MMWR™
Morbidity and Mortality Weekly Report
Weekly January 9, 2004 / Vol. 52 / No. 53

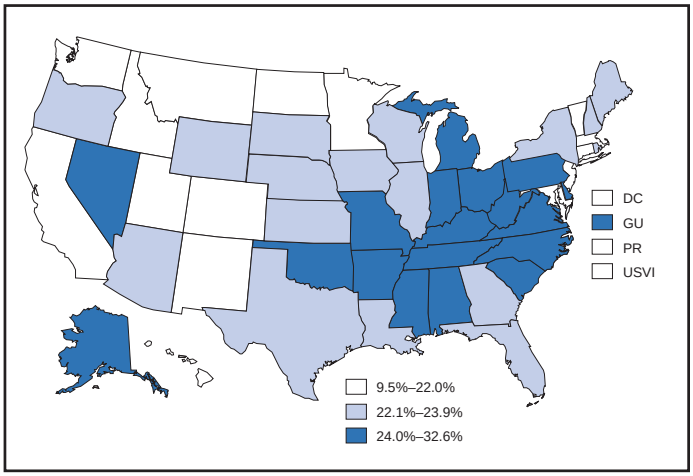
State-Specific Prevalence of Current Cigarette Smoking Among Adults — United States, 2002

Cigarette smoking in the United States causes serious illnesses among an estimated 8.6 million persons (*1*) and approximately 440,000 deaths annually (*2*), resulting in $157 billion in health-related economic costs (*2*). To reduce smoking prevalence, morbidity, mortality, and economic impact, state tobacco-control programs should include interventions to help persons stop smoking (*3*). To assess the prevalence of current cigarette smoking among adults, attempts to quit, and receipt of physician advice to quit during the preceding year, CDC analyzed data from the 2002 Behavioral Risk Factor Surveillance System (BRFSS) survey. This report summarizes the results of that analysis, which indicated a threefold difference in smoking prevalence across the 50 states, the District of Columbia (DC), Guam, Puerto Rico, and the U.S. Virgin Islands (range: 9.5%–32.6%) (Figure). To support smokers' attempts to quit, states/areas should implement comprehensive tobacco-control programs that include interventions to help persons stop smoking (e.g., quitlines).

BRFSS is a state-based, random-digit–dialed telephone survey of the noninstitutionalized, civilian U.S. population aged ≥18 years. Because BRFSS data are state-specific, median prevalences were reported rather than national averages. Estimates were weighted by age, race/ethnicity, and sex distribution of each state's population, and 95% confidence intervals were calculated by using SUDAAN. The median response rate across states/areas was 58.3% (range: 42.2%–82.6%).

Current cigarette smoking status was determined by asking respondents, "Have you smoked at least 100 cigarettes in your entire life?" and "Do you now smoke cigarettes every day, some days, or not at all?" Current smokers were defined as those who reported having smoked ≥100 cigarettes during their lifetimes and who currently smoke every day or some days. Attempted smoking cessation was assessed by asking every day smokers, "During the past 12 months, have you stopped

FIGURE. Prevalence* of current cigarette smoking among adults aged ≥18 years, by state/area — Behavioral Risk Factor Surveillance System, 50 states, District of Columbia (DC), Guam (GU), Puerto Rico (PR), and U.S. Virgin Islands (USVI), 2002



*The percentage of all adults in each state/area who reported having smoked ≥100 cigarettes during their lifetimes and who currently smoke every day or some days.

INSIDE

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

The *MMWR* series of publications is published by the Epidemiology Program Office, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, GA 30333.

SUGGESTED CITATION
Centers for Disease Control and Prevention. [Article Title]. MMWR 2003;52:[inclusive page numbers].

smoking for 1 day or longer because you were trying to quit?" Respondents in 23 states and the U.S. Virgin Islands also were asked about receipt of physician advice to quit. Current smokers who had visited a health-care professional were asked, "In the past 12 months, has a doctor, nurse, or other health professional advised you to quit smoking?"

Cigarette Smoking Prevalence

During 2002, the median prevalence of current smoking in the 50 states and DC was 23.1% (range: 12.7% [Utah]–32.6% [Kentucky]) (Table 1). Current smoking prevalence also was highest in Alaska (29.4%), West Virginia (28.4%), Tennessee (27.8%), and Indiana (27.7%). Smoking prevalence was lowest in Utah (12.7%), California (16.4%), Massachusetts (19.0%), New Jersey (19.1%), and Connecticut (19.5%). In other areas, current smoking prevalence was 32.1% in Guam, 13.2% in Puerto Rico, and 9.5% in the U.S. Virgin Islands. The median smoking prevalence in the 50 states and DC was higher for men (25.9% [range: 14.2%–34.8%]) than for women (20.9% [range: 11.3%–30.5%]). Kentucky had the highest prevalence for both men (34.8%) and women (30.5%), and Utah had the lowest prevalence for both men (14.2%) and women (11.3%).

Attempts to Quit Smoking

Among the 50 states and DC, the median proportion of everyday smokers who tried to quit smoking during the preceding year was 52.0% (range: 42.4% [Hawaii]–66.2% [Utah]) (Table 2). Among respondents in the 23 states who were asked about receipt of physician advice to quit, the median proportion of current smokers who had received advice to quit during the preceding year was 72.0% (range: 64.0% [Wisconsin]–83.7% [Maine]) (Table 2). Overall, the median proportion of current smokers who had received advice to quit during the preceding year did not vary substantially by age, race/ethnicity, or sex.

Reported by: *J Bombard, MSPH, A Trosclair, MS, M Schooley, MPH, C Husten, MD, Office of Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.*

Editorial Note: One of the national health objectives for 2010 is to reduce the prevalence of current smoking among adults to ≤12% (objective 27-1) (*4*). The findings in this report indicate that this objective has been achieved only in the U.S. Virgin Islands.

The median proportion of everyday smokers who stopped smoking for ≥1 day was 52.0%, compared with 45.0% in 1996 (CDC, unpublished data, 1996). This increase in quit attempts might reflect decreased acceptability of smoking, an increase in clean-indoor–air laws and policies, and higher taxes

TABLE 1. Prevalence of current cigarette smoking among adults*, by state/area and sex — Behavioral Risk Factor Surveillance System, 50 states, District of Columbia, Guam, Puerto Rico, and U.S. Virgin Islands, 2002

State/Area	Men %	Men (95% CI†)	Women %	Women (95% CI)	Total %	Total (95% CI)
Alabama	27.5	(±3.3)	21.6	(±2.1)	**24.4**	**(±1.9)**
Alaska	31.9	(±4.1)	26.7	(±3.7)	**29.4**	**(±2.8)**
Arizona§	27.0	(±4.4)	20.1	(±2.7)	**23.5**	**(±2.6)**
Arkansas§	28.7	(±2.8)	24.1	(±2.0)	**26.3**	**(±1.7)**
California§	19.7	(±2.4)	13.3	(±1.7)	**16.4**	**(±1.5)**
Colorado	21.4	(±2.3)	19.4	(±1.8)	**20.4**	**(±1.5)**
Connecticut§	20.6	(±2.2)	18.4	(±1.7)	**19.5**	**(±1.3)**
Delaware§	25.4	(±3.2)	24.1	(±3.0)	**24.7**	**(±2.2)**
District of Columbia§	23.8	(±3.7)	17.5	(±2.4)	**20.4**	**(±2.1)**
Florida§	23.6	(±2.1)	20.7	(±1.6)	**22.1**	**(±1.3)**
Georgia§	26.8	(±2.7)	20.0	(±1.8)	**23.3**	**(±1.6)**
Hawaii	26.2	(±2.3)	16.0	(±1.6)	**21.1**	**(±1.4)**
Idaho	21.6	(±2.2)	19.7	(±1.9)	**20.6**	**(±1.4)**
Illinois§	26.1	(±2.2)	19.8	(±1.6)	**22.9**	**(±1.4)**
Indiana§	29.8	(±2.2)	25.8	(±1.7)	**27.7**	**(±1.4)**
Iowa	26.3	(±2.6)	20.2	(±2.1)	**23.1**	**(±1.7)**
Kansas	23.2	(±2.2)	20.9	(±1.8)	**22.1**	**(±1.4)**
Kentucky	34.8	(±3.0)	30.5	(±2.3)	**32.6**	**(±1.8)**
Louisiana§	26.6	(±2.4)	21.5	(±1.7)	**23.9**	**(±1.5)**
Maine§	26.4	(±3.1)	21.1	(±2.4)	**23.6**	**(±2.0)**
Maryland§	25.7	(±2.8)	18.6	(±2.0)	**22.0**	**(±1.7)**
Massachusetts§	20.2	(±1.8)	18.0	(±1.4)	**19.0**	**(±1.2)**
Michigan§	25.1	(±2.2)	23.5	(±1.9)	**24.2**	**(±1.5)**
Minnesota	24.3	(±2.3)	19.4	(±1.8)	**21.7**	**(±1.4)**
Mississippi§	33.2	(±3.2)	22.2	(±1.9)	**27.4**	**(±1.8)**
Missouri	29.6	(±2.8)	23.9	(±2.2)	**26.6**	**(±1.8)**
Montana	21.3	(±2.6)	21.4	(±2.3)	**21.3**	**(±1.7)**
Nebraska	26.3	(±2.8)	19.4	(±1.8)	**22.8**	**(±1.7)**
Nevada	28.5	(±3.8)	23.5	(±3.1)	**26.0**	**(±2.4)**
New Hampshire§	23.9	(±2.1)	22.6	(±1.8)	**23.2**	**(±1.4)**
New Jersey§	20.4	(±3.4)	17.9	(±2.6)	**19.1**	**(±2.1)**
New Mexico	23.3	(±2.4)	19.3	(±1.8)	**21.2**	**(±1.5)**
New York§	25.9	(±2.5)	19.3	(±1.7)	**22.4**	**(±1.5)**
North Carolina	30.7	(±2.8)	22.3	(±2.0)	**26.4**	**(±1.7)**
North Dakota	23.1	(±2.6)	20.0	(±2.1)	**21.5**	**(±1.7)**
Ohio§	28.4	(±2.6)	25.0	(±2.1)	**26.6**	**(±1.7)**
Oklahoma	29.7	(±2.2)	23.8	(±1.6)	**26.7**	**(±1.3)**
Oregon§	24.6	(±2.9)	20.2	(±2.2)	**22.4**	**(±1.8)**
Pennsylvania§	26.1	(±1.7)	23.2	(±1.3)	**24.6**	**(±1.0)**
Rhode Island§	24.3	(±2.6)	20.9	(±1.9)	**22.5**	**(±1.6)**
South Carolina§	29.1	(±2.9)	24.4	(±2.2)	**26.6**	**(±1.8)**
South Dakota	25.6	(±2.4)	19.7	(±1.9)	**22.6**	**(±1.5)**
Tennessee	31.0	(±3.1)	24.9	(±2.3)	**27.8**	**(±1.9)**
Texas§	26.8	(±2.2)	19.1	(±1.5)	**22.9**	**(±1.3)**
Utah	14.2	(±2.1)	11.3	(±1.8)	**12.7**	**(±1.4)**
Vermont§	21.5	(±2.2)	20.9	(±1.9)	**21.2**	**(±1.5)**
Virginia§	28.5	(±3.4)	20.9	(±2.2)	**24.6**	**(±2.0)**
Washington§	23.6	(±2.4)	19.4	(±1.8)	**21.5**	**(±1.5)**
West Virginia	29.8	(±2.8)	27.2	(±2.2)	**28.4**	**(±1.8)**
Wisconsin	25.4	(±2.5)	21.4	(±1.9)	**23.4**	**(±1.6)**
Wyoming	25.3	(±2.8)	22.0	(±2.1)	**23.7**	**(±1.7)**
Median	*25.9*		*20.9*		***23.1***	
Guam§	40.9	(±6.2)	22.4	(±4.2)	**32.1**	**(±3.9)**
Puerto Rico	18.7	(±2.4)	8.4	(±1.4)	**13.2**	**(±1.4)**
U.S. Virgin Islands§	12.4	(±2.6)	7.1	(±1.6)	**9.5**	**(±1.5)**
Median	*18.7*		*8.4*		***13.2***	

***** Persons aged ≥18 years who reported having smoked ≥100 cigarettes during their lifetimes and who currently smoke every day or some days.
† Confidence interval.
§ Response rate: <60%.

TABLE 2. Percentage of everyday adult smokers who tried to quit and percentage of current adult smokers who received advice to quit, by state/area — Behavioral Risk Factor Surveillance System, 50 states, District of Columbia, Guam, Puerto Rico, and U.S. Virgin Islands, 2002

State/Area	Everyday smokers who quit for ≥1 day %	Everyday smokers who quit for ≥1 day (95% CI*)	Current smokers who received advice to quit %	Current smokers who received advice to quit (95% CI)
Alabama	50.9	(±5.1)	71.1	(±5.3)
Alaska	49.5	(±6.8)	—	—
Arizona†	50.5	(±8.0)	70.9	(±7.5)
Arkansas†	51.9	(±4.3)	70.5	(±4.2)
California†	62.3	(±5.3)	—	—
Colorado	51.2	(±4.6)	71.6	(±4.8)
Connecticut†	59.3	(±4.2)	—	—
Delaware†	50.4	(±6.1)	80.3	(±4.6)
District of Columbia†	58.9	(±7.0)	—	—
Florida†	48.0	(±3.7)	73.6	(±3.6)
Georgia†	55.4	(±4.3)	—	—
Hawaii	42.4	(±4.2)	—	—
Idaho	53.2	(±4.4)	—	—
Illinois†	50.1	(±3.8)	—	—
Indiana†	52.4	(±3.3)	72.6	(±3.4)
Iowa	46.6	(±4.5)	71.4	(±5.4)
Kansas	44.2	(±4.0)	—	—
Kentucky	45.6	(±3.7)	—	—
Louisiana†	53.4	(±3.9)	73.2	(±3.8)
Maine†	56.7	(±5.2)	83.7	(±4.3)
Maryland†	52.3	(±5.1)	—	—
Massachusetts†	56.0	(±3.9)	—	—
Michigan†	56.1	(±3.9)	—	—
Minnesota	53.1	(±4.3)	—	—
Mississippi†	53.9	(±4.6)	—	—
Missouri	44.5	(±4.5)	—	—
Montana	45.0	(±5.2)	—	—
Nebraska	52.2	(±4.9)	72.0	(±4.4)
Nevada	49.5	(±6.4)	—	—
New Hampshire†	56.7	(±3.8)	—	—
New Jersey†	55.2	(±7.0)	69.5	(±6.9)
New Mexico	50.0	(±4.5)	—	—
New York†	58.0	(±4.2)	—	—
North Carolina	53.2	(±4.2)	76.9	(±4.0)
North Dakota	47.1	(±5.1)	72.1	(±5.6)
Ohio†	46.7	(±4.1)	68.7	(±4.6)
Oklahoma	48.1	(±3.3)	70.1	(±3.8)
Oregon†	52.5	(±5.4)	—	—
Pennsylvania†	49.8	(±2.8)	—	—
Rhode Island†	61.7	(±4.3)	76.8	(±4.3)
South Carolina†	53.6	(±4.4)	69.8	(±4.7)
South Dakota	52.0	(±4.4)	—	—
Tennessee	48.1	(±4.5)	—	—
Texas†	47.5	(±3.9)	66.8	(±4.3)
Utah	66.2	(±6.1)	—	—
Vermont†	51.8	(±4.4)	—	—
Virginia†	50.5	(±5.1)	78.1	(±4.9)
Washington†	52.7	(±4.6)	—	—
West Virginia	43.5	(±4.2)	76.2	(±3.8)
Wisconsin	51.7	(±4.3)	64.0	(±5.0)
Wyoming	53.9	(±5.0)	72.6	(±4.7)
Median	*52.0*		*72.0*	
Guam†	64.4	(±8.1)	—	—
Puerto Rico	67.0	(±6.0)	—	—
U.S. Virgin Islands†	50.5	(±9.4)	62.9	(±10.5)
Median	*64.4*		*62.9*	

* Confidence interval.
† Response rate: <60%.

implemented by certain states. In addition, the proportion of current smokers who had been advised to quit was 72.0%, which was higher than estimates from other surveys (*5*), although comparisons are limited by the number of states that asked the question. This increase might reflect efforts within health-care systems to increase treatment for tobacco users through proven interventions and system-level changes (e.g., physician reminders to provide counseling). The increases also might be attributed to expanded tobacco-control programs at the state level, including the expansion of evidence-based, telephone quitline services (*6*). During 1992–2002, states offering some form of quitline services increased from one to 32. Physicians often lack the time and often are not comfortable providing cessation counseling. Establishing readily accessible, free counseling services (e.g., quitlines) increases the availability of more intensive cessation assistance and might also encourage health-care providers to assess tobacco use and provide both advice to quit and medication (*7*).

The findings in this report are subject to at least three limitations. First, BRFSS does not sample persons in households without telephones. Second, response rates might have affected estimates; however, BRFSS estimates are comparable with current smoking estimates obtained from other surveys with higher response rates (*8*). Finally, data were based on self-reports, and smoking status in BRFSS is not validated by biochemical markers. However, BRFSS data on cigarette smoking measures have moderate-to-high validity and high reliability (*9*), and self-reports of smoking have been found to be valid in other population-based surveys (*10*).

To help states plan and implement comprehensive tobacco-cessation programs, CDC recommends several strategies, including implementing telephone quitlines, integrating tobacco cessation into routine health-care delivery, and making tobacco-treatment services a standard health benefit (*3*). Approximately 70% of smokers visit physicians each year (*5*), giving health-care providers the opportunity to reach smokers. Through these interactions, providers can advise smokers to quit, discuss appropriate treatments (e.g., medications and counseling), and provide referrals to quitlines or other community programs.

To implement tobacco-control programs fully and reduce smoking prevalence further, CDC recommends spending $7–$20 per capita in smaller states (i.e., population of <3 million), $6–$17 per capita in medium-sized states (i.e., population of 3–7 million), and $5–$16 per capita in larger states (i.e., population of >7 million) (*3*). In 2002, per capita funding varied across states (range: $0.33–$19.16); few met CDC's minimum funding recommendations (*4*). In recent years, states have received less funding for tobacco-control programs, which inhibits expansion of cessation activities such as quitlines and implementation of recommended changes within the health-care system. Unless states expand cessation and other tobacco-control efforts, the 2010 national health objective of reducing smoking prevalence to ≤12% will not be achieved.

References

1. CDC. Cigarette smoking-attributable morbidity—United States, 2000. MMWR 2003;52:842–44.
2. CDC. Annual smoking-attributable mortality, years of potential life lost, and economic costs—United States, 1995–1999. MMWR 2002;51:300–3.
3. CDC. Best practices for comprehensive tobacco control programs—August 1999. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, 1999.
4. CDC. Tobacco control state highlights 2002: impact and opportunity. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, 2002.
5. U.S. Department of Health and Human Services. Reducing tobacco use: a report of the Surgeon General. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, 2000.
6. Task Force on Community Preventive Services. Recommendations regarding interventions to reduce tobacco use and exposure to environmental tobacco smoke. Am J Prev Med 2001;20:10–5.
7. CDC. Quitline resource guide: strategies for effective development, implementation, and evaluation. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, 2003.
8. National Cancer Institute. Cancer control & population sciences: risk factor monitoring and methods, 2003. Available at http://riskfactor.cancer.gov/studies/tus-cps.
9. Nelson DE, Holtzman D, Bolen J, Stanwyck CA, Mack KA. Reliability and validity of measures from the Behavioral Risk Factor Surveillance System (BRFSS). Soz Praventivmed 2001;46:S3–S42.
10. Patrick DL, Cheadle A, Thompson DC, Diehr P, Koepsell T, Kinne S. The validity of self-reported smoking: a review and meta-analysis. Am J Public Health 1994;84:1086–93.

Bovine Spongiform Encephalopathy in a Dairy Cow — Washington State, 2003

On December 23, 2003, the U.S. Department of Agriculture (USDA) made a preliminary diagnosis of bovine spongiform encephalopathy (BSE) in a single "downer" (i.e., nonambulatory disabled) dairy cow in Washington state. On December 25, this diagnosis was confirmed by the BSE international reference laboratory in Weybridge, England. This report summarizes the findings of the initial investigation of this case and describes the public health prevention measures adopted by USDA to protect the human food supply. The occurrence of BSE in the United States reinforces the need for physicians to be aware of the clinical features of variant Creutzfeldt-Jakob disease (vCJD) and to arrange for brain autopsies in all decedents with suspected or probable CJD to assess the neuropathology of these patients.

The BSE-positive cow was aged 6.5 years when it was slaughtered on December 9. Before slaughter, the cow was nonambulatory; its condition was attributed to complications from calving. The animal was examined by a USDA Food Safety and Inspection Service (FSIS) veterinary medical officer both before and after slaughter. After examination, the carcass was released for use as food for human consumption. Tissues (e.g., brain, spinal cord, and small intestine) considered to be at high risk for the transmission of the BSE agent were removed from the cow during slaughter and sent for inedible rendering (often used for nonruminant animal feed). Because the cow was nonambulatory at slaughter, brain tissue samples were taken by USDA's Animal and Plant Health Inspection Service (APHIS) as part of its targeted surveillance for BSE. On December 23, a presumptive diagnosis of BSE was made, and the herd to which this cow belonged was placed under a state hold order. USDA, in collaboration with state and other federal animal and public health agencies, industry representatives, and the Canadian Food Inspection Agency (CFIA), initiated investigations of potentially exposed cattle and regulated products.

On December 24, FSIS recalled beef from cattle slaughtered in the same plant on the same day as the BSE-positive cow. Some of the beef subject to the recall had been shipped to several establishments, which processed it further. Meat products manufactured from the recalled meat were distributed primarily to locations in Oregon and Washington, with smaller quantities distributed to locations in California, Idaho, Montana, and Nevada. FSIS continues to verify the distribution and control of all recalled products.

The U.S. Food and Drug Administration (FDA) and inspectors from Oregon and Washington have located all known potentially infectious rendered products from the BSE-positive cow. The rendering plants that processed this material have placed a voluntary hold on all known potentially infectious products, none of which had left the control of the companies or entered commercial distribution as of January 7, 2004. FDA continues its investigation of all regulated products related to the BSE-positive cow.

APHIS, in collaboration with CFIA, traced the birth of the BSE-positive cow to a farm in Alberta, Canada. On January 6, USDA and CFIA announced that DNA evidence had confirmed this traceback to Canada with a high degree of certainty. This line of investigation indicates that the BSE-positive cow was one of 82 animals from a Canadian herd cleared for shipment to the United States; 81 of the cattle listed on the Canadian animal health certificate entered the United States on September 4, 2001, through Oroville, Washington. These cattle are being traced to determine their disposition or current location. The BSE-positive cow gave birth to two live calves while in the United States. The first is a yearling heifer on the same farm as the BSE-positive cow. The second, a bull calf, was in a group of calves at another location, a calf-feeding operation that also was under a state hold order. Because the bull calf could not be identified definitively, APHIS completed the elimination of all calves at this site on January 6. Since the epidemiologic investigation began, APHIS has developed criteria for determining additional cattle at risk for BSE that should be eliminated.

On December 30, USDA announced additional safeguards to further minimize the risk for human exposure to BSE in the United States (Box). Beginning immediately, FSIS has prohibited the use of downer cattle for food for human consumption. Through its emergency rule-making powers, FSIS will take additional actions that will become effective on their publication. Planned actions include the required removal of "specified risk materials" (i.e., high-risk materials) from

BOX. Safeguards proposed by the U.S. Department of Agriculture (USDA) to minimize the risk for exposure to the bovine spongiform encephalopathy (BSE) agent — United States, December 30, 2003

- USDA's Food Safety and Inspection Service (FSIS) has announced an immediate ban on the use of nonambulatory disabled ("downer") cattle for human food consumption.
- FSIS inspectors will not mark cattle carcasses tested for BSE as "inspected and passed" until negative test results are received.
- FSIS will prohibit the use in the human food supply (including advanced meat recovery [AMR]*) of "specified risk materials" (i.e., high-risk materials), including the skull, brain, trigeminal ganglia, eyes, vertebral column, spinal cord, and dorsal root ganglia of cattle aged ≥30 months and the tonsils and small intestine of cattle of all ages.
- FSIS also will prohibit the presence of brain, spinal cord, trigeminal ganglia, and dorsal root ganglia from cattle aged <30 months in meat produced by AMR.
- To reduce the risk that portions of the brain are not dislocated into the tissues of the carcass as a consequence of stunning cattle before slaughter, FSIS will ban air-injection stunning.
- FSIS will prohibit the use of mechanically separated beef† in the human food supply.

*An industrial process that removes muscle tissue from the bone of beef carcasses under high pressure without incorporating bone material when operated properly; product may be labeled as "meat."

†A meat food product that is finely ground to a paste- or batter-like consistency and that results from the mechanical separation and removal of most of the bones from the attached skeletal muscle of cattle carcasses and parts of carcasses; may not be labeled as "meat" but rather as "meat food product."

animals aged ≥30 months at the time of slaughter and withholding the USDA "inspected and passed" mark until negative BSE test results are received for any animal tested. To enhance the speed and accuracy of the response to animal health threats such as BSE, APHIS is working to implement a national identification system to track animals of various species through the livestock marketing chain. USDA also will appoint an international panel of scientists with BSE expertise to provide an objective review of the response to the identification of the BSE-positive cow described in this report and to identify areas for potential improvement of current BSE safeguards.

Reported by: *Animal and Plant Health Inspection Svc; Food Safety and Inspection Svc, U.S. Dept of Agriculture. U.S. Food and Drug Administration. Div of Vital Statistics, National Center for Health Statistics; Div of Viral and Rickettsial Diseases, National Center for Infections Diseases, CDC.*

Editorial Note: BSE is a progressive, fatal neurologic disorder of cattle and is classified as one of the transmissible spongiform encephalopathies, a group of diseases of animals and humans believed to be caused by abnormally folded proteins called prions. BSE was first identified in 1986 in the United Kingdom (UK), where it caused a large outbreak among cattle (*1*). Although the source of the BSE epizootic agent is uncertain, feeding cattle BSE-contaminated meat-and-bone meal is the major contributory factor to the amplification of BSE among cattle (*2*). Since 1986, BSE cases have been identified in 20 European countries, Japan, Israel, and Canada. Since BSE surveillance was initiated in the United States in 1990, USDA has tested brain tissue from approximately 57,000 cattle, targeting those at high risk for BSE (e.g., downer cattle and cattle with neurologic signs); the case described in this report represents the first identification of BSE in the United States. Whether an epidemiologic link exists between this BSE case traced to Canada and the previous case reported in Canada is not known.

Epidemiologic and laboratory evidence suggests that the BSE agent has been transmitted to humans via consumption of BSE-contaminated cattle products, causing vCJD (*1*). However, the risk for acquiring vCJD from consumption of BSE-contaminated product is low, presumably because of a "species barrier" that provides substantial but incomplete protection against development of vCJD. In the UK, where an estimated one million or more cattle probably were infected with BSE, cases of vCJD continue to be reported; however, the number of cases of vCJD remains small, with 148 probable and confirmed vCJD cases identified as of January 7, including those of three persons residing in Ireland, Canada, and the United States who are believed to have been exposed to BSE in the UK (*1,3*). Seven additional cases not directly linked to the BSE outbreak in the UK also have been reported (six in France and one in Italy).

In the United States, the feeding of rendered cattle products to other cattle has been prohibited since 1997, and the importation of cattle and cattle products from countries with BSE or considered to be at high risk for BSE has been prohibited since 1989; these measures have minimized the potential exposure of animals and humans to the BSE agent (*4*). The additional safeguards described in this report should further reduce the risk for acquiring vCJD.

Substantial clinical and epidemiologic differences exist between vCJD and the more commonly occurring classic form of CJD recognized in the United States for decades before the emergence of BSE (Table). Although strong epidemiologic and laboratory evidence indicates that vCJD is linked causally with BSE, no exogenous source of infection has been identified for approximately 85% of classic CJD cases (*5*). The median age at death of classic CJD patients in the United States is 68 years, compared with 28 years for vCJD patients. The age

TABLE. Clinical and pathologic characteristics distinguishing variant Creutzfeldt-Jakob disease (vCJD) from classic CJD — United Kingdom (UK) and United States, 1979–2001

Characteristic	UK vCJD	U.S. classic CJD
Median age at death (yrs)	28 (range: 14–74)	68 (range: 23–97)*
Median Illness duration (mos)	13–14	4–5
Clinical presentation	Prominent psychiatric/behavioral symptoms; painful sensory symptoms; delayed neurologic signs	Dementia; early neurologic signs
Periodic sharp waves on EEG	Absent	Often present
"Pulvinar sign" on MRI†	Present in >75% of cases	Not reported
Presence of "florid plaques" on neuropathology	Present in great numbers	Rare or absent
Immunohistochemical analysis of brain tissue	Marked accumulation of PrP^{res}§	Variable accumulation
Presence of agent in lymphoid tissue	Readily detected	Not readily detected
Increased glycoform ratio on immunoblot analysis of PrP^{res}	Present	Not present
Genotype at codon 129 of prion protein	Methionine/Methionine	Polymorphic

* Surveillance data 1979–2001.
† High signal in the posterior thalamus.
§ Protease-resistant prion protein.

trust•wor•thy: *adj*

('trəst-"wər-thē) 1 : worthy of belief

2 : capable of being depended upon;

see also *MMWR*.

know what matters.

MMWR™

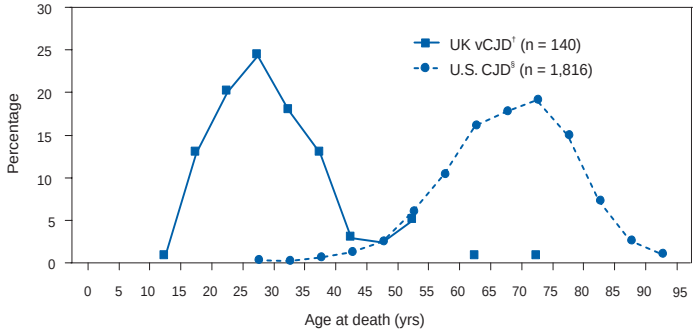
distribution of these deaths illustrates that most vCJD occurs in age groups in which classic CJD is rare (Figure) (RG Will, M.D., National CJD Surveillance Unit, Edinburgh, Scotland, personal communication, 2004). In addition, the median duration of illness before death for classic CJD patients in the United States is 4–5 months, compared with 13–14 months for vCJD patients (*6*). Patients with vCJD often have prominent early behavioral or psychiatric manifestations and painful sensory symptoms, with neurologic signs such as myoclonus and extrapyramidal dysfunction being delayed for several months after illness onset (*6*). The characteristic electroencephalographic pattern of periodic sharp waves observed in classic CJD patients is absent in patients with vCJD. A characteristic high signal in the posterior thalamus on T2- and diffusion-weighted magnetic resonance imaging (the "pulvinar sign") is demonstrated in >75% of vCJD patients, and in the appropriate clinical context, is highly indicative of a vCJD diagnosis (*7*).

Confirmatory diagnosis of vCJD and classic CJD requires pathologic examination of brain tissue obtained at autopsy or biopsy. The neuropathology in vCJD is distinguished by the presence of numerous deposits of kuru-type plaques surrounded by vacuoles (i.e., "florid plaques") in the cerebellum and cerebrum and the marked accumulation of the pathologic protease-resistant prion protein on immunohistochemical (IHC) analysis (*8*). Prions are detected readily by IHC analysis in lymphoid tissues (e.g., appendix, lymph nodes, spleen, and tonsils) of vCJD patients, but not in classic CJD patients (*9*). All persons with vCJD tested as of January 2004 have had methionine homozygosity at the polymorphic codon 129 of the prion protein gene, indicating that persons who do not carry this genotype (comprising the majority of the general population) appear to have increased resistance to vCJD.

Since 1996, CDC has used several mechanisms to conduct surveillance for classic CJD and vCJD in the United States (*10*). CDC reviews national multiple cause-of-death data to monitor the epidemiology of CJD in the United States. CDC, in collaboration with state and local health departments, investigates CJD cases in persons aged <55 years to identify cases of possible vCJD. In addition, CDC assists routinely in the investigation of suspected cases of vCJD spontaneously reported by health-care providers. During 1996–1997, in collaboration with the American Association of Neuropathologists, CDC established the National Prion Disease Pathology Surveillance Center (NPDPSC) at Case Western Reserve University, Cleveland, Ohio. NPDPSC provides advanced neuropathologic and biochemical diagnostic services free of charge to U.S. physicians and state and local health departments. These surveillance efforts have not detected any cases of indigenous vCJD in the United States.

The emergence of BSE in the United States reinforces the need for physicians to be aware of the clinical features of vCJD in all patients, regardless of age, who report with distinguishing characteristics (Table 2). Because testing brain tissue permits the most definitive diagnosis of all forms of CJD and identification of emerging forms of the disease, including vCJD, CDC encourages physicians to arrange for brain autopsies in all decedents with suspected or diagnosed CJD and to use the free services of NPDPSC to assess the neuropathology of these patients. Information about these services is available from NPDPSC at http://www.cjdsurveillance.com or from CDC, telephone 404-639-3091.

FIGURE. Percentage distribution of deaths caused by variant Creutzfeldt-Jakob disease (vCJD) in the United Kingdom (UK) and deaths caused by CJD in the United States, by age at death, 1995–2003*



* Excludes blood transfusion–associated vCJD and pituitary hormone- or dural graft–associated CJD.
† Noniatrogenic UK vCJD deaths, including UK-related nonresident cases, 1995–2003.
§ Noniatrogenic U.S. deaths, 1995–2001.

References

1. Brown P, Will RG, Bradley R, Asher DM, Detwiler L. Bovine spongiform encephalopathy and variant Creutzfeldt-Jakob disease: background, evolution, and current concerns. Emerg Infect Dis 2001;7:6–16.
2. Belay ED, Schonberger LB. Variant Creutzfeldt-Jakob disease and bovine spongiform encephalopathy. Clin Lab Med 2002;22:849–62.
3. Department of Health, United Kingdom. Monthly Creutzfeldt-Jakob disease statistics. Available at http://www.doh.gov.uk/cjd/stats/dec03.html.
4. Cohen JT, Duggar K, Gray GM, Kreindel S. Evaluation of the potential for bovine spongiform encephalopathy in the United States. Harvard Center for Risk Analysis. Available at http://www.hcra.harvard.edu/pdf/madcow.pdf.
5. Gibbons RV, Holman RC, Belay ED, Schonberger LB. Creutzfeldt-Jakob disease in the United States: 1979–1998. JAMA 2000;284:2322–3.
6. Will R, Zeidler M, Stewart GE. Diagnosis of new variant Creutzfeldt-Jakob disease. Ann Neurol 2000;47:575–82.
7. Collie DA, Summers DM, Sellar RJ, et al. Diagnosing variant Creutzfeldt-Jakob disease with the pulvinar sign: MR imaging findings in 86 neuropathologically confirmed cases. Am J Neuroradiol 2003;24:1560–9.

8. Ironside JW. Neuropathologic findings in new variant CJD and experimental transmission of BSE. Immunol Med Microbiol 1998;21:91–5.
9. Hill AF, Zeidler M, Ironside J, Collinge J. Diagnosis of new variant Creutzfeldt-Jakob disease by tonsil biopsy. Lancet 1997;349:99–100.
10. Belay ED, Maddox RA, Gambetti P, Schonberger LB. Monitoring the occurrence of emerging forms of Creutzfeldt-Jakob disease in the United States. Neurology 2003;60:176–81.

Fatal Respiratory Diphtheria in a U.S. Traveler to Haiti — Pennsylvania, 2003

Respiratory diphtheria can be severe or fatal in unvaccinated persons; even with appropriate treatment, 5%–10% of patients with diphtheria die (*1*). For >50 years, vaccination against diphtheria has been recommended for children and adults in the United States. Persons who are unvaccinated or vaccinated inadequately can contract diphtheria during travel to areas where the disease is endemic*, putting them and their close contacts at risk for severe illness. This report describes fatal respiratory diphtheria in an unvaccinated Pennsylvania resident who had visited Haiti, a country where the disease is endemic. The case highlights the need for all international travelers to be up-to-date with all recommended vaccinations, including a primary series of diphtheria toxoid–containing vaccine.

In October 2003, the Pennsylvania Department of Health and CDC were notified of a suspected case of respiratory diphtheria in a previously healthy Pennsylvania man aged 63 years who reported that he had never been vaccinated against diphtheria. He and seven other men from New York, Pennsylvania, and West Virginia had returned from a week-long trip to rural Haiti, where they helped build a church. One day before leaving Haiti, the patient had a sore throat. Two days after his return to Pennsylvania, he visited a local emergency department (ED) complaining of a persistent sore throat and difficulty swallowing. A rapid test for group A streptococcal antigens and a test for heterophile agglutinins were negative; he received oral amoxicillin and clavulanate potassium.

On the fourth day of illness, the patient returned to the ED with chills, sweating, restlessness, difficulty swallowing and breathing, nausea, and vomiting. On examination, he was afebrile and had stridor and a swollen neck. Expiratory wheezing and diminished breath sounds in the left lung base were noted. Arterial pO2 was 88% on room air. Radiographs of the neck and chest showed prevertebral soft-tissue swelling, enlargement of the epiglottis, and opacity of the left lung base. Initial diagnosis was acute epiglottitis with airway obstruction and impending respiratory failure. The patient was admitted to the intensive care unit; during intubation, a laryngoscopy was performed that revealed a yellow exudate on the tonsils, posterior pharynx, and soft palate, and sloughing of the anterior pharyngeal folds. During the next 4 days, the patient was treated with azithromycin, ceftriaxone, nafcillin, and steroids, but he became hypotensive and febrile (100.9° F [38.3° C]). Methicillin-susceptible *Staphylococcus aureus* was isolated from sputum. Culture of a throat swab specimen was negative for *Corynebacterium diphtheriae*.

On the eighth day of illness, the patient was transferred to a tertiary care facility. A chest radiograph showed infiltrates in the right and left lung bases. During tracheostomy, a white exudate consistent with *C. diphtheriae* infection was observed. The pseudomembrane covered the supraglottic structures, including the epiglottis, vallecula and piriform sinus, the postcricoid region, and glottic inlet. Gram stain of laryngeal exudates showed gram-positive rods, gram-positive cocci, and yeast. The patient continued to receive multiple antibiotics, including penicillin, vancomycin, and gentamicin; diphtheria antitoxin (DAT) was administered on the ninth day of illness. Two days later, a sample of the pseudomembrane was negative by culture but positive for *C. diphtheriae tox* genes by polymerase chain reaction (PCR) performed at CDC. After 17 days of illness, the patient had cardiac complications and died. Based on the patient's travel to a country where diphtheria is endemic, the pattern of illness, and positive PCR results, his illness was consistent with a confirmed case of respiratory diphtheria.

Investigations of close contacts were conducted in New York, Pennsylvania, and West Virginia. Close contacts were defined as persons who had been exposed to the patient's respiratory secretions or who lived in the same household as the patient. These persons included his wife, health-care providers, Haiti traveling companions, and two other persons with whom he shared accommodations on the second day of his illness. Specimens were obtained for isolation of *C. diphtheriae* and PCR testing; all culture and PCR results were negative. Close contacts were administered antibiotic prophylaxis and offered a diphtheria toxoid–containing vaccine if they had not received a booster within the preceding 5 years.

Reported by: *P Lurie, MD, Div of Infectious Disease Epidemiology; H Stafford, P Tran, MEd, Div of Immunizations; C Teacher, MSN, R Ankeny, M Barron, MSN, J Bart, DO, Bur of Community Health Systems, Pennsylvania Dept of Health. K Bisgard, DVM, T Tiwari, MD, T Murphy, MD, J Moran, MD, Epidemiology and Surveillance Div, National Immunization Program; P Cassiday, MS, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, CDC.*

* Diphtheria-endemic countries are listed at http://www.cdc.gov/travel/diseases/dtp.htm.

Editorial Note: Diphtheria is caused by toxigenic strains of the bacterium *C. diphtheriae* and less frequently by *C. ulcerans*. Since universal vaccination began in the 1940s, diphtheria has been uncommon in the United States. In 2001, the vaccination coverage rate among children aged 19–35 months who had received ≥3 doses of diphtheria toxoid–containing vaccine was approximately 95% (*2*). However, among adults, coverage rates with decennial booster doses were lower. Testing of serum samples from participants in the Third National Health and Nutrition Examination Survey (1988–1994) indicated that the percentage of U.S. residents with protective levels (≥0.1 IU/ml) of diphtheria antibodies decreased progressively with age, from 91% at ages 6–11 years to approximately 30% at ages 60–69 years (*3*).

During 1980–2001, a total of 53 cases of probable or confirmed respiratory diphtheria were reported to CDC (*4*); the most recent previous report from Pennsylvania was in 1992. In recent years, sporadic cases of respiratory diphtheria have continued to occur in the United States, primarily among adults. In 1996, toxigenic *C. diphtheriae* was isolated from residents of an American Indian community (*5*), and toxigenic *C. ulcerans* was isolated from an Indiana resident aged 54 years who had respiratory diphtheria (*6*). In 1999, a Washington state resident aged 75 years died from an illness clinically consistent with respiratory diphtheria; toxigenic *C. ulcerans* was isolated from a throat swab (*7*).

Respiratory diphtheria should be suspected in patients with membranous nasopharyngitis or obstructive laryngotracheitis who returned recently from areas where the disease is endemic or who were in close contact with persons who returned recently from such areas. DAT, which is available from CDC[†], should be administered as soon as diphtheria is suspected, without waiting for laboratory confirmation. Antibiotics are administered to patients suspected with diphtheria to eradicate carriage of *C. diphtheriae* (*8*). Because diphtheria disease might not confer immunity, patients should be administered a diphtheria toxoid–containing vaccine during convalescence.

Diphtheria-infected travelers returning to the United States with incubating or untreated disease can transmit *C. diphtheriae* to their close contacts. Antibiotic prophylaxis is recommended for close contacts after nasal and pharyngeal specimens for culture are obtained (*8*). Adolescent and adult contacts who have not received a dose of a diphtheria toxoid–containing vaccine during the preceding 5 years should be vaccinated (*8*). Children should receive diphtheria and tetanus toxoids and acellular pertussis vaccine at ages 2 months, 4 months, 6 months, 12–18 months, and 4–6 years; a booster dose of tetanus and diphtheria toxoids (Td) vaccine should be administered preferably at ages 11–12 years (or ages 13–18 years for catch-up); and protection should be maintained by a regular booster of Td every 10 years (*9*).

In addition to taking destination-specific, disease-prevention precautions, all international travelers, regardless of age or destination, should ensure that they are up-to-date with all recommended vaccinations, including a primary series (i.e., ≥3 doses) of diphtheria toxoid–containing vaccine that includes a dose within the preceding 10 years. Additional information on vaccines recommended for travelers can be obtained from state health departments or CDC (*10*).

[†] Contact the duty officer for diphtheria antitoxin, telephone, 404-639-8257, 8 a.m. to 4:30 p.m.; 770-488-7100, after hours.

References

1. Chen RT, Broome CV, Weinstein RA, Weaver R, Tsai TF. Diphtheria in the United States, 1971–81. Am J Public Health 1985;75:1393–7.
2. CDC. National, state, and urban area vaccination coverage levels among children aged 19–35 months—United States, 2001. MMWR 2002;51:664–6.
3. McQuillan GM, Kruszon-Moran D, Deforest A, Chu S, Wharton M. Serologic immunity to diphtheria and tetanus in the United States. Ann Intern Med 2002;136:660–6.
4. CDC. Summary of Notifiable Diseases—United States, 2001. MMWR 2001;50(No. 53):90–6.
5. CDC. Toxigenic *Corynebacterium diphtheriae*—Northern Plains Indian Community, August–October 1996. MMWR 1997;46:506–10.
6. CDC. Respiratory diphtheria caused by *Corynebacterium ulcerans*—Terra Haute, Indiana, 1996. MMWR 1997;46:330–2.
7. CDC. Summary of Notifiable Diseases, United States, 1999. MMWR 1999;48(No. 53).
8. Farizo KM, Strebel PM, Chen RT, et al. Fatal respiratory disease due to *Corynebacterium diphtheriae*: case report and review of guidelines for management, investigation, and control. Clin Infect Dis 1993;16:59–68.
9. CDC. Recommended childhood and adolescent immunization schedule—United States, January–June 2004. MMWR 2004(in press).
10. CDC. Health Information for International Travel 2003–2004. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, 2003. Available at http://www.cdc.gov/travel/yb/index.htm.

Update: Influenza-Associated Deaths Reported Among Children Aged <18 Years — United States, 2003–04 Influenza Season

During the 2003–04 influenza season, CDC has received reports from state health departments regarding deaths among children with evidence of influenza virus infection. To help investigate these deaths, CDC has requested that all influenza-associated deaths among children aged <18 years be reported to CDC through state and local health departments during the 2003–04 season. This summary is based on

preliminary data reported from 31 states as of January 6, 2004, and updates a previous report published in *MMWR* (*1*).

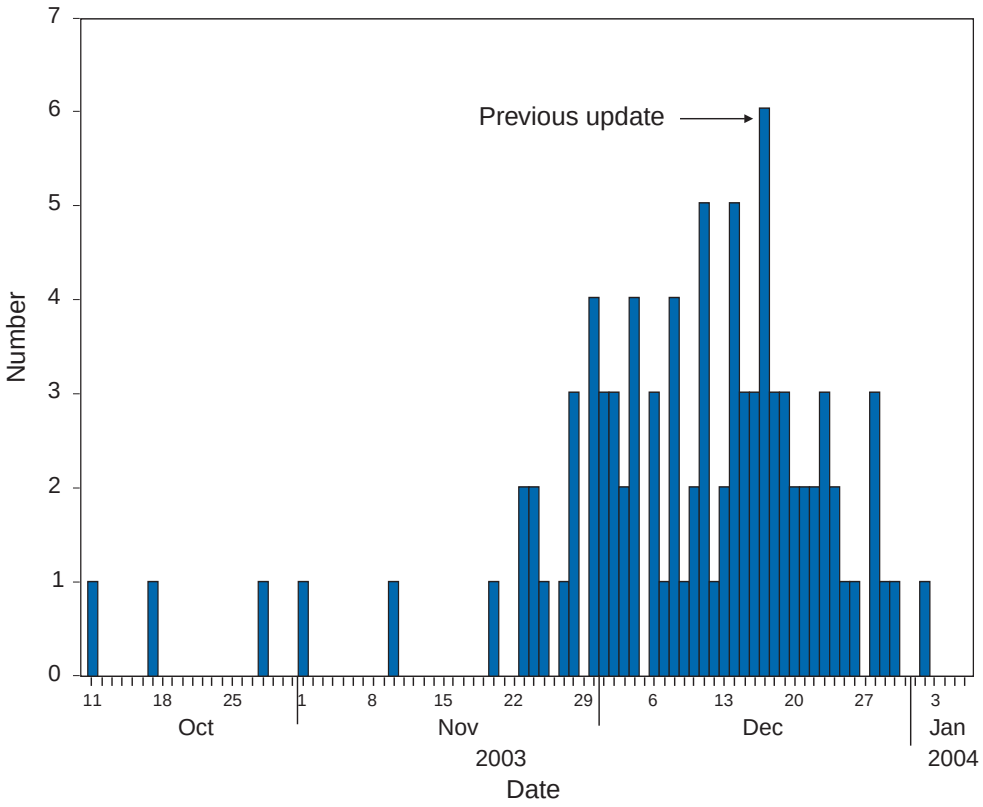
Since October 2003, a total of 93 influenza-associated deaths among children aged <18 years have been reported to CDC. All patients had evidence of influenza virus infection detected by rapid antigen testing or other laboratory tests.

The date of death was reported for 92 of the 93 cases (Figure). The median age of the 93 children was 4 years (range: 4 weeks–17 years), with 55 (59%) children aged <5 years and 24 (26%) aged 6–23 months (Table 1). Among the 92 children whose sex was reported, 41 (45%) were male. A total of 35 (38%) of the 93 children were reported to have had underlying chronic medical conditions (Table 2), and 41 (44%) were reported to have had no underlying conditions; the medical history was unknown for 17 (18%) children. Of the 55 children for whom the location of death was reported, 15 (27%) died at home, 12 (22%) died in emergency departments, 25 (45%) died as inpatients, and three (5%) died in transport to hospitals.

Pneumonia was a reported complication in 25 of the 93 children. Invasive bacterial co-infections were reported in 15 children, including methicillin-resistant *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Streptococcus pyogenes*, *Enterococcus* sp., *Haemophilus influenzae* (type b and non-typable), *Neisseria meningitidis*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, and *Serratia marcescens*.

Of the 45 children whose influenza vaccination status was reported, one child had evidence of adequate vaccination, whereas 33 (73%) were not vaccinated, and six children were partially vaccinated (i.e., they had received 1 of 2 doses); five

FIGURE. Number* of influenza-associated deaths among children aged <18 years, by date of death — United States, 2003–04 influenza season



* N = 92 as of January 6, 2004; date of death was not available for one child.

TABLE 1. Age distribution of influenza-associated deaths reported among children aged <18 years — United States, 2003–04 influenza season*

Age	No.	(%)
<6 mos	8	(9)
6–23 mos	24	(26)
2–4 yrs	23	(25)
5–11 yrs	19	(20)
12–17 yrs	19	(20)

* N = 93 as of January 6, 2004.

TABLE 2. Underlying chronic medical conditions reported in influenza-associated deaths among children aged <18 years — United States, 2003–04 influenza season*

Underlying chronic condition	No. children affected†
Asthma§	4
Other chronic pulmonary disease§	4
Cardiac disease (e.g., pulmonary stenosis and cardiac transplant)§	5
Immunocompromised or immunosuppressed§	4
Endocrine disorder (e.g., diabetes mellitus)§	4
Renal disease§	1
Prematurity	1
Hematologic disorder (e.g., immune thrombocytopenic purpura)	1
Mental retardation/developmental delay	12
Cerebral palsy	3
Other neurologic disease (e.g., epilepsy)	6
Genetic disorder	4
Gastrointestinal disorder (e.g., gastroesophageal reflux disease)	5

* N = 35 as of January 6, 2004.
† Certain children had more than one condition.
§ Condition places patient at high risk for complications secondary to influenza.

children were reported as vaccinated, but the interval between vaccination and onset of illness was not documented.

Influenza A viruses were isolated from respiratory specimens collected from 28 patients. A total of 55 children had influenza virus infection confirmed by rapid antigen testing and direct fluorescent antibody staining of respiratory specimens. Four additional children had influenza virus infection confirmed solely by reverse transcriptase polymerase chain reaction (RT-PCR) of respiratory specimens.

A total of 16 children with evidence of influenza virus infection by culture, rapid antigen detection test, or RT-PCR also had autopsy specimens tested at CDC by immunohistochemical (IHC) staining. Of these, 11 had influenza A viral antigen detected by IHC staining in respiratory epithelium of airway tissue specimens (*2*). In addition, autopsy tissue specimens from four of 11 pediatric deaths without previous laboratory confirmation of influenza virus infection were positive by IHC staining for influenza A viral antigen.

Reported by: *State and local health depts. Influenza Response Team; I Shui, MPH, Assoc of Schools of Public Health/CDC/ATSDR Internship Program; N Bhat, MD, M Glover, ScD, K Broder, MD, D Posey, MD, EIS officers, CDC.*

Editorial Note: During October 11, 2003–January 6, 2004, a total of 93 influenza-associated deaths among children aged <18 years were reported to CDC. Of the 51 deaths that were not reported previously, 26 occurred before publication of the previous report (*1*).

Because laboratory-confirmed influenza illnesses and deaths among children are not nationally reportable conditions, the numbers of deaths reported this season cannot be compared directly with previous influenza seasons, and the proportion of illnesses associated with death cannot be estimated. Heightened awareness of severe complications and deaths associated with influenza among children this season and increased testing might be contributing to identification of more pediatric fatalities related to influenza than in previous seasons.

These reports underscore the need to further characterize the impact of influenza among children. In addition to initiating voluntary reporting of influenza-associated deaths, CDC is developing studies in collaboration with health departments and other partners to estimate the rates of influenza-associated hospitalization and serious complications and to identify risk factors for severe illness and complications during the current season. Additional studies are planned to assess the relative severity of this season by comparing influenza-associated hospitalizations and mortality among children with those in previous seasons. Such information might be helpful in evaluating current pediatric influenza vaccination recommendations.

Clinicians should consider influenza testing in children who have severe febrile illness, when influenza viruses are circulating in their local community. Clinicians should recognize that secondary conditions such as bacterial infection can complicate some cases of influenza. Susceptibility testing of bacterial isolates is important to guide appropriate antibiotic therapy. Guidelines for antiviral treatment of influenza have been published (*3*).

CDC Request for Reports of Influenza-Associated Deaths Among Children

During the 2003–04 influenza season, CDC is requesting that all influenza-associated deaths among children aged <18 years be reported to CDC through state and local health departments. In addition, CDC is requesting submission of postmortem tissue specimens and autopsy reports when available. Influenza viral isolates in fatal cases also should be sent to CDC for antigenic characterization.

To report the influenza-associated death of a child aged <18 years, state and local health departments should contact CDC's Influenza Branch, telephone, 800-232-4636; e-mail, eocinfluenza@cdc.gov. Case reporting forms are available to state and local health departments and medical examiners via the *Epidemic Information Exchange* (Epi-X), accessible at http://www.cdc.gov/mmwr/epix/epix.html. Completed forms should be sent to CDC with a cover sheet with the heading, "ATTN: Fatal Case Reporting" via fax, 888-232-1322.

References

1. CDC. Update: influenza-associated deaths reported among children aged <18 years—United States, 2003–04 influenza season. MMWR 2004;51:1254–5.
2. Guarner J, Shieh WJ, Dawson J, et al. Immunohistochemical and in situ hybridization studies of influenza A virus infection in human lungs. Am J Clin Path 2000;114:227–33.
3. CDC. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2003;52(No. RR-8).

Update: Influenza Activity — United States, December 21, 2003–January 3, 2004

The number of states reporting widespread influenza activity* decreased during December 21, 2003–January 3,

*Levels of activity are 1) *no activity*, 2) *sporadic*—small numbers of laboratory-confirmed influenza cases or a single influenza outbreak reported but no increase in cases of influenza-like illness (ILI), 3) *local*—outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of a state, 4) *regional*—outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least two but less than half the regions of a state, and 5) *widespread*—outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of a state.

2004[†]. During the latest reporting week, ending January 3, health departments in 38 states, the District of Columbia, and New York City reported widespread influenza activity. Nine states reported regional activity, one state reported local activity, and one state and Guam reported sporadic activity (Figure 1). The percentage of outpatient visits for influenza-like illness (ILI)[§] decreased in all surveillance regions during the week ending January 3, with an overall national percentage of 6.2%. This percentage is above the national baseline[¶] of 2.5%. The percentage of specimens testing positive for influenza also decreased; however, the percentage of deaths attributed to pneumonia and influenza (P&I) increased.

Laboratory Surveillance

During the reporting week of December 28, 2003–January 3, 2004, World Health Organization (WHO) laboratories reported testing 3,092 specimens for influenza viruses, of which 641 (20.7%) were positive. Of these, 111 were influenza A (H3N2) viruses, 524 were influenza A viruses that were not subtyped, and six were influenza B viruses.

Since September 28, 2003, WHO and National Respiratory and Enteric Virus Surveillance System laboratories have tested 57,831 specimens for influenza viruses, of which 16,174 (28.0%) were positive. Of these, 16,065 (99.3%) were influenza A viruses, and 109 (0.7%) were influenza B viruses. Of the 16,065 influenza A viruses, 3,927 (24.4%) have been subtyped; 3,926 (99.9%) were influenza A (H3N2) viruses, and one (0.1%) was an influenza A (H1) virus.

Antigenic Characterization

Of the 461 influenza viruses collected by U.S. laboratories since October 1, 2003, and characterized antigenically by CDC, 454 were influenza A (H3N2) viruses, two were influenza A (H1) viruses, and five were influenza B viruses. The hemagglutinin proteins of the influenza A (H1) viruses were similar antigenically to the hemagglutinin of the vaccine strain A/New Caledonia/20/99. Of the 454 influenza A (H3N2) isolates that have been characterized, 98 (21.6%) were similar antigenically to the vaccine strain A/Panama/2007/99 (H3N2), and 356 (78.4%) were similar to a drift variant, A/Fujian/411/2002 (H3N2)**. Four influenza B viruses characterized were similar antigenically to B/Sichuan/379/99 and one was similar antigenically to B/Hong Kong/330/2001.

P&I Mortality Surveillance

During the reporting week of December 21–December 27, 2003, P&I accounted for 9.0% of all deaths reported through the 122 Cities Mortality Reporting System and increased to 9.4% during the reporting week of December 28, 2003–January 3, 2004. The epidemic threshold[††] was 7.9% and 8.0% for each reporting week, respectively (Figure 2).

ILI Surveillance

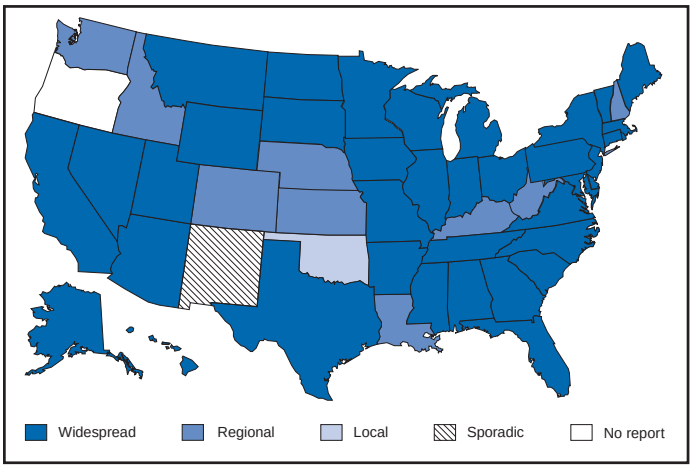
The percentage of patient visits[§§] to approximately 1,000 U.S. sentinel providers nationwide for ILI decreased from 8.8% during the week ending December 27 to 6.2% for the week ending January 3, but remained above the national baseline

[†] Provisional data reported as of January 7, 2004.

[§] Temperature of >100.0° F (>37.8° C) and cough and/or sore throat in the absence of a known cause other than influenza.

[¶] Calculated as the mean percentage of visits for ILI during noninfluenza weeks, plus two standard deviations. Wide variability in regional data precludes calculating region-specific baselines and makes it inappropriate to apply the national baseline to regional data.

FIGURE 1. States in which estimated influenza activity levels have been reported by state epidemiologists, by level of activity* — United States, December 28, 2003–January 3, 2004



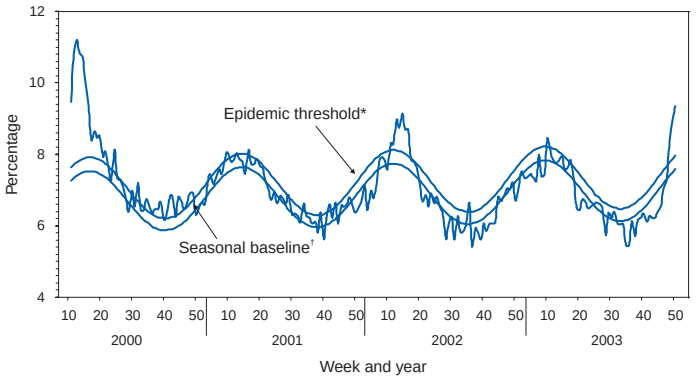
*Levels of activity are 1) *no activity*, 2) *sporadic*—small numbers of laboratory-confirmed influenza cases or a single influenza outbreak reported but no increase in cases of influenza-like illness (ILI), 3) *local*—outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of a state, 4) *regional*—outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least two but less than half the regions of a state, and 5) *widespread*—outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of a state.

** Although vaccine effectiveness against A/Fujian/411/2002-like viruses might be less than that against A/Panama/2007/99-like viruses, the current U.S. vaccine probably will offer some cross-protective immunity against the A/Fujian/411/2002-like viruses and reduce the severity of disease.

[††] The expected baseline proportion of P&I deaths reported by the 122 Cities Mortality Reporting System is projected by using a robust regression procedure that applies a periodic regression model to the observed percentage of deaths from P&I during the preceding 5 years; the epidemic threshold is 1.645 standard deviations above the seasonal baseline percentage.

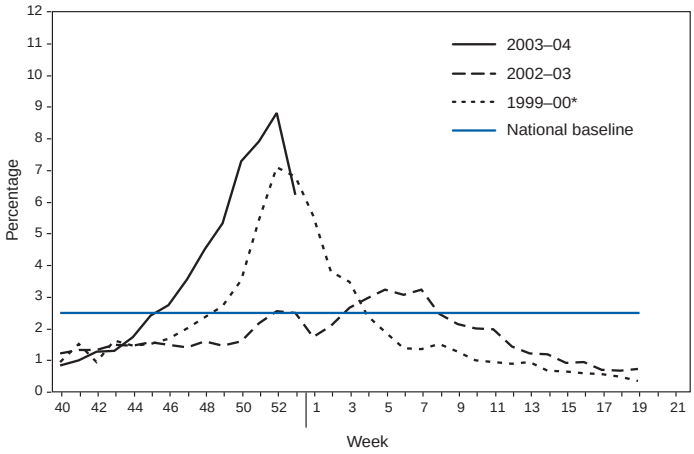
[§§] National and regional percentage of patient visits for ILI are weighted on the basis of state population.

FIGURE 2. Percentage of deaths attributed to pneumonia and influenza (P&I) reported by 122 Cities Mortality Reporting System, by week and year — United States, 2000–2003



* The epidemic threshold is 1.645 standard deviations above the seasonal baseline percentage.
† The seasonal baseline is projected by using a robust regression procedure that applies a periodic regression model to the observed percentage of deaths from P&I during the preceding 5 years.

FIGURE 3. Percentage of visits for influenza-like illness reported by Sentinel Provider Surveillance Network, by week — United States, 1999–00, 2002–03, and 2003–04 influenza seasons



* The 1999–00 season was selected for comparison because it was the most recent influenza A (H3N2) season of moderate severity.

of 2.5% (Figure 3). The percentage of patient visits for ILI decreased in all nine surveillance regions[¶] during the week ending January 3. On a regional level, the percentage of visits for ILI was highest in the West South Central region (8.3%), followed by Pacific region (7.1%), East North Central region (6.8%), South Atlantic region (6.4%), Mid-Atlantic region (6.2%), East South Central region (4.8%), New England region (4.6%), West North Central region (4.5%), and the Mountain region (3.4%).

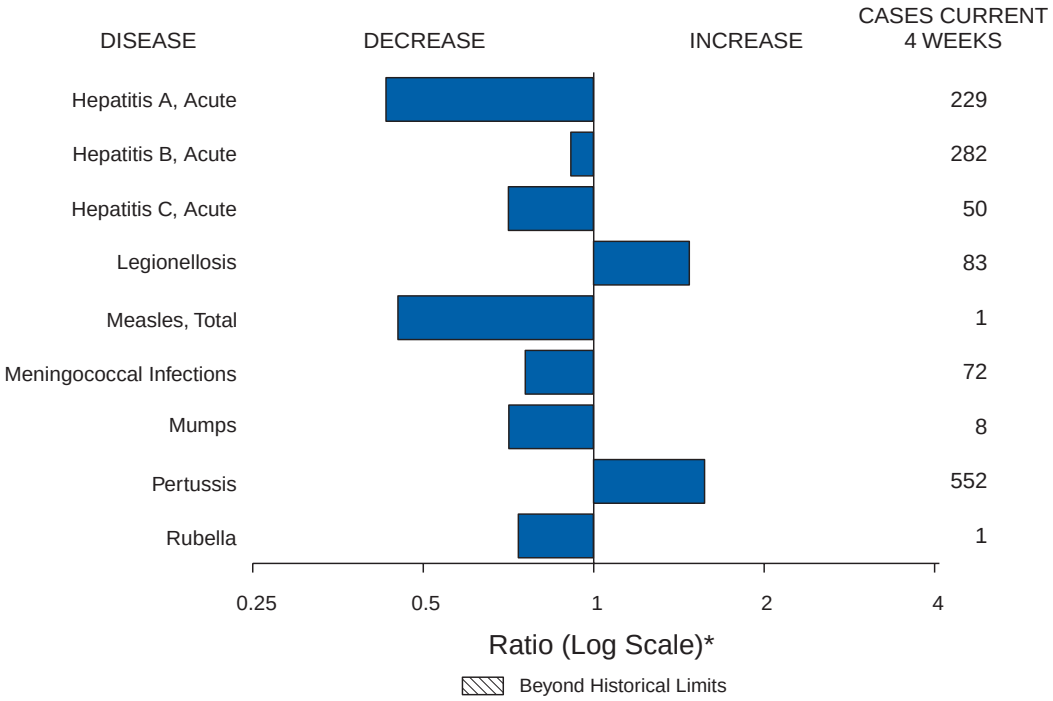
Activity Reported by State and Territorial Epidemiologists

During the week ending January 3, influenza activity was reported as widespread in 38 states (Alabama, Alaska, Arizona, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nevada, New Jersey, New York, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Wisconsin, and Wyoming), the District of Columbia, and New York City. Regional activity was reported in nine states (Colorado, Idaho, Kansas, Kentucky, Louisiana, Nebraska, New Hampshire, Washington, and West Virginia). Oklahoma reported local activity, and New Mexico and Guam reported sporadic activity. Oregon did not report. During the week ending December 27, health departments in 42 states, the District of Columbia, and New York City reported widespread influenza activity, and eight states reported regional activity.

Weekly updates on influenza activity will be published in *MMWR* during the influenza season. Additional information about influenza activity is available from CDC at http://www.cdc.gov/flu.

[¶] *New England*=Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; *Mid-Atlantic*=New Jersey, New York City, Pennsylvania, and Upstate New York; *East North Central*=Illinois, Indiana, Michigan, Ohio, and Wisconsin; *West North Central*=Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota; *South Atlantic*=Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, District of Columbia, and West Virginia; *East South Central*=Alabama, Kentucky, Mississippi, and Tennessee; *West South Central*=Arkansas, Louisiana, Oklahoma, and Texas; *Mountain*=Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming; and *Pacific*=Alaska, California, Hawaii, Oregon, and Washington.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals January 3, 2004, with historical data



* 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 January 3, 2004 (53rd Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	2	Hansen disease (leprosy)†	72	96
Botulism:	-	-	Hantavirus pulmonary syndrome†	18	19
foodborne	18	28	Hemolytic uremic syndrome, postdiarrheal†	157	218
infant	70	69	HIV infection, pediatric†§	204	159
other (wound & unspecified)	31	21	Measles, total	42¶	44**
Brucellosis†	90	125	Mumps	197	270
Chancroid	44	67	Plague	1	2
Cholera	1	2	Poliomyelitis, paralytic	-	-
Cyclosporiasis†	73	160	Psittacosis†	15	19
Diphtheria	1	1	Q fever†	75	61
Ehrlichiosis:	-	-	Rabies, human	3	3
human granulocytic (HGE)†	360	511	Rubella	7	18
human monocytic (HME)†	209	216	Rubella, congenital	-	1
other and unspecified	42	23	SARS-associated coronavirus disease††	8	NA
Encephalitis/Meningitis:	-	-	Streptococcal toxic-shock syndrome†	136	121
California serogroup viral†	88	157	Tetanus	14	25
eastern equine†	10	9	Toxic-shock syndrome	128	110
Powassan†	-	1	Trichinosis	6	14
St. Louis†	37	28	Tularemia†	83	90
western equine†	5	-	Yellow fever	-	1

-: 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. Last update November 30, 2003.
¶ Of 42 cases reported, 31 were indigenous, and 11 were imported from another country.
** Of 44 cases reported, 26 were indigenous, and 18 were imported from another country.
†† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (notifiable as of July 2003).

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending January 3, 2004, and December 28, 2002 (53rd 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	41,832	40,326	834,640	834,423	4,354	4,969	3,274	3,016	1,933	2,838
NEW ENGLAND	1,436	1,548	27,122	27,870	-	-	166	193	8	29
Maine	52	28	1,652	1,805	N	N	20	12	-	-
N.H.	36	38	1,037	1,557	-	-	11	31	-	-
Vt.	16	12	1,035	954	-	-	32	33	-	-
Mass.	599	807	11,673	10,914	-	-	69	77	-	18
R.I.	102	102	2,969	2,832	-	-	16	21	-	1
Conn.	631	561	8,756	9,808	N	N	18	19	8	10
MID. ATLANTIC	9,714	9,477	112,201	97,078	-	-	423	428	192	138
Upstate N.Y.	1,007	1,306	20,560	18,060	N	N	140	153	8	51
N.Y. City	5,201	5,345	34,641	33,063	-	-	105	147	-	28
N.J.	1,448	1,371	14,669	14,164	-	-	15	17	32	23
Pa.	2,058	1,455	42,331	31,791	N	N	163	111	152	36
E.N. CENTRAL	3,863	4,225	147,961	152,505	7	23	975	960	120	1,628
Ohio	757	757	37,779	38,032	-	-	173	119	106	439
Ind.	514	483	17,150	17,100	N	N	105	70	1	19
Ill.	1,718	2,097	44,996	48,101	-	3	90	121	2	554
Mich.	703	706	32,546	32,272	7	20	149	135	11	565
Wis.	171	182	15,490	17,000	-	-	458	515	-	51
W.N. CENTRAL	768	782	46,775	47,517	2	2	579	447	469	200
Minn.	162	162	9,389	10,107	N	N	152	206	49	17
Iowa	82	81	3,344	6,195	N	N	121	49	78	-
Mo.	365	383	18,152	16,181	-	-	49	41	34	113
N. Dak.	2	3	1,402	1,256	N	N	15	41	9	2
S. Dak.	14	10	2,650	2,215	-	-	47	42	72	14
Nebr.¶	52	71	4,792	4,779	2	2	21	52	140	35
Kans.	91	72	7,046	6,784	N	N	174	16	87	19
S. ATLANTIC	11,498	11,955	154,310	158,923	5	4	412	343	201	103
Del.	202	194	3,035	2,649	N	N	4	4	12	-
Md.	1,441	1,836	16,974	16,891	5	4	26	19	51	21
D.C.	863	769	3,072	3,305	-	-	13	5	-	-
Va.	856	811	16,415	18,518	-	-	45	35	22	29
W. Va.	86	83	2,584	2,464	N	N	4	3	1	3
N.C.	1,060	1,041	26,187	24,726	N	N	56	40	7	-
S.C.¶	756	815	16,386	14,314	-	-	10	8	3	1
Ga.	1,825	1,543	29,319	33,998	-	-	128	123	51	21
Fla.	4,409	4,863	40,338	42,058	N	N	126	106	54	28
E.S. CENTRAL	1,879	1,930	51,449	52,209	N	N	117	128	44	279
Ky.	200	301	7,981	8,756	N	N	24	10	11	42
Tenn.	800	772	20,055	16,042	N	N	39	61	17	11
Ala.	441	421	12,002	15,611	-	-	44	47	16	34
Miss.	438	436	11,411	11,800	N	N	10	10	-	192
W.S. CENTRAL	4,566	4,138	104,315	106,079	4	14	97	68	506	455
Ark.	172	240	7,679	7,312	-	-	20	8	22	33
La.	610	1,163	17,945	18,442	N	N	3	10	49	204
Okla.	202	202	11,032	10,804	N	N	22	16	31	14
Tex.	3,582	2,533	67,659	69,521	4	14	52	34	404	204
MOUNTAIN	1,461	1,368	44,387	51,684	2,644	3,198	133	160	389	6
Mont.	13	11	2,235	2,475	N	N	18	6	216	1
Idaho	24	31	2,375	2,503	N	N	27	29	-	1
Wyo.	7	11	964	944	1	1	5	9	99	-
Colo.	343	307	10,349	14,028	N	N	34	57	-	-
N. Mex.	102	88	6,690	7,417	9	9	14	20	68	-
Ariz.	646	552	12,257	14,841	2,580	3,133	6	19	3	4
Utah	72	63	3,870	3,540	19	11	21	16	1	-
Nev.	254	305	5,647	5,936	35	44	8	4	2	-
PACIFIC	6,647	4,903	146,120	140,558	1,691	1,727	372	289	4	-
Wash.	491	441	16,800	14,934	N	N	59	46	-	-
Oreg.	242	310	7,567	7,009	-	-	38	40	4	-
Calif.	5,802	3,995	112,874	110,288	1,691	1,727	274	200	-	-
Alaska	15	30	3,707	3,806	-	-	1	1	-	-
Hawaii	97	127	5,172	4,521	-	-	-	2	-	-
Guam	6	2	-	613	-	-	-	-	-	-
P.R.	1,025	1,136	1,895	2,479	N	N	N	N	-	-
V.I.	33	76	208	125	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	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 November 30, 2003.

¶ Contains data reported through National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 3, 2004, and December 28, 2002 (53rd 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	2,574	3,840	275	195	130	61	18,411	21,206	318,411	351,815
NEW ENGLAND	167	265	56	51	17	7	1,453	1,769	7,201	7,743
Maine	11	39	4	10	1	-	184	213	170	142
N.H.	12	35	2	-	-	-	22	46	76	120
Vt.	18	14	-	1	-	1	122	145	91	98
Mass.	72	120	8	21	16	6	775	935	3,040	3,242
R.I.	4	12	-	1	-	-	114	170	965	900
Conn.	50	45	42	18	-	-	236	260	2,859	3,241
MID. ATLANTIC	251	426	21	2	36	9	3,729	4,304	43,054	43,029
Upstate N.Y.	106	183	11	1	19	1	1,157	1,347	8,099	9,114
N.Y. City	6	19	-	-	-	-	1,168	1,417	13,527	12,727
N.J.	24	63	2	-	-	1	392	474	8,098	7,894
Pa.	115	161	8	1	17	7	1,012	1,066	13,330	13,294
E.N. CENTRAL	561	855	28	31	23	6	3,028	3,597	66,126	74,540
Ohio	133	154	16	11	22	5	908	972	20,118	22,008
Ind.	89	87	-	1	-	-	-	-	6,716	7,395
Ill.	115	191	-	6	-	-	795	1,011	20,307	24,026
Mich.	91	134	2	3	-	1	761	923	13,965	14,770
Wis.	133	289	10	10	1	-	564	691	5,020	6,341
W.N. CENTRAL	438	521	57	34	21	12	2,048	2,321	16,631	18,124
Minn.	133	163	23	29	1	-	796	982	2,709	3,049
Iowa	104	121	-	-	-	-	274	314	775	1,480
Mo.	89	70	20	-	1	-	498	512	8,600	8,952
N. Dak.	13	20	4	-	8	4	38	47	86	72
S. Dak.	29	41	4	2	-	-	85	83	232	263
Nebr.	38	74	5	3	-	-	132	191	1,647	1,564
Kans.	32	32	1	-	11	8	225	192	2,582	2,744
S. ATLANTIC	155	488	77	39	12	3	2,850	3,076	76,833	89,450
Del.	11	10	N	N	N	N	55	54	1,128	1,576
Md.	14	29	-	-	-	-	118	118	8,129	9,355
D.C.	1	3	-	-	-	-	58	47	2,423	2,669
Va.	38	70	11	11	-	-	358	386	7,535	10,462
W. Va.	6	9	-	-	-	3	53	78	850	974
N.C.	4	244	33	-	-	-	N	N	15,116	15,531
S.C.	4	7	-	-	-	-	143	149	8,826	9,152
Ga.	31	47	6	8	-	-	929	926	14,837	18,383
Fla.	46	69	27	20	12	-	1,136	1,318	17,989	21,348
E.S. CENTRAL	85	113	2	-	7	10	348	396	25,685	30,113
Ky.	29	30	2	-	7	10	N	N	3,578	3,772
Tenn.	35	52	-	-	-	-	178	191	8,405	9,348
Ala.	15	20	-	-	-	-	170	205	7,818	10,118
Miss.	6	11	-	-	-	-	-	-	5,884	6,875
W.S. CENTRAL	94	115	4	2	9	9	295	269	42,940	47,620
Ark.	12	12	-	-	-	-	144	175	3,924	4,584
La.	3	4	-	-	-	-	14	6	10,528	11,387
Okla.	29	25	-	-	-	-	137	85	4,556	4,661
Tex.	50	74	4	2	9	9	-	3	23,932	26,988
MOUNTAIN	334	347	26	29	5	5	1,595	1,750	9,641	11,375
Mont.	17	31	-	-	-	-	115	94	112	123
Idaho	86	45	16	18	-	-	206	137	69	94
Wyo.	5	15	1	2	-	-	23	29	46	65
Colo.	71	98	3	6	5	5	420	571	2,412	3,511
N. Mex.	12	14	5	3	-	-	52	153	1,061	1,462
Ariz.	40	39	N	N	N	N	261	269	3,393	3,758
Utah	79	77	-	-	-	-	378	335	408	374
Nev.	24	28	1	-	-	-	140	162	2,140	1,988
PACIFIC	489	710	4	7	-	-	3,065	3,724	30,300	29,821
Wash.	117	166	1	-	-	-	367	510	2,749	2,925
Oreg.	103	206	3	7	-	-	394	447	984	909
Calif.	255	293	-	-	-	-	2,126	2,561	24,829	24,606
Alaska	4	8	-	-	-	-	86	115	554	641
Hawaii	10	37	-	-	-	-	92	91	1,184	740
Guam	N	N	-	-	-	-	-	7	-	45
P.R.	-	1	-	-	36	-	144	86	197	334
V.I.	-	-	-	-	-	-	-	-	55	31
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 January 3, 2004, and December 28, 2002 (53rd 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	1,707	1,743	23	34	92	144	190	153	7,254	8,795
NEW ENGLAND	126	135	1	-	5	12	7	2	355	295
Maine	4	2	-	-	-	-	1	-	22	8
N.H.	11	14	1	-	-	-	-	-	11	12
Vt.	11	7	-	-	-	-	1	-	6	4
Mass.	57	46	-	-	5	5	4	2	218	144
R.I.	9	16	-	-	-	-	1	-	15	34
Conn.	34	50	-	-	-	7	-	-	83	93
MID. ATLANTIC	378	326	-	4	3	17	50	26	1,784	1,121
Upstate N.Y.	138	134	-	2	3	4	14	9	152	189
N.Y. City	62	70	-	-	-	-	11	10	453	445
N.J.	65	58	-	-	-	-	9	7	157	188
Pa.	113	64	-	2	-	13	16	-	1,022	299
E.N. CENTRAL	248	319	4	4	13	15	36	44	707	1,030
Ohio	78	82	-	-	1	1	14	10	172	301
Ind.	51	44	1	2	8	9	-	-	75	51
Ill.	69	120	-	-	-	-	15	21	209	262
Mich.	24	18	3	2	4	5	1	-	206	220
Wis.	26	55	-	-	-	-	6	13	45	196
W.N. CENTRAL	126	81	2	1	7	3	18	7	199	299
Minn.	55	52	2	1	7	3	2	4	45	53
Iowa	-	1	-	-	-	-	-	-	41	66
Mo.	44	13	-	-	-	-	14	2	72	84
N. Dak.	3	7	-	-	-	-	-	1	1	4
S. Dak.	1	1	-	-	-	-	-	-	-	3
Nebr.	3	2	-	-	-	-	-	-	13	19
Kans.	20	5	-	-	-	-	2	-	27	70
S. ATLANTIC	408	385	4	5	17	17	23	29	1,797	2,422
Del.	-	-	-	-	-	-	-	-	9	15
Md.	100	98	1	2	7	4	1	1	178	300
D.C.	-	-	-	-	-	-	-	-	43	81
Va.	55	41	-	-	-	-	6	5	108	163
W. Va.	17	20	-	-	-	1	-	1	16	24
N.C.	41	33	-	-	3	3	2	-	124	209
S.C.	5	15	-	-	-	-	1	2	41	65
Ga.	65	84	-	-	-	-	5	13	858	509
Fla.	125	94	3	3	7	9	8	7	420	1,056
E.S. CENTRAL	83	74	1	1	2	5	11	13	253	273
Ky.	6	10	-	-	2	1	-	2	32	47
Tenn.	53	38	-	-	-	1	7	7	190	124
Ala.	22	16	1	1	-	3	3	1	15	39
Miss.	2	10	-	-	-	-	1	3	16	63
W.S. CENTRAL	72	76	3	4	10	12	5	3	384	1,070
Ark.	7	5	-	-	1	-	-	-	19	74
La.	12	11	-	-	-	-	5	3	58	89
Okla.	49	53	-	-	9	12	-	-	25	52
Tex.	4	7	3	4	-	-	-	-	282	855
MOUNTAIN	162	199	5	7	20	42	24	17	485	569
Mont.	-	-	-	-	-	-	-	-	8	13
Idaho	7	2	-	-	-	-	3	1	18	31
Wyo.	2	2	-	-	-	-	-	-	2	3
Colo.	37	35	-	-	-	-	7	4	68	74
N. Mex.	20	27	1	-	5	6	1	1	23	32
Ariz.	72	101	4	5	6	30	8	7	267	306
Utah	14	20	-	1	5	4	5	1	48	56
Nev.	10	12	-	1	4	2	-	3	51	54
PACIFIC	104	148	3	8	15	21	16	12	1,290	1,716
Wash.	11	5	-	2	7	3	3	-	65	162
Oreg.	48	57	-	-	-	-	6	3	60	65
Calif.	20	44	3	6	8	17	4	4	1,144	1,452
Alaska	3	2	-	-	-	-	2	2	9	12
Hawaii	22	40	-	-	-	1	1	3	12	25
Guam	-	-	-	-	-	-	-	-	-	1
P.R.	-	2	-	-	-	-	-	1	57	239
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).

† Non-serotype b: nontypeable and type other than b; Unknown serotype: type unknown or not reported. Previously, cases reported without type information were counted as non-serotype b.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 3, 2004, and December 28, 2002 (53rd Week)*

Reporting area	Hepatitis (viral, acute), by type B Cum. 2003	Hepatitis (viral, acute), by type B Cum. 2002	Hepatitis (viral, acute), by type C Cum. 2003	Hepatitis (viral, acute), by type C Cum. 2002	Legionellosis Cum. 2003	Legionellosis Cum. 2002	Listeriosis Cum. 2003	Listeriosis Cum. 2002	Lyme disease Cum. 2003	Lyme disease Cum. 2002
UNITED STATES	6,799	8,064	1,802	1,835	2,014	1,316	629	665	18,387	23,763
NEW ENGLAND	245	319	13	22	105	123	49	64	3,499	7,807
Maine	1	14	2	-	2	6	7	5	234	219
N.H.	11	25	-	-	6	7	3	4	95	261
Vt.	4	7	11	15	6	35	1	3	43	37
Mass.	189	169	-	6	46	45	15	34	1,225	1,807
R.I.	18	36	-	1	17	11	1	2	593	852
Conn.	22	68	U	U	28	19	22	16	1,309	4,631
MID. ATLANTIC	885	1,559	166	119	577	377	121	194	11,956	11,873
Upstate N.Y.	132	140	41	56	165	118	36	59	4,611	5,476
N.Y. City	280	733	-	-	61	66	21	39	5	59
N.J.	187	344	-	5	74	35	18	37	2,179	2,349
Pa.	286	342	125	58	277	158	46	59	5,161	3,989
E.N. CENTRAL	426	756	155	118	397	296	74	91	841	1,266
Ohio	162	110	12	2	226	123	27	26	72	82
Ind.	38	85	9	1	29	22	10	12	23	21
Ill.	1	185	18	24	3	28	9	23	33	47
Mich.	194	327	116	87	121	85	20	22	12	26
Wis.	31	49	-	4	18	38	8	8	701	1,090
W.N. CENTRAL	359	257	274	643	69	71	25	22	494	966
Minn.	40	52	12	14	5	18	12	4	365	867
Iowa	14	20	1	1	11	13	1	3	53	42
Mo.	253	119	258	612	34	19	5	10	65	41
N. Dak.	2	8	-	-	1	1	-	1	-	1
S. Dak.	2	3	-	1	2	4	-	1	1	2
Nebr.	28	31	3	15	5	16	4	2	2	6
Kans.	20	24	-	-	11	-	3	1	8	7
S. ATLANTIC	2,146	1,811	170	215	528	234	143	90	1,311	1,486
Del.	12	14	-	-	28	10	N	N	198	194
Md.	136	131	18	14	135	56	28	21	656	738
D.C.	12	22	-	-	19	6	-	-	13	25
Va.	189	224	11	15	93	35	12	10	159	259
W. Va.	38	25	9	4	21	-	7	1	27	26
N.C.	163	233	13	29	42	13	18	8	147	137
S.C.	157	135	24	5	8	10	5	8	15	26
Ga.	785	484	10	64	32	19	34	14	17	2
Fla.	654	543	85	84	150	85	39	28	79	79
E.S. CENTRAL	432	405	85	140	96	50	32	21	61	76
Ky.	74	67	20	5	43	22	9	4	15	25
Tenn.	207	145	19	31	34	20	8	12	17	28
Ala.	63	101	7	11	14	8	13	4	5	11
Miss.	88	92	39	93	5	-	2	1	24	12
W.S. CENTRAL	830	1,473	748	405	63	37	42	38	79	147
Ark.	59	118	3	12	2	-	1	-	-	3
La.	113	135	117	99	1	4	3	5	6	5
Okla.	41	110	2	21	7	5	3	9	-	-
Tex.	617	1,110	626	273	53	28	35	24	73	139
MOUNTAIN	613	635	57	58	81	57	30	34	19	19
Mont.	16	10	4	1	4	4	2	-	-	-
Idaho	8	7	1	1	7	3	2	2	3	4
Wyo.	31	17	-	5	2	2	-	-	2	2
Colo.	79	79	18	6	15	9	10	7	4	1
N. Mex.	34	146	-	3	3	2	2	3	1	1
Ariz.	292	252	7	7	11	15	10	18	3	4
Utah	66	53	-	4	27	16	-	3	3	5
Nev.	87	71	27	31	12	6	4	1	3	2
PACIFIC	863	849	134	115	98	71	113	111	127	123
Wash.	80	83	17	27	11	8	8	11	3	11
Oreg.	114	128	16	13	N	N	5	9	18	12
Calif.	632	614	89	74	86	60	95	83	103	97
Alaska	11	12	1	-	-	2	-	-	3	3
Hawaii	26	12	11	1	1	1	5	8	N	N
Guam	-	1	-	-	-	-	-	-	-	-
P.R.	86	211	-	-	-	1	-	2	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 January 3, 2004, and December 28, 2002 (53rd 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	1,176	1,430	1,588	1,814	8,483	9,771	5,545	7,689	973	1,104
NEW ENGLAND	45	85	74	95	1,440	925	568	917	1	10
Maine	5	6	6	7	68	21	71	64	-	-
N.H.	4	8	3	14	60	78	13	50	-	-
Vt.	2	4	4	4	71	172	39	89	-	-
Mass.	11	33	45	48	1,194	602	212	303	1	3
R.I.	3	12	2	6	20	22	60	80	-	4
Conn.	20	22	14	16	27	30	173	331	-	3
MID. ATLANTIC	293	375	200	222	1,289	694	936	1,348	46	59
Upstate N.Y.	59	52	53	60	825	442	430	701	3	-
N.Y. City	144	230	39	37	-	24	6	21	14	10
N.J.	44	43	30	29	120	34	62	188	17	16
Pa.	46	50	78	96	344	194	438	438	12	33
E.N. CENTRAL	92	163	214	265	826	1,097	165	163	17	33
Ohio	23	24	59	74	328	441	53	39	11	13
Ind.	3	15	43	37	70	183	32	31	1	5
Ill.	31	62	43	57	-	231	24	31	-	12
Mich.	25	46	48	45	134	62	49	46	5	3
Wis.	10	16	21	52	294	180	7	16	-	-
W.N. CENTRAL	53	73	132	154	545	822	583	485	70	105
Minn.	25	31	27	36	146	429	43	47	2	1
Iowa	6	4	27	29	152	157	105	79	2	3
Mo.	6	16	55	52	173	147	55	50	55	96
N. Dak.	1	1	1	4	6	9	55	59	-	-
S. Dak.	3	2	1	2	7	8	67	96	5	1
Nebr.	-	6	7	23	15	9	100	-	4	4
Kans.	12	13	14	8	46	63	158	154	2	-
S. ATLANTIC	331	334	265	297	709	453	2,472	2,660	609	494
Del.	3	5	9	7	9	4	64	55	1	1
Md.	82	109	28	9	89	68	257	396	106	43
D.C.	15	22	-	-	3	2	-	-	1	2
Va.	40	36	24	46	90	168	477	592	30	43
W. Va.	4	3	6	5	27	35	81	172	5	2
N.C.	25	22	36	35	144	46	759	702	322	294
S.C.	4	9	22	34	192	48	253	151	44	75
Ga.	67	52	30	32	32	29	388	411	82	19
Fla.	91	76	110	129	123	53	193	181	18	15
E.S. CENTRAL	22	22	88	98	145	273	173	216	111	134
Ky.	9	8	20	18	46	103	39	28	3	5
Tenn.	7	4	30	38	76	124	100	108	66	85
Ala.	3	5	16	22	17	37	33	76	13	16
Miss.	3	5	22	20	6	9	1	4	29	28
W.S. CENTRAL	77	87	189	229	700	1,870	270	1,295	105	249
Ark.	4	3	17	26	37	488	69	131	45	125
La.	4	4	35	48	6	7	-	-	-	-
Okla.	4	11	22	25	96	135	201	126	49	111
Tex.	65	69	115	130	561	1,240	-	1,038	11	13
MOUNTAIN	55	57	79	95	915	1,717	170	311	10	15
Mont.	-	2	6	3	5	10	21	19	1	1
Idaho	1	-	9	5	82	151	15	38	2	-
Wyo.	2	-	2	-	130	11	6	18	2	5
Colo.	22	25	22	26	340	465	38	59	2	2
N. Mex.	3	3	11	4	69	200	5	10	1	1
Ariz.	19	17	15	32	126	717	66	143	-	1
Utah	6	6	6	5	128	115	14	13	2	-
Nev.	2	4	8	20	35	48	5	11	-	5
PACIFIC	208	234	347	359	1,914	1,920	208	294	4	5
Wash.	31	26	45	76	719	575	-	-	-	-
Oreg.	12	12	62	46	439	188	7	14	-	3
Calif.	158	185	226	224	736	1,120	193	253	4	2
Alaska	1	2	3	4	8	7	8	27	-	-
Hawaii	6	9	11	9	12	30	-	-	-	-
Guam	-	-	-	1	-	2	-	-	-	-
P.R.	1	1	5	7	1	3	71	87	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 January 3, 2004, and December 28, 2002 (53rd 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	40,913	44,264	21,641	23,541	5,155	4,720	2,110	2,655	481	427
NEW ENGLAND	2,062	2,234	333	353	362	334	43	136	9	7
Maine	140	147	7	10	28	20	-	-	-	-
N.H.	100	142	5	15	21	36	-	-	N	N
Vt.	73	77	8	1	20	10	9	5	5	2
Mass.	1,231	1,222	225	203	174	112	N	N	N	N
R.I.	129	189	21	20	17	23	10	27	4	5
Conn.	389	457	67	104	102	133	24	104	U	U
MID. ATLANTIC	4,650	5,884	2,296	1,908	902	745	138	139	110	95
Upstate N.Y.	1,200	1,614	603	405	356	313	78	106	82	80
N.Y. City	1,282	1,396	413	506	128	157	U	U	U	U
N.J.	617	1,044	295	617	152	146	N	N	N	N
Pa.	1,551	1,830	985	380	266	129	60	33	28	15
E.N. CENTRAL	5,254	5,568	1,734	2,294	1,029	998	439	301	185	172
Ohio	1,328	1,425	302	661	291	212	286	107	98	31
Ind.	565	599	179	138	105	68	153	192	49	79
Ill.	1,691	1,770	893	1,105	182	279	-	2	-	-
Mich.	795	875	236	200	353	312	N	N	N	N
Wis.	875	899	124	190	98	127	N	N	38	62
W.N. CENTRAL	2,572	2,659	803	1,111	332	282	178	518	69	75
Minn.	579	591	108	222	165	147	-	373	57	70
Iowa	404	507	93	122	N	N	N	N	N	N
Mo.	978	830	372	217	72	47	15	5	3	1
N. Dak.	43	55	6	22	16	5	3	2	9	4
S. Dak.	127	121	17	157	24	14	1	1	-	-
Nebr.	147	203	86	279	25	28	-	26	N	N
Kans.	294	352	121	92	30	41	159	111	N	N
S. ATLANTIC	11,304	11,725	7,200	8,380	923	741	1,073	1,162	18	39
Del.	99	103	164	418	7	3	1	3	N	N
Md.	868	938	586	1,233	278	125	-	-	-	26
D.C.	52	82	73	68	10	10	1	-	7	4
Va.	1,068	1,277	426	1,061	97	82	N	N	N	N
W. Va.	134	173	1	13	36	22	80	60	11	9
N.C.	1,416	1,655	985	1,074	103	122	N	N	U	U
S.C.	832	895	518	148	37	42	146	201	N	N
Ga.	2,186	1,952	1,598	1,826	122	133	238	289	N	N
Fla.	4,649	4,650	2,849	2,539	233	202	607	609	N	N
E.S. CENTRAL	2,683	3,331	943	1,573	207	119	144	151	-	-
Ky.	399	415	129	210	45	24	21	19	N	N
Tenn.	744	886	392	180	162	95	123	132	N	N
Ala.	554	864	255	836	-	-	-	-	N	N
Miss.	986	1,166	167	347	-	-	-	-	-	-
W.S. CENTRAL	4,786	4,718	4,498	3,494	341	322	61	197	84	34
Ark.	790	1,074	99	199	5	12	8	15	-	-
La.	543	792	307	508	1	1	53	182	11	11
Okla.	474	527	843	718	91	56	N	N	49	11
Tex.	2,979	2,325	3,249	2,069	244	253	N	N	24	12
MOUNTAIN	2,274	2,558	1,266	1,270	445	603	30	51	6	5
Mont.	112	91	2	4	2	-	-	-	-	-
Idaho	181	184	36	22	19	11	N	N	N	N
Wyo.	76	107	8	8	2	7	10	14	-	-
Colo.	443	607	277	213	126	125	-	-	-	-
N. Mex.	277	338	254	250	119	114	20	36	-	-
Ariz.	772	829	570	685	163	314	-	-	N	N
Utah	234	185	53	35	12	32	-	-	6	5
Nev.	179	217	66	53	2	-	-	1	-	-
PACIFIC	5,328	5,587	2,568	3,158	614	576	4	-	-	-
Wash.	596	656	157	230	70	60	-	-	N	N
Oreg.	423	342	213	109	N	N	N	N	N	N
Calif.	3,984	4,235	2,142	2,742	415	406	N	N	N	N
Alaska	97	86	10	5	-	-	-	-	N	N
Hawaii	228	268	46	72	129	110	4	-	-	-
Guam	-	46	-	37	-	-	-	4	-	-
P.R.	364	616	8	31	N	N	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 January 3, 2004, and December 28, 2002 (53rd 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	6,816	6,859	363	439	11,619	13,971	313	321	13,474
NEW ENGLAND	204	152	1	1	344	459	24	13	1,866
Maine	7	2	1	-	5	20	-	-	780
N.H.	14	8	-	-	7	18	2	-	-
Vt.	1	2	-	-	7	8	-	-	930
Mass.	132	99	-	1	243	260	13	7	151
R.I.	24	13	-	-	32	49	2	-	5
Conn.	26	28	-	-	50	104	7	6	-
MID. ATLANTIC	884	752	64	68	2,175	2,316	62	80	40
Upstate N.Y.	49	43	17	4	285	350	11	10	N
N.Y. City	515	435	32	26	1,100	1,084	25	42	-
N.J.	165	169	15	37	442	529	17	19	-
Pa.	155	105	-	1	348	353	9	9	40
E.N. CENTRAL	869	1,216	69	74	1,182	1,457	23	34	6,297
Ohio	202	159	3	3	217	257	2	7	1,267
Ind.	53	62	11	4	135	128	4	2	-
Ill.	353	479	21	41	557	679	7	17	-
Mich.	249	486	34	26	220	315	10	4	4,107
Wis.	12	30	-	-	53	78	-	4	923
W.N. CENTRAL	145	127	4	2	484	533	4	10	80
Minn.	43	59	-	1	201	237	-	4	N
Iowa	7	8	-	-	25	34	2	-	N
Mo.	56	34	4	1	109	126	1	2	-
N. Dak.	2	-	-	-	4	6	-	-	80
S. Dak.	2	-	-	-	20	13	-	-	-
Nebr.	12	6	-	-	27	27	1	4	-
Kans.	23	20	-	-	98	90	-	-	-
S. ATLANTIC	1,822	1,839	72	93	2,352	2,869	54	45	2,098
Del.	7	11	-	-	23	23	-	-	29
Md.	310	228	11	16	239	306	10	11	-
D.C.	53	58	-	1	-	-	-	-	31
Va.	75	71	1	1	255	315	12	8	503
W. Va.	2	2	-	-	21	30	-	-	1,262
N.C.	152	279	19	20	363	434	9	2	N
S.C.	94	134	7	13	171	148	-	-	273
Ga.	492	439	11	13	391	527	8	5	-
Fla.	637	617	23	29	889	1,086	15	19	N
E.S. CENTRAL	318	454	10	31	696	798	7	4	2
Ky.	33	88	1	3	132	146	1	4	N
Tenn.	135	168	2	11	224	308	3	-	N
Ala.	118	149	5	10	238	210	3	-	-
Miss.	32	49	2	7	102	134	-	-	2
W.S. CENTRAL	940	847	71	90	1,508	1,875	32	30	2,289
Ark.	54	34	2	11	110	135	-	-	-
La.	174	152	-	-	-	-	-	-	14
Okla.	65	72	1	2	148	190	1	2	N
Tex.	647	589	68	77	1,250	1,550	31	28	2,275
MOUNTAIN	307	330	26	21	359	475	7	11	802
Mont.	-	-	-	-	5	12	-	-	N
Idaho	15	8	-	-	13	14	1	-	N
Wyo.	-	-	-	-	4	3	-	-	110
Colo.	24	64	3	2	64	104	3	5	-
N. Mex.	63	39	4	-	6	34	1	2	4
Ariz.	180	197	19	19	206	263	2	-	4
Utah	14	7	-	-	39	31	-	2	684
Nev.	11	15	-	-	22	14	-	2	-
PACIFIC	1,327	1,142	46	59	2,519	3,189	100	94	-
Wash.	82	70	-	2	249	252	4	7	-
Oreg.	48	28	-	-	104	111	5	2	-
Calif.	1,185	1,033	46	56	1,991	2,629	90	80	-
Alaska	-	-	-	-	55	49	-	-	-
Hawaii	12	11	-	1	120	148	1	5	-
Guam	-	6	-	-	-	65	-	-	-
P.R.	194	282	1	23	86	129	-	-	434
V.I.	1	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 January 4, 2003 (53rd Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	654	476	116	41	9	10	85
Boston, Mass.	181	122	36	14	3	6	22
Bridgeport, Conn.	56	36	12	6	2	-	1
Cambridge, Mass.	26	21	5	-	-	-	3
Fall River, Mass.	30	20	7	3	-	-	2
Hartford, Conn.	54	32	13	5	2	-	7
Lowell, Mass.	23	15	7	1	-	-	5
Lynn, Mass.	18	17	-	1	-	-	4
New Bedford, Mass.	35	24	7	3	-	1	7
New Haven, Conn.	43	39	3	-	-	1	7
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	5	4	1	-	-	-	-
Springfield, Mass.	48	35	8	3	1	1	5
Waterbury, Conn.	55	46	7	2	-	-	9
Worcester, Mass.	80	65	10	3	1	1	13
MID. ATLANTIC	1,665	1,220	300	104	20	19	127
Albany, N.Y.	41	35	5	1	-	-	4
Allentown, Pa.	27	26	1	-	-	-	3
Buffalo, N.Y.	118	90	21	4	1	2	11
Camden, N.J.	21	10	8	1	1	1	2
Elizabeth, N.J.	U	U	U	U	U	U	U
Erie, Pa.	47	38	8	1	-	-	1
Jersey City, N.J.	U	U	U	U	U	U	U
New York City, N.Y.	625	427	136	44	7	10	42
Newark, N.J.	62	39	12	6	2	3	3
Paterson, N.J.	U	U	U	U	U	U	U
Philadelphia, Pa.	313	220	56	26	8	2	18
Pittsburgh, Pa.§	25	20	5	-	-	-	4
Reading, Pa.	25	21	4	-	-	-	2
Rochester, N.Y.	153	127	16	9	-	1	13
Schenectady, N.Y.	26	18	5	3	-	-	2
Scranton, Pa.	47	41	5	1	-	-	5
Syracuse, N.Y.	71	58	10	3	-	-	8
Trenton, N.J.	20	13	5	2	-	-	-
Utica, N.Y.	16	14	-	2	-	-	1
Yonkers, N.Y.	28	23	3	1	1	-	8
E.N. CENTRAL	2,162	1,515	436	123	48	36	211
Akron, Ohio	59	41	10	3	3	2	7
Canton, Ohio	51	40	9	-	1	1	9
Chicago, Ill.	385	246	82	34	10	11	30
Cincinnati, Ohio	94	57	24	8	2	3	13
Cleveland, Ohio	212	154	50	6	2	-	20
Columbus, Ohio	207	138	44	12	8	5	16
Dayton, Ohio	103	73	23	2	3	2	9
Detroit, Mich.	181	108	51	13	6	3	12
Evansville, Ind.	52	43	8	1	-	-	3
Fort Wayne, Ind.	61	44	15	1	-	1	13
Gary, Ind.	10	5	2	3	-	-	-
Grand Rapids, Mich.	100	73	21	3	2	1	16
Indianapolis, Ind.	184	135	28	15	3	3	14
Lansing, Mich.	58	46	7	3	-	-	4
Milwaukee, Wis.	84	59	16	5	3	1	8
Peoria, Ill.	43	32	8	2	-	1	6
Rockford, Ill.	71	56	10	4	1	-	11
South Bend, Ind.	45	35	6	3	1	-	4
Toledo, Ohio	101	79	14	4	2	2	14
Youngstown, Ohio	61	51	8	1	1	-	2
W.N. CENTRAL	343	232	71	23	7	9	33
Des Moines, Iowa	U	U	U	U	U	U	U
Duluth, Minn.	17	11	3	2	-	1	-
Kansas City, Kans.	14	4	6	3	1	-	-
Kansas City, Mo.	72	44	21	4	2	1	6
Lincoln, Nebr.	31	21	7	2	-	-	2
Minneapolis, Minn.	63	40	9	7	3	4	5
Omaha, Nebr.	81	67	12	1	-	1	13
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	31	21	7	3	-	-	2
Wichita, Kans.	34	24	6	1	1	2	5
S. ATLANTIC	1,168	748	281	88	25	23	78
Atlanta, Ga.	166	104	47	12	2	1	8
Baltimore, Md.	154	98	33	12	6	3	17
Charlotte, N.C.	126	88	27	10	-	1	19
Jacksonville, Fla.	113	69	31	9	2	2	4
Miami, Fla.	140	93	32	9	3	2	6
Norfolk, Va.	37	27	7	-	-	3	3
Richmond, Va.	58	32	18	4	3	1	4
Savannah, Ga.	52	34	14	2	2	-	1
St. Petersburg, Fla.	55	43	4	5	2	1	6
Tampa, Fla.	142	94	27	15	2	4	7
Washington, D.C.	99	49	35	7	3	5	3
Wilmington, Del.	26	17	6	3	-	-	-
E.S. CENTRAL	730	509	135	53	17	16	66
Birmingham, Ala.	177	128	33	9	1	6	24
Chattanooga, Tenn.	33	23	7	2	1	-	1
Knoxville, Tenn.	103	78	20	4	-	1	5
Lexington, Ky.	66	44	14	5	2	1	3
Memphis, Tenn.	129	88	17	16	5	3	10
Mobile, Ala.	57	38	12	3	2	2	3
Montgomery, Ala.	38	24	7	3	1	3	7
Nashville, Tenn.	127	86	25	11	5	-	13
W.S. CENTRAL	679	446	154	47	22	10	66
Austin, Tex.	102	73	23	6	-	-	11
Baton Rouge, La.	24	19	1	2	1	1	-
Corpus Christi, Tex.	43	27	12	2	2	-	5
Dallas, Tex.	197	110	59	15	12	1	25
El Paso, Tex.	30	19	9	1	-	1	5
Ft. Worth, Tex.	81	51	15	8	3	4	2
Houston, Tex.	U	U	U	U	U	U	U
Little Rock, Ark.	71	53	11	3	2	2	10
New Orleans, La.	30	18	7	5	-	-	-
San Antonio, Tex.	U	U	U	U	U	U	U
Shreveport, La.	29	21	7	1	-	-	2
Tulsa, Okla.	72	55	10	4	2	1	6
MOUNTAIN	680	489	131	34	13	13	54
Albuquerque, N.M.	85	70	12	3	-	-	17
Boise, Idaho	39	23	11	2	-	3	1
Colo. Springs, Colo.	U	U	U	U	U	U	U
Denver, Colo.	U	U	U	U	U	U	U
Las Vegas, Nev.	257	169	65	12	6	5	15
Ogden, Utah	28	23	4	-	1	-	2
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	43	33	5	4	1	-	4
Salt Lake City, Utah	111	79	18	9	1	4	10
Tucson, Ariz.	117	92	16	4	4	1	5
PACIFIC	1,744	1,242	345	98	38	21	200
Berkeley, Calif.	16	13	3	-	-	-	2
Fresno, Calif.	86	62	16	4	4	-	9
Glendale, Calif.	25	22	2	1	-	-	2
Honolulu, Hawaii	97	79	13	2	1	2	5
Long Beach, Calif.	57	40	13	3	1	-	7
Los Angeles, Calif.	406	267	88	29	13	9	59
Pasadena, Calif.	28	22	4	1	1	-	4
Portland, Oreg.	98	65	25	5	2	1	10
Sacramento, Calif.	284	202	62	13	6	1	29
San Diego, Calif.	141	101	29	5	3	3	27
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	190	140	31	14	5	-	16
Santa Cruz, Calif.	33	27	5	-	-	1	4
Seattle, Wash.	105	71	23	11	-	-	12
Spokane, Wash.	65	50	10	4	1	-	7
Tacoma, Wash.	113	81	21	6	1	4	7
TOTAL	9,825¶	6,877	1,969	611	199	157	920

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.

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy each week, send an e-mail message to *listserv@listserv.cdc.gov*. The body content should read *SUBscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at *http://www.cdc.gov/mmwr* or from CDC's file transfer protocol server at *ftp://ftp.cdc.gov/pub/publications/mmwr*. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone 202-512-1800.

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 888-232-3228.

All *MMWR* references are available on the Internet at http://www.cdc.gov/mmwr. Use the search function to find specific articles.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

References to non-CDC sites on the Internet are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of these sites. URL addresses listed in *MMWR* were current as of the date of publication.

☆U.S. Government Printing Office: 2004-633-140/69165 Region IV ISSN: 0149-2195