MMWR™
Morbidity and Mortality Weekly Report
Weekly October 14, 2005 / Vol. 54 / No. 40

International Infection Prevention Week — October 17–23, 2005

Approximately 2 million health-care–associated infections occur in hospitals in the United States each year, resulting in 90,000 deaths (*1*). Health-care–associated infections are estimated to cost more than $4.5 billion per year (*1*). For 30 years, CDC and infection-control professionals have implemented prevention strategies to reduce health-care–associated infections. International Infection Prevention Week (formerly Infection Control Week) was established in 1986 by presidential proclamation to focus public and professional attention on health-care–associated infections and other infectious diseases.

The theme of this year's International Infection Prevention Week is "Infection Prevention: It's in Your Hands." During the week of October 17–23, health-care facilities worldwide are encouraged to conduct special educational activities to emphasize adherence to practices that can prevent infections (e.g., proper hand hygiene). International Infection Prevention Week will be featured on the CDC website at http://www.cdc.gov/ncidod/hip/prevention_week.htm.

A free copy of the 2005 International Infection Prevention Week tool kit is available from the Association for Professionals in Infection Control and Epidemiology, Inc. at http://www.apic.org. In addition, the World Health Organization is promoting the 2005–2006 Global Patient Safety Challenge entitled, "Clean Care is Safer Care." Information about this program is available at http://www.who.int/patientsafety/challenge/en.

Reference

1. Weinstein RA. Nosocomial infection update. Emerg Infect Dis 1998;4:412–20.

Reduction in Central Line–Associated Bloodstream Infections Among Patients in Intensive Care Units — Pennsylvania, April 2001–March 2005

Each year, an estimated 250,000 cases of central line–associated (i.e., central venous catheter–associated) bloodstream infections (BSIs) occur in hospitals in the United States, with an estimated attributable mortality of 12%–25% for each infection (*1*). The marginal cost to the health-care system is approximately $25,000 per episode (*1*). In 2001, CDC was invited by the Pittsburgh Regional Healthcare Initiative (PRHI)* (*2*) to provide technical assistance for a hospital-based

*A nonprofit consortium of regional health-care facilities, insurers, employers, health-care providers, corporate and civic leaders, and local health authorities.

INSIDE

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

The *MMWR* series of publications is published by the Coordinating Center for Health Information and Service, 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 2005;54:[inclusive page numbers].

intervention to prevent central line–associated BSIs among intensive care unit (ICU) patients in southwestern Pennsylvania. During a 4-year period, BSI rates among ICU patients declined 68%, from 4.31 to 1.36 per 1,000 central line days. The results suggest that a coordinated, multi-institutional infection-control initiative might be an effective approach to reducing health-care–associated infections.

In 2000, PRHI convened an advisory committee of regional infection-control experts to discuss strategies for prevention of health-care–associated infections. In April 2001, this group initiated a regional infection-control intervention with the goal of eliminating central line–associated BSIs in ICUs. The intervention was designed collaboratively and led by infection-control professionals and medical staff from the participating hospitals. Participation was voluntary. The intervention was multifaceted, consisting of five components: 1) promotion of targeted, evidence-based catheter insertion practices (i.e., use of maximum sterile barrier precautions during insertion, use of chlorhexidine for skin disinfection before catheter insertion, avoidance of the femoral insertion site, use of recommended insertion-site dressing care practices, and removal of catheters when no longer indicated) (*1*); 2) promotion of an educational module about central line–associated BSIs and strategies for their prevention; 3) promotion of standardized tools for recording adherence to recommended catheter insertion practices; 4) promotion of a standardized list of contents for catheter insertion kits that includes all supplies required to adhere to recommended insertion practices; and 5) measurement of central line–associated BSI rates and distribution of data to participating hospitals in confidential quarterly reports, allowing comparison of individual unit-specific rates with pooled mean rates from other participating ICUs in the region and pooled mean rates from all other U.S. hospitals participating in the National Nosocomial Infection Surveillance (NNIS) system, stratified by type of ICU.

To measure the effect of the intervention, participating hospitals prospectively collected and reported data on central line–associated BSIs, beginning in April 2001. Data were collected using standardized definitions and methods from the NNIS system, a voluntary, hospital-based reporting system established to monitor risk-adjusted health-care–associated infection rates (*3*). Trends in central line–associated BSI rates during April 2001–March 2005 were assessed using multivariable Poisson regression analyses that controlled for central line use.

Thirty-two hospitals in 10 southwestern Pennsylvania counties participated in the intervention, including 28 (72%) of the 39 acute care hospitals that provided intensive care services in the six-county Pittsburgh metropolitan statistical area. The median size of participating hospitals was 215 beds (range: 27–796 beds). Among the participating hospitals, 69 ICUs

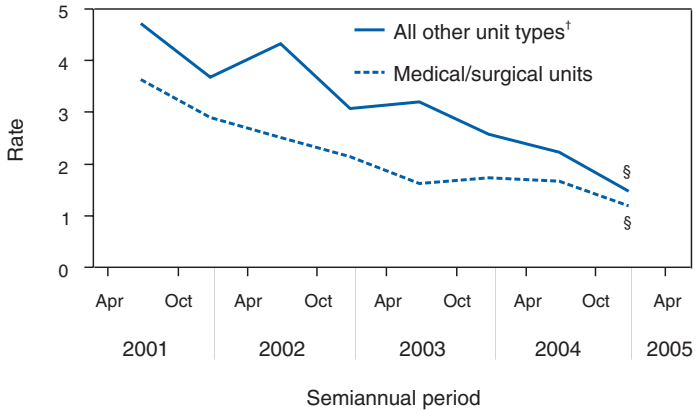
participated. However, three ICUs that submitted five or fewer quarters of data were excluded from the analysis. Of the 66 ICUs included in the analysis, 48% were medical/surgical, 11% cardiothoracic, 14% coronary, 9% surgical, 6% neurosurgical, 5% trauma, 3% medical, 3% burn, and 3% pediatric. The ICUs provided data for a median of 15 quarters (range: 6–16 quarters) during April 2001–March 2005.

Overall, the pooled mean rate of central line–associated BSIs per 1,000 central line days in participating ICUs decreased by 68%, from 4.31 to 1.36 (p<0.001) during April 2001–March 2005 (Figure). BSI rates among medical/surgical ICUs decreased by 67%, from 3.64 to 1.18 (p<0.001), and BSI rates among other ICU types decreased by 69%, from 4.72 to 1.47 (p<0.001). Similar decreases were observed when rates were analyzed for ICUs that reported data for all 16 study quarters.

Reported by: *C Muto, MD, Univ of Pittsburgh Medical Center Presbyterian Hospital; C Herbert, West Penn Allegheny Health System, Allegheny General Hospital; E Harrison, Pittsburgh Regional Healthcare Initiative. JR Edwards, MS, T Horan, MPH, M Andrus, JA Jernigan, MD, Div of Healthcare Quality Promotion, National Center for Infectious Diseases; PK Kutty, MD, EIS Officer, CDC.*

Editorial Note: Health-care–associated infections in U.S. hospitals account for an estimated 2 million infections and 90,000 deaths annually (*4*). Central line–associated BSIs are the third most common health-care–associated infections (after ventilator-associated pneumonia and catheter-associated urinary tract infections) reported by medical/surgical ICUs participating in the NNIS system (*5*). CDC has identified catheter-associated adverse events, including BSIs, as one of its seven health-care safety challenges, with a goal to reduce such complications by 50% in 5 years (*6*). The 32 Pennsylvania hospitals that participated in this regional patient-safety intervention reduced BSI rates by 68% in 4 years, suggesting that coordinated infection-control initiatives among health-care facilities in a region might be an effective way to reduce catheter-associated events such as BSIs.

FIGURE. Central line–associated bloodstream infection rate* in 66 intensive care units (ICUs), by ICU type and semiannual period — southwestern Pennsylvania, April 2001–March 2005



* Pooled mean rate per 1,000 central line days.
† Includes cardiothoracic, coronary, surgical, neurosurgical, trauma, medical, burn, and pediatric ICUs.
§ p<0.001.

The prevention practices promoted during this intervention were not novel; since 1996, most have been included in the Healthcare Infection Control Practices Advisory Committee recommendations for the prevention of central line–associated BSIs (*1,7*). The results described in this report suggest that adhering to these evidence-based preventive practices can prevent BSIs. Nonetheless, previous reports suggest that adherence to these practices remains low (*8,9*).

Hospitalized patients, especially those in ICUs, are at increased risk for infection because of underlying illness, compromised immune systems, and the use of invasive devices; therefore, elimination of all health-care–associated infections is challenging. A review of 30 reports on programs to reduce nosocomial infections determined reductions of 10%–70% in the number of infections, with the greatest success among programs to reduce central line–associated BSIs (*10*). One study has reported nearly complete elimination of central line–associated BSIs in a surgical ICU (*9*). The 67% and 69% reductions observed in the regional initiative described in this report provide additional evidence that decreases in central line–associated BSI rates >50% can be achieved in hospital ICUs of varying types.

The findings in this report are subject to at least three limitations. First, participation in the initiative was voluntary, and ICUs did not report data every quarter. However, incomplete reporting did not appear to influence the results; the findings were unchanged when results for all ICUs were compared with a subset analysis that included only those units reporting data in all 16 quarters. Second, data from nonparticipating hospitals in the region were not available for comparison. Finally, data on implementation of and adherence to the promoted practices or other facility-specific interventions were not systematically reported; therefore, determining the relationship between adherence and the observed decrease in infection rate was not possible, nor was determining the relative contribution of the individual components of this intervention. However, no other infection-control interventions were observed in the participating ICUs that might have accounted for the reduction in rates.

This report describes a substantial reduction in central line–associated BSI rates after a coordinated intervention among hospitals in a region. Additional studies are needed to determine whether similar levels of success can be achieved by applying this strategy to other health-care–associated infections.

Acknowledgments

This report is based, in part, on contributions by SS Stephens, Butler Memorial Hospital; D Lauze, Canonsburg General Hospital; Children's Hospital of Pittsburgh; MJ Bellush, Excela Health Frick Hospital; R Volpe, Heritage Valley Health System, The Medical Center, Beaver; S Silvestri, Heritage Valley Health System, Sewickley Valley Hospital; S Krystofiak, MS, Mercy Hospital of Pittsburgh; K Liberatore, Monongahela Valley Hospital, Inc.; SL Jacobs, MS, St. Clair Hospital; J Shuck, Uniontown Hospital; B Hullihen, Univ of Pittsburgh Medical Center (UPMC) Bedford Memorial; CM Miller, MSN, UPMC Braddock; DC Carl, UPMC Horizon; UPMC Lee Regional; C Orbison, UPMC Magee; DM Inglot, UPMC McKeesport; S Carr, UPMC Northwest Medical Center; UPMC Passavant; UPMC Presbyterian; UPMC Shadyside; P Adomatis, UPMC South Side; SL Smith, MPM, UPMC St. Margaret; M Palfreyman, MS, The Washington Hospital; L Boody, West Penn Allegheny Health System, Alle-Kiski Medical Center, The Western Pennsylvania Hospital, The Western Pennsylvania Hospital-Forbes Regional Campus; SL Albright, Excela Health Westmoreland Regional Hospital; JA Grote, Excela Health Latrobe Area Hospital; M Dembinski, MPH, M Klevens, DDS, Div of Healthcare Quality Promotion, National Center for Infectious Diseases, CDC.

References

1. CDC. Guidelines for the prevention of intravascular catheter-related infections. MMWR 2002;51(No. RR-10).
2. Sirio CA, Segel KT, Keyser DJ, et al. Pittsburgh Regional Healthcare Initiative: a systems approach for achieving perfect patient care. How one region is seeing real improvements in patient care, thanks to a carefully planned and executed strategy. Health Affairs 2003;22: 157–65.
3. National Nosocomial Infections Surveillance (NNIS) System report, data summary from January 1992 through June 2004, issued October 2004. Am J Infect Control 2004;32:470–85.
4. Weinstein RA. Nosocomial infection update. Emerg Infect Dis 1998;4:416–20.
5. Richards MJ, Edwards JR, Culver DH, Gaynes RP. Nosocomial infections in combined medical-surgical intensive care units in the United States. Infect Control Hosp Epidemiol 2000;21:510–5.
6. CDC. Issues in healthcare settings: CDC's seven healthcare safety challenges. Atlanta, GA: US Department of Health and Human Services, CDC; 2001. Available at http://www.cdc.gov/ncidod/hip/challenges.htm.
7. Pearson ML. Guideline for prevention of intravascular device-related infections. Part I. Intravascular device-related infections: an overview. The Hospital Infection Control Practices Advisory Committee. Am J Infect Control 1996;24:262–77.
8. Sherertz RJ, Ely EW, Westbrook DM, et al. Education of physicians-in-training can decrease the risk for vascular catheter infection. Ann Intern Med 2000;132:641–8.
9. Berenholtz SM, Pronovost PJ, Lipsett PA, et al. Eliminating catheter-related bloodstream infections in the intensive care unit. Crit Care Med 2004;32:2014–20.
10. Harbarth S, Sax H, Gastmeier P. The preventable proportion of nosocomial infections: an overview of published reports. J Hosp Infect 2003;54:258–66.

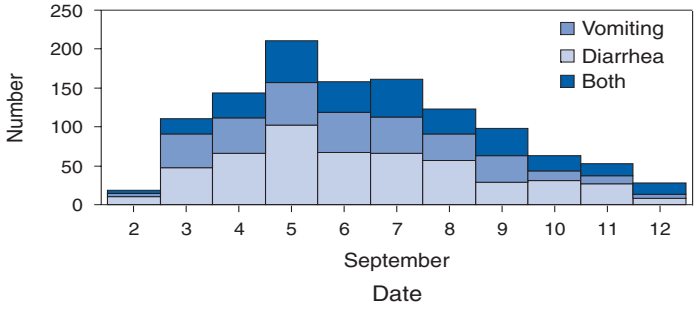
Norovirus Outbreak Among Evacuees from Hurricane Katrina — Houston, Texas, September 2005

During the week after Hurricane Katrina struck the Gulf Coast on August 29, 2005, an estimated 240,000 persons, mostly from Louisiana, evacuated to Houston, Texas. On August 31, an estimated 24,000 evacuees were sheltered temporarily at facilities in Reliant Park, a sports and convention complex that includes Reliant Astrodome, Reliant Center, and Reliant Arena. All evacuees to these three facilities were provided with cots, bedding, food, water, and access to lavatories and showers. A medical facility was set up initially to provide emergency care to evacuees and subsequently to serve as a comprehensive outpatient clinic staffed largely by personnel from the Harris County Hospital District (HCHD), Baylor College of Medicine (BCM), and Texas Children's Hospital (TCH). On September 2, 2005, physicians and staff from Harris County Public Health and Environmental Services (HCPHES) noted a substantial number of adults and children with symptoms of acute gastroenteritis (defined as diarrhea and/or vomiting) at the medical clinic in Reliant Park. In collaboration with HCPHES, CDC and medical personnel of HCHD, BCM, and TCH conducted enhanced surveillance to improve identification of acute gastroenteritis, investigate the apparent outbreak, identify the infectious agent, and implement measures for its control. This report summarizes the preliminary epidemiologic data from this investigation and underscores the challenges to managing a large and rapidly spreading outbreak of norovirus in crowded evacuee settings.

A simple checklist of symptoms was used by HCPHES to collect data on a triage intake form. Data were used as an index of medical problems and care delivered. This information was gathered and entered into a centralized database nightly by HCPHES staff members, and results were distributed to the surveillance team each morning.

During September 2–12, 2005, approximately 6,500 of the estimated 24,000 evacuees visited the Reliant Park medical clinic, and 1,169 (18%) persons reported symptoms of acute gastroenteritis (Figure). Three fourths of the patients with acute gastroenteritis symptoms were adults (aged ≥18 years) residing in the three facilities housing evacuees at Reliant Park or in smaller shelters and hotels in Houston. The number of acute gastroenteritis cases peaked on September 5, when 211 persons reported acute gastroenteritis symptoms, and cases declined slowly thereafter. A total of 511 (44%) patients reporting acute gastroenteritis symptoms had diarrhea alone, 342 (29%) reported vomiting, and 316 (27%) reported both diarrhea and vomiting. During September 2–12, approximately 14%

FIGURE. Number of persons reporting symptoms of acute gastroenteritis after Hurricane Katrina at an evacuee medical clinic, by symptom and date — Houston, Texas, September 2–12, 2005



of adult visits to the medical clinic and 28% of pediatric visits were for acute gastroenteritis; on peak days, these figures reached 21% and 40%, respectively (other common reasons for visits were chronic diseases and medication refills). In addition, medical personnel, police officers, and volunteers who had direct contact with patients reported acute gastroenteritis symptoms, suggesting substantial secondary spread, presumably by person-to-person contact or fomite transmission. The number of hospitalizations was unknown; no deaths were reported.

To determine the etiologic agent, stool samples (i.e., either rectal swabs or bulk stools) were sent to one of several laboratories of HCHD, BCM, and TCH for diagnosis of bacterial, parasitic, and viral enteropathogens. In stool samples from 44 patients tested by reverse transcription-polymerase chain reaction, norovirus was confirmed in 22 (50%) specimens; no other enteropathogen was identified. Sequencing to determine viral strains is being conducted but is not yet complete.

At the onset of the outbreak, health authorities implemented extensive infection-control measures. Patients with acute gastroenteritis who were dehydrated were rehydrated in a separate observation area reserved for patients with suspected infectious illness and then transferred to an isolation area for at least 48 hours after vomiting and diarrhea had ended. In addition, alcohol-based gel hand sanitizers were distributed throughout the facilities and near lavatories, and a bank of portable sinks was installed inside the medical clinic. Medical staff, disaster relief personnel, volunteers, and evacuees were all alerted to the heightened need for using proper handwashing techniques through medical staff meetings, posters, banners, and newsletters distributed to all evacuees. Despite these timely interventions, the outbreak continued for more than 1 week but declined before the evacuees vacated Reliant Park in late September.

Reported by: *H Palacio, MD, U Shah, MD, C Kilborn, MPH, D Martinez, MPH, V Page, MPH, Harris County Public Health and Environmental Svcs; T Gavagan, MD, K Mattox, MD, H DuPont, MD, MK Estes, PhD, R Feigin, MD, RL Atmar, MD, FH Neill, J Versalovic, MD, PhD, C Stager, PhD, D Musher, MD, Texas Children's Hospital, Baylor College of Medicine, and Harris County Hospital District, Houston, Texas. RI Glass, MD, PhD, Div of Viral and Rickettsial Disease, National Center for Infectious Diseases; M Faul, PhD, Div of Injury and Disability Outcomes and Programs, National Center for Injury Prevention and Control; M Davies, MD, North Carolina Dept of Health and Human Svcs; M Cortese, MD, Div of Epidemiology and Surveillance, National Immunization Program; E Lau, MD, EIS Officer, CDC.*

Editorial Note: The epidemiologic and laboratory findings in this report suggest that an outbreak of norovirus gastroenteritis might have affected approximately 1,000 evacuees and relief workers in three facilities at Reliant Park and in other Houston facilities that housed evacuees, including a convention center, smaller shelters, and hotels. The rapidly changing population of evacuees treated at the medical clinic complicated efforts to monitor the magnitude of the outbreak or the extent of disease among evacuees in Reliant Park. Nonetheless, on some days, nearly 21% of adults and 40% of children visiting the Reliant clinic had acute gastroenteritis, confirming the importance of this problem.

Conditions that might have facilitated virus transmission included crowding, insufficient sanitation in lavatories, lack of an adequate number of hand-washing facilities, and delays in cleaning and decontaminating soiled areas and bedding. In addition, initial isolation procedures were difficult to maintain over time because family members already traumatized by displacement, grief, and personal loss were separated from each other because of illness.

Noroviruses are the most common cause of outbreaks of acute gastroenteritis in the United States. Outbreaks not associated with contaminated food or water but spread through person-to-person contact or from fomites tend to occur in crowded settings, such as cruise ships, camps, shelters, and hospital wards (*1–4*). Persons infected with norovirus have an acute onset of vomiting and/or nonbloody diarrhea lasting 12–60 hours, with an incubation period of 24–48 hours (*5*). Certain persons do not become ill when infected, which might be associated with a genetic predisposition to infection conferred by blood group antigens (*6*). Once an outbreak begins, norovirus is highly contagious and easily transmitted via multiple routes because of its low infectious dose (i.e., <100 viral particles), its ability to persist in the environment, and its resistance to inactivation by multiple cleaning agents (*5,7*). Furthermore, diagnosis of norovirus through laboratory testing is not widely available, making confirmation of norovirus as the etiologic agent in these types of outbreaks difficult.

Although the challenges to preventing and managing norovirus outbreaks in a disaster relief situation are considerable,

certain lessons have been learned from this and other norovirus outbreaks. Early surveillance and identification of outbreaks of acute gastroenteritis with rapid detection of the causative agent are essential to implement timely, focused, and effective interventions. In particular, vigilance to hand-washing techniques; accessibility to soap and water within medical facilities, eating and food-preparation areas, lavatories, and showers; and containment and disinfection of soiled areas and bedding can all help decrease the spread of norovirus. These needs warrant special attention in planning and managing a disaster relief facility (*8,9*). When feasible, isolation of patients who are actively vomiting or continue to have diarrhea can be instituted, but care should be taken not to further distress traumatized evacuees.

Norovirus should be suspected when outbreaks of acute gastroenteritis occur in a crowded setting, on the basis of its epidemiologic features (i.e., rapid spread and secondary transmission) and clinical presentation (e.g., high prevalence of vomiting). Persons with norovirus gastroenteritis should be treated promptly with rehydration, and measures to prevent secondary transmission (e.g., promoting proper hand-washing techniques and cleaning and disinfecting soiled surfaces) should be taken immediately; however, these measures give no absolute assurance against further spread of norovirus (*5,10*). The outbreak described in this report was identified early and managed aggressively. However, rapid, sensitive laboratory assays are still needed to detect norovirus and to provide a better understanding of the most effective intervention strategies in crowded evacuee environments.

References

1. CDC. Norovirus activity—United States, 2002. MMWR 2003;52:41–5.
2. Lopman BA, Reacher MH, Vipond IB, Sarangi J, Brown DW. Clinical manifestation of norovirus gastroenteritis in health care settings. Clin Infect Dis 2004;39:318–24.
3. CDC. Outbreaks of gastroenteritis associated with noroviruses on cruise ships—United States, 2002. MMWR 2002;51:1112–5.
4. CDC. Outbreak of acute gastroenteritis associated with Norwalk-like viruses among British military personnel—Afghanistan, May 2002. MMWR 2002;51:477–9.
5. CDC. "Norwalk-like viruses": public health consequences and outbreak management. MMWR 2001;50(No. RR-9).
6. Hutson AM, Atmar RL, Graham DY, Estes MK. Norwalk virus infection and disease is associated with ABO histo-blood group type. J Infect Dis 2002;185:1335–7.
7. Becker KM, Moe CL, Southwick KL, MacCormack JN. Transmission of Norwalk virus during football game. N Engl J Med 2000;343:1223–7.
8. CDC. Guidelines for environmental infection control in health-care facilities: recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). MMWR 2003;52(No. RR-10).
9. CDC. Guideline for hand hygiene in health-care settings: recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. MMWR 2002;51(No. RR-16).
10. CDC. Managing acute gastroenteritis among children: oral rehydration, maintenance, and nutritional therapy. MMWR 2003;52(No. RR-16).

Surveillance for Illness and Injury After Hurricane Katrina — New Orleans, Louisiana, September 8–25, 2005

Hurricane Katrina struck the Gulf Coast on August 29, 2005, resulting in extensive structural damage and severe flooding from breached levees in and around New Orleans, Louisiana. The public health infrastructure of the Louisiana Department of Health and Hospitals (LDHH) was damaged extensively, limiting surveillance for illnesses, injuries, and toxic exposures. On September 9, 2005, LDHH, CDC, and functioning emergency treatment resources (i.e., hospitals, disaster medical assistance teams, and military aid stations) established an active surveillance system to detect outbreaks of disease and characterize post-hurricane injuries and illnesses. As of September 25, the system had monitored 7,508 reports of health-related events* at participating facilities. Trends observed in the data prompted investigations of respiratory and rash illnesses, but no major outbreaks of disease or hazardous environmental exposures were detected.These data also were used to identify post-hurricane injury patterns and to guide prevention messages to residents and relief workers. A natural disaster of the magnitude of Hurricane Katrina requires a sustained response and a detailed plan for return to pre-hurricane surveillance activities.

The target population for the surveillance system was persons living or working in four parishes in and around New Orleans (Jefferson, Orleans, Plaquemines, and St. Bernard). On September 9, active surveillance was initiated in three hospitals and five nonhospital facilities that were providing acute care in these four parishes. Two additional hospitals and six additional nonhospital facilities in neighboring parishes that were treating workers and residents from the affected area also were enrolled in the surveillance system. As of September 25, four hospitals and 10 nonhospital facilities were participating in the surveillance system.

The facilities used a standardized reporting form that gathered individual level data on demographics, symptoms, clinical impressions (e.g., dehydration, acute respiratory infection [ARI], or diarrhea) and mechanism of injury (e.g., motor vehicle crash, laceration, fall, bite, or sting). In most facilities, health-care providers completed the form; in facilities with high volume, team members were assigned to assist with data abstraction from current medical records. Abstractors and clinicians were asked to identify all events as injury, illness, injury and illness, medication refill, or follow-up visit.

* Defined as a reported clinical impression for illness or mechanism of injury for injuries, toxic exposures, or carbon monoxide poisonings.

All data were gathered and entered into a computer database manually and analyzed daily. Illness and injury trends or individual cases of selected illness (e.g., bloody diarrhea or ARI) were communicated to city and state health authorities and investigated by health teams when appropriate.

Data were gathered prospectively starting September 9, 2005. Retrospective data have been collected when available, with a goal of complete enumeration from August 27, 2005, forward. Percentage estimates for each illness or injury were calculated by dividing the number of persons with a specific condition by all persons with an illness or injury, respectively. For 146 (1.9%) persons, both an illness and injury were recorded.

During September 8–25, 2005, a total of 7,508 events were recorded; 4,169 (55.6%) were illnesses, and 2,018 (26.9%) were injuries (Tables 1 and 2). Another 1,321 (17.5%) were nonacute health-related events, not classified as either illnesses or injuries (e.g., medication refills, wound checks, or cast removals). Of the 6,167 illnesses and injuries where disposition status was known, five persons died, and 552 (9%) were admitted to hospitals. Among those injured, 42 had intentional injuries (i.e., self-inflicted or violent), seven of those (16.7%) were victims of assault, and one (2.4%) was admitted to a health-care facility. A total of 1,037 (13.8%) events were recorded for relief workers (e.g., paid military, paid civilian, self-employed, or volunteer), and 2,567 (34.2%) events were recorded for residents (i.e., persons not identified as relief workers). For 3,904 (52.0%) persons, relief worker status or resident status was unknown. Relief workers were significantly more likely than residents aged ≥18 years to be treated in a nonhospital facility (odds ratio [OR] = 5.8, 95% confidence interval [CI] = 5.0–6.8).

The proportion of ill patients evaluated for ARI increased over time, during September 8–25, when data were analyzed from all facilities (Figure). Among the 505 with ARI, 371 (73.5%) had cough, 62 (12.3%) had shortness of breath, and

TABLE 1. Number and percentage of persons with selected illnesses after Hurricane Katrina, by residency status — New Orleans, Louisiana area, September 8–25, 2005

Selected illnesses	Relief workers		Residents		Unknown		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Infectious-disease–related								
Skin or wound infection	101	(19.1)	192	(12.8)	347	(16.2)	**640**	**(15.4)**
Acute respiratory infection	119	(22.5)	158	(10.5)	228	(10.6)	**505**	**(12.1)**
Diarrhea	11	(2.1)	52	(3.5)	83	(3.9)	**146**	**(3.5)**
Other infectious disease	36	(6.8)	109	(7.3)	143	(6.7)	**288**	**(6.9)**
Noninfectious-disease–related								
Rash	67	(12.7)	87	(5.8)	146	(6.8)	**300**	**(7.2)**
Heat-related	34	(6.4)	80	(5.3)	93	(4.3)	**207**	**(5.0)**
Nondiarrhea gastrointestinal	23	(4.4)	77	(5.1)	108	(5.0)	**208**	**(5.0)**
Renal*	8	(1.5)	44	(2.9)	35	(1.6)	**87**	**(2.1)**
Other classifiable illness†	22	(4.2)	52	(3.5)	88	(4.1)	**162**	**(3.9)**
Other illnesses	107	(20.3)	649	(43.3)	870	(40.6)	**1,626**	**(39.0)**
Total	**528**	**(100.0)**	**1,500**	**(100.0)**	**2,141**	**(100.0)**	**4,169**	**(100.0)**

* Includes kidney stones and renal failure (i.e., chronic and acute).
† Includes diabetes, cardiovascular conditions, obstetric/gynecologic conditions, and dental problems.

TABLE 2. Number and percentage of persons with selected injuries and exposures after Hurricane Katrina, by residency status — New Orleans, Louisiana area, September 8–25, 2005

Selected injuries and exposures	Relief workers		Residents		Unknown		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Injuries								
Falls	46	(13.6)	196	(27.4)	222	(23.0)	**464**	**(23.0)**
Bites/Stings	67	(19.8)	92	(12.8)	152	(15.8)	**311**	**(15.4)**
Motor vehicle crash	16	(4.7)	65	(9.1)	64	(6.6)	**145**	**(7.2)**
Intentional injury	4	(1.2)	20	(2.8)	18	(1.9)	**42**	**(2.1)**
Other unintentional injuries*	117	(34.6)	237	(33.1)	362	(37.6)	**716**	**(35.5)**
Undetermined etiology	72	(21.3)	99	(13.8)	128	(13.3)	**299**	**(14.8)**
Toxic exposure/Poisoning								
Carbon monoxide poisoning	5	(1.5)	3	(0.4)	6	(0.6)	**14**	**(0.7)**
Other toxic exposure	11	(3.3)	4	(0.6)	12	(1.2)	**27**	**(1.3)**
Total	**338**	**(100.0)**	**716**	**(100.0)**	**964**	**(100.0)**	**2,018**	**(100.0)**

* Includes cuts, blunt trauma, burns, and environmental exposures.

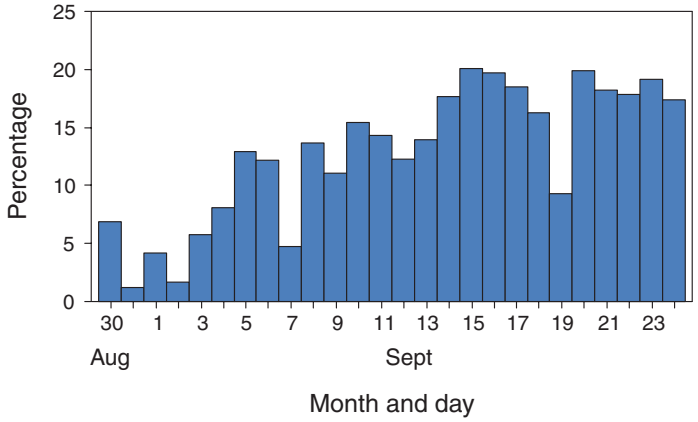
60 (11.2%) had fever. A total of 23 (4.6%) persons with ARI were admitted to a hospital. When separate analyses were performed by type of facility (i.e., hospital versus nonhospital), the increase in ARI cases over time was only observed in nonhospital facilities. Investigation determined that this trend was driven by one facility that identified multiple ARI cases among members of a National Guard battalion.

Rash illnesses increased over time in all facilities. Relief workers were significantly more likely than residents to be seen for a rash (OR = 1.7, CI = 1.4–2.1). Investigations determined that these rashes were noninfectious; they were classified as prickly heat, arthropod bites, and the abrasive effects of wet clothing and moist skin (*3*).

Motor vehicle crashes accounted for 145 (7.2%) of the injuries; motor vehicle crashes accounted for a smaller proportion of injuries among relief workers (5.0%) than among residents (9.2%) (OR = 0.55, CI = 0.32–0.95). As of September 25, the surveillance system had detected 14 cases of carbon monoxide (CO) poisoning; 27 persons were exposed to other toxic substances (e.g., diesel fuel, contaminated water, or cleaning agents).

Reported by: *W Willams, MD, Northshore Regional Medical Center; J Guarisco, Ochsner Hospital; K Guillot, St. Charles Parish Hospital; J Wales, MD, East Jefferson Medical Center; C Revels, West Jefferson Medical Center; G Barre, MD, Ochsner Clinic Foundation; K Stevens, MD, City of New Orleans Health Dept; R Ratard, MD, S Straif-Bourgeois, PhD, T Sokel, MPH, Office of Public Health, Louisiana Dept of Health and Hospitals. CDC Greater New Orleans Public Health Response Team; C Brown, MS, National Immunization Program; M Gershman, MD, J Grant, MD, N Kazerounie, PhD, G Mirchandi, PhD, R Novak, PhD, A Parker, MPH, M Riggs, PhD, A Sharma, PhD, L Sosa, MD, A Sumner, MD, C Tabak, MD, P Vranken, DPh, E Weiss, MD, R Bossarte, PhD, S Russell, MSN, MPH, EIS officers.*

FIGURE. Proportion of acute respiratory infections among reported illnesses after Hurricane Katrina — New Orleans, Louisiana area, August 30–September 24, 2005



Editorial Note: The loss of public health infrastructure from Hurricane Katrina necessitated rapid mobilization of resources in Louisiana to restore essential services and disease surveillance. In collaboration with LDHH, CDC established active surveillance in multiple settings, including evacuation centers, coroner offices, and hospital-based emergency departments to identify outbreaks, injuries, and environmental concerns and to initiate interventions before reinstitution of routine surveillance. Collection of individual-level data provided detailed contextual information (e.g., location or circumstances) regarding health-related events. No major outbreak of disease was reported in the greater New Orleans area. Although outbreaks of epidemic-prone diseases such as cholera have happened after extensive flooding in developing countries (*4*), the United States has low or no endemic potential for epidemics of cholera or measles (*5*).

The surveillance system did identify an increase in ARI over time. This finding prompted an investigation into possible etiologies, including environmental exposure. Examination of individual data determined that the cluster was the result of transmission within close quarters of one battalion of the National Guard (*6*). Investigation also indicated that the rash illnesses were noninfectious. Injury data (e.g., proportion of motor vehicle crashes, falls, bites, and CO poisonings) were used to guide prevention messages (e.g., flyers distributed at health-care facilities and at checkpoints for residents returning to hurricane-affected areas).

The findings in this report are subject to at least three limitations. First, because of limited resources and heavy patient volume, the enumeration of illnesses and injuries among residents and relief workers in the New Orleans area after Hurricane Katrina is incomplete. Second, misclassification of illnesses or injuries on the standardized form by participating facilities was possible. Finally, prehurricane baseline data were not available to assess the magnitude of any increase in illnesses and injuries.

Written protocols were established and training was provided for each team deployed to ensure continuity of the surveillance system. Goals for the surveillance system, inclusion and exclusion criteria for reporting facilities, protocols for facility recruitment, data analysis methodology, and thresholds to initiate outbreak investigations all require documentation and review by stakeholders.

The evacuation of New Orleans associated with Hurricane Katrina created unforeseen complications in establishing and maintaining the surveillance system. Manual data collection and entry on this scale required substantial personnel resources and increased institutional support as residents returned to the four parishes. When providing surveillance support after a disaster of this magnitude, authorities should be prepared to

devote resources to the collection and reporting of data, implement automated data entry (e.g., scannable forms and electronic transmission of medical records) at the earliest opportunity, and reinstitute prehurricane surveillance once the capacity of the state health department has been reestablished.

Acknowledgments

This report is based, in part, on contributions by G Fisher, Federal Emergency Management Agency; D Diamond, MD, Northwest Medical Teams International; Medical Response Unit of the US National Guard; S Hartley, J Johnston, G Nelson, US Geological Survey.

References

1. CDC. Rapid health response, assessment, and surveillance after a tsunami—Thailand, 2004–2005. MMWR 2005;54:61–4.
2. CDC. Injuries and illnesses related to Hurricane Andrew—Louisiana, 1992. MMWR 1993;42:242–51.
3. CDC. Infectious disease and dermatologic conditions in evacuees and rescue workers after Hurricane Katrina—multiple states, August–September, 2005. MMWR 2005;54:961–4.
4. Sur D, Dutta P, Nair GB, Bhattacharya SK. Severe cholera outbreak following floods in a northern district of West Bengal. Ind J Med Res 2000;112:178–82.
5. CDC. Summary of notifiable diseases—United States, 2003. MMWR 2005;52(54).
6. Barker J, Stevens D, Bloomfield SF. Spread and prevention of some common viral infections in community facilities and domestic homes. J Appl Microbiol 2001;91:7–21.
7. CDC. Carbon monoxide poisoning from hurricane-associated use of portable generators—Florida, 2004. MMWR 2005;54:697–700.

West Nile Virus Infections in Organ Transplant Recipients — New York and Pennsylvania, August–September, 2005

On October 5, this report was posted as an MMWR Early Release *on the* MMWR *website* (http://www.cdc.gov/mmwr).

In September 2005, West Nile virus (WNV) infection was confirmed in three of four recipients of organs transplanted from a common donor. Two recipients subsequently had neuroinvasive disease, one recipient had asymptomatic WNV infection, and a fourth recipient apparently was not infected. This report summarizes the ongoing investigation. Clinicians should be aware of the potential for transplant-associated transmission of infectious disease.

Organ Donor

The organ donor, a New York City resident, was hospitalized on August 23 after a traumatic head injury and underwent emergency evacuation of an epidural hematoma, during which he received one unit of packed red blood cells (PRBCs). He was declared brain dead on August 26. Liver and associated vessels, one lung, and both kidneys were recovered. On August 28, the liver and kidneys were transplanted into three recipients at two transplant centers in New York City, the lung was transplanted into a recipient at a transplant center in Pittsburgh, and the vessels were discarded.

After unexplained neurologic illness occurred in two organ recipients, an investigation was initiated. Investigators determined that the donor had lived near an area where mosquitoes positive for WNV were collected on August 16, 2005. The donor's wife reported that he had spent time outdoors and felt febrile before sustaining the fatal head injury. Serum and plasma collected from the donor on August 27 were retrieved. The samples tested positive for WNV immunoglobulin M antibodies (IgM) and IgG by enzyme immunoassay but negative for WNV RNA by polymerase chain reaction (PCR). Immunohistochemical analyses of liver, gallbladder, kidney, and epidural hematoma were negative for WNV antigens. The PRBC unit received by the organ donor was donated on July 30 and was negative for WNV RNA by minipool nucleic acid-amplification test (mpNAT). A repeat donation on September 22 was WNV mpNAT and IgM negative.

Liver Recipient

The liver recipient had end-stage liver disease caused by hepatitis C virus infection. She initially did well after the transplantation. She required multiple transfusions of blood products, all of which were WNV RNA negative by mpNAT. On post-transplant day 13, she had a fever and altered mental status. On day 18, she experienced respiratory distress requiring endotracheal intubation. A lumbar puncture revealed mild lymphocytic pleocytosis (8 cells/mm^3) and elevated protein (81 mg/dL). She became comatose and developed acute flaccid paralysis consistent with WNV encephalitis.

Serum and cerebrospinal fluid (CSF) specimens collected on day 23 were positive for WNV IgM, and CSF contained WNV RNA. That day, the patient began treatment with four doses of intravenous Omr-IgG-am^{TM} (Omrix Biopharmaceuticals, Tel Aviv, Israel, supplied by the National Institutes of Health [NIH]), an immune globulin with high antibody titers against WNV under an investigational new drug (IND) compassionate-use protocol; however, the patient had no subsequent clinical improvement and remains in a coma.

Lung Recipient

The lung recipient had end-stage lung disease caused by pulmonary fibrosis. The initial post-transplant course was

uneventful aside from blood-product receipt. The patient went home on post-transplant day 16 but was readmitted the following day with fever and dyspnea requiring endotracheal intubation, followed by altered mental status, seizures, and acute flaccid paralysis consistent with WNV encephalitis. On day 23, a lumbar puncture revealed elevated CSF protein (149 mg/dL) but no white blood cells; a brain magnetic resonance image taken the same day was normal. Serum collected on day 19 was negative for WNV IgM, but, by day 23, serum was IgM and IgG positive. CSF from day 24 was negative for WNV IgM and WNV RNA, but CSF from day 27 was positive for WNV IgM and IgG. The patient completed experimental treatment with four doses of Omr-IgG-am, without clinical improvement, and remains in a coma.

Kidney Recipient 1

The first kidney recipient had end-stage renal disease attributable to IgA nephropathy. She had no immediate post-transplant complications, received no blood products, and was discharged home on day 3. Serum collected on day 22 was negative for WNV IgM but positive for IgG (consistent with a previous flavivirus infection) and was positive for WNV RNA. The patient was readmitted to the hospital on day 27 for experimental Omr-IgG-am treatment and remains asymptomatic.

Kidney Recipient 2

The second kidney recipient had end-stage renal disease caused by Alport syndrome. He received blood products after the transplant and was discharged home on post-transplant day 7. Serum collected from the patient on day 16 was negative for WNV IgM, IgG, and RNA. As a precaution, the patient was rehospitalized on day 27 for experimental Omr-IgG-am treatment. He remains well.

Reported by: *LW Teperman, MD, T Diflo, MD, A Fahmy, MB, GR Morgan, MD, RE Wetherbee, MD, New York University Medical Center; L Ratner MD, D Cohen MD, Columbia Presbyterian Medical Center; J Ackelsberg, MD, M Campbell, MS, E DeBernardo, PhD, A Fine, MD, E Lumeng, MPH, New York City Department of Health and Mental Hygiene; NP Tavakoli, PhD, New York State Department of Health. B Dixon, MD, A Weltman, MD, Pennsylvania Department of Health. Div of Vector-Borne Infectious Diseases; Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; B Tsoi, MD, EIS Officer, CDC.*

Editorial Note: This report describes the second report of WNV transmission associated with organ transplant (*1*). Several important differences exist between this and the previously reported occurrence. The first organ-donor–associated WNV transmission, reported in August 2002, occurred after the donor received a transfusion of WNV-positive blood 1 day before organ recovery. A serum sample collected immediately before organ recovery subsequently tested positive for WNV by PCR and culture but lacked WNV IgM antibodies. All four organ recipients were infected and became ill. In contrast, the current organ donor was likely infected via a mosquito bite rather than through blood transfusion, and a serum sample obtained 1 day before the organs were recovered had WNV IgM and IgG antibodies but was PCR negative. The lung and liver transplant recipients had severe WNV encephalitis and acute flaccid paralysis with respiratory failure, one kidney recipient had a positive PCR test result in serum 22 days after transplantation and remains asymptomatic, and the other kidney recipient had no evidence of WNV infection.

Serologic and clinical studies indicate that organ-transplant recipients have a risk approximately 40 times that of the general population for neuroinvasive disease after WNV infection (*2*). Infected organ-transplant recipients and other immunosuppressed persons typically have prolonged WNV incubation periods, during which asymptomatic viremia can be detected (*3*). The infected kidney recipient had asymptomatic viremia 22 days after transplant. All of the recipients were treated through a Food and Drug Administration (FDA)-approved IND compassionate-use protocol with Omr-IgG-am, an intravenous immunoglobulin product with high-titered neutralizing antibody to WNV. No proven effective treatment or prophylaxis for WNV infection exists; a randomized placebo-controlled, double-blind trial of Omr-IgG-am is under way (*5*).

Investigation of 30 recognized cases of WNV transmitted by blood transfusion documented to date indicated that the donors' viremias can be of low titer and that all resulted from IgM antibody-negative donations (*4*). Conversely, transfused viremic donations that were recognized only after retrospective testing did not transmit WNV infection if IgM antibody was present (*6*). Since 2003, the U.S. blood supply has been screened for WNV using NAT, which has reduced the risk for transfusion transmission (*4*). The organ-transplant–associated WNV transmission described in this report suggests that transmission through solid organ transplantation can occur from donors with IgM and IgG antibodies and without detectable nucleic acid by PCR in their serum. Experimental evidence in humans and animals suggests that WNV might persist in organs after clearance of viremia (*7*). Further testing of the donor serum using a highly sensitive NAT assay for blood-donor screening is pending.

Organ donors are screened to identify infectious risks on the basis of national organ-procurement standards (*8*). Screening of all organ donors with WNV NAT is not currently required or routinely performed because of 1) NAT availability only through IND applications for blood screening, 2) the

length of turnaround time to obtain WNV NAT testing, and 3) the unproven test performance on donated organs. One analysis suggested that WNV NAT screening might result in a net loss of years of life among certain types of potential transplant recipients (*9*) by excluding healthy donors from an already limited donor pool. National guidelines for organ-donor screening are continuously reevaluated by the Health Resources and Services Administration in consultation with FDA, CDC, and organ-procurement organizations (*10*).

Clinicians should be aware that transplant-associated infectious disease transmission can occur and should be vigilant for unexpected outcomes in transplant recipients, particularly when they occur in clusters. Cases of suspected WNV infection through organ transplant should be reported promptly to local and state health departments and CDC.

References

1. Iwamoto M, Jernigan DB, Guasch A, et al. Transmission of West Nile virus from an organ donor to four transplant recipients. N Engl J Med 2003;348:2196–203.
2. Kumar D, Drebot MA, Wong SJ, et al. A seroprevalence study of West Nile virus infection in solid organ transplant recipients. Am J Transplant 2004;4:1883–8.
3. Pealer LN, Marfin AA, Petersen LR, et al. Transmission of West Nile virus through blood transfusion in the United States in 2002. N Engl J Med 2003;349:1236–45.
4. Petersen LR, Epstein JS. Problem solved? West Nile virus and transfusion safety. N Engl J Med 2005;353:516–7.
5. Gea-Banacloche J, Johnson RT, Bagic A, Butman JA, Murray PR, Agrawal AG. West Nile virus: pathogenesis and therapeutic options. Ann Intern Med 2004;140:545–53.
6. Stramer SL, Fang CT, Foster GA, Wagner AG, Brodsky JP, Dodd RY. West Nile virus among blood donors in the United States, 2003 and 2004. N Engl J Med 2005;353:451–9.
7. Southam CM, Moore AE. Induced virus infections in man by the Egypt isolates of West Nile virus. Am J Trop Med Hyg 1954;3:19–50.
8. Organ Procurement and Transplantation Network. Minimum procurement standards for an organ procurement organization. Richmond, VA: United Network for Organ Sharing; 2005. Available at http://www.optn.org/policiesandbylaws.
9. Kiberd BA, Forward K. Screening for West Nile virus in organ transplantation: a medical decision analysis. Am J Transplant 2004;4:1296–301.
10. US Department of Health and Human Services, Health Resources and Services Administration. A special announcement from HRSA regarding West Nile virus. Richmond, VA: United Network for Organ Sharing; 2004. Available at http://www.unos.org/news/newsDetail.asp?id=303.

Guillain-Barré Syndrome Among Recipients of Menactra® Meningococcal Conjugate Vaccine — United States, June–July 2005

On October 6, this report was posted as an MMWR Dispatch *on the* MMWR *website* (http://www.cdc.gov/mmwr).

On January 14, 2005, a quadrivalent (A, C, Y, and W135) meningococcal conjugate vaccine (Meningococcal Polysaccharide Diphtheria Toxoid Conjugate Vaccine, Menactra®, Sanofi-Pasteur, Swiftwater, Pennsylvania) (MCV4) was licensed in the United States. MCV4 is a tetravalent vaccine; each 0.5-mL dose contains 4 μg each of capsular polysaccharide from *Neisseria meningitidis* serogroups A, C, Y, and W-135 conjugated to 48 μg of diphtheria toxoid. In February 2005, the Advisory Committee on Immunization Practices (ACIP) recommended routine vaccination of adolescents at the preadolescent health-care visit (at ages 11–12 years) (*1*). For persons who have not been vaccinated previously, ACIP recommended vaccination before high-school entry (at approximately age 15 years). Routine vaccination also is indicated for first-year college students living in dormitories and for other persons at increased risk.*

As of October 4, 2005,† the Vaccine Adverse Event Reporting System (VAERS) received five reports of Guillain-Barré syndrome (GBS) in persons after receipt of MCV4 vaccination. VAERS, operated by CDC and the Food and Drug Administration (FDA), is a national passive surveillance system that monitors the safety of vaccines (*2*). Health-care providers, state and local health departments, consumers, and vaccine manufacturers are encouraged to report adverse events involving all U.S.-licensed vaccines. All five persons had been vaccinated during June 10–July 25. This report describes the clinical and epidemiologic features of these five cases and summarizes preliminary data from ongoing studies.

Case Reports

Case 1. A male aged 18 years was vaccinated with MCV4; 15 days later, he experienced tingling in his feet and hands. He had no history of major underlying illness; his mother had had GBS 5 years earlier. He reported no history of respiratory or gastrointestinal illnesses during the 6 weeks before onset of symptoms. Sixteen days after vaccination, he was hospitalized, and nerve conduction studies (NCS) of upper and lower extremities, 2 days after onset of symptoms, were consistent with GBS. He was observed for 3 days, discharged, and then readmitted 2 days later with bilateral facial weakness and increasing lower extremity weakness. Patellar, triceps, and biceps deep tendon reflexes (DTRs) were absent. NCS performed 4 days after the previous examination revealed worsening motor nerve conduction velocities consistent with GBS.

* Military recruits, travelers to areas in which meningococcal disease is hyperendemic or epidemic, microbiologists who are routinely exposed to isolates of *N. meningitidis*, patients with anatomic or functional asplenia, and patients with terminal complement deficiency

† A sixth report of a possible case was received on October 4 and is currently being investigated.

Tests for mononucleosis and Lyme disease were negative. During hospitalization, he was treated with plasmapheresis. His facial palsy and gait improved, and his reflexes returned. He was discharged home.

Case 2. A male aged 17 years was vaccinated with MCV4; approximately 25 days later, he had difficulty walking, followed by difficulty moving from a standing to a seated position. Medical history included attention deficit hyperactivity disorder and Asperger syndrome; he had been taking multiple psychotropic medications. He did not report recent respiratory or gastrointestinal illness. Thirty-two days after vaccination, he was hospitalized with bilateral muscle weakness of upper and lower extremities with absent DTRs. NCS was consistent with GBS. Cerebrospinal fluid (CSF) analysis revealed 2 white blood cells (WBC)/mm^3 with protein of 60 mg/dL; bacterial cultures were negative. DNA polymerase chain reaction (PCR) for adenovirus, herpes simplex virus types 1 and 2, varicella zoster virus, cytomegalovirus (CMV), and Epstein-Barr virus (EBV), and RNA PCR for West Nile virus, eastern equine encephalitis virus, St. Louis encephalitis virus, enterovirus, and California group and Cache Valley viruses, were all negative. During hospitalization, he was treated with intravenous immunoglobulin (IVIG). On discharge, his motor strength and gait were improved.

Case 3. A female aged 17 years was vaccinated with MCV4. She had a previous history of GBS at ages 2 and 5 years, both beginning 14 days after vaccination with childhood vaccines. She had not been previously vaccinated with meningococcal vaccine. Both episodes of GBS were characterized by muscle weakness, decreased reflexes, and difficulty walking. During both episodes, she was treated with intravenous immunoglobulin and completely recovered. Fourteen days after vaccination with MCV4, she reported numbness of toes and tongue and had a lump in her throat. These symptoms were followed by numbness of thighs and fingertips, arm weakness, inability to run, difficulty walking, and falling. Sixteen days after vaccination, she was hospitalized, and neurologic examination revealed decreased tone and weakness of both arms and legs and reflexes reduced or absent in ankles, knees, and arms. CSF results revealed 0 WBC/mm^3 and protein 26 mg/dL. She was treated with IVIG, recovered, and discharged home.

Case 4. A female aged 18 years was vaccinated with MCV4. Six days after vaccination, she had a sore throat that lasted for 6 days, and 29 days after vaccination she reported a severe headache and was evaluated in an emergency department (ED), where she had a normal computerized tomography (CT) scan, was treated with ketorolac, and discharged on oral ibuprofen. Thirty-one days after vaccination, the patient reported numbness of legs and had trouble standing on her toes. The next morning she could not stand. The patient was admitted to the hospital, and physical examination revealed decreased muscle strength in ankles and wrists bilaterally and reduced biceps, knee, and ankle DTRs. Previous medical history included mild ulcerative colitis that had been asymptomatic off medications; she did not report having diarrhea during the 6 weeks before onset of muscle weakness. Her only outpatient medications were oral contraceptives. CSF analysis revealed 1 WBC/mm^3 and a protein concentration of 30 mg/dL. NCS was consistent with GBS. She was treated with IVIG. After a 7-day hospitalization, her motor strength had improved, and she was discharged home with outpatient physical therapy. Three weeks after discharge, her weakness and gait were improved.

Case 5. A female aged 18 years was vaccinated with MCV4; 14 days later, she experienced heaviness in her legs when walking upstairs. During the next 8 days, her difficulty walking continued, and she had bilateral leg pain. Subsequently, she reported headache, back and neck pain, vomiting, and tingling in both hands. She became unable to walk and was evaluated in an ED, where an initial diagnosis of viral meningitis was made. Two days later, she was hospitalized for progressive weakness and inability to walk. Neurologic examination revealed bilateral acute flaccid weakness with decreased DTRs.

The woman had traveled to Portugal during the week before onset of symptoms and had a history of seasonal allergies and sinusitis, but she reported no history of respiratory, gastrointestinal, or other febrile illnesses during the 3 months before onset. CSF examination revealed 5 WBC/mm^3 and protein concentration of 177 mg/dL. Viral and bacterial cultures of CSF were negative. EBV IgM, CMV IgM, ELISA serology for Lyme disease, and serologic testing for syphilis were all negative. Electrodiagnostic studies were consistent with GBS. Treatment included plasmapheresis and IVIG. Weakness progressed to include paralysis of arms, difficulty swallowing, and respiratory compromise. She required intubation for 1 week. She was discharged to a rehabilitation facility, and 53 days after onset, she had recovered the ability to talk, feed herself, sit, and stand.

Case Summary

All reported GBS cases occurred among persons aged 17–18 years who were vaccinated during June 10–July 25 and had symptom onset 14–31 days after MCV4 vaccination. On the basis of information obtained to date, one patient reported another acute illness before onset of neurologic symptoms. The five patients described in this report received vaccine from four different lots. These cases were reported from Pennsylvania (two), New York, Ohio, and New Jersey (one case each).

Reported by: *Center for Biologics Evaluation and Research, Food and Drug Administration. Immunization Safety Office; National Immunization Program; National Center for Infectious Diseases, CDC.*

Editorial Note: GBS is a serious neurologic disorder involving inflammatory demyelination of peripheral nerves (*3*). It can occur spontaneously or after certain antecedent events such as infections. Illness is typically characterized by the subacute onset of progressive, symmetrical weakness in the legs and arms, with loss of reflexes. Sensory abnormalities, involvement of cranial nerves, and paralysis of respiratory muscles also can occur. A small proportion of patients die, and 20% of hospitalized patients can have prolonged disability. *Campylobacter jejuni*, which causes bacterial gastroenteritis, especially in young adults and during the summer months, is one identified precipitating factor for GBS.

Approximately 2.5 million doses of MCV4 have been distributed nationally since March 2005 (Sanofi-Pasteur, unpublished data, 2005). The number of exact vaccine doses administered is unknown. The precise rate of GBS also is unknown. Data from the Vaccine Safety Datalink (VSD), a collaborative project between CDC and eight managed care organizations in the United States (*4*), and the Health Care Utilization Project on GBS incidence in persons aged 11–19 years indicate a background annual incidence of 1–2 cases per 100,000 person-years (CDC; Healthcare Utilization Project Nationwide Inpatient Sample; Agency for Healthcare Research and Quality, unpublished data, 1989–2001). This finding suggests that the rate of GBS based on the number of cases reported within 6 weeks of administration of MCV4 is similar to what might have been expected to occur by chance alone. However, the timing of the onset of neurologic symptoms (i.e., within 2–5 weeks of vaccination) is of concern. In addition, the extent of underreporting of GBS to VAERS is unknown; therefore, additional cases might be unreported (*5,6*).

Prelicensure studies conducted by Sanofi Pasteur of approximately 7,000 recipients of MCV4 revealed no GBS cases (*7*). CDC has conducted a rapid survey by using available VSD and other health-care–organization databases. No cases of GBS have been detected among nearly 110,000 MCV4 recipients represented in these databases. Data from two VSD sites indicated that 86%–97% of vaccine recipients had 6 weeks of follow-up via automated data collection. These data do not rule out an association between MCV4 and GBS.

During 1999–2005, a total of 30 million doses of three different meningococcal C conjugate vaccines (MenC), with either diphtheria CRM (nontoxic variant of diphtheria toxin) or tetanus toxoid as carrier proteins, have been used in the United Kingdom (UK) for persons aged <18 years. Five cases of GBS were reported in the UK after administration of MenC vaccines (UK Department of Health, unpublished data, 2005). This reported number of cases is lower than would have been expected to occur by chance in a population this age.

To date, evidence is insufficient to conclude that MCV4 causes GBS. An ongoing known risk for serious meningococcal disease exists. Therefore, CDC is recommending continuation of current vaccination strategies. Whether receipt of MCV4 vaccine might increase the risk for recurrence of GBS is unknown; avoiding vaccinating persons who are not at high risk for meningococcal disease and who are known to have experienced GBS previously is prudent.

FDA and CDC are alerting health-care providers to this preliminary information and are actively investigating the situation because of its potentially serious nature. The manufacturer has sent letters to health-care providers and is updating the package insert to reflect that GBS has been reported in association with the vaccine. CDC recommends that adolescents and their caregivers be informed of this ongoing investigation as part of the consent process for vaccination with Menactra.

FDA and CDC are requesting that providers or other persons with knowledge of possible cases of GBS (or other clinically significant adverse events) occurring after vaccination with MCV4 report them to VAERS. Reports of GBS should be submitted to VAERS at http://www.vaers.hhs.gov or by telephone at 800-822-7967. CDC further requests that health-care providers report other cases of GBS that occur among persons aged 11–19 years to state health departments in accordance with state or local disease-reporting guidelines. CDC suggests that state health departments consider enhancing surveillance for GBS in adolescents to assist in answering these critical questions. Cases of meningococcal disease should be reported to state health departments and, if available, information on vaccination status should be provided; isolates should be saved and sent to state health departments for serogroup identification.

References

1. CDC. Prevention and control of meningococcal disease: recommendations of the Advisory Committee on Immunization Practices (ACIP).MMWR 2005;54(No. RR-7).
2. Varricchio F, Iskander J, DeStefano F, et al. Understanding vaccine safety information from the Vaccine Adverse Event Reporting System (VAERS). Ped Infect Dis J 2004;23:1–8.
3. Van der Meche FG, Van Doorn PA, Meulstee J, et al. Diagnostic and classification criteria for the Guillain-Barré syndrome. Eur Neurol. 2001;45:133–9.
4. DeStefano F. The Vaccine Safety Datalink project. Pharmacoepidemiology and Drug Safety 2001;10:1–4.
5. Rosenthal S, Chen RT. Reporting sensitivities of two passive surveillance systems for vaccine adverse events. Am J Public Health 1995;85:1706–9.
6. Verstraeten T, Baughman AL, Cadwell B, et al. Enhancing vaccine safety surveillance: a capture-recapture analysis of intussusception after rotavirus vaccination. Am J Epidemiol 2001;154:1006–12.
7. Food and Drug Administration. Meningococcal Polysaccharide (Serogroups A, C, Y and W-135) Diphtheria Toxoid Conjugate Vaccine (Menactra) [package insert]. Available at http://www.fda.gov/cber/products/mpdtave011405.htm.

Notice To Readers

FDA Approval of VAQTA® (Hepatitis A Vaccine, Inactivated) for Children Aged ≥1 Year

On August 11, 2005, the Food and Drug Administration (FDA) approved an application of a pediatric/adolescent formulation of VAQTA® (hepatitis A vaccine, inactivated) (Merck & Co., Whitehouse Station, New Jersey) for use among persons aged 12 months–18 years. Previously, the pediatric/adolescent formulation of VAQTA was approved for use in persons aged 2–18 years. The approved labeling change applies only to VAQTA and not to other licensed hepatitis A vaccines.

The formulation, dosage, and schedule for VAQTA have not changed. Each 0.5 mL dose of the pediatric/adolescent formulation of VAQTA contains approximately 25 units of formalin-inactivated hepatitis A virus antigen, adsorbed onto aluminum hydroxyphosphate sulfate, in 0.9% sodium chloride. The formulation does not contain a preservative.

VAQTA is now indicated for active immunization of persons aged ≥12 months to protect against disease caused by hepatitis A virus. The primary vaccination schedule is unchanged and consists of 2 doses, administered on a 0, 6–18 month schedule. The Advisory Committee on Immunization Practices (ACIP) has issued recommendations for hepatitis A vaccination (*1*).

Results from the study to lower the age indication for VAQTA indicated that 100% of 343 initially seronegative children aged 12–23 months who received 2 doses of VAQTA had seroconverted to antibody levels previously indicated to be protective. The study also indicated that VAQTA may be administered concomitantly with M-M-R II (measles, mumps, and rubella virus vaccine live). Insufficient data are available to evaluate the concomitant use of VAQTA with other routinely recommended childhood vaccines. According to the general recommendations of ACIP, inactivated vaccines generally do not interfere with the immune response to other inactivated or live vaccines (*2*).

In combined clinical trials reported as part of the labeling change application, 706 healthy children aged 12–23 months received ≥1 doses of VAQTA alone or in combination with other routinely recommended pediatric vaccines. The most commonly reported complaints after 1 or both doses of VAQTA were similar to those reported among older children (*1*). VAQTA is contraindicated in persons with known hypersensitivity to any component of the vaccine.

Additional information is available from the manufacturer's package insert and at telephone 800-672-6372.

References

1. CDC. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1999;48(No. RR-12).
2. CDC. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP) and the American Academy of Family Physicians. MMWR 2002;51(No. RR-2).

Notice to Readers

National Latino AIDS Awareness Day — October 15, 2005

The third annual National Latino AIDS Awareness Day (NLAAD) is October 15. NLAAD is sponsored by the Latino Commission on AIDS to encourage awareness, prevention, and testing of human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) in the Latino community. This year's theme, "Love Yourself. Protect Yourself. Get Tested for HIV." highlights the need for Latinos at risk to receive counseling and testing and to know their HIV status.

In 2003, the HIV diagnosis rate among Hispanic males in 32 states was more than twice that of non-Hispanic white males, and the rate among Hispanic females was nearly four times that of non-Hispanic white females (*1*). An estimated 176,000 Hispanics in the United States are living with HIV. Among Hispanics, HIV/AIDS remains a leading cause of death among both men and women (*2,3*) and is an urgent health threat to Latino communities.

Additional information about NLAAD, including local events being held in recognition of National Latino AIDS Awareness Day, is available at http://www.nlaad.org and http://www.omhrc.gov/hivaidsobservances.

References

1. CDC. Diagnoses of HIV/AIDS—32 states, 2000–2003. MMWR 2004;53:1106–10.
2. Glynn M, Rhodes P. Estimated HIV prevalence in the United States at the end of 2003. 2005 National HIV Prevention Conference; June 12–15, 2005; Atlanta, GA. Available at http://www.aegis.com/conferences/nhivpc/2005/T1-B1101.html.
3. Anderson RN, Smith BL. Deaths: leading causes for 2002. Natl Vital Stat Rep 2005;53(17).

Notice to Readers

Summary of Notifiable Diseases Graphics on the Internet

Graphs and maps for selected notifiable diseases in the United States from the *Summary of Notifiable Diseases — United States, 2003* are now available on the Internet at http://www.cdc.gov/epo/dphsi/annsum/2003/03graphs.htm. The graphs and maps can be downloaded individually or as an entire set.

MMWR™
QuickGuide

Recommended Adult Immunization Schedule — United States, October 2005–September 2006

Weekly October 14, 2005 / Vol. 54 / No. 40

The Advisory Committee on Immunization Practices (ACIP) annually reviews the recommended Adult Immunization Schedule to ensure that the schedule reflects current recommendations for the use of licensed vaccines. In June 2005, ACIP approved the Adult Immunization Schedule for October 2005–September 2006. This schedule has also been approved by the American Academy of Family Physicians and the American College of Obstetricians and Gynecologists.

Changes in the Schedule for October 2005–September 2006

The 2005–2006 schedule differs from the previous schedule as follows:

- Vaccines listed on the age-based schedule (Figure 1) are displayed so that vaccines recommended for routine use can be differentiated from those recommended for adults with certain risk indicators (similar to the childhood immunization schedule). This is illustrated both by the color scheme and by the broken line.
- The yellow bars ("For all persons in this group") and the green bars ("For persons lacking documentation of vaccination or evidence of disease") from the previous schedule have been merged into one yellow bar, which now reads, "For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)."
- The purple bar has been changed from "For persons at risk (e.g., with medical/exposure indications)" to "Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)." The purple bar was added to the 50–64 years and ≥65 years age-group columns for measles, mumps, rubella (MMR) vaccine.
- The column, "Diabetes, heart disease, chronic pulmonary disease, or chronic liver disease including chronic alcoholism" has been transposed with the column, "Congenital immunodeficiency, leukemia, lymphoma, generalized malignancy, therapy with alkylating agents, antimetabolites, cerebrospinal fluid leaks, radiation, or large amounts of corticosteroids" on the medical/other indications schedule (Figure 2) so that contraindications for MMR and varicella vaccines are now side-by-side.
- The row for varicella vaccine has been moved up on both figures (i.e., to immediately after MMR vaccine) because the vaccine is now universally recommended for certain age groups.
- Meningococcal vaccine has been added to the medical/other indications schedule (Figure 2). The footnote has been revised to incorporate the recently published ACIP recommendations for this vaccine (*1*).
- The tetanus and diphtheria footnote (#1) has been reworded.
- The varicella footnote (#3) has been reworded in accordance with ACIP recommendations adopted in June 2005.
- The influenza footnote (#4) has been revised to add the newest high-risk condition: neuromuscular conditions that compromise respiratory function (*2*).
- A 10th footnote has been added regarding *Haemophilus influenzae* type b vaccination for populations at high risk (i.e., persons with asplenia, leukemia, and human immunodeficiency virus [HIV] infection).

The Adult Immunization Schedule is available in English and Spanish at http://www.cdc.gov/nip/recs/adult-schedule.htm. General information about adult immunization, including recommendations concerning vaccination of persons with HIV and other immunosuppressive conditions, is available from state and local health departments and from the National Immunization Program at http://www.cdc.gov/nip. Vaccine information statements are available at http://www.cdc.gov/nip/publications/vis. ACIP statements for each recommended vaccine can be viewed, downloaded, and printed from the National Immunization Program website at http://www.cdc.gov/nip/publications/acip-list.htm. Instructions for reporting adverse events to the Vaccine Adverse Event Reporting System are available at http://www.vaers.hhs.gov or by telephone, 800-822-7967.

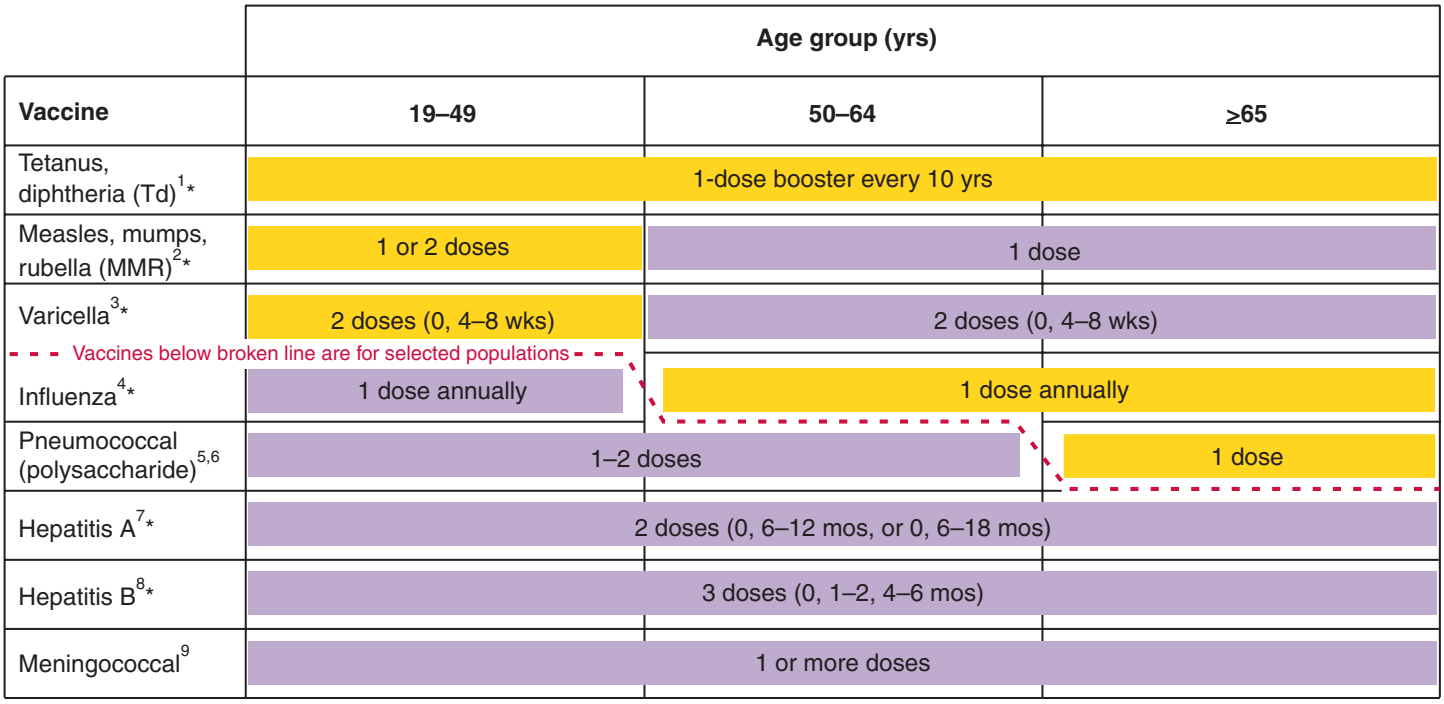
The Recommended Adult Immunization Schedule has been approved by the Advisory Committee on Immunization Practices, the American College of Obstetricians and Gynecologists, and the American Academy of Family Physicians. The standard *MMWR* footnote format has been modified for publication of this schedule.

Suggested citation: Centers for Disease Control and Prevention. Recommended Adult Immunization Schedule—United States, October 2005–September 2006. MMWR 2005;54:Q1–Q4.

References

1. CDC. Prevention and control of meningococcal disease: recommendations of the Advisory Committee for Immunization Practices (ACIP). MMWR 2005;54(No. RR-7).
2. CDC. Prevention and control of influenza: recommendations of the Advisory Committee for Immunization Practices (ACIP). MMWR 2005;54(No. RR-8).

FIGURE 1. Recommended adult immunization schedule, by vaccine and age group — United States, October 2005–September 2006



* Covered by the Vaccine Injury Compensation Program.

NOTE: These recommendations must be read along with the footnotes, which can be found on pages Q2–Q4 of this schedule.

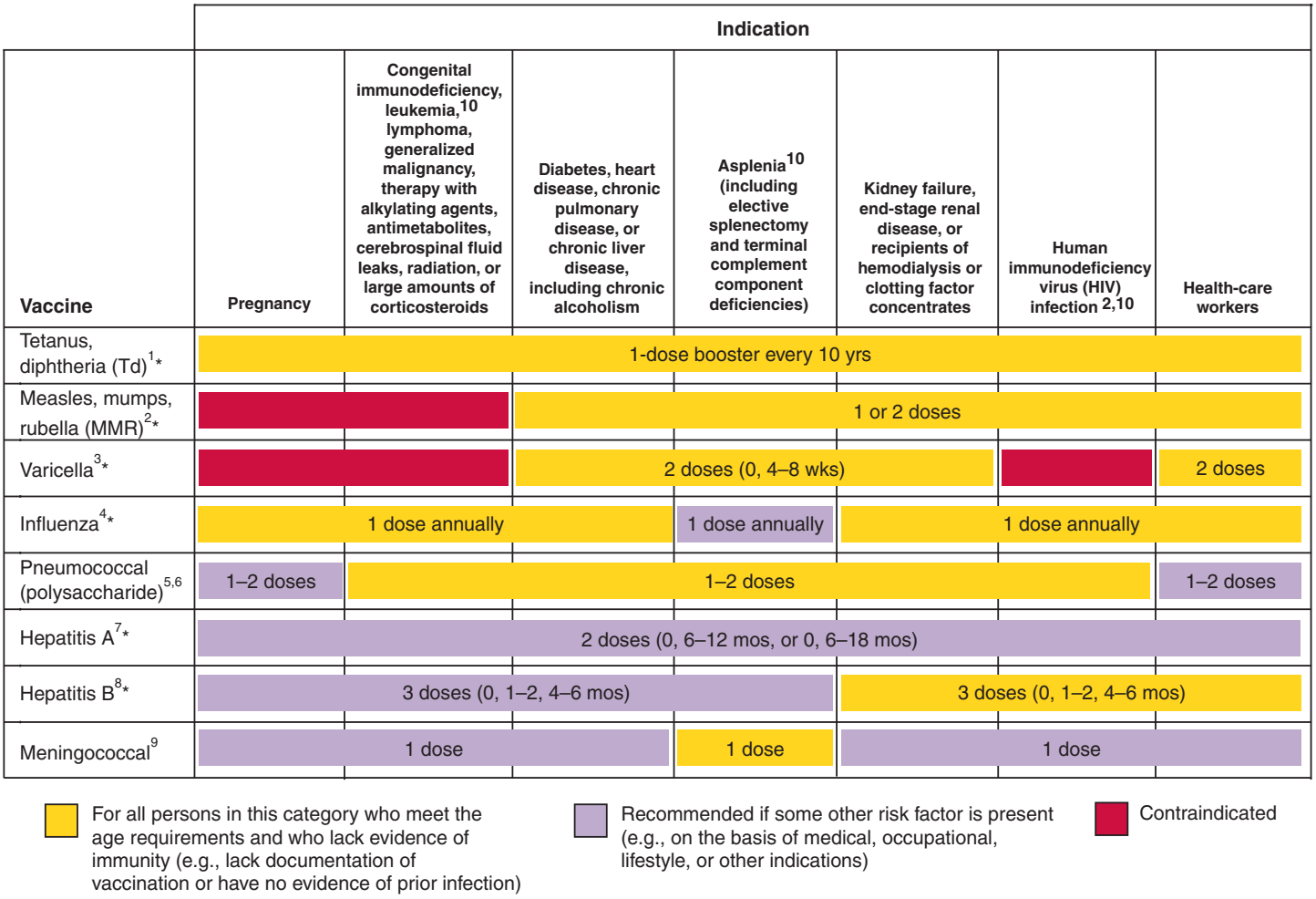
Approved by the Advisory Committee on Immunization Practices, the American College of Obstetricians and Gynecologists, and the American Academy of Family Physicians

1. Tetanus and diphtheria (Td) vaccination. Adults with uncertain histories of a complete primary vaccination series with diphtheria and tetanus toxoid–containing vaccines should receive a primary series using combined Td toxoid. A primary series for adults is 3 doses; administer the first 2 doses at least 4 weeks apart and the third dose 6–12 months after the second. Administer 1 dose if the person received the primary series and if the last vaccination was received ≥10 years previously. Consult the ACIP statement for recommendations for administering Td as prophylaxis in wound management (http://www.cdc.gov/mmwr/preview/mmwrhtml/00041645.htm). The American College of Physicians Task Force on Adult Immunization supports a second option for Td use in adults: a single Td booster at age 50 years for persons who have completed the full pediatric series, including the teenage/young adult booster. A newly licensed tetanus-diphtheria-acellular–pertussis vaccine is available for adults. ACIP recommendations for its use will be published.

2. Measles, mumps, rubella (MMR) vaccination. *Measles component*: adults born before 1957 can be considered immune to measles. Adults born during or after 1957 should receive ≥1 dose of MMR unless they have a medical contraindication, documentation of ≥1 dose, history of measles based on health-care provider diagnosis, or laboratory evidence of immunity. A second dose of MMR is recommended for adults who 1) were recently exposed to measles or in an outbreak setting; 2) were previously vaccinated with killed measles vaccine; 3) were vaccinated with an unknown type of measles vaccine during 1963–1967; 4) are students in postsecondary educational institutions; 5) work in a health-care facility; or 6) plan to travel internationally. Withhold MMR or other measles-containing vaccines from HIV-infected persons with severe immunosuppression. *Mumps component*: 1 dose of MMR vaccine should be adequate for protection for those born during or after 1957 who lack a history of mumps based on health-care provider diagnosis or who lack laboratory evidence of immunity. *Rubella component*: administer 1 dose of MMR vaccine to women whose rubella vaccination history is unreliable or who lack laboratory evidence of immunity. For women of childbearing age, regardless of birth year, routinely determine rubella immunity and counsel women regarding congenital rubella syndrome. Do not vaccinate women who are pregnant or who might become pregnant within 4 weeks of receiving vaccine. Women who do not have evidence of immunity should receive MMR vaccine upon completion or termination of pregnancy and before discharge from the health-care facility.

3. Varicella vaccination. Varicella vaccination is recommended for all adults without evidence of immunity to varicella. Special consideration should be given to those who 1) have close contact

FIGURE 2. Recommended adult immunization schedule, by vaccine and medical and other indications — United States, October 2005–September 2006



* Covered by the Vaccine Injury Compensation Program.

NOTE: These recommendations must be read along with the footnotes, which can be found on pages Q2–Q4 of this schedule.

with persons at high risk for severe disease (health-care workers and family contacts of immunocompromised persons) or 2) are at high risk for exposure or transmission (e.g., teachers of young children; child care employees; residents and staff members of institutional settings, including correctional institutions; college students; military personnel; adolescents and adults living in households with children; nonpregnant women of childbearing age; and international travelers). Evidence of immunity to varicella in adults includes any of the following: 1) documented age-appropriate varicella vaccination (i.e., receipt of 1 dose before age 13 years or receipt of 2 doses [administered at least 4 weeks apart] after age 13 years); 2) U.S.-born before 1966 or history of varicella disease before 1966 for non-U.S.–born persons; 3) history of varicella based on health-care provider diagnosis or parental or self-report of typical varicella disease for persons born during 1966–1997 (for a patient reporting a history of an atypical, mild case, health-care providers should seek either an epidemiologic link with a typical varicella case or evidence of laboratory confirmation, if it was performed at the time of acute disease); 4) history of herpes zoster based on health-care provider diagnosis; or 5) laboratory evidence of immunity. Do not vaccinate women who are pregnant or who might become pregnant within 4 weeks of receiving the vaccine. Assess pregnant women for evidence of varicella immunity. Women who do not have evidence of immunity should receive dose 1 of varicella vaccine upon completion or termination of pregnancy and before discharge from the health-care facility. Dose 2 should be administered 4–8 weeks after dose 1.

4. Influenza vaccination. *Medical indications*: chronic disorders of the cardiovascular or pulmonary systems, including asthma; chronic metabolic diseases, including diabetes mellitus, renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications or HIV); any condition (e.g., cognitive dysfunction, spinal cord injury, seizure disorder, or other neuromuscular disorder) that compromises respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration; and pregnancy during the influenza season. No data exist on the risk for severe or complicated influenza disease among persons with asplenia; however, influenza is a risk factor for secondary bacterial infections that can cause severe disease among persons with asplenia. *Occupational indications*: health-care workers and employees of long-term–care and assisted living facilities. *Other indications*: residents of nursing homes and other long-term–care and assisted living facilities; persons likely to transmit influenza to persons at high risk (i.e., in-home household

contacts and caregivers of children aged 0–23 months, or persons of all ages with high-risk conditions), and anyone who wishes to be vaccinated. For healthy, nonpregnant persons aged 5–49 years without high-risk conditions who are not contacts of severely immunocompromised persons in special care units, intranasally administered influenza vaccine (FluMist®) may be administered in lieu of inactivated vaccine.

5. Pneumococcal polysaccharide vaccination. *Medical indications*: chronic disorders of the pulmonary system (excluding asthma); cardiovascular diseases; diabetes mellitus; chronic liver diseases, including liver disease as a result of alcohol abuse (e.g., cirrhosis); chronic renal failure or nephrotic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy [if elective splenectomy is planned, vaccinate at least 2 weeks before surgery]); immunosuppressive conditions (e.g., congenital immunodeficiency, HIV infection [vaccinate as close to diagnosis as possible when CD4 cell counts are highest], leukemia, lymphoma, multiple myeloma, Hodgkin disease, generalized malignancy, or organ or bone marrow transplantation); chemotherapy with alkylating agents, antimetabolites, or long-term systemic corticosteroids; and cochlear implants. *Other indications*: Alaska Natives and certain American Indian populations; residents of nursing homes and other long-term–care facilities.

6. Revaccination with pneumococcal polysaccharide vaccine. One-time revaccination after 5 years for persons with chronic renal failure or nephritic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy); immunosuppressive conditions (e.g., congenital immunodeficiency, HIV infection, leukemia, lymphoma, multiple myeloma, Hodgkin disease, generalized malignancy, or organ or bone marrow transplantation); or chemotherapy with alkylating agents, antimetabolites, or long-term systemic corticosteroids. For persons aged ≥65 years, one-time revaccination if they were vaccinated ≥5 years previously and were aged <65 years at the time of primary vaccination.

7. Hepatitis A vaccination. *Medical indications*: persons with clotting-factor disorders or chronic liver disease. *Behavioral indications*: men who have sex with men or users of illegal drugs. *Occupational indications*: Persons working with hepatitis A virus (HAV)–infected primates or with HAV in a research laboratory setting. *Other indications*: persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A (for list of countries, see http://www.cdc.gov/travel/diseases.htm#hepa) as well as any person wishing to obtain immunity. Current vaccines should be administered in a 2-dose series at either 0 and 6–12 months, or 0 and 6–18 months. If the combined hepatitis A and hepatitis B vaccine is used, administer 3 doses at 0, 1, and 6 months.

8. Hepatitis B vaccination. *Medical indications*: hemodialysis patients (use special formulation [40 μg/mL] or two 20-μg/mL doses) or patients who receive clotting-factor concentrates. *Occupational indications*: health-care workers and public-safety workers who have exposure to blood in the workplace and persons in training in schools of medicine, dentistry, nursing, laboratory technology, and other allied health professions. *Behavioral indications*: injection-drug users; persons with more than one sex partner during the previous 6 months; persons with a recently acquired sexually transmitted disease (STD); and men who have sex with men. *Other indications*: household contacts and sex partners of persons with chronic hepatitis B virus (HBV) infection; clients and staff members of institutions for developmentally disabled persons; all clients of STD clinics; inmates of correctional facilities; and international travelers who will be in countries with high or intermediate prevalence of chronic HBV infection for more than 6 months (for list of countries, see http://www.cdc.gov/travel/diseases.htm#hepa).

9. Meningococcal vaccination. *Medical indications*: adults with anatomic or functional asplenia or terminal complement component deficiencies. *Other indications*: first-year college students living in dormitories; microbiologists who are routinely exposed to isolates of *Neisseria meningitidis*; military recruits; and persons who travel to or reside in countries in which meningococcal disease is hyperendemic or epidemic (e.g., the "meningitis belt" of sub-Saharan Africa during the dry season [December–June]), particularly if contact with local populations will be prolonged. Vaccination is required by the government of Saudi Arabia for all travelers to Mecca during the annual Hajj. Meningococcal conjugate vaccine is preferred for adults meeting any of the above indications who are aged ≤55 years, although meningococcal polysaccharide vaccine (MPSV4) is an acceptable alternative. Revaccination after 5 years might be indicated for adults previously vaccinated with MPSV4 who remain at high risk for infection (e.g., persons residing in areas in which disease is epidemic).

10. Selected conditions for which *Haemophilus influenzae* type b (Hib) vaccine may be used. Hib conjugate vaccines are licensed for children aged 6–71 months. No efficacy data are available on which to base a recommendation concerning use of Hib vaccine for older children and adults with the chronic conditions associated with an increased risk for Hib disease. However, studies suggest good immunogenicity in patients who have sickle cell disease, leukemia, or HIV infection or who have had splenectomies; administering vaccine to these patients is not contraindicated.

This schedule indicates the recommended age groups and medical indications for routine administration of currently licensed vaccines for persons aged ≥19 years. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine's other components are not contraindicated. For detailed recommendations, consult the manufacturers' package inserts and the complete statements from ACIP (http://www.cdc.gov/nip/publications/acip-list.htm).

Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available by telephone, 800-822-7967, or from the VAERS website at http://www.vaers.hhs.gov.

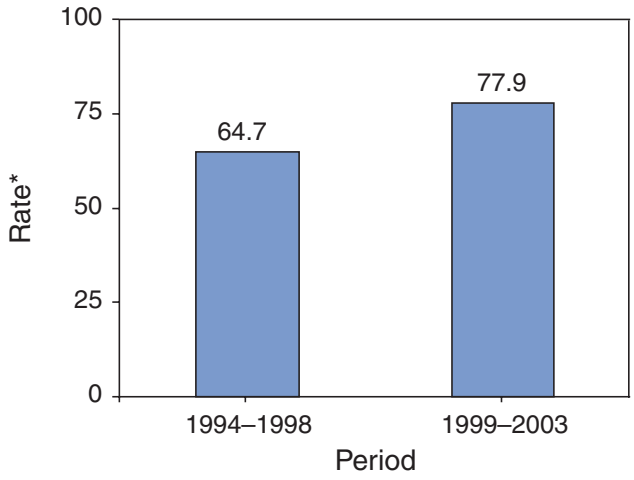
Information on how to file a Vaccine Injury Compensation Program claim is available at http://www.hrsa.gov/osp/vicp or by telephone, 800-338-2382. To file a claim for vaccine injury, contact the U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington, DC 20005, telephone 202-357-6400.

Additional information about the vaccines listed above and contraindications for vaccination is also available at http://www.cdc.gov/nip or from the CDC-INFO Contact Center at 800-CDC-INFO (232-4636) in English and Spanish, 24 hours a day, 7 days a week.

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Rate of Hospitalizations for Pertussis Among Infants Aged <6 Months — United States, 1994–1998 and 1999–2003

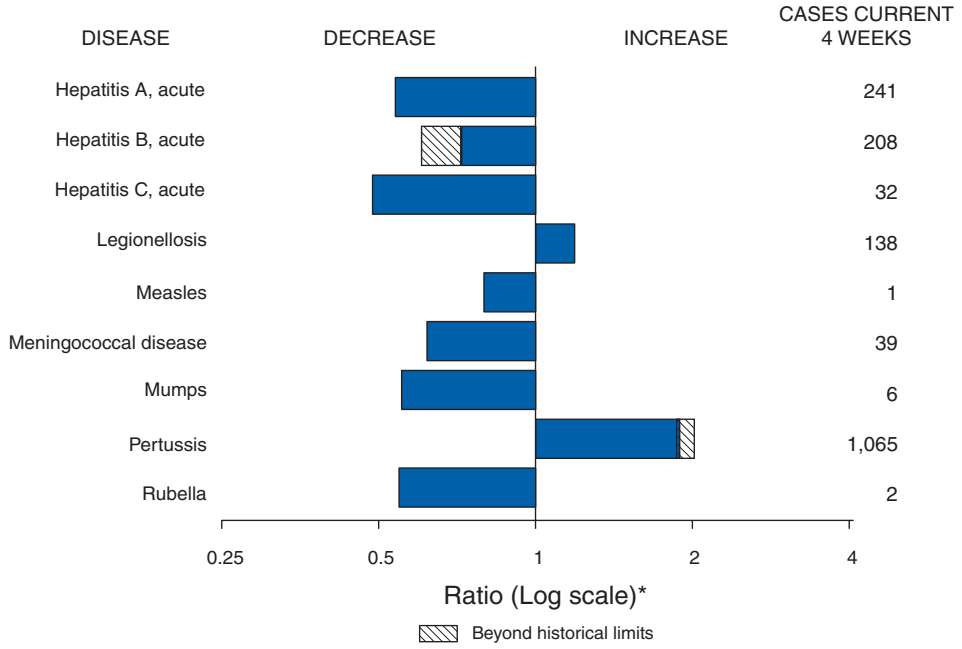


* Per 100,000 live births.

More than 90% of hospitalizations for pertussis among children aged <2 years occurred in infants aged <6 months, a group too young either to receive vaccination or to have developed adequate protection from vaccination. The pertussis hospitalization rate for infants aged <6 months increased by 20% from 1994–1998 to 1999–2003.

SOURCE: Sirkus L, Lukacs S, Branum A. NCHS data on pertussis hospitalizations in young children. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics. Health: E-Stats. In press 2005.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals October 8, 2005, with historical data



* Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending October 8, 2005 (40th Week)*

Disease	Cum. 2005	Cum. 2004	Disease	Cum. 2005	Cum. 2004
Anthrax	—	—	Hemolytic uremic syndrome, postdiarrheal†	136	136
Botulism:			HIV infection, pediatric†¶	181	294
foodborne	9	8	Influenza-associated pediatric mortality†**	44	—
infant	62	66	Measles	60††	25§§
other (wound & unspecified)	21	14	Mumps	218	163
Brucellosis	79	74	Plague	3	1
Chancroid	23	20	Poliomyelitis, paralytic	—	—
Cholera	4	4	Psittacosis†	16	11
Cyclosporiasis†	702	196	Q fever†	93	51
Diphtheria	—	—	Rabies, human	2	4
Domestic arboviral diseases			Rubella	14	9
(neuroinvasive & non-neuroinvasive):	—	—	Rubella, congenital syndrome	1	—
California serogroup†§	39	112	SARS†**	—	—
eastern equine†§	18	3	Smallpox†	—	—
Powassan†§	—	1	*Staphylococcus aureus*:		
St. Louis†§	6	12	Vancomycin-intermediate (VISA)†	—	—
western equine†§	—	—	Vancomycin-resistant (VRSA)†	—	1
Ehrlichiosis:	—	—	Streptococcal toxic-shock syndrome†	93	107
human granulocytic (HGE)†	428	322	Tetanus	16	16
human monocytic (HME)†	332	239	Toxic-shock syndrome	77	71
human, other and unspecified †	63	57	Trichinellosis¶¶	15	2
Hansen disease†	58	76	Tularemia†	111	88
Hantavirus pulmonary syndrome†	17	18	Yellow fever	—	—

—: No reported cases.
* Incidence data for reporting years 2004 and 2005 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, National Center for HIV, STD, and TB Prevention. Last update June 26, 2005.
** Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases.
†† Of 60 cases reported, 50 were indigenous and 10 were imported from another country.
§§ Of 25 cases reported, eight were indigenous and 17 were imported from another country.
¶¶ Formerly Trichinosis.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending October 8, 2005, and October 9, 2004 (40th Week)*

Reporting area	AIDS		Chlamydia†		Coccidioidomycosis		Cryptosporidiosis	
	Cum. 2005§	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	20,405	30,659	703,312	707,649	3,489	4,456	5,230	2,810
NEW ENGLAND	778	974	24,823	23,489	—	—	250	148
Maine	11	20	1,712	1,584	N	N	18	17
N.H.	20	36	1,430	1,322	—	—	26	27
Vt.¶	4	14	727	863	—	—	32	21
Mass.	368	337	11,226	10,383	—	—	104	53
R.I.	68	109	2,526	2,652	—	—	7	4
Conn.	307	458	7,202	6,685	N	N	63	26
MID. ATLANTIC	4,352	6,898	88,114	86,924	—	—	2,241	412
Upstate N.Y.	800	772	17,425	17,519	N	N	1,909	98
N.Y. City	2,327	3,892	28,047	26,933	—	—	85	109
N.J.	574	1,143	13,778	13,737	N	N	41	39
Pa.	651	1,091	28,864	28,735	N	N	206	166
E.N. CENTRAL	1,938	2,673	113,777	125,433	7	12	1,149	871
Ohio	312	504	30,978	31,065	N	N	643	187
Ind.	236	285	15,394	14,285	N	N	55	66
Ill.	983	1,267	34,011	36,716	—	—	84	137
Mich.	322	485	18,976	28,764	7	12	75	125
Wis.	85	132	14,418	14,603	N	N	292	356
W.N. CENTRAL	463	626	43,601	43,515	5	6	470	322
Minn.	123	148	8,631	9,113	3	N	101	107
Iowa	50	50	5,412	5,325	N	N	91	66
Mo.	198	267	17,222	16,041	1	3	216	59
N. Dak.	5	15	900	1,403	N	N	1	10
S. Dak.	10	8	2,148	1,932	—	—	23	33
Nebr.¶	18	44	3,943	3,994	1	3	6	24
Kans.	59	94	5,345	5,707	N	N	32	23
S. ATLANTIC	6,473	9,345	136,704	132,879	1	—	523	425
Del.	100	118	2,572	2,222	N	N	3	—
Md.	812	1,251	14,176	14,618	1	—	30	16
D.C.	467	621	2,944	2,731	—	—	9	13
Va.¶	307	506	16,434	17,241	—	—	48	48
W. Va.	36	63	2,057	2,189	N	N	12	5
N.C.	531	471	24,902	22,366	N	N	69	65
S.C.¶	386	534	17,055	14,395	—	—	14	20
Ga.	1,103	1,298	23,530	25,050	—	—	95	150
Fla.	2,731	4,483	33,034	32,067	N	N	243	108
E.S. CENTRAL	1,093	1,515	52,051	46,020	—	5	159	114
Ky.	135	183	6,707	4,384	N	N	111	36
Tenn.¶	434	617	18,603	17,222	N	N	29	31
Ala.¶	295	350	11,132	10,474	—	—	16	21
Miss.	229	365	15,609	13,940	—	5	3	26
W.S. CENTRAL	2,206	3,548	80,523	86,614	1	3	95	93
Ark.	72	175	6,699	6,194	—	1	4	13
La.**	436	704	12,572	17,370	1	2	3	3
Okla.	167	147	8,634	8,525	N	N	36	17
Tex.¶	1,531	2,522	52,618	54,525	N	N	52	60
MOUNTAIN	789	1,126	40,834	43,088	2,411	2,767	101	142
Mont.	4	5	1,488	1,912	N	N	16	34
Idaho¶	9	16	1,826	2,138	N	N	9	21
Wyo.	2	14	873	804	3	2	2	3
Colo.	163	247	10,553	10,970	N	N	37	49
N. Mex.	72	148	4,288	6,963	9	20	3	14
Ariz.	329	403	13,656	12,443	2,363	2,680	10	15
Utah	33	51	3,249	2,863	5	19	15	4
Nev.¶	177	242	4,901	4,995	31	46	9	2
PACIFIC	2,313	3,954	122,885	119,687	1,064	1,663	242	283
Wash.	229	309	14,211	13,544	N	N	39	33
Oreg.¶	136	236	6,327	6,325	—	—	58	29
Calif.	1,874	3,283	96,567	92,643	1,064	1,663	141	219
Alaska	14	32	3,071	2,974	—	—	3	—
Hawaii	60	94	2,709	4,201	—	—	1	2
Guam	1	1	—	803	—	—	—	—
P.R.	537	594	2,901	2,668	N	N	N	N
V.I.	10	10	119	274	—	—	—	—
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	2	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 2004 and 2005 are provisional and cumulative (year-to-date).

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

§ Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention. Last update June 26, 2005.

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

** Because of Hurricane Katrina, weekly reporting has been disrupted.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 8, 2005, and October 9, 2004 (40th Week)*

Reporting area	*Escherichia coli*, Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped					
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	1,744	1,965	236	209	234	146	13,242	14,769	242,194	250,141
NEW ENGLAND	132	124	43	40	27	13	1,232	1,376	4,509	5,436
Maine	13	11	8	—	—	—	159	112	110	172
N.H.	11	15	2	5	—	—	43	31	128	93
Vt.	12	11	3	—	—	—	139	134	44	68
Mass.	51	53	6	13	27	13	525	610	1,979	2,453
R.I.	5	8	—	1	—	—	86	101	349	668
Conn.	40	26	24	21	—	—	280	388	1,899	1,982
MID. ATLANTIC	232	230	23	31	28	33	2,456	3,100	25,606	28,101
Upstate N.Y.	107	100	14	12	9	17	903	1,028	5,184	5,673
N.Y. City	11	34	—	—	—	—	616	862	7,523	8,684
N.J.	37	40	2	6	7	6	287	408	4,255	5,268
Pa.	77	56	7	13	12	10	650	802	8,644	8,476
E.N. CENTRAL	352	377	20	43	11	26	2,091	2,401	46,173	52,847
Ohio	114	79	6	9	6	17	612	623	14,328	16,224
Ind.	48	42	—	—	—	—	N	N	6,157	5,160
Ill.	45	84	1	7	1	6	405	650	13,760	15,995
Mich.	66	68	1	9	4	3	569	544	7,817	11,683
Wis.	79	104	12	18	—	—	505	584	4,111	3,785
W.N. CENTRAL	302	419	24	30	45	20	1,535	1,603	14,017	13,192
Minn.	92	99	8	11	27	4	670	565	2,434	2,265
Iowa	62	111	—	—	—	—	203	234	1,212	946
Mo.	70	75	10	15	7	6	362	443	7,223	6,902
N. Dak.	5	12	—	—	1	6	11	20	64	93
S. Dak.	21	30	3	—	—	—	79	50	274	215
Nebr.	22	61	3	4	4	—	79	116	893	823
Kans.	30	31	—	—	6	4	131	175	1,917	1,948
S. ATLANTIC	153	137	66	24	89	35	1,905	2,261	59,652	60,345
Del.	5	2	N	N	N	N	42	40	663	686
Md.	29	20	26	4	9	3	148	98	5,331	6,248
D.C.	—	1	—	—	—	—	41	57	1,651	2,028
Va.	27	28	22	11	20	—	412	386	5,950	6,866
W. Va.	1	2	—	—	1	—	32	31	564	711
N.C.	—	—	—	—	44	25	N	N	11,904	11,896
S.C.	6	11	—	—	1	—	76	93	7,559	7,112
Ga.	21	18	14	6	—	—	409	691	10,905	11,072
Fla.	64	55	4	3	14	7	745	865	15,125	13,726
E.S. CENTRAL	106	83	5	3	19	15	318	325	20,604	20,193
Ky.	35	22	2	1	14	9	N	N	2,273	1,977
Tenn.	39	35	2	—	5	6	166	174	6,826	6,444
Ala.	26	16	—	—	—	—	152	151	6,447	6,388
Miss.	6	10	1	2	—	—	—	—	5,058	5,384
W.S. CENTRAL	41	70	5	3	7	4	223	250	32,574	33,582
Ark.	6	14	—	—	—	—	65	100	3,510	3,278
La.	3	3	3	1	2	—	27	39	6,950	8,149
Okla.	19	16	1	—	1	—	131	111	3,453	3,594
Tex.	13	37	1	2	4	4	N	N	18,661	18,561
MOUNTAIN	147	191	44	34	8	—	1,053	1,175	8,792	9,110
Mont.	14	14	—	—	—	—	58	59	83	62
Idaho	16	42	8	9	5	—	64	140	76	68
Wyo.	5	7	2	3	—	—	21	19	59	46
Colo.	32	46	1	1	1	—	403	409	2,357	2,328
N. Mex.	9	10	6	5	—	—	49	58	820	936
Ariz.	29	18	N	N	N	N	107	136	3,005	2,943
Utah	32	38	25	15	—	—	302	255	507	448
Nev.	10	16	2	1	2	—	49	99	1,885	2,279
PACIFIC	279	334	6	1	—	—	2,429	2,278	30,267	27,335
Wash.	85	116	—	—	—	—	272	275	2,813	2,101
Oreg.	67	58	6	1	—	—	297	352	1,094	919
Calif.	105	150	—	—	—	—	1,731	1,521	25,441	22,867
Alaska	12	1	—	—	—	—	79	68	425	464
Hawaii	10	9	—	—	—	—	50	62	494	984
Guam	N	N	—	—	—	—	—	2	—	125
P.R.	2	1	—	—	—	—	133	216	267	194
V.I.	—	—	—	—	—	—	—	—	35	80
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	—	U	—	U	—	U	—	U	—	U

N: Not notifiable. U: Unavailable. —: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.
* Incidence data for reporting years 2004 and 2005 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 8, 2005, and October 9, 2004 (40th Week)*

Reporting area	*Haemophilus influenzae*, invasive							
	All ages		Age <5 years					
	All serotypes		Serotype b		Non-serotype b		Unknown serotype	
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	1,639	1,529	4	9	89	89	166	143
NEW ENGLAND	131	141	—	1	10	8	5	1
Maine	6	12	—	—	—	—	1	—
N.H.	6	16	—	—	—	2	—	—
Vt.	8	6	—	—	—	—	2	1
Mass.	63	65	—	1	3	3	1	—
R.I.	7	3	—	—	2	—	—	—
Conn.	41	39	—	—	5	3	1	—
MID. ATLANTIC	326	310	—	1	—	4	37	32
Upstate N.Y.	96	104	—	1	—	4	8	5
N.Y. City	58	68	—	—	—	—	10	12
N.J.	65	59	—	—	—	—	9	2
Pa.	107	79	—	—	—	—	10	13
E.N. CENTRAL	224	292	1	—	4	8	16	42
Ohio	94	81	—	—	—	2	10	14
Ind.	54	40	—	—	4	4	—	1
Ill.	35	104	—	—	—	—	3	20
Mich.	18	18	1	—	—	2	2	4
Wis.	23	49	—	—	—	—	1	3
W.N. CENTRAL	89	85	—	2	3	3	9	9
Minn.	37	38	—	1	3	3	2	—
Iowa	1	1	—	1	—	—	—	—
Mo.	32	33	—	—	—	—	5	7
N. Dak.	1	3	—	—	—	—	1	—
S. Dak.	—	—	—	—	—	—	—	—
Nebr.	8	4	—	—	—	—	1	1
Kans.	10	6	—	—	—	—	—	1
S. ATLANTIC	391	346	1	—	24	24	25	25
Del.	—	—	—	—	—	—	—	—
Md.	57	53	—	—	5	5	1	—
D.C.	—	3	—	—	—	—	—	1
Va.	38	33	—	—	—	—	2	5
W. Va.	23	15	—	—	1	4	4	—
N.C.	68	46	1	—	8	6	—	1
S.C.	23	10	—	—	—	—	2	1
Ga.	79	91	—	—	—	—	11	16
Fla.	103	95	—	—	10	9	5	1
E.S. CENTRAL	91	62	—	1	1	—	17	8
Ky.	8	6	—	—	1	—	2	—
Tenn.	65	41	—	—	—	—	11	6
Ala.	18	13	—	1	—	—	4	2
Miss.	—	2	—	—	—	—	—	—
W.S. CENTRAL	88	60	1	1	7	7	6	1
Ark.	5	1	—	—	1	—	—	—
La.	28	12	1	—	2	—	6	1
Okla.	53	46	—	—	4	7	—	—
Tex.	2	1	—	1	—	—	—	—
MOUNTAIN	187	158	—	3	13	25	37	18
Mont.	—	—	—	—	—	—	—	—
Idaho	3	5	—	—	—	—	1	2
Wyo.	6	1	—	—	—	1	1	—
Colo.	36	40	—	—	—	—	9	5
N. Mex.	16	33	—	—	4	8	2	6
Ariz.	98	56	—	—	7	11	15	2
Utah	15	12	—	2	—	2	7	2
Nev.	13	11	—	1	2	3	2	1
PACIFIC	112	75	1	—	27	10	14	7
Wash.	3	1	—	—	—	—	2	1
Oreg.	29	36	—	—	—	—	5	3
Calif.	47	25	1	—	27	10	2	1
Alaska	25	5	—	—	—	—	5	1
Hawaii	8	8	—	—	—	—	—	1
Guam	—	—	—	—	—	—	—	—
P.R.	3	2	—	—	—	—	1	2
V.I.	—	—	—	—	—	—	—	—
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	—	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 2004 and 2005 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 8, 2005, and October 9, 2004 (40th Week)*

Reporting area	Hepatitis (viral, acute), by type					
	A		B		C	
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	3,083	4,600	4,131	4,476	529	611
NEW ENGLAND	407	790	218	289	13	13
Maine	2	12	16	4	—	—
N.H.	70	16	18	27	—	—
Vt.	6	8	4	5	10	5
Mass.	276	671	151	154	—	7
R.I.	10	20	1	5	—	—
Conn.	43	63	28	94	3	1
MID. ATLANTIC	524	610	835	591	83	111
Upstate N.Y.	87	74	71	63	16	7
N.Y. City	235	261	90	119	—	—
N.J.	120	146	507	174	—	—
Pa.	82	129	167	235	67	104
E.N. CENTRAL	282	391	358	433	104	86
Ohio	41	40	104	92	5	4
Ind.	42	51	42	35	23	7
Ill.	69	129	84	71	—	13
Mich.	108	119	128	202	76	62
Wis.	22	52	—	33	—	—
W.N. CENTRAL	70	127	218	259	29	18
Minn.	3	30	29	39	5	15
Iowa	17	37	21	14	—	—
Mo.	33	26	123	158	22	3
N. Dak.	—	1	—	4	1	—
S. Dak.	—	3	3	1	—	—
Nebr.	4	12	21	30	1	—
Kans.	13	18	21	13	—	—
S. ATLANTIC	549	829	1,055	1,393	107	148
Del.	4	6	38	38	7	24
Md.	58	89	118	123	20	3
D.C.	3	7	10	15	—	2
Va.	61	96	115	198	10	13
W. Va.	4	5	27	34	13	19
N.C.	70	76	128	138	17	10
S.C.	31	39	112	110	2	14
Ga.	90	281	130	361	7	13
Fla.	228	230	377	376	31	50
E.S. CENTRAL	211	135	267	383	71	76
Ky.	22	29	49	55	9	23
Tenn.	136	85	108	179	14	27
Ala.	34	7	60	61	13	4
Miss.	19	14	50	88	35	22
W.S. CENTRAL	198	551	309	273	51	82
Ark.	8	60	34	96	—	2
La.	44	40	31	50	9	3
Okla.	4	19	28	55	3	3
Tex.	142	432	216	72	39	74
MOUNTAIN	271	351	431	356	37	37
Mont.	7	5	3	1	1	2
Idaho	16	17	8	10	1	1
Wyo.	—	5	1	7	—	2
Colo.	37	42	39	50	18	11
N. Mex.	19	21	6	16	—	U
Ariz.	164	213	309	184	—	5
Utah	18	33	38	30	8	4
Nev.	10	15	27	58	9	12
PACIFIC	571	816	440	499	34	40
Wash.	37	49	56	40	U	U
Oreg.	33	57	80	89	13	15
Calif.	476	684	292	351	21	24
Alaska	4	4	7	10	—	—
Hawaii	21	22	5	9	—	1
Guam	—	1	—	12	—	9
P.R.	54	35	35	64	—	—
V.I.	—	—	—	—	—	—
Amer. Samoa	U	U	U	U	U	U
C.N.M.I.	—	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 2004 and 2005 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 8, 2005, and October 9, 2004 (40th Week)*

Reporting area	Legionellosis		Listeriosis		Lyme disease		Malaria	
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	1,388	1,565	569	557	15,646	14,601	945	1,118
NEW ENGLAND	70	73	44	36	1,766	2,550	58	79
Maine	4	1	1	5	134	29	5	6
N.H.	6	7	5	2	146	170	5	5
Vt.	5	4	2	1	30	43	1	4
Mass.	17	33	12	12	885	1,350	29	47
R.I.	16	13	6	1	32	176	2	4
Conn.	22	15	18	15	539	782	16	13
MID. ATLANTIC	495	434	152	134	10,409	9,008	255	295
Upstate N.Y.	135	87	46	39	3,052	3,037	40	38
N.Y. City	62	60	28	22	—	318	126	156
N.J.	85	69	31	27	2,965	2,313	61	61
Pa.	213	218	47	46	4,392	3,340	28	40
E.N. CENTRAL	256	388	57	99	926	1,201	73	101
Ohio	141	184	26	36	59	45	18	26
Ind.	13	40	4	16	23	23	1	13
Ill.	15	38	1	20	—	84	27	33
Mich.	74	108	19	22	41	23	18	17
Wis.	13	18	7	5	803	1,026	9	12
W.N. CENTRAL	60	46	30	12	647	402	40	58
Minn.	16	7	9	3	544	323	11	23
Iowa	3	4	8	1	73	44	8	3
Mo.	26	22	4	5	20	23	16	18
N. Dak.	2	2	3	—	—	—	—	3
S. Dak.	10	3	—	—	—	1	—	1
Nebr.	1	3	3	3	2	8	1	3
Kans.	2	5	3	—	8	3	4	7
S. ATLANTIC	289	311	114	92	1,704	1,268	221	261
Del.	12	11	N	N	531	242	3	6
Md.	84	63	15	13	860	709	86	57
D.C.	9	10	—	5	8	9	8	11
Va.	33	39	11	14	163	121	20	35
W. Va.	14	9	3	3	10	22	1	1
N.C.	24	29	22	16	42	97	24	17
S.C.	10	9	9	9	18	18	6	10
Ga.	19	36	19	14	4	12	33	54
Fla.	84	105	35	18	68	38	40	70
E.S. CENTRAL	60	84	27	21	29	38	22	30
Ky.	20	33	4	4	5	14	7	4
Tenn.	26	36	11	11	24	19	11	10
Ala.	11	12	8	4	—	5	4	11
Miss.	3	3	4	2	—	—	—	5
W.S. CENTRAL	28	110	25	34	50	49	73	112
Ark.	4	—	1	3	4	8	5	8
La.	4	7	7	3	4	2	2	5
Okla.	7	4	3	—	—	—	9	7
Tex.	13	99	14	28	42	39	57	92
MOUNTAIN	70	68	13	21	21	17	41	42
Mont.	5	2	—	—	—	—	—	—
Idaho	3	7	—	1	2	6	—	1
Wyo.	3	5	—	—	3	3	2	—
Colo.	17	18	4	10	4	—	19	17
N. Mex.	2	4	4	1	1	1	2	3
Ariz.	20	11	—	—	7	6	10	10
Utah	12	17	3	1	2	1	6	6
Nev.	8	4	2	8	2	—	2	5
PACIFIC	60	51	107	108	94	68	162	140
Wash.	—	9	7	9	7	10	12	15
Oreg.	N	N	10	5	15	23	7	16
Calif.	58	42	89	90	69	33	124	105
Alaska	—	—	—	—	3	2	5	1
Hawaii	2	—	1	4	N	N	14	3
Guam	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	N	N	2	—
V.I.	—	—	—	—	—	—	—	—
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	—	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 2004 and 2005 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 8, 2005, and October 9, 2004 (40th Week)*

Reporting area	Meningococcal disease									
	All serogroups		Serogroup A, C, Y, and W-135		Serogroup B		Other serogroup		Serogroup unknown	
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	921	956	74	74	45	37	—	1	802	844
NEW ENGLAND	62	53	1	5	—	6	—	1	61	41
Maine	2	9	—	—	—	1	—	—	2	8
N.H.	12	4	—	—	—	—	—	—	12	4
Vt.	6	2	—	—	—	—	—	—	6	2
Mass.	28	31	—	5	—	5	—	—	28	21
R.I.	2	1	—	—	—	—	—	—	2	1
Conn.	12	6	1	—	—	—	—	1	11	5
MID. ATLANTIC	120	133	34	36	6	5	—	—	80	92
Upstate N.Y.	29	34	4	5	3	3	—	—	22	26
N.Y. City	17	24	—	—	—	—	—	—	17	24
N.J.	31	29	—	—	—	—	—	—	31	29
Pa.	43	46	30	31	3	2	—	—	10	13
E.N. CENTRAL	95	107	23	24	9	6	—	—	63	77
Ohio	32	55	—	4	5	5	—	—	27	46
Ind.	18	17	—	1	4	1	—	—	14	15
Ill.	12	1	—	—	—	—	—	—	12	1
Mich.	23	19	23	19	—	—	—	—	—	—
Wis.	10	15	—	—	—	—	—	—	10	15
W.N. CENTRAL	61	65	3	—	1	4	—	—	57	61
Minn.	11	21	1	—	—	—	—	—	10	21
Iowa	15	14	—	—	1	2	—	—	14	12
Mo.	21	17	1	—	—	1	—	—	20	16
N. Dak.	—	2	—	—	—	—	—	—	—	2
S. Dak.	3	2	1	—	—	1	—	—	2	1
Nebr.	4	4	—	—	—	—	—	—	4	4
Kans.	7	5	—	—	—	—	—	—	7	5
S. ATLANTIC	177	186	5	2	9	2	—	—	163	182
Del.	4	4	—	—	—	—	—	—	4	4
Md.	18	10	2	—	2	—	—	—	14	10
D.C.	—	5	—	2	—	—	—	—	—	3
Va.	23	16	—	—	—	—	—	—	23	16
W. Va.	6	5	1	—	—	—	—	—	5	5
N.C.	28	26	2	—	7	2	—	—	19	24
S.C.	14	14	—	—	—	—	—	—	14	14
Ga.	15	12	—	—	—	—	—	—	15	12
Fla.	69	94	—	—	—	—	—	—	69	94
E.S. CENTRAL	46	51	1	1	3	1	—	—	42	49
Ky.	15	9	—	1	3	1	—	—	12	7
Tenn.	20	16	—	—	—	—	—	—	20	16
Ala.	6	14	1	—	—	—	—	—	5	14
Miss.	5	12	—	—	—	—	—	—	5	12
W.S. CENTRAL	74	53	1	2	5	1	—	—	68	50
Ark.	12	14	—	—	—	—	—	—	12	14
La.	25	28	—	1	2	—	—	—	23	27
Okla.	13	8	1	1	3	1	—	—	9	6
Tex.	24	3	—	—	—	—	—	—	24	3
MOUNTAIN	77	56	5	1	5	5	—	—	67	50
Mont.	—	3	—	—	—	—	—	—	—	3
Idaho	2	6	—	—	—	—	—	—	2	6
Wyo.	—	4	—	—	—	—	—	—	—	4
Colo.	17	13	4	—	—	—	—	—	13	13
N. Mex.	3	7	—	1	—	3	—	—	3	3
Ariz.	37	11	—	—	2	1	—	—	35	10
Utah	10	5	1	—	2	—	—	—	7	5
Nev.	8	7	—	—	1	1	—	—	7	6
PACIFIC	209	252	1	3	7	7	—	—	201	242
Wash.	41	25	1	3	4	7	—	—	36	15
Oreg.	28	49	—	—	—	—	—	—	28	49
Calif.	127	168	—	—	—	—	—	—	127	168
Alaska	2	4	—	—	—	—	—	—	2	4
Hawaii	11	6	—	—	3	—	—	—	8	6
Guam	—	1	—	—	—	—	—	—	—	1
P.R.	6	13	—	—	—	—	—	—	6	13
V.I.	—	—	—	—	—	—	—	—	—	—
Amer. Samoa	1	1	—	—	—	—	—	—	1	1
C.N.M.I.	—	—	—	—	—	—	—	—	—	—

N: Not notifiable. U: Unavailable. —: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.
* Incidence data for reporting years 2004 and 2005 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 8, 2005, and October 9, 2004 (40th Week)*

Reporting area	Pertussis		Rabies, animal		Rocky Mountain spotted fever		Salmonellosis		Shigellosis	
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	15,320	14,758	4,324	5,224	1,282	1,214	31,011	32,320	10,066	10,151
NEW ENGLAND	853	1,418	564	530	3	17	1,691	1,682	238	246
Maine	20	7	44	46	N	N	114	85	8	6
N.H.	48	56	12	23	1	—	132	116	7	7
Vt.	75	62	45	27	—	—	86	49	16	2
Mass.	645	1,210	288	219	1	13	884	963	146	157
R.I.	29	31	19	35	1	1	82	99	14	18
Conn.	36	52	156	180	—	3	393	370	47	56
MID. ATLANTIC	1,058	2,231	775	784	83	63	3,787	4,657	996	970
Upstate N.Y.	410	1,564	434	432	3	1	988	971	222	365
N.Y. City	71	160	24	11	6	20	821	1,068	299	326
N.J.	183	152	N	N	27	13	670	894	259	192
Pa.	394	355	317	341	47	29	1,308	1,724	216	87
E.N. CENTRAL	2,774	5,440	178	164	30	33	4,106	4,146	690	924
Ohio	908	448	66	65	23	9	1,069	998	82	134
Ind.	255	118	11	10	2	6	477	392	121	174
Ill.	538	1,029	43	44	1	14	1,214	1,344	192	340
Mich.	215	202	33	39	4	2	691	676	172	99
Wis.	858	3,643	25	6	—	2	655	736	123	177
W.N. CENTRAL	2,442	1,525	362	526	150	108	1,947	1,929	1,184	333
Minn.	966	260	61	71	2	—	447	476	71	55
Iowa	452	159	95	87	4	1	301	373	63	59
Mo.	346	290	67	53	127	90	640	511	791	129
N. Dak.	115	679	24	50	—	—	30	37	4	3
S. Dak.	67	27	48	87	5	4	124	98	31	9
Nebr.	166	24	—	90	4	13	116	127	54	19
Kans.	330	86	67	88	8	—	289	307	170	59
S. ATLANTIC	1,048	579	1,271	1,816	621	623	8,938	8,583	1,621	2,326
Del.	5	1	—	9	3	5	91	95	10	6
Md.	129	101	243	260	73	61	650	687	69	120
D.C.	7	7	—	—	2	—	45	47	9	30
Va.	277	163	399	382	67	23	871	927	100	124
W. Va.	37	18	46	52	5	5	124	189	1	6
N.C.	98	67	390	498	356	386	1,219	1,207	149	270
S.C.	300	97	5	133	44	54	1,020	799	74	472
Ga.	30	19	182	277	56	74	1,322	1,547	392	506
Fla.	165	106	6	205	15	15	3,596	3,085	817	792
E.S. CENTRAL	403	241	111	123	233	171	2,188	2,139	989	652
Ky.	115	57	11	20	3	2	384	275	251	56
Tenn.	178	142	36	41	171	90	581	564	471	336
Ala.	71	28	62	52	55	51	563	581	195	213
Miss.	39	14	2	10	4	28	660	719	72	47
W.S. CENTRAL	1,294	656	723	924	125	175	2,496	3,117	2,120	2,638
Ark.	218	58	31	45	98	95	564	440	53	57
La.	30	14	—	4	5	5	458	724	83	239
Okla.	—	33	67	93	7	70	324	325	525	367
Tex.	1,046	551	625	782	15	5	1,150	1,628	1,459	1,975
MOUNTAIN	3,138	1,155	199	187	29	20	1,760	1,824	626	619
Mont.	523	39	15	22	1	3	68	172	5	4
Idaho	118	30	—	7	3	4	80	128	5	12
Wyo.	42	26	16	5	2	4	70	44	4	5
Colo.	1,030	585	14	45	5	4	492	443	113	128
N. Mex.	112	129	7	4	1	2	181	225	74	108
Ariz.	834	186	120	95	13	2	513	499	362	289
Utah	447	141	14	6	4	1	271	179	35	31
Nev.	32	19	13	3	—	—	85	134	28	42
PACIFIC	2,310	1,513	141	170	8	4	4,098	4,243	1,602	1,443
Wash.	650	552	U	U	—	—	423	418	93	87
Oreg.	547	351	6	6	1	2	295	365	99	59
Calif.	903	579	134	153	7	2	3,099	3,128	1,375	1,247
Alaska	92	11	1	11	—	—	45	48	7	6
Hawaii	118	20	—	—	—	—	236	284	28	44
Guam	—	—	—	—	—	—	—	49	—	42
P.R.	5	4	52	50	N	N	362	340	3	24
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. C.N.M.I.: Commonwealth of Northern Mariana Islands.
* Incidence data for reporting years 2004 and 2005 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 8, 2005, and October 9, 2004 (40th Week)*

Reporting area	Streptococcal disease, invasive, group A		*Streptococcus pneumoniae*, invasive disease				Syphilis			
			Drug resistant, all ages		Age <5 years		Primary & secondary		Congenital	
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	3,396	3,566	1,699	1,706	656	596	5,987	5,956	186	307
NEW ENGLAND	136	234	90	114	47	80	164	156	1	4
Maine	9	10	N	N	—	4	1	2	—	—
N.H.	13	16	—	—	4	N	14	4	—	3
Vt.	9	8	10	6	4	1	1	—	—	—
Mass.	96	106	64	31	38	44	102	95	—	—
R.I.	9	17	16	18	1	6	12	23	—	1
Conn.	U	77	U	59	U	25	34	32	1	—
MID. ATLANTIC	726	602	161	118	111	86	777	762	21	29
Upstate N.Y.	219	195	63	49	49	59	71	73	5	3
N.Y. City	133	101	U	U	20	U	473	469	5	12
N.J.	149	128	N	N	19	8	107	119	11	13
Pa.	225	178	98	69	23	19	126	101	—	1
E.N. CENTRAL	652	814	463	379	171	140	627	682	26	46
Ohio	161	191	291	265	65	61	166	177	1	2
Ind.	86	84	161	114	44	30	48	46	1	2
Ill.	116	215	11	—	50	3	325	289	10	14
Mich.	255	249	—	N	—	N	62	143	12	28
Wis.	34	75	N	N	12	46	26	27	2	—
W.N. CENTRAL	222	257	36	17	70	80	181	131	5	5
Minn.	86	122	—	—	41	52	49	19	1	1
Iowa	N	N	N	N	—	N	2	5	—	—
Mo.	56	56	29	12	8	12	109	79	4	2
N. Dak.	9	11	2	—	3	2	—	—	—	—
S. Dak.	20	15	3	5	—	—	1	—	—	—
Nebr.	17	18	2	—	7	6	4	6	—	—
Kans.	34	35	N	N	11	8	16	22	—	2
S. ATLANTIC	724	716	669	881	67	45	1,492	1,481	34	49
Del.	5	3	1	4	—	N	9	7	—	1
Md.	161	112	—	—	44	31	244	277	12	8
D.C.	8	9	15	8	2	4	83	46	—	1
Va.	68	62	N	N	—	N	104	81	4	2
W. Va.	22	23	96	96	21	10	4	3	—	—
N.C.	104	104	N	N	U	U	206	143	8	9
S.C.	26	50	—	83	—	N	57	95	4	11
Ga.	141	170	111	216	—	N	236	278	1	3
Fla.	189	183	446	474	—	N	549	551	5	14
E.S. CENTRAL	138	181	134	120	10	12	338	321	17	20
Ky.	29	52	25	24	N	N	34	34	—	1
Tenn.	109	129	109	94	—	N	168	100	12	8
Ala.	—	—	—	—	—	N	107	140	4	9
Miss.	—	—	—	2	10	12	29	47	1	2
W.S. CENTRAL	212	279	94	53	129	122	928	939	53	61
Ark.	15	16	12	7	14	8	39	41	—	3
La.	6	2	82	46	22	26	176	228	6	4
Okla.	94	55	N	N	23	36	30	20	1	2
Tex.	97	206	N	N	70	52	683	650	46	52
MOUNTAIN	506	385	52	23	42	31	304	310	15	39
Mont.	—	—	—	—	—	—	5	1	—	—
Idaho	2	8	N	N	—	N	20	15	1	2
Wyo.	3	7	22	9	—	—	—	3	—	—
Colo.	186	82	N	N	41	31	31	51	—	—
N. Mex.	39	81	—	N	—	—	38	71	2	2
Ariz.	209	170	N	N	—	N	129	131	12	34
Utah	66	34	28	12	1	—	6	9	—	1
Nev.	1	3	2	2	—	—	75	29	—	—
PACIFIC	80	98	—	1	9	—	1,176	1,174	14	54
Wash.	N	N	N	N	N	N	107	104	—	—
Oreg.	N	N	N	N	6	N	22	24	—	—
Calif.	—	—	N	N	N	N	1,037	1,040	14	54
Alaska	—	—	—	—	—	N	6	1	—	—
Hawaii	80	98	—	1	3	—	4	5	—	—
Guam	—	—	—	—	—	—	—	1	—	—
P.R.	N	N	N	N	—	N	156	112	8	5
V.I.	—	—	—	—	—	—	—	4	—	—
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	—	U	—	U	—	U	—	U	—	U

N: Not notifiable. U: Unavailable. —: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.
* Incidence data for reporting years 2004 and 2005 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending October 8, 2005, and October 9, 2004 (40th Week)*

Reporting area	Tuberculosis		Typhoid fever		Varicella (chickenpox)		West Nile virus disease†		
							Neuroinvasive		Non-neuroinvasive§
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005
UNITED STATES	8,553	10,032	192	261	17,816	21,185	807	1,112	1,107
NEW ENGLAND	265	341	21	20	1,014	2,266	5	—	2
Maine	14	16	1	—	213	181	—	—	—
N.H.	5	12	—	—	212	—	—	—	—
Vt.	4	2	—	—	51	413	—	—	—
Mass.	167	197	12	14	538	281	2	—	2
R.I.	24	42	1	1	—	—	1	—	—
Conn.	51	72	7	5	U	1,391	2	—	—
MID. ATLANTIC	1,551	1,580	35	66	3,506	75	19	17	12
Upstate N.Y.	195	204	5	9	—	—	—	5	—
N.Y. City	754	790	12	26	—	—	3	2	2
N.J.	371	350	10	16	—	—	2	1	1
Pa.	231	236	8	15	3,506	75	14	9	9
E.N. CENTRAL	959	911	18	32	4,710	9,087	175	66	87
Ohio	183	151	2	6	1,083	1,090	41	11	8
Ind.	104	93	1	—	482	N	5	8	—
Ill.	459	409	5	15	67	4,647	107	29	73
Mich.	152	191	5	9	2,747	2,828	18	13	3
Wis.	61	67	5	2	331	522	4	5	3
W.N. CENTRAL	329	351	3	7	356	145	91	86	294
Minn.	143	135	3	3	—	—	16	13	21
Iowa	32	32	—	—	N	N	6	13	10
Mo.	70	89	—	2	252	5	9	27	10
N. Dak.	2	3	—	—	20	81	2	2	14
S. Dak.	11	8	—	—	84	59	33	6	187
Nebr.	28	26	—	2	—	—	19	7	49
Kans.	43	58	—	—	—	—	6	18	3
S. ATLANTIC	1,941	2,096	33	37	1,570	1,889	19	64	17
Del.	12	17	1	—	22	5	—	—	—
Md.	208	214	9	11	—	—	4	9	—
D.C.	42	71	—	—	28	20	—	1	—
Va.	228	196	8	6	328	474	—	4	—
W. Va.	19	16	—	—	798	1,050	—	—	N
N.C.	218	243	3	6	—	N	1	3	1
S.C.	179	149	—	—	394	340	3	—	—
Ga.	299	444	2	4	—	—	5	14	4
Fla.	736	746	10	10	—	—	6	33	12
E.S. CENTRAL	390	483	5	8	—	38	51	60	29
Ky.	84	87	2	3	N	N	3	1	—
Tenn.	161	158	—	5	—	—	9	13	1
Ala.	145	147	1	—	—	38	5	15	2
Miss.	—	91	2	—	—	—	34	31	26
W.S. CENTRAL	974	1,499	12	20	4,684	5,866	120	214	64
Ark.	82	91	—	—	—	—	8	14	13
La.	—	—	—	—	107	48	58	75	23
Okla.	106	128	—	1	—	—	2	15	4
Tex.	786	1,280	12	19	4,577	5,818	52	110	24
MOUNTAIN	275	398	9	7	1,976	1,819	88	321	168
Mont.	8	4	—	—	—	—	8	2	18
Idaho	—	3	—	—	—	—	2	1	6
Wyo.	—	2	—	—	46	27	3	2	4
Colo.	46	97	4	2	1,415	1,453	14	41	61
N. Mex.	14	23	—	—	128	U	15	31	11
Ariz.	166	163	3	2	—	—	19	213	29
Utah	23	30	1	1	387	339	17	6	24
Nev.	18	76	1	2	—	—	10	25	15
PACIFIC	1,869	2,373	56	64	—	—	239	284	434
Wash.	192	172	5	6	N	N	—	—	—
Oreg.	54	78	3	1	—	—	—	—	5
Calif.	1,502	2,003	38	51	—	—	239	284	429
Alaska	29	29	—	—	—	—	—	—	—
Hawaii	92	91	10	6	—	—	—	—	—
Guam	—	44	—	—	—	132	—	—	—
P.R.	—	83	—	—	517	314	—	—	—
V.I.	—	—	—	—	—	—	—	—	—
Amer. Samoa	U	U	U	U	U	U	U	U	—
C.N.M.I.	—	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 2004 and 2005 are provisional and cumulative (year-to-date).

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

§ Not previously notifiable.

TABLE III. Deaths in 122 U.S. cities,* week ending October 8, 2005 (40th Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45–64	25–44	1–24	<1	
NEW ENGLAND	422	313	76	21	8	4	41
Boston, Mass.	118	82	27	5	1	3	19
Bridgeport, Conn.	33	29	1	2	1	—	3
Cambridge, Mass.	19	14	1	2	1	1	1
Fall River, Mass.	21	19	2	—	—	—	3
Hartford, Conn.	47	34	6	5	2	—	2
Lowell, Mass.	22	17	5	—	—	—	1
Lynn, Mass.	11	7	4	—	—	—	—
New Bedford, Mass.	19	13	5	1	—	—	1
New Haven, Conn.	U	U	U	U	U	U	U
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	4	3	1	—	—	—	1
Springfield, Mass.	49	34	10	3	2	—	3
Waterbury, Conn.	29	25	3	1	—	—	3
Worcester, Mass.	50	36	11	2	1	—	4
MID. ATLANTIC	1,872	1,285	386	120	46	34	92
Albany, N.Y.	39	25	9	4	—	1	2
Allentown, Pa.	24	21	2	1	—	—	—
Buffalo, N.Y.	56	41	11	2	1	1	—
Camden, N.J.	27	16	6	1	2	2	4
Elizabeth, N.J.	14	9	5	—	—	—	1
Erie, Pa.	35	25	9	1	—	—	3
Jersey City, N.J.	41	21	11	4	4	1	—
New York City, N.Y.	949	660	187	69	20	12	38
Newark, N.J.	51	19	19	7	1	5	5
Paterson, N.J.	U	U	U	U	U	U	U
Philadelphia, Pa.	277	173	74	16	8	6	14
Pittsburgh, Pa.§	16	13	1	1	—	1	1
Reading, Pa.	25	21	3	1	—	—	2
Rochester, N.Y.	129	94	19	6	6	4	8
Schenectady, N.Y.	27	23	3	1	—	—	3
Scranton, Pa.	27	18	7	2	—	—	2
Syracuse, N.Y.	79	65	9	2	2	1	7
Trenton, N.J.	31	24	5	1	1	—	1
Utica, N.Y.	11	6	4	—	1	—	—
Yonkers, N.Y.	14	11	2	1	—	—	1
E.N. CENTRAL	1,921	1,218	448	130	55	70	96
Akron, Ohio	34	20	6	6	—	2	—
Canton, Ohio	42	28	12	—	2	—	3
Chicago, Ill.	371	196	101	28	12	34	23
Cincinnati, Ohio	78	45	21	9	1	2	3
Cleveland, Ohio	212	146	50	7	4	5	—
Columbus, Ohio	166	99	45	15	3	4	9
Dayton, Ohio	104	76	17	5	2	4	3
Detroit, Mich.	147	77	43	17	7	3	6
Evansville, Ind.	42	36	5	1	—	—	3
Fort Wayne, Ind.	74	49	14	7	3	1	4
Gary, Ind.	20	10	4	2	1	3	—
Grand Rapids, Mich.	56	37	14	2	1	2	3
Indianapolis, Ind.	138	81	36	8	9	4	13
Lansing, Mich.	43	24	10	3	4	2	2
Milwaukee, Wis.	102	72	21	5	3	1	8
Peoria, Ill.	51	34	10	5	—	2	3
Rockford, Ill.	47	38	8	1	—	—	2
South Bend, Ind.	43	32	8	2	1	—	2
Toledo, Ohio	91	67	15	7	1	1	5
Youngstown, Ohio	60	51	8	—	1	—	4
W.N. CENTRAL	662	414	157	52	14	23	41
Des Moines, Iowa	106	63	30	8	1	4	8
Duluth, Minn.	26	18	6	1	—	1	4
Kansas City, Kans.	34	17	14	2	1	—	—
Kansas City, Mo.	86	60	16	5	1	4	7
Lincoln, Nebr.	36	26	6	4	—	—	1
Minneapolis, Minn.	48	33	7	2	2	4	3
Omaha, Nebr.	95	56	18	13	3	5	9
St. Louis, Mo.	74	37	22	6	3	4	7
St. Paul, Minn.	60	38	15	6	1	—	2
Wichita, Kans.	97	66	23	5	2	1	—
S. ATLANTIC	1,242	756	286	110	52	37	48
Atlanta, Ga.	157	90	39	17	6	5	1
Baltimore, Md.	146	77	44	16	7	2	8
Charlotte, N.C.	112	78	19	9	4	2	10
Jacksonville, Fla.	171	99	40	16	9	7	4
Miami, Fla.	115	74	22	10	4	5	4
Norfolk, Va.	45	29	9	1	4	2	1
Richmond, Va.	59	29	20	7	2	1	2
Savannah, Ga.	42	26	12	—	2	2	2
St. Petersburg, Fla.	67	47	9	3	4	4	2
Tampa, Fla.	200	134	37	18	6	4	6
Washington, D.C.	102	54	31	11	4	2	4
Wilmington, Del.	26	19	4	2	—	1	4
E.S. CENTRAL	931	595	217	81	17	21	46
Birmingham, Ala.	202	129	43	18	5	7	14
Chattanooga, Tenn.	95	65	18	6	5	1	4
Knoxville, Tenn.	92	63	23	6	—	—	3
Lexington, Ky.	62	43	8	8	1	2	4
Memphis, Tenn.	152	85	40	17	3	7	10
Mobile, Ala.	118	69	33	12	3	1	3
Montgomery, Ala.	69	45	19	4	—	1	3
Nashville, Tenn.	141	96	33	10	—	2	5
W.S. CENTRAL	1,435	887	350	115	44	39	79
Austin, Tex.	86	48	24	7	3	4	2
Baton Rouge, La.	54	41	11	2	—	—	5
Corpus Christi, Tex.	62	42	15	1	1	3	1
Dallas, Tex.	176	101	44	18	9	4	5
El Paso, Tex.	101	68	19	5	6	3	3
Ft. Worth, Tex.	129	83	30	9	4	3	6
Houston, Tex.	410	251	107	34	11	7	32
Little Rock, Ark.	63	34	16	8	2	3	2
New Orleans, La.¶	U	U	U	U	U	U	U
San Antonio, Tex.	219	132	57	16	6	8	14
Shreveport, La.	26	14	8	2	1	1	2
Tulsa, Okla.	109	73	19	13	1	3	7
MOUNTAIN	969	583	227	91	51	17	47
Albuquerque, N.M.	100	61	25	8	5	1	3
Boise, Idaho	49	36	11	2	—	—	1
Colo. Springs, Colo.	82	56	16	5	1	4	4
Denver, Colo.	91	53	18	10	8	2	6
Las Vegas, Nev.	243	130	66	31	15	1	15
Ogden, Utah	23	14	3	3	3	—	1
Phoenix, Ariz.	148	80	35	18	8	7	7
Pueblo, Colo.	31	22	8	1	—	—	4
Salt Lake City, Utah	90	55	19	6	9	1	1
Tucson, Ariz.	112	76	26	7	2	1	5
PACIFIC	1,085	744	235	63	21	22	95
Berkeley, Calif.	17	11	3	1	—	2	1
Fresno, Calif.	112	72	33	4	2	1	5
Glendale, Calif.	U	U	U	U	U	U	U
Honolulu, Hawaii	60	43	13	—	2	2	4
Long Beach, Calif.	43	30	10	1	1	1	4
Los Angeles, Calif.	U	U	U	U	U	U	U
Pasadena, Calif.	32	23	5	3	—	1	3
Portland, Oreg.	130	89	25	7	6	3	9
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	141	96	30	9	3	3	17
San Francisco, Calif.	91	57	21	7	2	4	12
San Jose, Calif.	161	109	42	8	2	—	22
Santa Cruz, Calif.	29	21	5	3	—	—	3
Seattle, Wash.	110	67	33	8	1	1	4
Spokane, Wash.	50	43	1	4	—	2	6
Tacoma, Wash.	109	83	14	8	2	2	5
TOTAL	10,539**	6,795	2,382	783	308	267	585

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.

¶ Because of Hurricane Katrina, weekly reporting of deaths has been temporarily disrupted.

** 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 K-95, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone 888-232-3228.

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

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

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

☆U.S. Government Printing Office: 2006-523-142/00119 Region IV ISSN: 0149-2195