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MMWR Series on Public Health and Aging

The demographic shift toward an aging population poses major challenges for public health programs and practice in the 21st century. This issue of *MMWR* begins a special series on Public Health and Aging that will highlight important health topics associated with older populations and the implications for public health. Reports will examine data about older adult health; discuss the influence of aging on current public health program priorities, program delivery, relevance, and reach; and explore potential strategies for future directions in public health as the population ages.

Reports in *MMWR* (Weekly) will present science-based information on key public health and aging topics. An accompanying *MMWR Recommendations and Reports* series will discuss public health policy implications of the aging population.

A compilation of these reports will be available at http://www.cdc.gov/mmwr. Additional information is available at http://www.cdc.gov/aging/index.htm.

Public Health and Aging

Trends in Aging — United States and Worldwide

The median age of the world's population is increasing because of a decline in fertility and a 20-year increase in the average life span during the second half of the 20th century (*1*). These factors, combined with elevated fertility in many countries during the 2 decades after World War II (i.e., the "Baby Boom"), will result in increased numbers of persons aged ≥65 years during 2010–2030 (*2*). Worldwide, the average life span is expected to extend another 10 years by 2050 (*1*). The growing number of older adults increases demands on the public health system and on medical and social services. Chronic diseases, which affect older adults disproportionately, contribute to disability, diminish quality of life, and increased health- and long-term–care costs. Increased life expectancy reflects, in part, the success of public health interventions (*2*), but public health programs must now respond to the challenges created by this achievement, including the growing burden of chronic illnesses, injuries, and disabilities and increasing concerns about future caregiving and health-care costs. This report presents data from the U.S. Bureau of the Census, the World Health Organization, and the United Nations on U.S. and global trends in aging, including demographic and epidemiologic transitions, increasing medical and social costs related to aging, and the implications for public health.

U.S. Trends

In the United States, the proportion of the population aged ≥65 years is projected to increase from 12.4% in 2000 to 19.6% in 2030 (*3*). The number of persons aged ≥65 years is

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expected to increase from approximately 35 million in 2000 to an estimated 71 million in 2030 (*3*), and the number of persons aged ≥80 years is expected to increase from 9.3 million in 2000 to 19.5 million in 2030 (*3*). In 1995, the most populous states had the largest number of older persons; nine states (California, Florida, Illinois, Michigan, New Jersey, New York, Ohio, Pennsylvania, and Texas) each had more than one million persons aged ≥65 years (*4*). In 1995, four states had ≥15% of their population aged ≥65 years; Florida had the largest proportion (19%) (*5*). By 2025, the proportion of Florida's population aged ≥65 years is projected to be 26% (*5*) and ≥15% in 48 states (all but Alaska and California) (*5*).

The sex distribution of older U.S. residents is expected to change only moderately. Women represented 59% of persons aged ≥65 years in 2000 compared with an estimated 56% in 2030 (*3*). However, larger changes in the racial/ethnic composition of persons aged ≥65 years are expected. From 2000 to 2030, the proportion of persons aged ≥65 years who are members of racial minority groups (i.e., black, American Indian/Alaska Native, Asian/Pacific Islander) is expected to increase from 11.3% to 16.5% (*4*); the proportion of Hispanics is expected to increase from 5.6% to 10.9% (*4*).

Global Trends

In 2000, the worldwide population of persons aged ≥65 years was an estimated 420 million, a 9.5 million increase from 1999 (*2*). During 2000–2030, the worldwide population aged ≥65 years is projected to increase by approximately 550 million to 973 million (*3*), increasing from 6.9% to 12.0% worldwide, from 15.5% to 24.3% in Europe, from 12.6% to 20.3% in North America, from 6.0% to 12.0% in Asia, and from 5.5% to 11.6% in Latin America and the Caribbean (*2*). In Sub-Saharan Africa, an area where both fertility and mortality rates are high, the proportion of persons aged ≥65 years is expected to remain small, increasing from an estimated 2.9% in 2000 to 3.7% in 2030 (*2*). The largest increases in absolute numbers of older persons will occur in developing countries*. During 2000–2030, the number of persons in developing countries aged ≥65 years is projected to almost triple, from approximately 249 million in 2000 to an estimated 690 million in 2030 (*3*), and the developing countries' share of the world's population aged ≥65 years is

*The "developing" and "developed" country categories used in this report correspond directly to the "less developed" and "more developed" classification employed by the United Nations. Developed countries comprise all nations in Europe and North America, and Japan, Australia, and New Zealand. The remaining nations are classified as developing countries. Although these categories are used commonly for comparative purposes, they no longer accurately reflect developmental differences among countries (*2*).

projected to increase from 59% to 71% (*2*). However, migration patterns could influence these projections.

The aging of the world's population is the result of two factors: declines in fertility and increases in life expectancy (*2*). Fertility rates declined in developing countries during the preceding 30 years and in developed countries throughout the 20th century (*2*). In addition, in developed countries, the largest gain ever in life expectancy at birth occurred during the 20th century, averaging 71% for females and 66% for males (*2*). Life expectancy at birth in developed countries now ranges from 76 to 80 years (*2*). Life expectancy also has increased in developing countries since 1950, although the amount of increase varied. A higher life expectancy at birth for females compared with males is almost universal. The average sex differential in 2000 was approximately 7 years in Europe and North America but less in developing countries (*2*).

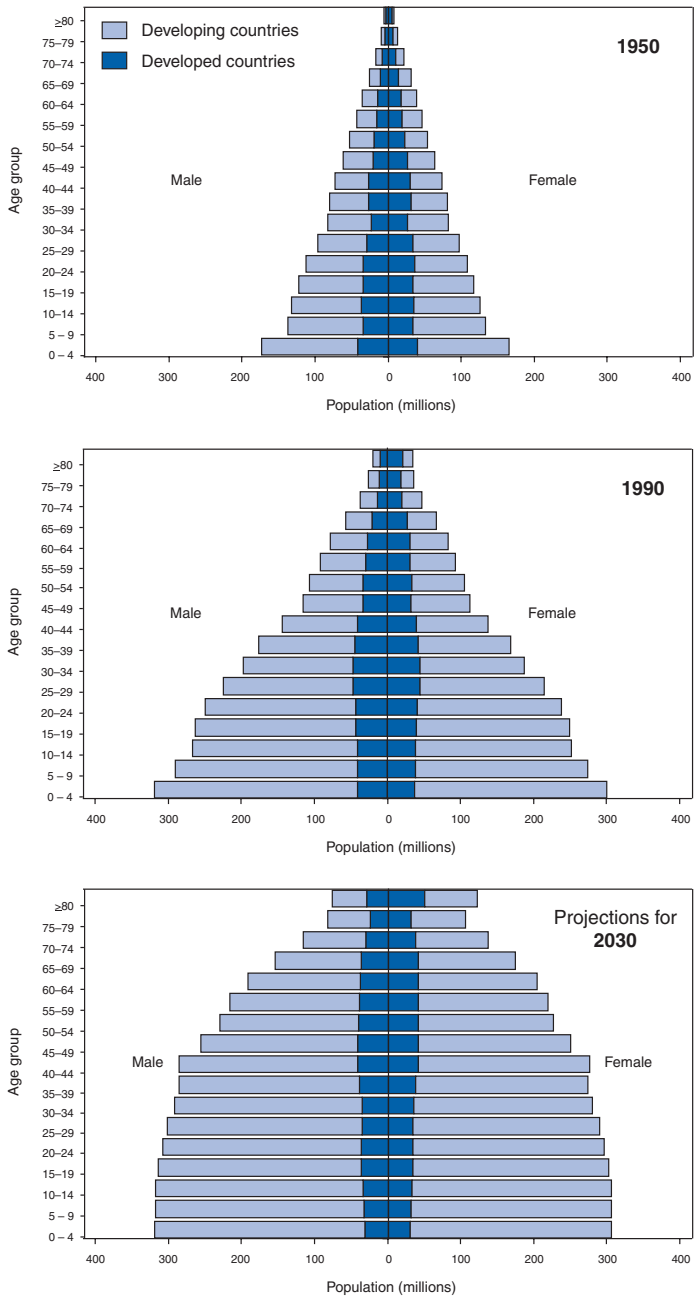
Demographic Transition

The world has experienced a gradual demographic transition from patterns of high fertility and high mortality rates to low fertility and delayed mortality (*2*). The transition begins with declining infant and childhood mortality, in part because of effective public health measures (*2*). Lower childhood mortality contributes initially to a longer life expectancy and a younger population. Declines in fertility rates generally follow, and improvements in adult health lead to an older population. As a result of demographic transitions, the shape of the global age distribution is changing. By 1990, the age distribution in developed countries represented similar proportions of younger and older persons (Figure) (*2*). For developing countries, age distribution is projected to have similar proportions by 2030 (*2*).

Epidemiologic Transition

The world also has experienced an epidemiologic transition in the leading causes of death, from infectious disease and acute illness to chronic disease and degenerative illness. Developed countries in North America, Europe, and the Western Pacific already have undergone this epidemiologic transition, and other countries are at different stages of progression. In 2001, the leading causes of death in developed countries, which had low child and delayed adult mortality, were primarily cardiovascular diseases and cancer, followed by respiratory diseases and injuries (*6*). The leading causes of death in African countries, which had high child and adult mortality, were infectious and parasitic diseases (e.g., human immunodeficiency virus/acquired immunodeficiency syndrome, malaria, childhood diseases, and diarrheal disease), respiratory infections, perinatal conditions, cardiovascular diseases, cancer, and injuries (*6*).

FIGURE. Population age distribution for developing and developed countries, by age group and sex — worldwide, 1950, 1990, and 2030



Source: United Nations, 1999, and U.S. Bureau of the Census, 2000.

The epidemiologic transition, combined with the increasing number of older persons, represents a challenge for public health. In the United States, approximately 80% of all

persons aged ≥65 years have at least one chronic condition, and 50% have at least two (*7*). Diabetes, which causes excess morbidity and increased health-care costs, affects approximately one in five (18.7%) persons aged ≥65 years, and as the population ages, the impact of diabetes will intensify (*7*). The largest increases in diabetes are expected among adults aged ≥75 years, from 1.2 million women and 0.8 million men in 2000 to 4.4 million women and 4.2 million men in 2050 (*8*). As U.S. adults live longer, the prevalence of Alzheimer's disease, which doubles every 5 years after age 65, also is expected to increase (*7*). Approximately 10% of adults aged ≥65 years and 47% of adults aged ≥85 years suffer from this degenerative and debilitating disease (*7*).

Chronic conditions also can lead to severe disability. For example, in the United States, arthritis affects approximately 59% of persons aged >65 years and is the leading cause of disability (*9*). However, some studies have shown that disability can be postponed through healthier lifestyles (*10*). Disability among older U.S. adults, as measured by limitations in instrumental activities of daily living, has declined since the early 1980s (*11*). Disability also is measured by limitations in activities of daily living (ADL), a common factor leading to the need for long-term care (*11*). Recent studies using ADL measures have shown varied trends in disability (*11*).

Impact on Medical and Social Services

The increased number of persons aged ≥65 years will potentially lead to increased health-care costs. The health-care cost per capita for persons aged ≥65 years in the United States and other developed countries is three to five times greater than the cost for persons aged <65 years, and the rapid growth in the number of older persons, coupled with continued advances in medical technology, is expected to create upward pressure on health- and long-term–care spending (*12*). In 1997, the United States had the highest health-care spending per person aged ≥65 years ($12,100), but other developed countries also spent substantial amounts per person aged ≥65 years, ranging from approximately $3,600 in the United Kingdom to approximately $6,800 in Canada (*13*). However, the extent of spending increases will depend on other factors in addition to aging (*12*).

The demands associated with long-term care might pose the greatest challenge for both personal/family resources and public resources. In the United States, nursing home and home health-care expenditures doubled during 1990–2001, reaching approximately $132 billion (*14*); of this, public programs (i.e., Medicaid and Medicare) paid 57%, and patients or their families paid 25% (*14*). In addition, during 2000–2020, public financing of long-term care is projected to increase 20%–21% in the United Kingdom and the United States and 102% in Japan (*15*). However, these increases will be less if public health interventions decrease disability among older persons, helping them to live independently.

The projected growth in the elderly support ratio (i.e., the number of persons aged ≥65 years per 100 persons aged 20–64 years) also is a concern (*2*). If the number of working taxpayers relative to the number of older persons declines, inadequate public resources and fewer adults will be available to provide informal care to older, less able family members and friends. However, the ratio does not account for potential increases in the numbers of persons aged ≥65 years who continue to work and/or care for themselves.

Reported by: *MR Goulding, PhD, Div of Health and Utilization Analysis, National Center for Health Statistics; ME Rogers, MPH, SM Smith, MD, Div of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.*

Editorial Note: The anticipated increase in the number of older persons will have dramatic consequences for public health, the health-care financing and delivery systems, informal caregiving, and pension systems. Although more attention has been given to population aging projections and their implications in developed countries, greater numbers of older adults and increasing chronic disease will place further strain on resources in countries where basic public health concerns (e.g., control of infectious diseases and maternal and child health) are yet to be addressed fully.

To address the challenges posed by an aging population, public health agencies and community organizations worldwide should continue expanding their traditional scope from infectious diseases and maternal/child health to include health promotion in older adults, prevention of disability, maintenance of capacity in those with frailties and disabilities, and enhancement of quality of life. Because behaviors that place persons at risk for disease often originate early in life, the public health system should support healthy behaviors throughout a person's lifetime (*16*). Public health also should develop and support better methods and systems to monitor additional health outcomes that are related to older adults, such as functioning and quality of life.

CDC's Advisory Committee to the Director has identified five roles for CDC to promote health and prevent disease in older adults: 1) to provide high-quality health information and resources to public health professionals, consumers,

rec•om•men•da•tion: *n*

(rek-ə-mən-'dā-shən) 1 : something, such as a course of action, that is recommended; see also *MMWR*.

know what matters.

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Recommendations and Reports

health-care providers, and aging experts; 2) to support health-care providers and health-care organizations in prevention efforts; 3) to integrate public health prevention expertise with the aging services network; 4) to identify and implement effective prevention efforts; and 5) to monitor changes in the health of older adults. These roles will require new efforts to address the special needs of older adults and to deliver programs in communities in which older adults work, reside, and congregate. Existing public health programs will be required to examine whether they meet the needs of an aging population.

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Outbreak of Group A Streptococcal Pneumonia Among Marine Corps Recruits — California, November 1–December 20, 2002

During November 1–December 20, 2002, a total of 163 Marine Corps personnel from the Marine Corps Recruit Depot (MCRD) in San Diego, California, including 160 new recruits, were admitted to the Naval Medical Center San Diego (NMCSD) for possible pneumonia. For 128 (79%) patients, pneumonia was confirmed by chest radiograph; of these 128 cases, 31 (24%) were definitely or probably caused by group A streptococci (GAS). This is the first outbreak of serious GAS-associated illness at a San Diego military training facility since the 1987 outbreak of rheumatic fever (*1*) and the largest outbreak of GAS pneumonia in the United States since 1968 (*2*). This report summarizes the results of the investigation of this outbreak, which indicate that GAS infection can occur among military recruit populations despite routine chemoprophylaxis administered to incoming recruits. Instituting routine surveillance for noninvasive GAS disease in military training facilities might prevent future invasive GAS outbreaks.

All patients with radiographically confirmed pneumonia were tested by sputum, blood, and throat cultures; *Mycoplasma pneumoniae* IgM (ETI-MP enzyme-linked immunosorbent assay [ELISA], Diasorin, Inc.) and IgG (ELISA, Wampole); *Chlamydia pneumoniae* IgM and IgG (microimmunofluorescence, Focus Technologies); rhinoprobe direct fluorescent antibody for respiratory syncytial virus, adenovirus, influenzae, and parainfluenzae; urine *Legionella* antigen test; urine *Streptococcus pneumoniae* antigen test; and an antistreptolysin O (ASO) titer. Available GAS isolates underwent *emm*-typing through sequencing of the 5' *emm* variable region and antimicrobial susceptibility testing by broth microdilution and E-test.

All case definitions required radiographic confirmation of pneumonia in a marine recruit hospitalized with acute respiratory illness (ARI) during the outbreak period. A confirmed case of GAS pneumonia required a blood or pleural fluid culture that was positive for GAS. A probable case of GAS pneumonia required a positive throat or sputum culture for GAS or an ASO titer of >250 Todd units in the absence of another identified etiologic agent. A confirmed case of *M. pneumoniae* pneumonia required IgG seroconversion, and a probable case required a positive IgM. A confirmed case of *C. pneumoniae* required a fourfold rise in IgG or an IgM titer of ≥16, and a possible case required an IgG titer of ≥512.

A total of 128 male recruits aged 18–33 years (median: 20 years) had radiographically confirmed pneumonia; 110 (86%) were white non-Hispanics, 14 (11%) were white Hispanics, and four (3%) were members of other racial/ethnic groups. All recruits were previously healthy and were seronegative for human immunodeficiency virus. Of the 128 recruits with confirmed pneumonia, 66 (52%) had multilobar involvement, and 29 (23%) had a pleural effusion, including five (4%) with an empyema. GAS was identified in 31 (24%) pneumonia episodes (six confirmed and 25 probable GAS cases), resulting in a GAS pneumonia attack rate of 0.7% among the approximately 4,500 recruits present at the training facility during November 1–December 20. An etiologic agent could be established for 47 (48%) of 97 remaining pneumonia episodes and for 78 (61%) of the pneumonia episodes overall (Table). Multiple etiologies were identified for several pneumonia cases; one patient had confirmed GAS and confirmed *C. pneumoniae* infections, and three patients had confirmed GAS and possible *C. pneumoniae.* Sputum or throat cultures were positive for GAS or the patient had an ASO of >250 Todd units in two (29%) of the seven confirmed and five (28%) of the 18 possible *C. pneumoniae* cases, one (33%) of the three confirmed and nine (56%) of the 16 probable *M. pneumoniae* cases, and one (20%) of the five adenovirus cases.

Symptoms reported by the 31 recruits with GAS pneumonia included cough (29 [94%]), fever (20 [65%]), sore throat (19 [61%]), pleuritic chest pain (15 [48%]), dyspnea (14 [45%]), chills (nine [29%]), and exanthem (two [7%]). The mean ASO titer for GAS pneumonia cases was 997 Todd units (range: <25–>4,800) compared with 249 for non-GAS cases (p = 0.03). Those with GAS were more likely to have an empyema (16% versus 0%; p = 0.005) and had a longer mean hospital stay (5.4 versus 2.4 days; p = 0.03) than those with non-GAS pneumonia. Two patients with GAS had streptococcal toxic shock syndrome (TSS) and required intensive care management. All recruits with pneumonia were treated successfully with ceftriaxone and either levofloxacin or azithromycin; clindamycin also was administered to those with TSS. One marine recruit died of purpura fulminans caused by *Neisseria meningitidis* serogroup C during the outbreak period. All GAS isolates were identified as *emm* type 3. In addition, all GAS isolates were susceptible to all 15 antibiotics tested, including penicillin, erythromycin, and azithromycin.

Before the outbreak, recruits had received intramuscular benzathine penicillin on the day of arrival at MCRD and 28 days later (or oral erythromycin twice daily) as prophylaxis against streptococcal disease. Of the 31 recruits with GAS pneumonia, 27 (87%) were hospitalized with suspected pneumonia ≥21 days after the last dose of penicillin was administered. The epidemic was halted by re-administration of antibiotic prophylaxis to all 4,500 recruits at the facility on December 15 by using benzathine penicillin 1.2 million units intramuscularly; azithromycin 1 g was administered orally for those recruits who reported a penicillin allergy (Figure). Medical personnel from NMCSD, MCRD, and the Naval Health Research Center were involved in halting the outbreak.

Reported by: *NF Crum, MD, BR Hale, MD, DA Bradshaw, MD, JD Malone, MD, HM Chun, MD, WM Gill, MD, D Norton, MD, CT Lewis, MD, AA Truett, MD, C Beadle, MD, JL Town, MSN, MR Wallace, MD, Naval Medical Center; DJ Morris, MD, EK Yasumoto, MD, Marine Corps Recruit Depot; KL Russell, MD, Naval Health Research Center, San Diego, California. E Kaplan, MD, Univ of Minnesota Medical School, Minneapolis. C Van Beneden, MD, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; R Gorwitz, MD, EIS Officer, CDC.*

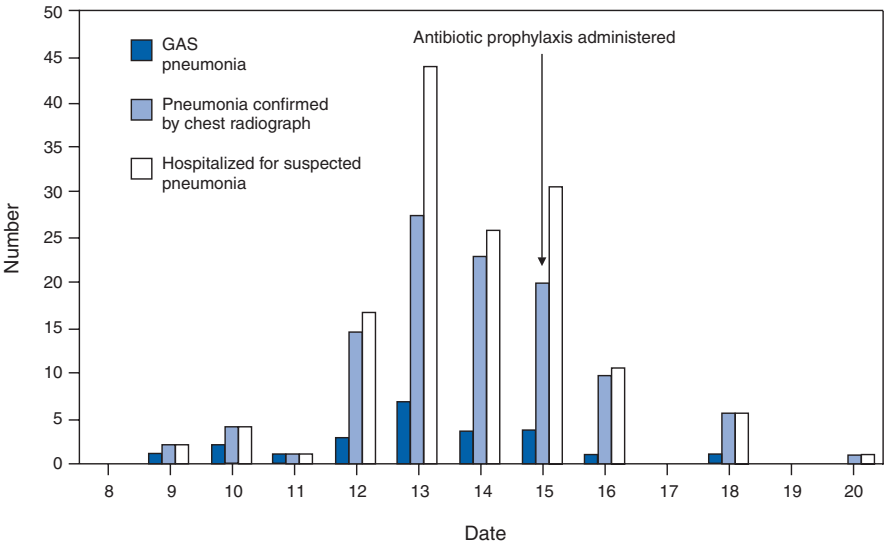
Editorial Note: Outbreaks of ARI, including pneumonia, among military trainees are well documented (*3,4*). Factors that might contribute to increased ARI susceptibility in this population include the rapid gathering of persons from across the country into crowded living and working quarters, which

TABLE. Number* and percentage of episodes of radiographically confirmed pneumonia among Marine Corps recruits, by etiology — San Diego, California, November 1–December 20, 2002

Pathogen	Confirmed cases No.	(%)	Probable or possible cases† No.	(%)	Total§ No.	(%)
Group A streptococcus (GAS)	6	(4.7)	25	(19.5)	**31**	**(24.2)**
Mycoplasma pneumoniae	3	(2.3)	16	(12.5)	**19**	**(14.8)**
Chlamydia pneumoniae	7	(5.5)	18	(14.1)	**25**	**(19.5)**
Adenovirus	5	(3.9)	0	—	**5**	**(3.9)**
Streptococcus pneumoniae	2	(1.6)	0	—	**2**	**(1.6)**
Unknown etiology					**50**	**(39.1)**
Total with a defined etiology	**22**	**(17.2)**	**56**	**(43.8)**	**78**	**(60.9)**

* n = 128.
† The alternate case definition was "possible" for *C. pneumoniae* only. For *M. pneumoniae* and GAS, the alternate case definition was "probable."
§ Categories are not mutually exclusive; one patient had confirmed GAS and confirmed *C. pneumoniae* infection, and three patients had confirmed GAS and possible *C. pneumoniae* infection.

FIGURE. Number of persons with Group A streptococcus (GAS) pneumonia*, with pneumonia confirmed by chest radiograph†, and with suspected pneumonia§, by date of hospitalization — San Diego, California, December 8–20, 2002¶



*n = 24.
†n = 110.
§n = 143.
¶During November 1–December 7, 2002, an additional 20 Marine Corps recruits were hospitalized for suspected pneumonia. For 18 patients, pneumonia was confirmed by chest radiograph; seven cases were caused by GAS.

exposes nonimmune persons to several pathogens, and the physical and psychological stressors of training. Disease prevention efforts include immunoprophylaxis (e.g., pneumococcal, meningococcal, and influenza vaccinations) and chemoprophylaxis (e.g., penicillin prophylaxis for streptococcal infections) administered to incoming recruits (*3*) and ongoing surveillance for ARI (*4*).

A leading cause of bacterial ARI among military recruits is *S. pyogenes* or GAS, which manifests as outbreaks of GAS pharyngitis, acute rheumatic fever, and pneumonia (*3*). This outbreak involved the circulation of a single GAS serotype and probably evolved from the introduction of this strain into a population of recruits lacking type-specific immunity. Streptococcal *emm* type 3 (corresponding to M type 3) is one of the most common serotypes associated with invasive GAS disease in the United States (*5,6*) and has been associated frequently, along with M types 1, 5, and 18, with outbreaks among U.S. military recruits (*3*). Population-based surveillance for all invasive GAS infections in nine disparate locations in the United States indicated that pneumonia accounted for 11%–14% of reported cases and was the third most common syndrome after invasive cutaneous or soft tissue infections and bacteremia without a known source (*5,6*). Among the civilian population, outbreaks of GAS pneumonia are rare. A higher baseline rate of invasive and noninvasive GAS disease and a potential to delay seeking medical treatment for minor illness (including pharyngitis) among military recruit populations might account for this difference.

Several pathogens were identified as the potential source of pneumonia among the 78 (61%) pneumonia episodes for which a causative agent could be identified, and several pneumonia patients had dual diagnoses. Whether this represents a true concurrent increase in multiple respiratory pathogens or is an artifact of the diagnostic testing methods used is uncertain.

The findings in this report are subject to at least three limitations. First, a definitive diagnosis of GAS pneumonia is difficult. Blood cultures frequently are negative in GAS pneumonia (*2*); therefore, a confirmed diagnosis might not be possible unless pleural fluid is obtained. Second, because positive throat or sputum cultures can represent simple GAS pharyngitis or asymptomatic carriage of the organism, the specificity of these cultures for diagnosis of GAS pneumonia is low. Rising ASO titers might distinguish between GAS carriage and infection but are not specific for invasive GAS disease (*7*). Finally, diagnosing *M. pneumoniae* and *C. pneumoniae* infections by serology alone can be problematic, especially in the context of known GAS infections. Several serologic assays for *M. pneumoniae* are available commercially but vary in sensitivity and specificity (*8*). Although the microimmunofluorescence assay is considered the method of choice for serologic diagnosis of *C. pneumoniae* infection, interpretation of the results can be subjective. False positives can occur for *M. pneumoniae* and possibly for *C. pneumoniae* serologic assays in the presence of a nonspecific antibody response to GAS infection.

Primary and secondary penicillin chemoprophylaxis for GAS infections is effective in military recruit populations and has been used intermittently since 1951 (*3,4*). Primary (i.e., tandem) prophylaxis is administered to all recruits shortly after their arrival at a training facility to prevent the introduction of GAS into this population, and secondary (i.e., mass) prophylaxis is provided concurrently to all recruits in a given facility to interrupt established disease transmission. Oral erythromycin or azithromycin prophylaxis is used to prevent infection among recruits who are allergic to penicillin. The reason that primary prophylaxis failed in this circumstance is

unclear. Possible explanations include failure to achieve adequate serum levels of penicillin (*9*), waning protection as serum levels declined before the second scheduled dose of penicillin was administered on training day 28, and lack of compliance with oral erythromycin among penicillin-allergic recruits. Eradicating GAS carriage is difficult even with appropriate doses of penicillin and in the absence of penicillin resistance (*10*).

Early diagnosis and management of GAS infections might prevent the development of suppurative complications. Routine surveillance for noninvasive GAS disease was initiated recently at MCRD to identify breakthrough GAS infections and prevent outbreaks of GAS disease. Institution of routine surveillance for noninvasive GAS disease also might be useful for other military training facilities.

Acknowledgments

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Increase in Coccidioidomycosis — Arizona, 1998–2001

Coccidioidomycosis is a systemic infection caused by inhalation of airborne spores from *Coccidioides immitis*, a fungus found in soil in the southwestern United States and in parts of Mexico and Central and South America (*1*). Infection occurs usually following activities or natural events that disrupt the soil, resulting in aerosolization of the fungal arthrospores (*2*). Clinical manifestations occur in 40% of infected persons and range from an influenza-like illness (ILI) to severe pneumonia and, rarely, extrapulmonary disseminated disease (*3*). Persons at higher risk for disseminated disease include blacks, Filipinos, pregnant women in their third trimester, and immunocompromised persons (*4*). During 2001, the Arizona Department of Health Services (ADHS) reported a coccidioidomycosis incidence of 43 cases per 100,000 population, representing an increase of 186% since 1995 (*3*). To characterize this increase, CDC analyzed data from the National Electronic Telecommunications System for Surveillance (NETSS) and the Arizona Hospital Discharge Database (AHDD), and environmental and climatic data, and conducted a cohort study of a random sample of patients with coccidioidomycosis. This report summarizes the findings of this investigation, which indicate that the recent Arizona coccidioidomycosis epidemic is attributed to seasonal peaks in incidence that probably are related to climate. Healthcare providers in Arizona should be aware that peak periods of coccidioidomycosis incidence occur during the winter and should consider testing patients with ILI.

Surveillance and Hospitalizations

Coccidioidomycosis became a nationally reportable disease at the southwest regional level through NETSS in 1995, at which time a case definition was adopted that required laboratory confirmation*. During 1997, laboratory reporting of coccidioidomycosis became mandatory in Arizona, after which a marked increase was noted in the number of reported cases. However, incidence continued to increase in subsequent years. NETSS data for 1998–2001 were analyzed to calculate incidence by using U.S. Census 2000 data for denominators.

* The laboratory criteria for diagnosis are cultural, histopathologic, or molecular evidence of the presence of *Coccidioides spp*; a positive serologic test for coccidioidal antibodies in serum or cerebrospinal fluid by 1) detection of coccidioidal IgM by immunodiffusion, enzyme immunoassay (EIA) latex agglutination, or tube precipitin or 2) detection of rising titer of coccidioidal IgM by immunodiffusion, EIA, or complement fixation; or a coccidioidal skin test conversion from negative to positive after the onset of clinical signs and symptoms.

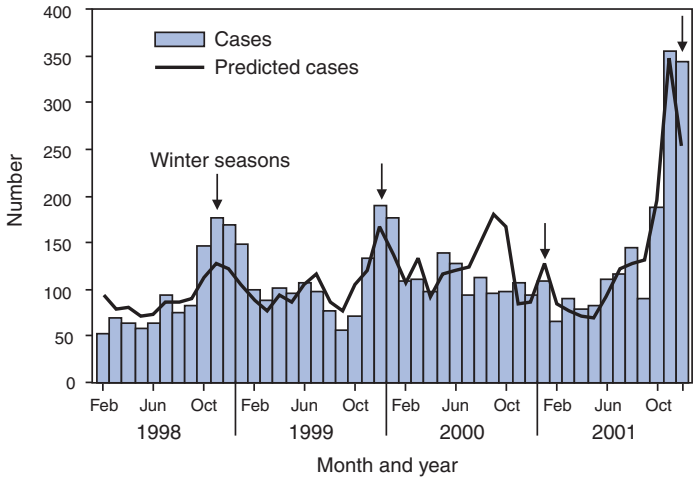
During 2001, a total of 2,203 cases were reported to ADHS (rate: 43 cases per 100,000 population), compared with 1,551 cases in 1998 (rate: 33). Persons aged ≥65 years had the highest incidence (79 during 2001), although incidence in all age groups increased. The youngest age groups experienced the largest increase in incidence during the surveillance period: during 2001, incidence of coccidioidomycosis among patients aged <20 years increased 121%, from approximately five in 1998 to 11 in 2001. Analysis by season demonstrated peak periods of disease incidence during the winter months (November–February) (Figure 1). The baseline rate between peak periods was stable, indicating that the seasonal periods were responsible for the overall annual increase in reported cases.

AHDD was reviewed to identify patients with a primary or secondary discharge diagnosis of coccidioidomycosis (*International Classification of Diseases, Ninth Revision* codes 114.0–114.3 and 114.5–114.9). Hospitalizations caused by coccidioidomycosis increased substantially during the study period. During 2001, a total of 598 persons were discharged with a primary or secondary diagnosis of coccidioidomycosis, compared with 69 persons during 1998; 154 (26%) of the 598 hospitalized patients had disseminated coccidioidomycosis. Persons aged ≥65 years comprised 34% of all hospitalized patients during the study period and had the highest rate of hospitalization (29 per 100,000 population during 2001).

Cohort Study

To explain peak periods and to further characterize the epidemic, CDC conducted a cohort study of patients from NETSS who had coccidioidomycosis to evaluate host factors, exposures, and outcomes. Patients reported with coccidioidomycosis were divided into four groups based on inclusion in peak or nonpeak periods and year of disease. Of 208 randomly selected persons contacted by telephone, 196 (94%) completed a questionnaire (range per group: 43–56 persons). No statistically significant differences were found between groups related to host risk factors or exposures that could explain the large peak seasons.

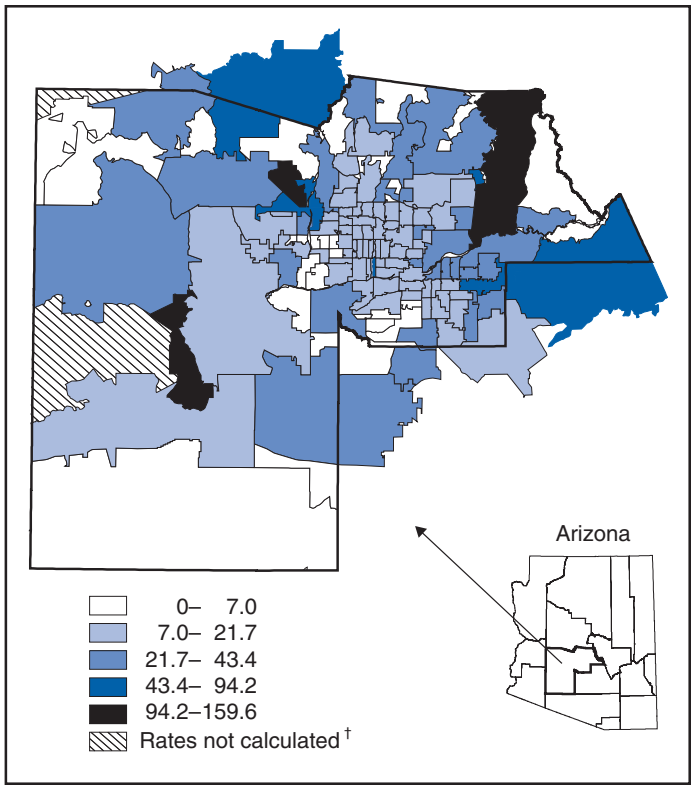
FIGURE 1. Number of predicted coccidioidomycosis cases compared with actual cases, by month and year — Arizona, 1998–2001



Geographic Information Systems

Geographic Information Systems (GIS) software was used to identify areas of high incidence in Maricopa County, the most populous county in Arizona. Locations of patients identified in NETSS and AHDD were plotted by postal code by using Arc View v3.2, and incidence was calculated by using U.S. Census 2000 data. The highest incidence of coccidioidomycosis for both NETSS cases and hospitalizations occurred in areas surrounding metropolitan Phoenix (Figure 2). These areas have experienced substantial construction activity according to building permit data provided by the Maricopa County Association of Governments. Seasonal variations in construction activity approximated by building permits were not significantly associated with cases (Table).

FIGURE 2. Coccidioidomycosis case rate* — Maricopa County, Arizona, 1998–2001



* Per 100,000 population. Population and cases calculated by using postal code tabulation areas for U.S. Census 2000.
† Population estimates in these areas not reliable for analysis.

TABLE. Association* between coccidioidomycosis incidence and selected environmental and climatic variables — Maricopa County, Arizona, 1998–2001

Variable	RR†	(95% CI§)	p value
Building permits	1.0	(1.0 –1.0)	0.4315
Palmer Z Index¶	0.921	(0.874–0.970)	0.0018
PDSI**	0.939	(0.897–0.983)	0.0070
2 mos mean wind	0.965	(0.858–1.086)	0.5541
Wind velocity	0.835	(0.728–0.957)	0.0094
Temperature average over 3 mos	1.012	(1.003–1.020)	0.0087
Dust (PM10)††	1.015	(1.007–1.024)	0.0002
Rain	0.797	(0.681–0.933)	0.0048
Rain 3 mos before	0.926	(0.796–1.076)	0.3146
Rain 5 mos before	0.968	(0.836–1.121)	0.6672
Proportion 2 mos rain to 7 mos rain§§	0.554	(0.331–0.930)	0.0253
Cumulative rain, 2 mos	0.844	(0.760–0.937)	0.0015
Cumulative rain, 7 mos	0.860	(0.814–0.908)	<0.0001

* Determined by Poisson regression analysis.
† Relative risk.
§ Confidence interval.
¶ Short-term drought index.
** Palmer Drought Severity Index, a measure for long-term drought severity.
†† Concentration in the air of suspended particulate matter ≤10 microns.
§§ Cumulative rainfall during the preceding 2 months in proportion to cumulative rainfall during the preceding 7 months.

Environment and Climate

Arizona has been experiencing dry weather conditions recently. Environmental and climatic data were analyzed in relation to incidence of disease, and Poisson regression was performed to construct a model that might predict seasonal peaks. Many climatic variables were significantly associated with increased incidence of disease, including drought indices (Palmer Z Index and Palmer Drought Severity Index), wind velocity, mean temperature, dust (measured by concentration of suspended particulate matter ≤10 microns), and rain (Table).

Poisson regression analysis indicated a high correlation (R-squared = 0.75) between incidence of disease and 1) cumulative rain during the preceding 7 months, 2) the average temperature during the preceding 3 months, 3) dust during the preceding month, and 4) the amount of rain during the preceding 2 months in proportion to the preceding 7 months. The projected cases based on the model were compared with the actual cases in Maricopa County (Figure 1). The model accurately mirrored peak seasonal periods during 1998–1999, in particular the large peak beginning in November 2001. In addition, the model accurately described the absence of a seasonal peak during winter 2000–01.

Reported by: *K Komatsu, V Vaz, C McRill, T Colman, Arizona Dept of Health Svcs; A Comrie, Univ of Arizona Dept of Geography, Tucson. K Sigel, T Clark, M Phelan, R Hajjeh, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; B Park, MD, EIS Officer, CDC.*

Editorial Note: Coccidioidomycosis is the fourth most common infectious disease reported to ADHS; only gonorrhea, chlamydia, and chronic hepatitis C are more frequent (ADHS, unpublished data, 2002). The findings in this report indicate that the incidence of coccidioidomycosis in Arizona has increased substantially since 1998, affecting all age groups. In addition, hospitalizations for coccidioidomycosis have increased, indicating an increase in the numbers of persons with severe disease.

Although seasonality of coccidioidomycosis in Arizona has been suggested previously, this study is the first to confirm the pattern (*5,6*). In addition, this study documents peak incidence periods during November–February; improved timeliness and completeness of reporting because of mandatory laboratory reporting since 1997 might have helped reveal the seasonal pattern. Seasonal fluctuations could not be explained by differences in the prevalence of the various host risk factors or exposures but were significantly associated with climatic and environmental factors. A climate model incorporating some of these factors recreated the seasonal outbreaks in Maricopa county and predicted that large outbreak seasons might occur during winter seasons following prolonged drought periods, especially in conjunction with hot and dusty conditions. These conditions, which might facilitate aerosolization of arthrospores, have been described in studies of coccidioidomycosis epidemics in California (*7*). Dry and dusty conditions continue in Arizona, suggesting that another large peak season might occur this winter. Preliminary data for 2002 indicate that the number of total cases already exceeds 3,000, considerably surpassing 2001 levels (ADHS, unpublished data, 2002).

Although coccidioidomycosis is not readily preventable, a better understanding of its epidemiology can assist in developing more effective prevention and education strategies and help with earlier diagnosis and appropriate medical management. Health-care providers should consider testing for coccidioidomycosis in any patient who has moved or traveled recently to Arizona and who has ILI, especially during the winter months. Dust reduction measures, such as paving roads or wetting soil at construction sites, are currently in place and might be useful in preventing further cases. Persons at risk for severe disease should avoid activities that might increase their exposure to dust. These persons might benefit from development of a vaccine that confers long-term immunity (*6*).

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Notice to Readers

Knight Journalism Fellowships Offered at CDC

The CDC Foundation is accepting applications for the Knight Journalism Fellowships. The Knight Fellowships at CDC provides journalists a closer look at the practice of public health and combines a general curriculum with specialized content that reflects the individual interests of each fellow. Examples of activities include the following:

Disease investigation: Each fellow accompanies an Epidemic Intelligence Service (EIS) Officer on an investigation of an outbreak of disease and serves as a team member in designing questionnaires, conducting surveys, analyzing data, and determining causes of outbreaks.

Scientific research: Knight fellows are matched with scientists conducting research on specific diseases or threats to public health. Fellows can participate in one or more stages of research projects. Fellows also might contribute to the writing or editing of an article for *MMWR* or other scientific journals.

Field practice: Activities include working in the field with public health officials, examining how priorities are set in a public health agency, and contributing to a health area of interest to fellows. Local experience will help fellows gain a better understanding of the partnership among state, local, and federal agencies and community-based organizations.

Interaction with colleagues: Time will be allowed for fellows to interact with each other and to share ideas and experiences. Fellows also will attend a series of colloquia featuring nationally recognized experts in public health.

In 2003, nine journalists will be selected as Knight Journalism Fellows at CDC. Duration of the fellowship program is June 16–September 30, 2003. A $5,000 per month stipend is provided. Application deadline is February 20, 2003. Additional information and applications are available from the CDC Foundation at http://www.cdcfoundation.org/programs/fellowships/knight.html.

Erratum: Vol. 52, No. 3

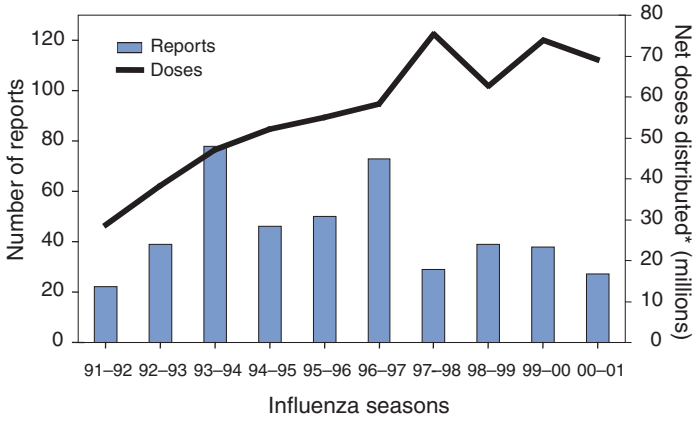
In the report, "Norovirus Activity — United States, 2002," on page 43 under "CDC Laboratory Surveillance," the parenthetical list on the 22nd line should read (*Alaska*, Georgia, Kentucky, North Carolina, and Utah).

Erratum: Vol. 52, No. SS-1

On page 7 in the CDC's *Surveillance Summaries,* "Surveillance for Safety After Immunization: Vaccine Adverse Event Reporting System (VAERS)—United States, 1991–2001," published on January 24, 2003, an error occurred in the last sentence of the first paragraph. The sentence should read, "On February 25, 2002, the manufacturer withdrew the vaccine from the market, citing poor sales."

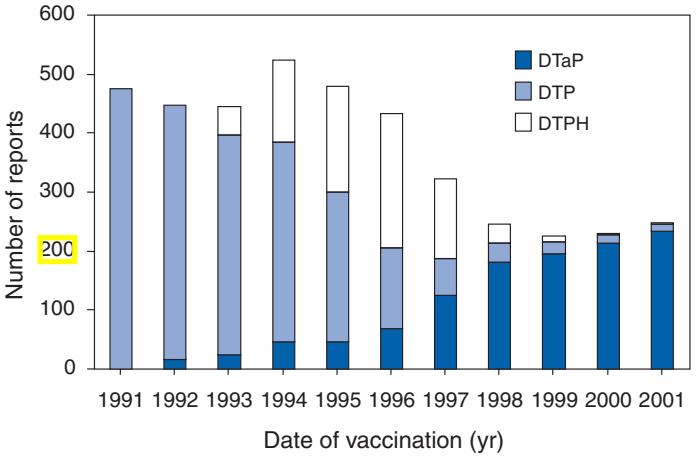
On page 23, errors occurred in Figures 5 and 7. The correct figures follow.

FIGURE 5. Reports of Guillain-Barré syndrome after influenza vaccination, by influenza seasons — United States, 1991–2001



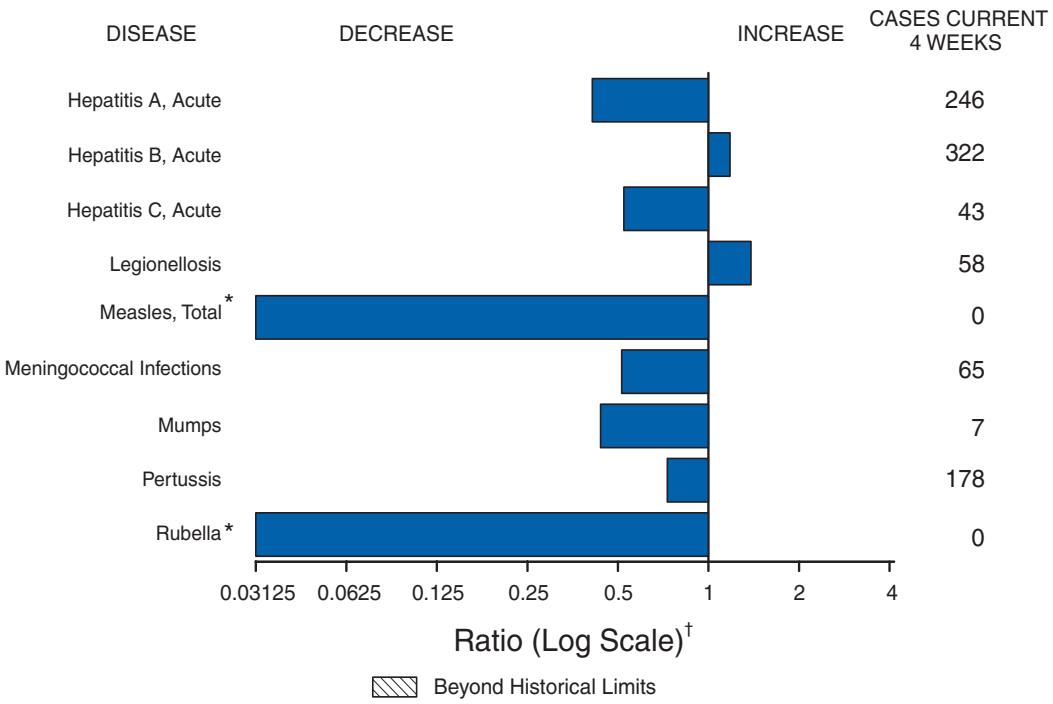
* Net doses distributed equals total doses distributed during the period, less returned doses.

FIGURE 7. Reports of febrile seizure and other convulsive disorders after DTaP,* DTP,† or DTPH§ vaccination — United States, 1991–2001



* Diphtheria and tetanus toxoids and acellular pertussis vaccine adsorbed.
† Diphtheria and tetanus toxoids and pertussis vaccine adsorbed.
§ Diphtheria and tetanus toxoids and pertussis vaccine adsorbed and *Haemophilus* b conjugate vaccine (diphtheria CRM197 protein conjugate).

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending February 8, 2003, with historical data



* No measles or rubella cases were reported for the current 4-week period yielding a ratio for week 6 of zero (0).
† 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 of provisional cases of selected notifiable diseases, United States, cumulative, week ending February 8, 2003 (6th Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	-	Hansen disease (leprosy)†	4	3
Botulism:	-	-	Hantavirus pulmonary syndrome†	3	-
foodborne	-	4	Hemolytic uremic syndrome, postdiarrheal†	8	9
infant	6	8	HIV infection, pediatric†§	-	21
other (wound & unspecified)	2	3	Measles, total	-¶	1**
Brucellosis†	5	8	Mumps	16	19
Chancroid	2	3	Plague	-	-
Cholera	-	-	Poliomyelitis, paralytic	-	-
Cyclosporiasis†	-	13	Psittacosis†	3	8
Diphtheria	-	-	Q fever†	5	3
Ehrlichiosis:	-	-	Rabies, human	-	-
human granulocytic (HGE)†	10	7	Rubella	-	1
human monocytic (HME)†	7	2	Rubella, congenital	-	1
other and unspecified	-	-	Streptococcal toxic-shock syndrome†	7	11
Encephalitis/Meningitis:	-	-	Tetanus	1	-
California serogroup viral†	-	-	Toxic-shock syndrome	5	13
eastern equine†	-	-	Trichinosis	-	2
Powassan†	-	-	Tularemia†	2	3
St. Louis†	-	-	Yellow fever	-	-
western equine†	-	-			

-: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP). Last update December 22, 2002.
¶ No cases of indigenous or imported measles were reported.
** Of one case reported, zero were indigenous and one was imported from another country.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending February 8, 2003, and February 9, 2002 (6th Week)*

Reporting area	AIDS		Chlamydia†		Coccidiodomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2003§	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	-	3,372	66,602	84,106	408	201	117	239	-	-
NEW ENGLAND	-	111	2,359	2,969	-	-	9	7	-	-
Maine	-	1	138	154	N	N	1	-	-	-
N.H.	-	2	182	185	-	-	-	2	-	-
Vt.	-	3	127	81	-	-	1	-	-	-
Mass.	-	76	771	1,140	-	-	5	2	-	-
R.I.	-	5	269	313	-	-	1	3	-	-
Conn.	-	24	872	1,096	-	-	1	-	-	-
MID. ATLANTIC	-	835	4,788	8,891	-	-	28	20	-	-
Upstate N.Y.	-	46	1,203	866	-	-	4	1	-	-
N.Y. City	-	587	419	3,402	-	-	22	13	-	-
N.J.	-	145	1,187	1,450	-	-	1	1	-	-
Pa.	-	57	1,979	3,173	N	N	1	5	-	-
E.N. CENTRAL	-	370	14,020	15,845	1	2	16	74	-	-
Ohio	-	103	5,495	4,406	-	-	7	14	-	-
Ind.	-	52	1,571	1,757	N	N	1	7	-	-
Ill.	-	176	2,502	4,566	-	-	2	17	-	-
Mich.	-	31	3,171	3,183	1	2	5	10	-	-
Wis.	-	8	1,281	1,933	-	-	1	26	-	-
W.N. CENTRAL	-	48	2,817	4,750	-	-	14	13	-	-
Minn.	-	9	161	1,265	-	-	6	5	-	-
Iowa	-	15	174	327	N	N	3	1	-	-
Mo.	-	22	1,282	1,636	-	-	2	3	-	-
N. Dak.	-	-	19	112	N	N	-	-	-	-
S. Dak.	-	-	220	241	-	-	3	-	-	-
Nebr.	-	-	114	346	-	-	-	2	-	-
Kans.	-	2	847	823	N	N	-	2	-	-
S. ATLANTIC	-	1,093	13,696	15,071	-	-	24	54	-	-
Del.	-	21	333	279	N	N	1	-	-	-
Md.	-	140	1,829	1,570	-	-	5	-	-	-
D.C.	-	19	394	397	-	-	-	1	-	-
Va.	-	107	1,426	1,574	-	-	-	-	-	-
W. Va.	-	6	272	274	N	N	-	-	-	-
N.C.	-	45	2,120	2,447	-	-	3	7	-	-
S.C.	-	102	796	1,617	-	-	1	-	-	-
Ga.	-	375	2,741	2,512	-	-	11	38	-	-
Fla.	-	278	3,785	4,401	N	N	3	8	-	-
E.S. CENTRAL	-	136	5,577	5,848	-	-	7	8	-	-
Ky.	-	16	857	987	-	-	-	1	-	-
Tenn.	-	66	1,617	1,978	-	-	3	1	-	-
Ala.	-	20	1,736	1,854	-	-	4	5	-	-
Miss.	-	34	1,367	1,029	N	N	-	1	-	-
W.S. CENTRAL	-	379	10,673	12,086	-	-	2	7	-	-
Ark.	-	15	657	834	-	-	1	2	-	-
La.	-	65	1,718	2,044	N	N	-	1	-	-
Okla.	-	7	825	991	N	N	1	1	-	-
Tex.	-	292	7,473	8,217	-	-	-	3	-	-
MOUNTAIN	-	106	3,500	5,232	349	120	8	6	-	-
Mont.	-	3	238	289	-	-	-	-	-	-
Idaho	-	1	174	153	-	-	5	2	-	-
Wyo.	-	1	140	79	-	-	-	-	-	-
Colo.	-	20	736	1,550	N	N	2	1	-	-
N. Mex.	-	6	43	840	-	1	-	-	-	-
Ariz.	-	39	1,663	1,603	347	113	1	-	-	-
Utah	-	7	186	51	1	2	-	2	-	-
Nev.	-	29	320	667	1	4	-	1	-	-
PACIFIC	-	294	9,172	13,414	58	79	9	50	-	-
Wash.	-	1	1,654	1,454	N	N	-	U	-	-
Oreg.	-	75	495	624	-	-	2	6	-	-
Calif.	-	215	6,168	10,533	58	79	7	34	-	-
Alaska	-	-	367	335	-	-	-	-	-	-
Hawaii	-	3	488	468	-	-	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	68	103	194	N	N	-	-	-	-
V.I.	-	33	-	26	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

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

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update December 22, 2002.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending February 8, 2003, and February 9, 2002 (6th Week)*

Reporting area	*Escherichia coli*, Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped					
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	81	139	6	7	5	2	1,557	1,512	29,722	38,570
NEW ENGLAND	8	6	-	1	-	-	63	167	648	965
Maine	-	-	-	-	-	-	10	18	5	11
N.H.	2	1	-	-	-	-	5	9	15	10
Vt.	-	-	-	-	-	-	8	17	14	14
Mass.	3	1	-	1	-	-	36	90	213	437
R.I.	-	1	-	-	-	-	4	10	105	103
Conn.	3	3	-	-	-	-	-	23	296	390
MID. ATLANTIC	5	9	-	-	1	-	516	297	2,108	4,142
Upstate N.Y.	3	5	-	-	1	-	51	53	607	431
N.Y. City	-	-	-	-	-	-	447	114	133	1,455
N.J.	2	4	-	-	-	-	11	52	685	919
Pa.	N	N	-	-	-	-	7	78	683	1,337
E.N. CENTRAL	20	49	-	-	1	1	222	358	7,537	8,285
Ohio	4	8	-	-	1	1	114	93	3,496	2,463
Ind.	1	4	-	-	-	-	-	-	631	815
Ill.	5	19	-	-	-	-	27	112	1,228	2,572
Mich.	7	6	-	-	-	-	76	90	1,718	1,768
Wis.	3	12	-	-	-	-	5	63	464	667
W.N. CENTRAL	14	22	1	3	2	-	132	113	1,184	2,113
Minn.	6	7	1	3	-	-	33	13	73	387
Iowa	1	6	-	-	-	-	29	30	31	93
Mo.	3	2	N	N	N	N	19	32	752	1,031
N. Dak.	-	-	-	-	1	-	4	-	1	1
S. Dak.	1	-	-	-	-	-	7	8	7	29
Nebr.	3	4	-	-	-	-	20	13	5	165
Kans.	-	3	-	-	1	-	20	17	315	407
S. ATLANTIC	9	17	1	1	-	-	256	314	7,802	9,227
Del.	-	1	-	-	-	-	6	7	169	210
Md.	-	-	-	-	-	-	14	15	963	921
D.C.	-	-	-	-	-	-	-	6	331	343
Va.	1	2	-	-	-	-	13	9	768	1,111
W. Va.	-	-	-	-	-	-	-	2	95	111
N.C.	3	3	-	-	-	-	-	-	1,639	1,588
S.C.	-	-	-	-	-	-	4	1	484	955
Ga.	-	10	-	-	-	-	132	102	1,487	1,515
Fla.	5	1	1	1	-	-	87	172	1,866	2,473
E.S. CENTRAL	5	-	-	-	-	-	33	24	3,063	3,539
Ky.	-	-	-	-	-	-	-	-	403	405
Tenn.	3	-	-	-	-	-	12	5	823	1,231
Ala.	2	-	-	-	-	-	21	19	1,121	1,220
Miss.	-	-	-	-	-	-	-	-	716	683
W.S. CENTRAL	1	3	-	-	-	1	22	9	4,639	5,886
Ark.	1	-	-	-	-	-	15	9	441	604
La.	-	-	-	-	-	-	-	-	1,078	1,388
Okla.	-	-	-	-	-	-	7	-	352	438
Tex.	-	3	-	-	-	1	-	-	2,768	3,456
MOUNTAIN	7	10	3	1	1	-	129	117	860	1,302
Mont.	-	1	-	-	-	-	2	3	18	21
Idaho	2	1	2	-	-	-	20	3	8	10
Wyo.	-	-	-	1	-	-	3	1	9	6
Colo.	2	2	-	-	1	-	42	48	223	459
N. Mex.	-	2	1	-	-	-	2	13	23	159
Ariz.	1	1	-	-	-	-	32	10	453	439
Utah	2	1	-	-	-	-	16	22	17	2
Nev.	-	2	-	-	-	-	12	17	109	206
PACIFIC	12	23	1	1	-	-	184	113	1,881	3,111
Wash.	4	4	-	-	-	-	9	22	322	325
Oreg.	1	6	1	1	-	-	35	71	86	105
Calif.	5	13	-	-	-	-	119	-	1,307	2,557
Alaska	-	-	-	-	-	-	9	8	58	67
Hawaii	2	-	-	-	-	-	12	12	108	57
Guam	N	N	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	11	70
V.I.	-	-	-	-	-	-	-	-	-	8
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending February 8, 2003, and February 9, 2002 (6th Week)*

Reporting area	*Haemophilus influenzae*, invasive								Hepatitis (viral, acute), by type	
	All ages		Age <5 years							
	All serotypes		Serotype B		Non-serotype B		Unknown serotype		A	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	116	190	2	-	15	30	1	1	443	1,032
NEW ENGLAND	14	14	-	-	-	3	-	-	15	51
Maine	-	1	-	-	-	-	-	-	1	1
N.H.	3	-	-	-	-	-	-	-	-	1
Vt.	4	-	-	-	-	-	-	-	1	-
Mass.	5	9	-	-	-	2	-	-	11	28
R.I.	-	-	-	-	-	-	-	-	-	2
Conn.	2	4	-	-	-	1	-	-	2	19
MID. ATLANTIC	9	35	-	-	3	3	-	-	67	100
Upstate N.Y.	3	14	-	-	1	2	-	-	5	9
N.Y. City	5	11	-	-	2	1	-	-	62	27
N.J.	1	7	-	-	-	-	-	-	-	27
Pa.	-	3	-	-	-	-	-	-	-	37
E.N. CENTRAL	9	38	1	-	2	6	-	-	60	129
Ohio	5	20	-	-	2	3	-	-	21	28
Ind.	1	3	-	-	-	1	-	-	2	1
Ill.	-	14	-	-	-	2	-	-	10	57
Mich.	3	1	1	-	-	-	-	-	24	27
Wis.	-	-	-	-	-	-	-	-	3	16
W.N. CENTRAL	9	3	-	-	1	-	1	1	17	43
Minn.	4	-	-	-	-	-	-	-	1	-
Iowa	-	1	-	-	-	-	-	-	7	11
Mo.	3	2	-	-	-	-	1	1	3	10
N. Dak.	-	-	-	-	-	-	-	-	1	-
S. Dak.	-	-	-	-	-	-	-	-	-	1
Nebr.	-	-	-	-	-	-	-	-	1	1
Kans.	2	-	-	-	1	-	-	-	4	20
S. ATLANTIC	28	50	-	-	2	9	-	-	153	256
Del.	-	-	-	-	-	-	-	-	1	2
Md.	8	16	-	-	1	-	-	-	21	53
D.C.	-	-	-	-	-	-	-	-	-	10
Va.	1	3	-	-	-	1	-	-	1	5
W. Va.	-	-	-	-	-	-	-	-	2	1
N.C.	2	3	-	-	-	-	-	-	5	31
S.C.	1	-	-	-	-	-	-	-	6	5
Ga.	4	18	-	-	-	4	-	-	63	35
Fla.	12	10	-	-	1	4	-	-	54	114
E.S. CENTRAL	13	2	-	-	3	1	-	-	13	46
Ky.	1	-	-	-	-	-	-	-	2	7
Tenn.	5	1	-	-	2	-	-	-	8	16
Ala.	7	1	-	-	1	1	-	-	3	5
Miss.	-	-	-	-	-	-	-	-	-	18
W.S. CENTRAL	8	4	-	-	1	1	-	-	6	108
Ark.	1	-	-	-	-	-	-	-	-	4
La.	2	-	-	-	-	-	-	-	3	4
Okla.	5	4	-	-	1	1	-	-	3	6
Tex.	-	-	-	-	-	-	-	-	-	94
MOUNTAIN	20	24	1	-	2	3	-	-	28	50
Mont.	-	-	-	-	-	-	-	-	-	2
Idaho	-	-	-	-	-	-	-	-	-	5
Wyo.	-	-	-	-	-	-	-	-	-	2
Colo.	3	4	-	-	-	-	-	-	4	12
N. Mex.	2	5	-	-	-	1	-	-	-	3
Ariz.	11	12	1	-	1	2	-	-	17	11
Utah	3	3	-	-	1	-	-	-	4	5
Nev.	1	-	-	-	-	-	-	-	3	10
PACIFIC	6	20	-	-	1	4	-	-	84	249
Wash.	-	-	-	-	-	-	-	-	2	7
Oreg.	4	12	-	-	1	1	-	-	12	20
Calif.	-	2	-	-	-	2	-	-	67	222
Alaska	-	1	-	-	-	1	-	-	1	-
Hawaii	2	5	-	-	-	-	-	-	2	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	-	6
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending February 8, 2003, and February 9, 2002 (6th Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C							
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	562	483	86	182	90	88	33	41	323	542
NEW ENGLAND	17	25	-	2	3	4	3	3	3	46
Maine	-	-	-	-	-	-	-	1	-	-
N.H.	-	2	-	-	-	1	1	-	-	7
Vt.	1	2	-	1	1	-	-	-	3	-
Mass.	16	18	-	1	1	2	2	1	-	39
R.I.	-	-	-	-	-	-	-	-	-	-
Conn.	-	3	-	-	1	1	-	1	-	-
MID. ATLANTIC	136	114	6	6	11	16	10	5	264	404
Upstate N.Y.	4	3	2	1	3	2	2	3	174	238
N.Y. City	74	59	-	-	8	-	5	1	54	-
N.J.	55	34	4	3	-	5	2	-	34	80
Pa.	3	18	-	2	-	9	1	1	2	86
E.N. CENTRAL	50	43	13	9	28	36	3	8	5	14
Ohio	23	7	1	-	17	23	2	3	4	2
Ind.	-	-	-	-	-	3	-	-	1	1
Ill.	-	3	1	2	-	-	-	1	-	-
Mich.	27	27	11	7	11	8	1	1	-	-
Wis.	-	6	-	-	-	2	-	3	U	11
W.N. CENTRAL	17	28	21	65	2	2	2	1	-	7
Minn.	2	1	-	-	-	-	1	-	-	2
Iowa	1	6	-	-	1	-	-	-	-	3
Mo.	9	13	19	62	-	1	-	1	-	2
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	-
Nebr.	3	4	2	3	-	1	1	-	-	-
Kans.	2	4	-	-	1	-	-	-	-	-
S. ATLANTIC	209	114	20	10	35	9	6	6	35	55
Del.	1	1	-	3	-	2	-	-	-	6
Md.	7	18	1	2	9	3	1	1	23	41
D.C.	-	2	-	-	-	-	-	-	-	3
Va.	1	8	-	-	2	-	-	-	-	-
W. Va.	-	2	-	-	N	N	-	-	-	-
N.C.	17	12	1	2	2	1	1	-	6	-
S.C.	-	3	-	-	-	-	1	2	-	1
Ga.	133	15	2	-	5	2	1	2	1	-
Fla.	50	53	16	3	17	1	2	1	5	4
E.S. CENTRAL	24	38	12	21	1	1	3	1	1	-
Ky.	4	4	2	1	-	-	-	-	-	-
Tenn.	5	11	-	2	1	-	-	1	1	-
Ala.	8	10	-	1	-	1	2	-	-	-
Miss.	7	13	10	17	-	-	1	-	-	-
W.S. CENTRAL	7	14	5	55	2	2	-	4	2	7
Ark.	-	11	-	4	-	-	-	-	-	-
La.	7	2	5	1	-	-	-	-	2	1
Okla.	-	1	-	-	2	-	-	-	-	-
Tex.	-	-	-	50	-	2	-	4	-	6
MOUNTAIN	59	28	4	4	4	4	6	3	1	1
Mont.	2	-	-	-	-	-	1	-	-	-
Idaho	-	-	-	-	1	-	-	-	1	-
Wyo.	1	2	-	2	-	-	-	-	-	-
Colo.	11	9	4	1	-	1	3	1	-	-
N. Mex.	-	4	-	-	-	1	-	-	-	1
Ariz.	40	5	-	-	2	-	2	2	-	-
Utah	4	3	-	-	1	2	-	-	-	-
Nev.	1	5	-	1	-	-	-	-	-	-
PACIFIC	43	79	5	10	4	14	-	10	12	8
Wash.	2	2	-	-	-	-	-	-	-	-
Oreg.	12	19	2	5	N	N	-	1	3	1
Calif.	29	57	3	5	4	14	-	9	9	7
Alaska	-	1	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	3	-	-	-	-	-	1	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending February 8, 2003, and February 9, 2002 (6th Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	83	106	119	209	346	535	329	549	26	29
NEW ENGLAND	2	11	7	14	83	117	49	54	1	-
Maine	1	1	1	2	-	3	3	3	-	-
N.H.	1	4	-	1	-	-	2	1	-	-
Vt.	-	-	-	2	14	16	3	13	-	-
Mass.	-	4	5	8	69	93	18	18	1	-
R.I.	-	-	-	-	-	-	-	2	-	-
Conn.	-	2	1	1	-	5	23	17	-	-
MID. ATLANTIC	33	20	10	27	25	20	29	76	1	4
Upstate N.Y.	4	2	2	6	23	15	26	49	-	-
N.Y. City	27	7	6	5	-	4	1	3	1	-
N.J.	2	9	1	6	2	-	-	12	-	-
Pa.	-	2	1	10	-	1	2	12	-	4
E.N. CENTRAL	6	12	17	34	43	75	4	2	1	2
Ohio	3	4	6	14	38	43	-	1	1	2
Ind.	-	-	4	6	-	2	2	1	-	-
Ill.	1	5	-	4	-	8	-	-	-	-
Mich.	2	3	6	6	4	10	2	-	-	-
Wis.	-	-	1	4	1	12	-	-	-	-
W.N. CENTRAL	4	6	8	9	11	49	49	34	1	1
Minn.	2	-	1	-	-	1	4	2	-	-
Iowa	2	2	4	-	-	14	5	4	1	-
Mo.	-	2	2	5	7	23	-	-	-	1
N. Dak.	-	-	-	-	-	-	8	-	-	-
S. Dak.	-	-	-	2	-	1	-	14	-	-
Nebr.	-	-	-	1	-	2	-	-	-	-
Kans.	-	2	1	1	4	8	32	14	-	-
S. ATLANTIC	25	22	30	27	49	31	168	142	20	21
Del.	-	-	4	1	-	1	-	3	-	-
Md.	11	9	2	1	11	6	2	43	4	5
D.C.	-	2	-	-	-	-	-	-	-	-
Va.	-	-	2	1	1	8	47	39	-	-
W. Va.	1	-	-	-	-	-	7	11	-	-
N.C.	4	3	3	3	17	7	54	39	16	16
S.C.	-	2	-	1	-	8	13	6	-	-
Ga.	3	6	2	6	14	-	35	-	-	-
Fla.	6	-	17	14	6	1	10	1	-	-
E.S. CENTRAL	2	3	9	8	12	21	4	109	1	1
Ky.	-	-	-	-	2	6	3	1	-	-
Tenn.	-	1	3	1	3	8	-	108	1	1
Ala.	2	1	3	6	7	1	1	-	-	-
Miss.	-	1	3	1	-	6	-	-	-	-
W.S. CENTRAL	1	1	8	33	-	85	9	99	-	-
Ark.	-	-	1	5	-	69	-	-	-	-
La.	1	1	4	2	-	-	-	-	-	-
Okla.	-	-	3	4	-	2	9	12	-	-
Tex.	-	-	-	22	-	14	-	87	-	-
MOUNTAIN	2	4	4	17	93	68	10	13	-	-
Mont.	-	-	-	-	-	2	1	-	-	-
Idaho	-	-	-	-	2	5	-	-	-	-
Wyo.	-	-	-	-	-	2	-	1	-	-
Colo.	1	2	-	5	40	39	-	-	-	-
N. Mex.	-	-	1	-	7	10	-	-	-	-
Ariz.	1	-	3	7	35	4	9	12	-	-
Utah	-	1	-	-	6	5	-	-	-	-
Nev.	-	1	-	5	3	1	-	-	-	-
PACIFIC	8	27	26	40	30	69	7	20	1	-
Wash.	3	-	2	7	5	4	-	-	-	-
Oreg.	4	-	7	7	25	11	-	-	-	-
Calif.	1	24	16	24	-	50	7	8	1	-
Alaska	-	1	-	1	-	1	-	12	-	-
Hawaii	-	2	1	1	-	3	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	1	-	-	-	11	-	-
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending February 8, 2003, and February 9, 2002 (6th Week)*

Reporting area	Salmonellosis		Shigellosis		*Streptococcal* disease, invasive, group A		*Streptococcus pneumoniae*, invasive			
							Drug resistant, all ages		Age <5 years	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	2,135	3,005	1,598	1,542	371	474	243	179	42	13
NEW ENGLAND	89	133	28	28	12	20	2	1	-	1
Maine	4	21	1	1	-	3	-	-	-	-
N.H.	4	4	-	1	1	2	-	-	N	N
Vt.	2	6	-	-	2	1	2	1	-	1
Mass.	59	72	19	24	9	14	N	N	N	N
R.I.	4	5	2	-	-	-	-	-	-	-
Conn.	16	25	6	2	-	-	-	-	-	-
MID. ATLANTIC	205	312	96	72	49	78	6	9	8	1
Upstate N.Y.	37	25	17	7	30	24	6	9	8	1
N.Y. City	147	102	65	35	14	26	U	U	U	U
N.J.	11	105	5	14	1	24	N	N	N	N
Pa.	10	80	9	16	4	4	-	-	-	-
E.N. CENTRAL	319	514	117	227	88	119	53	11	26	10
Ohio	149	78	40	107	31	20	46	-	25	-
Ind.	21	25	7	6	3	3	7	9	1	2
Ill.	75	278	39	82	1	38	-	2	-	-
Mich.	58	77	27	20	52	37	-	-	N	N
Wis.	16	56	4	12	1	21	N	N	-	8
W.N. CENTRAL	133	195	72	179	31	21	32	29	5	-
Minn.	38	35	3	20	11	-	-	-	5	-
Iowa	39	26	3	11	-	-	N	N	N	N
Mo.	25	89	19	23	4	10	-	1	-	-
N. Dak.	2	-	-	-	1	-	1	-	-	-
S. Dak.	5	11	8	82	4	-	-	-	-	-
Nebr.	10	11	30	29	6	6	4	9	N	N
Kans.	14	23	9	14	5	5	27	19	N	N
S. ATLANTIC	772	855	959	526	78	91	126	100	-	1
Del.	2	9	50	2	1	-	-	3	N	N
Md.	69	61	103	40	26	12	-	-	-	-
D.C.	-	7	-	3	-	2	-	3	-	1
Va.	41	61	25	145	-	6	N	N	N	N
W. Va.	1	4	-	1	-	-	5	3	-	-
N.C.	151	112	111	32	17	22	N	N	U	U
S.C.	39	31	14	6	1	2	9	18	N	N
Ga.	203	205	348	174	10	35	32	45	N	N
Fla.	266	365	308	123	23	12	80	28	N	N
E.S. CENTRAL	176	161	85	108	8	13	9	19	-	-
Ky.	28	19	5	30	1	3	-	1	N	N
Tenn.	52	35	20	5	7	10	9	18	N	N
Ala.	67	59	47	31	-	-	-	-	N	N
Miss.	29	48	13	42	-	-	-	-	-	-
W.S. CENTRAL	48	179	64	113	9	38	12	3	3	-
Ark.	25	29	1	18	1	-	1	2	-	-
La.	8	11	13	8	-	-	11	1	1	-
Okla.	15	22	50	27	8	4	N	N	2	-
Tex.	-	117	-	60	-	34	N	N	-	-
MOUNTAIN	117	157	66	37	73	31	3	7	-	-
Mont.	4	3	-	-	-	-	-	-	-	-
Idaho	11	9	1	2	4	-	N	N	N	N
Wyo.	2	4	1	-	-	1	1	4	-	-
Colo.	39	56	16	10	22	12	-	-	-	-
N. Mex.	9	24	13	3	10	16	2	3	-	-
Ariz.	32	26	31	11	35	-	-	-	N	N
Utah	12	14	2	5	2	2	-	-	-	-
Nev.	8	21	2	6	-	-	-	-	-	-
PACIFIC	276	499	111	252	23	63	-	-	-	-
Wash.	26	12	2	2	-	16	-	-	N	N
Oreg.	24	34	8	20	N	N	N	N	N	N
Calif.	197	421	93	223	10	36	N	N	N	N
Alaska	11	10	2	1	-	-	-	-	N	N
Hawaii	18	22	6	6	13	11	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	10	-	1	N	N	-	-	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending February 8, 2003, and February 9, 2002 (6th Week)*

Reporting area	Syphilis: Primary & secondary		Syphilis: Congenital		Tuberculosis		Typhoid fever		Varicella (Chickenpox)
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003
UNITED STATES	606	601	18	40	342	805	20	23	1,486
NEW ENGLAND	13	9	-	-	11	28	1	4	382
Maine	-	-	-	-	-	2	-	-	203
N.H.	-	-	-	-	-	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	141
Mass.	10	6	-	-	5	2	-	3	38
R.I.	3	-	-	-	-	10	-	-	-
Conn.	-	3	-	-	6	14	1	1	-
MID. ATLANTIC	65	57	4	9	111	122	7	3	-
Upstate N.Y.	2	1	2	1	-	9	-	-	-
N.Y. City	39	32	1	3	102	53	7	2	-
N.J.	23	15	1	5	-	34	-	1	-
Pa.	1	9	-	-	9	26	-	-	-
E.N. CENTRAL	84	104	6	4	60	73	2	2	793
Ohio	22	13	1	-	12	11	-	1	200
Ind.	1	9	1	-	13	12	1	-	-
Ill.	11	36	3	3	33	44	-	-	-
Mich.	48	43	1	1	-	-	1	-	577
Wis.	2	3	-	-	2	6	-	1	16
W.N. CENTRAL	10	10	-	-	25	51	-	1	2
Minn.	-	5	-	-	7	19	-	1	-
Iowa	-	-	-	-	6	-	-	-	-
Mo.	3	2	-	-	1	22	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	2
S. Dak.	-	-	-	-	4	-	-	-	-
Nebr.	-	2	-	-	-	-	-	-	-
Kans.	7	1	-	-	7	10	-	-	-
S. ATLANTIC	172	141	3	8	12	102	1	6	300
Del.	1	2	-	-	-	-	-	-	1
Md.	30	11	-	1	4	3	1	1	-
D.C.	5	3	-	-	-	-	-	-	-
Va.	9	4	-	-	3	8	-	-	55
W. Va.	-	-	-	-	1	5	-	-	239
N.C.	21	41	-	3	2	7	-	-	-
S.C.	9	15	1	2	2	2	-	-	5
Ga.	22	17	-	1	-	10	-	1	-
Fla.	75	48	2	1	-	67	-	4	-
E.S. CENTRAL	38	73	2	2	25	51	-	-	-
Ky.	5	1	-	-	-	8	-	-	-
Tenn.	18	29	2	1	7	24	-	-	-
Ala.	14	29	-	-	18	15	-	-	-
Miss.	1	14	-	1	-	4	-	-	-
W.S. CENTRAL	89	82	-	13	10	172	-	3	1
Ark.	8	1	-	-	5	3	-	-	-
La.	9	20	-	-	-	-	-	-	1
Okla.	7	8	-	-	5	2	-	-	-
Tex.	65	53	-	13	-	167	-	3	-
MOUNTAIN	22	34	3	1	10	27	2	1	8
Mont.	-	-	-	-	-	-	-	-	-
Idaho	-	1	-	-	-	-	-	-	-
Wyo.	-	-	-	-	1	1	-	-	2
Colo.	-	1	-	-	2	5	2	1	-
N. Mex.	3	4	-	-	-	7	-	-	-
Ariz.	19	28	3	1	7	9	-	-	-
Utah	-	-	-	-	-	2	-	-	6
Nev.	-	-	-	-	-	3	-	-	-
PACIFIC	113	91	-	3	78	179	7	3	-
Wash.	7	5	-	-	20	14	-	-	-
Oreg.	5	4	-	-	5	4	2	-	-
Calif.	99	81	-	3	39	135	5	3	-
Alaska	-	-	-	-	4	11	-	-	-
Hawaii	2	1	-	-	10	15	-	-	-
Guam	-	-	-	-	-	-	-	-	-
P.R.	8	18	-	7	-	-	-	-	-
V.I.	-	1	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending February 8, 2003 (6th Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	561	417	97	36	4	7	75
Boston, Mass.	145	98	29	13	2	3	18
Bridgeport, Conn.	47	38	8	1	-	-	6
Cambridge, Mass.	21	17	3	1	-	-	2
Fall River, Mass.	30	25	2	3	-	-	9
Hartford, Conn.	44	30	8	5	-	1	8
Lowell, Mass.	30	25	3	2	-	-	1
Lynn, Mass.	10	6	1	3	-	-	1
New Bedford, Mass.	26	21	5	-	-	-	6
New Haven, Conn.	U	U	U	U	U	U	U
Providence, R.I.	45	31	9	2	1	2	-
Somerville, Mass.	2	-	2	-	-	-	-
Springfield, Mass.	49	36	8	4	1	-	5
Waterbury, Conn.	47	42	5	-	-	-	4
Worcester, Mass.	65	48	14	2	-	1	15
MID. ATLANTIC	2,736	1,961	519	171	42	36	162
Albany, N.Y.	56	38	10	5	-	3	5
Allentown, Pa.	26	20	4	-	2	-	4
Buffalo, N.Y.	110	86	18	4	2	-	9
Camden, N.J.	29	16	7	4	-	2	2
Elizabeth, N.J.	23	22	1	-	-	-	2
Erie, Pa.	42	32	9	1	-	-	3
Jersey City, N.J.	41	24	10	6	-	1	-
New York City, N.Y.	1,635	1,189	304	99	18	18	67
Newark, N.J.	47	23	13	7	1	3	2
Paterson, N.J.	10	6	2	2	-	-	1
Philadelphia, Pa.	270	165	68	23	12	2	23
Pittsburgh, Pa.§	33	21	8	1	1	2	2
Reading, Pa.	25	20	3	1	1	-	6
Rochester, N.Y.	143	110	25	7	1	-	12
Schenectady, N.Y.	29	24	3	1	-	1	4
Scranton, Pa.	36	31	2	2	-	1	4
Syracuse, N.Y.	118	88	17	6	4	3	10
Trenton, N.J.	16	13	2	1	-	-	-
Utica, N.Y.	26	17	8	1	-	-	1
Yonkers, N.Y.	21	16	5	-	-	-	5
E.N. CENTRAL	2,080	1,415	423	122	46	49	149
Akron, Ohio	49	36	7	2	-	1	10
Canton, Ohio	50	37	8	3	-	2	5
Chicago, Ill.	336	205	82	26	12	11	23
Cincinnati, Ohio	96	66	18	6	2	4	8
Cleveland, Ohio	138	93	29	9	5	2	3
Columbus, Ohio	210	151	35	11	4	9	20
Dayton, Ohio	119	91	19	6	2	1	9
Detroit, Mich.	228	135	62	21	5	5	14
Evansville, Ind.	57	47	6	2	2	-	2
Fort Wayne, Ind.	64	49	12	2	1	-	7
Gary, Ind.	22	13	6	-	1	2	1
Grand Rapids, Mich.	61	42	12	2	2	3	8
Indianapolis, Ind.	207	131	51	17	5	3	7
Lansing, Mich.	62	46	12	3	-	1	5
Milwaukee, Wis.	123	88	23	6	2	4	14
Peoria, Ill.	58	42	12	2	2	-	3
Rockford, Ill.	46	35	8	1	1	1	5
South Bend, Ind.	U	U	U	U	U	U	U
Toledo, Ohio	86	54	8	2	-	-	3
Youngstown, Ohio	68	54	13	1	-	-	2
W.N. CENTRAL	675	477	127	39	18	14	68
Des Moines, Iowa	106	80	17	6	1	2	13
Duluth, Minn.	30	22	4	2	2	-	3
Kansas City, Kans.	32	24	4	4	-	-	5
Kansas City, Mo.	104	68	26	4	3	3	9
Lincoln, Nebr.	33	27	5	1	-	-	5
Minneapolis, Minn.	87	59	21	4	2	1	10
Omaha, Nebr.	123	84	20	11	1	7	10
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	60	42	12	3	2	1	6
Wichita, Kans.	100	71	18	4	7	-	7
S. ATLANTIC	1,395	930	281	112	43	28	95
Atlanta, Ga.	221	140	44	26	8	3	13
Baltimore, Md.	321	187	89	27	12	6	22
Charlotte, N.C.	137	93	26	8	4	6	9
Jacksonville, Fla.	150	103	30	10	5	2	16
Miami, Fla.	120	89	15	12	2	2	6
Norfolk, Va.	61	40	12	3	5	1	1
Richmond, Va.	U	U	U	U	U	U	U
Savannah, Ga.	61	40	12	3	5	1	1
St. Petersburg, Fla.	100	75	16	6	-	3	5
Tampa, Fla.	210	154	33	16	2	4	20
Washington, D.C.	U	U	U	U	U	U	U
Wilmington, Del.	14	9	4	1	-	-	2
E.S. CENTRAL	959	664	193	72	16	14	93
Birmingham, Ala.	185	133	30	14	5	3	11
Chattanooga, Tenn.	79	59	10	8	1	1	8
Knoxville, Tenn.	137	99	26	7	1	4	11
Lexington, Ky.	41	20	16	4	1	-	3
Memphis, Tenn.	206	141	49	13	2	1	22
Mobile, Ala.	99	70	19	8	-	2	6
Montgomery, Ala.	57	38	13	5	-	1	7
Nashville, Tenn.	155	104	30	13	6	2	25
W.S. CENTRAL	1,296	800	272	119	67	38	100
Austin, Tex.	100	73	10	16	1	-	9
Baton Rouge, La.	72	54	15	2	-	1	3
Corpus Christi, Tex.	37	21	10	-	3	3	3
Dallas, Tex.	234	136	54	27	8	9	21
El Paso, Tex.	132	98	25	7	2	-	10
Ft. Worth, Tex.	U	U	U	U	U	U	U
Houston, Tex.	427	227	86	46	45	23	35
Little Rock, Ark.	81	49	25	5	2	-	-
New Orleans, La.	42	25	10	6	1	-	-
San Antonio, Tex.	U	U	U	U	U	U	U
Shreveport, La.	32	21	6	1	2	2	6
Tulsa, Okla.	139	96	31	9	3	-	13
MOUNTAIN	979	657	192	77	27	26	77
Albuquerque, N.M.	126	75	23	19	5	4	12
Boise, Idaho	50	31	12	2	2	3	5
Colo. Springs, Colo.	90	63	15	6	4	2	5
Denver, Colo.	116	68	28	13	1	6	9
Las Vegas, Nev.	277	190	61	15	9	2	15
Ogden, Utah	31	25	4	2	-	-	3
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	36	28	5	3	-	-	2
Salt Lake City, Utah	117	75	22	12	4	4	15
Tucson, Ariz.	136	102	22	5	2	5	11
PACIFIC	1,507	1,065	294	83	43	22	113
Berkeley, Calif.	18	11	3	4	-	-	1
Fresno, Calif.	109	77	20	7	4	1	6
Glendale, Calif.	26	22	2	1	1	-	1
Honolulu, Hawaii	90	63	19	4	1	3	8
Long Beach, Calif.	84	53	21	8	2	-	9
Los Angeles, Calif.	466	319	101	25	13	8	25
Pasadena, Calif.	U	U	U	U	U	U	U
Portland, Oreg.	U	U	U	U	U	U	U
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	199	145	37	11	4	2	17
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	184	136	29	9	6	4	20
Santa Cruz, Calif.	33	28	4	1	-	-	4
Seattle, Wash.	145	93	34	7	8	3	9
Spokane, Wash.	50	37	11	2	-	-	4
Tacoma, Wash.	103	81	13	4	4	1	9
TOTAL	12,188¶	8,386	2,398	831	306	234	932

U: Unavailable. -:No reported cases.

* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. 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 this Pennsylvania city, 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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