MMWR™
Morbidity and Mortality Weekly Report
Weekly August 6, 2004 / Vol. 53 / No. 30

Nonfatal Motor-Vehicle Animal Crash–Related Injuries — United States, 2001–2002

In 2000, an estimated 6.1 million light-vehicle (e.g., passenger cars, sport utility vehicles, vans, and pickup trucks) crashes on U.S. roadways were reported to police (*1*). Of these reported crashes, 247,000 (4.0%) involved incidents in which the motor vehicle (MV) directly hit an animal on the roadway (*1*). Each year, an estimated 200 human deaths result from crashes involving animals (i.e., deaths from a direct MV animal collision or from a crash in which a driver tried to avoid an animal and ran off the roadway) (*2*). To characterize nonfatal injuries from these incidents, CDC analyzed data from the National Electronic Injury Surveillance System-All Injury Program (NEISS-AIP). This report summarizes the results of that analysis, which indicated that, during 2001–2002, an estimated 26,647 MV occupants per year were involved in crashes from encounters with animals (predominantly deer) in a roadway and treated for nonfatal injuries in U.S. hospital emergency departments (EDs). Cost-effective measures targeting both drivers (e.g., speed reduction and early warnings) and animals (e.g., fencing and underpasses) are needed to reduce injuries associated with MV collisions involving animals.

NEISS-AIP is operated by the Consumer Product Safety Commission and collects data about initial visits for all types and causes of injuries treated in U.S. EDs (*3*). NEISS-AIP data are drawn from a nationally representative subsample of 66 of 100 NEISS-AIP hospitals selected as a stratified probability sample of hospitals in the United States and its territories with a minimum of six beds and a 24-hour ED. NEISS-AIP provides data on approximately 500,000 injury- and consumer product–related ED cases each year. Data for each case include a comment variable that contains additional information about the circumstances of the injury.

Each case was assigned a sample weight on the basis of the inverse probability of selection; these weights were summed to provide national estimates of MV animal crash–related injuries. Confidence intervals (CIs) were calculated by using a direct variance estimation procedure that accounted for the sample weights and complex sample design. Rates were calculated by using 2001 and 2002 U.S. Census bridged-race population estimates from the National Center for Health Statistics (*4*).

Data used in this study were obtained from medical records of 676 ED patients treated for nonfatal injuries incurred while driving or riding in a light vehicle and encountering an animal in the roadway. This report focuses on the majority of these patients, who encountered larger animals (e.g., deer, moose, elk, bear, horses, or cattle) entering the roadway. Smaller animals (e.g., dogs, cats, squirrels, raccoons, and possums) were included only in the overall national estimate. No information was obtained on type of vehicle. MV animal crashes were defined as those involving direct collision with an animal on a roadway or those occurring on or off the roadway as a result of trying to avoid hitting the animal. These cases were identified by using a brief narrative captured in the NEISS-AIP database that described the circumstances of the injury incident. An additional 79 patients injured as motorcyclists involved in MV-animal crashes were excluded from this study.

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].

During 2001–2002, an estimated 26,647 (9.3 per 100,000 population; 95% CI = 6.7–11.9) persons were treated annually in U.S. EDs for MV animal crash–related injuries, of which 22,498 (84.8%) were MV occupants in crashes involving larger animals (Table 1). The highest MV large animal crash–related injury rate (21.1 per 100,000 population) occurred among persons aged 15–24 years (Table 1). The age distribution of those injured in MV large animal crashes was different from those injured during all other types of MV traffic-related crashes ($p<0.03$); most of this difference was attributed to an overrepresentation of persons aged 15–24 years ($p<0.0001$) and an underrepresentation of children aged 0–14 years ($p<0.0001$) (Figure). Among injured persons aged 15–24 years, 48.9% were driving the vehicle. The MV large animal crash–related injury rate was similar for males and females (Table 1). Approximately 6% of those treated in U.S. EDs required hospitalization for their injuries.

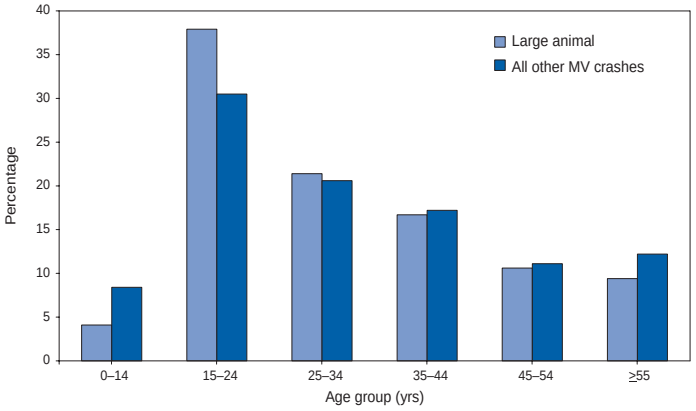
MV large animal crash–related injuries were mostly strains/sprains (36.5%) and contusions/abrasions (33.9%) and involved the head/face (28.1%), neck (22.7%), and upper trunk (15.3%) (Table 2). The majority (94.5%) of the neck injuries were strains and sprains, and 62.5% of head/face injuries were contusions, abrasions, or lacerations. Persons injured during MV large animal crashes were treated more often during October and November than other months. Deer were the most common large animals involved in these

TABLE 1. Estimated annual number, percentage, and rate* of persons treated in emergency departments for nonfatal motor-vehicle large animal crash–related injuries, by age, sex, and disposition — United States, 2001–2002

Characteristic	Estimated no.	(%)†	Rate	(95% CI§)
Age group (yrs)				
0–14	925	(4.1)	1.5	(0.7–2.3)
15–24	8,508	(37.8)	21.1	(14.6–27.6)
25–34	4,793	(21.3)	12.0	(7.0–17.0)
35–44	3,736	(16.6)	8.3	(5.0–11.6)
45–54	2,368	(10.5)	6.0	(3.8–8.2)
≥55	2,113	(9.4)	3.4	(2.2–4.6)
Unknown	56¶	(0.2)¶	—	
Sex				
Male	11,289	(50.2)	8.0	(5.6–10.4)
Female	11,209	(49.8)	7.7	(5.6–9.8)
Disposition				
Treated/Released	20,902	(92.9)	7.3	(5.2–9.4)
Hospitalized/ Transferred	1,315	(5.8)	0.5	(0.2–0.8)
Observed	281¶	(1.3)¶	—	
Total	**22,498**	**(100.0)**	**7.8**	**(5.7–10.0)**

* Per 100,000 population.
† Percentages might not total 100% because of rounding.
§ Confidence interval.
¶ Estimates might be unstable because they are based on <20 NEISS-AIP cases or coefficient of variation is ≥30%.

FIGURE. Percentage of persons injured in motor-vehicle (MV) large animal crashes, compared with persons injured in all other MV crashes, by age group — United States, 2001–2002



incidents (86.9%). Approximately half (54.4%) of these crashes involved a direct collision with the animal, and the remainder (44.8%) resulted from the driver trying to avoid hitting the animal. Of those incidents in which the animal was avoided, the crash most commonly involved an MV leaving the roadway (29.0%); an MV hitting a tree, pole, or guardrail (21.4%); or an MV rollover (17.3%) (Table 2).

Reported by: *JM Conn, MS, JL Annest, PhD, Office of Statistics and Programming; A Dellinger, PhD, Div of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC.*

Editorial Note: Nationally, nonfatal MV animal crash–related injuries account for <1.0% of approximately three million MV occupants treated in U.S. EDs annually (*5*). Direct MV animal crashes represent nearly 4.0% of an estimated 6.1 million light-vehicle crashes reported to police in the United States (*1*). However, in rural areas with large deer populations, MV animal crashes and associated occupant deaths and injuries, wildlife loss, and property damage are important concerns. For instance, in Wisconsin, MV deer crashes accounted for nearly 16% of all statewide police-reported MV crashes in 2002 (*6*).

National estimates reported from this study are consistent with state MV animal crash data reported to police. In this study, the majority of MV occupant injuries resulted from encounters between the MV and deer; however, 12% of those injured resulted from MV crashes involving large domesticated animals (e.g., horses and cattle). MV occupant injuries can occur because of a direct MV collision with the large animal or from swerving or maneuvering to avoid a collision with the animal. In this study, 63.8% of younger drivers swerved to avoid the animal, resulting in an MV crash and subsequent injury. Similar to other MV occupant injuries from crashes that occur on U.S. highways, a majority of the injuries were neck sprains/strains, and contusions/abrasions to the head and face. One fourth of MV animal crash–related injuries were treated in October and November at the height of the fall deer hunting, mating, and migration season (*7*). MV animal crashes are more likely to occur in the early morning hours and especially at dusk, when deer are actively moving about and likely to cross the road in rural areas (*6–8*).

TABLE 2. Estimated annual number and percentage of persons treated in emergency departments for nonfatal motor-vehicle (MV) large animal crash–related injuries, by selected characteristics — United States, 2001–2002

Characteristic	Estimated no.	(%)*	(95% CI†)
Diagnosis			
Strain/Sprain	8,202	(36.5)	(25.4–47.6)
Contusion/Abrasion	7,616	(33.9)	(21.9–45.9)
Laceration	2,610	(11.6)	(6.8–16.4)
Internal injury	1,204	(5.3)	(3.1–7.5)
Other diagnosis§	2,867	(12.7)	(7.9–17.5)
Primary body part affected			
Neck	5,099	(22.7)	(14.8–30.6)
Head/Face	6,333	(28.1)	(18.1–38.1)
Upper trunk	3,442	(15.3)	(9.2–21.4)
Lower trunk	2,718	(12.1)	(7.9–16.3)
Upper extremity	2,307	(10.3)	(6.0–14.6)
Lower extremity	1,226	(5.4)	(2.8–8.0)
Multiple/All body parts	1,210	(5.4)	(1.4–9.4)
Unknown	164¶	(0.7)¶	(—)
Month of treatment			
January	946¶	(4.2)¶	(—)
February	1,367	(6.1)	(3.8–8.4)
March	1,308	(5.8)	(2.4–9.2)
April	936	(4.2)	(2.0–6.4)
May	1,985	(8.8)	(4.4–13.2)
June	1,935	(8.6)	(4.8–12.4)
July	2,037	(9.1)	(5.3–12.9)
August	1,590	(7.1)	(4.5–9.7)
September	1,974	(8.8)	(4.1–13.5)
October	2,780	(12.4)	(7.8–17.0)
November	3,534	(15.7)	(9.5–21.9)
December	2,107	(9.4)	(4.6–14.2)
Type of animal involved			
Deer	19,561	(86.9)	(61.6–112.2)
Moose/Elk/Bear	187¶	(0.8)¶	(—)
Horse/Cow/Bull	2,750	(12.2)	(6.1–18.3)
Circumstances			
Directly hit animal	12,245	(54.4)	(40.8–68.0)
Unknown	174¶	(0.8)¶	(—)
Swerved/slowed to avoid collision with animal	10,080	(44.8)	(29.5–60.1)
Hit tree/pole/guardrail	2,158	(21.4)	(10.8–32.0)
Hit car/Hit by car	632¶	(6.3)¶	(—)
MV rollover	1,739	(17.3)	(8.4–26.2)
Went off road	2,919	(29.0)	(13.1–44.9)
Other type**	948	(9.4)	(4.3–14.5)
Unknown	1,684	(16.7)	(7.8–25.6)
Total	**22,498**	**(100.0)**	

* Percentages might not total 100% because of rounding.
† Confidence interval.
§ Includes fracture, concussion, hematoma, dental, or other injury.
¶ Estimates might be unstable because they are based on <20 NEISS-AIP cases or coefficient of variation is ≥30%.
** Includes fence, bridge, parked car, house, and other.

The findings of this report are subject to at least three limitations. First, although the risk for MV animal crash–related injury can vary among states and local areas, NEISS-AIP is designed to provide only national estimates and does not provide regional, state, or local estimates or estimates by urban and rural categories. Second, because of the small number of cases reported, this study excluded motorcyclists, who are known to be at higher risk for injury in crashes (*6*). Finally, NEISS-AIP only provides data on injured persons treated in hospital EDs.

Prevention efforts have focused on warning signs to alert drivers to animal crossings, speed restrictions, roadway fencing and underpasses/overpasses aimed at directing animals toward safe passage, roadside clearing, roadside mirrors and reflectors (i.e., to deflect headlight beams toward the sides of the road to alert deer), and reduction of deer populations through recreational hunting (*7,9*). Evaluation studies have been conducted to assess the cost and effectiveness of these methods, but the results are inconsistent (*10*). Interventions with some supportive evidence (e.g., fences combined with underpasses or overpasses) also are among the most expensive to build and maintain.

Primary prevention of MV animal crashes can be accomplished by keeping large animals, especially deer, from entering the roadway or by providing drivers with more time to react to a potentially dangerous situation. The same behaviors that are recommended to help prevent crashes in general are relevant for MV animal crashes. Driving within speed limits, staying alert and reducing distracted and drowsy driving, and eliminating alcohol-impaired driving will give drivers, particularly teenagers and younger adults, more time to react and avoid collisions. Prevention of injury if a crash occurs can be accomplished by the universal use of proper restraints, including safety belts, child safety seats, and booster seats.

Acknowledgments

This report is based on data contributed by T Schroeder, MS, C Downs, A McDonald, MA, and other staff of the Div of Hazard and Injury Data Systems, Consumer Product Safety Commission. G Ryan, PhD, P Holmgreen, MS, R Thomas, MS, Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC.

References

1. National Highway Traffic Safety Administration. Analysis of light vehicle crashes and pre-crash scenarios based on the 2000 General Estimates System. Washington, DC: U.S. Department of Transportation, 2003; publication no. DOT-VNTSC-NHTSA-02-04.
2. National Highway Traffic Safety Administration. Fatality analysis reporting system data file, 2001–2002. Available at http://www-fars.nhtsa.dot.gov.
3. CDC. National estimates of nonfatal injuries treated in hospital emergency departments—United States, 2000. MMWR 2001;50:340–6.
4. CDC. U.S. Census Bureau. Estimates of the July 1, 2000 and July 1 2002 United States resident population from the Vintage 2002 postcensal series, by year, age, sex, race, and Hispanic origin. Available at http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm.
5. CDC. Web-based Injury Statistics Query and Reporting System (WISQARS™). Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, 2003. Available at http://www.cdc.gov/ncipc/wisqars.
6. Wisconsin Department of Transportation. Motor vehicle-deer crashes in 2002. Available at http://www.dot.wisconsin.gov/safety/motorist/crashfacts/index.htm.
7. CDC. Effectiveness in disease and injury prevention injuries from motor-vehicle collisions with deer—Kentucky, 1987–1989. MMWR 1991;40:717–9.
8. Haikonen H, Summala H. Deer-vehicle crashes: extensive peak at 1 hour after sunset. Am J Prev Med 2001;21:209–13.
9. Putnam RJ. Deer and road traffic accidents: options for management. J Environ Management 1997;51:43–57.
10. Hedlund JH, Curtis PD, Curtis G, Williams AF. Methods to reduce traffic crashes involving deer: what works and what does not. Traffic Injury Prevention 2004;5:122–31.

Transmission of Hepatitis B Virus in Correctional Facilities — Georgia, January 1999–June 2002

Incarcerated persons have a disproportionate burden of infectious diseases (*1*), including hepatitis B virus (HBV) infection. Among U.S. adult prison inmates, the overall prevalence of current or previous HBV infection ranges from 13% to 47%. The prevalence of chronic HBV infection among inmates is approximately 1.0%–3.7%, two to six times the prevalence among adults in the general U.S. population (*1*). Incarcerated persons can acquire HBV infection in the community or in correctional settings (*1*). This report summarizes the results of 1) an analysis of hepatitis B cases among Georgia inmates reported to the Georgia Department of Human Resources, Division of Public Health (DPH) during January 1999–June 2002, including a retrospective investigation of cases reported during January 2001–June 2002; and 2) a prevalence survey conducted in prison intake centers during February–March 2003. These efforts identified cases of acute hepatitis B in multiple Georgia prisons and documented evidence of ongoing transmission of HBV in the state correctional system. The findings underscore the need for hepatitis B vaccination programs in correctional facilities.

The Georgia correctional system houses approximately 45,000 inmates in 68 correctional facilities; approximately 16,000 new inmates are admitted each year and processed through one of five intake centers. The correctional system does not routinely screen inmates for HBV infection, and diagnostic testing is left to the judgment of individual physicians. In August 2000, in response to two hepatitis B

outbreaks at one Georgia correctional facility (*2,3*), DPH began to monitor reports of acute hepatitis B cases among inmates at all Georgia correctional facilities, as determined by the inmates' addresses on laboratory reports.

A case of acute HBV infection was defined as a positive serologic test for IgM antibodies to hepatitis B core antigen (IgM anti-HBc) on at least one occasion and at least one additional supporting finding (e.g., compatible symptoms, liver enzyme elevation, or another positive hepatitis B serologic test), received by DPH during January 1999–June 2002. Cases reported during January 2001–June 2002 were confirmed by retrospective review of the inmate's medical and laboratory records. The date of diagnosis of acute HBV infection was defined as the date that alanine aminotransferase (ALT) or aspartate aminotransferase (AST) levels were elevated at least two times greater than the upper limit of normal in conjunction with a positive test for IgM anti-HBc. When ALT or AST levels were not available, the date of the blood draw with a positive IgM anti-HBc result was used as the approximate date of diagnosis.

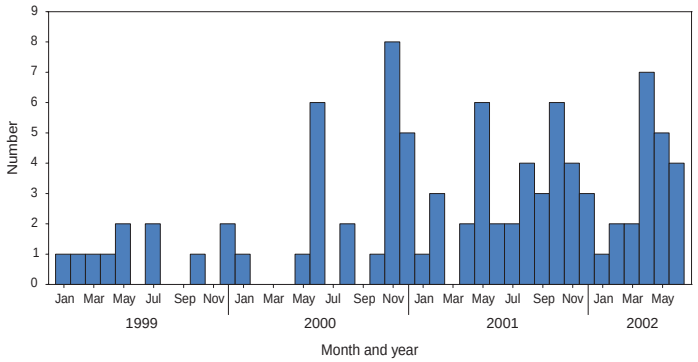
Incarceration histories of inmates with acute HBV infections reported during January 2001–June 2002 were reviewed to identify inmate locations and number of transfers between correctional facilities before illness onset. Persons with asymptomatic and symptomatic cases were considered to have been infected while incarcerated if they were in prison or jail during the 12 months or 6 months, respectively, before illness onset.

A prevalence survey to assess the HBV infection status of prisoners on entry was conducted at three Georgia prison intake centers for males and one intake center for females during February–March 2003. Consenting inmates underwent HBV serologic testing; all inmates at intake when the survey was conducted were offered hepatitis B vaccine.

During January 1999–June 2002, a total of 92 cases of acute HBV infection were identified, of which 57 (62%) were reported during January 2001–June 2002 and included in the retrospective investigation (Figure). Among the 57 inmates with HBV infection, the median age was 34 years (range: 18–59 years); 52 (91%) were male, and 35 (61%) were non-Hispanic blacks. Ten (18%) had symptoms that included jaundice, abdominal pain, fever, and vomiting. Seven (12%) subsequently were determined to have chronic infections. The chronic infection status of four inmates was not assessed.

Among the 57 inmates included in the retrospective investigation, the most frequently reported reason for HBV testing was the presence of symptoms or elevated liver enzymes (21 cases [37%]). Other reasons included reported characteristics and behaviors that might be associated with HBV

FIGURE. Number* of cases of acute hepatitis B reported in correctional facilities, by month and year — Georgia, January 1999–June 2002



* N = 92.

transmission (e.g., tattoos or unprotected sex contacts) (14 [24%]), serologic testing performed as part of initial medical evaluation (13 [23%]), and being positive for human immunodeficiency virus (five [9%]). Prison staff reported counseling and providing medical follow-up for 52 (91%) of the 57 inmates.

The 57 cases were reported from 27 prisons and four probation detention centers in Georgia, with a mean of 1.8 cases per facility and a range of one to three cases for the 30 facilities that were not involved in the previously recognized outbreaks (*2,3*). The 57 inmates had been incarcerated for a median of 2.2 years (range: 0–23.7 years) before illness onset and had been transferred 1.4 times on average (median: one time; range: one to seven times) during the 12 months before diagnosis. The majority of HBV infections (41 [72%]) were acquired in prison. Of the remaining 16 cases, 13 (81%) occurred in persons who had been in prison or jail for 1–6 months before receiving a diagnosis. The remaining three (19%) inmates were asymptomatic and had been in prison or jail for 10–11 months before receiving a diagnosis.

As of August 2002, the seven inmates who had chronic infections had been transferred among prison facilities 13 times during the cumulative 89 months of incarceration that followed their diagnosis, resulting in a mean of 1.8 transfers per person-year of incarceration (median: two transfers; range: zero to five transfers). Three inmates with chronic infection were released from prison.

Of 546 inmates surveyed at intake during February–March 2003, a total of 489 (90%) consented to serologic testing, and 428 (78%) consented to hepatitis B vaccination. Of the 489 inmates tested, three (0.6%) had acute HBV infections, four (0.8%) had chronic infections, 64 (13%) had evidence of resolved infections, and 374 (76%) were susceptible to HBV infection. Two of three inmates with acute infection had spent 5.5–11.0 months in jail before intake.

Reported by: *K Arnold, MD, Georgia Dept of Human Resources, Div of Public Health; M LaMarre, MN, J Taussig, MPH, Georgia Dept of Corrections. BP Bell, MD, L Farrington, MS, Div of Viral Hepatitis, National Center for Infectious Diseases; S Vong, MD, PR Patel, MD, EIS officers, CDC.*

Editorial Note: HBV is a bloodborne pathogen, transmitted by percutaneous or permucosal exposure to infectious blood or body fluids. The prevalence of chronic infection is higher among prison inmates (1.0%–3.7%) than among the general U.S. population (0.5%) (*1*), reflecting an overrepresentation of persons entering prison who are at high risk for HBV infection (e.g., injection-drug users and those with reported histories of multiple sex partners). The prevalence of chronic infection among the intake population in this report (0.8%) suggests that high-risk behaviors practiced within the community before incarceration might not account entirely for the burden of HBV infection in correctional facilities. Although studies are limited, transmission of HBV infection within correctional settings has been documented, with incidence ranging from 0.8% to 3.8% per year (*2,4–6*).

The retrospective investigation described in this report identified an increase in HBV infections in Georgia correctional facilities, beginning in January 2001. This increase likely was related to multiple factors, including enhanced surveillance and increased diagnostic testing by correctional medical staff. Changes in diagnostic practices might have occurred because of increased awareness of hepatitis B among medical staff after outbreaks at a Georgia correctional facility in June 2000 and again in June 2001. Nonetheless, the number of reported cases probably underestimates the extent of HBV transmission in the correctional system because the majority of persons with acute HBV infection are asymptomatic and investigations of single cases are not conducted routinely. In the first previous outbreak, one symptomatic patient reported to DPH was associated with a cluster of 11 acute cases, and four chronic HBV infections were identified (*2*).

The majority of inmates with identified acute HBV infections were housed in multiple Georgia correctional facilities and were infected during their incarceration, suggesting widespread ongoing transmission in multiple facilities. Inmates infected with HBV were transferred frequently among facilities. Thus, potential sources of HBV transmission were distributed throughout the prison system.

In the Georgia correctional system, approximately one third of inmates are released each year (*7*). Inmates who become chronically infected and subsequently are released represent potential sources of infection for others in the community. In addition, susceptible inmates who are released continue to be at increased risk for HBV infection (*1*). The majority of inmates in the intake survey were susceptible to HBV infection

and consented to vaccination, suggesting that vaccination efforts in correctional facilities might effectively capture susceptible, high-risk populations.

Although data are lacking regarding the overall burden of HBV infection in correctional systems, the ongoing transmission demonstrated in Georgia prisons might be occurring in other states, where similar conditions are likely to exist. All inmates who receive a medical evaluation should be vaccinated to prevent HBV infection (*1*). However, the majority of state correctional systems in the United States, including the Georgia system, do not have hepatitis B vaccination programs (*1*). Implementation of such programs in correctional settings nationwide could result in a considerable reduction in the hepatitis B–associated disease burden, not only by eliminating transmission among the incarcerated population, but also by reducing transmission in the community (*8*).

References

1. CDC. Prevention and control of infections with hepatitis viruses in correctional settings. MMWR 2003;52(No. RR-1).
2. Khan A, Simard E, Wurtzel H, et al. The prevalence, risk factors, and incidence of hepatitis B virus infection among inmates in a state correctional facility [Abstract]. In: Program and abstracts of the 130th Annual Meeting of the American Public Health Association, Philadelphia, Pennsylvania, 2002.
3. CDC. Hepatitis B outbreak in a state correctional facility, 2000. MMWR 2001;50:529–32.
4. Decker MD, Vaughn WK, Brodie JS, Hutcheson RH Jr, Schaffner W. Seroepidemiology of hepatitis B in Tennessee prisoners. J Infect Dis 1984;150:450–9.
5. Hull HF, Lyons LH, Mann JM, Hadler SC, Steece R, Skeels MR. Incidence of hepatitis B in the penitentiary of New Mexico. Am J Public Health 1985;75:1213–4.
6. Macalino GE, Vlahov D, Sanford-Colby S, et al. Prevalence and incidence of HIV, hepatitis B virus, and hepatitis C virus infections among males in Rhode Island prisons. Am J Public Health 2004;94:1218–23.
7. Georgia Department of Corrections. Annual report 2001. Available at http://www.dcor.state.ga.us/pdf/fy01workin.pdf.
8. Goldstein ST, Alter MJ, Williams IT, et al. Incidence and risk factors for acute hepatitis B in the United States, 1982–1998: implications for vaccination programs. J Infect Dis 2002;185:713–9.

Hepatitis B Vaccination of Inmates in Correctional Facilities — Texas, 2000–2002

In December 2002, approximately 2.2 million persons were incarcerated in the United States (*1*); an estimated 8 million were released to the community that year (*2*). In 2001, approximately 22,000 acute hepatitis B cases and 78,000 new hepatitis B virus (HBV) infections occurred in the United States (*3*); an estimated 29% of these cases were in persons who had been incarcerated previously (*4*). The majority of HBV infections among incarcerated persons are acquired in the community; however, infection also is transmitted within correctional settings (*2*). Hepatitis B vaccination of incarcerated persons is recommended to prevent transmission in correctional facilities and in previously incarcerated persons on their return to the community (*2*). In May 2000, the Texas Department of Criminal Justice (TDCJ), which oversees custody of state jail and prison inmates, implemented a hepatitis B vaccination program. To determine hepatitis B vaccination rates of inmates during 2000–2002, TDCJ reviewed charts of inmates released during a 3-day period for documentation of vaccination. This report summarizes the results of that study, which indicated that rates of vaccine acceptance and vaccine series completion among inmates were high. Establishing hepatitis B vaccination programs in prisons and jails can prevent a substantial proportion of HBV infections among adults in the outside community.

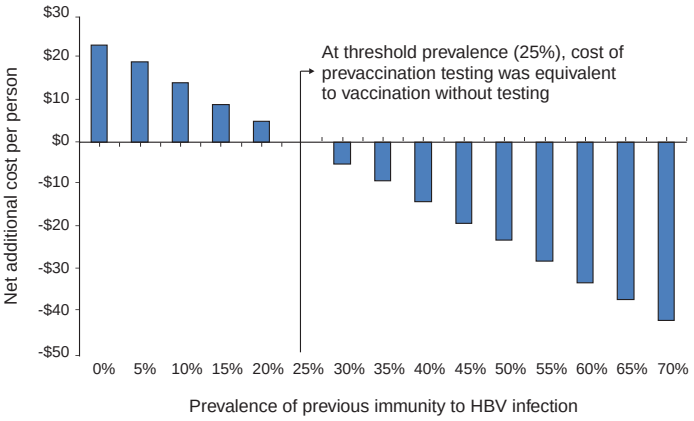
During 2000–2002, TDCJ housed approximately 151,000 inmates in 105 adult facilities, including prisons (median sentence of inmates: 9 years; range: 2–99 years) and jails (median sentence of inmates: 1.3 years; range: 3 months–2 years). Approximately 40,000 new offenders enter these facilities annually, and an estimated 1% of inmates are transferred between facilities daily (*5,6*). In 1999, state funds were appropriated for hepatitis B vaccination of all inmates in jails and prisons.

Before implementation of the vaccination program, a cost-effectiveness model was developed that estimated the cost effectiveness of prevaccination testing for immunity to HBV infection among inmates. Stored serum specimens from 889 inmates incarcerated during 1998–1999 were tested for antibodies to hepatitis B core antigen (anti-HBc); HBV prevalence was 18%. The model estimated that at a threshold prevalence of 25%, the cost of a program with prevaccination testing was equivalent to that of vaccination without testing; at lower prevalence, prevaccination testing would not be cost effective (Figure). On the basis of these findings, all of the estimated 40,000 entering inmates were offered vaccine without prevaccination testing.

Entering inmates were offered the first hepatitis B vaccine dose at the time of admission. Persons who were already incarcerated were offered the first dose at the time of their annual health evaluation, which occurred on their anniversary month of incarceration. After vaccination of incarcerated persons, only newly admitted inmates were offered vaccine.

Vaccine was administered on a 0-, 2-, and 4-month schedule. An electronic pharmacy auto-renewal system was used to send second and third vaccine doses to the appropriate facility for each inmate. Health-care workers also recorded vaccine dose administration in each inmate's medical record, enabling inmates to complete the vaccination series despite frequent transfers within the system.

FIGURE. Cost effectiveness of prevaccination testing for immunity to hepatitis B virus (HBV) infection among jail and prison inmates — Texas, 2000–2002



Source: Texas Department of Criminal Justice.

In February 2002, TDCJ evaluated vaccine acceptance and series completion rates. Charts of 232 prison inmates and 211 jail inmates released during a 3-day period were audited for receipt of hepatitis B vaccine; 426 (96%) inmates with no record of previous vaccination or HBV infection were considered to be eligible for vaccination. Lack of documentation of a vaccination encounter was interpreted as a failure to offer vaccine, and only a signed informed refusal form was counted as a vaccination refusal.

Hepatitis B vaccine was offered to 319 (75%) of 426 inmates. Prison inmates were more likely to be offered vaccine (185/220 [84%]) than jail inmates (134/206 [65%]) ($p<0.001$), which might be related to higher inmate turnover and lack of staff contact time in jails (Table). However, acceptance of the first vaccine dose was higher among jail inmates (114/134 [85%]) than among prison inmates (134/185 [72%]) ($p = 0.005$).

Among 125 prison and 99 jail inmates who began vaccination and were incarcerated for ≥4 months, the 3-dose completion rate was 96% and 54%, respectively. In December 2002, the hepatitis B vaccination program was suspended because of a lack of funds.

TABLE. Number and percentage of eligible inmates* in jails and prisons who were offered hepatitis B vaccine, by type of facility and vaccine outcome — Texas, 2000–2002†

	Jails (N = 206)		Prisons (N = 220)	
Vaccine outcome	**No.**	**(%)**	**No.**	**(%)**
Offered vaccine	134	(65)	185	(84)§
Accepted at least 1 dose	114	(85)§	134	(72)
Accepted at least 2 doses	87	(65)	127	(69)
Accepted all 3 doses	53	(40)	120	(65)
Completed series/total receiving first dose and incarcerated ≥4 months	53/99	(54)	120/125	(96)§

Source: Texas Department of Criminal Justice.
* Eligible inmates were those who did not have a record of previous vaccination or hepatitis B virus infection.
† Data for sample abstracted from medical records of all prison and jail inmates released during a 3-day period in February 2002.
§ $p<0.05$, Fisher's exact test.

Reported by: *M Kelley, MD, L Linthicum, MD, Texas Dept of Criminal Justice. A Spaulding, MD, K Billah, PhD, C Weinbaum, MD, Div of Viral Hepatitis, National Center for Infectious Diseases; R Small, Div of STD Prevention, National Center for HIV, STD, and TB Prevention, CDC.*

Editorial Note: Evaluation of the TDCJ hepatitis B vaccination program demonstrated that high vaccine coverage could be achieved for inmates in a state correctional system. Incarceration provides an opportunity to vaccinate persons at high risk typically not served by prevention services in the public or private sectors, and vaccination of incarcerated populations is cost effective (*7*).

The findings in this report illustrate the need to tailor a program to a particular facility. Completion of the vaccine series is a more feasible goal for long-term facilities; short-term facilities should initiate the vaccine series, supply an immunization record and, where feasible, provide information at discharge about facilities offering the remaining vaccine doses. Vaccination also can be completed if the person returns to a correctional institution.

Prevaccination testing to detect existing immunity can eliminate the cost of revaccinating persons who were vaccinated previously or infected. TDCJ's decision not to perform prevaccination testing was based on a model that included the costs of testing and vaccination and the series completion rate. The model assumed that all inmates who received the first vaccine dose would return for subsequent doses; if attrition caused by release was included in the model, prevaccination testing would only be cost effective if the prevalence of immunity was higher. Changes in prevalence of immunity to HBV infection or costs (e.g., vaccine, labor, and testing) also would change the cost effectiveness of prevaccination testing. In particular, immunity to HBV infection in young adults is changing rapidly within most communities because of an increase in vaccinated adolescents. If adequate immunization records are not available for inmates, periodic monitoring of the prevalence of immunity to HBV infection using a serologic marker to detect both infection (i.e., anti-HBc) and immunization (i.e., antibodies to hepatitis B surface antigen) will help corrections officials determine when prevaccination testing might reduce costs (*2*).

The findings in this report are subject to at least two limitations. First, inmates with shorter sentences are more likely to be discharged and might be overrepresented by the sampling. Because inmates with short sentences might not have been incarcerated long enough to complete the vaccination series, more inmates might have completed the vaccination series than this study demonstrated. Second, lack of long-term follow-up precludes evaluation of the eventual series completion by jail inmates, who might have accessed additional doses outside the correctional system or during subsequent incarcerations.

Hepatitis B vaccination of inmates in state correctional facilities is feasible if resources are available to purchase and administer vaccine. In 2000, a survey of state correctional facility medical directors indicated that the majority of prison systems would vaccinate inmates if resources were available (*8*). Although hepatitis B vaccination of inmates has been recommended since the vaccine first became available in 1982 (*9*), only five states (Hawaii, Michigan, New Mexico, Vermont, and Wisconsin) vaccinate inmates routinely (D. Burnett, M.D., Wisconsin Department of Corrections and F. Pullara, M.D., New Mexico Department of Corrections, personal communications, 2004) (*8*). Collaborations between public health and corrections authorities at the state and local level are essential to overcome barriers to vaccination program implementation.

References

1. Harrison PM, Beck AJ. Prisoners in 2002. Washington, DC: U.S. Department of Justice, 2003; bulletin no. 200248. Available at http://www.ojp.usdoj.gov/bjs/pub/pdf/p02.pdf.
2. CDC. Disease burden from hepatitis A, B, and C in the United States. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, 2002. Available at http://www.cdc.gov/ncidod/diseases/hepatitis/resource/dz_burden02.htm.
3. Goldstein ST, Alter MJ, Williams IT, et al. Incidence and risk factors for acute hepatitis B in the United States, 1982–1998: implications for vaccination programs. J Infect Dis 2002;185:713–9.
4. CDC. Prevention and control of infections with hepatitis viruses in correctional settings. MMWR 2003;52(No. RR-1).
5. Texas Department of Criminal Justice. Statistical report fiscal year 2002. Available at http://www.tdcj.state.tx.us/publications/executive/statsum-fy02.pdf.
6. Texas Department of Criminal Justice. Statistical report fiscal year 2000. Available at http://www.tdcj.state.tx.us/stat/publications/fy2000statsum.pdf.
7. Pisu M, Meltzer MI, Lyerla R. Cost-effectiveness of hepatitis B vaccination of prison inmates. Vaccine 2002;21:312–21.
8. Charuvastra A, Stein J, Schwartzapfel B, et al. Hepatitis B vaccination practices in state and federal prisons. Public Health Rep 2001;116:203–9.
9. CDC. Hepatitis B virus: a comprehensive strategy for eliminating transmission in the United States through universal childhood vaccination—recommendations of the Immunization Practices Advisory Committee. MMWR 1991;40(No. RR-13).

Tuberculosis Associated with Blocking Agents Against Tumor Necrosis Factor-Alpha — California, 2002–2003

The Food and Drug Administration (FDA) has determined that tuberculosis (TB) disease is a potential adverse reaction from treatment with the tumor necrosis factor-alpha (TNF-α) antagonists infliximab (Remicade®), etanercept (Enbrel®), and adalimumab (Humira®)*; the three products are labeled accordingly (*1,2*). These products work by blocking TNF-α, an inflammatory cytokine, and are approved for treating rheumatoid arthritis and other selected autoimmune diseases. TNF-α is associated with the immunology and pathophysiology of certain infectious diseases, notably TB; blocking TNF-α can allow TB disease to emerge from latent *Mycobacterium tuberculosis* infection. In 2002, a California county health department reported three cases of TB disease occurring in association with infliximab therapy. This report summarizes those cases and nine subsequently reported cases and provides interim recommendations for TB prevention and management in recipients of these blocking agents. Healthcare providers should take steps to prevent TB in immunocompromised patients and remain vigilant for TB as a cause of unexplained febrile illness.

Case Reports

Case 1. In January 2002, a U.S.-born man aged 55 years with rheumatoid arthritis had pulmonary TB disease diagnosed 17 months after starting infliximab therapy. In 1995, he had a positive tuberculin skin test (TST) and reportedly took isoniazid for 12 months; however, his adherence to therapy was questionable. During September 2000–January 2002, he received 13 infusions of infliximab, and his arthritic symptoms decreased. However, in January he had fever and weight loss. Four weeks later, a supraclavicular lymph node became enlarged, and a chest radiograph revealed a right-upper-lobe lung cavity with a nodular infiltrate. *M. tuberculosis* was isolated from sputum and lymph node specimens, and his condition improved with anti-TB medications. In July 2002, he again lost weight. He had smoked cigarettes for many years and was found to have lung cancer; he died in November 2002.

Case 2. A woman aged 64 years with rheumatoid arthritis had pulmonary and pericardial TB disease diagnosed in June 2002. She had begun infliximab therapy in September 2001

* Respectively, Centocor, Malvern, Pennsylvania; Immunex Corporation, Thousand Oaks, California; and Abbott Laboratories, Abbott Park, Illinois.

and received 7 doses before onset of fever and weight loss in April 2002. Her chest radiograph revealed a large pericardial effusion and a right-upper-lobe lung infiltrate. *M. tuberculosis* resistant to isoniazid, rifampin, pyrazinamide, and ethambutol was isolated from sputum and pericardial fluid. The patient was born in the Philippines, where TB often is drug resistant (*3*). In 1999, she was exposed to a person with drug-susceptible TB in the United States and subsequently had two TSTs with negative results in 2000; however, she was taking prednisone for her arthritis at the time of the TSTs. After 12 months of therapy with second-line anti-TB medications, her medical condition has improved.

Case 3. A U.S.-born woman aged 54 years was exposed to contagious TB in 1996; she had a positive TST result during the contact investigation but was not treated for latent TB infection (LTBI). The patient has Crohn's disease and received infliximab in February 2001 and June 2002. Two weeks after her second infusion, but 16 months after her first infusion, she sought care for cough, fever, and abdominal pain. Her chest radiograph revealed upper-lobe lung nodules with a pleural effusion, and sputum specimens yielded *M. tuberculosis*. She started standard, four-drug anti-TB therapy but experienced gastrointestinal intolerance. Isoniazid was discontinued, and she was free of TB disease after treatment with rifampin, pyrazinamide, and ethambutol.

Additional Reports

In 2003, the state of California Department of Health Services asked local jurisdictions to report TB cases associated with TNF-α antagonists since January 2002. As of September 2003, nine additional reports had been received, for a total of 12 cases diagnosed during January 2002–August 2003 (Table). The median patient age was 54.5 years (range: 23 to 73 years), and eight (67%) of the patients were female. Eleven of the patients had TB disease after receiving infliximab. One patient had TB disease while receiving chronic etanercept therapy.

Eleven of the patients had at least one risk factor for LTBI (e.g., born in countries where TB is prevalent or contact with a person with TB disease). Eight were taking other immunosuppressive therapies at the time of their TB diagnoses. Three patients underwent a medical history for TB risk factors before beginning therapy with a TNF-α antagonist. In addition to the patient in case 1, a second patient died (from cardiomyopathy) while being treated for TB disease.

Reported by: *P Costamagna, K Furst, MD, K Tully, San Joaquin County Public Health Svcs; J Landis, Santa Cruz County Health Svcs; K Moser, MD, San Diego County Dept of Health; L Quach, J Kwak, County of Orange Health Care Agency; H Calvet, MD, B Lindsey, Long Beach City Dept of Health and Human Svcs; J Flood, MD, California Dept of Health Svcs. M Braun, MD, Center for Biologics Evaluation and Research; J Siegel, MD, Center for Drug Evaluation and Research, Food and Drug Administration. K Winthrop, MD, J Jereb, MD, Z Taylor, MD, M Iademarco, MD, K Castro, MD, Div of TB Elimination, National Center for HIV, STD, and TB Prevention, CDC.*

Editorial Note: As of January 2004, FDA's adverse-event reporting system had received several hundred reports, mostly from outside the United States, of TB disease in patients who received TNF-α antagonists. Manufacturers of these products are required to report known cases, but reporting is voluntary for others. The majority of the cases probably represent progression of LTBI to TB disease, although the contribution of newly acquired *M. tuberculosis* infection to the

TABLE. Characteristics of 12 cases of reported tuberculosis (TB) disease in patients receiving tumor necrosis factor-alpha (TNF-α) antagonist therapy — California, January 2002–August 2003

Patient age (yrs)	Reason for TNF-α antagonist therapy	Site of TB disease	Foreign born*	Other TB risk factors†	TB testing before TNF-α antagonist therapy§	Other immunosuppressing medication¶
55	Rheumatoid arthritis	Lung, supraclavicular node	No	Yes	Yes	None
64	Rheumatoid arthritis	Lung, pericardium	Yes	Yes	Yes	Prednisone
54	Crohn's disease	Lung	No	Yes	Yes	Prednisone
64	Rheumatoid arthritis	Disseminated	Yes	No	No	None
72	Rheumatoid arthritis	Disseminated	Yes	Yes	Yes	Prednisone, methotrexate
41	Psoriatic arthritis	Kidneys	Yes	Yes	Unknown	None
70	Dermatomyositis	Lung	No	Yes	No	Prednisone, azathioprine
23	Crohn's disease	Intestines	Yes	No	No	None
52	Rheumatoid arthritis	Mediastinum, lung	Yes	Yes	No	Methotrexate
29	Juvenile rheumatoid arthritis	Lung	Yes	No	No	Prednisone
73	Rheumatoid arthritis	Lung	Yes	No	No	Prednisone, methotrexate
44	Crohn's disease	Pleura	No	No	Yes	Prednisone

* Persons from countries where TB is prevalent are at increased risk for latent TB infection (LTBI).
† History of latent TB infection (LTBI) or known contact with person with TB disease.
§ Tuberculin skin test or chest radiography if history of LTBI.
¶ At time of TB disease diagnosis.

total number of reports is unknown (*1*). Reports have included atypical presentations, extrapulmonary and disseminated disease, and deaths (*1,4,5*).

In California, after the initial three reports, nine additional cases of TB disease were reported during January 2002–August 2003 in patients taking TNF-α antagonists. Although reporting of TB cases is mandatory in California, reporting the association with TNF-α antagonists was voluntary, and an underestimate might have resulted.

Eight of the 12 patients in California were born in countries where TB is prevalent. In certain instances, physicians had not screened for risk factors for *M. tuberculosis* infection or tested their patients for infection before beginning therapy with TNF-α antagonists. In other instances, testing was performed, but LTBI was not diagnosed, possibly because of cutaneous anergy. Many patients who receive TNF-α antagonists already are receiving other immunosuppressive therapies, and certain conditions such as rheumatoid arthritis also can decrease sensitivity to tuberculin; therefore, TST results at the time of initiating TNF-α antagonist therapy might be falsely negative. Some experts advocate treating for presumed LTBI when a candidate for TNF-α antagonists has risk factors for *M. tuberculosis* infection but a negative TST result (*4,5*).

TNF-α, an inflammatory cytokine expressed by activated macrophages, T-cells, and other immune cells, plays a crucial role in the host response against *M. tuberculosis* and other intracellular pathogens. Infliximab and adalimumab are monoclonal antibodies; etanercept is a dimeric soluble form of the TNF-α receptor. All three products are approved for the treatment of patients with rheumatoid arthritis. Infliximab also is approved for Crohn's disease, and etanercept is approved for specific other arthritides and for psoriasis. Use of these agents has been associated with other life-threatening infectious diseases besides TB, including candidiasis, histoplasmosis, aspergillosis, and listeriosis (*1*). TNF-α antagonists often are used in conjunction with other immunosuppressive therapies, particularly glucocorticoids and methotrexate. Whether the increased rates of TB or other infectious diseases are caused by interactions among these therapies is unknown.

Diagnosing LTBI in candidates for TNF-α antagonist therapy is challenging (Box). For patients who undergo treatment for LTBI, the optimal time for starting TNF-α antagonist therapy is undetermined. Some experts advocate postponing therapy until LTBI treatment is complete. However, this delay might be impractical (*4,6*). The risk for TB relapse in patients previously cured of TB disease and subsequently treated with TNF-α antagonists is unknown.

BOX. Recommendations for screening, diagnosis, and treatment of latent TB infection (LTBI) and tuberculosis (TB) in patients administered or scheduled to receive tumor necrosis factor-alpha (TNF-α) antagonists

- Screen patients for risk factors for *Mycobacterium tuberculosis* and test them for infection before initiating immunosuppressive therapies, including TNF-α antagonists. Risk factors include birth in a country where TB is prevalent or history of any of the following: residence in a congregate setting (e.g., jail or prison, homeless shelter, or chronic-care facility), a positive tuberculin skin test (TST) result, substance abuse (i.e., injection or noninjection), health-care employment in settings with TB patients, and chest radiographic findings consistent with previous TB (*1*).
- Diagnosis and treatment of LTBI and TB disease should be in accordance with published guidelines (*1–3*).
- In patients who are immunocompromised (e.g., because of therapy or other medical conditions), interpret a TST induration of ≥5 mm as a positive result and evidence of *M. tuberculosis* infection.
- Interpret a TST induration of <5 mm as a negative result but not an exclusion for *M. tuberculosis* infection. Results from control-antigen skin testing (e.g., *Candida*) do not alter the interpretation of a negative TST result.
- Test to exclude TB disease before starting treatment for LTBI (*1,2*).
- Start treatment for LTBI before commencing TNF-α blocking agents, preferably with 9 months of daily isoniazid (*1,2*).
- Consider treating for LTBI in patients who have negative TST results but whose epidemiologic and clinical circumstances suggest a probability of LTBI.
- Pursue TB disease as a potential cause of febrile or respiratory illness in immunocompromised patients, including those receiving TNF-α blocking agents.
- Consider postponing TNF-α antagonist therapy until the conclusion of treatment for LTBI or TB disease.

References

1. American Thoracic Society. Targeted tuberculin testing and treatment of latent tuberculosis infection. Am J Respir Crit Care Med 2000;161:S221–47.
2. CDC. Update: adverse event data and revised American Thoracic Society/CDC recommendations against the use of rifampin and pyrazinamide for treatment of latent tuberculosis infection—United States, 2003. MMWR 2003;52:735–9.
3. CDC. Treatment of tuberculosis: American Thoracic Society, CDC, and Infectious Diseases Society of America. MMWR 2003;52(No. RR-11).

If active TB disease develops during TNF-α antagonist therapy, the TNF-α antagonist should be discontinued, at least until the anti-TB regimen has been started and the patient's condition has improved. The optimal time for resuming TNF-α antagonist therapy is undetermined. Outcomes with other immunosuppressive agents during the treatment of TB disease have been variable. Use of glucocorticosteroids during the treatment of TB disease is considered safe (*7*), and studies of TB disease in organ transplant recipients suggest that survival is not decreased by the use of cyclosporine or azathioprine (*8*). Etanercept, administered in a phase-1 clinical trial along with a standard initial anti-TB regimen, did not delay the resolution of TB disease markers in a group of patients coinfected with human immunodeficiency virus in comparison with historical controls; adverse effects were not detected (*9*). However, use of anti–T-cell agents in transplant recipients with TB disease is associated with increased mortality; whether this increased mortality is because of the suppression of immune response or the dysfunction of the transplanted organ is unclear (*8*).

Practitioners who prescribe TNF-α antagonists should educate their patients about the symptoms of TB disease, with added emphasis on extrapulmonary symptoms, which can include fever, malaise, or development of a mass. A patient with symptoms should undergo diagnostic testing for TB. In addition to following local reporting requirements, healthcare providers should report TB cases associated with TNF-α antagonists to FDA's Medwatch system (available at http://www.fda.gov/medwatch).

Ongoing clinical trials are using both approved and experimental TNF-α antagonists in the treatment of additional conditions (*4*). Novel therapies that inhibit other related inflammatory cytokines are under development. As the use of these blocking agents expands, associated cases of TB might increase. Vigilance for TB in association with these agents is critical to early recognition and successful treatment.

References

1. Keane J, Gershon S, Wise RP, et al. Tuberculosis associated with infliximab, a tumor necrosis factor-alpha neutralizing agent. N Engl J Med 2001;345:1098–104.
2. Food and Drug Administration, Arthritis Drugs Advisory Committee. Update on the TNF-α blocking agents. Rockville, Maryland: Food and Drug Administration, 2003. Available at http://www.fda.gov/ohrms/dockets/ac/03/briefing/3930b1.htm.
3. Mendoza MT, Gonzaga AJ, Roa C, et al. Nature of drug resistance and predictors of multidrug-resistant tuberculosis among patients seen at the Philippine General Hospital, Manila, Philippines. Int J Tuberc Lung Dis 1997;1:59–63.
4. Gardam MA, Keystone EC, Menzies R, et al. Anti-tumour necrosis factor agents and tuberculosis risk: mechanisms of action and clinical management. Lancet Infect Dis 2003;3:148–55.
5. Arend SM, Breedveld FC, Van Dissel JT. TNF-α blockade and tuberculosis: better look before you leap. Neth J Med 2003;61:111–9.
6. Long R, Gardam MA. Tumor necrosis factor-α inhibitors and the reactivation of latent tuberculosis infection. CMAJ 2003;168:1153–6.
7. CDC. Treatment of tuberculosis: American Thoracic Society, CDC, and Infectious Diseases Society of America. MMWR 2003;52(No. RR-11).
8. Singh N, Paterson DL. *Mycobacterium tuberculosis* infection in solid-organ transplant recipients: impact and implications for management. Clin Infect Dis 1998;27:1266–77.
9. Wallis RS, Kyambadde P, Johnson JL, et al. A study of the safety, immunology, virology, and microbiology of adjunctive etanercept in HIV-1-associated tuberculosis. AIDS 2004;18:257–64.

West Nile Virus Activity — United States, July 28–August 3, 2004

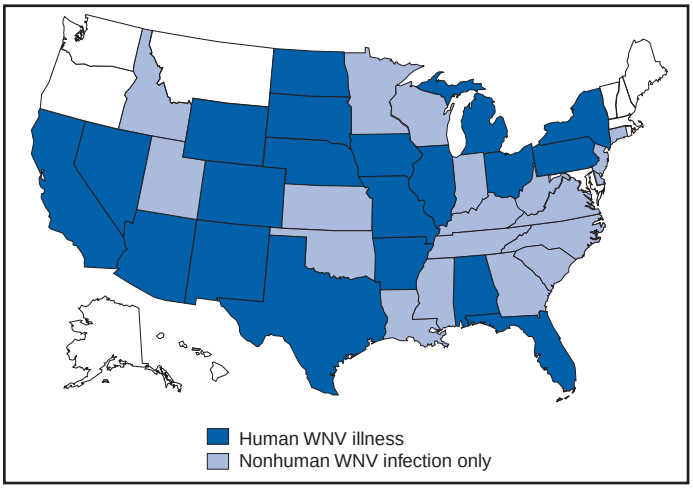
During July 28–August 3, a total of 141 cases of human West Nile virus (WNV) illness were reported from 11 states (Alabama, Arizona, California, Colorado, Florida, Illinois, Nevada, New York, North Dakota, South Dakota, and Texas). During 2004, a total of 20 states have reported a total of 406 cases of human WNV illness to CDC through ArboNET (Table, Figure). Of these, 247 (61%) were reported from Arizona. A total of 226 (57%) of the 406 cases occurred in males; the median age of patients was 51 years (range:

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
Alabama	2	0	0	**2**	0
Arizona	99	26	122	**247**	2
Arkansas	1	2	0	**3**	0
California	28	31	10	**69**	2
Colorado	9	35	0	**44**	0
Florida	4	3	0	**7**	0
Illinois	0	1	1	**2**	0
Iowa	1	2	0	**3**	1
Michigan	1	0	0	**1**	0
Missouri	1	0	0	**1**	0
Nebraska	0	1	0	**1**	0
Nevada	2	0	0	**2**	0
New Mexico	1	4	0	**5**	0
New York	2	1	0	**3**	0
North Dakota	0	1	0	**1**	0
Ohio	1	0	0	**1**	1
Pennsylvania	1	0	0	**1**	0
South Dakota	1	8	0	**9**	0
Texas	2	1	0	**3**	1
Wyoming	0	1	0	**1**	0
Total	**156**	**117**	**133**	**406**	**7**

* As of August 3, 2004.
† Cases with neurologic manifestations (i.e., 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, August 3, 2004.

1 month–99 years). Illness onset ranged from April 20 to July 29; seven cases were fatal.

A total of 38 presumptive West Nile viremic blood donors (PVDs) have been reported to ArboNET in 2004. Of these, 31 (82%) were reported from Arizona, two each from California and South Dakota, and one each from Colorado, Iowa, and New Mexico. Of the 38 PVDs, two persons aged 66 and 69 years subsequently had neuroinvasive illness, and seven persons (median age: 55 years [range: 22–72 years]) subsequently had West Nile fever.

In addition, during 2004, a total of 1,823 dead corvids and 223 other dead birds with WNV infection have been reported from 34 states. WNV infections in horses have been reported from 20 states (Alabama, Arizona, California, Colorado, Florida, Idaho, Iowa, Kentucky, Minnesota, Mississippi, Missouri, Nevada, North Carolina, Ohio, Oklahoma, South Dakota, Tennessee, Texas, Virginia, and Wyoming) and in a dog from New Mexico. WNV seroconversions have been reported in 253 sentinel chicken flocks from seven states (Arizona, California, Delaware, Florida, Louisiana, Nebraska, and Nevada) and in two wild hatchling birds from Ohio. Three seropositive sentinel horses were reported from Puerto Rico. A total of 1,486 WNV-positive mosquito pools have been reported from 24 states (Arizona, Arkansas, California, Colorado, Connecticut, Georgia, Illinois, Indiana, Kansas, Louisiana, Michigan, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New Mexico, Ohio, Pennsylvania, South Dakota, Tennessee, Texas, Utah, 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.

Notice to Readers

Final 2003 Reports of Notifiable Diseases

The notifiable diseases tables on pages 688–696 summarize final National Notifiable Diseases Surveillance System data for 2003. Final as of June 30, 2004, these data will be published in more detail in the *Summary of Notifiable Diseases, United States, 2003* (*1*). Because no cases of anthrax, Powassan encephalitis, western equine encephalitis, paralytic poliomyelitis, or yellow fever were reported in the United States during 2003, these nationally notifiable diseases do not appear in these tables. Policies for reporting notifiable disease cases can vary by disease or reporting jurisdiction depending on case status classification (i.e., confirmed, probable, or suspected). Population estimates for the states and for Puerto Rico are from the U.S. Census Bureau as of July 1, 2002 (*2*). Population numbers for territories are 2002 estimates from the U.S. Census Bureau IDB Data Access—Display Mode (*3*).

References

1. CDC. Summary of notifiable diseases, United States, 2003. MMWR 2003;52(54) (in press).
2. U.S. Census Bureau Population Division. Annual estimates of the population for the United States and states, and for Puerto Rico: April 1, 2000 to July 1, 2003. Available at http://eire.census.gov/popest/data/states/tables/NST-EST2003-01.xls.
3. U.S. Census Bureau. IDB Data Access—Display Mode. Available at http://www.census.gov/ipc/www/idbprint.html.

TABLE 2. Reported cases of notifiable diseases,* by geographic division and area — United States, 2003

Area	Total resident population (in thousands)	AIDS†	Botulism			Brucellosis	Chancroid¶
			Foodborne	Infant	Other§		
UNITED STATES	287,974	44,232**	20	76	33	104	54
NEW ENGLAND	14,134	1,697	1	1	-	-	3
Maine	1,295	52	-	-	-	-	-
N.H.	1,274	37	1	-	-	-	-
Vt.	616	16	-	-	-	-	-
Mass.	6,422	757	-	-	-	-	3
R.I.	1,068	102	-	-	-	-	-
Conn.	3,459	733	-	1	-	-	-
MID. ATLANTIC	40,038	10,142	1	23	1	9	11
Upstate N.Y.	11,385	1,589	-	2	-	1	1
N.Y. City	7,749	5,133	-	1	1	3	9
N.J.	8,575	1,514	-	3	-	1	-
Pa.	12,329	1,906	1	17	-	4	1
E.N. CENTRAL	45,635	3,875	-	3	-	9	-
Ohio	11,409	775	-	2	-	1	-
Ind.	6,157	506	-	1	-	-	-
Ill.	12,586	1,734	-	-	-	-	-
Mich.	10,043	676	-	-	-	5	-
Wis.	5,440	184	-	-	-	3	-
W.N. CENTRAL	19,464	844	-	-	1	4	-
Minn.	5,025	179	-	-	-	2	-
Iowa	2,936	75	-	-	-	-	-
Mo.	5,670	404	-	-	-	-	-
N. Dak.	634	2	-	-	-	-	-
S. Dak.	760	13	-	-	1	1	-
Nebr.	1,728	60	-	-	-	1	-
Kans.	2,712	111	-	-	-	-	-
S. ATLANTIC	53,564	12,191	-	5	-	13	29
Del.	806	216	-	3	-	-	-
Md.	5,451	1,572	-	1	-	-	1
D.C.	569	961	-	-	-	-	-
Va.	7,288	786	-	-	-	2	-
W. Va.	1,805	95	-	-	-	-	-
N.C.	8,306	1,102	-	-	-	1	2
S.C.	4,104	778	-	-	-	-	24
Ga.	8,544	1,907	-	1	-	-	-
Fla.	16,692	4,774	-	-	-	10	2
E.S. CENTRAL	17,225	2,035	-	1	-	4	1
Ky.	4,090	220	-	-	-	-	1
Tenn.	5,790	835	-	1	-	-	-
Ala.	4,479	471	-	-	-	1	-
Miss.	2,867	509	-	-	-	3	-
W.S. CENTRAL	32,409	4,864	-	1	3	34	3
Ark.	2,706	189	-	-	-	1	-
La.	4,476	1,048	-	-	-	1	-
Okla.	3,490	214	-	-	-	-	-
Tex.	21,737	3,413	-	1	3	32	3
MOUNTAIN	19,033	1,501	2	9	1	8	5
Mont.	910	7	-	-	-	-	-
Idaho	1,343	25	-	-	-	-	-
Wyo.	499	8	-	-	-	1	1
Colo.	4,501	368	1	2	1	1	-
N. Mex.	1,852	111	-	-	-	3	-
Ariz.	5,441	628	-	-	-	1	2
Utah	2,319	75	1	5	-	2	2
Nev.	2,167	279	-	2	-	-	-
PACIFIC	46,472	6,863	16	33	27	23	2
Wash.	6,067	527	11	-	-	1	-
Oreg.	3,520	242	-	3	1	-	2
Calif.	35,002	5,967	2	29	26	19	-
Alaska	641	17	3	-	-	1	-
Hawaii	1,241	110	-	1	-	2	-
Guam	161	7	-	-	-	-	7
P.R.	3,859	1,065	-	-	-	-	-
V.I.	108	34	-	-	-	-	-
Amer. Samoa	57	1	-	-	-	-	-
C.N.M.I.	74	2	1	-	-	-	-

N: Not Available. U: Unavailable. -: No reported cases.

* No cases of anthrax were reported in 2003.

† Total number of acquired immunodeficiency syndrome (AIDS) cases reported to the Division of HIV/AIDS Prevention—Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), through December 31, 2003.

§ Includes cases reported as wound and unspecified botulism.

¶ Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of May 1, 2004.

** Total includes 220 cases in persons with unknown state of residence.

TABLE 2. (*Continued*) Reported cases of notifiable diseases, by geographic division and area — United States, 2003

Area	Chlamydia*	Cholera	Coccidioidomycosis	Cryptosporidiosis	Cyclosporiasis	Diphtheria
UNITED STATES	877,478	2	4,870	3,506	75	1
NEW ENGLAND	28,400	-	1	193	10	-
Maine	2,030	-	N	20	-	-
N.H.	1,616	-	-	26	-	-
Vt.	1,060	-	-	32	N	-
Mass.	11,301	-	-	78	6	-
R.I.	3,000	-	1	17	-	-
Conn.	9,393	-	N	20	4	-
MID. ATLANTIC	110,682	-	-	452	27	1
Upstate N.Y.	21,853	-	N	140	3	-
N.Y. City	35,369	-	-	126	9	-
N.J.	16,169	-	-	19	9	-
Pa.	37,291	-	N	167	6	1
E.N. CENTRAL	158,405	-	7	1,039	2	-
Ohio	42,522	-	-	173	-	-
Ind.	17,075	-	N	126	-	-
Ill.	48,294	-	-	102	-	-
Mich.	32,572	-	7	152	2	-
Wis.	17,942	-	-	486	-	-
W.N. CENTRAL	52,026	-	4	600	-	-
Minn.	10,714	-	N	155	-	-
Iowa	6,491	-	N	122	-	-
Mo.	18,570	-	1	52	-	-
N. Dak.	1,655	-	N	15	N	-
S. Dak.	2,608	-	-	49	-	-
Nebr.	4,739	-	3	33	-	-
Kans.	7,249	-	N	174	-	-
S. ATLANTIC	163,936	-	5	430	35	-
Del.	3,035	-	N	5	1	-
Md.	16,831	-	5	29	-	-
D.C.	3,168	-	-	14	8	-
Va.	19,439	-	-	54	2	-
W. Va.	2,585	-	N	4	-	-
N.C.	26,187	-	N	57	2	-
S.C.	14,623	-	-	16	-	-
Ga.	35,686	-	-	122	8	-
Fla.	42,382	-	N	129	14	-
E.S. CENTRAL	54,763	-	1	136	-	-
Ky.	7,981	-	N	27	N	-
Tenn.	20,380	-	N	43	-	-
Ala.	14,209	-	-	56	-	-
Miss.	12,193	-	1	10	-	-
W.S. CENTRAL	109,039	-	10	131	1	-
Ark.	7,856	-	-	22	-	-
La.	20,970	-	-	5	-	-
Okla.	11,013	-	N	24	-	-
Tex.	69,200	-	10	80	1	-
MOUNTAIN	48,934	1	2,751	139	-	-
Mont.	2,547	-	N	18	-	-
Idaho	2,366	-	N	27	-	-
Wyo.	960	-	1	5	-	-
Colo.	13,039	-	N	38	-	-
N. Mex.	7,480	-	10	17	-	-
Ariz.	12,819	1	2,695	6	N	-
Utah	3,893	-	9	20	-	-
Nev.	5,830	-	36	8	-	-
PACIFIC	151,293	1	2,091	386	-	-
Wash.	16,797	-	-	62	-	-
Oreg.	7,688	-	-	36	-	-
Calif.	117,428	-	2,091	287	-	-
Alaska	3,900	-	-	1	-	-
Hawaii	5,480	1	-	-	-	-
Guam	598	-	-	-	-	-
P.R.	2,722	-	N	N	N	-
V.I.	410	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-
C.N.M.I.	218	-	-	-	-	-

N: Not Available. U: Unavailable. -: No reported cases.
* Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of May 1, 2004. Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2003

Area	Ehrlichiosis		Encephalitis/meningitis, arboviral†			
	Human granulocytic	Human monocytic	California serogroup	Eastern equine	St. Louis	West Nile
UNITED STATES	362	321	108	14	41	2,866
NEW ENGLAND	151	37	-	-	-	31
Maine	4	-	-	-	-	-
N.H.	1	1	-	-	-	2
Vt.	-	-	-	-	-	-
Mass.	54	15	-	-	-	12
R.I.	63	21	-	-	-	5
Conn.	29	-	-	-	-	12
MID. ATLANTIC	80	18	-	2	2	223
Upstate N.Y.	62	11	-	-	-	-
N.Y. City	8	4	-	-	1	57
N.J.	10	3	-	2	-	21
Pa.	N	N	-	-	1	145
E.N. CENTRAL	16	19	37	-	4	150
Ohio	2	6	17	-	-	84
Ind.	1	6	-	-	-	15
Ill.	2	6	11	-	-	30
Mich.	-	1	-	-	4	14
Wis.	11	-	9	-	-	7
W.N. CENTRAL	88	34	3	-	1	696
Minn.	77	2	3	-	-	48
Iowa	1	-	-	-	-	81
Mo.	9	31	-	-	-	39
N. Dak.	N	N	-	-	-	94
S. Dak.	-	-	-	-	1	151
Nebr.	-	-	-	-	-	194
Kans.	1	1	-	-	-	89
S. ATLANTIC	23	119	42	9	-	191
Del.	9	3	-	-	-	12
Md.	5	51	-	-	-	49
D.C.	N	N	-	-	-	3
Va.	-	9	2	1	-	19
W. Va.	-	-	23	-	-	1
N.C.	2	28	17	1	-	16
S.C.	2	-	-	2	-	3
Ga.	-	20	-	2	-	27
Fla.	5	8	-	3	-	61
E.S. CENTRAL	1	39	23	2	2	91
Ky.	-	4	3	-	-	11
Tenn.	-	33	19	-	-	21
Ala.	1	2	-	2	-	25
Miss.	-	-	1	-	2	34
W.S. CENTRAL	3	54	3	1	26	611
Ark.	-	19	-	-	-	23
La.	N	N	3	1	9	101
Okla.	2	33	-	-	-	56
Tex.	1	2	-	-	17	431
MOUNTAIN	-	1	-	-	6	871
Mont.	-	-	-	-	-	75
Idaho	-	-	-	-	-	-
Wyo.	-	-	-	-	-	92
Colo.	N	N	-	-	-	621
N. Mex.	-	-	-	-	1	74
Ariz.	-	-	-	-	5	7
Utah	-	-	-	-	-	-
Nev.	-	1	-	-	-	2
PACIFIC	-	-	-	-	-	2
Wash.	-	-	-	-	-	-
Oreg.	-	-	-	-	-	-
Calif.	-	-	-	-	-	2
Alaska	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-
Guam	-	-	-	-	-	-
P.R.	-	-	-	-	-	-
V.I.	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-

N: Not Available. U: Unavailable. -: No reported cases.
* No cases of Powassan or western equine encephalitis were reported in 2003.
† Totals reported to the Division of Vector-Borne Infectious Diseases, NCID (ArboNet Surveillance).

TABLE 2. (*Continued*) Reported cases of notifiable diseases, by geographic division and area — United States, 2003

Area	*Escherichia coli*, enterohemorrhagic (EHEC)			Giardiasis	Gonorrhea*	*Haemophilus influenzae*, invasive disease			
		Shiga toxin positive				All ages	Age <5 years		
	O157:H7	Non-O157	Not serogrouped			All serotypes	Serotype b	Non-serotype b	Unknown serotype
UNITED STATES	2,671	252	156	19,709	335,104	2,013	32	117	227
NEW ENGLAND	163	47	13	1,700	7,443	176	2	7	6
Maine	11	4	-	186	233	6	-	-	1
N.H.	21	3	-	44	125	20	1	2	-
Vt.	18	-	-	122	97	11	-	-	1
Mass.	72	10	13	854	2,901	80	1	5	3
R.I.	4	-	-	126	973	15	-	-	1
Conn.	37	30	-	368	3,114	44	-	-	-
MID. ATLANTIC	256	25	36	4,030	41,976	409	3	4	50
Upstate N.Y.	105	13	20	1,284	8,484	155	3	4	10
N.Y. City	7	-	N	1,200	13,682	70	-	-	13
N.J.	31	2	-	520	7,944	70	-	-	11
Pa.	113	10	16	1,026	11,866	114	-	-	16
E.N. CENTRAL	580	35	20	3,254	70,663	323	3	6	61
Ohio	132	16	20	903	22,537	78	-	1	14
Ind.	91	-	-	N	6,681	59	-	-	11
Ill.	122	2	-	940	21,817	109	-	-	24
Mich.	94	2	-	781	13,965	26	3	5	1
Wis.	141	15	-	630	5,663	51	-	-	11
W.N. CENTRAL	451	56	22	2,161	18,147	125	2	8	14
Minn.	132	22	1	851	3,202	57	2	8	2
Iowa	104	-	-	277	1,554	-	-	-	-
Mo.	85	20	1	515	8,792	42	-	-	11
N. Dak.	14	4	8	50	103	8	-	-	-
S. Dak.	29	4	-	89	226	1	-	-	-
Nebr.	51	6	-	145	1,623	2	-	-	-
Kans.	36	-	12	234	2,647	15	-	-	1
S. ATLANTIC	168	51	48	2,883	81,875	453	2	20	33
Del.	11	N	N	57	1,128	-	-	-	-
Md.	18	3	1	118	8,032	109	1	9	1
D.C.	1	-	-	61	2,508	2	-	-	-
Va.	50	15	-	423	9,066	68	-	-	9
W. Va.	7	1	-	64	847	17	-	-	-
N.C.	-	-	38	N	15,116	41	-	3	2
S.C.	6	-	-	175	8,518	13	-	-	5
Ga.	27	8	-	853	17,686	81	-	-	9
Fla.	48	24	9	1,132	18,974	122	1	8	7
E.S. CENTRAL	86	2	6	416	27,728	100	1	4	13
Ky.	29	2	6	N	3,578	12	-	3	2
Tenn.	36	-	-	200	8,519	61	-	1	8
Ala.	17	-	-	216	9,303	25	1	-	3
Miss.	4	-	-	-	6,328	2	-	-	-
W.S. CENTRAL	102	4	4	314	45,248	85	3	13	5
Ark.	13	-	-	154	4,251	6	-	1	-
La.	3	-	N	15	11,850	22	-	2	4
Okla.	30	-	-	145	4,552	52	-	10	-
Tex.	56	4	4	N	24,595	5	3	-	1
MOUNTAIN	327	27	7	1,641	10,472	191	9	27	21
Mont.	17	-	-	115	122	-	-	-	-
Idaho	85	16	-	206	68	7	-	-	3
Wyo.	5	1	-	23	46	2	-	-	-
Colo.	67	4	7	467	2,854	40	-	-	7
N. Mex.	13	5	-	55	1,169	24	1	6	2
Ariz.	41	N	N	256	3,580	93	8	11	5
Utah	75	-	-	380	412	15	-	6	4
Nev.	24	1	-	139	2,221	10	-	4	-
PACIFIC	538	5	-	3,310	31,552	151	7	28	24
Wash.	128	1	-	435	2,753	14	3	7	3
Oreg.	102	4	-	411	1,000	42	-	-	4
Calif.	294	-	N	2,281	25,963	60	4	21	10
Alaska	5	-	-	89	573	21	-	-	7
Hawaii	9	-	-	94	1,263	14	-	-	-
Guam	-	-	-	2	68	-	-	-	-
P.R.	3	-	-	364	277	2	-	-	2
V.I.	-	-	-	-	87	-	-	-	-
Amer. Samoa	-	-	-	-	2	-	-	-	-
C.N.M.I.	-	-	-	-	31	-	-	-	-

N: Not Available. U: Unavailable. -: No reported cases.
* Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of May 1, 2004.

TABLE 2. (*Continued*) Reported cases of notifiable diseases, by geographic division and area — United States, 2003

Area	Hansen disease (leprosy)	Hantavirus pulmonary syndrome	Hemolytic uremic syndrome, postdiarrheal	Hepatitis, acute viral A	Hepatitis, acute viral B	Hepatitis, acute viral C	Legionellosis	Listeriosis
UNITED STATES	95	26	178	7,653	7,526	1,102	2,232	696
NEW ENGLAND	4	-	11	370	367	17	122	57
Maine	N	-	-	21	7	3	2	7
N.H.	-	-	-	19	24	N	9	4
Vt.	-	-	1	6	4	13	6	1
Mass.	4	-	8	217	213	-	57	19
R.I.	-	-	-	17	21	1	20	4
Conn.	-	N	2	90	98	-	28	22
MID. ATLANTIC	12	-	23	1,821	780	143	632	139
Upstate N.Y.	1	-	18	146	110	26	176	44
N.Y. City	8	-	-	450	193	-	71	24
N.J.	3	-	3	208	183	-	94	24
Pa.	-	-	2	1,017	294	117	291	47
E.N. CENTRAL	3	-	17	681	634	127	459	92
Ohio	2	-	5	171	160	9	226	27
Ind.	-	-	1	73	70	12	34	10
Ill.	-	-	3	186	130	22	50	24
Mich.	1	-	4	206	223	79	131	21
Wis.	-	-	4	45	51	5	18	10
W.N. CENTRAL	2	5	27	195	377	285	75	20
Minn.	1	-	9	52	55	23	5	6
Iowa	-	1	2	40	18	1	12	1
Mo.	-	-	8	60	248	258	37	6
N. Dak.	N	-	1	2	2	-	1	-
S. Dak.	-	1	1	-	4	-	2	-
Nebr.	1	1	6	14	32	3	7	4
Kans.	-	2	-	27	18	-	11	3
S. ATLANTIC	10	-	13	1,781	2,090	165	553	150
Del.	-	-	-	9	14	-	31	N
Md.	1	-	N	178	132	9	134	27
D.C.	-	-	-	43	13	-	19	2
Va.	-	-	1	141	227	15	109	18
W. Va.	N	-	1	38	43	20	26	7
N.C.	-	-	3	126	163	13	42	18
S.C.	-	-	-	56	201	26	11	9
Ga.	N	-	2	791	666	13	34	31
Fla.	9	-	6	399	631	69	147	38
E.S. CENTRAL	1	-	14	282	531	100	108	33
Ky.	-	-	N	36	94	26	46	9
Tenn.	1	-	14	206	229	25	37	9
Ala.	-	-	-	24	96	6	20	13
Miss.	-	-	-	16	112	43	5	2
W.S. CENTRAL	24	5	8	729	1,249	161	84	50
Ark.	3	-	-	38	91	3	2	1
La.	2	N	-	50	117	102	1	5
Okla.	-	-	4	28	76	6	10	3
Tex.	19	5	4	613	965	50	71	41
MOUNTAIN	3	12	15	486	595	53	90	34
Mont.	-	-	-	8	16	4	4	2
Idaho	-	2	1	18	8	1	7	2
Wyo.	-	1	-	2	31	-	2	-
Colo.	-	4	8	63	82	14	12	9
N. Mex.	-	1	-	25	36	-	5	3
Ariz.	1	-	N	280	283	7	21	12
Utah	1	3	5	39	52	-	27	2
Nev.	1	1	1	51	87	27	12	4
PACIFIC	36	4	50	1,308	903	51	109	121
Wash.	N	2	-	76	90	-	14	13
Oreg.	N	-	7	62	121	16	17	5
Calif.	21	2	42	1,147	657	31	77	98
Alaska	-	-	-	10	8	-	-	-
Hawaii	15	-	1	13	27	4	1	5
Guam	11	-	-	2	10	5	1	-
P.R.	1	N	N	102	144	-	-	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	1	5	-	-	-
C.N.M.I.	-	-	-	-	1	-	-	-

N: Not Available. U: Unavailable. -: No reported cases.

TABLE 2. (*Continued*) Reported cases of notifiable diseases, by geographic division and area — United States, 2003

Area	Lyme disease	Malaria	Measles		Meningococcal disease	Mumps	Pertussis	Plague
			Indigenous	Imported*				
UNITED STATES	21,273	1,402	32	24	1,756	231	11,647	1
NEW ENGLAND	4,079	74	1	-	86	4	2,083	-
Maine	175	5	-	-	6	-	91	-
N.H.	190	7	1	-	12	2	119	-
Vt.	43	2	-	-	4	-	71	-
Mass.	1,532	32	-	-	45	1	1,670	-
R.I.	736	7	-	-	4	-	55	-
Conn.	1,403	21	-	-	15	1	77	-
MID. ATLANTIC	14,016	368	14	4	210	30	1,757	-
Upstate N.Y.	5,179	63	2	-	55	3	1,067	-
N.Y. City	220	194	3	2	43	12	150	-
N.J.	2,887	61	1	1	31	6	188	-
Pa.	5,730	50	8	1	81	9	352	-
E.N. CENTRAL	914	109	3	3	262	28	1,590	-
Ohio	66	23	1	1	60	7	328	-
Ind.	25	4	-	-	48	3	104	-
Ill.	71	46	-	1	73	8	321	-
Mich.	12	25	2	-	50	8	140	-
Wis.	740	11	-	1	31	2	697	-
W.N. CENTRAL	609	57	-	-	131	11	657	-
Minn.	474	28	-	-	29	1	207	-
Iowa	58	6	-	-	28	2	166	-
Mo.	70	7	-	-	49	5	208	-
N. Dak.	-	1	-	-	1	-	7	-
S. Dak.	1	3	-	-	1	-	7	-
Nebr.	2	-	-	-	8	-	16	-
Kans.	4	12	-	-	15	3	46	-
S. ATLANTIC	1,370	351	-	3	287	28	855	-
Del.	212	2	-	-	9	2	9	-
Md.	691	80	-	1	28	5	94	-
D.C.	14	17	-	-	6	-	4	-
Va.	195	59	-	-	28	1	219	-
W. Va.	31	4	-	-	7	3	28	-
N.C.	156	25	-	1	37	2	144	-
S.C.	18	5	-	-	29	5	208	-
Ga.	10	67	-	1	37	3	36	-
Fla.	43	92	-	-	106	7	113	-
E.S. CENTRAL	66	32	-	-	97	10	170	-
Ky.	17	11	-	-	23	-	53	-
Tenn.	20	7	-	-	30	5	83	-
Ala.	8	7	-	-	21	4	19	-
Miss.	21	7	-	-	23	1	15	-
W.S. CENTRAL	92	139	-	-	193	22	879	-
Ark.	-	4	-	-	21	1	92	-
La.	7	5	-	-	43	1	11	-
Okla.	-	5	-	-	24	2	106	-
Tex.	85	125	-	-	105	18	670	-
MOUNTAIN	15	54	-	1	103	15	1,040	1
Mont.	-	-	-	-	6	-	5	-
Idaho	3	1	-	-	9	1	82	-
Wyo.	2	2	-	-	2	1	130	-
Colo.	-	23	-	-	27	1	372	-
N. Mex.	1	3	-	-	12	1	78	1
Ariz.	4	17	-	1	34	1	211	-
Utah	2	6	-	-	5	5	127	-
Nev.	3	2	-	-	8	5	35	-
PACIFIC	112	218	14	13	387	83	2,616	-
Wash.	7	34	-	-	61	11	844	-
Oreg.	16	11	-	3	63	N	438	-
Calif.	86	166	-	5	242	58	1,255	-
Alaska	3	1	-	-	7	1	67	-
Hawaii	N	6	14	5	14	13	12	-
Guam	-	1	5	-	-	3	1	-
P.R.	N	2	-	-	12	2	5	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	1	-	-	1	-	-
C.N.M.I.	-	-	-	-	-	-	-	-

N: Not Available. U: Unavailable. -: No reported cases.
* Imported cases include only those directly related to importation from other countries.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2003

Area	Psittacosis	Q Fever	Rabies		RMSF†	Rubella		Salmonellosis	SARs§
			Animal	Human		Rubella	Congenital syndrome		CoV
UNITED STATES	12	71	6,846	2	1,091	7	1	43,657	8
NEW ENGLAND	1	6	616	-	10	1	-	2,127	-
Maine	-	2	73	-	N	-	-	141	-
N.H.	1	-	29	-	-	-	-	152	-
Vt.	-	-	39	-	-	-	-	73	-
Mass.	-	4	216	-	9	1	-	1,223	-
R.I.	-	-	71	-	1	-	-	137	-
Conn.	N	-	188	-	-	-	-	401	-
MID. ATLANTIC	2	2	929	-	41	3	1	4,995	2
Upstate N.Y.	-	-	432	-	-	-	-	1,282	-
N.Y. City	-	2	6	-	13	1	1	1,301	-
N.J.	-	-	62	-	16	2	-	857	1
Pa.	2	N	429	-	12	-	-	1,555	1
E.N. CENTRAL	-	12	175	-	22	-	-	5,614	-
Ohio	-	8	53	-	10	-	-	1,326	-
Ind.	-	2	32	-	1	-	-	587	-
Ill.	-	-	24	-	5	-	-	1,955	-
Mich.	-	1	52	-	6	-	-	798	-
Wis.	-	1	14	-	-	-	-	948	-
W.N. CENTRAL	-	7	646	-	65	-	-	2,525	-
Minn.	-	1	48	-	2	-	-	574	-
Iowa	-	-	105	-	2	-	-	415	-
Mo.	-	3	43	-	51	-	-	882	-
N. Dak.	-	1	57	-	-	-	-	46	-
S. Dak.	-	-	132	-	5	-	-	131	-
Nebr.	-	1	98	-	4	-	-	183	-
Kans.	-	1	163	-	1	-	-	294	-
S. ATLANTIC	6	12	2,657	1	610	-	-	11,382	2
Del.	-	N	64	-	1	-	-	105	-
Md.	-	-	351	-	106	-	-	856	-
D.C.	-	2	-	-	1	-	-	55	-
Va.	1	-	542	1	34	-	-	1,187	1
W. Va.	-	N	82	-	6	-	-	152	-
N.C.	-	2	773	-	331	-	-	1,435	1
S.C.	2	1	255	-	49	-	-	866	-
Ga.	-	1	402	-	65	-	-	2,057	-
Fla.	3	6	188	-	17	-	-	4,669	-
E.S. CENTRAL	-	15	210	-	131	-	-	2,979	-
Ky.	-	9	39	-	3	-	-	404	-
Tenn.	-	6	103	-	74	-	-	781	-
Ala.	-	-	64	-	21	-	-	792	-
Miss.	-	-	4	-	33	-	-	1,002	-
W.S. CENTRAL	-	4	1,200	-	201	-	-	6,079	-
Ark.	-	-	69	-	48	-	-	838	-
La.	-	-	5	-	1	-	-	879	-
Okla.	-	N	204	-	138	-	-	494	-
Tex.	N	4	922	-	14	-	-	3,868	-
MOUNTAIN	1	3	181	-	10	1	-	2,379	2
Mont.	-	-	23	-	1	-	-	112	-
Idaho	1	1	15	-	2	-	-	181	-
Wyo.	-	-	6	-	2	-	-	77	-
Colo.	-	-	38	-	3	1	-	503	-
N. Mex.	-	-	5	-	1	-	-	304	1
Ariz.	-	-	75	-	-	-	-	789	-
Utah	-	-	14	-	1	-	-	234	1
Nev.	-	2	5	-	-	-	-	179	-
PACIFIC	2	10	232	1	1	2	-	5,577	2
Wash.	-	-	-	-	N	-	-	699	-
Oreg.	1	1	7	-	-	1	-	425	-
Calif.	1	9	216	1	1	-	-	4,127	2
Alaska	-	-	9	-	-	-	-	96	-
Hawaii	-	-	-	-	-	1	-	230	-
Guam	-	-	-	-	-	1	-	44	-
P.R.	N	-	71	1	N	-	-	798	-
V.I.	-	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	-	21	-

N: Not Available. U: Unavailable. -: No reported cases.

* No cases of paralytic poliomyelitis were reported in 2003.

† Rocky Mountain spotted fever.

§ Totals reported to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases.

TABLE 2. (*Continued*) Reported cases of notifiable diseases, by geographic division and area — United States, 2003

Area	Shigellosis	Streptococcal disease, invasive, group A	Streptococcal toxic-shock syndrome	*Streptococcus pneumoniae,* invasive, drug-resistant	*Streptococcus pneumoniae,* invasive, (<5 years)	Syphilis*		
						All stages†	Congenital (age <1 yr)	Primary & secondary
UNITED STATES	23,581	5,872	161	2,356	845	34,270	413	7,177
NEW ENGLAND	353	488	7	123	17	1,000	1	224
Maine	7	29	-	-	-	21	-	8
N.H.	10	34	-	-	N	37	-	19
Vt.	8	19	3	9	5	1	-	1
Mass.	236	210	2	N	N	644	-	133
R.I.	22	35	2	25	12	90	-	33
Conn.	70	161	U	89	U	207	1	30
MID. ATLANTIC	2,399	953	8	152	92	6,155	65	913
Upstate N.Y.	645	362	-	88	88	535	12	53
N.Y. City	416	146	-	U	U	3,825	30	531
N.J.	360	174	1	-	4	1,089	21	170
Pa.	978	271	7	64	N	706	2	159
E.N. CENTRAL	1,882	1,305	106	475	331	3,203	75	886
Ohio	301	287	24	285	98	481	3	197
Ind.	201	136	14	190	38	375	15	50
Ill.	1,006	349	68	-	134	1,376	19	374
Mich.	235	357	N	N	N	860	38	249
Wis.	139	176	-	N	61	111	-	16
W.N. CENTRAL	796	363	11	188	91	559	6	159
Minn.	103	181	9	167	74	195	-	47
Iowa	94	N	-	N	N	46	-	12
Mo.	356	81	2	16	3	207	4	61
N. Dak.	10	18	-	4	9	2	-	2
S. Dak.	17	25	-	1	-	5	-	2
Nebr.	92	27	-	-	5	27	1	10
Kans.	124	31	-	N	N	77	1	25
S. ATLANTIC	6,973	987	11	1,149	85	8,744	76	1,940
Del.	164	8	-	N	N	47	-	7
Md.	579	233	N	27	-	974	8	312
D.C.	76	11	-	1	9	330	1	48
Va.	453	111	3	N	N	552	1	82
W. Va.	4	39	4	113	12	11	-	2
N.C.	1,061	111	4	N	U	848	18	152
S.C.	620	50	-	153	N	548	11	94
Ga.	1,169	195	N	249	64	2,152	11	585
Fla.	2,847	229	N	606	N	3,282	26	658
E.S. CENTRAL	1,058	222	7	168	-	2,037	8	322
Ky.	136	52	6	31	N	160	1	33
Tenn.	405	170	1	137	N	876	2	135
Ala.	342	-	-	-	N	566	3	114
Miss.	175	-	-	-	-	435	2	40
W.S. CENTRAL	6,047	315	-	85	155	6,221	81	952
Ark.	113	7	-	24	8	296	2	51
La.	447	2	-	61	30	1,576	1	183
Okla.	1,078	99	N	N	77	353	1	64
Tex.	4,409	207	-	N	40	3,996	77	654
MOUNTAIN	1,354	598	11	12	74	1,725,	42	337
Mont.	2	1	-	-	-	-	-	-
Idaho	36	19	2	N	N	45	4	15
Wyo.	8	2	1	10	-	4	-	-
Colo.	333	147	4	-	55	144	3	39
N. Mex.	286	127	-	-	12	205	6	71
Ariz.	572	259	-	N	N	1,106	29	186
Utah	51	41	3	2	7	72	-	14
Nev.	66	2	1	-	-	149	-	12
PACIFIC	2,719	641	-	4	-	4,626	59	1,444
Wash.	188	74	-	-	N	239	-	82
Oreg.	211	N	-	N	N	118	-	48
Calif.	2,261	428	-	N	N	4,202	59	1,299
Alaska	11	-	-	-	N	8	-	1
Hawaii	48	139	-	4	-	59	-	14
Guam	41	-	-	-	-	2	1	1
P.R.	33	N	N	N	N	1,391	15	204
V.I.	-	-	-	-	-	1	-	1
Amer. Samoa	6	-	-	-	-	1	-	1
C.N.M.I.	128	-	-	-	-	8	-	8

N: Not Available. U: Unavailable. -: No reported cases.

* Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of May 1, 2004.

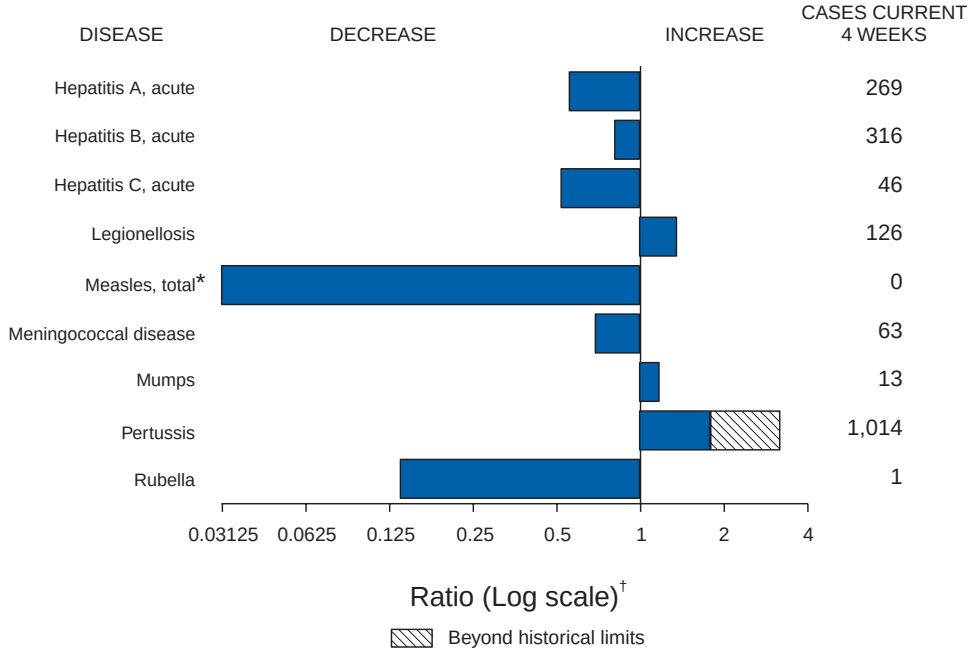
† Includes the following categories: primary, secondary, early, late (including neurosyphilis, late latent, late with clinical manifestations, and unknown latent), and congenital syphilis.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2003

Area	Tetanus	Toxic-shock syndrome	Trichinosis	Tuberculosis†	Tularemia	Typhoid fever	Varicella (chickenpox)	Varicella deaths§
UNITED STATES	20	133	6	14,883	129	356	20,948	2
NEW ENGLAND	1	8	1	467	6	29	5,522	-
Maine	-	1	-	25	-	-	1,012	-
N.H.	-	2	1	15	-	4	-	-
Vt.	1	1	-	9	-	-	930	-
Mass.	-	3	-	261	6	15	1,993	-
R.I.	-	1	-	46	-	2	5	-
Conn.	-	N	-	111	-	8	1,582	-
MID. ATLANTIC	1	16	1	2,311	1	80	43	-
Upstate N.Y.	1	6	1	340	1	12	-	-
N.Y. City	-	1	-	1,140	-	37	-	-
N.J.	-	-	-	495	-	21	-	-
Pa.	-	9	-	336	-	10	43	-
E.N. CENTRAL	3	39	-	1,314	2	33	6,484	-
Ohio	2	12	-	229	-	2	1,302	-
Ind.	1	2	-	143	-	4	-	-
Ill.	-	9	-	633	1	17	-	-
Mich.	-	13	-	243	-	10	4,171	-
Wis.	-	3	-	66	1	-	1,011	-
W.N. CENTRAL	1	29	-	514	46	7	103	-
Minn.	-	10	-	214	1	3	N	-
Iowa	-	5	-	40	N	2	N	-
Mo.	-	4	-	131	32	1	1	-
N. Dak.	-	1	-	6	-	-	102	-
S. Dak.	-	1	-	20	5	-	-	-
Nebr.	1	7	-	28	5	1	N	-
Kans.	-	1	-	75	3	-	-	-
S. ATLANTIC	5	10	-	2,933	9	59	2,433	1
Del.	-	-	-	33	3	-	29	-
Md.	1	N	-	268	1	11	1	1
D.C.	1	1	-	79	-	-	55	-
Va.	-	3	-	332	4	16	682	-
W. Va.	-	-	-	21	-	-	1,330	-
N.C.	-	2	-	374	1	9	N	-
S.C.	-	-	-	254	-	-	336	-
Ga.	-	4	N	526	-	8	N	-
Fla.	3	N	-	1,046	-	15	N	-
E.S. CENTRAL	3	2	2	809	7	8	-	-
Ky.	-	-	N	138	2	1	N	-
Tenn.	1	1	2	285	3	3	-	-
Ala.	1	1	-	258	1	4	-	-
Miss.	1	-	-	128	1	-	-	-
W.S. CENTRAL	1	-	-	2,144	43	31	5,481	1
Ark.	-	-	-	127	32	-	-	1
La.	-	-	-	260	-	-	16	-
Okla.	-	-	-	163	9	1	N	-
Tex.	1	N	-	1,594	2	30	5,465	-
MOUNTAIN	-	19	-	625	10	8	882	-
Mont.	-	-	-	7	-	-	-	-
Idaho	-	-	-	13	-	1	-	-
Wyo.	-	-	-	4	3	-	113	-
Colo.	-	5	-	111	3	4	N	-
N. Mex.	-	1	-	49	1	1	7	-
Ariz.	-	9	-	295	1	2	N	-
Utah	-	2	-	39	2	-	762	-
Nev.	-	2	-	107	-	-	-	-
PACIFIC	5	10	2	3,757	5	101	-	-
Wash.	-	-	-	250	3	4	N	-
Oreg.	-	-	-	106	-	4	N	-
Calif.	5	10	2	3,227	2	91	N	-
Alaska	-	-	-	57	-	-	-	-
Hawaii	-	-	-	117	-	2	-	-
Guam	-	-	-	61	-	-	153	-
P.R.	-	N	-	115	-	-	626	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	1	21	-
C.N.M.I.	-	-	-	45	-	-	-	-

N: Not Available. U: Unavailable. -: No reported cases.
* No cases of yellow fever were reported in 2003.
† Totals reported to the Division of Tuberculosis Elimination, NCHSTP, as of April 1, 2004.
§ Death counts provided by the Epidemiology and Surveillance Division, National Immunization Program.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals July 31, 2004, with historical data



* No measles cases were reported for the current 4-week period yielding a ratio for week 30 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 31, 2004 (30th Week)*

	Cum. 2004	Cum. 2003		Cum. 2004	Cum. 2003
Anthrax	-	-	Hemolytic uremic syndrome, postdiarrheal†	60	79
Botulism:	-	-	HIV infection, pediatric†¶	88	130
foodborne	8	8	Measles, total	18**	37††
infant	41	38	Mumps	121	128
other (wound & unspecified)	8	16	Plague	-	1
Brucellosis†	63	52	Poliomyelitis, paralytic	-	-
Chancroid	18	36	Psittacosis†	5	6
Cholera	4	1	Q fever†	30	46
Cyclosporiasis†	108	45	Rabies, human	3	-
Diphtheria	-	-	Rubella	15	6
Ehrlichiosis:	-	-	Rubella, congenital syndrome	-	1
human granulocytic (HGE)†	108	119	SARS-associated coronavirus disease†§§	-	7
human monocytic (HME)†	85	104	Smallpox†¶¶	-	NA
human, other and unspecified	3	20	*Staphylococcus aureus*:	-	-
Encephalitis/Meningitis:	-	-	Vancomycin-intermediate (VISA)†¶¶	4	NA
California serogroup viral†§	11	30	Vancomycin-resistant (VRSA)†¶¶	1	NA
eastern equine†§	-	8	Streptococcal toxic-shock syndrome†	63	118
Powassan†§	-	-	Tetanus	7	5
St. Louis†§	-	7	Toxic-shock syndrome	58	75
western equine†§	-	-	Trichinosis	5	-
Hansen disease (leprosy)†	44	50	Tularemia†	38	39
Hantavirus pulmonary syndrome†	10	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 June 27, 2004.
** Of 18 cases reported, 10 were indigenous, and eight were imported from another country.
†† Of 37 cases reported, 25 were indigenous, and 12 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 31, 2004, and July 26, 2003 (30th 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	20,281	24,155	486,420	489,036	3,142	1,913	1,370	1,259	155	286
NEW ENGLAND	727	843	16,670	15,621	-	-	81	87	-	1
Maine	10	35	1,131	1,114	N	N	14	6	-	-
N.H.	26	22	890	881	-	-	16	11	-	1
Vt.	13	11	567	577	-	-	12	18	-	-
Mass.	235	371	7,827	6,076	-	-	25	40	-	-
R.I.	70	68	1,881	1,667	-	-	2	9	-	-
Conn.	373	336	4,374	5,306	N	N	12	3	-	-
MID. ATLANTIC	4,432	5,185	61,950	60,743	-	-	210	172	3	12
Upstate N.Y.	591	623	12,796	11,014	N	N	55	43	-	-
N.Y. City	2,341	2,408	18,794	19,951	-	-	48	60	2	-
N.J.	788	949	10,050	9,137	-	-	12	9	-	-
Pa.	712	1,205	20,310	20,641	N	N	95	60	1	12
E.N. CENTRAL	1,724	2,383	81,393	88,162	7	4	328	331	2	11
Ohio	237	419	19,679	23,983	-	-	85	44	1	7
Ind.	219	306	10,257	9,681	N	N	39	33	-	3
Ill.	852	1,117	21,714	27,250	-	-	13	43	-	1
Mich.	326	417	20,831	17,481	7	4	77	55	1	-
Wis.	90	124	8,912	9,767	-	-	114	156	-	-
W.N. CENTRAL	407	431	29,514	28,271	4	2	199	143	2	51
Minn.	95	96	5,413	6,162	N	N	68	53	-	2
Iowa	28	45	3,136	3,278	N	N	37	28	-	6
Mo.	181	203	11,439	10,167	3	1	36	14	1	-
N. Dak.	12	3	900	888	N	N	8	10	-	4
S. Dak.	6	6	1,421	1,416	-	-	23	22	1	19
Nebr.**	18	30	2,971	2,421	1	1	14	6	-	13
Kans.	67	48	4,234	3,939	N	N	13	10	-	7
S. ATLANTIC	6,151	6,972	94,070	91,196	-	3	247	167	4	10
Del.	83	133	1,616	1,754	N	N	-	3	-	-
Md.	690	867	10,759	9,288	-	3	10	9	-	-
D.C.	354	656	1,716	1,861	-	-	6	3	-	-
Va.	336	593	12,697	10,762	-	-	27	16	-	2
W. Va.	31	49	1,620	1,426	N	N	3	3	-	-
N.C.	344	634	15,979	14,386	N	N	43	19	-	1
S.C.**	376	466	9,215	7,965	-	-	9	2	-	1
Ga.	894	953	16,218	19,904	-	-	79	63	-	-
Fla.	3,043	2,621	24,250	23,850	N	N	70	49	4	6
E.S. CENTRAL	958	1,102	31,347	31,639	2	1	56	63	2	13
Ky.	107	98	3,265	4,633	N	N	22	13	-	1
Tenn.**	391	477	12,693	11,325	N	N	12	24	-	1
Ala.	233	271	6,203	8,449	-	-	13	23	2	5
Miss.	227	256	9,186	7,232	2	1	9	3	-	6
W.S. CENTRAL	2,544	2,691	62,707	61,297	2	-	40	33	3	110
Ark.	124	106	4,483	4,396	1	-	12	5	1	2
La.	576	402	12,916	12,509	1	-	-	2	-	25
Okla.	90	135	6,349	6,238	N	N	13	6	-	5
Tex.	1,754	2,048	38,959	38,154	-	-	15	20	2	78
MOUNTAIN	729	920	25,246	28,614	1,983	1,272	71	63	111	78
Mont.	5	10	1,269	1,276	N	N	15	12	-	-
Idaho	9	16	1,668	1,380	N	N	8	14	-	-
Wyo.	7	5	598	552	-	1	2	2	-	3
Colo.	137	212	5,177	7,292	N	N	28	13	9	72
N. Mex.	107	70	2,586	4,242	9	5	4	4	1	3
Ariz.	284	392	9,411	8,453	1,920	1,242	11	3	99	-
Utah	34	40	2,065	2,119	18	4	2	9	-	-
Nev.	146	175	2,472	3,300	36	20	1	6	2	-
PACIFIC	2,609	3,628	83,523	83,493	1,144	631	138	200	28	-
Wash.	214	271	10,023	9,053	N	N	14	25	-	-
Oreg.	133	146	4,752	4,317	-	-	18	25	-	-
Calif.	2,201	3,136	65,068	64,882	1,144	631	105	150	28	-
Alaska	15	13	2,040	2,198	-	-	-	-	-	-
Hawaii	46	62	1,640	3,043	-	-	1	-	-	-
Guam	2	5	-	395	-	-	-	-	-	-
P.R.	209	620	1,474	1,369	N	N	N	N	-	-
V.I.	6	17	143	217	-	-	-	-	-	-
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 June 27, 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 31, 2004, and July 26, 2003 (30th 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	1,024	974	107	109	86	69	8,582	9,153	169,216	184,094
NEW ENGLAND	69	57	28	22	14	5	735	663	3,947	3,883
Maine	3	5	-	-	-	-	72	72	140	123
N.H.	10	10	5	2	-	-	18	23	64	63
Vt.	6	5	-	-	1	-	74	49	47	48
Mass.	32	21	4	7	13	5	333	326	1,850	1,475
R.I.	5	1	1	-	-	-	54	55	501	510
Conn.	13	15	18	13	-	-	184	138	1,345	1,664
MID. ATLANTIC	120	121	16	10	16	16	1,947	1,903	19,943	23,243
Upstate N.Y.	54	41	8	4	6	7	647	468	4,235	4,278
N.Y. City	24	3	-	-	-	-	571	657	6,078	7,655
N.J.	16	19	3	1	4	-	201	277	3,894	4,887
Pa.	26	58	5	5	6	9	528	501	5,736	6,423
E.N. CENTRAL	194	237	21	19	11	9	1,052	1,631	33,251	38,657
Ohio	49	44	7	10	11	9	424	460	9,783	12,460
Ind.	15	41	-	-	-	-	-	-	3,568	3,645
Ill.	34	43	-	2	-	-	84	513	9,253	11,939
Mich.	45	36	4	-	-	-	358	365	8,360	7,306
Wis.	51	73	10	7	-	-	186	293	2,287	3,307
W.N. CENTRAL	231	168	17	17	17	9	1,006	917	9,351	9,617
Minn.	45	52	7	8	2	-	346	340	1,816	1,604
Iowa	65	35	-	-	-	-	144	124	556	769
Mo.	50	44	10	2	6	1	270	257	4,731	4,891
N. Dak.	6	6	-	3	7	2	17	23	66	37
S. Dak.	18	10	-	3	-	-	34	24	154	115
Nebr.	31	8	-	1	-	-	71	67	582	763
Kans.	16	13	-	-	2	6	124	82	1,446	1,438
S. ATLANTIC	82	72	15	26	19	17	1,422	1,384	41,942	45,066
Del.	1	2	N	N	N	N	27	19	522	681
Md.	18	3	1	1	3	1	60	60	4,691	4,399
D.C.	1	1	-	-	-	-	35	20	1,249	1,413
Va.	16	21	6	5	-	-	234	203	5,165	5,000
W. Va.	1	2	-	-	-	-	17	23	513	486
N.C.	-	-	-	-	10	15	N	N	8,466	8,328
S.C.	4	-	-	-	-	-	28	67	4,373	4,574
Ga.	16	15	4	3	-	-	398	440	6,912	9,717
Fla.	25	28	4	17	6	1	623	552	10,051	10,468
E.S. CENTRAL	46	42	1	-	8	5	170	183	13,429	15,432
Ky.	17	13	1	-	5	5	N	N	1,416	1,984
Tenn.	15	17	-	-	3	-	79	83	4,661	4,553
Ala.	8	9	-	-	-	-	91	100	3,875	5,234
Miss.	6	3	-	-	-	-	-	-	3,477	3,661
W.S. CENTRAL	43	42	1	3	1	4	140	156	23,393	25,178
Ark.	8	5	-	-	-	-	63	84	2,153	2,366
La.	2	1	-	-	-	-	19	8	5,807	7,045
Okla.	10	12	-	-	-	-	58	64	2,662	2,435
Tex.	23	24	1	3	1	4	-	-	12,771	13,332
MOUNTAIN	94	112	7	10	-	4	732	758	5,415	6,028
Mont.	10	4	-	-	-	-	24	43	38	65
Idaho	22	26	3	6	-	-	91	84	47	40
Wyo.	1	2	1	-	-	-	13	11	28	26
Colo.	21	32	1	2	-	4	249	218	1,547	1,657
N. Mex.	5	4	-	2	-	-	41	27	313	693
Ariz.	10	18	N	N	N	N	105	141	2,012	2,250
Utah	16	20	1	-	-	-	153	161	313	191
Nev.	9	6	1	-	-	-	56	73	1,117	1,106
PACIFIC	145	123	1	2	-	-	1,378	1,558	18,545	16,990
Wash.	51	33	-	1	-	-	177	152	1,499	1,583
Oreg.	18	20	1	1	-	-	229	203	634	583
Calif.	68	69	-	-	-	-	891	1,107	15,689	13,885
Alaska	1	1	-	-	-	-	36	47	322	305
Hawaii	7	-	-	-	-	-	45	49	401	634
Guam	N	N	-	-	-	-	-	-	-	40
P.R.	-	1	-	-	-	-	17	132	119	152
V.I.	-	-	-	-	-	-	-	-	49	53
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 31, 2004, and July 26, 2003 (30th Week)*

Reporting area	*Haemophilus influenzae*, invasive								Hepatitis (viral, acute), by type	
	All ages		Age <5 years							
	All serotypes		Serotype b		Non-serotype b		Unknown serotype		A	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	1,131	1,132	10	16	54	74	110	130	3,068	3,618
NEW ENGLAND	102	73	1	1	5	5	3	3	519	168
Maine	7	2	-	-	-	-	-	1	10	7
N.H.	13	8	-	-	2	-	-	-	11	9
Vt.	5	6	-	-	-	-	1	-	8	4
Mass.	46	41	1	1	-	5	2	1	445	87
R.I.	3	4	-	-	-	-	-	1	10	11
Conn.	28	12	-	-	3	-	-	-	35	50
MID. ATLANTIC	243	245	-	1	3	2	28	31	365	765
Upstate N.Y.	82	85	-	1	3	2	4	7	53	65
N.Y. City	50	44	-	-	-	-	9	8	141	279
N.J.	45	49	-	-	-	-	3	7	69	117
Pa.	66	67	-	-	-	-	12	9	102	304
E.N. CENTRAL	185	190	-	3	6	3	27	35	276	364
Ohio	69	45	-	-	2	-	11	7	32	72
Ind.	34	32	-	-	4	-	1	3	15	35
Ill.	41	70	-	-	-	-	9	18	109	105
Mich.	14	15	-	3	-	3	5	1	97	117
Wis.	27	28	-	-	-	-	1	6	23	35
W.N. CENTRAL	66	75	2	-	3	6	4	9	119	105
Minn.	28	27	1	-	3	6	-	1	28	33
Iowa	1	-	1	-	-	-	-	-	31	16
Mo.	21	32	-	-	-	-	2	8	38	32
N. Dak.	3	2	-	-	-	-	-	-	1	-
S. Dak.	-	1	-	-	-	-	-	-	2	-
Nebr.	6	1	-	-	-	-	-	-	8	7
Kans.	7	12	-	-	-	-	2	-	11	17
S. ATLANTIC	269	230	-	-	16	9	19	15	588	771
Del.	6	-	-	-	-	-	-	-	5	5
Md.	44	55	-	-	4	5	1	-	78	79
D.C.	-	-	-	-	-	-	-	-	4	25
Va.	24	31	-	-	-	-	1	5	56	47
W. Va.	10	9	-	-	-	-	3	-	2	12
N.C.	40	20	-	-	5	1	1	1	55	42
S.C.	2	5	-	-	-	-	-	1	21	23
Ga.	71	43	-	-	-	-	12	5	204	311
Fla.	72	67	-	-	7	3	1	3	163	227
E.S. CENTRAL	41	47	1	1	-	2	8	4	89	105
Ky.	3	3	-	-	-	1	-	-	16	19
Tenn.	26	27	-	-	-	1	6	3	49	61
Ala.	12	16	1	1	-	-	2	1	6	12
Miss.	-	1	-	-	-	-	-	-	18	13
W.S. CENTRAL	46	54	1	1	5	8	1	4	222	357
Ark.	1	5	-	-	-	1	-	-	38	20
La.	8	17	-	-	-	2	1	4	15	33
Okla.	36	30	-	-	5	5	-	-	17	8
Tex.	1	2	1	1	-	-	-	-	152	296
MOUNTAIN	131	118	3	6	15	19	14	13	269	273
Mont.	-	-	-	-	-	-	-	-	4	3
Idaho	5	3	-	-	-	-	2	1	12	9
Wyo.	-	1	-	-	-	-	-	-	4	1
Colo.	30	23	-	-	-	-	3	5	29	40
N. Mex.	25	15	-	-	5	4	3	1	10	11
Ariz.	50	61	-	6	7	8	2	4	169	155
Utah	10	9	2	-	1	4	2	2	34	18
Nev.	11	6	1	-	2	3	2	-	7	36
PACIFIC	48	100	2	3	1	20	6	16	621	710
Wash.	3	6	2	-	-	4	1	1	34	39
Oreg.	29	25	-	-	-	-	2	2	42	40
Calif.	6	44	-	3	1	16	2	8	525	618
Alaska	4	18	-	-	-	-	1	5	4	7
Hawaii	6	7	-	-	-	-	-	-	16	6
Guam	-	-	-	-	-	-	-	-	-	2
P.R.	-	-	-	-	-	-	-	-	15	53
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 31, 2004, and July 26, 2003 (30th Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C							
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	3,521	3,964	639	622	795	944	300	331	7,048	9,803
NEW ENGLAND	189	183	4	3	15	43	12	22	656	1,729
Maine	1	1	-	-	-	1	3	3	53	51
N.H.	23	11	-	-	1	5	1	2	52	38
Vt.	3	2	1	3	1	1	-	-	18	12
Mass.	102	129	3	-	4	22	3	12	189	962
R.I.	3	4	-	-	2	2	1	-	80	121
Conn.	57	36	U	U	7	12	4	5	264	545
MID. ATLANTIC	670	457	71	76	209	225	66	60	5,279	6,585
Upstate N.Y.	53	49	7	10	41	53	23	14	1,715	1,860
N.Y. City	58	139	-	-	17	22	9	13	-	140
N.J.	387	115	-	-	44	27	11	11	1,457	1,936
Pa.	172	154	64	66	107	123	23	22	2,107	2,649
E.N. CENTRAL	308	293	53	91	197	190	48	43	228	579
Ohio	77	84	5	7	101	96	19	11	49	28
Ind.	8	17	2	3	14	12	12	2	3	9
Ill.	50	38	9	14	10	25	-	12	-	42
Mich.	150	125	37	63	65	43	15	12	11	-
Wis.	23	29	-	4	7	14	2	6	165	500
W.N. CENTRAL	228	181	199	133	18	42	7	8	166	135
Minn.	28	21	8	5	1	3	3	2	96	87
Iowa	10	5	-	1	3	7	1	-	13	18
Mo.	154	127	191	126	12	20	2	3	48	25
N. Dak.	3	-	-	-	1	1	-	-	-	-
S. Dak.	-	2	-	-	1	1	-	-	-	-
Nebr.	18	15	-	1	-	2	1	3	6	2
Kans.	15	11	-	-	-	8	-	-	3	3
S. ATLANTIC	1,068	1,102	105	99	194	262	50	62	617	624
Del.	22	6	-	-	4	8	N	N	66	106
Md.	90	70	13	6	36	66	6	9	382	399
D.C.	13	3	1	-	5	3	-	-	2	4
Va.	123	97	14	4	23	50	10	7	56	39
W. Va.	18	12	17	1	4	8	1	3	2	6
N.C.	107	99	7	7	20	16	13	10	63	43
S.C.	54	93	7	23	1	5	-	2	5	1
Ga.	338	359	7	7	28	20	8	18	8	9
Fla.	303	363	39	51	73	86	12	13	33	17
E.S. CENTRAL	231	258	56	48	43	61	17	13	26	31
Ky.	31	43	18	8	18	23	4	2	11	7
Tenn.	101	104	21	11	15	20	8	3	9	8
Ala.	36	53	1	5	9	14	3	6	1	2
Miss.	63	58	16	24	1	4	2	2	5	14
W.S. CENTRAL	136	647	80	112	35	42	21	36	15	70
Ark.	31	52	1	3	-	2	1	1	2	-
La.	34	85	44	70	3	1	2	2	2	6
Okla.	23	38	3	2	2	4	-	1	-	-
Tex.	48	472	32	37	30	35	18	32	11	64
MOUNTAIN	288	346	29	23	45	41	14	18	12	7
Mont.	2	8	2	1	1	2	-	1	-	-
Idaho	6	4	-	1	6	3	1	1	2	2
Wyo.	7	22	-	-	5	2	-	-	2	-
Colo.	28	51	5	5	6	7	5	6	1	-
N. Mex.	9	25	7	-	-	2	-	2	-	1
Ariz.	161	163	4	4	10	9	-	5	1	-
Utah	29	26	2	-	14	12	1	2	6	1
Nev.	46	47	9	12	3	4	7	1	-	3
PACIFIC	403	497	42	37	39	38	65	69	49	43
Wash.	32	40	13	11	6	5	6	4	4	-
Oreg.	65	74	10	7	N	N	5	2	19	9
Calif.	290	365	16	18	33	33	52	59	26	32
Alaska	13	3	-	-	-	-	-	-	-	2
Hawaii	3	15	3	1	-	-	2	4	N	N
Guam	-	4	-	3	-	-	-	-	-	-
P.R.	36	78	-	-	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 31, 2004, and July 26, 2003 (30th 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	651	627	877	1,089	6,114	4,155	2,993	4,032	554	325
NEW ENGLAND	48	26	44	50	761	455	313	295	11	4
Maine	5	1	8	5	2	9	31	27	-	-
N.H.	1	3	3	3	26	26	11	14	-	-
Vt.	3	-	2	-	43	44	11	18	-	-
Mass.	24	13	25	31	662	349	128	101	9	4
R.I.	2	-	1	2	16	7	17	37	1	-
Conn.	13	9	5	9	12	20	115	98	1	-
MID. ATLANTIC	157	155	110	136	1,429	414	274	499	36	21
Upstate N.Y.	24	32	27	32	1,026	174	241	204	1	-
N.Y. City	67	78	20	31	76	59	4	5	5	7
N.J.	33	26	24	18	120	76	-	62	10	10
Pa.	33	19	39	55	207	105	29	228	20	4
E.N. CENTRAL	55	61	120	178	1,299	368	44	56	18	9
Ohio	18	11	46	45	281	132	17	21	10	4
Ind.	3	1	16	31	55	33	5	6	5	1
Ill.	10	29	12	49	226	32	14	7	-	2
Mich.	15	16	36	30	71	44	8	18	3	2
Wis.	9	4	10	23	666	127	-	4	-	-
W.N. CENTRAL	45	28	59	80	632	185	281	398	63	27
Minn.	18	14	16	19	109	59	42	17	-	1
Iowa	2	3	11	16	36	46	41	52	-	2
Mo.	13	3	18	30	191	43	20	8	54	20
N. Dak.	3	1	1	1	250	3	40	38	-	-
S. Dak.	1	2	2	1	9	3	10	88	3	2
Nebr.	2	-	2	6	4	5	53	69	6	2
Kans.	6	5	9	7	33	26	75	126	-	-
S. ATLANTIC	172	152	168	192	323	294	1,137	1,635	254	197
Del.	3	-	19	8	5	5	9	23	-	-
Md.	37	35	8	20	64	41	50	237	26	51
D.C.	8	7	4	4	2	-	-	-	-	-
Va.	15	17	10	19	99	60	274	323	11	11
W. Va.	-	4	5	3	5	6	37	52	3	4
N.C.	11	12	24	24	49	79	372	469	174	78
S.C.	7	3	12	15	28	40	92	129	9	10
Ga.	34	36	10	21	10	20	159	214	17	38
Fla.	57	38	76	78	61	43	144	188	14	5
E.S. CENTRAL	19	13	36	51	75	89	70	126	61	54
Ky.	1	1	5	10	20	20	15	22	-	-
Tenn.	3	4	11	13	37	46	24	85	25	30
Ala.	11	5	10	14	12	15	28	18	17	6
Miss.	4	3	10	14	6	8	3	1	19	18
W.S. CENTRAL	56	80	84	122	300	314	694	805	95	8
Ark.	6	4	14	10	15	23	31	25	65	-
La.	2	3	23	31	7	7	-	1	3	-
Okla.	2	3	5	12	17	37	73	141	27	2
Tex.	46	70	42	69	261	247	590	638	-	6
MOUNTAIN	28	17	43	55	595	573	85	88	11	5
Mont.	-	-	3	3	18	1	14	12	3	1
Idaho	1	1	6	6	20	40	1	3	1	1
Wyo.	-	1	2	2	11	119	-	1	1	2
Colo.	9	11	10	13	302	202	15	14	-	1
N. Mex.	1	-	6	7	68	36	2	5	2	-
Ariz.	8	2	9	20	122	98	49	43	1	-
Utah	5	1	4	-	44	57	4	6	3	-
Nev.	4	1	3	4	10	20	-	4	-	-
PACIFIC	71	95	213	225	700	1,463	95	130	5	-
Wash.	6	14	21	19	379	352	-	-	-	-
Oreg.	12	7	45	35	258	293	2	5	3	-
Calif.	52	71	142	157	44	810	85	120	2	-
Alaska	-	-	1	4	8	1	8	5	-	-
Hawaii	1	3	4	10	11	7	-	-	-	-
Guam	-	-	-	-	-	1	-	-	-	-
P.R.	-	-	4	8	2	1	33	44	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 31, 2004, and July 26, 2003 (30th Week)*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		*Streptococcus pneumoniae*, invasive			
							Drug resistant, all ages		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	18,587	20,431	5,884	13,157	3,038	3,979	1,374	1,346	377	467
NEW ENGLAND	984	1,070	138	171	137	359	18	71	7	6
Maine	41	71	2	6	6	22	2	-	1	-
N.H.	51	83	5	5	15	23	-	-	N	N
Vt.	32	38	2	5	8	16	7	6	1	3
Mass.	583	635	85	116	91	160	N	N	N	N
R.I.	48	40	9	4	17	5	9	10	5	3
Conn.	229	203	35	35	-	133	-	55	U	U
MID. ATLANTIC	2,891	2,449	679	1,400	519	697	99	90	75	68
Upstate N.Y.	610	514	310	191	171	266	46	48	51	49
N.Y. City	645	665	192	221	72	94	U	U	U	U
N.J.	432	422	119	241	118	138	-	-	4	2
Pa.	1,204	848	58	747	158	199	53	42	20	17
E.N. CENTRAL	2,105	3,016	393	1,122	617	976	322	310	107	204
Ohio	695	758	90	211	165	234	232	202	56	74
Ind.	212	291	87	79	70	93	90	108	22	19
Ill.	321	1,113	87	598	133	243	-	-	-	77
Mich.	453	416	64	158	213	281	N	N	N	N
Wis.	424	438	65	76	36	125	N	N	29	34
W.N. CENTRAL	1,316	1,169	223	407	208	238	11	11	55	53
Minn.	309	284	27	54	106	113	-	-	38	37
Iowa	260	198	43	28	N	N	N	N	N	N
Mo.	377	378	103	207	43	52	8	7	8	2
N. Dak.	19	23	2	6	9	12	-	3	2	4
S. Dak.	55	51	7	9	9	19	3	1	-	-
Nebr.	86	81	11	63	10	22	-	-	5	5
Kans.	210	154	30	40	31	20	N	N	2	5
S. ATLANTIC	4,640	4,606	1,578	4,140	595	664	712	705	27	12
Del.	37	49	4	144	3	6	4	1	N	N
Md.	468	420	76	341	124	165	-	6	16	-
D.C.	25	15	24	32	4	5	4	-	3	4
Va.	560	492	82	234	51	81	N	N	N	N
W. Va.	105	63	3	-	17	30	82	50	8	8
N.C.	571	543	172	573	85	78	N	N	U	U
S.C.	303	226	204	259	35	32	65	102	N	N
Ga.	699	861	350	828	122	129	160	156	N	N
Fla.	1,872	1,937	663	1,729	154	138	397	390	N	N
E.S. CENTRAL	1,085	1,336	348	575	142	137	81	99	-	-
Ky.	187	219	43	63	49	36	21	12	N	N
Tenn.	223	388	130	201	93	101	60	87	N	N
Ala.	326	315	143	189	-	-	-	-	N	N
Miss.	349	414	32	122	-	-	-	-	-	-
W.S. CENTRAL	1,557	2,949	1,338	3,528	170	181	36	52	73	72
Ark.	264	325	37	59	12	6	6	17	7	4
La.	274	414	170	276	2	1	30	35	12	14
Okla.	191	213	281	507	43	58	N	N	30	35
Tex.	828	1,997	850	2,686	113	116	N	N	24	19
MOUNTAIN	1,258	1,128	422	548	344	337	23	4	33	52
Mont.	79	54	4	2	-	1	-	-	-	-
Idaho	98	101	7	13	6	14	N	N	N	N
Wyo.	29	51	1	3	6	2	6	3	-	-
Colo.	304	279	73	98	92	92	-	-	30	40
N. Mex.	119	113	60	109	59	84	5	-	-	8
Ariz.	406	336	230	267	151	121	N	N	N	N
Utah	127	106	24	27	28	22	10	1	3	4
Nev.	96	88	23	29	2	1	2	-	-	-
PACIFIC	2,751	2,708	765	1,266	306	390	72	4	-	-
Wash.	260	318	58	104	34	41	-	-	N	N
Oreg.	225	240	39	87	N	N	N	N	N	N
Calif.	2,026	1,990	639	1,052	216	281	N	N	N	N
Alaska	38	50	4	4	-	-	-	-	N	N
Hawaii	202	110	25	19	56	68	72	4	-	-
Guam	-	28	-	23	-	-	-	-	-	-
P.R.	105	364	1	9	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 31, 2004, and July 26, 2003 (30th Week)*

Reporting area	Syphilis: Primary & secondary		Syphilis: Congenital		Tuberculosis		Typhoid fever		Varicella (Chickenpox)	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	4,104	4,046	195	259	5,477	7,115	140	184	9,505	10,426
NEW ENGLAND	113	126	1	-	207	231	15	17	587	2,159
Maine	2	6	-	-	-	11	-	-	179	639
N.H.	3	15	-	-	9	10	-	1	-	-
Vt.	-	-	-	-	-	5	-	-	408	489
Mass.	75	81	-	-	128	111	12	9	-	108
R.I.	14	12	-	-	19	31	1	2	-	3
Conn.	19	12	1	-	51	63	2	5	-	920
MID. ATLANTIC	548	475	31	41	1,161	1,239	34	32	60	15
Upstate N.Y.	48	20	2	6	136	139	3	4	-	-
N.Y. City	332	269	10	23	596	662	11	18	-	-
N.J.	95	96	19	12	235	236	9	9	-	-
Pa.	73	90	-	-	194	202	11	1	60	15
E.N. CENTRAL	448	557	34	44	667	633	6	22	3,893	3,764
Ohio	128	118	1	2	114	111	2	-	1,019	924
Ind.	35	31	8	9	72	74	-	4	-	-
Ill.	157	224	3	16	305	292	-	11	-	-
Mich.	112	170	22	17	130	119	3	7	2,527	2,260
Wis.	16	14	-	-	46	37	1	-	347	580
W.N. CENTRAL	93	97	2	4	242	265	6	4	122	39
Minn.	14	32	-	-	95	98	3	2	-	-
Iowa	5	7	-	-	19	16	-	1	N	N
Mo.	54	33	1	4	68	71	2	1	5	-
N. Dak.	-	1	-	-	3	-	-	-	74	39
S. Dak.	-	1	-	-	5	16	-	-	43	-
Nebr.	4	3	-	-	15	11	1	-	-	-
Kans.	16	20	1	-	37	53	-	-	-	-
S. ATLANTIC	1,103	1,065	25	48	1,061	1,355	28	33	1,527	1,519
Del.	4	4	1	-	-	-	-	-	4	16
Md.	220	169	3	8	141	131	9	8	-	-
D.C.	46	32	1	-	43	-	-	-	17	22
Va.	63	55	2	1	119	130	2	11	378	424
W. Va.	2	1	-	-	13	11	-	-	903	889
N.C.	104	93	6	10	139	167	3	5	N	N
S.C.	65	65	1	4	112	86	-	-	225	168
Ga.	160	287	1	12	11	291	9	4	-	-
Fla.	439	359	10	13	483	539	5	5	-	-
E.S. CENTRAL	230	186	16	10	330	387	5	4	-	-
Ky.	26	24	1	1	55	68	2	-	-	-
Tenn.	79	77	7	2	127	125	3	1	-	-
Ala.	102	67	6	5	115	133	-	3	-	-
Miss.	23	18	2	2	33	61	-	-	-	-
W.S. CENTRAL	663	478	29	45	456	1,084	7	13	1,741	2,573
Ark.	26	30	-	1	69	57	-	-	-	-
La.	136	66	-	1	-	-	-	-	42	9
Okla.	19	30	2	1	83	82	-	-	-	-
Tex.	482	352	27	42	304	945	7	13	1,699	2,564
MOUNTAIN	195	188	35	24	261	220	5	4	1,575	357
Mont.	-	-	-	-	4	5	-	-	-	-
Idaho	13	4	2	1	4	5	-	-	-	-
Wyo.	1	-	-	-	2	2	-	-	22	37
Colo.	19	23	-	3	58	53	1	3	1,184	-
N. Mex.	26	36	1	4	14	29	-	-	68	-
Ariz.	116	115	32	16	117	87	2	1	-	-
Utah	4	2	-	-	26	18	1	-	301	320
Nev.	16	8	-	-	36	21	1	-	-	-
PACIFIC	711	874	22	43	1,092	1,701	34	55	-	-
Wash.	62	42	-	-	136	141	3	2	-	-
Oreg.	18	29	-	-	46	63	1	2	-	-
Calif.	628	796	22	43	828	1,404	24	51	-	-
Alaska	-	1	-	-	18	34	-	-	-	-
Hawaii	3	6	-	-	64	59	6	-	-	-
Guam	-	1	-	-	-	38	-	-	-	90
P.R.	71	117	3	8	14	58	-	-	171	377
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 31, 2004 (30th Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	501	353	94	29	16	9	43
Boston, Mass.	117	77	23	6	6	5	10
Bridgeport, Conn.	37	24	5	7	-	1	3
Cambridge, Mass.	21	17	2	1	1	-	2
Fall River, Mass.	14	10	4	-	-	-	2
Hartford, Conn.	48	32	9	5	2	-	2
Lowell, Mass.	26	20	5	1	-	-	1
Lynn, Mass.	10	9	1	-	-	-	-
New Bedford, Mass.	36	27	8	1	-	-	5
New Haven, Conn.	42	27	8	4	2	1	4
Providence, R.I.	50	35	12	1	1	1	2
Somerville, Mass.	3	2	1	-	-	-	-
Springfield, Mass.	28	23	3	-	1	1	8
Waterbury, Conn.	19	15	2	1	1	-	-
Worcester, Mass.	50	35	11	2	2	-	4
MID. ATLANTIC	2,046	1,366	462	144	34	38	113
Albany, N.Y.	59	40	10	4	2	3	2
Allentown, Pa.	23	21	2	-	-	-	-
Buffalo, N.Y.	79	62	9	5	1	2	7
Camden, N.J.	28	10	12	3	2	1	3
Elizabeth, N.J.	17	14	1	2	-	-	3
Erie, Pa.	46	34	9	2	1	-	1
Jersey City, N.J.	26	19	4	2	-	1	-
New York City, N.Y.	988	638	235	74	18	21	41
Newark, N.J.	39	19	12	6	1	1	2
Paterson, N.J.	11	5	4	2	-	-	-
Philadelphia, Pa.	391	258	91	32	7	3	21
Pittsburgh, Pa.§	27	19	6	1	1	-	3
Reading, Pa.	21	13	5	2	-	1	2
Rochester, N.Y.	127	90	30	4	1	2	11
Schenectady, N.Y.	22	20	1	1	-	-	4
Scranton, Pa.	30	24	6	-	-	-	-
Syracuse, N.Y.	71	54	11	3	-	3	12
Trenton, N.J.	9	5	4	-	-	-	-
Utica, N.Y.	14	9	4	1	-	-	1
Yonkers, N.Y.	18	12	6	-	-	-	-
E.N. CENTRAL	2,047	1,316	455	172	55	49	117
Akron, Ohio	44	31	7	5	1	-	4
Canton, Ohio	35	26	4	5	-	-	4
Chicago, Ill.	367	204	107	37	12	7	23
Cincinnati, Ohio	93	53	22	10	6	2	6
Cleveland, Ohio	228	164	42	10	8	4	5
Columbus, Ohio	218	148	47	16	4	3	19
Dayton, Ohio	123	80	30	11	1	1	11
Detroit, Mich.	177	95	54	23	-	5	7
Evansville, Ind.	45	34	9	1	1	-	4
Fort Wayne, Ind.	65	42	17	5	1	-	4
Gary, Ind.	16	9	4	2	1	-	-
Grand Rapids, Mich.	47	32	7	2	2	4	5
Indianapolis, Ind.	193	111	39	21	8	14	6
Lansing, Mich.	39	28	8	1	2	-	-
Milwaukee, Wis.	84	59	14	7	1	3	7
Peoria, Ill.	32	24	4	3	1	-	1
Rockford, Ill.	51	35	13	1	2	-	4
South Bend, Ind.	41	32	2	4	2	1	2
Toledo, Ohio	93	69	13	5	2	4	4
Youngstown, Ohio	56	40	12	3	-	1	1
W.N. CENTRAL	710	446	170	55	23	14	53
Des Moines, Iowa	72	57	11	2	-	2	5
Duluth, Minn.	30	26	4	-	-	-	1
Kansas City, Kans.	23	10	8	2	3	-	2
Kansas City, Mo.	94	58	28	5	2	1	3
Lincoln, Nebr.	32	26	4	2	-	-	4
Minneapolis, Minn.	59	37	12	3	4	3	7
Omaha, Nebr.	67	42	16	5	2	2	6
St. Louis, Mo.	180	86	55	23	11	3	12
St. Paul, Minn.	41	32	6	2	1	-	3
Wichita, Kans.	112	72	26	11	-	3	10
S. ATLANTIC	1,337	839	320	114	34	28	52
Atlanta, Ga.	163	94	46	15	7	1	3
Baltimore, Md.	201	115	49	23	10	3	11
Charlotte, N.C.	113	65	32	11	1	4	7
Jacksonville, Fla.	121	73	32	11	1	4	3
Miami, Fla.	104	66	29	5	3	1	5
Norfolk, Va.	64	39	8	9	5	3	3
Richmond, Va.	60	33	21	4	2	-	4
Savannah, Ga.	58	38	15	4	-	1	1
St. Petersburg, Fla.	50	38	10	1	-	1	3
Tampa, Fla.	185	127	39	14	2	3	9
Washington, D.C.	200	136	38	16	3	6	2
Wilmington, Del.	18	15	1	1	-	1	1
E.S. CENTRAL	818	528	173	68	32	16	58
Birmingham, Ala.	156	104	33	10	5	3	10
Chattanooga, Tenn.	71	51	12	3	5	-	6
Knoxville, Tenn.	94	62	19	8	3	2	5
Lexington, Ky.	99	68	19	4	7	1	9
Memphis, Tenn.	184	115	42	19	4	4	15
Mobile, Ala.	58	36	11	5	4	2	2
Montgomery, Ala.	25	16	6	3	-	-	2
Nashville, Tenn.	131	76	31	16	4	4	9
W.S. CENTRAL	1,466	912	341	122	57	34	73
Austin, Tex.	87	58	17	9	1	2	1
Baton Rouge, La.	52	32	13	5	1	1	-
Corpus Christi, Tex.	47	32	10	1	2	2	6
Dallas, Tex.	171	97	39	16	9	10	10
El Paso, Tex.	68	38	21	3	4	2	1
Ft. Worth, Tex.	162	104	33	12	9	4	5
Houston, Tex.	395	253	92	33	13	4	25
Little Rock, Ark.	65	39	16	7	-	3	7
New Orleans, La.	53	25	19	9	-	-	-
San Antonio, Tex.	216	138	44	19	13	2	13
Shreveport, La.	35	20	10	2	2	1	2
Tulsa, Okla.	115	76	27	6	3	3	3
MOUNTAIN	931	577	215	85	29	23	43
Albuquerque, N.M.	102	63	21	14	3	1	4
Boise, Idaho	U	U	U	U	U	U	U
Colo. Springs, Colo.	85	53	15	11	5	1	4
Denver, Colo.	102	54	30	10	2	6	4
Las Vegas, Nev.	228	137	62	21	4	3	9
Ogden, Utah	34	24	8	1	-	1	1
Phoenix, Ariz.	68	40	15	10	-	2	5
Pueblo, Colo.	36	26	6	1	3	-	2
Salt Lake City, Utah	146	92	32	10	6	6	10
Tucson, Ariz.	130	88	26	7	6	3	4
PACIFIC	1,645	1,167	303	97	45	33	136
Berkeley, Calif.	12	7	3	1	-	1	1
Fresno, Calif.	103	74	18	9	1	1	1
Glendale, Calif.	22	17	3	2	-	-	5
Honolulu, Hawaii	89	67	16	1	2	3	6
Long Beach, Calif.	56	39	9	4	2	2	3
Los Angeles, Calif.	348	249	69	17	8	5	43
Pasadena, Calif.	23	19	1	2	-	1	5
Portland, Oreg.	128	92	24	7	3	2	4
Sacramento, Calif.	161	114	27	12	6	2	10
San Diego, Calif.	154	110	36	4	2	2	17
San Francisco, Calif.	131	85	22	12	7	5	9
San Jose, Calif.	191	130	33	14	9	5	19
Santa Cruz, Calif.	U	U	U	U	U	U	U
Seattle, Wash.	83	57	15	8	1	2	5
Spokane, Wash.	51	38	8	1	3	1	5
Tacoma, Wash.	93	69	19	3	1	1	3
TOTAL	11,501¶	7,504	2,533	886	325	244	688

U: Unavailable. -:No reported cases.

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

† Pneumonia and influenza.

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

¶ Total includes unknown ages.

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

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to Editor, *MMWR* Series, Mailstop E-96, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone 888-232-3228.

☆U.S. Government Printing Office: 2004-633-140/00031 Region IV ISSN: 0149-2195