Morbidity and Mortality Weekly Report

Weekly July 16, 2004 / Vol. 53 / No. 27

# Genetic Testing for Breast and Ovarian Cancer Susceptibility: Evaluating Direct-to-Consumer Marketing — Atlanta, Denver, Raleigh-Durham, and Seattle, 2003

Breast and ovarian cancer are the second and fifth leading causes of cancer death, respectively, among women in the United States (*1*). One in eight women will have breast cancer during their lifetimes, and one in 70 will have ovarian cancer. Mutations in two genes, BRCA1 and BRCA2 (BRCA1/2), are associated with predisposition for inherited breast and ovarian cancer and are identified in 5%–10% of women with breast or ovarian cancer (BOC) (*2*). Since 1996, genetic testing for these mutations has been available clinically (*3*); however, population-based screening is not recommended because of the complexity of test interpretation and limited data on clinical validity and utility (*1,4–6*). Despite the test's limited applicability in the general population, the U.S. provider of clinical BRCA1/2 testing (Myriad Genetic Laboratories, Inc., Salt Lake City, Utah) conducted a pilot direct-to-consumer (DTC) marketing campaign in two cities (Atlanta, Georgia, and Denver, Colorado) during September 2002–February 2003. Although DTC advertisements have been used to raise consumer awareness about pharmaceuticals (*7*), this was the first time an established genetic test was marketed to the public. To assess the impact of the campaign on consumer behaviors and health-care provider practices, CDC and the respective state health departments for the pilot cities and two comparison cities (Raleigh-Durham, North Carolina, and Seattle, Washington) surveyed consumers and providers. This report summarizes results of those surveys, which indicated that consumer and provider awareness of BRCA1/2 testing increased in the pilot cities and that providers in these cities perceived an impact on their practice (e.g., more questions asked about testing, more BRCA1/2 tests requested, and more tests ordered). However, in all four cities, providers often lacked knowledge to advise patients about inherited BOC and testing. These findings underscore the need for evidence-based recommendations on appropriate use of genetic tests and education of providers and the public to achieve maximum individual and public health benefit from genetic testing.

Women aged 25–54 years with personal or family histories of BOC and their health-care providers were target audiences of the DTC campaign. The campaign consisted of television, radio, and print advertising to raise awareness about BRCA1/2 testing and to motivate women to ask their providers how genetic testing might help assess BOC risk and guide them to effective medical management options. Providers received precampaign information and patient support materials (*8*).

During April 21–May 20, 2003, a 51-question consumer telephone survey was conducted by using randomly generated household telephone numbers. Approximately 1,600 women were targeted for participation. Survey questions addressed family history, campaign awareness, interest in BRCA1/2 testing, cancer concerns, and interactions with health-care providers, family members, and friends. On May 1, 2003, providers were mailed a 35-question survey and a monetary incentive. Questions surveyed knowledge of inherited BRCA1/2 mutations, campaign awareness, and perceived changes in practice subsequent to the campaign. Approximately 1,600 physicians were selected randomly from the

**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 2004;53:[inclusive page numbers].

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American Medical Association master list to be proportionally representative of four specialties (i.e., family practice, internal medicine, obstetrics/gynecology, and oncology).

## Consumer Survey

A total of 1,635 women completed the survey (participation rate: 45%); the majority (79%) were non-Hispanic white, with a median age of 40 years and more than a high school education (75%). Thirteen percent had a family history of BOC in a first-degree relative (e.g., parent or sibling). In the pilot cities, consumers were substantially more likely than those in the comparison cities to have heard of the test and to have seen a television, radio, or magazine advertisement; however, perceived knowledge about testing did not differ between consumers in the pilot and comparison cities (Table 1). No differences were observed between pilot and comparison cities in the percentage of women who reported talking to anyone about the test (Table 1) or in the level of concern about their risk for BOC. Among women who had heard of the test, interest in testing did not vary by city (Table 1). Among women who had heard of and were interested in the test, 20% had a first-degree relative with BOC, compared with 17% of women who had heard of the test but were not interested.

## Provider Survey

A total of 1,054 providers completed the survey (participation rate: 66%); the majority (66%) were male, had been in practice for >10 years (62%), and evaluated <100 patients per week (65%). In the pilot cities, providers were more likely than those in comparison cities to report that they and their patients saw or heard an advertisement about genetic testing for BOC (Table 2). When asked to compare the previous 6 months with the same period 1 year before, more providers in the pilot cities than in comparison cities reported an increase in the number of patients who had asked questions about testing, asked for genetic counseling referrals to consider testing, and requested testing. Providers in the pilot cities also reported ordering more tests but not more referrals to genetics or oncology centers (Table 2).

Provider knowledge did not differ between the pilot and comparison cities. Fifty-two percent of providers were aware that a BRCA1/2 mutation can be inherited from either parent, and 46% knew that a woman with a sister with a known BRCA1 mutation has a 50% risk for inheriting the same mutation. Oncologists and obstetricians/gynecologists were more likely to answer knowledge questions correctly. The majority of providers believed that learning more about genetic testing for BOC risk was relevant to their practice.

**TABLE 1. Number and percentage of consumers who reported being aware of BRAC1/2 testing and were interested in having genetic testing for hereditary breast and ovarian cancer, by city and survey question — four cities, 2003***

| | Pilot cities | | | | Comparison cities | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Denver, Colorado (N = 401) | | Atlanta, Georgia (N = 410) | | Seattle, Washington (N = 421) | | Raleigh-Durham, North Carolina (N = 403) | | |
| Question | No. | (%) | No. | (%) | No. | (%) | No. | (%) | p value† |
| Ever heard of a genetic test for breast/ovarian cancer risk called B-R-C-A or BRACAnalysis®? | 178 | (45) | 159 | (39) | 98 | (24) | 81 | (21) | S§ |
| If "yes," are you interested in having the BRACAnalysis® test? | 63 | (38) | 66 | (46) | 33 | (36) | 23 | (31) | NS¶ |
| Saw/heard an advertisement about a genetic test to determine a woman's risk for breast or ovarian cancer in the past 6 months? | 144 | (36) | 172 | (42) | 50 | (12) | 91 | (23) | S |
| How would you describe your overall knowledge about genetic testing for breast and ovarian cancer? | | | | | | | | | |
| Little/Nothing | 274 | (68) | 285 | (70) | 289 | (69) | 294 | (73) | NS |
| Some | 117 | (29) | 114 | (28) | 114 | (27) | 99 | (25) | |
| A lot | 9 | (2) | 10 | (2) | 16 | (4) | 8 | (2) | |
| Ever talked to anyone about the test?** | 31 | (8) | 23 | (6) | 28 | (7) | 23 | (6) | NS |
| Spoke with health-care provider | 18 | (4) | 19 | (5) | 23 | (5) | 16 | (4) | |
| Spoke with friends/family members | 19 | (5) | 14 | (3) | 17 | (4) | 10 | (2) | |

* Sum of percentages might not always total 100 because of "don't know" responses. Missing values are excluded.
† Values of $p<0.05$ are considered significant. Calculations are between pilot cities combined and comparison cities combined.
§ Significant.
¶ Not significant.
** Responses not mutually exclusive.

**TABLE 2. Number and percentage of health-care providers who reported being aware of BRAC1/2 test advertisements and reported practices regarding genetic testing for hereditary breast and ovarian cancer, by city and survey question — four cities, 2003***

| | Pilot cities | | | | Comparison cities | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Denver, Colorado (N = 270) | | Atlanta, Georgia (N = 292) | | Seattle, Washington (N = 328) | | Raleigh-Durham, North Carolina (N = 164) | | |
| Question | No. | (%) | No. | (%) | No. | (%) | No. | (%) | p value† |
| Personally saw/heard an advertisement about genetic testing for breast/ovarian cancer risk in the past 6 months? | 103 | (39) | 126 | (44) | 59 | (18) | 47 | (29) | S§ |
| Patients mentioned they had seen/heard an advertisement for breast/ovarian cancer risk in the past 6 months? | 74 | (28) | 78 | (27) | 26 | (8) | 16 | (10) | S |
| Comparing the last 6 months to the same period last year, have | | | | | | | | | |
| Questions about testing increased? | 96 | (41) | 96 | (39) | 63 | (23) | 30 | (22) | S |
| Requests for referrals increased? | 57 | (25) | 42 | (18) | 36 | (13) | 14 | (11) | S |
| Actual referrals to genetics or oncology increased? | 75 | (33) | 66 | (27) | 77 | (28) | 31 | (24) | NS¶ |
| Requests for tests increased? | 72 | (31) | 59 | (25) | 40 | (14) | 18 | (14) | S |
| Number of tests ordered increased? | 35 | (17) | 41 | (18) | 22 | (9) | 10 | (9) | S |

*Sum of percentages might not always total 100 because of rounding.
† Values of $p<0.05$ are considered significant. Calculations are between pilot cities combined and comparison cities combined.
§ Significant.
¶ Not significant.

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**Editorial Note:** The findings from the provider survey indicate that DTC advertisements might have motivated women interested in learning more about BRCA1/2 testing to talk to their physicians and request testing. Findings from the consumer survey suggest that women in the pilot cities were more aware of BRCA1/2 testing than those in the comparison cities. No evidence suggested an increased interest in the test among women most suited for BRCA1/2 testing (i.e., those having a first-degree relative with BOC). The demonstrated lack of provider knowledge underscores the need for additional education; providers in certain specialties were unprepared to address the complexities surrounding genetic testing for susceptibility to BOC.

Complexities of the BRCA1/2 test have been described (*2,4,5*). Most BOC is not associated with BRCA1/2 mutations. Testing has been directed at women with a family history of cancer; however, even in this group, test interpretation is complex, and genetic counseling is recommended (*4–6*). Women with an identified BRCA1/2 mutation have a substantially increased lifetime risk for BOC, but morbidity and mortality might be reduced through increased surveillance, chemoprevention, or prophylactic surgery (*2*). To assess knowledge of genetic testing for susceptibility to BOC, CDC has funded a review of BRCA1/2 testing in women with a family history of BOC (*9*) and an assessment of the clinical utility of BRCA1/2 counseling and testing by the U.S. Preventive Services Task Force (*10*).

The findings in this report are subject to at least five limitations. First, information was not available for nonresponders. Whether responders differed from nonresponders with respect to demographics and other variables such as cancer family history is unknown. Second, because of the low consumer response rate (45%), a potential for bias might have been introduced; responders might have a different level of knowledge or interest in participating in testing or the survey. Third, the lag time between the campaign and the survey might not have been sufficient to allow those interested to pursue and complete testing. Fourth, quantifying the numbers of tests performed and appropriateness of testing was not possible because the information is proprietary and not available. Finally, objective data on the appropriateness of education, counseling, and tests ordered by providers are not available.

In the United States, regulatory oversight of genetic testing is limited, and no process exists for review of the accuracy and impact of advertising claims about validity and utility of genetic tests. However, translation of genomic discoveries to medical practice continues to yield new applications for diagnosis, promise for new disease treatments and preventions, and increased consumer interest and demand for genetic testing. Public health agencies should provide information about genetic tests to educate consumers and providers and protect consumers by ensuring the safe and effective use of genetic tests. Collaboration among public health agencies, health-care providers, the clinical laboratory/biotechnology industry, and professional organizations will be required to develop a systematic approach for evidence-based assessment of the clinical validity and utility of genetic tests, identify gaps in knowledge, and to determine test efficacy, utilization, and access through postmarket surveillance. Such partnerships will be needed to support public health responses as genomics becomes more integrated into health promotion and disease prevention.

**Acknowledgments**

This report is based on contributions by J Mouchawar, MD, Kaiser Permanente, Denver, Colorado. B Bernhardt, MS, Johns Hopkins Medical Institutions, Baltimore, Maryland. D Irwin, PhD, Univ of North Carolina Center for Genomics, Chapel Hill, North Carolina. DJ Bowen, PhD, Fred Hutchinson Cancer Research Center; BB McGrath, PhD, Univ of Washington School of Nursing, Seattle; DL Doyle, MS, Genetics Svcs Section, Washington State Dept of Health. L Armstrong, PhD, Div of Cancer Prevention and Control, National Center for Chronic Disease Prevention and Health Promotion; K Peterson, MS, Office of Genomics and Disease Prevention, Office of the Director; A Faucett, MS, K Reed, MPH, Public Health Practice Program Office, CDC.

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# Trichinellosis Associated with Bear Meat — New York and Tennessee, 2003

Trichinellosis is a parasitic infection caused by tissue-dwelling *Trichinella* roundworms and is associated traditionally with ingestion of pork from infected domestic swine. As a result of improvements in swine production, trichinellosis has trust•wor•thy: *adj*

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

2 : capable of being depended upon;

see also *MMWR*.


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declined steadily in the United States (*1*). However, infection also can result from eating the meat of wild animals. During 1997–2001, a total of 72 cases of trichinellosis (median: 12 cases annually; range: 11–23 cases) were reported to CDC; the majority of these infections were associated with eating wild game, predominantly bear. This report describes three cases of trichinellosis associated with eating undercooked bear meat reported from New York and Tennessee in 2003. To prevent trichinellosis, persons should cook meat, particularly wild game, to an internal temperature of 160° F (71° C) (*1*).

## Case Reports

**New York.** In December 2003, the New York State Department of Health was notified of a trichinellosis case in a man aged 54 years who resided in Franklin County. The patient had been hospitalized in a tertiary care center in early November with a 3-week history of diaphoresis, fever, weakness, tachycardia, diarrhea, an 8-pound weight loss, and dry cough. Laboratory testing indicated an elevated white blood cell (WBC) count (20,600/$mm^3$ [normal: 5,000–10,000/$mm^3$] with 33% eosinophils), hyponatremia (123 mmol sodium/L [normal: 136–145 mmol sodium/L]), elevated lactate dehydrogenase (LDH) (823 U/L [normal: 313–618 U/L]), and elevated creatinine phosphokinase (CPK) (1,554 U/L [normal: 10–250 U/L]).

The patient reported eating approximately 2 pounds of nearly raw bear meat during several meals 2 weeks before onset of symptoms. The meat had come from a custom slaughter house in upstate New York and had been frozen at -4° F (-20° C) for approximately 1 week before ingestion. Because of suspicion of trichinellosis infection, albendazole and corticosteroids were administered. Weakness and fatigue persisted through late December 2003. The patient recovered fully by February 2004.

Serum specimens collected on the third hospital day for antibody testing of *Trichinella* and other helminths were reported negative by a commercial reference laboratory. A serum specimen collected on the 11th hospital day and sent to CDC for *Trichinella* antibody testing was positive by enzyme-linked immunoassay.

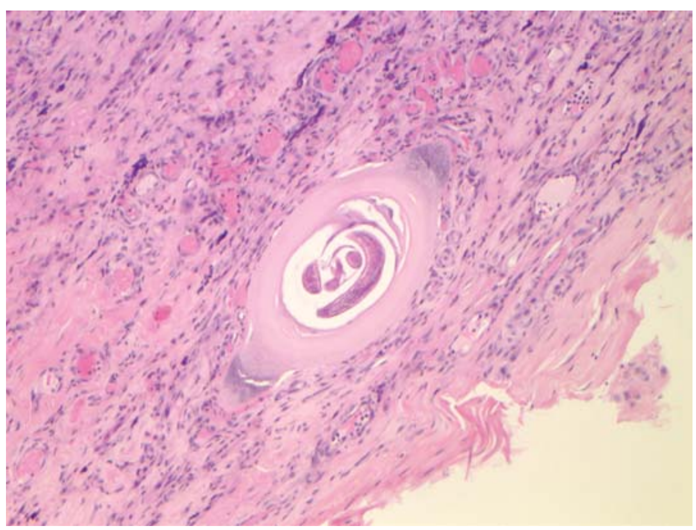
The New York State Department of Environmental Conservation (NYSDEC)'s Wildlife Pathology Unit recovered nine packages of bear meat from multiple bears from the patient's freezer and identified *Trichinella* spp. larvae in five of the seven packages examined. Muscle digestion with artificial gastric juice yielded 0.5–48.0 larvae per gram of bear meat. The remaining two packages of meat were examined by the U.S. Department of Agriculture (USDA), which identified *Trichinella nativa* by polymerase chain reaction (PCR).

**Tennessee.** In November 2003, the Tennessee Department of Health received a report of two cases of trichinellosis in persons residing in Claiborne County. In early October, a man aged 38 years and a woman aged 54 years were admitted to a hospital with 7-day and 14-day histories of fever, respectively, chills, headache, myalgias, arthralgias, and facial swelling. The man's WBC count was 14,600/$mm^3$, with 24% eosinophils, 13% lymphocytes, and 2% monocytes. The woman's WBC count was 16,200/$mm^3$, with 28% eosinophils, 13% lymphocytes, and 3% monocytes. Serum obtained from both patients tested positive for *Trichinella* antibodies, and both were started on a course of albendazole and corticosteroids. Both patients have recovered fully.

Questioning of the patients revealed that, in late August 2003, the man had shot a black bear (*Ursus americanus*) in Canada. The bear was field dressed, and selected meat was packed on ice for transport to Tennessee. On August 31, the man and woman prepared and cooked the bear meat on an outdoor grill for themselves and four other persons. The man and woman ate their steaks medium rare; the four others ate their steaks well done. The remaining meat was packaged for storage in a household freezer, and the family continued to consume the meat during September.

In December, samples of the bear meat were examined histologically at the University of Tennessee College of Veterinary Medicine. Numerous *Trichinella* larvae were observed encysted in characteristic hyalinized capsules in the striated muscle tissue (Figure). The larvae had diameters of approximately 30–35 $\mu$m, and the diagnostic morphology of the stichosome was apparent at high (400x) magnification.

**FIGURE. *Trichinella* larva encysted in a characteristic hyalinized capsule in striated muscle tissue**



Photo/Wadsworth Center, New York State Department of Health

Further testing of the bear meat at USDA recovered live larvae (estimated infection intensity: 350–400 larvae per gram of muscle), and PCR results were consistent with the genotype *T. nativa*.

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**Editorial Note:** Undercooked wild game has emerged in recent years as a predominant source for infection with *Trichinella* (*2,3*) (Box). During 1997–2001, of the 52 (72%) U.S. cases in which a source of infection was known or suspected, pork products were associated with 21 (40%) cases, and wild game was associated with 31 (60%), including 29 cases linked to bear meat (*1*). In Canada, the majority of trichinellosis outbreaks during the previous three decades were attributed to eating meat from wild animals (*3*).

Increasing local bear populations combined with the popularity of bear hunting in the northeastern United States and Canada might contribute to increased cases of *Trichinella* infection. In 2003, in New York state, a record number of approximately 1,850 bears were reported killed by hunters (*4*). NYSDEC provides information about trichinellosis and proper cooking instructions for wild game with each bear-hunting license issued. However, the meat from hunted animals often is given away and eaten by persons who are unaware of the need to cook the meat thoroughly enough to kill larvae. Multiple exposures also can occur when bear meat is served at wild game parties. Whereas freezing at specified temperatures kills *T. spiralis* larvae in pork, *T. nativa* is a freeze-resistant species that remains viable after freezing, even for months or years. The three cases described in this report were the result of eating improperly cooked bear meat infected with *T. nativa*.

Educational messages concerning the risks of eating meat cooked improperly do not always reach persons at risk for trichinellosis (*2*). To prevent future cases of trichinellosis, health-education messages should target wild game hunters who are most at risk for *Trichinella* infection (*3*). Information on the parasite and proper cooking should be made available at points of wild game distribution, such as custom butchers and game meat processors. To prevent trichinellosis, consumers should be advised to monitor for an adequate cooking

**BOX. Epidemiology, diagnosis, treatment, and prevention of trichinellosis**

**Epidemiology**
- Zoonotic disease caused by nematode worms of genus *Trichinella*.
- Animal reservoirs of infection include pigs, bears, seals, and numerous other omnivorous wild animals.
- Humans become infected through ingestion of meat containing infective larvae.
- Historically, pork was the most common meat source; however, in recent years, the majority of cases are related to ingestion of bear or other wild animal meat.

**Clinical findings**
- Disease is characterized by sudden appearance of diarrhea, fever, and muscle pain.
- Blood eosinophilia is a typical laboratory finding.
- Cardiac and neurologic sequelae occur in the most severe infections.
- Gastrointestinal symptoms can appear within a few days after ingestion of infected meat. Systemic symptoms usually appear approximately 8–15 days after ingestion.

**Diagnosis and laboratory testing**
- A working diagnosis is based on clinical findings (e.g., fever, muscle aches, and eosinophilia) and a history of eating raw or rare meat.
- Muscle biopsy indicating *Trichinella* larvae or serum antibody testing is essential for diagnosis.
- Antibody assays to confirm diagnosis are available through state health or commercial diagnostic laboratories.

**Treatment**
- Benzimidazoles (e.g., albendazole or mebendazole) are treatments of choice for symptomatic patients; efficacy dependent on early initiation of treatment.
- Corticosteroids alleviate symptoms of the inflammatory reaction.

**Prevention and reporting**
- Trichinellosis is a nationally notifiable disease; cases should be reported to state health departments.
- Prevention should focus on adequate cooking of meat.
- Additional information is available at http://www.cdc.gov/ncidod/dpd/parasites/trichinosis/default.htm.

temperature of 160° F (71° C) (*1*) and observe the color and texture of the meat during cooking. A change in color from red to dark gray throughout and a change in texture such that muscle fibers are easily separated from each other are indicators that meat has been rendered safe to eat (*3,5*). However, game meats such as bear are very dark, making interpretation of color changes difficult; for these, adequate cooking might be better judged by texture and temperature. USDA recommends a higher temperature to allow for different cooking methods (e.g., microwave cooking) that might result in uneven temperature distributions throughout the meat (*6*).

Symptoms associated with classic trichinellosis from *T. spiralis* include fever, facial edema, myalgias, muscle swelling, and weakness. However, as demonstrated in the *T. nativa* cases described in this report, some of these symptoms might be absent. Eosinophilia typically is present in cases of trichinellosis, and elevated blood levels of muscle enzymes (e.g., LDH and CPK) also are common. Physicians should consider trichinellosis in any ill person with eosinophilia and a history of eating wild game. Suspected cases should be reported to state health departments.

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# Prevalence of Anemia Among Displaced and Nondisplaced Mothers and Children — Azerbaijan, 2001

In the early 1990s, the war between Armenia and Azerbaijan over the Azeri region of Nagorno-Karabakh resulted in approximately 600,000 internally displaced persons* and 200,000 refugees† in Azerbaijan (*1*). After years of displacement and despite sustained humanitarian assistance, these internally displaced persons and refugees (IDP/Rs) are still coping with unfavorable living conditions and limited employment opportunities (*2*). Results of a 1996 CDC survey in Azerbaijan revealed high rates of malnutrition and anemia among both the IDP/R and resident populations (*3*) and prompted further study of the nutritional status of these populations. This report summarizes results of a 2001 survey of IDP/R and non-IDP/R mothers and children with anemia in Azerbaijan. Findings indicated that more than one third of mothers and children were anemic, with no significant difference in the overall prevalence between IDP/R and non-IDP/R populations; however, among the IDP/R population, anemia was associated with various socioeconomic factors such as education, socioeconomic status (SES)§, and area of residence. Future studies should focus on identifying causes for the high rates of anemia in Azerbaijan and developing effective interventions such as iron supplementation and behavior modification.

Data for this report are from the Azerbaijan Reproductive Health Survey, 2001 (AZRHS01), the first nationally representative reproductive health survey in Azerbaijan, which was conducted with technical assistance from CDC at the invitation of the U.S. Agency for International Development (USAID) (*4*). AZRHS01 was a face-to-face household survey of a probability sample of 8,246 women aged 15–44 years; a total of 7,668 (93.0%) women responded. To examine differences between IDP/R and non-IDP/R women and children, the survey oversampled those regions heavily populated by IDP/Rs.

The survey also included a nutritional assessment module consisting of anthropometric (i.e., height and weight) and hemoglobin (Hb) measurements. This module was administered only to mothers with at least one child aged 3–59 months and to those mothers' children aged 12–59 months. A total of 2,206 mothers and 2,274 children were eligible to participate in this anemia substudy. Before fingerstick blood samples were taken, mothers were asked to provide written consent for collection of blood from themselves and their children. Trained personnel measured Hb levels on the HemoCue® (HemoCue, Inc., Lake Forest, California) hemoglobin test system.

* Persons who have fled their homes because of armed conflict or fear of persecution for reasons of race, religion, nationality, social group membership, or political opinion, and who have not crossed an internationally recognized national border.

† Persons who have fled their countries because of armed conflict or fear of persecution for reasons of race, religion, nationality, social group membership, or political opinion.

§ Initially represented by a score based on household amenities and goods (e.g., telephone, indoor toilet, central heat, television, refrigerator, video recorder, automobile, cellular phone, uncrowded living conditions, and recreational home/villa). Scores ranged from zero (i.e., no amenities and goods) to 10 (i.e., all amenities and goods). Respondents with scores of $\leq$3 were classified as having low SES, and those with scores of $\geq$4 as having middle-high SES.

Mothers were informed immediately of their results and those of their children. Blood samples were collected from 1,913 (90.2%) mothers and 2,047 (89.7%) children. After respondents with missing Hb results or outlying levels (i.e., <6 g/dL or >17 g/dL) were excluded, the final sample consisted of 1,906 mothers (356 IDP/Rs and 1,550 non-IDP/Rs) and 2,017 children (373 IDP/Rs and 1,644 non-IDP/Rs).

Anemia was defined according to the 1998 CDC criteria (*5*) as an Hb level of <12.0 g/dL for nonpregnant mothers, adjusting for weeks of gestation for pregnant mothers[¶]. Among children, levels for anemia were age-specific (<11.0 g/dL for children aged 12–23 months and <11.1 g/dL for children aged 24–59 months). Survey results were weighted to adjust for the sampling design. Because <2% of the survey participants were refugees, data for refugees and IDPs were combined as one group (IDP/Rs). Data were analyzed by using SAS and SUDAAN. Two-sided t-tests were used to determine the difference in anemia prevalence between IDP/Rs and non-IDP/Rs and among subgroups within those populations. Associations between sociodemographic variables and anemia prevalence were determined by using chi-square tests, which were calculated separately for the IDP/R and the non-IDP/R groups. All differences are statistically significant ($p<0.05$) unless otherwise noted.

The IDP/R and non-IDP/R mothers and children had similar sociodemographic characteristics, with the exception of housing arrangements (Table 1). At the time of the survey, approximately half (48.5%) of the IDP/R mothers were living in temporary housing (e.g., public buildings, shelters, railroad wagons, and tents); 2% of non-IDP/R mothers were living in temporary housing. Among the IDP/R mothers, 44.2% had reported receiving humanitarian assistance (e.g., food supplies, household goods, clothing, and shelter) during the previous year.

Both IDP/R and non-IDP/R mothers had a high prevalence of anemia (39.0% and 40.1%, respectively) (Table 2). Anemia prevalence also was high among children, in both the IDP/R and non-IDP/R groups (35.5% and 33.2%, respectively). The prevalence of anemia did not differ significantly by IDP/R status among mothers or among children.

Anemia prevalence was significantly higher among IDP/R mothers with less than secondary education (64.2%), compared with non-IDP/R mothers (37.5%) with a similar level of education. Among IDP/R mothers, anemia decreased with higher education (64.2% for less than secondary, 37.5% for completed secondary, and 27.3% for technicum[**] or university education). Among IDP/R mothers, anemia prevalence also was associated with other socioeconomic factors, including living in rural versus urban areas (48.9% versus 31.9%); low versus medium-high SES (48.3% versus 27.4%); and receiving humanitarian aid (48.2% versus 31.2%).

For both IDP/R and non-IDP/R children, the prevalence of anemia decreased with age and was significantly higher for those whose mothers also were anemic (Table 2). Within the IDP/R group, children living in households with low SES had higher levels of anemia than those living in medium-high socioeconomic households (41.0% versus 27.6%). Children who were stunted[††] were more likely to be anemic than children who were not stunted (48.8% versus 32.8%).

**Reported by:** *S Rahimova, PhD, Adventist Development and Relief Agency, Azerbaijan. GS Perry, DrPH, Div of Nutrition and Physical Activity; F Serbanescu, MD, PW Stupp, PhD, TM Durant, PhD, C Crouse, MSc, Div of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion; LI Bhatti, MBBS, EIS Officer, CDC.*

**Editorial Note:** The findings in this report indicate a high prevalence of anemia among both mothers and children in Azerbaijan, with no overall differences in prevalence between IDP/R and non-IDP/R populations. Similar high levels of anemia have been reported among women in neighboring central Asian countries (*6*).

Iron deficiency is the leading cause of anemia in most developing countries and disproportionately affects groups with the highest iron demands (*7,8*). The pattern of higher levels of anemia among younger children and women of reproductive age in Azerbaijan, along with no evidence of high prevalence of hookworms, malaria, or other micronutrient deficiencies (e.g., vitamin A) suggests that iron deficiency is the most probable cause. However, additional assessments and research are necessary to determine the causes of the high rates of anemia in Azerbaijan more conclusively.

At least two factors might have contributed to the similarity in anemia prevalence between IDP/Rs and non-IDP/Rs. IDPs outnumbered refugees by approximately 10 to 1; unlike refugees, IDPs are part of the host population, sharing the same background characteristics, food preferences, lifestyles, and risk factors for anemia as the established population. In addition, nutritional deficiencies among the IDP/R population at the beginning of displacement might have attenuated because of the humanitarian aid provided for several years by USAID and other international agencies.

¶ For women 1–12 weeks pregnant, an Hb level of <11.0 g/dL was used. For women 13–40 weeks pregnant, Hb levels were 10.6, 10.5, 10.5, 10.7, 11.0, 11.4, and 11.9 g/dL for 16, 20, 24, 28, 32, 36, and 40 weeks, respectively.

** Technical vocational school.

†† Children with height-for-age Z-scores <2 standard deviations below the CDC/World Health Organization reference.

**TABLE 1. Selected characteristics of mothers with children aged 3–59 months and of children aged 12–59 months, by internally displaced person/refugee (IDP/R) status — Azerbaijan, 2001**

| | Mothers | | | Children | |
|---|---|---|---|---|---|
| Characteristic | IDP/R (n = 356) % | Non-IDP/R (n = 1,550) % | Characteristic | IDP/R (n = 373) % | Non-IDP/R (n = 1,644) % |
| **Age group (yrs)** | | | **Age group (mos)** | | |
| 15–24 | 22.0 | 30.1 | 12–23 | 21.2 | 24.1 |
| 25–34 | 60.2 | 54.8 | 24–35 | 22.9 | 25.7 |
| 35–44 | 17.8 | 15.2 | 36–47 | 30.8 | 24.1 |
| | | | 48–59 | 25.1 | 26.2 |
| **Residence** | | | **Residence** | | |
| Urban | 58.0 | 50.1 | Urban | 58.1 | 48.3 |
| Rural | 42.0 | 49.9 | Rural | 41.9 | 51.7 |
| **Socioeconomic status (SES)*** | | | **SES** | | |
| Low | 55.6 | 51.9 | Low | 59.2 | 54.7 |
| Medium-high | 44.4 | 48.1 | Medium-high | 40.8 | 45.4 |
| **Family's housing arrangements** | | | **Family's housing arrangements** | | |
| Owned/Rented property | 41.3 | 82.1 | Owned/Rented property | 42.2 | 82.6 |
| Living with family or friends (no rent) | 10.3 | 15.8 | Living with family or friends (no rent) | 8.8 | 15.4 |
| Temporary housing† | 48.5 | 2.1 | Temporary housing† | 49.0 | 2.0 |
| **Education of mother** | | | **Sex** | | |
| Primary/Incomplete secondary | 17.1 | 21.0 | Male | 58.1 | 51.9 |
| Complete secondary | 53.1 | 52.5 | Female | 41.9 | 48.1 |
| Technicum/University | 29.8 | 26.5 | | | |
| **Education of husband** | | | **Birth order** | | |
| Primary/Incomplete secondary | 4.9 | 5.0 | First | 29.5 | 33.9 |
| Complete secondary | 39.3 | 41.4 | Second | 33.5 | 33.7 |
| Technicum/University | 55.8 | 53.6 | Third or higher | 37.0 | 32.4 |
| **Employed** | | | **Birthweight** | | |
| Yes | 17.7 | 17.9 | <2,500 g | 13.0 | 10.8 |
| No | 82.4 | 82.1 | ≥2,500 g | 80.5 | 82.9 |
| | | | Don't know | 6.5 | 6.3 |
| **Husband employed** | | | **Birth interval** | | |
| Yes | 48.0 | 51.8 | First birth | 29.5 | 34.1 |
| No | 52.0 | 48.2 | <2 years | 25.4 | 26.6 |
| | | | ≥2 years | 45.1 | 39.3 |
| **Parity** | | | **Stunted§** | | |
| 1 | 19.3 | 23.8 | Yes | 17.0 | 14.3 |
| 2 | 32.9 | 37.5 | No | 83.0 | 85.7 |
| 3 | 30.5 | 24.2 | | | |
| ≥4 | 17.3 | 14.5 | | | |
| **Currently pregnant** | | | **Wasting¶** | | |
| Yes | 9.7 | 7.5 | Yes | 2.5 | 2.0 |
| No | 90.3 | 92.5 | No | 97.5 | 98.0 |
| **Family received humanitarian aid during previous year** | | | **Family received humanitarian aid during previous year** | | |
| Yes | 44.2 | N/A** | Yes | 46.8 | N/A |
| No | 55.8 | N/A | No | 53.2 | N/A |

* Initially represented by a score based on household amenities and goods (e.g., telephone, indoor toilet, central heat, television, refrigerator, video recorder, automobile, cellular phone, uncrowded living conditions, and recreational home/villa). Scores ranged from zero (i.e., no amenities and goods) to 10 (i.e., all amenities and goods). Respondents with scores of ≤3 were classified as having low SES, and those with scores of ≥4 as having medium-high SES.

† Includes public buildings (e.g., schools, farms, and factories), nongovernmental shelters, railroad wagons, mud houses, dugouts, and tents.

§ Defined as having a height-for-age Z-score <2 standard deviations below the CDC/World Health Organization (WHO) reference.

¶ Defined as having a weight-for-height Z-score <2 standard deviations below the CDC/WHO reference.

** Not applicable.

**TABLE 2. Prevalence of anemia* among mothers with children aged 3–59 months and among children aged 12–59 months, by selected characteristics and internally displaced person/refugee (IDP/R) status — Azerbaijan, 2001**

| | Mothers | | | Children | |
|---|---|---|---|---|---|
| | IDP/R (n = 356) | Non-IDP/R (n = 1,550) | | IDP/R (n = 373) | Non-IDP/R (n = 1,644) |
| Characteristic | % (95% CI[†]) | % (95% CI) | Characteristic | % (95% CI) | % (95% CI) |
| **Total** | **39.0 (31.3–46.7)** | **40.1 (36.7–43.6)** | **Total** | **35.5 (29.8–41.3)** | **33.2 (30.1–36.3)** |
| **Age (yrs)** | | | **Age (mos)** | | |
| 15–24 | 49.0 (33.0–64.9) | 39.5 (33.8–45.1) | 12–23 | 59.4 (42.6–76.2)[§] | 56.7 (49.6–63.9)[¶] |
| 25–34 | 38.6 (29.6–47.6) | 39.3 (34.6–44.0) | 24–35 | 48.3 (30.9–65.6) | 36.1 (30.1–42.0) |
| 35–44 | 28.2 (14.7–41.7) | 44.7 (36.2–53.2) | 36–47 | 26.4 (16.4–36.4) | 22.4 (16.0–28.9) |
| | | | 48–59 | 15.0 (4.4–25.6) | 18.8 (13.7–23.9) |
| **Residence** | | | **Residence** | | |
| Urban | 31.9 (20.2–41.6) | 39.3 (36.1–42.6) | Urban | 33.0 (24.1–41.9) | 34.5 (29.8–39.1) |
| Rural | 48.9 (41.6–56.1)[§] | 41.1 (34.8–47.2) | Rural | 38.5 (31.1–45.9) | 32.1 (26.8–37.4) |
| **Socioeconomic status (SES)**** | | | **SES**** | | |
| Low | 48.3 (39.0–57.7)[§] | 41.4 (36.1–46.8) | Low | 41.0 (34.9–47.2)[§] | 35.1 (31.1–39.4) |
| Medium-high | 27.4 (17.9–36.9) | 38.8 (34.1–43.4) | Medium-high | 27.6 (16.8–38.3) | 31.0 (26.0–35.9) |
| **Family's housing arrangements** | | | **Family's housing arrangements** | | |
| Owned/Rented property | 29.4 (18.8–40.0) | 39.4 (35.5–43.3) | Owned/Rented property | 31.3 (21.2–41.4) | 33.9 (30.8–37.0) |
| Living with family or friends | 35.7 (12.9–58.5) | 42.1 (32.4–51.7) | Living with family or friends | 29.1 (12.0–46.3) | 27.7 (20.0–35.5) |
| Temporary housing[††] | 47.9 (38.2–57.5) | 54.8 (41.0–68.5) | Temporary housing | 40.4 (32.6–48.1) | 47.5 (30.5–64.4) |
| **Education** | | | **Sex** | | |
| Primary/Incomplete secondary | 64.2 (47.5–80.9)[§ §§] | 37.5 (29.4–45.7) | Male | 38.7 (29.9–47.6) | 35.3 (30.7–39.9) |
| Complete secondary | 37.5 (28.6–46.1) | 42.7 (38.0–47.4) | Female | 31.1 (21.9–40.4) | 31.0 (25.9–36.1) |
| Technicum/University | 27.3 (16.5–38.1) | 37.2 (31.6–42.7) | | | |
| **Education of husband** | | | **Birth order** | | |
| Primary/Incomplete secondary | [¶¶] | 37.3 (21.7–53.0) | First | 27.8 (16.4–39.3) | 32.4 (27.0–37.8) |
| Complete secondary | 44.1 (35.5–52.7) | 40.7 (35.7–45.8) | Second | 44.2 (32.2–56.2) | 33.1 (28.4–37.8) |
| Technicum/University | 33.4 (23.3–43.5) | 40.0 (35.8–44.1) | Third or later | 33.9 (22.5–45.3) | 34.2 (29.4–39.0) |
| **Employed** | | | **Birthweight** | | |
| Yes | 33.5 (17.9–49.0) | 40.4 (34.2–46.7) | <2,500 g | 35.3 (23.8–46.7) | 40.6 (31.8–49.3) |
| No | 40.2 (31.9–48.5) | 40.1 (35.9–44.2) | ≥2,500 g | 35.0 (27.6–42.3) | 32.1 (28.8–35.4) |
| | | | Don't know | 43.3 (18.8–67.7) | 36.0 (23.3–48.6) |
| **Husband employed** | | | **Birth interval** | | |
| Yes | 31.8 (20.1–43.5) | 41.3 (36.6–46.1) | First birth | 27.8 (16.4–39.3) | 33.4 (27.9–38.8) |
| No | 45.7 (35.8–55.6) | 38.4 (32.7–44.0) | <2 years | 40.6 (27.5–53.7) | 30.1 (24.4–35.6) |
| | | | ≥2 years | 37.8 (26.8–48.8) | 35.4 (30.4–40.2) |
| **Currently pregnant** | | | **Stunted***** | | |
| Yes | 41.1 (21.4–60.8) | 38.0 (24.9–51.2) | Yes | 48.8 (40.6–57.0)[§] | 41.9 (32.7–51.0) |
| No | 38.8 (30.2–47.4) | 40.3 (36.7–43.9) | No | 32.8 (26.3–39.4) | 31.8 (28.3–35.3) |
| **Parity** | | | **Wasting[†††]** | | |
| 1 | 48.0 (30.3–65.8) | 35.1 (28.0–42.1) | Yes | [¶¶] | 47.1 (29.3–64.6) |
| 2 | 43.5 (29.3–57.8) | 40.1 (34.5–45.7) | No | 35.6 (29.9–41.3) | 33.1 (29.8–36.1) |
| 3 | 31.1 (19.0–43.1) | 42.6 (36.5–48.6) | | | |
| ≥4 | 34.4 (24.0–44.8) | 44.7 (33.5–55.9) | | | |
| **Family received humanitarian aid during previous year** | | | **Mother anemic** | | |
| | | | Yes | 46.5 (38.7–54.2)[§] | 41.4 (36.0–46.7)[¶] |
| Yes | 48.2 (38.8–57.6)[§] | N/A[§§§] | No | 27.1 (20.2–33.9) | 28.2 (24.3–32.0) |
| No | 31.2 (21.7–40.6) | N/A | | | |

* Defined as a hemoglobin level of <12.0 g/dL for nonpregnant women, 11.0 g/dL for women 1–12 weeks pregnant, and 10.6, 10.5, 10.5, 10.7, 11.0, 11.4 and 11.9 g/dL, respectively, for women 16, 20, 24, 28, 32, 36, and 40 weeks pregnant. Hemoglobin cutoff levels were <11.0 g/dL for children aged 12–23 months and <11.1 g/dL for those aged 24–59 months.

† Confidence interval.

§ p<0.05 for difference within IDPR/R group for that level of characteristic.

¶ p<0.05 for difference within non-IDPR/R group for that level of characteristic.

** Initially represented by a score based on household amenities and goods (e.g., telephone, indoor toilet, central heat, television, refrigerator, video recorder, automobile, cellular phone, uncrowded living conditions, and recreational home/villa). Scores ranged from zero (i.e., no amenities and goods) to 10 (i.e., all amenities and goods). Respondents with scores of ≤3 were classified as having low SES, and those with scores of ≥4 as having medium-high SES.

†† Includes public buildings (e.g., schools, farms, and factories), nongovernmental shelters, railroad wagons, mud houses, dugouts, and tents.

§§ p<0.05 for difference between IDPR/R and non-IDP/R groups for that level of characteristic.

¶¶ Fewer than 25 cases in this category.

*** Defined as having a height-for-age Z-score <2 standard deviations below the CDC/World Health Organization (WHO) reference.

††† Defined as having a weight-for-height Z-score <2 standard deviations below the CDC/WHO reference.

§§§ Not applicable.

Higher rates of anemia were found among IDP/R mothers receiving humanitarian aid, likely because aid was provided to those groups who were still not self-sufficient and at higher risk for anemia. The higher prevalence of anemia among other subgroups of IDP/R women and children (e.g., those in rural areas or with low SES) indicates the existence of more vulnerable groups within the general population. Special attention should be focused on improving the nutritional status of these groups through targeted interventions such as iron supplementation (*7*). In addition, iron fortification of staple foods like flour is a key public health intervention strategy that would benefit all mothers and children in Azerbaijan (*7*).

Comparing the data from the present study with the 1996 study, by using the earlier 1989 CDC criteria for defining anemia (*9*), indicates no significant change in overall anemia prevalence either among children (43.5% in 1996 versus 35.6% in 2001) or nonpregnant mothers (36.1% in 1996 versus 40.2% in 2001) (*3,4*). The lack of improvement indicates a need to enhance health intervention programs in Azerbaijan by including nutritional counseling, micronutrient supplementation, and fortification of staple foods. Because anemia is more prevalent in younger children, interventions are particularly needed among children aged <24 months, including promotion of 1) exclusive breastfeeding, 2) commercial or in-home fortification of complementary foods, and 3) dietary practices that produce improvement of iron bioavailability.

The findings in this study are subject to at least four limitations. First, the CDC Hb levels used to define anemia are based on data from the National Health and Nutrition Examination Survey of the U.S. population. These levels are higher than World Health Organization (WHO) cutoff levels, which are used primarily for developing countries and might produce overestimates of anemia prevalence. Second, higher inherent variability in capillary blood-sampling techniques used for screening anemia might introduce errors in Hb estimates. Third, enough information on food history and dietary risk factors was not collected to assess whether iron deficiency was caused by low iron intake or other factors. Finally, information on other factors (e.g., inflammation or infection) that might affect Hb levels was not available.

WHO considers anemia prevalence of ≥40% in a population as severe and warranting immediate public health action (*7*); certain subgroups of mothers and children in Azerbaijan had anemia prevalence of >40%. With prevalence at these levels, WHO recommends the following daily iron supplementation regimen: for children aged 6–23 months, 2 mg/kg body weight per day; for children aged 24–59 months, 2 mg/kg body weight up to 30 mg per day for 3 months; for nonpregnant women of child-bearing age, 60 mg/day of iron and 400 $\mu$g of folic acid for 3 months; and for pregnant women, 60 mg/day of iron and 400 $\mu$g of folic acid daily throughout pregnancy.

National efforts to prevent iron deficiency should involve community, government, the private sector (e.g., food industry), and nongovernmental organizations to develop long-term strategies that incorporate behavior modification, food fortification, and integration of iron deficiency–control into ongoing public health programs. Surveillance systems should be implemented to monitor development of these strategies and track the success of interventions.

**Acknowledgments**

This report is based on contributions from U.S. Agency for International Development Azerbaijan; Adventist Development and Relief Agency Azerbaijan; Azerbaijan Republic Ministry of Health. United Nations Population Fund; United Nations High Commissioner for Refugees.

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# West Nile Virus Activity — United States, July 7–13, 2004

During the week of July 7–13, a total of 30 human West Nile virus illness cases were reported from four states (Arizona, California, Colorado, and Iowa). During 2004, a total of 10 states have reported a total of 108 cases of human West Nile virus (WNV) illness to CDC through ArboNET (Table, Figure). Of these, 66 (61%) were reported from Arizona. Sixty-one (58%) of the 108 cases occurred in males; median age of patients was 52 years (range: 1–84 years); dates of illness onset ranged from April 23 to July 5; and three cases were fatal.

A total of 18 presumptive West Nile viremic blood donors (PVDs) have been reported to ArboNET. Of these, 17 were reported from Arizona, and one was reported from New Mexico. Of the 18 PVDs reported to ArboNET, two persons aged 66 and 69 years subsequently had neuroinvasive illness, and four persons aged 22, 51, 52, and 57 years subsequently had West Nile fever.

In addition, during 2004, a total of 1,080 dead corvids and 108 other dead birds with WNV infection have been reported from 29 states, and 42 WNV infections in horses have been reported from 11 states (Alabama, Arizona, California, Idaho, Missouri, North Carolina, Oklahoma, South Dakota, Tennessee, Texas, and Virginia). WNV seroconversions have been reported in 167 sentinel chicken flocks from four states (Arizona, California, Florida, and Louisiana). Three seropositive sentinel horses were reported from Puerto Rico. A total of 362 WNV-positive mosquito pools have been reported from 14 states (Arizona, California, Georgia, Illinois, Indiana, Louisiana, Michigan, Missouri, New Jersey, Ohio, Pennsylvania, Tennessee, Texas, and Virginia).

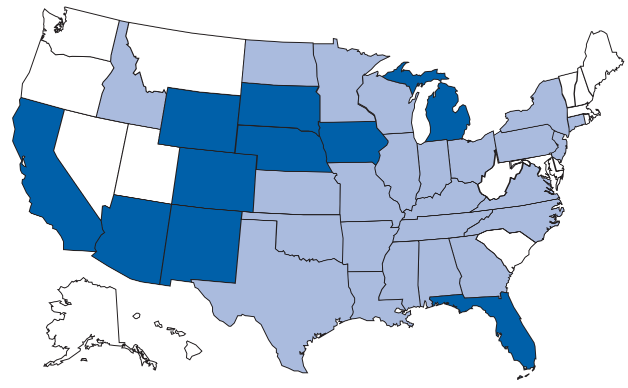
Additional information about national WNV activity is available from CDC at http://www.cdc.gov/ncidod/dvbid/westnile/index.htm and at http://westnilemaps.usgs.gov.

**TABLE. Number of human cases of West Nile virus (WNV) illness, by state — United States, 2004***

| State | Neuroinvasive disease† | West Nile fever§ | Other clinical/ unspecified¶ | Total reported to CDC** | Deaths |
|---|---|---|---|---|---|
| Arizona | 47 | 12 | 7 | **66** | 2 |
| California | 9 | 11 | 0 | **20** | 0 |
| Colorado | 1 | 11 | 0 | **12** | 0 |
| Florida | 1 | 1 | 0 | **2** | 0 |
| Iowa | 1 | 0 | 0 | **1** | 1 |
| Michigan | 1 | 0 | 0 | **1** | 0 |
| Nebraska | 0 | 1 | 0 | **1** | 0 |
| New Mexico | 0 | 3 | 0 | **3** | 0 |
| South Dakota | 1 | 0 | 0 | **1** | 0 |
| Wyoming | 0 | 1 | 0 | **1** | 0 |
| **Total** | **61** | **40** | **7** | **108** | **3** |

* As of July 13, 2004.
† Cases with neurologic manifestations (e.g., West Nile meningitis, West Nile encephalitis, and West Nile myelitis).
§ Cases with no evidence of neuroinvasion.
¶ Illnesses for which sufficient clinical information was not provided.
** Total number of human cases of WNV illness reported to ArboNet by state and local health departments.

**FIGURE. Areas reporting West Nile virus (WNV) activity — United States, 2004***




* As of 3 a.m., Mountain Standard Time, July 13, 2004.

# Update: Investigation of Rabies Infections in Organ Donor and Transplant Recipients — Alabama, Arkansas, Oklahoma, and Texas, 2004

*On July 9, this report was posted as an* MMWR Dispatch *on the* MMWR *website* (http://www.cdc.gov/mmwr).

On July 1, 2004, CDC reported laboratory confirmation of rabies as the cause of encephalitis in an organ donor and three organ recipients at Baylor University Medical Center (BUMC) in Dallas, Texas (*1*). Hospital and public health officials in Alabama, Arkansas, Oklahoma, and Texas initiated public health investigations to identify donor and recipient contacts, assess exposure risks, and provide rabies postexposure prophylaxis (PEP). As of July 9, PEP had been initiated in approximately 174 (19%) of 916 persons who had been assessed for exposures to the organ recipients or the donor. As a result of its public health investigation, the Arkansas Department of Health determined that the donor had reported being bitten by a bat (Frank Wilson, M.D., Arkansas Department of Health, personal communication, 2004).

On July 7, CDC was notified of an additional organ transplant patient at BUMC who had died of encephalopathy of unknown origin in early June. This case was detected as part of an ongoing review of transplant-patient autopsies. The patient, who had end-stage liver disease, had received a liver transplant at BUMC in early May 2004. The patient remained hospitalized with transplant-related complications and began having neurologic abnormalities in early June, progressing to seizure, coma, and death. On July 7, pathologists at BUMC identified intracytoplasmic inclusions, suggestive of rabies, in neurons in multiple areas of the brain.

Specimens from the recipient were sent to CDC on July 7, and direct fluorescent antibody and immunohistochemical staining procedures confirmed the presence of rabies viral antigens in multiple areas of the brain, including the hippocampus, midbrain, pons, medulla, and cerebellum. Similar to the findings with the three previously known rabies-infected transplant recipients, preliminary antigenic characterization of the agent was consistent with a rabies virus variant associated with insectivorous bats. On July 8, CDC laboratory testing of tissues and serum from the donor who provided the liver yielded no evidence of infection with rabies virus.

Review of surgical procedures at BUMC determined that a segment of iliac artery recovered from the donor subsequently determined to have rabies had been stored at the facility for future use in liver transplants. This artery segment subsequently was used in the transplantation of the liver in the most recently identified rabies-infected recipient. Investigation of rabies transmission sources is ongoing, although current evidence suggests that the artery segment originating from the rabies-infected donor likely is the source of the latest rabies infection. Identification of contacts of this liver recipient is under way, and initiation of PEP when indicated or as appropriate is in progress.

**Reference**

1. CDC. Investigation of rabies infections in organ donor and transplant recipients—Alabama, Arkansas, Oklahoma, and Texas, 2004. MMWR 2004;53:586–9.

## Erratum: Vol. 53, No. 26

In the notice to readers, "Updated Recommendations for Use of Pneumococcal Conjugate Vaccine: Reinstatement of the Third Dose," an error occurred on page 590; an incorrect telephone number was provided for the customer service department at Wyeth Vaccines. The correct number is 800-666-7248.

e ncore.

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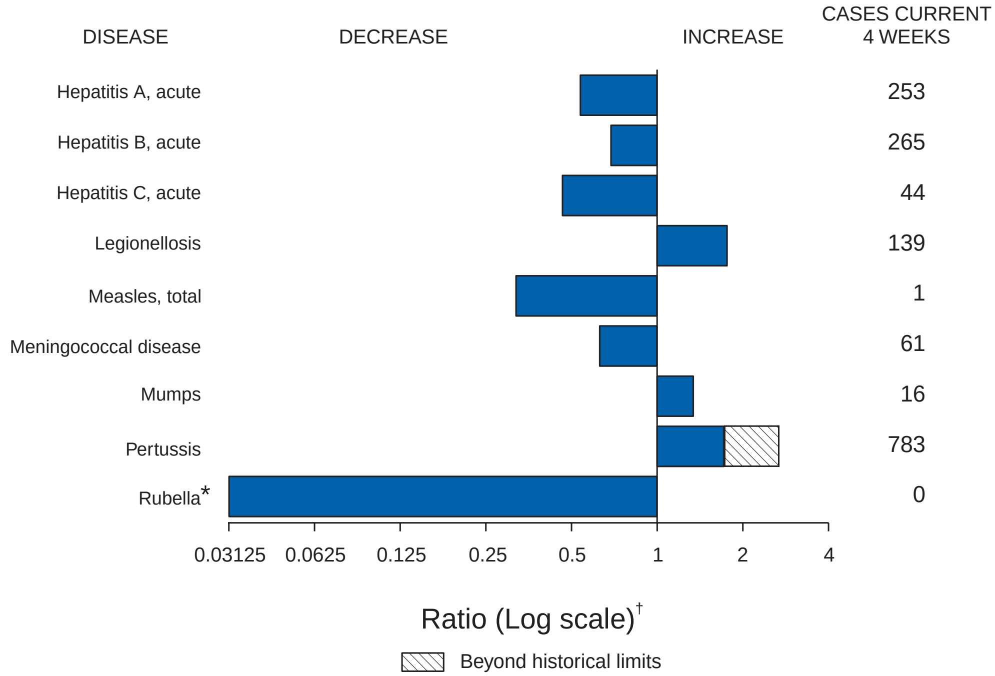
**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals July 10, 2004, with historical data**




* No rubella cases were reported for the current 4-week period yielding a ratio for week 27 of zero (0).
† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

**TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending July 10, 2004 (27th Week)***

| | Cum. 2004 | Cum. 2003 | | Cum. 2004 | Cum. 2003 |
|---|---|---|---|---|---|
| Anthrax | - | - | Hemolytic uremic syndrome, postdiarrheal† | 49 | 63 |
| Botulism: | - | - | HIV infection, pediatric†¶ | 78 | 125 |
| foodborne | 7 | 7 | Measles, total | 15** | 31†† |
| infant | 38 | 33 | Mumps | 106 | 120 |
| other (wound & unspecified) | 5 | 10 | Plague | - | 1 |
| Brucellosis† | 59 | 45 | Poliomyelitis, paralytic | - | - |
| Chancroid | 17 | 29 | Psittacosis† | 4 | 6 |
| Cholera | 2 | 1 | Q fever† | 25 | 42 |
| Cyclosporiasis† | 67 | 33 | Rabies, human | 1 | - |
| Diphtheria | - | - | Rubella | 13 | 6 |
| Ehrlichiosis: | - | - | Rubella, congenital syndrome | - | 1 |
| human granulocytic (HGE)† | 63 | 82 | SARS-associated coronavirus disease† §§ | - | 7 |
| human monocytic (HME)† | 55 | 67 | Smallpox† ¶¶ | - | NA |
| human, other and unspecified | 3 | 14 | *Staphylococcus aureus*: | - | - |
| Encephalitis/Meningitis: | - | - | Vancomycin-intermediate (VISA)† ¶¶ | 4 | NA |
| California serogroup viral† § | 2 | 8 | Vancomycin-resistant (VRSA)† ¶¶ | 1 | 1 |
| eastern equine† § | - | 3 | Streptococcal toxic-shock syndrome† | 61 | 115 |
| Powassan† § | - | - | Tetanus | 6 | 4 |
| St. Louis† § | 1 | 2 | Toxic-shock syndrome | 52 | 71 |
| western equine† § | - | - | Trichinosis | 2 | - |
| Hansen disease (leprosy)† | 38 | 40 | Tularemia† | 31 | 26 |
| Hantavirus pulmonary syndrome† | 7 | 14 | Yellow fever | - | - |

-: No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).
¶ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update May 23, 2004.
** Of 15 cases reported, eight were indigenous, and seven were imported from another country.
†† Of 31 cases reported, 22 were indigenous, and nine 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).
¶¶ Not previously notifiable.

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending July 10, 2004, and July 5, 2003 (27th Week)***

| Reporting area | AIDS | | Chlamydia[†] | | Coccidiodomycosis | | Cryptosporidiosis | | Encephalitis/Meningitis West Nile[§] | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cum. 2004[¶] | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 17,011 | 22,896 | 431,644 | 440,085 | 2,777 | 1,548 | 1,162 | 1,048 | 60 | 40 |
| NEW ENGLAND | 569 | 784 | 14,572 | 14,096 | - | - | 66 | 74 | - | - |
| Maine | 5 | 35 | 1,013 | 975 | N | N | 13 | 6 | - | - |
| N.H. | 23 | 18 | 848 | 800 | - | - | 16 | 10 | - | - |
| Vt. | 13 | 6 | 531 | 518 | - | - | 7 | 13 | - | - |
| Mass. | 150 | 326 | 7,003 | 5,515 | - | - | 19 | 33 | - | - |
| R.I. | 66 | 63 | 1,674 | 1,554 | - | - | 2 | 9 | - | - |
| Conn. | 312 | 336 | 3,503 | 4,734 | N | N | 9 | 3 | - | - |
| MID. ATLANTIC | 3,912 | 5,062 | 55,468 | 54,639 | - | - | 177 | 146 | - | 4 |
| Upstate N.Y. | 453 | 615 | 11,452 | 9,836 | N | N | 47 | 37 | - | - |
| N.Y. City | 2,154 | 2,315 | 16,198 | 18,034 | - | - | 43 | 50 | - | - |
| N.J. | 675 | 929 | 6,307 | 7,973 | - | - | 11 | 9 | - | - |
| Pa. | 630 | 1,203 | 21,511 | 18,796 | N | N | 76 | 50 | - | 4 |
| E.N. CENTRAL | 1,455 | 2,374 | 73,782 | 79,726 | 7 | 3 | 267 | 259 | 1 | 5 |
| Ohio | 237 | 419 | 19,559 | 21,331 | - | - | 76 | 38 | - | 3 |
| Ind. | 166 | 305 | 9,241 | 8,803 | N | N | 37 | 27 | - | 2 |
| Ill. | 700 | 1,118 | 18,084 | 24,946 | - | - | 13 | 38 | - | - |
| Mich. | 269 | 417 | 18,931 | 15,870 | 7 | 3 | 64 | 48 | 1 | - |
| Wis. | 83 | 115 | 7,967 | 8,776 | - | - | 77 | 108 | - | - |
| W.N. CENTRAL | 331 | 410 | 25,880 | 25,184 | 4 | 2 | 165 | 109 | 1 | 5 |
| Minn. | 81 | 77 | 4,781 | 5,497 | N | N | 57 | 44 | - | 1 |
| Iowa | 21 | 45 | 2,311 | 2,833 | N | N | 30 | 18 | - | 2 |
| Mo. | 135 | 203 | 10,253 | 9,107 | 3 | 1 | 24 | 10 | - | - |
| N. Dak. | 12 | 1 | 769 | 801 | N | N | 8 | 7 | - | - |
| S. Dak. | 5 | 6 | 1,281 | 1,247 | - | - | 22 | 21 | 1 | 1 |
| Nebr.** | 18 | 30 | 2,693 | 2,139 | 1 | 1 | 12 | 4 | - | 1 |
| Kans. | 59 | 48 | 3,792 | 3,560 | N | N | 12 | 5 | - | - |
| S. ATLANTIC | 5,282 | 6,438 | 81,978 | 81,899 | - | 3 | 220 | 148 | 1 | 2 |
| Del. | 78 | 133 | 1,472 | 1,587 | N | N | - | 3 | - | - |
| Md. | 601 | 729 | 9,665 | 8,378 | - | 3 | 10 | 8 | - | - |
| D.C. | 308 | 656 | 1,562 | 1,693 | - | - | 3 | 3 | - | - |
| Va. | 288 | 507 | 11,084 | 9,720 | - | - | 24 | 14 | - | - |
| W. Va. | 30 | 49 | 1,437 | 1,284 | N | N | 3 | 3 | - | - |
| N.C. | 305 | 630 | 14,603 | 13,283 | N | N | 38 | 18 | - | - |
| S.C.** | 329 | 435 | 7,657 | 6,788 | - | - | 9 | 2 | - | 1 |
| Ga. | 782 | 953 | 12,863 | 17,704 | - | - | 70 | 55 | - | - |
| Fla. | 2,561 | 2,346 | 21,635 | 21,462 | N | N | 63 | 42 | 1 | 1 |
| E.S. CENTRAL | 782 | 982 | 27,527 | 28,445 | 2 | 1 | 46 | 59 | - | 3 |
| Ky. | 71 | 83 | 2,868 | 4,261 | N | N | 16 | 12 | - | - |
| Tenn.** | 326 | 437 | 11,576 | 10,027 | N | N | 12 | 21 | - | - |
| Ala. | 208 | 249 | 5,358 | 7,721 | - | - | 11 | 23 | - | 3 |
| Miss. | 177 | 213 | 7,725 | 6,436 | 2 | 1 | 7 | 3 | - | - |
| W.S. CENTRAL | 2,047 | 2,352 | 56,093 | 54,807 | 2 | - | 36 | 23 | - | 16 |
| Ark. | 87 | 86 | 3,959 | 3,918 | 1 | - | 11 | 3 | - | - |
| La. | 346 | 400 | 11,986 | 10,688 | 1 | - | - | 1 | - | 5 |
| Okla. | 90 | 109 | 5,933 | 5,502 | N | N | 12 | 5 | - | - |
| Tex. | 1,524 | 1,757 | 34,215 | 34,699 | - | - | 13 | 14 | - | 11 |
| MOUNTAIN | 571 | 886 | 21,719 | 26,084 | 1,721 | 997 | 59 | 51 | 48 | 5 |
| Mont. | - | 10 | 1,054 | 1,111 | N | N | 11 | 12 | - | - |
| Idaho | 3 | 15 | 1,487 | 1,227 | N | N | 5 | 8 | - | - |
| Wyo. | 6 | 5 | 544 | 496 | - | - | 2 | 2 | - | 1 |
| Colo. | 98 | 211 | 4,656 | 6,589 | N | N | 26 | 11 | 1 | 4 |
| N. Mex. | 91 | 62 | 2,586 | 3,900 | 9 | 4 | 2 | 3 | - | - |
| Ariz. | 208 | 392 | 7,673 | 7,775 | 1,668 | 970 | 10 | 3 | 47 | - |
| Utah | 34 | 39 | 1,749 | 1,892 | 15 | 3 | 2 | 9 | - | - |
| Nev. | 131 | 152 | 1,970 | 3,094 | 29 | 20 | 1 | 3 | - | - |
| PACIFIC | 2,062 | 3,608 | 74,625 | 75,205 | 1,041 | 542 | 126 | 179 | 9 | - |
| Wash. | 165 | 247 | 9,106 | 8,081 | N | N | 14 | 14 | - | - |
| Oreg. | 111 | 145 | 4,248 | 3,973 | 1 | - | 16 | 21 | - | - |
| Calif. | 1,731 | 3,144 | 58,051 | 58,434 | 1,040 | 542 | 95 | 144 | 9 | - |
| Alaska | 14 | 13 | 1,891 | 1,975 | - | - | - | - | - | - |
| Hawaii | 41 | 59 | 1,329 | 2,742 | - | - | 1 | - | - | - |
| Guam | 1 | 5 | - | 365 | - | - | - | - | - | - |
| P.R. | 209 | 620 | 1,002 | 1,249 | N | N | N | N | - | - |
| V.I. | 5 | 17 | 143 | 175 | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | 2 | U | 32 | 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 2003 and 2004 are provisional and cumulative (year-to-date).

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

§ Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).

¶ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update May 30, 2004.

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

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 10, 2004, and July 5, 2003 (27th Week)***

| Reporting area | *Escherichia coli*, Enterohemorrhagic (EHEC) | | | | | | Giardiasis | | Gonorrhea | |
|---|---|---|---|---|---|---|---|---|---|---|
| | O157:H7 | | Shiga toxin positive, serogroup non-O157 | | Shiga toxin positive, not serogrouped | | | | | |
| | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 784 | 738 | 90 | 94 | 70 | 58 | 7,418 | 7,977 | 149,130 | 164,203 |
| NEW ENGLAND | 53 | 40 | 26 | 18 | 13 | 2 | 679 | 579 | 3,383 | 3,482 |
| Maine | 2 | 4 | - | - | - | - | 68 | 60 | 131 | 116 |
| N.H. | 10 | 7 | 5 | 2 | - | - | 16 | 22 | 62 | 58 |
| Vt. | 4 | 3 | - | - | 1 | - | 64 | 43 | 44 | 41 |
| Mass. | 25 | 14 | 3 | 6 | 12 | 2 | 301 | 285 | 1,597 | 1,335 |
| R.I. | 5 | 1 | 1 | - | - | - | 54 | 55 | 461 | 474 |
| Conn. | 7 | 11 | 17 | 10 | - | - | 176 | 114 | 1,088 | 1,458 |
| MID. ATLANTIC | 94 | 87 | 11 | 8 | 13 | 13 | 1,674 | 1,673 | 17,500 | 20,866 |
| Upstate N.Y. | 45 | 31 | 6 | 4 | 4 | 6 | 570 | 420 | 3,723 | 3,751 |
| N.Y. City | 13 | 3 | - | - | - | - | 529 | 585 | 5,152 | 6,918 |
| N.J. | 14 | 12 | 3 | 1 | 4 | - | 169 | 237 | 2,531 | 4,455 |
| Pa. | 22 | 41 | 2 | 3 | 5 | 7 | 406 | 431 | 6,094 | 5,742 |
| E.N. CENTRAL | 154 | 193 | 17 | 18 | 9 | 9 | 881 | 1,433 | 29,854 | 34,643 |
| Ohio | 44 | 43 | 4 | 10 | 9 | 9 | 369 | 404 | 9,272 | 11,032 |
| Ind. | 13 | 28 | - | - | - | - | - | - | 3,190 | 3,283 |
| Ill. | 28 | 33 | - | 1 | - | - | 84 | 451 | 7,708 | 10,807 |
| Mich. | 34 | 32 | 3 | - | - | - | 292 | 322 | 7,601 | 6,545 |
| Wis. | 35 | 57 | 10 | 7 | - | - | 136 | 256 | 2,083 | 2,976 |
| W.N. CENTRAL | 164 | 113 | 15 | 17 | 14 | 9 | 878 | 798 | 8,278 | 8,415 |
| Minn. | 33 | 40 | 6 | 8 | 2 | - | 308 | 297 | 1,654 | 1,372 |
| Iowa | 49 | 17 | - | - | - | - | 124 | 109 | 412 | 661 |
| Mo. | 30 | 32 | 9 | 2 | 5 | 1 | 224 | 230 | 4,194 | 4,302 |
| N. Dak. | 4 | 4 | - | 3 | 5 | 2 | 15 | 19 | 60 | 35 |
| S. Dak. | 11 | 6 | - | 3 | - | - | 32 | 21 | 139 | 99 |
| Nebr. | 23 | 5 | - | 1 | - | - | 64 | 56 | 528 | 683 |
| Kans. | 14 | 9 | - | - | 2 | 6 | 111 | 66 | 1,291 | 1,263 |
| S. ATLANTIC | 66 | 55 | 11 | 21 | 13 | 14 | 1,224 | 1,198 | 36,293 | 39,868 |
| Del. | 1 | - | N | N | N | N | 26 | 19 | 472 | 600 |
| Md. | 15 | 3 | 1 | 1 | 1 | 1 | 50 | 55 | 4,167 | 3,892 |
| D.C. | 1 | 1 | - | - | - | - | 33 | 18 | 1,124 | 1,246 |
| Va. | 9 | 17 | 6 | 4 | - | - | 186 | 161 | 4,406 | 4,424 |
| W. Va. | 1 | 2 | - | - | - | - | 14 | 14 | 442 | 433 |
| N.C. | - | - | - | - | 6 | 13 | N | N | 7,837 | 7,478 |
| S.C. | 3 | - | - | - | - | - | 27 | 64 | 3,564 | 3,880 |
| Ga. | 15 | 12 | 2 | 3 | - | - | 344 | 382 | 5,427 | 8,545 |
| Fla. | 21 | 20 | 2 | 13 | 6 | - | 544 | 485 | 8,854 | 9,370 |
| E.S. CENTRAL | 37 | 32 | 1 | - | 7 | 4 | 158 | 166 | 11,737 | 13,824 |
| Ky. | 14 | 10 | 1 | - | 4 | 4 | N | N | 1,259 | 1,793 |
| Tenn. | 8 | 13 | - | - | 3 | - | 74 | 76 | 4,202 | 4,066 |
| Ala. | 8 | 6 | - | - | - | - | 84 | 90 | 3,277 | 4,719 |
| Miss. | 7 | 3 | - | - | - | - | - | - | 2,999 | 3,246 |
| W.S. CENTRAL | 40 | 33 | 1 | 2 | 1 | 3 | 126 | 139 | 20,866 | 22,374 |
| Ark. | 7 | 4 | - | - | - | - | 54 | 75 | 1,934 | 2,123 |
| La. | 2 | 1 | - | - | - | - | 18 | 8 | 5,368 | 6,124 |
| Okla. | 9 | 8 | - | - | - | - | 54 | 56 | 2,456 | 2,105 |
| Tex. | 22 | 20 | 1 | 2 | 1 | 3 | - | - | 11,108 | 12,022 |
| MOUNTAIN | 66 | 79 | 7 | 8 | - | 4 | 599 | 636 | 4,788 | 5,512 |
| Mont. | 3 | 2 | - | - | - | - | 19 | 35 | 36 | 57 |
| Idaho | 18 | 18 | 3 | 5 | - | - | 77 | 75 | 42 | 37 |
| Wyo. | - | 2 | 1 | - | - | - | 9 | 9 | 29 | 24 |
| Colo. | 14 | 23 | 1 | 1 | - | 4 | 197 | 187 | 1,364 | 1,498 |
| N. Mex. | 4 | 2 | - | 2 | - | - | 33 | 25 | 313 | 645 |
| Ariz. | 8 | 16 | N | N | N | N | 89 | 110 | 1,870 | 2,027 |
| Utah | 12 | 11 | 1 | - | - | - | 134 | 133 | 261 | 178 |
| Nev. | 7 | 5 | 1 | - | - | - | 41 | 62 | 873 | 1,046 |
| PACIFIC | 110 | 106 | 1 | 2 | - | - | 1,199 | 1,355 | 16,431 | 15,219 |
| Wash. | 37 | 28 | - | 1 | - | - | 151 | 131 | 1,372 | 1,461 |
| Oreg. | 14 | 19 | 1 | 1 | - | - | 199 | 176 | 553 | 533 |
| Calif. | 51 | 58 | - | - | - | - | 773 | 963 | 13,882 | 12,387 |
| Alaska | 1 | 1 | - | - | - | - | 32 | 42 | 300 | 280 |
| Hawaii | 7 | - | - | - | - | - | 44 | 43 | 324 | 558 |
| Guam | N | N | - | - | - | - | - | - | - | 38 |
| P.R. | - | 1 | - | - | - | - | 13 | 110 | 91 | 143 |
| V.I. | - | - | - | - | - | - | - | - | 49 | 43 |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | U | - | U | - | U | - | U | 3 | U |

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 10, 2004, and July 5, 2003 (27th Week)***

| | *Haemophilus influenzae*, invasive | | | | | | | | Hepatitis (viral, acute), by type | |
|---|---|---|---|---|---|---|---|---|---|---|
| | All ages | | Age <5 years | | | | | | | |
| | All serotypes | | Serotype b | | Non-serotype b | | Unknown serotype | | A | |
| Reporting area | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 1,039 | 1,004 | 9 | 15 | 49 | 70 | 104 | 118 | 2,726 | 3,233 |
| NEW ENGLAND | 95 | 67 | 1 | 1 | 5 | 5 | 3 | 3 | 447 | 143 |
| Maine | 7 | 2 | - | - | - | - | - | 1 | 9 | 5 |
| N.H. | 13 | 7 | - | - | 2 | - | - | - | 10 | 9 |
| Vt. | 5 | 6 | - | - | - | - | 1 | - | 8 | 4 |
| Mass. | 40 | 37 | 1 | 1 | - | 5 | 2 | 1 | 379 | 71 |
| R.I. | 3 | 4 | - | - | - | - | - | 1 | 10 | 11 |
| Conn. | 27 | 11 | - | - | 3 | - | - | - | 31 | 43 |
| MID. ATLANTIC | 219 | 203 | - | 1 | 3 | 2 | 26 | 28 | 303 | 686 |
| Upstate N.Y. | 75 | 70 | - | 1 | 3 | 2 | 3 | 7 | 43 | 57 |
| N.Y. City | 45 | 35 | - | - | - | - | 9 | 6 | 107 | 252 |
| N.J. | 40 | 43 | - | - | - | - | 3 | 7 | 61 | 111 |
| Pa. | 59 | 55 | - | - | - | - | 11 | 8 | 92 | 266 |
| E.N. CENTRAL | 165 | 169 | - | 2 | 6 | 3 | 25 | 32 | 239 | 325 |
| Ohio | 68 | 43 | - | - | 2 | - | 10 | 7 | 27 | 62 |
| Ind. | 32 | 26 | - | - | 4 | - | 1 | 2 | 15 | 28 |
| Ill. | 36 | 65 | - | - | - | - | 8 | 17 | 90 | 94 |
| Mich. | 13 | 13 | - | 2 | - | 3 | 5 | 1 | 85 | 109 |
| Wis. | 16 | 22 | - | - | - | - | 1 | 5 | 22 | 32 |
| W.N. CENTRAL | 64 | 67 | 2 | - | 3 | 6 | 4 | 7 | 101 | 84 |
| Minn. | 27 | 24 | 1 | - | 3 | 6 | - | 1 | 23 | 20 |
| Iowa | 1 | - | 1 | - | - | - | - | - | 30 | 16 |
| Mo. | 21 | 28 | - | - | - | - | 2 | 6 | 30 | 27 |
| N. Dak. | 3 | 2 | - | - | - | - | - | - | 1 | - |
| S. Dak. | - | 1 | - | - | - | - | - | - | 2 | - |
| Nebr. | 5 | 1 | - | - | - | - | - | - | 7 | 7 |
| Kans. | 7 | 11 | - | - | - | - | 2 | - | 8 | 14 |
| S. ATLANTIC | 253 | 197 | - | - | 15 | 8 | 20 | 12 | 521 | 692 |
| Del. | 8 | - | - | - | - | - | 2 | - | 5 | 4 |
| Md. | 41 | 45 | - | - | 3 | 4 | 1 | - | 74 | 68 |
| D.C. | - | - | - | - | - | - | - | - | 4 | 24 |
| Va. | 22 | 23 | - | - | - | - | 1 | 4 | 51 | 43 |
| W. Va. | 10 | 7 | - | - | - | - | 3 | - | 2 | 10 |
| N.C. | 37 | 17 | - | - | 5 | 1 | 1 | 1 | 35 | 33 |
| S.C. | 2 | 2 | - | - | - | - | - | - | 20 | 23 |
| Ga. | 69 | 40 | - | - | - | - | 12 | 4 | 184 | 280 |
| Fla. | 64 | 63 | - | - | 7 | 3 | - | 3 | 146 | 207 |
| E.S. CENTRAL | 37 | 43 | - | 1 | - | 2 | 7 | 4 | 82 | 89 |
| Ky. | 3 | 3 | - | - | - | 1 | - | - | 12 | 17 |
| Tenn. | 23 | 24 | - | - | - | 1 | 5 | 3 | 46 | 48 |
| Ala. | 11 | 16 | - | 1 | - | - | 2 | 1 | 6 | 11 |
| Miss. | - | - | - | - | - | - | - | - | 18 | 13 |
| W.S. CENTRAL | 44 | 49 | 1 | 1 | 4 | 7 | 1 | 4 | 211 | 323 |
| Ark. | 1 | 5 | - | - | - | 1 | - | - | 38 | 19 |
| La. | 7 | 16 | - | - | - | 2 | 1 | 4 | 13 | 30 |
| Okla. | 35 | 26 | - | - | 4 | 4 | - | - | 17 | 6 |
| Tex. | 1 | 2 | 1 | 1 | - | - | - | - | 143 | 268 |
| MOUNTAIN | 122 | 113 | 3 | 6 | 13 | 18 | 13 | 12 | 248 | 239 |
| Mont. | - | - | - | - | - | - | - | - | 4 | 2 |
| Idaho | 5 | 3 | - | - | - | - | 2 | 1 | 10 | 9 |
| Wyo. | - | 1 | - | - | - | - | - | - | 3 | 1 |
| Colo. | 28 | 20 | - | - | - | - | 3 | 4 | 25 | 33 |
| N. Mex. | 24 | 14 | - | - | 4 | 3 | 3 | 1 | 8 | 11 |
| Ariz. | 47 | 60 | - | 6 | 7 | 8 | 1 | 4 | 159 | 133 |
| Utah | 10 | 9 | 2 | - | 1 | 4 | 2 | 2 | 33 | 17 |
| Nev. | 8 | 6 | 1 | - | 1 | 3 | 2 | - | 6 | 33 |
| PACIFIC | 40 | 96 | 2 | 3 | - | 19 | 5 | 16 | 574 | 652 |
| Wash. | 3 | 5 | 2 | - | - | 4 | 1 | 1 | 32 | 35 |
| Oreg. | 26 | 24 | - | - | - | - | 1 | 2 | 40 | 35 |
| Calif. | 3 | 42 | - | 3 | - | 15 | 2 | 8 | 484 | 572 |
| Alaska | 4 | 18 | - | - | - | - | 1 | 5 | 4 | 6 |
| Hawaii | 4 | 7 | - | - | - | - | - | - | 14 | 4 |
| Guam | - | - | - | - | - | - | - | - | - | 1 |
| P.R. | - | - | - | - | - | - | - | - | 10 | 42 |
| 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 2003 and 2004 are provisional and cumulative (year-to-date).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 10, 2004, and July 5, 2003 (27th Week)***

| | Hepatitis (viral, acute), by type | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | B | | C | | Legionellosis | | Listeriosis | | Lyme disease | |
| Reporting area | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 2,992 | 3,484 | 592 | 552 | 638 | 754 | 247 | 277 | 4,701 | 6,455 |
| NEW ENGLAND | 167 | 171 | 4 | 3 | 13 | 28 | 11 | 14 | 552 | 953 |
| Maine | 1 | 1 | - | - | - | 1 | 3 | 2 | 53 | - |
| N.H. | 22 | 11 | - | - | - | 4 | 1 | 2 | 48 | 16 |
| Vt. | 2 | 2 | 1 | 3 | 1 | 1 | - | - | 13 | 9 |
| Mass. | 89 | 118 | 3 | - | 4 | 12 | 2 | 8 | 154 | 636 |
| R.I. | 3 | 4 | - | - | 2 | 2 | 1 | - | 72 | 121 |
| Conn. | 50 | 35 | U | U | 6 | 8 | 4 | 2 | 212 | 171 |
| MID. ATLANTIC | 516 | 422 | 57 | 68 | 152 | 173 | 52 | 50 | 3,430 | 4,482 |
| Upstate N.Y. | 47 | 39 | 6 | 9 | 36 | 40 | 22 | 10 | 1,288 | 1,212 |
| N.Y. City | 51 | 134 | - | - | 11 | 16 | 6 | 11 | - | 83 |
| N.J. | 277 | 110 | - | - | 34 | 22 | 10 | 10 | 919 | 1,426 |
| Pa. | 141 | 139 | 51 | 59 | 71 | 95 | 14 | 19 | 1,223 | 1,761 |
| E.N. CENTRAL | 246 | 269 | 35 | 85 | 165 | 153 | 39 | 35 | 89 | 384 |
| Ohio | 70 | 77 | 3 | 6 | 89 | 77 | 17 | 7 | 38 | 22 |
| Ind. | 8 | 15 | 2 | 3 | 13 | 9 | 8 | 1 | 2 | 7 |
| Ill. | 33 | 34 | 5 | 14 | 10 | 18 | - | 11 | - | 34 |
| Mich. | 135 | 115 | 25 | 58 | 51 | 37 | 13 | 11 | 7 | - |
| Wis. | - | 28 | - | 4 | 2 | 12 | 1 | 5 | 42 | 321 |
| W.N. CENTRAL | 206 | 154 | 201 | 119 | 15 | 34 | 6 | 8 | 97 | 85 |
| Minn. | 21 | 19 | 4 | 3 | 1 | 3 | 2 | 2 | 39 | 53 |
| Iowa | 9 | 4 | - | - | 3 | 5 | 1 | - | 9 | 11 |
| Mo. | 143 | 106 | 197 | 115 | 9 | 16 | 2 | 3 | 41 | 17 |
| N. Dak. | 3 | - | - | - | 1 | 1 | - | - | - | - |
| S. Dak. | - | 2 | - | - | 1 | 1 | - | - | - | - |
| Nebr. | 16 | 14 | - | 1 | - | 2 | 1 | 3 | 5 | 2 |
| Kans. | 14 | 9 | - | - | - | 6 | - | - | 3 | 2 |
| S. ATLANTIC | 944 | 930 | 100 | 84 | 159 | 210 | 36 | 56 | 445 | 423 |
| Del. | 19 | 6 | - | - | 4 | 6 | N | N | 46 | 83 |
| Md. | 81 | 56 | 13 | 6 | 30 | 46 | 4 | 7 | 271 | 269 |
| D.C. | 13 | 1 | 1 | - | 5 | 1 | - | - | 2 | 4 |
| Va. | 111 | 78 | 11 | 2 | 16 | 37 | 6 | 7 | 34 | 21 |
| W. Va. | 4 | 10 | 17 | 1 | 3 | 3 | 1 | 2 | 2 | 3 |
| N.C. | 92 | 95 | 6 | 5 | 15 | 16 | 8 | 10 | 49 | 20 |
| S.C. | 53 | 80 | 7 | 17 | 1 | 5 | - | 2 | 5 | 1 |
| Ga. | 296 | 290 | 7 | 6 | 21 | 19 | 7 | 16 | 7 | 9 |
| Fla. | 275 | 314 | 38 | 47 | 64 | 77 | 10 | 12 | 29 | 13 |
| E.S. CENTRAL | 212 | 225 | 57 | 43 | 28 | 53 | 17 | 10 | 26 | 26 |
| Ky. | 26 | 40 | 16 | 7 | 9 | 22 | 4 | 1 | 11 | 5 |
| Tenn. | 95 | 92 | 25 | 9 | 10 | 17 | 8 | 1 | 9 | 8 |
| Ala. | 33 | 43 | 1 | 5 | 8 | 11 | 3 | 6 | 1 | 1 |
| Miss. | 58 | 50 | 15 | 22 | 1 | 3 | 2 | 2 | 5 | 12 |
| W.S. CENTRAL | 94 | 563 | 74 | 96 | 34 | 35 | 18 | 32 | 13 | 59 |
| Ark. | 28 | 50 | 1 | 3 | - | 2 | 1 | 1 | 2 | - |
| La. | 30 | 76 | 40 | 57 | 3 | 1 | 2 | 1 | 1 | 6 |
| Okla. | 19 | 34 | 2 | 1 | 2 | 4 | - | 1 | - | - |
| Tex. | 17 | 403 | 31 | 35 | 29 | 28 | 15 | 29 | 10 | 53 |
| MOUNTAIN | 254 | 306 | 29 | 20 | 38 | 35 | 11 | 17 | 10 | 5 |
| Mont. | 2 | 8 | 2 | 1 | 1 | 2 | - | 1 | - | - |
| Idaho | 6 | 4 | - | 1 | 4 | 3 | 1 | - | 2 | 2 |
| Wyo. | 7 | 18 | 4 | - | 4 | 2 | - | - | 2 | - |
| Colo. | 21 | 46 | 4 | 5 | 5 | 7 | 3 | 6 | - | - |
| N. Mex. | 10 | 23 | 6 | - | - | 2 | - | 2 | - | 1 |
| Ariz. | 145 | 147 | 3 | 4 | 10 | 9 | - | 5 | 1 | - |
| Utah | 28 | 20 | 2 | - | 12 | 7 | 1 | 2 | 5 | 1 |
| Nev. | 35 | 40 | 8 | 9 | 2 | 3 | 6 | 1 | - | 1 |
| PACIFIC | 353 | 444 | 35 | 34 | 34 | 33 | 57 | 55 | 39 | 38 |
| Wash. | 28 | 36 | 10 | 11 | 6 | 4 | 6 | 3 | 3 | - |
| Oreg. | 53 | 69 | 9 | 5 | N | N | 4 | 2 | 16 | 8 |
| Calif. | 258 | 325 | 13 | 17 | 28 | 29 | 46 | 47 | 20 | 29 |
| Alaska | 12 | 3 | - | - | - | - | - | - | - | 1 |
| Hawaii | 2 | 11 | 3 | 1 | - | - | 1 | 3 | N | N |
| Guam | - | 3 | - | 1 | - | - | - | - | - | - |
| P.R. | 19 | 70 | - | - | 1 | - | - | - | N | N |
| V.I. | - | - | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | - | U | - | U | - | U | - | U | - | U |

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 10, 2004, and July 5, 2003 (27th Week)***

| Reporting area | Malaria | | Meningococcal disease | | Pertussis | | Rabies, animal | | Rocky Mountain spotted fever | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 536 | 510 | 798 | 1,010 | 4,690 | 3,646 | 2,487 | 3,593 | 392 | 254 |
| NEW ENGLAND | 43 | 14 | 38 | 47 | 658 | 379 | 263 | 241 | 10 | 3 |
| Maine | 5 | 1 | 8 | 5 | 2 | 4 | 29 | 22 | - | - |
| N.H. | - | 2 | 3 | 3 | 24 | 22 | 10 | 10 | - | - |
| Vt. | 3 | - | 1 | - | 40 | 31 | 10 | 16 | - | - |
| Mass. | 20 | 11 | 21 | 30 | 564 | 296 | 106 | 93 | 9 | 3 |
| R.I. | 2 | - | 1 | 2 | 16 | 7 | 15 | 30 | 1 | - |
| Conn. | 13 | - | 4 | 7 | 12 | 19 | 93 | 70 | - | - |
| MID. ATLANTIC | 122 | 123 | 96 | 124 | 1,201 | 367 | 232 | 433 | 27 | 18 |
| Upstate N.Y. | 19 | 24 | 23 | 27 | 875 | 149 | 199 | 166 | 1 | - |
| N.Y. City | 56 | 61 | 17 | 29 | 73 | 54 | 4 | 5 | 4 | 6 |
| N.J. | 22 | 21 | 21 | 18 | 96 | 65 | - | 62 | 9 | 9 |
| Pa. | 25 | 17 | 35 | 50 | 157 | 99 | 29 | 200 | 13 | 3 |
| E.N. CENTRAL | 41 | 53 | 109 | 161 | 681 | 281 | 24 | 41 | 16 | 7 |
| Ohio | 15 | 10 | 44 | 43 | 225 | 114 | 9 | 16 | 8 | 3 |
| Ind. | 3 | 1 | 15 | 27 | 48 | 28 | 4 | 2 | 5 | - |
| Ill. | 3 | 26 | 12 | 46 | 132 | 20 | 9 | 6 | - | 2 |
| Mich. | 13 | 13 | 31 | 25 | 61 | 31 | 2 | 15 | 3 | 2 |
| Wis. | 7 | 3 | 7 | 20 | 215 | 88 | - | 2 | - | - |
| W.N. CENTRAL | 36 | 24 | 56 | 76 | 375 | 160 | 249 | 364 | 45 | 16 |
| Minn. | 18 | 12 | 14 | 17 | 75 | 56 | 26 | 15 | - | - |
| Iowa | 1 | 3 | 11 | 15 | 33 | 41 | 38 | 46 | - | 2 |
| Mo. | 7 | 3 | 17 | 30 | 178 | 31 | 15 | 3 | 38 | 12 |
| N. Dak. | 2 | - | 1 | 1 | 54 | 2 | 35 | 34 | - | - |
| S. Dak. | 1 | 1 | 2 | 1 | 9 | 2 | 10 | 77 | - | - |
| Nebr. | 2 | - | 2 | 5 | 3 | 3 | 53 | 69 | 6 | 2 |
| Kans. | 5 | 5 | 9 | 7 | 23 | 25 | 72 | 120 | 1 | - |
| S. ATLANTIC | 148 | 121 | 152 | 174 | 287 | 251 | 911 | 1,448 | 165 | 156 |
| Del. | 3 | - | 9 | 8 | 5 | 2 | 9 | 23 | - | - |
| Md. | 30 | 32 | 7 | 17 | 58 | 37 | 50 | 217 | 19 | 45 |
| D.C. | 8 | 7 | 4 | 3 | 2 | - | - | - | - | - |
| Va. | 12 | 8 | 10 | 18 | 85 | 58 | 233 | 284 | 7 | 3 |
| W. Va. | - | 4 | 4 | 1 | 5 | 5 | 32 | 45 | 1 | 3 |
| N.C. | 9 | 8 | 23 | 19 | 46 | 74 | 347 | 415 | 110 | 60 |
| S.C. | 7 | 3 | 12 | 14 | 26 | 15 | 75 | 84 | 8 | 9 |
| Ga. | 26 | 27 | 10 | 19 | 8 | 20 | 159 | 192 | 11 | 32 |
| Fla. | 53 | 32 | 73 | 75 | 52 | 40 | 6 | 188 | 9 | 4 |
| E.S. CENTRAL | 18 | 9 | 34 | 46 | 58 | 81 | 65 | 114 | 53 | 42 |
| Ky. | 1 | 1 | 4 | 8 | 11 | 18 | 13 | 21 | - | - |
| Tenn. | 3 | 4 | 10 | 12 | 30 | 44 | 21 | 80 | 25 | 25 |
| Ala. | 11 | 2 | 10 | 12 | 11 | 12 | 28 | 12 | 14 | 4 |
| Miss. | 3 | 2 | 10 | 14 | 6 | 7 | 3 | 1 | 14 | 13 |
| W.S. CENTRAL | 48 | 64 | 80 | 118 | 276 | 251 | 593 | 765 | 64 | 8 |
| Ark. | 6 | 4 | 12 | 10 | 9 | 12 | 28 | 25 | 34 | - |
| La. | 2 | 2 | 22 | 31 | 6 | 7 | - | 1 | 3 | - |
| Okla. | 2 | 2 | 4 | 10 | 17 | 24 | 70 | 134 | 27 | 2 |
| Tex. | 38 | 56 | 42 | 67 | 244 | 208 | 495 | 605 | - | 6 |
| MOUNTAIN | 19 | 16 | 35 | 53 | 519 | 539 | 58 | 77 | 8 | 4 |
| Mont. | - | - | 3 | 2 | 14 | 1 | 8 | 11 | 2 | 1 |
| Idaho | 1 | 1 | 4 | 6 | 18 | 34 | - | 3 | 1 | 1 |
| Wyo. | - | - | 2 | 2 | 3 | 119 | - | 1 | 1 | 2 |
| Colo. | 6 | 11 | 9 | 12 | 264 | 187 | 9 | 11 | - | - |
| N. Mex. | 1 | - | 5 | 7 | 64 | 33 | 2 | 5 | 1 | - |
| Ariz. | 4 | 2 | 6 | 20 | 109 | 96 | 39 | 40 | 1 | - |
| Utah | 5 | 1 | 3 | - | 37 | 51 | - | 4 | 2 | - |
| Nev. | 2 | 1 | 3 | 4 | 10 | 18 | - | 2 | - | - |
| PACIFIC | 61 | 86 | 198 | 211 | 635 | 1,337 | 92 | 110 | 4 | - |
| Wash. | 4 | 12 | 19 | 17 | 341 | 297 | - | - | - | - |
| Oreg. | 9 | 7 | 41 | 33 | 243 | 247 | 2 | 4 | 2 | - |
| Calif. | 47 | 64 | 133 | 148 | 35 | 786 | 82 | 101 | 2 | - |
| Alaska | - | - | 1 | 4 | 8 | 1 | 8 | 5 | - | - |
| Hawaii | 1 | 3 | 4 | 9 | 8 | 6 | - | - | - | - |
| Guam | - | - | - | - | - | 1 | - | - | - | - |
| P.R. | - | - | 4 | 6 | 2 | 1 | 30 | 35 | 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 2003 and 2004 are provisional and cumulative (year-to-date).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 10, 2004, and July 5, 2003 (27th Week)***

| Reporting area | Salmonellosis | | Shigellosis | | Streptococcal disease, invasive, group A | | *Streptococcus pneumoniae*, invasive: Drug resistant, all ages | | *Streptococcus pneumoniae*, invasive: Age <5 years | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 14,478 | 16,830 | 5,141 | 11,623 | 2,827 | 3,713 | 1,279 | 1,259 | 320 | 438 |
| NEW ENGLAND | 722 | 855 | 120 | 146 | 134 | 341 | 15 | 67 | 7 | 5 |
| Maine | 37 | 55 | 2 | 6 | 6 | 20 | 2 | - | 1 | - |
| N.H. | 44 | 58 | 5 | 4 | 15 | 21 | - | - | N | N |
| Vt. | 24 | 31 | 2 | 5 | 8 | 16 | 7 | 6 | 1 | 2 |
| Mass. | 416 | 506 | 75 | 95 | 88 | 147 | N | N | N | N |
| R.I. | 48 | 40 | 8 | 4 | 17 | 5 | 6 | 10 | 5 | 3 |
| Conn. | 153 | 165 | 28 | 32 | - | 132 | - | 51 | U | U |
| MID. ATLANTIC | 1,831 | 1,994 | 604 | 1,197 | 457 | 651 | 95 | 82 | 68 | 65 |
| Upstate N.Y. | 472 | 419 | 295 | 160 | 160 | 240 | 46 | 41 | 48 | 47 |
| N.Y. City | 514 | 539 | 170 | 194 | 67 | 92 | U | U | U | U |
| N.J. | 303 | 356 | 87 | 201 | 90 | 130 | - | - | 2 | 2 |
| Pa. | 542 | 680 | 52 | 642 | 140 | 189 | 49 | 41 | 18 | 16 |
| E.N. CENTRAL | 1,794 | 2,493 | 361 | 994 | 571 | 909 | 312 | 282 | 94 | 188 |
| Ohio | 551 | 627 | 80 | 167 | 159 | 211 | 227 | 188 | 56 | 65 |
| Ind. | 188 | 233 | 87 | 65 | 69 | 80 | 83 | 94 | 21 | 16 |
| Ill. | 321 | 969 | 87 | 552 | 127 | 234 | - | - | - | 73 |
| Mich. | 391 | 337 | 54 | 139 | 189 | 265 | 2 | - | N | N |
| Wis. | 343 | 327 | 53 | 71 | 27 | 119 | N | N | 17 | 34 |
| W.N. CENTRAL | 1,105 | 973 | 183 | 363 | 194 | 227 | 10 | 9 | 42 | 50 |
| Minn. | 247 | 238 | 23 | 45 | 97 | 110 | - | - | 31 | 34 |
| Iowa | 220 | 164 | 38 | 23 | N | N | N | N | N | N |
| Mo. | 319 | 321 | 78 | 189 | 41 | 49 | 7 | 6 | 4 | 2 |
| N. Dak. | 19 | 21 | 2 | 5 | 9 | 10 | - | 3 | 1 | 4 |
| S. Dak. | 50 | 36 | 7 | 8 | 8 | 18 | 3 | - | - | - |
| Nebr. | 72 | 69 | 8 | 60 | 10 | 20 | - | - | 4 | 5 |
| Kans. | 178 | 124 | 27 | 33 | 29 | 20 | N | N | 2 | 5 |
| S. ATLANTIC | 3,390 | 3,779 | 1,348 | 3,630 | 555 | 608 | 648 | 669 | 11 | 12 |
| Del. | 18 | 44 | 3 | 144 | 3 | 6 | 4 | 1 | N | N |
| Md. | 307 | 371 | 56 | 280 | 117 | 153 | - | 4 | - | - |
| D.C. | 17 | 15 | 20 | 31 | 5 | 5 | 3 | - | 3 | 4 |
| Va. | 380 | 376 | 59 | 197 | 43 | 77 | N | N | N | N |
| W. Va. | 68 | 43 | - | - | 16 | 27 | 73 | 40 | 8 | 8 |
| N.C. | 389 | 508 | 138 | 449 | 84 | 66 | N | N | U | U |
| S.C. | 208 | 192 | 185 | 227 | 35 | 30 | 54 | 100 | N | N |
| Ga. | 547 | 636 | 311 | 770 | 115 | 121 | 150 | 151 | N | N |
| Fla. | 1,456 | 1,594 | 576 | 1,532 | 137 | 123 | 364 | 373 | N | N |
| E.S. CENTRAL | 913 | 1,041 | 289 | 507 | 134 | 129 | 77 | 92 | - | - |
| Ky. | 153 | 170 | 39 | 58 | 45 | 34 | 20 | 11 | N | N |
| Tenn. | 217 | 323 | 109 | 179 | 89 | 95 | 57 | 81 | N | N |
| Ala. | 252 | 250 | 111 | 161 | - | - | - | - | N | N |
| Miss. | 291 | 298 | 30 | 109 | - | - | - | - | - | - |
| W.S. CENTRAL | 1,294 | 2,411 | 1,186 | 3,233 | 160 | 172 | 34 | 50 | 67 | 68 |
| Ark. | 226 | 248 | 33 | 51 | 9 | 5 | 6 | 17 | 7 | 4 |
| La. | 196 | 334 | 125 | 260 | 1 | 1 | 28 | 33 | 8 | 14 |
| Okla. | 154 | 158 | 261 | 467 | 43 | 55 | N | N | 30 | 31 |
| Tex. | 718 | 1,671 | 767 | 2,455 | 107 | 111 | N | N | 22 | 19 |
| MOUNTAIN | 1,027 | 994 | 375 | 473 | 335 | 324 | 19 | 4 | 31 | 50 |
| Mont. | 64 | 49 | 4 | 2 | - | 1 | - | - | - | - |
| Idaho | 70 | 93 | 6 | 11 | 5 | 12 | N | N | N | N |
| Wyo. | 23 | 48 | 1 | 1 | 6 | 1 | 5 | 3 | - | - |
| Colo. | 249 | 246 | 64 | 72 | 85 | 85 | - | - | 28 | 38 |
| N. Mex. | 102 | 97 | 59 | 100 | 59 | 83 | 5 | - | - | 8 |
| Ariz. | 339 | 287 | 201 | 236 | 151 | 121 | N | N | N | N |
| Utah | 105 | 97 | 20 | 24 | 28 | 20 | 7 | 1 | 3 | 4 |
| Nev. | 75 | 77 | 20 | 27 | 1 | 1 | 2 | - | - | - |
| PACIFIC | 2,402 | 2,290 | 675 | 1,080 | 287 | 352 | 69 | 4 | - | - |
| Wash. | 241 | 266 | 56 | 87 | 34 | 29 | - | - | N | N |
| Oreg. | 195 | 206 | 34 | 49 | N | N | N | N | N | N |
| Calif. | 1,740 | 1,676 | 558 | 923 | 203 | 259 | N | N | N | N |
| Alaska | 37 | 48 | 4 | 4 | - | - | - | - | N | N |
| Hawaii | 189 | 94 | 23 | 17 | 50 | 64 | 69 | 4 | - | - |
| Guam | - | 24 | - | 22 | - | - | - | - | - | - |
| P.R. | 81 | 296 | 1 | 5 | N | N | N | N | N | N |
| V.I. | - | - | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | 3 | U | - | U | - | U | - | U | - | U |

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

**TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending July 10, 2004, and July 5, 2003 (27th Week)***

| | Syphilis | | | | Tuberculosis | | Typhoid fever | | Varicella (Chickenpox) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Primary & secondary | | Congenital | | | | | | | |
| Reporting area | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 | Cum. 2004 | Cum. 2003 |
| UNITED STATES | 3,622 | 3,624 | 168 | 238 | 4,751 | 6,222 | 120 | 161 | 8,723 | 9,737 |
| NEW ENGLAND | 98 | 112 | 1 | - | 188 | 208 | 13 | 17 | 583 | 2,126 |
| Maine | 2 | 4 | - | - | - | 11 | - | - | 179 | 634 |
| N.H. | 3 | 13 | - | - | 8 | 10 | - | 1 | - | - |
| Vt. | - | - | - | - | - | 5 | - | - | 404 | 483 |
| Mass. | 64 | 71 | - | - | 118 | 98 | 11 | 9 | - | 104 |
| R.I. | 14 | 12 | - | - | 17 | 26 | 1 | 2 | - | 3 |
| Conn. | 15 | 12 | 1 | - | 45 | 58 | 1 | 5 | - | 902 |
| MID. ATLANTIC | 516 | 419 | 28 | 38 | 1,001 | 1,103 | 30 | 25 | 33 | 12 |
| Upstate N.Y. | 45 | 17 | 2 | 5 | 116 | 118 | 3 | 3 | - | - |
| N.Y. City | 269 | 237 | 9 | 21 | 533 | 599 | 8 | 13 | - | - |
| N.J. | 83 | 81 | 17 | 12 | 204 | 200 | 9 | 8 | - | - |
| Pa. | 119 | 84 | - | - | 148 | 186 | 10 | 1 | 33 | 12 |
| E.N. CENTRAL | 387 | 506 | 33 | 42 | 567 | 575 | 6 | 19 | 3,837 | 3,716 |
| Ohio | 119 | 107 | 1 | 2 | 104 | 96 | 2 | - | 997 | 920 |
| Ind. | 29 | 24 | 8 | 8 | 71 | 67 | - | 4 | - | - |
| Ill. | 121 | 216 | 2 | 16 | 250 | 271 | - | 8 | - | - |
| Mich. | 104 | 148 | 22 | 16 | 105 | 110 | 3 | 7 | 2,493 | 2,233 |
| Wis. | 14 | 11 | - | - | 37 | 31 | 1 | - | 347 | 563 |
| W.N. CENTRAL | 73 | 93 | 1 | 4 | 216 | 234 | 3 | 4 | 117 | 39 |
| Minn. | 12 | 31 | - | - | 82 | 88 | 2 | 2 | - | - |
| Iowa | 4 | 7 | - | - | 19 | 12 | - | 1 | N | N |
| Mo. | 37 | 31 | - | 4 | 61 | 64 | 1 | 1 | 2 | - |
| N. Dak. | - | - | - | - | 3 | - | - | - | 72 | 39 |
| S. Dak. | - | 1 | - | - | 5 | 13 | - | - | 43 | - |
| Nebr. | 4 | 3 | - | - | 15 | 10 | - | - | - | - |
| Kans. | 16 | 20 | 1 | - | 31 | 47 | - | - | - | - |
| S. ATLANTIC | 958 | 958 | 21 | 47 | 906 | 1,187 | 23 | 30 | 1,440 | 1,394 |
| Del. | 3 | 4 | 1 | - | - | - | - | - | 4 | 15 |
| Md. | 185 | 152 | 3 | 8 | 128 | 115 | 5 | 7 | - | - |
| D.C. | 38 | 29 | 1 | - | - | - | - | - | 17 | 18 |
| Va. | 54 | 43 | 1 | 1 | 105 | 110 | 3 | 11 | 355 | 350 |
| W. Va. | 2 | 1 | - | - | 12 | 10 | - | - | 847 | 846 |
| N.C. | 85 | 87 | 4 | 9 | 125 | 145 | 3 | 5 | N | N |
| S.C. | 53 | 59 | 1 | 4 | 104 | 83 | - | - | 217 | 165 |
| Ga. | 147 | 257 | 1 | 12 | 11 | 264 | 9 | 3 | - | - |
| Fla. | 391 | 326 | 9 | 13 | 421 | 460 | 3 | 4 | - | - |
| E.S. CENTRAL | 201 | 170 | 11 | 8 | 300 | 330 | 4 | 2 | 2 | - |
| Ky. | 24 | 21 | 1 | 1 | 54 | 59 | 2 | - | - | - |
| Tenn. | 75 | 70 | 5 | 2 | 106 | 101 | 2 | 1 | - | - |
| Ala. | 84 | 63 | 3 | 4 | 107 | 117 | - | 1 | - | - |
| Miss. | 18 | 16 | 2 | 1 | 33 | 53 | - | - | 2 | - |
| W.S. CENTRAL | 586 | 418 | 28 | 37 | 314 | 968 | 7 | 11 | 1,168 | 2,105 |
| Ark. | 20 | 24 | - | 1 | 63 | 49 | - | - | - | - |
| La. | 107 | 56 | - | - | - | - | - | - | 42 | 9 |
| Okla. | 18 | 25 | 2 | 1 | 75 | 69 | - | - | - | - |
| Tex. | 441 | 313 | 26 | 35 | 176 | 850 | 7 | 11 | 1,126 | 2,096 |
| MOUNTAIN | 181 | 158 | 30 | 23 | 200 | 190 | 5 | 4 | 1,543 | 345 |
| Mont. | - | - | - | - | 4 | - | - | - | - | - |
| Idaho | 13 | 4 | 2 | - | - | 3 | - | - | - | - |
| Wyo. | 1 | - | - | - | 1 | 2 | - | - | 21 | 37 |
| Colo. | 19 | 21 | - | 3 | 50 | 45 | 1 | 3 | 1,157 | - |
| N. Mex. | 26 | 32 | 1 | 4 | 13 | 28 | - | - | 67 | - |
| Ariz. | 109 | 93 | 27 | 16 | 110 | 76 | 2 | 1 | - | - |
| Utah | 3 | 2 | - | - | 22 | 15 | 1 | - | 298 | 308 |
| Nev. | 10 | 6 | - | - | - | 21 | 1 | - | - | - |
| PACIFIC | 622 | 790 | 15 | 39 | 1,059 | 1,427 | 29 | 49 | - | - |
| Wash. | 51 | 38 | - | - | 122 | 114 | 2 | 2 | - | - |
| Oreg. | 16 | 25 | - | - | 34 | 55 | 1 | 2 | - | - |
| Calif. | 552 | 720 | 15 | 39 | 828 | 1,179 | 20 | 45 | - | - |
| Alaska | - | 1 | - | - | 15 | 28 | - | - | - | - |
| Hawaii | 3 | 6 | - | - | 60 | 51 | 6 | - | - | - |
| Guam | - | 1 | - | - | - | 30 | - | - | - | 84 |
| P.R. | 54 | 107 | 2 | 8 | 14 | 49 | - | - | 150 | 285 |
| V.I. | 4 | 1 | - | - | - | - | - | - | - | - |
| Amer. Samoa | U | U | U | U | U | U | U | U | U | U |
| C.N.M.I. | 2 | U | - | U | 10 | U | - | U | - | U |

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

**TABLE III. Deaths in 122 U.S. cities,* week ending July 10, 2004 (27th Week)**

| Reporting Area | All causes, by age (years) | | | | | | P&I† |
|---|---|---|---|---|---|---|---|
| | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | Total |
| NEW ENGLAND | 411 | 291 | 78 | 27 | 9 | 6 | 35 |
| Boston, Mass. | 113 | 72 | 19 | 13 | 3 | 6 | 8 |
| Bridgeport, Conn. | 42 | 32 | 6 | 2 | 2 | - | 2 |
| Cambridge, Mass. | 15 | 13 | 1 | 1 | - | - | 1 |
| Fall River, Mass. | 18 | 15 | 1 | 1 | 1 | - | 2 |
| Hartford, Conn. | U | U | U | U | U | U | U |
| Lowell, Mass. | 26 | 20 | 5 | 1 | - | - | 4 |
| Lynn, Mass. | 10 | 8 | 2 | - | - | - | - |
| New Bedford, Mass. | 28 | 21 | 5 | 1 | 1 | - | 4 |
| New Haven, Conn. | U | U | U | U | U | U | U |
| Providence, R.I. | 48 | 38 | 8 | 2 | - | - | 3 |
| Somerville, Mass. | 2 | 1 | 1 | - | - | - | - |
| Springfield, Mass. | 26 | 14 | 11 | - | 1 | - | 1 |
| Waterbury, Conn. | 27 | 21 | 5 | 1 | - | - | 3 |
| Worcester, Mass. | 56 | 36 | 14 | 5 | 1 | - | 7 |
| MID. ATLANTIC | 2,003 | 1,408 | 402 | 124 | 43 | 25 | 101 |
| Albany, N.Y. | 45 | 32 | 8 | 3 | 2 | - | 5 |
| Allentown, Pa. | 27 | 25 | 1 | 1 | - | - | 1 |
| Buffalo, N.Y. | 95 | 70 | 17 | 6 | - | 2 | 5 |
| Camden, N.J. | 23 | 17 | 2 | 1 | 2 | 1 | - |
| Elizabeth, N.J. | 11 | 7 | 4 | - | - | - | 1 |
| Erie, Pa. | 28 | 20 | 6 | 1 | 1 | - | 1 |
| Jersey City, N.J. | 41 | 26 | 10 | 1 | 3 | 1 | - |
| New York City, N.Y. | 1,021 | 734 | 195 | 61 | 19 | 11 | 41 |
| Newark, N.J. | 45 | 21 | 16 | 6 | 2 | - | 1 |
| Paterson, N.J. | 23 | 9 | 9 | 1 | 3 | 1 | - |
| Philadelphia, Pa. | 328 | 212 | 80 | 23 | 6 | 7 | 13 |
| Pittsburgh, Pa.§ | 23 | 15 | 5 | 1 | 1 | 1 | 3 |
| Reading, Pa. | 14 | 9 | 4 | 1 | - | - | - |
| Rochester, N.Y. | 119 | 91 | 19 | 7 | 2 | - | 17 |
| Schenectady, N.Y. | 21 | 16 | 3 | 2 | - | - | 1 |
| Scranton, Pa. | 26 | 23 | 3 | - | - | - | 1 |
| Syracuse, N.Y. | 56 | 41 | 9 | 4 | 1 | 1 | 4 |
| Trenton, N.J. | 18 | 9 | 6 | 3 | - | - | 1 |
| Utica, N.Y. | 22 | 18 | 2 | 2 | - | - | 5 |
| Yonkers, N.Y. | 17 | 13 | 3 | - | 1 | - | 1 |
| E.N. CENTRAL | 1,616 | 1,084 | 346 | 87 | 57 | 41 | 109 |
| Akron, Ohio | 42 | 30 | 8 | 2 | 2 | - | 5 |
| Canton, Ohio | 33 | 26 | 7 | - | - | - | 3 |
| Chicago, Ill. | 269 | 143 | 76 | 24 | 16 | 9 | 14 |
| Cincinnati, Ohio | 58 | 44 | 9 | 1 | 3 | 1 | 4 |
| Cleveland, Ohio | 179 | 129 | 36 | 11 | 3 | - | 6 |
| Columbus, Ohio | 169 | 112 | 37 | 7 | 5 | 8 | 13 |
| Dayton, Ohio | 93 | 67 | 16 | 7 | 3 | - | 11 |
| Detroit, Mich. | 165 | 89 | 59 | 8 | 6 | 3 | 16 |
| Evansville, Ind. | 31 | 24 | 5 | 1 | - | 1 | 1 |
| Fort Wayne, Ind. | 56 | 34 | 11 | 3 | 6 | 2 | 1 |
| Gary, Ind. | 7 | 5 | 2 | - | - | - | - |
| Grand Rapids, Mich. | 46 | 37 | 4 | 3 | 1 | 1 | 3 |
| Indianapolis, Ind. | 168 | 105 | 39 | 9 | 5 | 10 | 8 |
| Lansing, Mich. | 30 | 27 | 2 | - | - | 1 | 5 |
| Milwaukee, Wis. | 75 | 55 | 12 | 1 | 4 | 3 | 7 |
| Peoria, Ill. | 39 | 32 | 4 | 2 | - | 1 | 4 |
| Rockford, Ill. | U | U | U | U | U | U | U |
| South Bend, Ind. | 27 | 19 | 3 | 2 | 3 | - | 1 |
| Toledo, Ohio | 83 | 67 | 10 | 5 | - | 1 | 3 |
| Youngstown, Ohio | 46 | 39 | 6 | 1 | - | - | 4 |
| W.N. CENTRAL | 528 | 323 | 129 | 41 | 20 | 14 | 28 |
| Des Moines, Iowa | 69 | 43 | 19 | 3 | 2 | 2 | 1 |
| Duluth, Minn. | 31 | 27 | 4 | - | - | - | 3 |
| Kansas City, Kans. | 20 | 12 | 7 | - | 1 | - | 2 |
| Kansas City, Mo. | 65 | 42 | 15 | 4 | 1 | 3 | 1 |
| Lincoln, Nebr. | 24 | 18 | 5 | 1 | - | - | 2 |
| Minneapolis, Minn. | 48 | 30 | 13 | 3 | 1 | 1 | 4 |
| Omaha, Nebr. | 58 | 39 | 14 | 4 | - | 1 | 5 |
| St. Louis, Mo. | 90 | 38 | 25 | 12 | 10 | 4 | 5 |
| St. Paul, Minn. | 48 | 29 | 9 | 7 | 2 | 1 | 1 |
| Wichita, Kans. | 75 | 45 | 18 | 7 | 3 | 2 | 4 |

| Reporting Area | All causes, by age (years) | | | | | | P&I† |
|---|---|---|---|---|---|---|---|
| | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | Total |
| S. ATLANTIC | 1,055 | 616 | 281 | 95 | 29 | 34 | 34 |
| Atlanta, Ga. | 203 | 110 | 56 | 26 | 5 | 6 | 3 |
| Baltimore, Md. | 133 | 78 | 36 | 13 | 5 | 1 | 7 |
| Charlotte, N.C. | 76 | 48 | 13 | 9 | 2 | 4 | 6 |
| Jacksonville, Fla. | 131 | 78 | 37 | 11 | 5 | - | 1 |
| Miami, Fla. | 77 | 54 | 11 | 11 | 1 | - | 3 |
| Norfolk, Va. | 50 | 27 | 14 | 3 | 2 | 4 | - |
| Richmond, Va. | 44 | 25 | 13 | 1 | 3 | 2 | - |
| Savannah, Ga. | 49 | 36 | 9 | 2 | - | 2 | 1 |
| St. Petersburg, Fla. | 48 | 31 | 12 | 3 | 1 | 1 | 2 |
| Tampa, Fla. | 133 | 80 | 38 | 9 | 4 | 2 | 7 |
| Washington, D.C. | 98 | 41 | 39 | 5 | 1 | 12 | 2 |
| Wilmington, Del. | 13 | 8 | 3 | 2 | - | - | 2 |
| E.S. CENTRAL | 722 | 458 | 165 | 45 | 27 | 26 | 46 |
| Birmingham, Ala. | 148 | 92 | 38 | 7 | 5 | 5 | 13 |
| Chattanooga, Tenn. | 62 | 48 | 8 | 2 | 1 | 3 | 4 |
| Knoxville, Tenn. | 83 | 55 | 19 | 5 | 1 | 3 | - |
| Lexington, Ky. | 57 | 36 | 7 | 6 | 4 | 4 | 5 |
| Memphis, Tenn. | 155 | 92 | 42 | 11 | 3 | 7 | 9 |
| Mobile, Ala. | 42 | 29 | 9 | - | 3 | 1 | 2 |
| Montgomery, Ala. | 47 | 29 | 12 | 4 | 1 | 1 | 3 |
| Nashville, Tenn. | 128 | 77 | 30 | 10 | 9 | 2 | 10 |
| W.S. CENTRAL | 1,183 | 744 | 278 | 97 | 34 | 30 | 63 |
| Austin, Tex. | 119 | 70 | 30 | 13 | 2 | 4 | 5 |
| Baton Rouge, La. | 24 | 18 | 4 | 2 | - | - | - |
| Corpus Christi, Tex. | 43 | 31 | 5 | 3 | 1 | 3 | 2 |
| Dallas, Tex. | 156 | 85 | 45 | 15 | 4 | 7 | 8 |
| El Paso, Tex. | 59 | 46 | 10 | 2 | 1 | - | 3 |
| Ft. Worth, Tex. | 94 | 59 | 19 | 8 | 3 | 5 | 3 |
| Houston, Tex. | 295 | 179 | 75 | 26 | 7 | 8 | 23 |
| Little Rock, Ark. | 54 | 32 | 17 | 2 | 3 | - | - |
| New Orleans, La. | 41 | 24 | 11 | 3 | 3 | - | - |
| San Antonio, Tex. | 185 | 128 | 33 | 18 | 3 | 3 | 10 |
| Shreveport, La. | 37 | 26 | 9 | - | 2 | - | 4 |
| Tulsa, Okla. | 76 | 46 | 20 | 5 | 5 | - | 5 |
| MOUNTAIN | 873 | 565 | 198 | 73 | 19 | 15 | 78 |
| Albuquerque, N.M. | 86 | 61 | 18 | 4 | 2 | 1 | 7 |
| Boise, Idaho | 27 | 15 | 6 | 4 | 2 | - | 4 |
| Colo. Springs, Colo. | 38 | 23 | 12 | 2 | 1 | - | 3 |
| Denver, Colo. | 100 | 54 | 34 | 9 | 2 | 1 | 11 |
| Las Vegas, Nev. | 300 | 196 | 63 | 27 | 6 | 6 | 26 |
| Ogden, Utah | 41 | 26 | 10 | 1 | 2 | 1 | 5 |
| Phoenix, Ariz. | 78 | 52 | 20 | 5 | 1 | - | 7 |
| Pueblo, Colo. | 26 | 19 | 4 | 3 | - | - | 4 |
| Salt Lake City, Utah | 98 | 60 | 18 | 13 | 2 | 5 | 7 |
| Tucson, Ariz. | 79 | 59 | 13 | 5 | 1 | 1 | 4 |
| PACIFIC | 1,186 | 831 | 213 | 93 | 25 | 24 | 97 |
| Berkeley, Calif. | 19 | 14 | 4 | - | - | 1 | 3 |
| Fresno, Calif. | 117 | 75 | 25 | 14 | 1 | 2 | 2 |
| Glendale, Calif. | 17 | 11 | 6 | - | - | - | 4 |
| Honolulu, Hawaii | 55 | 42 | 9 | 2 | 2 | - | 4 |
| Long Beach, Calif. | 61 | 42 | 12 | 4 | 1 | 2 | 6 |
| Los Angeles, Calif. | 324 | 231 | 55 | 22 | 9 | 7 | 34 |
| Pasadena, Calif. | U | U | U | U | U | U | U |
| Portland, Oreg. | 89 | 61 | 11 | 12 | 1 | 4 | 5 |
| Sacramento, Calif. | 152 | 104 | 28 | 16 | 1 | 3 | 12 |
| San Diego, Calif. | 92 | 62 | 17 | 6 | 4 | 3 | 7 |
| San Francisco, Calif. | U | U | U | U | U | U | U |
| San Jose, Calif. | U | U | U | U | U | U | U |
| Santa Cruz, Calif. | 33 | 25 | 7 | 1 | - | - | 3 |
| Seattle, Wash. | 96 | 65 | 16 | 10 | 4 | 1 | 7 |
| Spokane, Wash. | 50 | 41 | 8 | 1 | - | - | 6 |
| Tacoma, Wash. | 81 | 58 | 15 | 5 | 2 | 1 | 4 |
| TOTAL | 9,577¶ | 6,320 | 2,090 | 682 | 263 | 215 | 591 |

U: Unavailable. -:No reported cases.

* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

† Pneumonia and influenza.

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

¶ Total includes unknown ages.

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☆U.S. Government Printing Office: 2004-633-140/00028 Region IV ISSN: 0149-2195