pelvis fracture.

**TABLE 3. Estimated total excess costs to Medicare* for beneficiaries aged ≥65 years who met the inclusionary criteria and had an incident fracture, by fracture site — United States, July 1991–June 1992†**

| Time period | Ankle | Nonankle tibia-fibula | Patella | Non-hip femur | Hip | Pelvis | Distal forearm (wrist) | Nonwrist radius-ulna | Shaft distal humerus | Proximal humerus | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 wks post-fracture | 146 | 94 | 44 | 169 | 2,752 | 193 | 140 | 43 | 59 | 166 | **3,806** |
| 13–52 wks post-fracture | 54 | 23 | 16 | 0 | 106 | –13§ | 86 | 18 | 16 | 58 | **364** |
| **Total excess costs 0–52 wks post-fracture** | **199** | **117** | **59** | **169** | **2,858** | **180** | **226** | **61** | **74** | **224** | **4,167¶** |

* In millions of dollars. Medicare costs are the amounts the program paid institutions (inpatient hospitals, outpatient hospitals, skilled-nursing facilities, home-health agencies, and hospices) or providers (physicians/suppliers). These costs include costs for fractures plus excess costs of complications or comorbid conditions. Excess costs were calculated by subtracting baseline costs from post-fracture costs.

† Data were analyzed for a 5% systematic sample (n=1,288,618) of Medicare beneficiaries. Data were excluded for persons with incomplete information (i.e., health-maintenance organization enrollees, Railroad Retirement Board enrollees, non-U.S. residents, and persons without continuous part A and part B coverage), with bone cancer, or with evidence of previous fracture (i.e., prevalent fractures).

§ Negative excess costs during the 40-week follow-up period may be the result of a high proportion of deaths among persons with a pelvis fracture.

¶ The row total differs from the column total because of rounding.

*Fractures — Continued*

characterized. The race- and sex-specific fracture incidence rates in this report reflect known differences in bone density between the sexes and among racial groups. For example, women have lower peak bone density and lose bone more rapidly than men; similarly, whites have lower bone mass and may lose bone more rapidly than blacks (*2*). These findings also highlight the increased risk among older women—particularly white women—for fractures later in life.

The total excess costs to Medicare for all fracture sites combined ($4.2 billion) represent 3% of the total annual federal outlay for the Medicare program for 1992 ($138.3 billion) (*1*). However, the excess costs to Medicare described in this report represent only part of the total costs of health care for fractures among the elderly; these excess costs omit beneficiary deductibles, copayments, and other out-of-pocket expenses (*8*) and estimates for persons excluded from the study. The number of persons aged ≥65 years is projected to increase from 32.0 million to 51.5 million during 1990–2020; with a concomitant increase in the proportion of the U.S. population at risk for age-related fractures, excess costs to Medicare for fracture treatment are likely to increase steadily. Future estimates of the cost impact of fractures also must consider these additional costs to the health-care system and social costs related to functional impairment and disability resulting from fractures.

The findings in this report include cost estimates to Medicare for several fracture types for which specific costs have not previously been characterized. Vertebral compressions, which are among the more common fractures among older persons, were not included in this study because onset often is gradual and painless; in addition, because there are no uniform diagnostic criteria for vertebral compressions, these fractures are likely to be underreported.

The findings in this report emphasize the need for further characterization of modifiable risk factors for fractures at specific sites and improved interventions for fracture prevention. Strategies for primary prevention of fractures optimally should include maximizing bone density during adolescence and young adulthood through measures such as promoting a calcium-rich diet and physical activity, and later in life, by reducing falls. Current efforts for primary prevention, which have especially been directed toward perimenopausal white women, include promotion of adequate dietary intake of calcium, regular weight-bearing physical activity, avoidance of smoking and excess alcohol consumption, and elimination of host and environmental causes of falls (e.g., poor balance or household obstacles, respectively) (*2,9,10*). Strength and balance training also may effectively reduce the incidence of falls and subsequent fractures among older adults (*9*). Strategies for secondary prevention for high-risk postmenopausal women include bone-density screening; hormone-replacement therapy; or for women with low bone density, the use of agents that retard bone resorption (*9*). Reduction of fractures among the elderly requires increased awareness among the public and health-care providers about this problem, therapies, and modifiable risk factors.

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*Fractures — Continued*

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## Ten Leading Nationally Notifiable Infectious Diseases — United States, 1995

The National Notifiable Diseases Surveillance System (NNDSS) is a national passive surveillance system comprising 52 infectious diseases designated by the Council of State and Territorial Epidemiologists as reportable to CDC (*1*). This report is based on the *Summary of Notifiable Diseases* for 1995 (*2*) and presents the most commonly reported nationally notifiable diseases for 1995. During 1995, sexually transmitted diseases (STDs) predominated and were reported among all age groups.

The 10 most frequently reported nationally notifiable infectious diseases for 1995 were, in descending order, chlamydia, gonorrhea, acquired immunodeficiency syndrome (AIDS), salmonellosis, hepatitis A, shigellosis, tuberculosis (TB), primary and secondary syphilis, Lyme disease, and hepatitis B (*2*). The STDs of chlamydia, gonorrhea, AIDS, primary and secondary syphilis, and hepatitis B accounted for 87% of cases reported for these 10 diseases.

Although 1995 was the first year genital infections with *Chlamydia trachomatis* were nationally notifiable, this condition was the most commonly reported disease for 1995. Most cases were reported among women; infection with *C. trachomatis* is tested for and reported less frequently for men than for women. Rates for AIDS and TB were substantially higher among males than females. Consistent with previous surveillance data, the rate of AIDS reported among men was more than four times that for women, and for TB, nearly twice that for women. Except for AIDS, TB, and genital infection with *C. trachomatis*, sex-specific rates of notifiable diseases were similar.

The most commonly reported infectious diseases varied by age group. Salmonellosis and shigellosis continued to be the most common notifiable diseases reported among children aged <5 years (61.8 and 46.3 per 100,000 population, respectively). Among children aged 5–14 years, gonorrhea and shigellosis (rates of 21.8 and 20.1, respectively) were the most frequently reported diseases. Gonorrhea remained the most common disease reported among persons aged 15–24 years (645.0), and rates for both gonorrhea and AIDS were high among persons aged 25–44 years (162.4 and 65.3, respectively) and persons aged 45–64 years (22.3 and 27.8, respectively). Among

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persons aged >65 years, TB was the most commonly reported notifiable disease (16.3). Age-specific data about chlamydial infections were not available for 1995.

*Reported by: Council of State and Territorial Epidemiologists. Div of Public Health Surveillance and Informatics (proposed), Epidemiology Program Office, CDC.*

**Editorial Note**: The findings in the *Summary of Notifiable Diseases* reflect only diseases that are diagnosed by health-care or laboratory workers and reported to state and local health departments, who then report to CDC. Resources available for conducting surveillance vary widely by disease (*3*). In addition, patterns of detection and reporting probably vary by disease, age or population group, state, and locality. Consequently, for many of these conditions, the true incidences in the United States probably are underestimated. Despite such limitations, however, these and other surveillance data are useful for monitoring trends and for determining relative disease burdens.

As part of the *MMWR* series, CDC will release on October 25 the *Summary of Notifiable Diseases, United States, 1995* (*2*). This publication contains summary tables of the official statistics for the reported occurrence of nationally notifiable diseases during 1995. Data for 1995 are presented by month; geographic location; and patient age, sex, and race/ethnicity in maps and graphs for many conditions. Also included are a brief history of notifiable disease reporting, highlights of important developments in the reported occurrences of selected nonnotifiable diseases (e.g., dengue fever, hantavirus pulmonary syndrome, penicillin-nonsusceptible *Streptococcus pneumoniae*, and Ebola hemorrhagic fever), and data from the Public Health Laboratory Information System.

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## Hunting–Associated Injuries and Wearing "Hunter" Orange Clothing — New York, 1989–1995

"Hunter" orange (i.e., fluorescent or international orange) is worn by hunters to increase their visibility and to reduce their potential for being mistaken for game. Although education courses for hunters promote the use of hunter orange, hunters in New York are not required to wear high-visibility clothing. To examine factors associated with two-party hunting injuries involving firearms (i.e., the injury resulted from the intentional or unintentional discharge of the firearm of another hunter), including the use of hunter orange, the New York State Department of Environmental Conservation (DEC) and the New York State Department of Health analyzed hunting-associated injury reports during 1989–1995. This report describes three of the 62 reported hunting-associated injuries during 1995 and summarizes information about two-party hunting-associated injuries involving firearms during 1989–1995. The

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findings indicate that most injured hunters in two-party incidents were not wearing hunter orange.

In New York, reporting of hunting injuries involving firearms is required by law, and all incidents are investigated, either by local law enforcement officers or a state environmental conservation officer. Hunting-injury reports filed with DEC include a description of the event, the primary factor contributing to the injury as determined by the investigator, and the type and color of clothing worn by the participants. Hunter orange use was defined as the wearing of one or more of the following solid orange colored garments: hat, coat, vest, or pants. The number of licensed hunters in New York during 1989–1995 was used as the denominator to calculate injury rates.

**Case Reports**

**Case 1:** On December 3, 1995, four hunters separated to flush deer out of an overgrown field. Two hunters walked through the field attempting to drive deer toward the other two hunters who were in a stationary position. One of the stationary hunters observed movement in the thick brush and, believing the movement to be a deer, fired his shotgun at a range of 48 yards. However, the movement had been caused by a hunter who was not wearing orange and who was struck in the chest by the shotgun slug and killed.

**Case 2:** On October 30, 1995, two hunters looking for grouse became separated while hiking through an area of dense brush. One hunter flushed a grouse, which took flight, and fired at the bird. The other hunter, who was in the line of fire 25 yards away and dressed in camouflage clothing, was wounded by 12 pellets to the upper body.

**Case 3:** On May 1, 1995, a licensed guide assisted a client in hunting turkey. The guide issued calls to attract turkeys. Another hunter in the area heard the calls and, believing that a turkey was nearby, began to move through open woods toward the sound. The hunter, who was wearing camouflage clothing, moved to within 40 yards of the guide and fired his shotgun after observing movement. The guide, who was not wearing orange, was wounded by shotgun pellets in the shoulder, neck, and face.

**Injuries During 1989–1995**

During 1989–1995, a total of 508 hunting-associated firearm injuries were reported to DEC, representing an annual mean rate of 9.8 injuries per 100,000 licensed hunters. Of these 508 injuries, 39 (8%) were fatal, 152 (30%) involved one person, and 356 (70%) involved two persons (rate: 6.9). Of the 39 fatal injuries, 31 (79%) were two-party incidents.

Among two-party injuries, big-game (e.g., deer and bear) hunters accounted for 135 (38%) injuries, including 25 (81%) fatalities. Turkey hunters accounted for 78 (22%) injuries, including two (6%) fatalities; and small-game (e.g., rabbit, squirrel, pheasant, grouse, raccoon, and woodchuck) hunters accounted for 132 (37%) injuries, including three (10%) fatalities.

Of the 331 (93%) two-party injuries in which the estimated distance from the hunter to the injured hunter was recorded, 54 (16%) occurred at a range of ≤10 yards, 161 (49%) between 11–50 yards, and 116 (35%) at >50 yards. In 125 (35%) incidents, the primary contributing factor was listed as injured hunter mistaken for game (Table 1). In 79 (22%) incidents, the injured person was out of sight of the hunter, and 60 (17%) incidents occurred when the injured person was in the line of fire. Of

*Hunting Injuries — Continued*

**TABLE 1. Number and percentage of two-party hunting-associated firearm injuries, by factor contributing to injury* and "hunter" orange use† by injured hunter — New York, 1989–1995**

| | | | Injured hunter wearing hunter orange | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Yes | | No | | Unknown | |
| Contributing factor | No. | (%) | No. | (%) | No. | (%) | No. | (%) |
| Mistaken for game | 125 | ( 35) | 6 | ( 5) | 117 | (94) | 2 | (1) |
| Out of sight | 79 | ( 22) | 29 | (37) | 46 | (58) | 4 | (5) |
| In line of fire | 60 | ( 17) | 18 | (30) | 37 | (62) | 5 | (8) |
| Unintentional discharge | 39 | ( 11) | 11 | (28) | 27 | (69) | 1 | (3) |
| Struck by ricochet | 37 | ( 10) | 13 | (35) | 23 | (62) | 1 | (3) |
| Other/Unknown | 16 | ( 5) | 7 | (44) | 9 | (66) | 0 | (0) |
| **Total** | **356** | **(100)** | **84** | **(24)** | **259** | **(73)** | **13** | **(4)** |

*Determined by a local law enforcement officer or a state environmental conservation officer following an investigation of the injury.
†Wearing any one of the following solid orange garments: hat, coat, vest, or pants.

78 injuries associated with turkey hunting, 61 (78%) were the result of one hunter mistaking another for game.

Wearing of hunter orange was determined for 343 (96%) two-party hunters who were injured. In 259 (76%) incidents, the injured hunter was not wearing hunter orange. Of the 125 incidents in which the injured hunter was mistaken for game, 117 (94%) were not wearing hunter orange, and six (5%) were wearing hunter orange; for two (1%), hunter orange information was not recorded. Wearing of hunter orange was determined for 77 (99%) of 78 persons injured who were hunting turkey; none were wearing hunter orange.

In 1992, DEC interviewed 576 randomly selected licensed hunters in New York about the use of hunter orange clothing. Of the 559 (97%) respondents who hunted big game, 452 (81%) reported routine use of hunter orange clothing. Of the 566 (98%) respondents who hunted small game, 359 (63%) reported routinely wearing hunter orange clothing.

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**Editorial Note:** Based on estimates by the International Hunter Education Association (IHEA), in 1995, approximately 17 million persons purchased hunting licenses in the United States (excluding Alaska) (*1*). In 1995, IHEA reported 1201 hunting injuries involving firearms, including 107 (9%) fatalities (*2*). Of these injuries, 851 (71%) involved two parties, including 69 (5.8%) fatalities.

In 40 states, hunters are required to wear hunter orange; however, in some states, regulations apply only to hunting on public lands or hunting big game. In New York, the 1992 survey indicated that an estimated 19% of big-game hunters and 37% of small-game hunters did not routinely wear hunter orange clothing. The finding that approximately 72% of injured hunters in two-party incidents were not wearing hunter orange clothing is consistent with previous reports that found low proportions of hunter orange use among injured hunters (*3,4*).

*Hunting Injuries — Continued*

In New York, hunter orange clothing was not usually worn by persons who bowhunted, hunted with muzzle-loaded firearms, or hunted waterfowl—activities which accounted for only 10 (3%) two-party injuries during 1989–1995. However, 22% of two-party injuries involved turkey hunting; most (78%) injuries resulted from one hunter mistaking another for game. None of the turkey hunters involved in a two-party injury were wearing hunter orange, and many were dressed in complete camouflage because of the perception that turkeys will see and avoid displays of hunter orange. Because turkey hunting often occurs in areas of thick brush or undergrowth, increasing hunter visibility may be particularly important in preventing "mistaken for game" injuries.

Since 1960, the state legislature in New York has required that all first-time hunting license holders complete a hunter-education course. From 1965 to 1994, reported hunting injuries in New York decreased steadily from 157 (22.3 injuries per 100,000 licensed hunters) to 52 (7.2) and from 11 deaths to one death. In 1991, DEC reviewed hunting-injury reports and concluded that most hunting injuries were associated with violations of basic firearms safety rules. DEC also found that most hunters who were injured as the result of being "mistaken for game" or "in line of fire" were not wearing hunter orange at the time of injury (*3*).

In 1992, DEC initiated a campaign in New York to promote basic firearms safety and the use of hunter orange clothing through hunter education courses, meetings with hunter organizations, and advertisements in hunting literature. During 1992–1995, following the initiation of this safety promotion campaign, the average annual injury rate decreased 27% compared with the rate during 1988–1991.

The routine wearing of hunter orange clothing can increase visibility of hunters, especially if worn in combinations that display orange in all directions. Efforts to increase the use of hunter orange also should include education of experienced hunters to wear hunter orange and, for turkey hunters who do not wear hunter orange, to display hunter orange near their calling location.

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## Population-Based Prevalence of Perinatal Exposure to Cocaine — Georgia, 1994

Maternal cocaine use during pregnancy is associated with adverse health effects for both the mother and the infant (e.g., intrauterine growth retardation, placental abruption, preterm delivery, congenital anomalies, and cerebral injury) (*1*). Because cocaine use often occurs concurrently with use of other substances (e.g., cigarettes and alcohol) and because fear of prosecution may deter women from obtaining

*Perinatal Exposure to Cocaine — Continued*

medical care, the occurrence of perinatal exposure to cocaine has not been well characterized. In Georgia, the routine collection of dried blood spots (DBSs) from a heelstick of newborns for screening for metabolic diseases enabled the Georgia Chapter of the March of Dimes Birth Defects Foundation, the Georgia Department of Human Resources (DHR), and CDC to collaborate on a feasibility study of the use of residual DBSs for conducting low-cost population-based surveillance for perinatal cocaine exposure. This report presents the findings of the study, which indicate that, in 1994, at least 0.5% of infants in Georgia had had perinatal exposure to cocaine.

The sample for this study comprised newborns whose DBS specimens were submitted to DHR during a 2-month period in 1994 and for whom an adequate specimen was available after completion of metabolic screening. Because of probable fear of prosecution and lack of informed consent, testing for cocaine metabolite was conducted with anonymous specimens. If more than one DBS specimen was obtained for a newborn, only the results of the earliest specimen were included in this analysis. Newborns with gestations <31 weeks or birthweights <1500 g (<3 lbs, 5 oz) were excluded from analysis because only approximately 50% of these newborns were tested within 7 days after birth—a maximum time period for reliable detection of cocaine metabolite in the DBS specimen. Multiple births and all newborns tested after 7 days of age also were excluded. A total of 16,470 eligible infants were born during the 2-month period; of these, DBS specimens from 14,968 (91%) newborns were submitted to DHR and tested by CDC for cocaine metabolite.

Data about maternal characteristics were collected from the birth certificate. For each specimen, a ¼-punch (equivalent to a 12-μL blood specimen) was obtained from one blood spot and was tested for benzoylecognine (BE)—a primary cocaine metabolite—using a modified radioimmunoassay (RIA) (*2*). Samples with BE measured at >0 ng/mL by RIA were then tested by liquid chromatography/tandem mass spectrometry for confirmation of BE at CDC (*3*).

Rigorous measures were employed to ensure anonymity of the final analysis database. In particular, personal identifying information and laboratory results were not present in the database simultaneously, and the analysis files precluded combination of attributes that potentially could permit inferential identification of any person.

Of the 14,968 newborns, specimens for 73 tested positive for BE, representing a statewide prevalence rate of 4.9 BE-positive per 1000 newborns. Maternal characteristics associated with high rates of BE in newborns included older age; education of <13 years; self-reported cigarette smoking, alcohol drinking, or both during pregnancy; inadequate weight gain during pregnancy; black race; having had three or more previous live-born infants; and having a short interpregnancy interval (Table 1). Rates also were higher for mothers residing in large standard metropolitan statistical areas (population ≥1,000,000). Mothers of BE-positive newborns resided in 17 of the 19 health districts in Georgia.

The mothers of BE-positive newborns were more likely than those of BE-negative newborns to have received late or no prenatal care. However, 74% of the mothers of BE-positive newborns had received some prenatal care, and 34% had initiated prenatal care during the first trimester. Mothers of BE-positive newborns were more likely to have given birth in large hospitals with specialized perinatal services (level III) and in hospitals with no obstetric services or outside of hospitals (level 0) than in hospitals with intermediate obstetric services (levels I and II).

*Perinatal Exposure to Cocaine — Continued*

**TABLE 1. Number and rate* of detection of benzoylecognine (BE) in residual dried blood spots of newborns, by selected maternal characteristics — Georgia, 1994**

| Maternal characteristic | Sample size | BE-positive infant | | | | |
|---|---|---|---|---|---|---|
| | | No. | Rate | (95% CI†) | OR§ | (95% CI) |
| **Age group (yrs)** | | | | | | |
| <25 | 7,143 | 17 | 2.4 | ( 1.4– 3.8) | 1.0 | referent |
| ≥25 | 7,824 | 56 | 7.2 | ( 5.4– 9.3) | 3.0 | ( 1.8– 5.1) |
| **Education (yrs)** | | | | | | |
| ≤12 | 8,855 | 59 | 6.7 | ( 5.1– 8.6) | 2.9 | ( 1.6– 5.0) |
| ≥13 | 5,993 | 14 | 2.3 | ( 1.3– 3.9) | 1.0 | referent |
| **Cigarette smoking and drinking during pregnancy** | | | | | | |
| Cigarette smoking only | 1,584 | 28 | 17.7 | (11.7– 25.5) | 8.1 | ( 5.2–12.6) |
| Drinking only | 111 | 3 | 27.0 | ( 5.6– 79.0) | 12.5 | ( 4.9–31.9) |
| Both | 106 | 13 | 122.6 | (65.3–209.7) | 63.1 | (43.6–91.3) |
| Neither | 13,117 | 29 | 2.2 | ( 1.5– 3.2) | 1.0 | referent |
| **Weight gain during pregnancy (lbs)** | | | | | | |
| <15 | 996 | 13 | 13.1 | ( 6.9– 22.3) | 3.7 | ( 2.1– 6.8) |
| 15–24 | 3,001 | 18 | 6.0 | ( 3.6– 9.5) | 1.7 | ( 1.0– 3.0) |
| ≥25 | 9,955 | 35 | 3.5 | ( 2.4– 4.9) | 1.0 | referent |
| Unknown | 1,016 | 7 | 6.9 | ( 2.8– 14.2) | 2.0 | ( 0.9– 4.4) |
| **Race/Ethnicity¶** | | | | | | |
| Black, non-Hispanic | 5,049 | 61 | 12.1 | ( 9.2– 15.5) | 9.3 | ( 5.6–15.5) |
| White, non-Hispanic | 9,139 | 12 | 1.3 | ( 0.7– 2.3) | 1.0 | referent |
| Hispanic | 491 | 0 | — | — | — | — |
| Other | 287 | 0 | — | — | — | — |
| **Previous births** | | | | | | |
| 0 | 6,520 | 6 | 0.9 | ( 0.3– 2.0) | 1.0 | referent |
| 1–2 | 7,277 | 30 | 4.1 | ( 2.8– 5.9) | 4.5 | ( 2.0–10.0) |
| ≥3 | 1,171 | 37 | 31.6 | (22.2– 43.6) | 35.4 | (20.7–60.8) |
| **Interpregnancy interval (mos)** | | | | | | |
| 0–6 | 675 | 15 | 22.2 | (12.4– 36.7) | 3.9 | ( 2.2– 6.7) |
| ≥7 | 7,542 | 44 | 5.8 | ( 4.2– 7.8) | 1.0 | referent |
| No previous birth | 6,520 | 6 | 0.9 | ( 0.3– 2.0) | 0.2 | ( 0.1– 0.3) |
| Unknown | 231 | 8 | 34.6 | (15.0– 68.2) | 6.1 | ( 3.1–12.0) |
| **Residence** | | | | | | |
| Large SMSA** | 7,471 | 48 | 6.4 | ( 4.7– 8.5) | 2.2 | ( 1.2– 4.1) |
| Other SMSA | 3,003 | 12 | 4.0 | ( 2.1– 15.6) | 1.4 | ( 0.6– 3.0) |
| Non-SMSA | 4,493 | 13 | 2.9 | ( 1.5– 5.0) | 1.0 | referent |
| **Month of pregnancy at initiation of prenatal care** | | | | | | |
| 0–3 | 12,080 | 25 | 2.1 | ( 1.3– 3.1) | 1.0 | referent |
| 4–6 | 2,139 | 21 | 9.8 | ( 6.1– 15.0) | 4.8 | ( 2.8– 8.1) |
| 7–9 | 447 | 8 | 17.9 | ( 7.7– 5.3) | 8.8 | ( 4.5–17.1) |
| No prenatal care | 167 | 15 | 89.8 | (50.3–148.1) | 47.6 | (32.4–69.8) |
| Unknown | 135 | 4 | 29.6 | ( 8.1– 75.9) | 14.5 | ( 6.6–33.0) |
| **Hospital services received** | | | | | | |
| Specialized perinatal | 7,152 | 45 | 6.3 | ( 4.6– 8.4) | 2.2 | ( 1.3– 3.6) |
| Intermediate obstetric | 7,661 | 22 | 2.9 | ( 1.8– 4.3) | 1.0 | referent |
| No obstetric services | 149 | 6 | 40.3 | (14.8– 87.6) | 14.6 | ( 7.3–29.2) |
| **Total††** | **14,968** | **73** | **4.9** | **( 3.8– 6.1)** | | |

*Per 1000 live-born infants.
†Confidence interval.
§Odds ratio.
¶Numbers for racial/ethnic groups other than blacks, whites, and Hispanics were too small for meaningful analysis.
**Standard metropolitan statistical area. Large SMSAs have populations ≥1,000,000.
††Some numbers do not total to 14,968 because of missing data: age (one); education (120); smoking and drinking during pregnancy (50); race and ethnicity (two); SMSA (one); and hospital services received (six).

*Perinatal Exposure to Cocaine — Continued*

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**Editorial Note:** This study in Georgia is the first to use newborn DBSs to determine perinatal exposure to cocaine. Statewide prevalences of perinatal cocaine exposure have been estimated previously by testing maternal urine samples obtained at delivery from women in California (*4*), Missouri (*5*), Rhode Island (*6*), South Carolina (*7*), and Utah (*8*). In Alabama, statewide prevalence was estimated by testing maternal urine specimens at delivery from pregnant women attending public health clinics (*9*). Although these studies employed different methodologies, the characteristics of women in Georgia who used cocaine during pregnancy were consistent with patterns in previous reports (*1,8*). In addition, in Georgia, evidence of antepartum cocaine exposure was present among newborns in areas throughout the state and in diverse population groups.

To reduce cocaine use during pregnancy, in 1990 the Georgia General Assembly convened a Conference on Children of Cocaine and Substance Abuse (CCCSA), which recommended that cocaine-using pregnant women be treated and not prosecuted. Acknowledging this recommendation, in 1992 the Georgia Court of Appeals established that mothers who prenatally pass cocaine to their infants may not be prosecuted under Georgia law.* In addition, CCCSA recommended the feasibility study detailed in this report.

The findings in this report probably underestimate the prevalence of cocaine exposure during pregnancy in Georgia for at least three reasons. First, screening of newborns provides information about cocaine exposure only near the time of delivery and not about exposures that may have occurred earlier (*10*). Second, DBS samples are not collected for fetal deaths and may not be collected routinely during the interval of detection of BE for early neonatal deaths and for newborns in intensive care, especially for infants with very low birthweight and infants born prematurely. Finally, because cocaine metabolite is excreted from the body, testing must occur soon after birth; in a preliminary analysis before this Georgia study, no positive test results were identified for newborns aged >7 days.

Despite these limitations, this feasibility study illustrates that DBS screening can assist in estimating the population-based prevalence of perinatal cocaine exposure. As a result of technological improvements associated with this effort in Georgia, the immunoassay for BE in DBSs can now be used for screening with laboratory confirmation of positive values by liquid chromatography/tandem mass spectrometry (*2*). This methodology also can be used to detect other substances (e.g., tetrahydrocannabinol and nicotine) and their metabolites. When measures for ensuring anonymity are employed and legal protection against prosecution is provided, this approach can assist states or large communities in designing and evaluating population-wide prevention and intervention activities to reduce cocaine and other substance use

*The State v. Luster, 204 Ga. App. 156; 419 S.E. 2d. 32, (1992).

*Perinatal Exposure to Cocaine — Continued*

among pregnant women. In addition, efforts are needed to increase public support for such studies and for programs to prevent cocaine use during pregnancy.

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## *Notice to Readers*

### Recommendations from a Meeting on the Feasibility of Global Measles Eradication

During July 9–10, 1996, the World Health Organization (WHO), the Pan American Health Organization, and CDC cosponsored a meeting to review recent progress in controlling measles and to discuss the feasibility of global measles eradication. Participants included representatives from each WHO regional office, U.S. academic medical institutions, the Council of State and Territorial Epidemiologists, local health departments, and several state public health laboratories.

Country and regional presentations documented tremendous recent progress in worldwide measles control and increasing interest in pursuing global measles eradication. Six principal conclusions and recommendations resulted from the meeting:

1. Worldwide measles eradication is feasible using currently available vaccines and should be achievable within the next 10–15 years;
2. Single-dose strategies are not adequate to achieve eradication, and intensive efforts are needed to achieve adequate levels of population immunity;
3. Surveillance for measles, which must guide all efforts to control measles, must be based on clinical findings suggestive of measles;
4. Laboratory diagnosis will become increasingly important as control of measles improves, and molecular epidemiologic studies, which require measles virus isolates, will be increasingly used to track transmission of measles;

*Notice to Readers — Continued*

5. Measles outbreaks represent an opportunity to build the political will necessary to implement appropriate prevention strategies and must be well understood to refine prevention strategies; and
6. The major obstacles to measles eradication are perceptual, political, and financial. Considerable efforts are needed to change the incorrect perception that, in many industrialized countries, measles is a mild illness.

International consensus and commitment and a global plan of action are essential to facilitate coordination between countries, donors, technical agencies, and international organizations to assure that activities are efficiently conducted. In addition, polio-eradication efforts need to be strengthened in countries with endemic poliovirus transmission to ensure that the introduction of measles-elimination activities sustains the polio-eradication initiative.

The report of the meeting is available in WHO's *Weekly Epidemiological Record* (*1*) from the World Wide Web at http://www.who.ch/wer/wer_home.htm or from WHO, Distribution and Sales, 20 Avenue Appia, CH-1211 Geneva 27, Switzerland; fax: 41 22 791 4857. Additional information about the progress in controlling measles will be provided in an *MMWR Recommendations and Reports* during the first quarter of 1997.

*Reference*

1. World Health Organization. Expanded Programme on Immunization (EPI). Meeting on advances in measles elimination: conclusions and recommendations. Wkly Epidemiol Rec 1996;71:305–9.

## *Notice to Readers*

### Voluntary Worldwide Recall of Albuminar® and Plasma-Plex® by Centeon, L.L.C.

On October 9, 1996, Centeon, L.L.C. (King of Prussia, Pennsylvania) announced a worldwide recall of all lots of Albumin, 5%, 20%, 25% (Human), U.S.P. (Albuminar®-5, Albuminar®-20, Albuminar®-25), and Plasma Protein Fraction, (Human) U.S.P. 5% Solution Heated-Treated (Plasma-Plex®, PPF) distributed under the Centeon or Armour label as a precaution because of concerns related to manufacturing (*1*). Hospitals, dialysis centers, and other users should discontinue use of all lots of Centeon/Armour Albuminar® and Plasma-Plex®, quarantine all vials, and contact their distributors or Centeon for disposition orders.

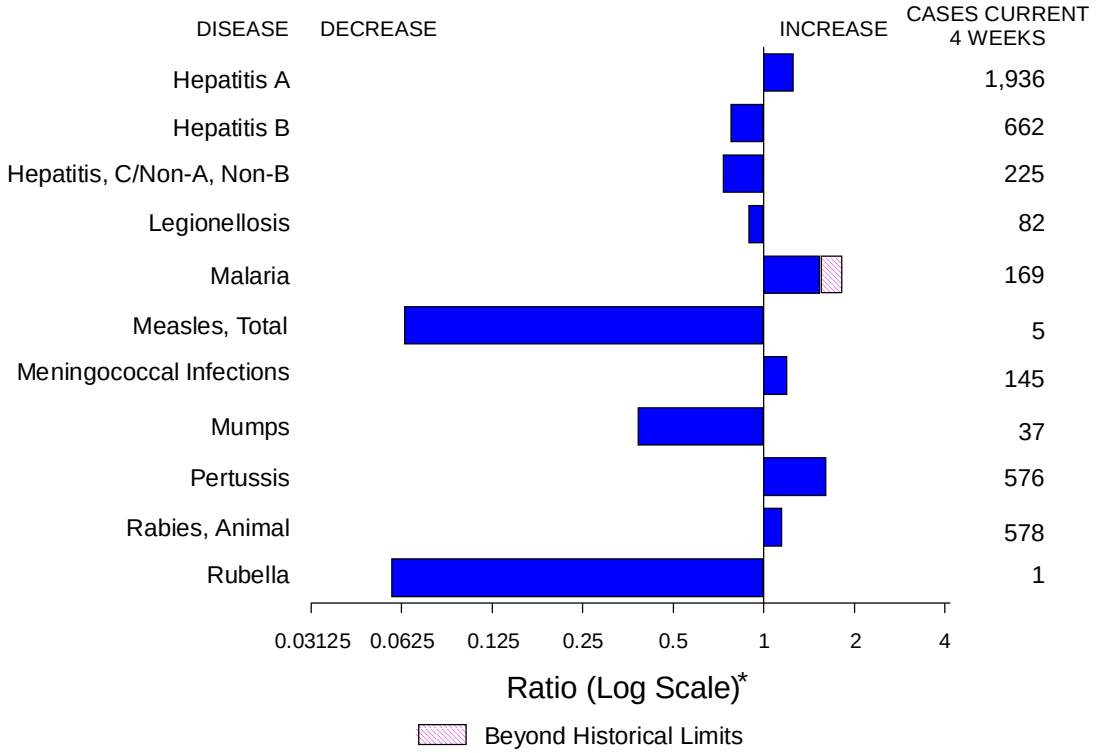
Health-care professionals should report any episode of infection associated with Centeon Albuminar® or Plasma-Plex® to CDC's Hospital Infections Program, National Center for Infectious Diseases (telephone [404] 639-6413]; fax [404] 639-6459), and to Food and Drug Administration's (FDA's) MedWatch Program (telephone [800] 332-1088; fax [800] 332-0178).

Replacement albumin is available from other U.S.-licensed sources. Shortages should be reported to the FDA Biologics Supply Officer, telephone (301) 827-0379.

*Reference*

1. CDC. Bacterial sepsis associated with receipt of albumin. MMWR 1996;45:866–7.

**FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending October 12, 1996, 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 — provisional cases of selected notifiable diseases, United States, cumulative, week ending October 12, 1996 (41st Week)**

| | Cum. 1996 | | Cum. 1996 |
|---|---|---|---|
| Anthrax | - | HIV infection, pediatric*§ | 216 |
| Brucellosis | 63 | Plague | 2 |
| Cholera | 3 | Poliomyelitis, paralytic¶ | - |
| Congenital rubella syndrome | 1 | Psittacosis | 34 |
| Cryptosporidiosis* | 1,683 | Rabies, human | 1 |
| Diphtheria | 1 | Rocky Mountain spotted fever (RMSF) | 566 |
| Encephalitis: California* | 74 | Streptococcal toxic-shock syndrome* | 13 |
| eastern equine* | 1 | Syphilis, congenital** | 225 |
| St. Louis* | - | Tetanus | 22 |
| western equine* | - | Toxic-shock syndrome | 106 |
| Hansen Disease | 84 | Trichinosis | 16 |
| Hantavirus pulmonary syndrome*† | 15 | Typhoid fever | 282 |

-: no reported cases
*Not notifiable in all states.
† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
§ Updated monthly to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention (NCHSTP), last update September 24, 1996.
¶ Three suspected cases of polio with onset in 1996 has been reported to date.
**Updated quarterly from reports to the Division of STD Prevention, NCHSTP.

## TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending October 12, 1996, and October 14, 1995 (41st Week)

| Reporting Area | AIDS* | | Chlamydia | *Escherichia coli* O157:H7 | | Gonorrhea | | Hepatitis C/NA,NB | | Legionellosis | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NETSS† | PHLIS§ | | | | | | |
| | Cum. 1996 | Cum. 1995 | Cum. 1996 | Cum. 1996 | Cum. 1996 | Cum. 1996 | Cum. 1995 | Cum. 1996 | Cum. 1995 | Cum. 1996 | Cum. 1995 |
| UNITED STATES | 51,611 | 55,190 | 285,193 | 2,129 | 1,116 | 222,015 | 310,841 | 2,626 | 3,131 | 690 | 946 |
| NEW ENGLAND | 2,065 | 2,741 | 13,120 | 289 | 67 | 5,441 | 6,000 | 94 | 102 | 42 | 29 |
| Maine | 32 | 82 | 707 | 21 | - | 49 | 72 | - | - | 2 | 5 |
| N.H. | 66 | 77 | 397 | 36 | 31 | 80 | 91 | 8 | 12 | 3 | 2 |
| Vt. | 18 | 28 | U | 30 | 26 | 42 | 48 | 32 | 10 | 4 | - |
| Mass. | 997 | 1,235 | 5,529 | 136 | 10 | 1,769 | 2,106 | 48 | 73 | 24 | 18 |
| R.I. | 129 | 187 | 1,517 | 15 | - | 408 | 417 | 6 | 7 | 9 | 4 |
| Conn. | 823 | 1,132 | 4,970 | 51 | - | 3,093 | 3,266 | - | - | N | N |
| MID. ATLANTIC | 14,243 | 15,014 | 34,298 | 185 | 39 | 26,142 | 34,499 | 241 | 364 | 172 | 162 |
| Upstate N.Y. | 1,855 | 1,779 | N | 127 | 12 | 5,290 | 7,410 | 190 | 184 | 58 | 43 |
| N.Y. City | 7,855 | 7,617 | 15,878 | 10 | - | 8,618 | 13,879 | 1 | 1 | 6 | 5 |
| N.J. | 2,905 | 3,716 | 4,161 | 48 | 5 | 3,971 | 3,325 | - | 143 | 12 | 24 |
| Pa. | 1,628 | 1,902 | 14,259 | N | 22 | 8,263 | 9,885 | 50 | 36 | 96 | 90 |
| E.N. CENTRAL | 4,076 | 4,197 | 48,428 | 504 | 326 | 32,875 | 62,303 | 360 | 261 | 183 | 279 |
| Ohio | 871 | 847 | 14,294 | 147 | 82 | 10,288 | 19,416 | 30 | 9 | 83 | 127 |
| Ind. | 498 | 423 | 7,933 | 72 | 47 | 5,160 | 7,147 | 8 | 4 | 38 | 69 |
| Ill. | 1,808 | 1,727 | 19,358 | 199 | 84 | 14,119 | 16,010 | 53 | 72 | 9 | 25 |
| Mich. | 685 | 914 | U | 86 | 65 | U | 14,473 | 269 | 176 | 36 | 27 |
| Wis. | 214 | 286 | 6,843 | N | 48 | 3,308 | 5,257 | - | - | 17 | 31 |
| W.N. CENTRAL | 1,221 | 1,265 | 22,096 | 490 | 287 | 9,934 | 16,052 | 98 | 68 | 35 | 68 |
| Minn. | 226 | 284 | 2,702 | 224 | 202 | U | 2,430 | 2 | 4 | 4 | 6 |
| Iowa | 72 | 91 | 3,435 | 105 | 55 | 906 | 1,274 | 43 | 12 | 7 | 19 |
| Mo. | 626 | 559 | 9,654 | 53 | - | 6,553 | 9,081 | 33 | 18 | 8 | 14 |
| N. Dak. | 10 | 4 | 2 | 14 | 14 | - | 26 | - | 5 | - | 3 |
| S. Dak. | 10 | 14 | 739 | 20 | - | 104 | 172 | - | 1 | 2 | 3 |
| Nebr. | 83 | 84 | 2,049 | 45 | 4 | 783 | 945 | 5 | 15 | 11 | 16 |
| Kans. | 194 | 229 | 3,515 | 29 | 12 | 1,588 | 2,124 | 15 | 13 | 3 | 7 |
| S. ATLANTIC | 13,079 | 14,165 | 43,375 | 118 | 59 | 75,658 | 86,852 | 213 | 197 | 116 | 149 |
| Del. | 232 | 265 | 1,148 | 1 | 1 | 1,147 | 1,771 | 1 | - | 11 | 2 |
| Md. | 1,961 | 2,226 | 5,448 | N | 8 | 11,478 | 10,467 | 1 | 7 | 25 | 24 |
| D.C. | 1,001 | 828 | N | - | - | 3,386 | 3,668 | - | - | 8 | 4 |
| Va. | 896 | 1,122 | 8,984 | N | 29 | 7,108 | 8,636 | 13 | 16 | 16 | 21 |
| W. Va. | 88 | 84 | 1 | N | 2 | 419 | 542 | 9 | 43 | 1 | 4 |
| N.C. | 677 | 835 | - | 37 | 12 | 14,440 | 19,208 | 41 | 47 | 9 | 31 |
| S.C. | 667 | 766 | - | 9 | 7 | 8,594 | 9,844 | 25 | 19 | 5 | 30 |
| Ga. | 1,867 | 1,791 | 9,315 | 30 | - | 14,685 | 16,399 | U | 15 | 3 | 14 |
| Fla. | 5,690 | 6,248 | 18,479 | 29 | - | 14,401 | 16,317 | 123 | 50 | 38 | 19 |
| E.S. CENTRAL | 1,749 | 1,760 | 24,075 | 55 | 50 | 25,724 | 32,109 | 453 | 810 | 39 | 50 |
| Ky. | 309 | 220 | 5,230 | 11 | 6 | 3,310 | 3,776 | 27 | 28 | 4 | 10 |
| Tenn. | 647 | 709 | 10,559 | 23 | 41 | 9,405 | 10,913 | 330 | 780 | 19 | 24 |
| Ala. | 470 | 483 | 6,690 | 10 | 3 | 10,622 | 13,242 | 5 | 2 | 3 | 6 |
| Miss. | 323 | 348 | U | 11 | - | 2,387 | 4,178 | 91 | U | 13 | 10 |
| W.S. CENTRAL | 5,138 | 4,686 | 32,045 | 61 | 12 | 24,199 | 43,695 | 371 | 259 | 18 | 20 |
| Ark. | 207 | 222 | - | 13 | 3 | 2,620 | 4,359 | 8 | 6 | 2 | 6 |
| La. | 1,177 | 792 | 5,935 | 6 | 4 | 6,341 | 8,779 | 175 | 148 | 1 | 3 |
| Okla. | 189 | 207 | 5,996 | 10 | 1 | 3,863 | 4,696 | 69 | 40 | 5 | 4 |
| Tex. | 3,565 | 3,465 | 20,114 | 32 | 4 | 11,375 | 25,861 | 119 | 65 | 10 | 7 |
| MOUNTAIN | 1,533 | 1,757 | 12,861 | 174 | 87 | 5,499 | 7,426 | 459 | 386 | 37 | 97 |
| Mont. | 33 | 17 | - | 23 | - | 25 | 55 | 14 | 13 | 1 | 4 |
| Idaho | 32 | 38 | 1,213 | 30 | 10 | 86 | 115 | 93 | 44 | - | 2 |
| Wyo. | 5 | 13 | 461 | 11 | 9 | 32 | 43 | 146 | 161 | 3 | 12 |
| Colo. | 406 | 523 | - | 62 | 35 | 1,077 | 2,281 | 47 | 57 | 7 | 35 |
| N. Mex. | 139 | 138 | 3,017 | 10 | - | 685 | 837 | 63 | 42 | 2 | 4 |
| Ariz. | 461 | 550 | 5,132 | N | 22 | 2,713 | 2,865 | 56 | 38 | 16 | 9 |
| Utah | 144 | 112 | 1,234 | 23 | - | 241 | 209 | 22 | 11 | 3 | 13 |
| Nev. | 313 | 366 | 1,804 | 15 | 11 | 640 | 1,021 | 18 | 20 | 5 | 18 |
| PACIFIC | 8,506 | 9,605 | 54,895 | 253 | 189 | 16,543 | 21,905 | 337 | 684 | 48 | 92 |
| Wash. | 538 | 712 | 7,287 | 79 | 72 | 1,606 | 2,172 | 46 | 161 | 6 | 20 |
| Oreg. | 359 | 348 | U | 65 | 37 | 475 | 610 | 6 | 34 | 1 | - |
| Calif. | 7,440 | 8,295 | 41,530 | 105 | 70 | 13,848 | 18,110 | 111 | 437 | 36 | 67 |
| Alaska | 28 | 60 | 946 | 4 | 2 | 340 | 544 | 3 | 1 | 1 | - |
| Hawaii | 141 | 190 | 1,031 | N | 8 | 274 | 469 | 171 | 51 | 4 | 5 |
| Guam | 4 | - | 168 | N | - | 31 | 89 | 1 | 5 | 2 | 1 |
| P.R. | 1,792 | 1,951 | N | 16 | U | 296 | 470 | 81 | 185 | - | - |
| V.I. | 17 | 27 | N | N | U | - | - | - | - | - | - |
| Amer. Samoa | - | - | - | N | U | - | 26 | - | - | - | - |
| C.N.M.I. | 1 | - | N | N | U | 11 | 51 | - | 5 | - | - |

N: Not notifiable U: Unavailable -: no reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands

*Updated monthly to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, last update September 24, 1996.

†National Electronic Telecommunications System for Surveillance.

§Public Health Laboratory Information System.

## TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending October 12, 1996, and October 14, 1995 (41st Week)

| Reporting Area | Lyme Disease | | Malaria | | Meningococcal Disease | | Syphilis (Primary & Secondary) | | Tuberculosis | | Rabies, Animal | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cum. 1996 | Cum. 1995 | Cum. 1996 | Cum. 1995 | Cum. 1996 | Cum. 1995 | Cum. 1996 | Cum. 1995 | Cum. 1996 | Cum. 1995 | Cum. 1996 | Cum. 1995 |
| UNITED STATES | 10,668 | 8,843 | 1,164 | 1,045 | 2,535 | 2,404 | 8,508 | 13,019 | 14,693 | 16,399 | 5,387 | 6,228 |
| NEW ENGLAND | 3,380 | 1,706 | 46 | 39 | 109 | 111 | 133 | 292 | 341 | 391 | 594 | 1,248 |
| Maine | 43 | 24 | 7 | 5 | 12 | 8 | - | 2 | 21 | 11 | 89 | 46 |
| N.H. | 38 | 20 | 2 | 1 | 5 | 19 | 1 | 1 | 11 | 15 | 51 | 125 |
| Vt. | 15 | 8 | 4 | 1 | 3 | 9 | - | - | 1 | 2 | 122 | 149 |
| Mass. | 292 | 116 | 17 | 13 | 41 | 38 | 63 | 48 | 171 | 217 | 94 | 369 |
| R.I. | 428 | 285 | 6 | 4 | 13 | 5 | 2 | 3 | 27 | 40 | 33 | 269 |
| Conn. | 2,564 | 1,253 | 10 | 15 | 35 | 32 | 67 | 238 | 110 | 106 | 205 | 290 |
| MID. ATLANTIC | 6,288 | 5,785 | 321 | 282 | 227 | 302 | 342 | 667 | 2,641 | 3,407 | 1,140 | 1,583 |
| Upstate N.Y. | 3,323 | 2,888 | 70 | 53 | 68 | 82 | 57 | 72 | 325 | 407 | 849 | 934 |
| N.Y. City | 244 | 368 | 169 | 156 | 32 | 44 | 106 | 289 | 1,315 | 1,910 | - | - |
| N.J. | 1,100 | 1,540 | 56 | 55 | 55 | 70 | 77 | 136 | 589 | 603 | 107 | 284 |
| Pa. | 1,621 | 989 | 26 | 18 | 72 | 106 | 102 | 170 | 412 | 487 | 184 | 365 |
| E.N. CENTRAL | 67 | 381 | 109 | 133 | 341 | 341 | 1,107 | 2,240 | 1,604 | 1,549 | 85 | 90 |
| Ohio | 41 | 24 | 13 | 11 | 128 | 96 | 466 | 709 | 238 | 213 | 11 | 10 |
| Ind. | 23 | 16 | 13 | 15 | 54 | 48 | 164 | 267 | 140 | 138 | 7 | 14 |
| Ill. | 3 | 16 | 35 | 68 | 89 | 89 | 339 | 866 | 840 | 799 | 23 | 15 |
| Mich. | - | 5 | 35 | 18 | 38 | 62 | U | 232 | 297 | 330 | 31 | 37 |
| Wis. | U | 320 | 13 | 21 | 32 | 46 | 138 | 166 | 89 | 69 | 13 | 14 |
| W.N. CENTRAL | 133 | 157 | 42 | 23 | 202 | 151 | 289 | 620 | 369 | 465 | 440 | 310 |
| Minn. | 59 | 80 | 19 | 4 | 25 | 25 | 51 | 37 | 81 | 113 | 25 | 24 |
| Iowa | 20 | 12 | 2 | 3 | 41 | 28 | 16 | 39 | 50 | 49 | 204 | 110 |
| Mo. | 22 | 42 | 9 | 7 | 85 | 56 | 189 | 507 | 155 | 179 | 17 | 28 |
| N. Dak. | - | - | 1 | 1 | 3 | 1 | - | - | 6 | 3 | 56 | 24 |
| S. Dak. | - | - | - | 2 | 9 | 5 | - | - | 17 | 20 | 105 | 82 |
| Nebr. | 3 | 4 | 3 | 3 | 17 | 14 | 11 | 11 | 13 | 20 | 5 | 5 |
| Kans. | 29 | 19 | 8 | 3 | 22 | 22 | 22 | 26 | 47 | 81 | 28 | 37 |
| S. ATLANTIC | 558 | 552 | 244 | 207 | 516 | 401 | 2,970 | 3,257 | 2,832 | 2,903 | 2,226 | 1,728 |
| Del. | 78 | 38 | 3 | 1 | 2 | 6 | 34 | 14 | 20 | 46 | 61 | 79 |
| Md. | 328 | 364 | 66 | 55 | 66 | 35 | 521 | 370 | 241 | 314 | 504 | 347 |
| D.C. | 3 | 3 | 7 | 16 | 10 | 5 | 113 | 91 | 108 | 86 | 9 | 11 |
| Va. | 42 | 47 | 39 | 47 | 48 | 55 | 325 | 497 | 234 | 202 | 480 | 350 |
| W. Va. | 11 | 22 | 5 | 3 | 11 | 8 | 3 | 9 | 50 | 58 | 79 | 97 |
| N.C. | 62 | 49 | 25 | 15 | 65 | 68 | 836 | 894 | 400 | 335 | 581 | 392 |
| S.C. | 5 | 16 | 11 | 1 | 48 | 51 | 305 | 472 | 277 | 253 | 74 | 107 |
| Ga. | 1 | 10 | 23 | 27 | 117 | 78 | 524 | 610 | 502 | 571 | 240 | 233 |
| Fla. | 28 | 3 | 65 | 42 | 149 | 95 | 309 | 300 | 1,000 | 1,038 | 198 | 112 |
| E.S. CENTRAL | 56 | 62 | 26 | 23 | 184 | 169 | 1,992 | 2,686 | 1,014 | 1,132 | 173 | 238 |
| Ky. | 14 | 13 | 3 | 3 | 25 | 37 | 119 | 148 | 185 | 248 | 36 | 24 |
| Tenn. | 19 | 28 | 13 | 9 | 50 | 67 | 654 | 697 | 306 | 345 | 66 | 80 |
| Ala. | 6 | 7 | 3 | 8 | 62 | 34 | 448 | 520 | 337 | 324 | 68 | 125 |
| Miss. | 17 | 14 | 7 | 3 | 47 | 31 | 771 | 1,321 | 186 | 215 | 3 | 9 |
| W.S. CENTRAL | 95 | 93 | 38 | 48 | 289 | 283 | 1,175 | 2,593 | 1,763 | 2,228 | 322 | 534 |
| Ark. | 21 | 7 | - | 2 | 33 | 27 | 121 | 398 | 146 | 192 | 21 | 41 |
| La. | 2 | 5 | 6 | 5 | 47 | 43 | 429 | 803 | 59 | 217 | 13 | 24 |
| Okla. | 20 | 40 | - | 1 | 31 | 30 | 148 | 151 | 134 | 146 | 27 | 28 |
| Tex. | 52 | 41 | 32 | 40 | 178 | 183 | 477 | 1,241 | 1,424 | 1,673 | U | 441 |
| MOUNTAIN | 7 | 12 | 51 | 53 | 144 | 171 | 111 | 176 | 488 | 525 | 130 | 155 |
| Mont. | - | - | 7 | 3 | 4 | 2 | - | 4 | 14 | 10 | 20 | 41 |
| Idaho | 1 | - | - | 1 | 22 | 8 | 4 | - | 7 | 12 | - | 3 |
| Wyo. | 2 | 3 | 7 | - | 3 | 8 | 2 | - | 6 | 3 | 26 | 23 |
| Colo. | - | - | 21 | 23 | 31 | 43 | 23 | 96 | 71 | 59 | 41 | 9 |
| N. Mex. | 1 | 1 | 2 | 5 | 22 | 30 | 1 | 6 | 64 | 66 | 6 | 6 |
| Ariz. | - | 1 | 6 | 10 | 35 | 50 | 66 | 36 | 186 | 257 | 28 | 47 |
| Utah | 1 | 1 | 4 | 6 | 15 | 15 | 2 | 4 | 39 | 31 | 4 | 15 |
| Nev. | 2 | 6 | 4 | 5 | 12 | 15 | 13 | 30 | 101 | 87 | 5 | 11 |
| PACIFIC | 84 | 95 | 287 | 237 | 523 | 475 | 389 | 488 | 3,641 | 3,799 | 277 | 342 |
| Wash. | 14 | 10 | 20 | 19 | 82 | 76 | 5 | 12 | 211 | 217 | 6 | 13 |
| Oreg. | 13 | 15 | 18 | 15 | 93 | 86 | 11 | 19 | 134 | 103 | 1 | 2 |
| Calif. | 56 | 70 | 239 | 190 | 336 | 299 | 372 | 455 | 3,107 | 3,269 | 262 | 320 |
| Alaska | - | - | 3 | 3 | 8 | 10 | - | 2 | 50 | 61 | 8 | 7 |
| Hawaii | 1 | - | 7 | 10 | 4 | 4 | 1 | - | 139 | 149 | - | - |
| Guam | - | - | - | 1 | 1 | 2 | 3 | 8 | 35 | 86 | - | - |
| P.R. | - | - | - | 1 | 4 | 23 | 108 | 229 | 63 | 162 | 38 | 35 |
| V.I. | - | - | - | 2 | - | - | - | - | - | - | - | - |
| Amer. Samoa | - | - | - | - | - | - | - | - | - | 4 | - | - |
| C.N.M.I. | - | - | - | 1 | - | - | 1 | 9 | - | 31 | - | - |

N: Not notifiable U: Unavailable -: no reported cases

## TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending October 12, 1996, and October 14, 1995 (41st Week)

| Reporting Area | *H. influenzae*, invasive | | Hepatitis (viral), by type | | | | Measles (Rubeola) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | A | | B | | Indigenous | | Imported† | |
| | Cum. 1996* | Cum. 1995 | Cum. 1996 | Cum. 1995 | Cum. 1996 | Cum. 1995 | 1996 | Cum. 1996 | 1996 | Cum. 1996 |
| UNITED STATES | 823 | 894 | 21,574 | 23,319 | 7,568 | 7,794 | - | 399 | - | 44 |
| NEW ENGLAND | 24 | 33 | 302 | 239 | 155 | 184 | - | 11 | - | 4 |
| Maine | - | 3 | 16 | 23 | 2 | 7 | - | - | - | - |
| N.H. | 9 | 9 | 13 | 11 | 14 | 18 | - | - | - | - |
| Vt. | 1 | 2 | 6 | 5 | 10 | 5 | - | 1 | - | 1 |
| Mass. | 12 | 10 | 156 | 102 | 51 | 70 | - | 9 | - | 3 |
| R.I. | 2 | 3 | 15 | 28 | 9 | 8 | - | - | - | - |
| Conn. | - | 6 | 96 | 70 | 69 | 76 | - | 1 | - | - |
| MID. ATLANTIC | 147 | 133 | 1,476 | 1,430 | 1,173 | 1,104 | - | 23 | - | 5 |
| Upstate N.Y. | 43 | 36 | 347 | 360 | 261 | 299 | - | - | - | - |
| N.Y. City | 31 | 32 | 475 | 676 | 485 | 332 | - | 9 | - | 3 |
| N.J. | 47 | 18 | 278 | 212 | 205 | 304 | - | 3 | - | - |
| Pa. | 26 | 47 | 376 | 182 | 222 | 169 | - | 11 | - | 2 |
| E.N. CENTRAL | 134 | 150 | 1,790 | 2,630 | 783 | 887 | - | 5 | - | 7 |
| Ohio | 80 | 75 | 630 | 1,485 | 103 | 88 | - | 2 | - | 3 |
| Ind. | 10 | 19 | 255 | 147 | 128 | 182 | - | - | - | - |
| Ill. | 32 | 38 | 413 | 533 | 195 | 231 | - | 2 | - | 1 |
| Mich. | 7 | 16 | 345 | 297 | 302 | 325 | - | - | - | 3 |
| Wis. | 5 | 2 | 147 | 168 | 55 | 61 | - | 1 | - | - |
| W.N. CENTRAL | 41 | 68 | 1,929 | 1,552 | 349 | 508 | - | 20 | - | 2 |
| Minn. | 25 | 38 | 108 | 157 | 50 | 49 | - | 16 | - | 2 |
| Iowa | 5 | 3 | 300 | 67 | 60 | 40 | - | - | - | - |
| Mo. | 7 | 20 | 916 | 1,101 | 171 | 349 | - | 3 | - | - |
| N. Dak. | - | - | 100 | 22 | 2 | 4 | U | - | U | - |
| S. Dak. | 1 | 1 | 41 | 49 | 5 | 2 | - | - | - | - |
| Nebr. | 1 | 3 | 176 | 38 | 33 | 25 | - | - | - | - |
| Kans. | 2 | 3 | 288 | 118 | 28 | 39 | - | 1 | - | - |
| S. ATLANTIC | 161 | 174 | 1,133 | 899 | 1,174 | 1,006 | - | 4 | - | 9 |
| Del. | 2 | - | 15 | 9 | 7 | 7 | - | 1 | - | - |
| Md. | 51 | 58 | 198 | 171 | 241 | 205 | - | - | - | 2 |
| D.C. | 5 | - | 30 | 21 | 28 | 15 | U | - | U | - |
| Va. | 8 | 23 | 135 | 167 | 112 | 93 | - | - | - | 3 |
| W. Va. | 7 | 7 | 13 | 21 | 21 | 45 | - | - | - | - |
| N.C. | 22 | 25 | 136 | 89 | 265 | 224 | - | 3 | - | 1 |
| S.C. | 4 | 2 | 44 | 40 | 72 | 40 | - | - | - | - |
| Ga. | 42 | 54 | 149 | 51 | 30 | 62 | - | - | - | 2 |
| Fla. | 20 | 5 | 413 | 330 | 398 | 315 | - | - | - | 1 |
| E.S. CENTRAL | 26 | 10 | 1,037 | 1,543 | 662 | 692 | - | 2 | - | - |
| Ky. | 5 | 4 | 38 | 41 | 52 | 60 | - | - | - | - |
| Tenn. | 12 | - | 677 | 1,273 | 378 | 547 | - | 2 | - | - |
| Ala. | 8 | 5 | 148 | 71 | 57 | 85 | - | - | - | - |
| Miss. | 1 | 1 | 174 | 158 | 175 | U | U | - | U | - |
| W.S. CENTRAL | 33 | 56 | 4,507 | 3,420 | 999 | 1,074 | - | 26 | - | 2 |
| Ark. | - | 6 | 401 | 455 | 63 | 51 | - | - | - | - |
| La. | 3 | 1 | 150 | 102 | 116 | 157 | - | - | - | - |
| Okla. | 27 | 21 | 1,897 | 878 | 59 | 138 | - | - | - | - |
| Tex. | 3 | 28 | 2,059 | 1,985 | 761 | 728 | - | 26 | - | 2 |
| MOUNTAIN | 82 | 97 | 3,468 | 3,282 | 895 | 669 | - | 152 | - | 5 |
| Mont. | - | - | 97 | 118 | 12 | 19 | - | - | - | - |
| Idaho | 1 | 3 | 178 | 258 | 76 | 76 | - | 1 | - | - |
| Wyo. | 35 | 6 | 29 | 97 | 36 | 22 | - | 1 | - | - |
| Colo. | 12 | 14 | 374 | 419 | 115 | 101 | - | 4 | - | 3 |
| N. Mex. | 9 | 12 | 314 | 691 | 312 | 254 | - | 16 | - | - |
| Ariz. | 9 | 24 | 1,341 | 894 | 199 | 97 | U | 8 | U | - |
| Utah | 8 | 10 | 809 | 589 | 81 | 53 | - | 117 | - | 2 |
| Nev. | 8 | 28 | 326 | 216 | 64 | 47 | - | 5 | - | - |
| PACIFIC | 175 | 173 | 5,932 | 8,324 | 1,378 | 1,670 | - | 156 | - | 10 |
| Wash. | 3 | 8 | 433 | 682 | 77 | 150 | - | 51 | - | - |
| Oreg. | 22 | 22 | 689 | 2,199 | 81 | 98 | - | 4 | - | - |
| Calif. | 146 | 138 | 4,714 | 5,261 | 1,194 | 1,398 | - | 36 | - | 5 |
| Alaska | 2 | 1 | 36 | 40 | 14 | 11 | - | 63 | - | - |
| Hawaii | 2 | 4 | 60 | 142 | 12 | 13 | - | 2 | - | 5 |
| Guam | - | - | 2 | 7 | - | 4 | U | - | U | - |
| P.R. | 1 | 3 | 96 | 83 | 294 | 495 | - | 7 | - | - |
| V.I. | - | - | - | 7 | - | 14 | U | - | U | - |
| Amer. Samoa | - | - | - | 6 | - | - | U | - | U | - |
| C.N.M.I. | 10 | 11 | 1 | 24 | 5 | 22 | U | - | U | - |

N: Not notifiable U: Unavailable -: no reported cases

*Of 195 cases among children aged <5 years, serotype was reported for 43 and of those, 13 were type b.

†For imported measles, cases include only those resulting from importation from other countries.

## TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending October 12, 1996, and October 14, 1995 (41st Week)

| Reporting Area | Measles (Rubeola), cont'd. Total | | Mumps | | | Pertussis | | | Rubella | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cum. 1996 | Cum. 1995 | 1996 | Cum. 1996 | Cum. 1995 | 1996 | Cum. 1996 | Cum. 1995 | 1996 | Cum. 1996 | Cum. 1995 |
| UNITED STATES | 443 | 277 | 8 | 508 | 674 | 135 | 4,058 | 3,424 | - | 202 | 107 |
| NEW ENGLAND | 15 | 9 | - | 2 | 11 | 23 | 848 | 465 | - | 27 | 44 |
| Maine | - | - | - | - | 4 | - | 20 | 28 | - | - | - |
| N.H. | - | - | - | - | 1 | 14 | 90 | 43 | - | - | 1 |
| Vt. | 2 | - | - | - | - | 6 | 91 | 62 | - | 2 | - |
| Mass. | 12 | 2 | - | 2 | 2 | 3 | 590 | 306 | - | 21 | 7 |
| R.I. | - | 5 | - | - | 1 | - | 30 | 3 | - | - | - |
| Conn. | 1 | 2 | - | - | 3 | - | 27 | 23 | - | 4 | 36 |
| MID. ATLANTIC | 28 | 12 | 3 | 74 | 101 | 27 | 367 | 287 | - | 11 | 13 |
| Upstate N.Y. | - | 1 | - | 22 | 24 | 17 | 210 | 133 | - | 4 | 3 |
| N.Y. City | 12 | 5 | - | 16 | 15 | 1 | 29 | 44 | - | 4 | 8 |
| N.J. | 3 | 6 | - | 2 | 17 | - | 16 | 17 | - | 2 | 2 |
| Pa. | 13 | - | 3 | 34 | 45 | 9 | 112 | 93 | - | 1 | - |
| E.N. CENTRAL | 12 | 15 | - | 86 | 122 | 6 | 414 | 439 | - | 3 | 3 |
| Ohio | 5 | 2 | - | 39 | 41 | - | 192 | 120 | - | - | - |
| Ind. | - | - | - | 7 | 8 | - | 46 | 42 | - | - | - |
| Ill. | 3 | 2 | - | 19 | 33 | 6 | 137 | 88 | - | 1 | - |
| Mich. | 3 | 5 | - | 20 | 40 | - | 34 | 62 | - | 2 | 3 |
| Wis. | 1 | 6 | - | 1 | - | - | 5 | 127 | - | - | - |
| W.N. CENTRAL | 22 | 2 | - | 14 | 38 | 10 | 307 | 232 | - | - | - |
| Minn. | 18 | - | - | 5 | 2 | 9 | 243 | 120 | - | - | - |
| Iowa | - | - | - | 1 | 9 | - | 15 | 7 | - | - | - |
| Mo. | 3 | 1 | - | 5 | 22 | 1 | 33 | 55 | - | - | - |
| N. Dak. | - | - | U | 2 | 1 | U | 1 | 8 | U | - | - |
| S. Dak. | - | - | - | - | - | - | 4 | 11 | - | - | - |
| Nebr. | - | - | - | - | 4 | - | 7 | 10 | - | - | - |
| Kans. | 1 | 1 | - | 1 | - | - | 4 | 21 | - | - | - |
| S. ATLANTIC | 13 | 12 | 2 | 87 | 97 | 20 | 479 | 291 | - | 91 | 9 |
| Del. | 1 | - | - | - | - | - | 12 | 10 | - | - | - |
| Md. | 2 | 1 | 1 | 25 | 30 | 10 | 177 | 37 | - | - | 1 |
| D.C. | - | - | U | - | - | U | 1 | 6 | U | 1 | - |
| Va. | 3 | - | - | 12 | 20 | - | 71 | 19 | - | 2 | - |
| W. Va. | - | - | - | - | - | - | 2 | - | - | - | - |
| N.C. | 4 | - | - | 19 | 16 | - | 79 | 110 | - | 77 | 1 |
| S.C. | - | - | - | 5 | 10 | 4 | 36 | 22 | - | 1 | - |
| Ga. | 2 | 2 | - | 3 | 6 | - | 17 | 19 | - | - | - |
| Fla. | 1 | 9 | 1 | 23 | 15 | 6 | 84 | 68 | - | 10 | 7 |
| E.S. CENTRAL | 2 | - | - | 21 | 9 | - | 75 | 265 | - | 2 | 1 |
| Ky. | - | - | - | - | - | - | 29 | 22 | - | - | - |
| Tenn. | 2 | - | - | 3 | 2 | - | 19 | 206 | - | - | 1 |
| Ala. | - | - | - | 3 | 4 | - | 18 | 35 | - | 2 | - |
| Miss. | - | - | U | 15 | 3 | U | 9 | 2 | N | N | N |
| W.S. CENTRAL | 28 | 29 | - | 28 | 47 | 3 | 96 | 254 | - | 3 | 7 |
| Ark. | - | 2 | - | 2 | 7 | - | 10 | 33 | - | - | - |
| La. | - | 18 | - | 13 | 12 | - | 8 | 17 | - | 1 | - |
| Okla. | - | - | - | - | - | - | 8 | 28 | - | - | - |
| Tex. | 28 | 9 | - | 13 | 28 | 3 | 70 | 176 | - | 2 | 7 |
| MOUNTAIN | 157 | 68 | - | 21 | 30 | 4 | 349 | 509 | - | 7 | 4 |
| Mont. | - | - | - | - | 1 | 1 | 28 | 3 | - | - | - |
| Idaho | 1 | - | - | - | 3 | - | 102 | 96 | - | 3 | - |
| Wyo. | 1 | - | - | - | - | - | 5 | 1 | - | - | - |
| Colo. | 7 | 26 | - | 3 | 2 | 1 | 91 | 85 | - | 2 | - |
| N. Mex. | 16 | 31 | N | N | N | - | 50 | 92 | - | - | - |
| Ariz. | 8 | 10 | U | 1 | 2 | U | 27 | 153 | U | 1 | 3 |
| Utah | 119 | - | - | 2 | 11 | 2 | 19 | 22 | - | - | 1 |
| Nev. | 5 | 1 | - | 15 | 11 | - | 27 | 57 | - | 1 | - |
| PACIFIC | 166 | 130 | 3 | 175 | 219 | 42 | 1,123 | 682 | - | 58 | 26 |
| Wash. | 51 | 19 | 1 | 19 | 10 | 40 | 503 | 219 | - | 2 | 1 |
| Oreg. | 4 | 1 | - | - | - | 2 | 33 | 43 | - | 1 | - |
| Calif. | 41 | 108 | 1 | 127 | 188 | - | 557 | 372 | - | 52 | 20 |
| Alaska | 63 | - | - | 2 | 12 | - | 3 | - | - | - | - |
| Hawaii | 7 | 2 | 1 | 27 | 9 | - | 27 | 48 | - | 3 | 5 |
| Guam | - | - | U | 5 | 4 | U | 1 | 2 | U | - | 1 |
| P.R. | 7 | 3 | - | 1 | 2 | - | 1 | 1 | - | - | - |
| V.I. | - | - | U | - | 3 | U | - | - | U | - | - |
| Amer. Samoa | - | - | U | - | - | U | - | - | U | - | - |
| C.N.M.I. | - | - | U | - | 1 | U | - | - | U | - | - |

N: Not notifiable U: Unavailable -: no reported cases

# TABLE IV. Deaths in 121 U.S. cities,* week ending October 12, 1996 (41st Week)

| Reporting Area | All Causes, By Age (Years) | | | | | | P&I† Total |
|---|---|---|---|---|---|---|---|
| | All Ages | >65 | 45-64 | 25-44 | 1-24 | <1 | |
| NEW ENGLAND | 556 | 392 | 113 | 35 | 10 | 6 | 29 |
| Boston, Mass. | 130 | 89 | 26 | 10 | 3 | 2 | 4 |
| Bridgeport, Conn. | 40 | 32 | 3 | 4 | - | 1 | 1 |
| Cambridge, Mass. | 19 | 14 | 4 | 1 | - | - | 3 |
| Fall River, Mass. | 34 | 28 | 4 | 1 | 1 | - | 1 |
| Hartford, Conn. | 54 | 32 | 17 | 2 | 2 | 1 | 3 |
| Lowell, Mass. | 17 | 8 | 8 | 1 | - | - | 2 |
| Lynn, Mass. | 7 | 4 | 3 | - | - | - | 1 |
| New Bedford, Mass. | 27 | 19 | 6 | 2 | - | - | - |
| New Haven, Conn. | 41 | 27 | 8 | 3 | 2 | 1 | 1 |
| Providence, R.I. | 49 | 37 | 6 | 5 | 1 | - | 1 |
| Somerville, Mass. | 3 | 2 | 1 | - | - | - | - |
| Springfield, Mass. | 44 | 30 | 12 | 1 | 1 | - | 1 |
| Waterbury, Conn. | 27 | 20 | 4 | 3 | - | - | 1 |
| Worcester, Mass. | 64 | 50 | 11 | 2 | - | 1 | 10 |
| MID. ATLANTIC | 2,206 | 1,529 | 418 | 193 | 28 | 38 | 102 |
| Albany, N.Y. | 49 | 37 | 9 | 2 | - | 1 | 2 |
| Allentown, Pa. | 19 | 13 | 5 | 1 | - | - | 2 |
| Buffalo, N.Y. | 74 | 51 | 16 | 5 | 1 | 1 | 9 |
| Camden, N.J. | 28 | 19 | 5 | 4 | - | - | 1 |
| Elizabeth, N.J. | 20 | 15 | 5 | - | - | - | 1 |
| Erie, Pa.§ | 33 | 28 | 5 | - | - | - | 2 |
| Jersey City, N.J. | 38 | 19 | 11 | 6 | 1 | 1 | 3 |
| New York City, N.Y. | 1,236 | 831 | 250 | 119 | 17 | 19 | 41 |
| Newark, N.J. | U | U | U | U | U | U | U |
| Paterson, N.J. | 27 | 18 | 5 | 3 | - | 1 | 1 |
| Philadelphia, Pa. | 300 | 207 | 50 | 35 | 6 | 2 | 17 |
| Pittsburgh, Pa.§ | 52 | 40 | 6 | 3 | 1 | 2 | 1 |
| Reading, Pa. | 7 | 5 | 1 | 1 | - | - | 1 |
| Rochester, N.Y. | 121 | 94 | 19 | 6 | 1 | 1 | 8 |
| Schenectady, N.Y. | 27 | 22 | 5 | - | - | - | - |
| Scranton, Pa.§ | 35 | 27 | 6 | 2 | - | - | 1 |
| Syracuse, N.Y. | 91 | 73 | 15 | 2 | - | 1 | 10 |
| Trenton, N.J. | 33 | 18 | 2 | 4 | - | 9 | 1 |
| Utica, N.Y. | 16 | 12 | 3 | - | 1 | - | 1 |
| Yonkers, N.Y. | U | U | U | U | U | U | U |
| E.N. CENTRAL | 1,947 | 1,287 | 389 | 169 | 63 | 39 | 95 |
| Akron, Ohio | 50 | 36 | 11 | 1 | 1 | 1 | - |
| Canton, Ohio | 36 | 31 | 5 | - | - | - | - |
| Chicago, Ill. | 400 | 234 | 88 | 51 | 19 | 8 | 27 |
| Cincinnati, Ohio | 93 | 59 | 24 | 4 | 4 | 2 | 6 |
| Cleveland, Ohio | 147 | 86 | 40 | 11 | 8 | 2 | 3 |
| Columbus, Ohio | 160 | 108 | 35 | 10 | 4 | 3 | 5 |
| Dayton, Ohio | 139 | 101 | 21 | 10 | 2 | 5 | 10 |
| Detroit, Mich. | 213 | 127 | 41 | 29 | 10 | 6 | 6 |
| Evansville, Ind. | 43 | 33 | 6 | 3 | 1 | - | 2 |
| Fort Wayne, Ind. | 56 | 45 | 5 | 3 | 2 | 1 | 2 |
| Gary, Ind. | 13 | 9 | 2 | 1 | 1 | - | 2 |
| Grand Rapids, Mich. | 41 | 29 | 8 | 4 | - | - | 3 |
| Indianapolis, Ind. | 171 | 105 | 40 | 15 | 8 | 3 | 9 |
| Madison, Wis. | U | U | U | U | U | U | U |
| Milwaukee, Wis. | 130 | 94 | 20 | 9 | 1 | 6 | 9 |
| Peoria, Ill. | 29 | 22 | 6 | - | 1 | - | 5 |
| Rockford, Ill. | 47 | 38 | 9 | - | - | - | 1 |
| South Bend, Ind. | 46 | 36 | 7 | 3 | - | - | 2 |
| Toledo, Ohio | 75 | 51 | 13 | 8 | 1 | 2 | 2 |
| Youngstown, Ohio | 58 | 43 | 8 | 7 | - | - | 1 |
| W.N. CENTRAL | 637 | 443 | 114 | 39 | 13 | 11 | 37 |
| Des Moines, Iowa | U | U | U | U | U | U | U |
| Duluth, Minn. | 14 | 12 | 2 | - | - | - | 2 |
| Kansas City, Kans. | 30 | 19 | 7 | 4 | - | - | 1 |
| Kansas City, Mo. | 97 | 61 | 15 | 1 | 3 | - | 5 |
| Lincoln, Nebr. | 34 | 27 | 5 | 1 | - | 1 | 1 |
| Minneapolis, Minn. | 147 | 94 | 35 | 11 | 5 | 2 | 13 |
| Omaha, Nebr. | 84 | 65 | 14 | 4 | - | 1 | 7 |
| St. Louis, Mo. | 114 | 81 | 18 | 8 | 4 | 3 | - |
| St. Paul, Minn. | 62 | 45 | 7 | 6 | 1 | 3 | 7 |
| Wichita, Kans. | 55 | 39 | 11 | 4 | - | 1 | 1 |

| Reporting Area | All Causes, By Age (Years) | | | | | | P&I† Total |
|---|---|---|---|---|---|---|---|
| | All Ages | >65 | 45-64 | 25-44 | 1-24 | <1 | |
| S. ATLANTIC | 1,158 | 677 | 285 | 125 | 38 | 32 | 61 |
| Atlanta, Ga. | 134 | 71 | 35 | 20 | 6 | 2 | 8 |
| Baltimore, Md. | 196 | 98 | 59 | 29 | 5 | 5 | 17 |
| Charlotte, N.C. | 80 | 52 | 21 | 6 | 1 | - | 3 |
| Jacksonville, Fla. | 130 | 80 | 33 | 7 | 3 | 6 | 8 |
| Miami, Fla. | 105 | 64 | 16 | 13 | 8 | 4 | 1 |
| Norfolk, Va. | 65 | 40 | 17 | 5 | 2 | 1 | 2 |
| Richmond, Va. | 65 | 34 | 16 | 13 | - | 2 | 5 |
| Savannah, Ga. | 34 | 21 | 8 | 4 | 1 | - | 5 |
| St. Petersburg, Fla. | 37 | 30 | 5 | - | 2 | - | 1 |
| Tampa, Fla. | 169 | 104 | 43 | 10 | 1 | 11 | 7 |
| Washington, D.C. | 126 | 77 | 29 | 12 | 7 | 1 | 4 |
| Wilmington, Del. | 17 | 6 | 3 | 6 | 2 | - | - |
| E.S. CENTRAL | 749 | 479 | 167 | 62 | 21 | 19 | 62 |
| Birmingham, Ala. | 130 | 75 | 28 | 15 | 5 | 7 | 4 |
| Chattanooga, Tenn. | 78 | 50 | 18 | 5 | 2 | 3 | 7 |
| Knoxville, Tenn. | 65 | 43 | 14 | 5 | 3 | - | 4 |
| Lexington, Ky. | 42 | 22 | 12 | 3 | 2 | 3 | 3 |
| Memphis, Tenn. | 220 | 142 | 48 | 21 | 6 | 3 | 24 |
| Mobile, Ala. | 46 | 22 | 15 | 5 | - | 3 | 1 |
| Montgomery, Ala. | 28 | 21 | 5 | 2 | - | - | - |
| Nashville, Tenn. | 140 | 104 | 27 | 6 | 3 | - | 19 |
| W.S. CENTRAL | 1,369 | 888 | 264 | 146 | 43 | 28 | 82 |
| Austin, Tex. | 64 | 45 | 13 | 5 | - | 1 | 3 |
| Baton Rouge, La. | 51 | 32 | 9 | 8 | - | 2 | 2 |
| Corpus Christi, Tex. | 53 | 36 | 11 | 2 | 2 | 2 | 3 |
| Dallas, Tex. | 180 | 111 | 31 | 29 | 7 | 2 | 4 |
| El Paso, Tex. | 87 | 59 | 12 | 10 | 1 | 5 | 7 |
| Ft. Worth, Tex. | 84 | 56 | 16 | 6 | 5 | 1 | 2 |
| Houston, Tex. | 355 | 220 | 79 | 42 | 9 | 5 | 25 |
| Little Rock, Ark. | 65 | 47 | 14 | - | 3 | 1 | 3 |
| New Orleans, La. | 90 | 49 | 19 | 18 | 3 | 1 | - |
| San Antonio, Tex. | 183 | 127 | 32 | 15 | 8 | 1 | 23 |
| Shreveport, La. | 51 | 29 | 13 | 4 | 2 | 3 | 3 |
| Tulsa, Okla. | 106 | 77 | 15 | 7 | 3 | 4 | 7 |
| MOUNTAIN | 871 | 591 | 159 | 75 | 21 | 24 | 56 |
| Albuquerque, N.M. | 104 | 75 | 18 | 7 | 3 | 1 | 3 |
| Colo. Springs, Colo. | 46 | 35 | 4 | 4 | 2 | 1 | 4 |
| Denver, Colo. | 119 | 73 | 21 | 13 | 2 | 10 | 8 |
| Las Vegas, Nev. | 157 | 98 | 44 | 11 | 3 | 1 | 8 |
| Ogden, Utah | 21 | 16 | 4 | 1 | - | - | - |
| Phoenix, Ariz. | 180 | 113 | 31 | 23 | 5 | 7 | 10 |
| Pueblo, Colo. | 22 | 17 | 4 | - | 1 | - | 2 |
| Salt Lake City, Utah | 104 | 76 | 13 | 10 | 4 | 1 | 11 |
| Tucson, Ariz. | 118 | 88 | 20 | 6 | 1 | 3 | 10 |
| PACIFIC | 925 | 632 | 151 | 93 | 24 | 25 | 66 |
| Berkeley, Calif. | 15 | 10 | 2 | 2 | 1 | - | 1 |
| Fresno, Calif. | 58 | 38 | 8 | 3 | 6 | 3 | 1 |
| Glendale, Calif. | U | U | U | U | U | U | U |
| Honolulu, Hawaii | 69 | 54 | 7 | 5 | - | 3 | 6 |
| Long Beach, Calif. | 81 | 51 | 17 | 9 | 3 | 1 | 7 |
| Los Angeles, Calif. | U | U | U | U | U | U | U |
| Pasadena, Calif. | U | U | U | U | U | U | U |
| Portland, Oreg. | 116 | 71 | 24 | 15 | 2 | 4 | 1 |
| Sacramento, Calif. | U | U | U | U | U | U | U |
| San Diego, Calif. | 135 | 98 | 20 | 11 | 4 | 2 | 12 |
| San Francisco, Calif. | 145 | 90 | 27 | 23 | 2 | 3 | 16 |
| San Jose, Calif. | U | U | U | U | U | U | U |
| Santa Cruz, Calif. | 40 | 30 | 5 | 4 | 1 | - | 6 |
| Seattle, Wash. | 114 | 80 | 16 | 13 | 2 | 3 | 4 |
| Spokane, Wash. | 63 | 50 | 9 | 2 | 1 | 1 | 6 |
| Tacoma, Wash. | 89 | 60 | 16 | 6 | 2 | 5 | 6 |
| TOTAL | 10,418¶ | 6,918 | 2,060 | 937 | 261 | 222 | 590 |

U: Unavailable -: no reported cases

*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 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.

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**Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to: Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone (404) 332-4555.**





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