

Weekly

March 31, 2006 / Vol. 55 / No. 12

## Community-Associated Methicillin-Resistant *Staphylococcus aureus* Infection Among Healthy Newborns — Chicago and Los Angeles County, 2004

Methicillin-resistant Staphylococcus aureus (MRSA) infection has long been associated with exposure in health-care settings but emerged in the late 1990s among previously healthy adults and children in the community. Community-associated MRSA (CA-MRSA) infections most commonly are skin and softtissue infections; however, certain cases can progress to invasive tissue infections, bacteremia, and death (1). This report describes two independent investigations by local health departments, assisted by CDC, into outbreaks of MRSA skin infection among otherwise healthy, full-term newborns delivered at hospitals in Chicago, Illinois, and Los Angeles County, California. In both locations, MRSA transmission likely occurred in the newborn nursery; however, laboratory testing identified the MRSA strain as one that was described initially in association with CA-MRSA infections and outbreaks and that differs from predominant health-care-associated MRSA (HA-MRSA) strains. The findings from these investigations underscore 1) the need for health-care providers to be aware that MRSA can cause skin infections among otherwise healthy newborns and 2) the importance of adhering to standard infection-control practices,\* including consistent hand hygiene, in newborn nurseries.

## Chicago, Illinois

In October 2004, the Chicago Department of Public Health was notified of a cluster of seven MRSA skin infections among otherwise healthy, full-term newborns delivered at a Chicago hospital (hospital A). The health department investigated, seeking to identify other cases among hospital A newborns who were hospitalized after discharge or brought to the hospital's emergency department or pediatric and well-baby clinics. A case was defined as an infection in a newborn aged <30 days delivered at hospital A during May–December 2004 with a skin lesion from which MRSA was isolated. A total of 11 cases were identified. Two patients had single and nine patients had multiple pustules, vesicles, or blisters on the neck (five patients), groin (five), perineum (four), ears (two), legs (two), chin (one), and trunk (one). Seven of the 11 patients had multiple affected body sites.

Births of nine (82%) of the infants were by cesarean delivery. Median age at symptom onset was 7 days (range: 4–23 days); nine (82%) infants were male. Median hospital stay after delivery was 4 days (range: 3–10 days). One infant had symptoms of infection while still hospitalized on day 6. Symptom onset for the other 10 infants occurred 1–18 days (median: 5 days) after discharge from the newborn nursery. Ten infants received topical antimicrobial therapy (i.e., mupirocin or neosporin), and three of those 10 also received oral antimicrobials (i.e., cefaclor, cephalexin, or clindamycin) for their skin infections; none were treated with incision and drainage. One infant was hospitalized as a result of his infection; all recovered without incident. None of the mothers of the infants reported having current or recent skin lesions. No likely

## INSIDE

- 332 Tuberculosis Control Activities After Hurricane Katrina New Orleans, Louisiana, 2005
- 335 Racial and Socioeconomic Disparities in Breastfeeding United States, 2004
- 340 Death of a Child After Ingestion of a Metallic Charm Minnesota, 2006
- 341 Update: Influenza Activity United States, March 12–18, 2006
- 344 Notice to Readers
- 345 QuickStats

<sup>\*</sup>Available at http://www.cdc.gov/ncidod/dhqp/gl\_isolation\_standard.html.

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 2006;55:[inclusive page numbers].

#### **Centers for Disease Control and Prevention**

Julie L. Gerberding, MD, MPH Director

Dixie E. Snider, MD, MPH Chief Science Officer

Tanja Popovic, MD, PhD Associate Director for Science

#### Coordinating Center for Health Information and Service

Steven L. Solomon, MD Director

#### **National Center for Health Marketing**

Jay M. Bernhardt, PhD, MPH Director

#### **Division of Scientific Communications**

Judith R. Aguilar (Acting) Director

Mary Lou Lindegren, MD Editor, MMWR Series

Suzanne M. Hewitt, MPA Managing Editor, MMWR Series

Douglas W. Weatherwax (Acting) Lead Technical Writer-Editor

> Stephanie M. Neitzel Jude C. Rutledge *Writers-Editors*

Lynda G. Cupell Malbea A. LaPete Visual Information Specialists

Quang M. Doan, MBA Erica R. Shaver Information Technology Specialists

Notifiable Disease Morbidity and 122 Cities Mortality Data

Patsy A. Hall Deborah A. Adams Lenee Blanton Rosaline Dhara Pearl C. Sharp sources of MRSA exposure were identified outside of the hospital environment (e.g., family members or close contacts who had skin lesions or recognized risk factors for MRSA infection<sup>†</sup>).

In January 2005, nasal cultures were obtained from 135 health-care workers (HCWs) in the labor and delivery, postnatal, and newborn nursery wards who were likely to have had direct contact with one or more of the patients. One physician and one nurse who attended to newborns in the nursery were found to have nasal MRSA colonization. Isolates from the two HCWs and six of the 11 infants were available for characterization by pulsed-field gel electrophoresis (PFGE) and identification of toxin genes by a CDC laboratory. All eight isolates were identified as pulsed-field type (PFT) USA300 and contained genes for the Panton-Valentine leukocidin toxin, which has been associated with necrotizing pneumonia and primary skin infections (2). Isolates from the two HCWs and five of the infants were indistinguishable from one another by PFGE and also indistinguishable from MRSA strain USA300-0114, which has been associated with CA-MRSA outbreaks and sporadic infections in multiple states (3). Another strain of PFT USA300 was isolated from the remaining infant.

To prevent further transmission of MRSA in the nursery, adherence to standard infection-control measures, hand hygiene, and environmental cleaning were reinforced through in-service training and direct observation. In addition, the two MRSA-colonized HCWs were restricted from work until they completed a course of intranasal mupirocin and a second nasal culture tested negative for MRSA. As of March 27, 2006, no subsequent cases had been reported.

## Los Angeles County, California

In January and June 2004, the Los Angeles County Department of Health Services was notified of two clusters of MRSA skin infections among newborns delivered at a Los Angeles County hospital (hospital B). A case was defined as a cultureconfirmed MRSA skin infection in a newborn delivered at hospital B with onset during November 1, 2003–June 14, 2004, within 21 days after discharge from the well-baby nursery. Eleven cases were identified during two outbreak periods: November–December 2003 and May–June 2004. All 11 patients were males with pustular-vesicular lesions in the groin region; births of seven (64%) were by cesarean delivery. Median nursery stay after delivery was 4 days (range: 2–5 days).

<sup>&</sup>lt;sup>†</sup>Risk factors for HA-MRSA infection as defined in CDC's Active Bacterial Core Surveillance system include isolation of MRSA ≥2 days after hospitalization; history of hospitalization, surgery, dialysis, or residence in a long-term-care facility <1 year before the MRSA culture; presence of a permanent indwelling catheter or percutaneous medical device at the time of culture; or previous isolation of MRSA.

Symptom onset occurred at a median of 3 days (range: 1-17 days) after discharge from the nursery.

Eight (73%) of the 11 infants were hospitalized and treated with parenteral antimicrobials; all recovered without adverse sequelae. The remaining three infants were either administered topical antimicrobial agents or not treated. Characterization of the seven available MRSA isolates by PFGE, performed by the Public Health Laboratory of the Los Angeles County Department of Health Services, confirmed that the outbreak strain was USA300-0114, the same MRSA outbreak strain as identified in Chicago.

Investigators elected not to test HCWs for MRSA colonization at hospital B because no single HCW had more contact than others with all of the infected infants. Sources outside the hospital (e.g., family members or household contacts) were excluded. Hospital HCWs were provided education to reinforce routine hospital infection-control practices, including proper hand hygiene. In addition, use of gloves and gowns for all patient contacts was instituted, newborns were bathed with antibacterial soap before discharge, and the frequency and intensity of environmental cleaning of the nursery were increased. As of March 27, 2006, no subsequent cases had been reported.

**Reported by:** J Watson, MD, RC Jones, MPH, C Cortes, SI Gerber, MD, Chicago Dept of Public Health; RG Golash, MS, J Price, MS, Illinois Dept of Public Health Laboratory. E Bancroft, MD, L Mascola, MD, Los Angeles County Dept of Health Svcs. RJ Gorwitz, MD, DB Jernigan, MD, Div of Healthcare Quality Promotion, National Center for Infectious Diseases; L James, MMED, DM Nguyen, MD, EIS officers, CDC.

**Editorial Note:** The outbreaks described in this report involved otherwise healthy, full-term newborns who had onset of MRSA skin infections before or shortly after discharge from common nurseries. The 22 cases in this report are similar to six cases among newborns in a New York City hospital in 2002 (4). As occurred in the New York City outbreak, an MRSA strain associated with community transmission was identified as the outbreak strain in Chicago and Los Angeles County.

Outbreaks of CA-MRSA have been reported among children in child-care settings, prisoners, military trainees, athletes, and men who have sex with men (3,5). To date, MRSA isolates from CA-MRSA infections have been genetically and phenotypically distinct from isolates from HA-MRSA infections (6). Whereas isolates from HA-MRSA infections generally are resistant to multiple classes of antimicrobial agents, those from CA-MRSA infections typically have been resistant only to beta-lactams (e.g., penicillins and cephalosporins) and macrolides (e.g., erythromycin) (1,6). PFGE and other testing methods have identified a limited number of molecular types that have accounted for most isolates from CA-MRSA infections characterized in the United States (7). Health-care– associated transmission of MRSA strains with bacteriologic properties characteristic of CA-MRSA has recently been reported among postpartum women (8) and infants in a neonatal intensive-care unit (9).

The clusters of CA-MRSA infection described in this report involved skin and soft-tissue infections that appeared superficial; however, 41% of patients were hospitalized for treatment of their infections. Infection is often treated aggressively in newborns because of their immature immune function and potential for rapid deterioration. MRSA strains are resistant to all beta-lactam agents, which have been used for standard first-line antimicrobial therapy for skin infections in the community. Several potential alternative agents (e.g., tetracyclines or trimethoprim-sulfamethoxazole) are contraindicated or not recommended in newborns. Isolates from CA-MRSA infections also are commonly susceptible to gentamicin, rifampin, linezolid, and clindamycin. However, some isolates that appear clindamycin-susceptible and erythromycinresistant on routine susceptibility testing can be induced to express resistance to clindamycin in vitro, and clindamycin treatment failure has been reported in association with invasive infections caused by such isolates. This inducible clindamycin resistance can be detected using a specialized laboratory test known as the D-zone test.<sup>§</sup> Vancomycin remains a first-line therapy for severe infections potentially caused by MRSA. Incision and drainage is considered standard therapy for purulent skin lesions. Some minor CA-MRSA skin infections can resolve without antimicrobial therapy.

Births of 16 of the 22 infants were by cesarean delivery. Because neonates whose births are by cesarean delivery remain in the hospital longer than neonates delivered vaginally, the role of cesarean delivery in MRSA infection is unclear. Comparative or prospective studies are needed to identify specific risk factors for MRSA acquisition and transmission among neonates.

A total of 20 of 22 infants with CA-MRSA infection in the Chicago and Los Angeles County outbreaks were male. Although the role of male sex in these outbreaks is unclear, male sex has been identified as a risk factor for staphylococcal colonization and infection among newborns in previous studies (10). A proclivity for involvement of the groin and perineal areas also was noted in the outbreaks described in this report. Skin in the diaper area might be particularly prone to staphylococcal infection because of the moist environment and friction from diapers, causing disruption of the epidermal barrier.

<sup>&</sup>lt;sup>§</sup>Available at http://www.phppo.cdc.gov/nltn/pdf/2004/2\_hindler\_d-test.pdf.

The implications of two HCWs colonized with the outbreak strain in Chicago are unclear. One or both of these HCWs might have introduced the MRSA strain into the nursery and transmitted the organism directly to the infants, or the HCWs might have become colonized as a result of contact with already colonized or infected newborns. In addition, because the same MRSA strain has been implicated in outbreaks in multiple states, colonization of the HCWs might have been unrelated to transmission in the nursery.

Clinicians should be aware that MRSA can cause skin infections and potentially more serious infections among healthy full-term newborns. These infections might be confused with other rash illnesses in newborns, such as infection caused by herpes simplex virus. Obtaining cultures of purulent skin lesions is important to guide therapy. Caretakers of newborns with skin infections should receive guidance on measures to prevent further transmission, including washing hands frequently and applying clean, dry dressings to draining lesions. Adherence to standard infection-control practices and strict hand hygiene should be enforced in all newborn nursery settings. HCWs should be encouraged to seek treatment promptly for skin lesions.

When transmission of MRSA occurs in a newborn nursery, standard infection-control practices should be reviewed and reinforced. Surveillance for skin lesions among patients, staff members, and visitors should be considered. The necessity for using other measures, such as universal use of gowns and gloves, antiseptic bathing of newborns, and surveillance cultures of HCWs and the environment is less clear. Culture surveys are not routinely recommended for HCWs for whom an epidemiologic link to MRSA transmission has not been established.<sup>9</sup> However, cultures sometimes are performed to rule out potential sources of transmission in novel settings. When surveillance cultures of HCWs are conducted, they should target staff members likely to have had direct contact with patients with MRSA infections; a clear plan of action that will be taken on the basis of culture results should be established and communicated to staff members. Additional information regarding HA-MRSA and CA-MRSA infections is available at http://www.cdc.gov/ncidod/dhqp/ar\_mrsa.html.

#### **Acknowledgments**

This report is based, in part, on technical assistance from the Public Health Laboratory of the Los Angeles County Dept of Health Services; GE Fosheim, MPH, B Jensen, MMSc, SK McAllister, LK McDougal, MS, Div of Healthcare Quality Promotion, National Center for Infectious Diseases; TJ Török MD, Office of Workforce and Career Development, CDC.

#### References

- Fridkin SK, Hageman JC, Morrison M, et al. Methicillin-resistant Staphylococcus aureus disease in three communities. N Engl J Med 2005;352:1436–44.
- 2. Lina G, Piemont Y, Godail-Gamot F, et al. Involvement of Panton-Valentine leukocidin-producing *Staphylococcus aureus* in primary skin infections and pneumonia. Clin Infect Dis 1999;29:1128–32.
- Kazakova SV, Hageman JC, Matava M, et al. A clone of methicillinresistant *Staphylococcus aureus* among professional football players. N Engl J Med 2005;352:468–75.
- Bratu S, Eramo A, Kopec R, et al. Community-associated methicillinresistant *Staphylococcus aureus* in hospital nursery and maternity units. Emerg Infect Dis 2005;11:808–13.
- CDC. Outbreak of community-associated methicillin-resistant *Staphy-lococcus aureus* skin infections—Los Angeles County, California, 2002–2003. MMWR 2003;52:88.
- Naimi TS, LeDell KH, Como-Sabetti K, et al. Comparison of community- and health care-associated methicillin-resistant *Staphylococcus aureus* infection. JAMA 2003;290:2976–84.
- McDougal LK, Steward CD, Killgore GE, Chaitram JM, McAllister SK, Tenover FC. Pulsed-field gel electrophoresis typing of oxacillin-resistant *Staphylococcus aureus* isolates from the United States: establishing a national database. J Clin Microbiol 2003;41:5113–20.
- Saiman L, O'Keefe M, Graham PL III, et al. Hospital transmission of community-acquired methicillin-resistant *Staphylococcus aureus* among postpartum women. Clin Infect Dis 2003;37:1313–9.
- 9. Healy CM, Hulten KG, Palazzi DL, Campbell JR, Baker CJ. Emergence of new strains of methicillin-resistant *Staphylococcus aureus* in a neonatal intensive care unit. Clin Infect Dis 2004;39:1460–6.
- Thompson DJ, Gezon HM, Hatch TF, Rycheck RR, Rogers KD. Sex distribution of *Staphylococcus aureus* colonization and disease in newborn infants. N Engl J Med 1963;269:337–41.

## Tuberculosis Control Activities After Hurricane Katrina — New Orleans, Louisiana, 2005

On August 29, 2005, when Hurricane Katrina struck the U.S. Gulf Coast, 130 Louisiana residents in the greater New Orleans area were known to be undergoing treatment for tuberculosis (TB) disease. Standard treatment and cure of TB requires a multidrug regimen administered under directly observed therapy (DOT) for at least 6 months (1). This report updates previous information (2) and summarizes TB cases reported as of December 31, 2005, among persons undergoing TB treatment in the New Orleans area when Hurricane Katrina made landfall and among persons who were evacuated and subsequently received a diagnosis of TB in other parts of the country. By October 13, 2005, through intensive local, state, and national efforts involving both government and private sector partners, all 130 TB patients from the New Orleans area had been located and, if still indicated, had resumed TB treatment. As a result of heightened public health surveillance among Hurricane Katrina evacuees, six other New Orleans evacuees began treatment (i.e., two persons with

<sup>&</sup>lt;sup>9</sup>Guidelines available at http://www.cdc.gov/ncidod/dhqp/gl\_hcpersonnel.html.

known TB and four with previously undiagnosed TB) after arriving in other states. The success of these post-disaster TB control measures affirms the utility of alternative data sources during health-related emergencies and the importance of maintaining a strong TB control component in the public health sector.

## Locating Displaced TB Patients

On August 31, the Louisiana TB Control Program (LATB) was forced to abandon its headquarters in downtown New Orleans, and the state TB laboratory and central medication stock were located in a flooded building. Approximately half of the LATB staff had evacuated to other states, and many who stayed were temporarily displaced from their damaged homes. Although some staff members could communicate via personal cellular telephones, normal communication channels (e.g., landline telephone services or fax transmission) were disrupted. LATB began establishing a new central office approximately 100 miles away in Lafayette, Louisiana, where the state TB controller asked field staff members to submit their most recent lists of patients receiving DOT and, if known, the post-Katrina location and status of these patients.

Before and after New Orleans opened for reentry on September 17, LATB staff repeatedly searched the affected parishes for known TB patients to ensure that their TB treatment continued. They visited locations known to be frequented by patients before the hurricane, called all known telephone numbers, and asked contacts whether they had heard from patients. (Similar work took place in the most affected counties of Alabama and Mississippi, where TB programs were able to account for all 48 known TB patients by September 12.) Through these frontline methods, by September 21, LATB staff identified 44 (34%) of the 130 patients who either were still residing in their homes, were temporarily living with relatives or friends in other parts of the state, or had left briefly but returned home within a few weeks post-hurricane. An additional 14 (11%) incarcerated persons remained secured in the same facilities or in other facilities where they had been transferred in anticipation of the hurricane; all 14 continued TB treatment without interruption.

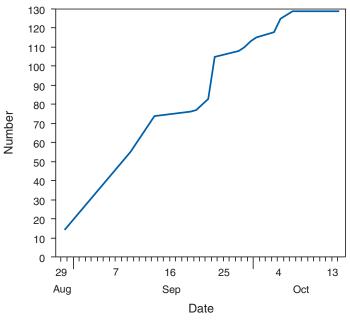
Beginning September 2, the national network of TB control programs took several measures to provide assistance. The TB Program of the Texas Department of State Health Services arranged for sputum specimens from Louisiana to be processed through the Texas State Laboratory. VersaPharm Incorporated, a pharmaceutical supplier, sent LATB free shipments of replacement TB medications. To help with state-to-state communication, the National TB Controllers Association and the CDC Division of Tuberculosis Elimination established

a Katrina TB help desk in Atlanta, Georgia. TB programs in other states could telephone the help desk to inquire whether an evacuee in their jurisdiction who reported taking TB medication was on the list of New Orleans-area patients who remained missing. If so, the help desk facilitated completion of the standard TB interjurisdictional transfer form for public health authorities in the new state of residence. Through this process, an additional 34 (26%) displaced New Orleans-area patients were located by September 21.

Novel approaches were then used to locate the 38 remaining New Orleans-area patients. Public registries (e.g., an online hospital patient locator and an online locator coordinated by the American Red Cross) were searched for information on patients, leading to contact with an additional six patients (5%). Agreements and other arrangements were established with relief agencies and targeted national pharmacy chains to permit limited cross-matching of missing patients' names while safeguarding their privacy and confidentiality. Twenty-six (20%) patients were located through relief agency rosters, and the final six (5%) were located through searches of recent prescription activity in other states.

By October 13, 2005, all 130 New Orleans-area patients had been located and had resumed TB treatment, if still indicated (Figure 1). Sixty-eight (52%) of the patients had stayed in Louisiana, 39 (30%) had relocated to Texas, and the remaining 23 (18%) had relocated to 14 other states (Figure 2).

FIGURE 1. Number of New Orleans-area tuberculosis (TB) patients who resumed TB treatment (if indicated),\* by date — August 29–October 13, 2005



\* After landfall of Hurricane Katrina on August 29, 2005.

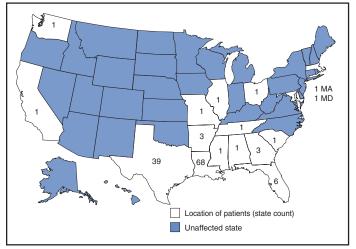


FIGURE 2. Initial reported locations\* of New Orleans-area residents who had been undergoing tuberculosis treatment

\* After landfall of Hurricane Katrina on August 29, 2005.

Health departments in these states assumed responsibility for the TB case management of displaced persons for as long as the patients remained in their new jurisdictions. Two additional New Orleans evacuees who had received pulmonary TB diagnoses before the hurricane but had not started treatment began DOT in Arkansas and Colorado. In the months after the hurricane, many displaced Louisiana residents returned; 96 (74%) of the 130 persons who had been receiving treatment for TB had returned to the greater New Orleans area by December 31.

## Detection and Treatment of New TB Cases Among Evacuees

Staff at the Katrina TB help desk also coordinated activities to identify evacuees who might have undiagnosed cases of TB disease (3). Detecting new TB cases and bringing them to the attention of local or state TB controllers as early as possible was critical to preventing transmission of *Mycobacterium tuberculosis*; initiation of effective treatment rapidly reduces infectiousness (4). As of December 31, four new TB cases among Hurricane Katrina evacuees from Louisiana had been verified and reported by other states (California, Connecticut, Pennsylvania, and Texas).

**Reported by:** C DeGraw, G Kimball, R Adams, T Misselbeck, R Oliveri, J Plough, TB Control Section, Louisiana Office of Public Health, Louisiana Dept of Health and Hospitals. C Wallace, PE Cruise, TB Program, Texas Dept of State Health Svcs. C Pozsik, National TB Controllers Assoc. Epidemiology Elective Program, Office of Workforce and Career Development; Office of the Director, National Center for HIV, STD, and TB Prevention; Div of TB Elimination, National Center for HIV, STD, and TB Prevention, CDC.

**Editorial Note:** Ensuring successful treatment of TB is an essential public health responsibility carried out daily by TB control programs in health departments across the United States. This report describes the challenges faced by LATB when Hurricane Katrina completely disrupted its normal operations. Despite the challenges, persistent frontline work by staff (who themselves had suffered the consequences of Hurricane Katrina) helped ensure continuity of TB treatment for all 130 patients, including not only those who stayed but also those who relocated to 15 other states.

During an initial disaster response, the most urgent public health priorities are providing safe and adequate shelter, water, food, and sanitation. Also important are interventions to minimize potential spread of infectious diseases, including TB, as displaced persons congregate in shelters and resettle in new communities. All TB control programs should consider planning for emergencies that might result in mass displacement of patients.

In response to the lessons learned from Hurricane Katrina, the TB programs in Louisiana and Texas took several measures in advance of Hurricane Rita to ensure continuity of care: 1) preparing line lists of patients in parishes and counties that might be affected, 2) giving patients a 2-to-4 week supply of medication in case DOT was interrupted, 3) ensuring that patients had a list of phone numbers to reestablish contact with the health department if they were displaced, 4) obtaining contact information for patients' relatives and friends in other parts of the country, 5) ensuring that back-up copies of patient records were available for potential sharing with new jurisdictions, and 6) moving essential TB supplies and medication stock to safer inland areas. These activities contributed to continuity of TB treatment after landfall of Hurricane Rita on September 24, 2005.

Locating patients who could not be found by traditional field methods required cross-matching their names and other limited identifying data with records maintained by relief agencies and national pharmacy chains. This approach, although valuable, required a substantial effort to negotiate and execute event-limited agreements and arrangements that addressed privacy and confidentiality concerns and applicable matters related to the Health Insurance Portability and Accountability Act, Standards for Privacy of Identifiable Health Information (HIPAA Privacy Rule) and related laws.\* Prearranged agreements of this type, applicable to various health-related emergencies, would have facilitated faster location of patients. Further efforts to standardize electronic health records and secure HIPAA-compliant platforms for sharing information among public health and private entities could facilitate locating TB patients in future disasters (5).

After Hurricane Katrina, multiple Louisiana TB patients were displaced to other states, requiring mobilization of the existing national network of state and local TB control programs not directly affected by Hurricane Katrina. This network, under guidance of the National TB Controllers Association and with assistance from the CDC Division of Tuberculosis Elimination, coordinated activities to account for all TB patients who had been evacuated. Such accomplishment affirms the importance of maintaining strong TB control programs in the public health sector.

#### Acknowledgments

This report is based on contributions by the following state and local health departments: Alabama; Arkansas; Los Angeles, California; Denver, Colorado; Colorado; Norwalk, Connecticut; Connecticut; Florida; Georgia; Suburban Cook County, Illinois; Illinois; Maryland; Massachusetts; Mississippi; Missouri; Ohio; Philadelphia, Pennsylvania; Pennsylvania; South Carolina; Tennessee; Houston, Texas; Corpus Christi-Nueces County, Texas; Dallas County, Texas; Galveston County, Texas; Harris County, Texas; Tarrant County, Texas; Snohomish, Washington; and Washington; the MetroHealth Medical Center TB Clinic, Cleveland, Ohio; and Div of Emergency Operations, Coordinating Center for Terrorism Preparedness and Emergency Response; Coordinating Center for Health Information and Service; Office of the Chief Science Officer, Office of the Director; and Office of the General Counsel, Office of the Director, CDC.

#### References

- 1. CDC. Treatment of tuberculosis: American Thoracic Society, CDC, and Infectious Diseases Society of America. MMWR 2003;52(No. RR-11).
- CDC. Infectious disease and dermatologic conditions in evacuees and rescue workers after Hurricane Katrina—multiple states, August– September, 2005. MMWR 2005;54:961–4.

- CDC. Tuberculosis (TB) guidance for Hurricane Katrina workers and evacuees. Atlanta, GA: US Department of Health and Human Services, CDC; September 2005. Available at http://www.cdc.gov/nchstp/tb/ katrina.
- 4. CDC. Controlling tuberculosis in the United States: recommendations from the American Thoracic Society, CDC, and the Infectious Diseases Society of America. MMWR 2005;54(No. RR-12).
- CDC. Syndromic surveillance: reports from a national conference, 2004. MMWR 2005;54(Suppl).

## Racial and Socioeconomic Disparities in Breastfeeding — United States, 2004

The American Academy of Pediatrics recommends breastfeeding for at least the first year of life, and beyond for as long as mutually desired by mother and child (1). Not breastfeeding is associated with increased health risks for children, including otitis media, respiratory tract infections, diarrhea, and necrotizing enterocolitis (1,2). In addition, breastfeeding duration is inversely associated with risk for childhood overweight (3). Breastfeeding also is associated with health benefits for mothers, including reduced risk for ovarian cancer and premenopausal breast cancer (1,2). Breastfeeding rates differ substantially by race, socioeconomic level, and other demographic factors (4). For example, among children born during 1982-1993, non-Hispanic black children were less likely than non-Hispanic white children to be breastfed at birth and at age 6 months, even when comparisons were among children in the same socioeconomic or other demographic subgroup (4). To obtain current estimates of racial and economic disparities in breastfeeding among U.S. children, CDC analyzed data from the 2004 National Immunization Survey (NIS). This report describes the results of that analysis, which indicated that 71.5% of non-Hispanic white children were ever breastfed compared with 50.1% of non-Hispanic black children. Among those ever breastfed, 53.9% of non-Hispanic white and 43.2% of non-Hispanic black children continued breastfeeding until at least age 6 months. Disparities between black and white children existed within most socioeconomic subgroups studied. Public health programs should continue to promote breastfeeding initiation and increase support of breastfeeding continuation, especially among subgroups with the lowest rates (i.e., black, poor, and young mothers; mothers with less than a high school education; and mothers residing in rural areas).

<sup>\*</sup> The HIPAA Privacy Rule generally applies to entities covered by the Rule, known as "covered entities." These covered entities include health-care providers who bill electronically, health-care insurers, and health-care clearinghouses. Under the Rule, CDC is not a covered entity but rather a "public health authority." Covered entities are permitted to disclose protected health information to a public health authority, subject to certain conditions. In addition, CDC is subject to federal privacy laws that govern the use and disclosure of certain identifiable records. Although not required, data-sharing agreements might be appropriate in certain instances of cross-matching to document compliance with applicable law and ensure appropriate procedural and security protections for the information exchanged.

CDC conducts the NIS annually to obtain national, state, and selected urban-area estimates of vaccination rates among children (5,6). The NIS uses random-digit dialing to survey households with children aged 19–35 months at the time of the telephone interview; thus, the 2004 NIS represents children born from February 2001 through May 2003. Interviews are conducted via telephone with the household member most knowledgeable about the child's vaccination history and collect data about the child, mother, and household. The survey is designed to collect nationally representative data on the noninstitutionalized U.S. civilian population. From the last quarter of 2001 through 2005, the NIS included the following questions on breastfeeding: "Was [child's name] ever breastfed or fed breast milk?" and "How long was [child's name] breastfed or fed breast milk?"

In the analyses, "maternal age" was the mother's age at the child's birth. U.S. Census Bureau definitions were used to classify residence, region, and poverty status; thus, residence was classified by Metropolitan Statistical Area (MSA), and poverty was based on household size, composition, and income. These analyses included only children classified as non-Hispanic white or non-Hispanic black and are referred to in this report as white and black, respectively. Weighted percentages were calculated using statistical software to account for complex sample design. The statistical significance of percentage point differences between races and between demographic subgroups within races were estimated using contrast analysis.

The results indicated that 71.5% of white and 50.1% of black children (Table 1) were ever breastfed. Breastfeeding rates were lower among black than white children within every subgroup studied and significantly lower (p<0.05) in all subgroups except children ineligible for WIC,\* children residing in the Northeast,<sup>†</sup> and children born to mothers aged  $\leq$ 20 years. The greatest percentage point difference between races was among children in rural areas, whereas the smallest percentage point differences were among children born to married mothers. Among both races, children were more likely to have ever been breastfed if they were ineligible for WIC; had mothers who were aged  $\geq$ 20 years, married or had at least some college education; lived in the West or in urban areas; or were above the federal poverty threshold.

Among children ever breastfed, 53.9% of whites and 43.2% of blacks were still breastfed at age 6 months (Table 2). A significantly smaller proportion of black than white children continued breastfeeding to at least 6 months among both sexes; children first born or not; children ineligible for WIC; children born to mothers aged <20 years or  $\geq$ 30 years, or to mothers who had attended college; children living in urban areas, the Midwest, South, and West; and children whose household incomes ranged from 185% to <350% of the poverty level. Among children of both races, older maternal age, higher maternal education, mother being married, and living in the Northeast were positively associated with continuing to breastfeed at 6 months. Among white children, breastfeeding continuation at 6 months was also positively associated with being female, being first born, not participating in WIC, and higher poverty-to-income ratio.

#### **Reported by:** L Grummer-Strawn, PhD, KS Scanlon, PhD, Div of Nutrition and Physical Activity, National Center for Chronic Disease Prevention and Health Promotion; N Darling, MPH, National Immunization Program; EJ Conrey, PhD, EIS Officer, CDC.

**Editorial Note:** The findings in this report indicate substantial racial and economic disparities in rates of breastfeeding initiation and breastfeeding continuation to at least age 6 months. The findings also demonstrate that race is associated with breastfeeding status independent of socioeconomic and other demographic factors, but also that socioeconomic and other factors are associated with breastfeeding independent of race. Within each income group, the proportion of black children who were ever breastfed was 10 to 17 percentage points lower than that of white children; within each race, the proportion of children ever breastfed was 23 to 26 percentage points higher among those in the highest income group compared with the lowest. Racial differences in breastfeeding continuation rates to 6 months were generally smaller than differences observed in breastfeeding initiation.

A comparison of breastfeeding rates and disparities described in this report with the rates measured in the NHANES III survey (4,7), which collected data on breastfeeding among children born from 1982 through 1993, suggests that progress has been made in recent decades to increase breastfeeding initiation and decrease breastfeeding disparities between whites and blacks and between economic strata. Breastfeeding initiation rates increased from 60.3% in NHANES III to 71.5% in the 2004 NIS among white children and from 25.5% to 50.1% among black children. During the same period, the proportion of breastfed children who continued breastfeeding for at least 6 months increased from 44.4% to 53.9% among white children and from 33.3% to 43.2% among black children, indicating that although both groups improved, the absolute

<sup>\*</sup> Special Supplemental Nutrition Program for Women, Infants, and Children. † Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia; West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

	,	,							White versus
		White, n	on-Hispanic			Black,	non-Hispanic		black
Characteristic	No.	%	(95% CI*)	Percentage point difference	No.	%	(95% CI)	Percentage point difference	percentage point difference
Sex									
Male	8,835	71.1	(68.7–75.3)	_	2,109	50.5	(43.1–57.9)		-20.6†
Female	8,142	72.0	(67.9–73.7)	0.9	2,003		(41.8–57.8)	-0.7	-22.2†
Birth order	-,		(0110-1011)		_,		(		
First born	10,063	70.8	(67.9–73.7)	_	2,666	48.9	(41.8–56.0)		-21.9 <sup>†</sup>
Not first born	6,914	72.7	(69.2–76.2)	1.9	1,446		(43.1–61.9)	3.6	-20.2†
Recipient of WIC <sup>§</sup>	0,011	,,	(00.2 70.2)	1.0	1,110	02.0	(1011-0110)	0.0	20.2
Yes	4,832	59.9	(55.6–64.2)	_	3,269	46.2	(39.9–52.5)		-13.7 <sup>†</sup>
No, but eligible	972		(65.3–84.1)	14.8 <sup>†</sup>	150		(23.0–79.0)	4.8	-23.7 <sup>¶</sup>
No, ineligible	9,998		(76.5–81.9)	19.3 <sup>†</sup>	583		(59.9–88.5)	28.0 <sup>†</sup>	-5.0
Mother's age (yrs) at child's birth	0,000	10.2	(70.0 01.0)	10.0	000	,	(00.0 00.0)	20.0	0.0
<20	177	43.1	(20.4–65.8)	_	223	28.2	(8.2–48.2)		-14.9**
20-29	5,859	66.1	(62.2–70.0)	23.0 <sup>†</sup>	2,230	47.7	(40.3–55.1)	19.5 <sup>†</sup>	-18.4 <sup>†</sup>
>30	10,941		(73.6–79.0)	33.2 <sup>†</sup>	1,659	57.6	(48.6–66.6)	29.4 <sup>†</sup>	-18.7 <sup>†</sup>
Mother's education			(1010 1010)	0012	.,	0.10	(1010 0010)	2011	
<high school<="" td=""><td>854</td><td>48.8</td><td>(38.6–59.0)</td><td>_</td><td>593</td><td>36.7</td><td>(23.4–50.0)</td><td></td><td>-12.1<sup>¶</sup></td></high>	854	48.8	(38.6–59.0)	_	593	36.7	(23.4–50.0)		-12.1 <sup>¶</sup>
High school	3,643		(56.7–66.1)	12.6 <sup>†</sup>	1,584		(34.4–52.0)	6.5	-18.2 <sup>†</sup>
Some college	3,374		(70.2–79.2)	25.9 <sup>†</sup>	921		(48.8–70.8)	23.1 <sup>†</sup>	-14.9 <sup>†</sup>
College graduate	9,106	84.8	(82.6-87.0)	36.0†	1,014		(59.0-84.8)	35.2 <sup>†</sup>	-12.9 <sup>†</sup>
Mother's marital status	-,		(0_00 0000)		.,		(0000 0000)		
Unmarried	2,268	53.3	(46.8–59.8)	_	2,657	41.0	(34.3–47.7)		-12.3 <sup>†</sup>
Married	14,709	76.0	(73.6–78.4)	22.7 <sup>†</sup>	1,455		(58.0–76.4)	26.2 <sup>†</sup>	-8.8†
Residence	11,700	10.0	(70.0 70.1)		1,100	07.2	(00.0 70.1)	20.2	0.0
MSA, <sup>††</sup> central city	5,734	72.7	(68.2–77.2)	_	3,047	51.2	(44.3–58.1)		-21.5 <sup>†</sup>
MSA, noncentral city	6,931	74.1	(70.8–77.4)	1.4	775		(44.9–69.3)	6.9 <sup>¶</sup>	-16.0 <sup>†</sup>
Non-MSA	4,312	65.1	(60.4–69.8)	-7.6†	290		(11.9–42.9)	-23.8 <sup>†</sup>	-37.7 <sup>†</sup>
Region <sup>§§</sup>	1,012	00.1	(00.1 00.0)	1.0	200	27.1	(11.0 12.0)	20.0	07.17
Northeast	2,957	67.5	(61.8–73.2)	_	709	60.1	(45.8–74.4)		-7.4**
Midwest	4,560		(65.2–73.8)	2.0	897		(35.4–59.0)	-12.9 <sup>¶</sup>	-22.3†
South	5,851		(63.7–71.9)	0.3	2,345		(38.5–53.3)	-14.2**	-21.9 <sup>†</sup>
West	3,609		(82.3–90.1)	18.7 <sup>†</sup>	161		(51.7–91.7)	11.6 <sup>†</sup>	-14.5 <sup>¶</sup>
Poverty-to-income ratio		00.2	(02.0 00.1)	10.7	101	/ 1./	(01.7 01.7)	11.0	14.5
Ratio < 100%	1,456	57.2	(49.0–65.4)	_	1,517	40.7	(31.9–49.5)		-16.5†
$100\% \le ratio < 185\%$	2,482		(49.0-05.4) (59.5-71.7)	8.4¶	900		(31.9–49.5) (41.2–64.8)	 12.3 <sup>¶</sup>	-12.6 <sup>†</sup>
$185\% \le ratio < 350\%$	4,928	72.8	(68.7–76.9)	15.6 <sup>†</sup>	699		(41.2-04.8)	21.7 <sup>†</sup>	-12.0" -10.4 <sup>¶</sup>
$350\% \leq ratio$	6,678	72.0	(76.8–83.0)	22.7 <sup>†</sup>	485		(46.0-87.2)	25.9†	-13.3 <sup>¶</sup>
Total	16,977		(70.0 <sup>-</sup> 00.0) (69.1–73.0)		4,112		(44.4–55.8)	20.0	-21.4 <sup>†</sup>
	10,977	71.5	(03.1-73.0)		4,112	50.1	(++.4=55.0)		-21.4'

## TABLE 1. Number and percentage of non-Hispanic white and non-Hispanic black children ever breastfed, by selected demographic characteristics — United States, 2004, National Immunization Survey

\* Confidence interval.

† p<0.001.

§ Special Supplemental Nutrition Program for Women, Infants, and Children.

<sup>¶</sup> p<0.05.

\*\* p<0.1.

<sup>††</sup> MSA = Metropolitan Statistical Area, defined by the U.S. Census Bureau.

§§ Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia; West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

<sup>11</sup> Ratio of self-reported family income to the federal poverty threshold value, defined by the U.S. Census Bureau.

		White m	on Hispopia			Plack	non Hiononia		White versus
Characteristic	No.	white, r	on-Hispanic (95% CI*)	Percentage point difference	No.	ыаск,	non-Hispanic (95% Cl)	Percentage point difference	black percentage point difference
Sex							. ,		
Male	6,768	52.5	(48.6–56.4)	_	1,125	42.7	(32.3–53.1)	_	-9.8†
Female	6,276		(51.6–59.4)	3.0 <sup>§</sup>	1,056		(32.3–55.1)	1.0	-11.8 <sup>†</sup>
Birth order	-,		(0		.,		(0_00 0000)		
First born	7,611	56 7	(53.0–60.4)	_	1,373	43.5	(33.9–53.1)	_	-13.2†
Not first born	5,433	49.8	(45.5–54.1)	-6.9†	808		(29.9–55.3)	-0.9	-7.2 <sup>§</sup>
Recipient of WIC <sup>¶</sup>	0,400	40.0	(40.0 04.1)	0.0	000	42.0	(20.0 00.0)	0.0	7.2
Yes	3,106	39.5	(34.0–45.0)	_	1.576	41.0	(32.2–49.8)	_	1.5
No, but eligible	773		(54.0-45.0)	25.0 <sup>†</sup>	86	50.7	(8.6–92.8)	9.7	-13.8
No, ineligible	8,225		(52.9-70.1)	20.9 <sup>†</sup>	446		(30.3–64.7)	6.5	-12.9 <sup>§</sup>
Mother's age (yrs) at child's birth	0,220	00.4	(37.1-03.7)	20.3	440	47.5	(30.3-04.7)	0.5	-12.3
<20	97	31.1	(5.6–56.6)	_	70	9.5	(0-25.6)		-21.6 <sup>§</sup>
20–29	4,172	43.1	(38.4–47.8)	12.0**	1,119	38.9	(28.5–49.3)	29.4 <sup>†</sup>	-4.2
>30	8,775	61.0	(57.7–64.3)	29.9 <sup>†</sup>	992	51.4	(40.0–62.8)	41.9 <sup>†</sup>	-9.6 <sup>§</sup>
Mother's education	0,770	01.0	(07.17 0 1.0)	20.0	002	01.1	(10.0 02.0)	11.0	0.0
<high school<="" td=""><td>437</td><td>35.0</td><td>(20.9–49.1)</td><td>_</td><td>202</td><td>30.8</td><td>(10.5–55.1)</td><td>_</td><td>-2.2</td></high>	437	35.0	(20.9–49.1)	_	202	30.8	(10.5–55.1)	_	-2.2
High school	2,277		(38.3–50.5)	9.4 <sup>§</sup>	698		(10.5–55.1)	8.9	-2.2
Some college	2,572		(45.7–57.5)	16.6 <sup>†</sup>	542		(29.1–58.1)	10.8	-8.0 <sup>§</sup>
College graduate	7.758		(61.4–68.0)	29.7 <sup>†</sup>	739		(39.7–64.3)	19.2 <sup>§</sup>	-12.7 <sup>†</sup>
Mother's marital status	7,750	04.7	(01.4 00.0)	20.1	700	52.0	(00.7 04.0)	10.2	12.7
Unmarried	1,295	27.0	(28.6–45.8)	_	1,166	21.0	(22.2–41.4)		-5.4
Married	11,749	56.8	(28.0-45.8)	 19.6 <sup>†</sup>	1,015		(45.5–67.1)	 24.5 <sup>†</sup>	-0.5
	11,743	50.0	(33.3–33.7)	13.0	1,015	50.5	(43.3-07.1)	24.5	-0.5
Residence MSA, <sup>††</sup> central city	4 5 2 0	<b>FF O</b>	(50.6.61.0)		1 600	40.0	(20.0.40.0)		-15.9†
	4,530		(50.6–61.2)	-0.7	1,608 482		(30.8–49.2)	 10.1 <sup>§</sup>	-15.9
MSA, non-central city Non-MSA	5,384 3,130		(51.1–59.3) (43.2–54.6)	-0.7 -7.0 <sup>†</sup>	482 91	35.4	(36.4–63.8) (3.3–67.5)	-4.6	-13.5
	3,130	40.9	(43.2-34.0)	-7.0	31	55.4	(3.3–07.5)	-4.0	-13.5
Region <sup>§§</sup>	0.155	F0 7	(50.0.00.4)		407	50 F			4.0
Northeast	2,155		(50.0-63.4)	-4.0**	407		(35.3–69.7)	-10.7**	-4.2 -10.9 <sup>§</sup>
Midwest	3,395		(47.6–57.8)	-4.0*** -8.1 <sup>†</sup>	450	41.8	(25.7–57.9)	-10.3**	-10.93 -6.4§
South	4,345		(43.7–53.5)		1,214		(31.6–52.8)		
West	3,149	61.2	(54.9–67.5)	4.5**	110	32.2	(7.9–56.5)	-20.3 <sup>§</sup>	-29.0†
Poverty-to-income ratio					007	44.0			0.0
Ratio < 100%	891		(30.8–52.0)		627	41.6	(27.7–55.5)		0.2
$100\% \le ratio < 185\%$	1,764		(40.6–55.8)	6.8 <sup>§</sup>	508		(25.7–55.9)	-0.8	-7.4**
185% <u>&lt;</u> ratio < 350%	3,837		(51.9–61.7)	15.4 <sup>†</sup>	451		(24.6-62.6)	2.0	-13.2 <sup>§</sup>
350% ≤ ratio	5,502		(54.4–63.0)	17.3 <sup>†</sup>	347		(30.3–68.7)	7.9	-9.2**
Total	13,044	53.9	(51.2–56.6)	_	2,181	43.2	(35.6–50.8)	_	-10.7 <sup>†</sup>

TABLE 2. Number and percentage of non-Hispanic white and non-Hispanic black children ever breastfed who were still breastfed at age 6 months, by selected demographic characteristics — United States, 2004, National Immunization Survey

\* Confidence interval.

† p<0.001.

§ p<0.05.

<sup>¶</sup> Special Supplemental Nutrition Program for Women, Infants, and Children.

\*\* p<0.1.

<sup>††</sup>MSA = Metropolitan Statistical Area, defined by the U.S. Census Bureau.

§§ Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; *Midwest*: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; *South*: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia; *West*: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

<sup>11</sup> Ratio of self-reported family income to the federal poverty threshold value, defined by the U.S. Census Bureau.

racial disparity did not diminish greatly (11.1% in NHANES III; 10.7% in the 2004 NIS). Because differences existed between NIS and NHANES III methodologies, comparisons between the two surveys should be interpreted with caution. For example, the NHANES interview was conducted in person for children aged 12–72 months, whereas the NIS used telephone interviews and covered children aged 19–35 months. Duration of breastfeeding was assessed in the NHANES interview with the following question: "How old was [child's name] when [child's name] completely stopped breastfeeding or being fed breast milk?"

The findings in this report are subject to at least four limitations. First, breastfeeding behavior was based on retrospective self-reports by mothers or other caregivers, whose responses might be subject to recall bias. However, maternal recall has been determined to be valid and reliable for estimating breastfeeding initiation and duration, especially when duration is recalled after a short period (e.g.,  $\leq 3$  years) (8). Second, family income and place of residence reported might differ from those at the time the child was being breastfed. Third, survey data were weighted to make them as representative as possible of all children aged 19-35 months; however, the statistical adjustments might not fully account for all survey complexities. Finally, this report does not address exclusive breastfeeding, defined as the consumption of human milk with no supplementation of any type except for vitamins, minerals, and medications (1). Exclusive breastfeeding enhances protection against many diseases and is recommended for the first 6 months of life by the American Academy of Pediatrics (1).

Increasing rates of breastfeeding is a crucial strategy for improving children's health, reducing childhood overweight, and reducing health-care costs. For example, increasing the proportion of children breastfed in the early postpartum period from 64% in 2000 to the *Healthy People 2010* goal of 75% would save an estimated \$3.6 billion in health-care costs annually (1). Although racial and economic disparities in breastfeeding initiation rates appear to have decreased in recent decades, they have not been eliminated. Barriers to breastfeeding initiation and continuation include lack of social support, lack of proper guidance from health-care providers, lack of adequate or timely postpartum follow-up care, and disruptive hospital maternity-care practices (e.g., delays in breastfeeding initiation, use of pacifiers by newborns, and hospital promotion of formula through the provision of free formula in hospital discharge packs) (1,9). Public health measures to promote breastfeeding should continue and should target groups with the lowest initiation rates, such as black

mothers in rural (i.e., non-MSA) areas or aged <20 years, mothers who have not completed high school, and participants in the WIC program. Public health programs also should increase protection and support of breastfeeding continuation among the same target groups. For policy makers and others interested in decreasing breastfeeding disparities through improving breastfeeding initiation and duration, *The CDC Guide to Breastfeeding Interventions (9)* provides an introduction to interventions aimed at promoting and supporting breastfeeding. In addition, breastfeeding interventions should account for racial, ethnic, and socioeconomic variations in attitudes towards breastfeeding and perceived barriers to breastfeeding (1,10).

#### **Acknowledgments**

The findings in this report are based, in part, on contributions by J Chen, MS, R Li, MD, PhD, Div of Nutrition and Physical Activity, National Center for Chronic Disease Prevention and Health Promotion, and E Luman, PhD, National Immunization Program, CDC.

#### References

- 1. American Academy of Pediatrics, Section on Breastfeeding. Breastfeeding and the use of human milk. Pediatrics 2005;115: 496–506.
- 2. US Department of Health and Human Services. HHS blueprint for action on breastfeeding. Washington, DC: US Department of Health and Human Services, Office on Women's Health; 2000.
- Harder T, Bergmann R, Kallischnigg G, Plagemann A. Duration of breastfeeding and risk of overweight: a meta-analysis. Am J Epidemiol 2005;163:397–403.
- Li R, Grummer-Strawn L. Racial and ethnic disparities in breastfeeding among United States infants: Third National Health and Nutrition Examination Survey, 1988–1994. Birth 2002;29:251–7.
- Smith PJ, Hoaglin DC, Battaglia MP, Khare M, Barker LE. Statistical methodology of the National Immunization Survey: 1994–2002. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics; 2005. Vital Health Stat 2005;2(138).
- 6. Zell ER, Ezzati-Rice TM, Battaglia MP, Wright RA. National Immunization Survey: the methodology of a vaccination surveillance system. Public Health Rep 2000;115:65–77.
- National Center for Health Statistics. Plan and operation of the Third National Health and Nutrition Examination Survey 1988–1994. Vital Health Stat 1994;1.
- 8. Li R, Scanlon KS, Serdula MK. The validity and reliability of maternal recall of breastfeeding practice. Nutr Rev 2005;63:103–10.
- Shealy KR, Li R, Benton-Davis S, Grummer-Strawn LM. The CDC guide to breastfeeding interventions. Atlanta, GA: US Department of Health and Human Services, CDC; 2005. Available at http:// www.cdc.gov/breastfeeding/pdf/breastfeeding\_interventions.pdf.
- Li R, Fridinger F, Grummer-Strawn L. Racial/ethnic disparities in public opinion about breastfeeding: the 1999–2000 Healthstyles Surveys in the United States. In: Pickering LK, Morrow AL, Ruiz-Palacios GM, Schanler RJ, eds. Protecting infants through human milk: advancing the scientific evidence. New York, NY: Kluwer Academic/Plenum Publishers; 2002:287–91.

## Death of a Child After Ingestion of a Metallic Charm — Minnesota, 2006

On March 23, this report was posted as an MMWR Dispatch on the MMWR website (http://www.cdc.gov/mmwr).

Lead-based paint remains the most common source of lead exposure for children aged <6 years. However, one report determined that 34% of children aged <6 years with lead poisoning in Los Angeles County had been exposed to items containing lead that had been brought into the home (1). These items might include candy, folk and traditional medications, ceramic dinnerware, and metallic toys and trinkets. Exposures to some of these items can result in life-threatening BLLs of  $\geq 100 \ \mu g/dL$  (elevated BLLs are  $\geq 10 \ \mu g/dL$  for children and  $\geq$ 25 µg/dL for adults) (2). In 2004, a child in Oregon had a BLL of 123  $\mu$ g/dL after ingesting a necklace with high lead content (3). The same year, the Consumer Product Safety Commission (CPSC) recalled 150 million pieces of imported metallic toy jewelry sold in vending machines.\* Some leadcontaminated items intended for use by children are manufactured in countries with limited government regulation of lead in consumer products (4). With the decline in BLLs in U.S. children (5), widespread education of the dangers of lead paint, and systematic reduction of lead hazards in U.S. housing, acute ingestion of lead-containing items has become increasingly more common as a source of life-threatening BLLs.

This report describes the death of a child from acute lead poisoning caused by lead encephalopathy after ingestion of a heart-shaped metallic charm containing lead; the charm had been attached to a metal bracelet provided as a free gift with the purchase of shoes manufactured by Reebok International Ltd. On March 23, a voluntary recall of 300,000 heart-shaped charm bracelets was announced by CPSC and Reebok<sup>†</sup> (Figure). Health-care providers should consider lead poisoning in young children with increased intracranial pressure, unexplained and prolonged gastric symptoms, or a history of mouthing or ingesting nonfood items. Health-care providers also should warn caregivers against allowing children to mouth any metal objects.

In mid-February 2006, a boy aged 4 years with a previous medical history of microcephaly and developmental delay was brought to a hospital pediatric emergency department in Minneapolis, Minnesota, with a chief complaint of vomiting. Probable viral gastroenteritis was diagnosed, and the boy was administered ondansetron, an antiemetic; his parents were encouraged to increase his fluid intake, and he was released. He returned to the emergency department 2 days later with

<sup>†</sup> Available at http://www.cpsc.gov/cpscpub/prerel/prhtml06/06119.html.

FIGURE. Heart-shaped charm bracelet that is the subject of the voluntary recall announced March 23, 2006, by Reebok International Ltd. and the Consumer Product Safety Commission



Photo/Consumer Product Safety Commission

intractable vomiting, poor oral intake, "sore tummy," and listlessness. He was dehydrated and had normal blood sodium and elevated blood urea nitrogen levels. He received intravenous fluid replacement and was admitted to the hospital.

The next day, about 10 hours after admission, the boy became agitated and combative and exhibited possible posturing. During transport to the radiology department, the boy suffered a respiratory arrest associated with seizure-type activity. He was resuscitated and placed on mechanical ventilation. He was administered a computer tomography (CT) scan of his head and of his chest and radiographs of his abdomen. The CT scan revealed diffuse cerebral edema, and the boy underwent emergent ventriculostomy and decompressive craniotomy. A heart-shaped object was observed on his abdominal radiographs but it was thought to be a radiopaque temperature probe on his body. When the radiographs were examined again, the object was recognized as a foreign body in his stomach, and testing for heavy metal levels was requested.

The next day, a BLL of 180  $\mu$ g/dL was reported; cerebral blood flow studies indicated no flow to the brain, and the boy met clinical brain death criteria. On the fourth day of hospitalization, the child was removed from life support and died. Upon autopsy, a heart-shaped charm imprinted with "Reebok" was removed from the child's stomach. The mother recognized the object as a charm that came with a pair of shoes belonging to another child whose home her son had visited. The mother was not aware that her son had ingested the charm, and he had no history of ingesting nonfood substances.

<sup>\*</sup> Available at http://www.cpsc.gov/CPSCPUB/PREREL/prhtml04/04174.html.

One day after the boy's death, a Minneapolis Department of Regulatory Services inspector examined the child's residence. The inspector identified no lead-paint hazards in the home and only one slightly elevated lead-dust level ( $260 \ \mu g/ft^2$ ) on a window sill (U.S. Environmental Protection Agency [EPA] threshold for windowsill hazard is 250  $\mu g/ft^2$ ). Seven other dust samples were below the EPA threshold.

Acid digestion testing performed on the ingested charm by the Minneapolis Public Health Department Laboratory using EPA protocol 3050<sup>§</sup> determined that the charm consisted of 99.1% lead. CPSC suggests that tests for leaching be conducted on those items containing more than 0.06% lead by weight. A charm similar in size and shape to the one ingested, with Reebok imprinted on it, was obtained by Minneapolis Department of Regulatory Services staff members at an athletic shoe store in Minneapolis and tested by the same laboratory using the same method. Results determined that the charm consisted of 67.0% lead by weight. The same staff member purchased another look-alike charm with a pair of athletic shoes from the Reebok Internet site; this charm was tested by the same Minneapolis laboratory using the same testing method and determined to contain only 0.07% lead by weight.

In Atlanta, Georgia, CDC staff members purchased four pairs of athletic shoes of the same brand, including two pairs with look-alike charm bracelets and two pairs with both charm bracelets and shoelace charms, from local stores and from the company's Internet site; they also obtained a promotional charm bracelet from a different athletic shoe manufacturer. Acid digestion analyses were conducted using either EPA protocol 3050 or NIOSH protocol 7300,<sup>¶</sup> which offers a similar acid-digestion method for measuring lead content; analyses of these items revealed lead contents ranging from 0.004% to 0.044% by weight.

The variation in lead content revealed by the tests in Minneapolis and Atlanta is consistent with previous test results for small, inexpensive metallic jewelry (6). The variations in lead content of the charms purchased in Atlanta stores and from the company's Internet site were not as varied as those in Minneapolis, likely indicating different suppliers or production lots.

As the variation in lead content in these products indicates, alternatives to lead are available. Restriction or elimination of nonessential uses of lead in consumer products should be part of a proactive strategy that prevents exposure to these products and is preferable to relying on case finding to identify lead exposure hazards. **Reported by:** KK Berg, MD, Hennepin County, Minnesota Office of the Medical Examiner; HF Hull, MD, Minnesota Dept of Health; EW Zabel, PhD, Minnesota Childhood Lead Poisoning Prevention Program. PK Staley, MPA, MJ Brown, ScD, DM Homa, PhD, Div of Emergency and Environmental Health Svcs, National Center for Environmental Health, CDC.

#### References

- Childhood Lead Poisoning Prevention Program. Cenus/surveillance data. Los Angeles, CA: Los Angeles Department of Health Services; Maternal, Child & Adolescent Health, Childhood Lead Poisoning Prevention Program; 2006. Available at http://lapublichealth.org/lead/reports/ leaddata.htm.
- CDC. Preventing lead poisoning in young children. Atlanta, GA: US Department of Health and Human Services, CDC; 2005. Available at http://www.cdc.gov/nceh/lead/publications/prevleadpoisoning.pdf.
- CDC. Lead poisoning from ingestion of a toy necklace—Oregon, 2003. MMWR 2004;53:509–11.
- 4. International Programme on Chemical Safety. Environmental health criteria 165: inorganic lead. Geneva, Switzerland: United Nations Environment Programme, International Labour Organisation, World Health Organization; 1995. Available at http://www.inchem.org/documents/ehc/ehc165.htm.
- 5. CDC. Blood lead levels, United States, 1999-2002. MMWR 2005;54:513-6.
- Maas RP, Patch SC, Pandolfo TJ, Druhan JL, Gandy NF. Lead content and exposure from children's and adult's jewelry products. Bull Environ Contam Toxicol 2005;74:437–44.

## Update: Influenza Activity — United States, March 12–18, 2006

During March 12–18, 2006,\* the number of states reporting widespread influenza activity<sup>†</sup> decreased to 23. Fourteen states reported regional activity, eight reported local activity, and five reported sporadic activity (Figure 1).<sup>§</sup>

The percentage of specimens testing positive for influenza decreased in the United States overall. During the preceding

<sup>&</sup>lt;sup>§</sup>Available at http://www.epa.gov/SW-846/pdfs/3050b.pdf.

Available at http://www.cdc.gov/niosh/nmam/pdfs/7300.pdf.

<sup>\*</sup> Provisional data reported as of March 17. Additional information about influenza activity is updated each Friday and is available from CDC at http://www.cdc.gov/flu.

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

<sup>&</sup>lt;sup>§</sup> Widespread: Arkansas, Connecticut, Delaware, Florida, Indiana, Iowa, Kentucky, Maine, Maryland, Massachusetts, Minnesota, Montana, New York, North Carolina, North Dakota, Ohio, Rhode Island, South Carolina, South Dakota, Texas, Vermont, Virginia, and Wisconsin; *regional:* Alabama, Colorado, Georgia, Hawaii, Illinois, Michigan, Nebraska, New Hampshire, New Jersey, Oklahoma, Pennsylvania, Tennessee, West Virginia, and Wyoming; *local:* California, Idaho, Kansas, Mississippi, Missouri, Nevada, Oregon, and Washington; *sporadic:* Alaska, Arizona, Louisiana, New Mexico, and Utah; *no activity:* none; *no report:* none.

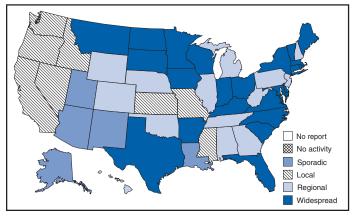


FIGURE 1. Estimated influenza activity levels reported by state epidemiologists, by state and level of activity\* - United States, March 12-18, 2006

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

3 weeks (weeks 9-11), the percentage of specimens testing positive for influenza ranged from 34.0% and 30.4% in the South Atlantic and East South Central regions, respectively, to 12.9% in the Pacific region. During this period, 60.4% of isolates from the Mountain region have been influenza B. The influenza B isolates reported from this region accounted for 39.3% of the B isolates reported during this time period. Other regions reporting more than 30.0% of recent isolates as influenza B include the West North Central and West South Central regions. The percentage of outpatient visits for influenza-like illness (ILI)<sup>9</sup> during the week ending March 18 remains above the national baseline.\*\* The percentage of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold for the week ending March 18.

## Laboratory Surveillance

During March 12–18, World Health Organization (WHO) collaborating laboratories and National Respiratory and Enteric Virus Surveillance System (NREVSS) laboratories in the United States reported testing 3,092 specimens for influenza viruses, of which 655 (21.2%) were positive. Of these, 159 were influenza A (H3N2) viruses, 33 were influenza A (H1N1) viruses, 255 were influenza A viruses that were not subtyped, and 208 were influenza B viruses.

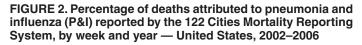
Since October 2, 2005, WHO and NREVSS laboratories have tested 103,188 specimens for influenza viruses, of which 12,298 (11.9%) were positive. Of these, 11,049 (89.8%) were influenza A viruses, and 1,249 (10.2%) were influenza B viruses. Of the 11,049 influenza A viruses, 4,578 (41.4%) have been subtyped; 4,404 (96.2%) were influenza A (H3N2) viruses, and 174 (3.8%) were influenza A (H1N1) viruses.

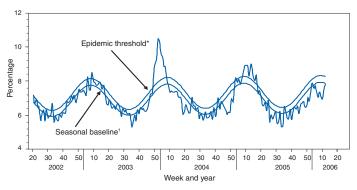
## **P&I Mortality and ILI Surveillance**

During the week ending March 18, P&I accounted for 7.8% of all deaths reported through the 122 Cities Mortality Reporting System. This percentage is below the epidemic threshold<sup> $\dagger$ †</sup> of 8.2% (Figure 2).

The percentage of patient visits for ILI was 2.5%, which is above the national baseline of 2.2% (Figure 3). The percentage of patient visits for ILI ranged from 1.3% in the Pacific region to 3.6% in the West South Central region.

<sup>&</sup>lt;sup>††</sup> The expected seasonal baseline proportion of P&I deaths reported by the 122 Cities Mortality Reporting System is projected using a robust regression procedure in which a periodic regression model is applied to the observed percentage of deaths from P&I that occurred during the preceding 5 years. The epidemic threshold is 1.645 standard deviations above the seasonal baseline.



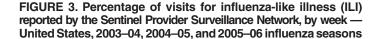


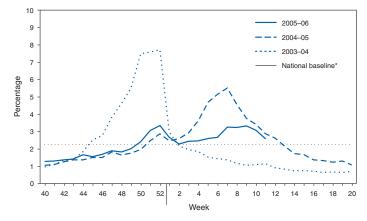
<sup>\*</sup> The epidemic threshold is 1.645 standard deviations above the seasonal

baseline. <sup>†</sup>The seasonal baseline is projected using a robust regression procedure model to the observed percentage of deaths from P&I during the preceding 5 years.

<sup>&</sup>lt;sup>¶</sup> Temperature of  $\geq 100.0^{\circ}$ F ( $\geq 37.8^{\circ}$ C) and cough and/or sore throat in the absence of a known cause other than influenza.

The national baseline was calculated as the mean percentage of visits for ILI during noninfluenza weeks for the preceding three seasons, plus two standard deviations. Noninfluenza weeks are those in which <10% of laboratory specimens are positive for influenza. Wide variability in regional data precludes calculating region-specific baselines; therefore, applying the national baseline to regional data is inappropriate.





\* The national baseline was calculated as the mean percentage of visits for ILI during noninfluenza weeks for the preceding three seasons, plus two standard deviations. Noninfluenza weeks are those in which <10% of laboratory specimens are positive for influenza. Wide variability in regional data precludes calculating region-specific baselines; therefore, applying the national baseline to regional data is inappropriate.

## Pediatric Deaths and Hospitalizations

During October 2, 2005–March 18, 2006, CDC received reports of 16 influenza-associated deaths in U.S. residents aged <18 years. Fourteen of the deaths occurred during the current influenza season, and two occurred during the 2004–05 influenza season.

During October 1, 2005–March 4, 2006, the preliminary laboratory-confirmed influenza-associated hospitalization rate reported by the Emerging Infections Program<sup>§§</sup> for children aged 0–17 years was 0.60 per 10,000 population. For children aged 0–4 years and 5–17 years, the rate was 1.44 per 10,000 and 0.19 per 10,000, respectively. During October 30, 2005–March 4, 2006, the preliminary laboratory-confirmed influenza-associated hospitalization rate for children aged 0–4 years in the New Vaccine Surveillance Network<sup>¶</sup> was 2.1 per 10,000.

### Human Avian Influenza A (H5N1)

No human avian influenza A (H5N1) virus infection has ever been identified in the United States. From December 2003 through March 24, 2006, a total of 186 laboratory-confirmed human avian influenza A (H5N1) infections were reported to WHO from Azerbaijan, Cambodia, China, Indonesia, Iraq, Thailand, Turkey, and Vietnam.\*\*\* Of these, 105 (56%) were fatal (Table). This represents an increase of 1 case and 1 death in Cambodia and 1 case and 1 death in China since March 21. The majority of infections appear to have been acquired from direct contact with infected poultry. No evidence of sustained human-to-human transmission of H5N1 has been detected, although rare instances of human-to-human transmission likely have occurred (*1*).

#### Reference

1. Ungchusak K, Auewarakul P, Dowell SF, et al. Probable person-toperson transmission of avian influenza A (H5N1). N Engl J Med 2005;352:333-40.

					Year of	of onset				
	2	2003	2	004	2	005	2	006		<b>Fotal</b>
Country	No. of cases	Deaths	No. of cases	Deaths	No. of cases	Deaths	No. of cases	Deaths	No. of cases	Deaths
Azerbaijan	0	0	0	0	0	0	7	5	7	5
Cambodia	0	0	0	0	4	4	1	1	5	5
China	0	0	0	0	8	5	8	6	16	11
Indonesia	0	0	0	0	17	11	12	11	29	22
Iraq	0	0	0	0	0	0	2	2	2	2
Thailand	0	0	17	12	5	2	0	0	22	14
Turkey	0	0	0	0	0	0	12	4	12	4
Vietnam	3	3	29	20	61	19	0	0	93	42
Total	3	3	46	32	95	41	42	29	186	105

TABLE. Number of laboratory-confirmed human cases and deaths from avian influenza A (H5N1) infection reported to the World Health Organization, by country — worldwide, 2003–2006\*

\* As of March 24, 2006.

<sup>&</sup>lt;sup>§§</sup> The Emerging Infections Program Influenza Project conducts surveillance in 60 counties associated with 12 metropolitan areas: San Francisco, California; Denver, Colorado; New Haven, Connecticut; Atlanta, Georgia; Baltimore, Maryland; Minneapolis/St. Paul, Minnesota; Albuquerque, New Mexico; Las Cruces, New Mexico; Albany, New York; Rochester, New York; Portland, Oregon; and Nashville, Tennessee.

<sup>&</sup>lt;sup>55</sup> The New Vaccine Surveillance Network conducts surveillance in Monroe County, New York; Hamilton County, Ohio; and Davidson County, Tennessee.

<sup>\*\*\*</sup> Available at http://www.who.int/csr/disease/avian\_influenza/en.

#### Notice to Readers

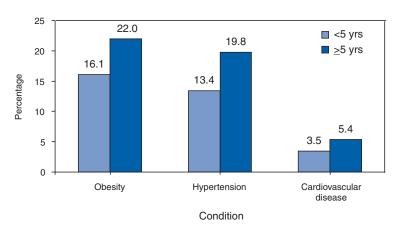
## Satellite Broadcast: Mass Antibiotic Dispensing: Collecting Point-of-Dispensing Exercise Data

The Strategic National Stockpile is an inventory of medications and medical supplies used to augment local and state resources during a public health emergencies, including terrorist attacks. To ensure preparedness, state and local planners are urged to conduct exercises to test their plans for dispensing medications to their communities in  $\leq$ 48 hours. On April 6, 2006, during 1:00–2:30 p.m. EDT, the Strategic National Stockpile and Public Health Training Network will present the satellite broadcast and webcast, "Mass Antibiotic Dispensing: Collecting Point-of-Dispensing Exercise Data." This live, interactive program will describe the collection of time-study data during point-of-dispensing exercises. Viewers can access the webcast at the designated time at http:// www.phppo.cdc.gov/phtn/webcast/mad5/default.asp.

## **QuickStats**

#### FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

# Percentage of Foreign-Born\* Hispanic Adults with Selected Health Conditions,<sup>†</sup> by Length of Time Living in the United States, 1998–2003<sup>§</sup>



 \* Foreign-born persons are defined as persons living in the United States who were not U.S. citizens by birth, including naturalized citizens, legal permanent residents, undocumented residents, and persons on long-term temporary visas.
 † Obesity, hypertension, and cardiovascular disease are defined in the source report. Data on health conditions were collected in National Health Interview Surveys from household interviews with samples of the civilian, noninstitutionalized population.

<sup>§</sup> Estimates are age-adjusted to the 2000 U.S. standard population using four age groups: 18–34 years, 35–44 years, 45–64 years, and ≥65 years.

Hispanic immigrants aged  $\geq$ 18 years living in the United States for  $\geq$ 5 years were more likely to be obese and have a higher prevalence of self-reported hypertension and cardiovascular disease than Hispanic adults who immigrated more recently.

**SOURCE:** Dey AN, Lucas JW. Physical and mental health characteristics of U.S. and foreign-born adults, 1998–2003. Advance data from vital and health statistics; no. 369. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics; 2006. Available at http://www.cdc.gov/nchs/data/ad/ad369.pdf.

#### **MMWR**

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending March 25, 2006 (12th Week)\*

	Current	Cum	5-year weekly	Total o	cases rep	orted for	r previou	s years	
Disease	week	2006	average <sup>†</sup>	2005	2004	2003	2002	2001	States reporting cases during current week (No.
Anthrax	_	1	_	_	_	_	2	23	
Botulism:									
foodborne	_	_	0	18	16	20	28	39	
infant	_	8	2	90	87	76	69	97	
other (wound & unspecified)	_	10	0	25	30	33	21	19	
Brucellosis	2	16	2	115	114	104	125	136	MI (1), FL (1)
Chancroid	2	6	1	27	30	54	67	38	NY (1), SC (1)
Cholera	_	_	_	6	5	2	2	3	
Cyclosporiasis§	1	10	3	737	171	75	156	147	FL (1)
Diphtheria	_	_	_	_	_	1	1	2	
Domestic arboviral diseases <sup>§1</sup> :									
California serogroup	_	_	0	73	112	108	164	128	
eastern equine	_	_	_	21	6	14	10	9	
Powassan	_	_	_	1	1	_	1	N	
St. Louis	_	_	0	10	12	41	28	79	
western equine	_	_	_	_	_	_	_	_	
Ehrlichiosis <sup>§</sup> :									
human granulocytic	1	8	2	734	537	362	511	261	NY (1)
human monocytic	1	37	1	456	338	321	216	142	MD (1)
human (other & unspecified)	_	2	0	121	59	44	23	6	
Haemophilus influenzae,**									
invasive disease (age <5 yrs):									
serotype b	_	2	0	8	19	32	34	_	
nonserotype b	1	20	3	118	135	117	144	_	MN (1)
unknown serotype	3	47	4	206	177	227	153	_	FL (Ì), TN (1), AZ (1)
Hansen disease	_	9	3	85	105	95	96	79	
Hantavirus pulmonary syndrome§	_	3	0	22	24	26	19	8	AZ (2)
Hemolytic uremic syndrome, postdiarrheal§	2	12	2	204	200	178	216	202	NY (1), CO (1)
Hepatitis C viral, acute	7	154	36	780	713	1,102	1,835	3,976	CT (1), NY (3), CO (1), WA (1), CA (1)
HIV infection, pediatric (age <13 yrs)§tt	_	_	5	382	436	504	420	543	
Influenza-associated pediatric mortality §. §§. 11	1	12	1	52	_	N	N	N	
Listeriosis	3	95	9	861	753	696	665	613	NC (2), CA (1)
Measles	_	3**	* 2	64	37	56	44	116	
Meningococcal disease, <sup>†††</sup> invasive:									
A, Č, Y, & W-135	3	55	6	300	_	_	_	_	MD (1), FL (2)
serogroup B	4	35	3	174	_	_	_	_	OK (1), WA (3)
other serogroup	_	5	1	24	_	_	_	_	
Mumps	4	161	5	296	258	231	270	266	IA (2), KS (2)
Plague	_	_	_	7	3	1	2	2	
Poliomyelitis, paralytic	_	_	_	1	_	_	_	_	
Psittacosis§	_	1	0	23	12	12	18	25	
Q fever <sup>§</sup>	2	24	1	125	70	71	61	26	MO (1), CO (1)
Rabies, human	_	_	0	2	7	2	3	1	
Rubella	_	_	0	10	10	7	18	23	
Rubella, congenital syndrome	_	_	0	1	_	1	1	3	
SARS-CoV <sup>\$,§§</sup>	—	_	0	_	—	8	N	N	
Smallpox <sup>§</sup>	—	_	—	_	—	—	—	_	
Streptococcal toxic-shock syndrome§	3	32	4	104	132	161	118	77	MN (2), KS (1)
Streptococcus pneumoniae,§									
invasive disease (age <5 yrs)	18	246	16	1,099	1,162	845	513	498	NY (6), OH (3), IN (1), MO (1), KS (1), MD (2),
									CO (2), AZ (2)
Syphilis, congenital (age <1 yr)	5	46	9	337	353	413	412	441	MI (4), AZ (1)
Tetanus	1	3	0	20	34	20	25	37	UT (1)
Toxic-shock syndrome (other than streptococca	al)§ 3	26	3	91	95	133	109	127	PA (1), CO (2)
Trichinellosis	_	2	0	21	5	6	14	22	· · ·
Tularemia <sup>§</sup>	_	3	0	137	134	129	90	129	
Typhoid fever	1	42	5	301	322	356	321	368	MA (1)
Vancomycin-intermediate Staphylococcus aure	us§ —	_	_	2	_	Ν	N	Ν	NY (1)
Vancomycin-resistant Staphylococcus aureus§	_	_	_	_	1	Ν	Ν	Ν	
Yellow fever	_	_	_	_	_		1	_	

-: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.

\* Incidence data for reporting years 2004, 2005, and 2006 are provisional, whereas data for 2001, 2002, and 2003 are finalized.

<sup>†</sup> Calculated by summing the incidence counts for the current week, the two weeks preceding the current week, and the two weeks following the current week, for a total of 5 preceding years. Additional information is available at http://www.cdc.gov/epo/dphsi/phs/files/5yearweeklyaverage.pdf.

§ Not notifiable in all states.

Includes both neuroinvasive and non-neuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNET Surveillance).

\*\* Data for *H. influenzae* (all ages, all serotypes) are available in Table II.

<sup>+†</sup> Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Data for HIV/AIDS are available in Table IV quarterly.

§§ Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases.

11 Of the 19 cases reported since October 2, 2005 (week 40), only 16 occurred during the current 2005–06 season.

\*\*\* No measles cases were reported for the current week.

ttt Data for meningococcal disease (all serogroups and unknown serogroups) are available in Table II.

			Chlamyd	lia†				ioidomy	cosis				otosporid	liosis	
	Current		vious veeks	Cum	Cum	Current	Previe 52 we		Cum	Cum	Current	Previ 52 we		Cum	Cum
Reporting area	week	Med	Max	2006	2005	week	Med	Max	2006	2005	week	Med	Max	2006	2005
United States	12,726	18,476	25,166	184,641	218,643	130	105	1,203	1,972	1,012	25	69	849	489	412
New England Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont <sup>§</sup>	404 	608 156 42 276 33 63 18	1,536 1,199 74 441 64 99 43	6,099 913 465 3,345 388 688 300	6,162 897 516 3,275 448 790 236	N N    N	0 0 0 0 0 0	0 0 0 0 0 0	N N 	N N   N	1 — — 1 —	4 0 2 0 0 0	34 14 3 15 3 5 5	26 4 12 4 	24 3 7 4 1 6
<b>Mid. Atlantic</b> New Jersey New York (Upstate) New York City Pennsylvania	1,844 155 610 546 533	2,237 356 499 643 714	3,702 527 1,715 1,167 1,084	16,702 2,652 4,539 1,326 8,185	25,629 4,184 4,408 8,450 8,587	N N N	0 0 0 0	0 0 0 0	N N N N	N N N N N	6 4 2	10 0 3 2 4	595 5 562 15 21	72 — 21 5 46	61 2 15 19 25
E.N. Central Illinois Indiana Michigan Ohio Wisconsin	2,457 501 269 1,475 51 161	3,165 944 391 578 814 396	4,149 1,784 558 1,411 1,445 533	36,241 9,144 4,654 10,579 7,734 4,130	35,543 8,667 4,722 5,595 11,771 4,788	N N	0 0 0 0 0	3 0 3 1 0	9  - 5 4 N	2           	3  -   3  -	13 1 2 5 4	162 16 13 7 109 38	102 8 6 20 48 20	78 13 4 12 24 25
W.N. Central Iowa Kansas Minnesota Missouri Nebraska <sup>§</sup> North Dakota South Dakota	661 92 164 1 281 90 	1,119 143 148 228 432 98 31 52	1,448 223 269 294 525 149 50 118	12,256 1,888 1,899 1,880 4,549 1,113 327 600	13,747 1,653 1,719 2,989 5,242 1,210 303 631	N   N   N   N N N N	0 0 0 0 0 0 0	3 0 3 1 1 0	 N     N N N	3 N 3 N N N N	7 — 6 1 —	8 1 2 2 0 0	51 11 5 10 37 2 1 4	68 5 12 30 15 3 — 3	50 12 6 11 19 
S. Atlantic Delaware District of Columbia Florida Georgia Maryland North Carolina South Carolina <sup>§</sup> Virginia <sup>§</sup> West Virginia	2,371 78 25 653 8 396 828 316 — 67	3,290 68 65 879 585 358 535 314 425 48	4,909 92 103 1,035 2,034 525 1,743 1,418 841 353	35,669 864 419 10,458 3,114 4,175 8,234 2,707 4,667 1,031	42,155 715 919 10,218 6,643 3,932 8,181 5,262 5,772 513	Z   Z   Z   Z   Z Z	0 0 0 0 0 0 0 0 0 0	1 0 0 1 0 0 0 0 0	2 N N 2 N N N	N N N N N N	6 	14 0 6 3 0 1 0 1 0	53 2 3 28 12 4 10 4 8 3	155 5 56 51 7 23 3 9 1	82 1 26 25 4 10 3 9 4
<b>E.S. Central</b> Alabama <sup>§</sup> Kentucky Mississippi Tennessee <sup>§</sup>	1,122 438 251  433	1,372 347 150 381 466	2,188 1,048 323 801 624	15,359 4,363 2,063 3,082 5,851	15,912 2,300 2,963 5,273 5,376	N N N	0 0 0 0	0 0 0 0	N N N	N N N	 	3 0 1 0 1	21 3 20 1 4	9 3 2 4	8 4 1 1 2
<b>W.S. Central</b> Arkansas Louisiana Oklahoma Texas <sup>§</sup>	1,533 197 288 246 802	1,953 170 221 226 1,324	3,373 340 760 2,160 1,699	20,018 1,836 1,150 2,333 14,699	27,301 2,012 4,240 2,337 18,712	N N N	0 0 0 0	1 0 1 0 0			 	3 0 1 1	30 1 21 10 10	26 1 4 11 10	14  2 6 6
Mountain Arizona Colorado Idaho <sup>\$</sup> Montana Nevada <sup>\$</sup> New Mexico <sup>\$</sup> Utah Wyoming	405 280 125 — — — — — —	1,104 314 282 45 42 136 152 87 23	1,705 537 480 235 181 448 338 138 43	9,460 3,753 1,396 450 273 1,102 1,755 459 272	14,236 5,001 3,459 391 541 1,722 1,860 1,009 253	109 109 N N 	76 75 0 0 1 0 0	229 225 0 0 4 2 3 2	1,539 1,515 N N 14  8 2	595 566 N N 22 5 2	2 	2 0 1 0 0 0 0 0 0	9 1 3 2 3 1 3 3 1	18 2 4 1 4 1 6	29 3 8 1 5 6 4 2
<b>Pacific</b> Alaska California Hawaii Oregon <sup>§</sup> Washington	1,929 50 1,214  205 460	3,175 77 2,450 105 171 359	4,864 121 4,099 133 315 604	32,837 759 24,894 1,089 1,797 4,298	37,958 861 29,191 1,262 2,115 4,529	21 21 N N N	28 0 28 0 0 0	1,114 0 1,114 0 0 0	422 422 N N N	412 412 N N N	  	6 0 3 0 1 0	50 2 14 1 20 36	13 — — 13 —	66 
American Samoa C.N.M.I. Guam Puerto Rico U.S. Virgin Islands	U U 	0 0 77 3	0 0 141 8	U U 1,047	U U 899 105	U U N	0 0 0 0	0 0 0 0	U U N	U U N	U U N	0 0 0 0	0 0 0 0	U U N	U U N

Max: Maximum.

#### TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 25, 2006, and March 26, 2005 (12th Week)\*

Med: Median. Cum: Cumulative year-to-date counts.

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-or \* Incidence data for reporting years 2005 and 2006 are provisional. \* Chlamydia refers to genital infections caused by *Chlamydia trachomatis*. § Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

(12th Week)*			Giardiasi	c .				onorrhe			Hae		<i>s influen</i> es, all sei	zae, invas	ive
		Prev		5			Previ		a			Previ		otypes	
Reporting area	Current week	52 w Med	eeks Max	Cum 2006	Cum 2005	Current week	52 we Med	eks Max	Cum 2006	Cum 2005	Current week	52 we Med	eks Max	Cum 2006	Cum 2005
United States	159	320	763	2,698	3,488	3,730	6,240	8,210	65,514	73,686	27	36	93	461	574
<b>New England</b> Connecticut Maine Massachusetts	3 1 _2	28 1 4 11	90 65 11 34	173 23 12 91	254 19 35 142	44 — 1 42	104 39 2 49	285 238 6 78	1,017 253 31 564	1,150 306 33 649		3 0 0 1	12 8 1 5	31 8 3 15	38 12 2 16
New Hampshire Rhode Island Vermont <sup>†</sup>		1 0 3	7 25 11	6 12 29	7 17 34	1	4 7 1	9 25 4	56 102 11	31 122 9		0 0 0	3 4 1	2 1 2	4
Mid. Atlantic New Jersey New York (Upstate) New York City	40 — 35 2	64 7 21 15	241 17 215 33	372 2 178 44	682 122 190 194	471 69 127 148	636 106 123 174	1,013 150 445 405	5,138 939 1,249 350	7,472 1,333 1,433 2,169	10 	7 1 2 1	28 4 25 4	79 1 27 5	102 15 30 20
Pennsylvania E.N. Central Illinois Indiana Michigan Ohio Wisconsin	3 20 N 2 18	16 55 13 0 15 16 12	29 102 32 0 29 34 33	148 406 24 N 146 169 67	176 560 149 N 152 122 137	127 586 147 125 237 15 62	212 1,350 389 161 257 385 118	390 1,823 761 234 807 681 172	2,600 16,398 3,546 2,076 5,750 3,538 1,488	2,537 13,605 3,270 1,851 1,866 5,294 1,324	3 3 1 2	3 6 1 0 2 1	8 14 5 6 3 6 3	46 63 14 12 12 19 6	37 97 27 17 8 38 7
W.N. Central lowa Kansas Minnesota Missouri Nebraska <sup>†</sup> North Dakota South Dakota	14  12 	35 5 4 15 9 2 0 2	142 14 9 113 32 6 3 7	289 51 35 75 97 14 2 15	399 57 36 163 96 26 1 20	224 16 54 124 22 — 7	357 31 48 63 181 21 2 6	461 54 124 89 240 54 6 15	3,818 374 558 468 2,043 271 20 84	4,328 355 576 832 2,186 286 19 74	1  1  	2 0 0 0 0 0 0 0	9 0 2 9 7 1 2 0	26  4 10 10 2 	28 1 13 9 3 1
S. Atlantic Delaware District of Columbia Florida Georgia Maryland North Carolina South Carolina <sup>†</sup> Virginia <sup>†</sup> West Virginia	24 2 20 1 1 N 	49 1 18 10 4 0 2 10 0	83 3 5 40 32 11 0 9 50 6	522 5 15 201 149 42 N 17 91 2	534 12 187 145 35 N 26 110 7	899 44 19 307 2 132 258 114 — 23	1,450 18 40 398 272 134 272 133 150 14	2,270 40 67 515 899 242 766 783 289 34	14,880 346 322 4,770 1,449 1,679 3,723 1,048 1,316 227	18,469 175 503 4,384 2,990 1,559 4,229 2,291 2,186 152	8  7 1   	9 0 3 1 1 0 1	24 0 12 6 5 11 3 7 4	123 — 42 24 16 14 10 13 4	142 — 27 41 23 24 6 11
E.S. Central Alabama <sup>†</sup> Kentucky Mississippi Tennessee <sup>†</sup>	3           	8 4 0 0 4	19 13 0 0 11	81 38 N  43	88 43 N  45	458 202 81  175	529 181 51 133 171	868 491 107 225 284	6,098 2,014 735 1,217 2,132	5,903 1,419 906 1,565 2,013	1 	2 0 0 2	8 2 3 0 5	26 5  21	28 5 1 22
W.S. Central Arkansas Louisiana Oklahoma Texas <sup>†</sup>	3 3 — N	6 1 1 3 0	23 5 6 16 0	53 18 15 20 N	54 19 8 27 N	619 90 184 67 278	783 86 122 83 486	1,304 187 461 763 629	7,912 1,059 768 752 5,333	10,781 1,025 2,316 1,080 6,360	1 — 1	2 0 1 0	6 2 3 5 1	27 2 4 21 	34  17 17
Mountain Arizona Colorado Idaho† Montana Nevada† New Mexico† Utah Wyoming	16 2 5 	27 2 9 2 1 2 1 7 1	58 12 33 12 7 6 6 20 20	267 33 100 19 15 8 5 82 5	268 47 90 24 9 18 11 66 3	92 62 30 — — — —	229 70 62 1 253 28 15 2	519 166 90 10 13 195 64 22 6	2,244 874 434 25 18 433 317 102 41	2,990 1,060 714 19 38 653 333 161 12	3 2 1 	4 1 0 0 0 0 0 0	19 9 5 1 0 3 4 2 2	61 26 22 1  8 3 1	78 29 18 2  10 13 5 1
Pacific Alaska California Hawaii Oregon <sup>†</sup> Washington	36  28  8	61 2 41 1 7 5	185 6 92 6 21 87	535 3 416 11 70 35	649 13 519 19 70 28	337 9 239  22 67	789 9 649 19 28 72	938 23 804 36 58 167	8,009 100 6,523 187 258 941	8,988 114 7,477 236 369 792	  	2 0 1 0 1 0	20 19 8 2 6 4	25 2 3 3 16 1	27 2 11 13 —
American Samoa C.N.M.I. Guam Puerto Rico U.S. Virgin Islands	U U 1	0 0 3 0	0 0 14 0	U U 2	U U 30	U U 	0 0 6 0	0 0 16 4	U U 84	U U 94 33	U U —	0 0 0 0	0 0 1 0	U U —	U U —

 TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 25, 2006, and March 26, 2005

 (12th Week)\*

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-\* Incidence data for reporting years 2005 and 2006 are provisional. \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS). Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

(12th Week)*				Нер	atitis (viral	, acute), by	type								
			Α			, ucuto), <b>2</b>		В					gionello	sis	
	Current	Prev 52 w	ious eeks	Cum	Cum	Current	Previo 52 wee		Cum	Cum	Current	Previ 52 we		Cum	Cum
Reporting area	week	Med	Max	2006	2005	week	Med	Max	2006	2005	week	Med	Max	2006	2005
United States	42	78	214	778	937	61	96	346	1,034	1,206	19	40	112	250	255
New England Connecticut	1 1	7 1	23 3	54 8	111 14		4 0	11 5	38	62 15	1	2 0	11 8	13 4	11 2
Maine	_	0	2	2	_	_	0	2	1	3	_	0	1	1	1
Massachusetts New Hampshire	_	5 1	14 12	28 10	82 10		3 0	10 3	32 4	41 2	_	1 0	5 1	5 1	6 2
Rhode Island Vermont <sup>†</sup>	_	0	4 2	1 5	5	_	0 0	2 1	1	1	1	0 0	7 3	2	_
Mid. Atlantic	1	11	23	36	177	3	10	25	69	157	5	11	53	68	73
New Jersey New York (Upstate)	1	3 1	11 22	10 11	34 24	3	2 1	7 14	23 10	35 25	5	1 3	12 28	5 31	10 17
New York City	_	4	12	3	89	_	2	7	3	35	_	1	20	1	6
Pennsylvania E.N. Central	6	1 7	6 17	12 56	30 96	5	4 9	9 25	33 68	62 129		5 7	17 26	31 40	40 62
Illinois		1	9	10	36	_	2	7	_	37	2	1	5	7	10
Indiana Michigan	2	1 2	10 11	3 22	5 24	2	0 3	16 7	4 37	5 43	_	0 2	6 6	1 11	4 16
Ohio Wisconsin	4	1 0	4	20	18 13	3	2 0	8 6	25 2	38	_2	3 0	19 2	21	26 6
Wisconsin W.N. Central	1	2	31	29	29	1	4	13	21	56	_	1	12	7	9
Iowa		0	2	1	6	—	0	2	1	3	—	0 0	1	—	_
Kansas Minnesota	_	0 0	31	17 1	4 3	_	0 0	3 6	2 1	7	_	0	1 10	_	1 1
Missouri Nebraska†	1	0	4 3	6 2	14 2	1	3 0	7 2	17	36 9	_	0 0	3 2	5 2	6
North Dakota	_	0	0	_	—	_	0	0	_	_	_	0	1	_	1
South Dakota S. Atlantic	- 7	0 13	1 33	2 136	 130	— 19	0 23	1 60	232	1 358	6	0 9	6 21		
Delaware		0	1	3	2	—	0	4	4	10	_	0	4	1	—
District of Columbia Florida	1	0 5	2 18	1 49	1 45	1 7	0 9	4 21	4 97	123	1 4	0 2	2 6	1 27	1 17
Georgia Maryland	2 4	1 2	6 6	11 22	23 12	4	2 2	7 8	19 38	65 42	1	0 2	3 9	3 16	4 16
North Carolina	-	0	20	33	23	6	0	23	48	42	_	0	3	9	7
South Carolina <sup>†</sup> Virginia <sup>†</sup>	_	1	3 11	5 12	4 20	_	2 2	9 18	12 6	31 38	_	0 1	2 8	1 7	4
West Virginia	—	0	2	—	_	_	0	14	4	7	—	0	3	1	3
E.S. Central Alabama <sup>†</sup>	_2	3 0	16 6	25 2	36 4	3	6 1	20 7	54 15	91 19	_	1 0	6 2	6 1	7 5
Kentucky Mississippi	—	0	3	9 1	3 7	_	1 1	5 4	15 4	23 18	_	0	4 1	_	1
Tennessee <sup>†</sup>	2	2	13	13	22	3	2	12	20	31	_	1	4	5	1
W.S. Central	3	8	52	50	70	_	13	146	210	99	1	1 0	17	7	2
Arkansas Louisiana	3	0 1	3 5	6 2	2 16	_	1 1	3 6	4 6	16 20	_	0	1 2	4	1
Oklahoma Texas†	_	0 6	2 49	4 38	1 51	_	0 11	5 144	1 199	10 53	1	0 0	3 17	1 2	1
Mountain	9	6	21	81	91	20	12	68	258	110	3	2	8	12	20
Arizona Colorado	7 2	3 1	20 4	54 14	53 7	20	7 1	64 5	233 8	72 10	3	0 0	3 3	5 1	4 3
Idaho† Montana	_	0	3	2	8	_	0	2 7	4	3	_	0 0	2	_	1
Nevada <sup>†</sup>	_	0 0	2	1 3	6 4	_	1	4	9	9	_	0	1 2	3	5
New Mexico† Utah	_	0	3 3	4 3	4 8	_	0 0	3 5	1 3	6 10	_	0 0	1 2	3	1 3
Wyoming	_	Ő	0	_	1	—	Ő	1	_	_	_	Ő	1	_	2
<b>Pacific</b> Alaska	12	15 0	148 1	311	197 3	10	9 0	54 2	84 1	144	1	2 0	10 1	31	19
California	12	13	147	293	165	8	6	39	64	103	1	1	10	31	19
Hawaii Oregon†	_	0 1	2 5	5 6	5 11	_	0 2	1 6	1 10	1 30	N	0 0	1 0	N	N
Washington	—	1	11	7	13	2	0	11	8	10	_	0	0	—	—
American Samoa C.N.M.I.	U U	0	1 0	U U	 U	U U	0 0	0 0	U U	 U	U U	0 0	0 0	U U	U U
Guam	_	Ō	0		_	—	Ō	Ō	_	—	_	0	0	—	—
Puerto Rico U.S. Virgin Islands	_	0 0	6 0	3	12	_	1 0	6 0	2	3	_	0 0	0 0	_	_
-															

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 25, 2006, and March 26, 2005 (12th Week)\*

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-\* Incidence data for reporting years 2005 and 2006 are provisional. \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS). Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

Max: Maximum.

(12th Week)*											
			Lyme dise	ase				Malaria			
	_		vious	_	_			vious	_	_	
Reporting area	Current week	52 v Med	weeks Max	Cum 2006	Cum 2005	Current week	52 w Med	eeks Max	Cum 2006	Cum 2005	
United States	86	300	1,337	929	1,512	12	24	56	189	251	
New England	2	50	232	53	127		1	12	7	7	
Connecticut	2	9	154	31	4	_	0	10	1	_	
Maine Massachusetts	_	2 18	26 164	7	8 99	_	0 0	1 4	5	5	
New Hampshire	_	3	17	14	14	_	0	1		2	
Rhode Island Vermont <sup>†</sup>	_	0	12	1	1	—	0 0	1	1	—	
			5		1	_		2			
Mid. Atlantic New Jersey	79	180 27	915 309	590 91	980 328	1	5 1	15 7	21	62 14	
New York (Upstate)	77	58	821	293	172	_	1	10	7	9	
New York City Pennsylvania	2	0 61	0 464	206	480	1	3 1	8 2	6 8	33 6	
E.N. Central	_	14	157	25	67	· _	2	6	25	21	
Illinois	_	0	6		1	_	0	2	6	7	
Indiana Michigan	_	0 1	4 7	4	2 1	_	0 0	3 2	5 4	7	
Ohio	_	1	5	2	13	_	0	3	7	3	
Wisconsin	—	10	148	19	50	—	0	3	3	4	
W.N. Central	2	12	99	26	34	_	0	5	5	9	
lowa Kansas	_	1 0	8 3	1	4 2		0 0	1	1	2 1	
Minnesota	2	8	96	23	28	_	0	3	2	1	
Missouri Nebraska <sup>†</sup>	_	0	2 2	1 1	_		0 0	3 2	1	5	
North Dakota	_	0	0	_	_	_	0	0	_	_	
South Dakota	—	0	1	_	—	—	0	1	1	—	
S. Atlantic	2	34	124	168	271	6	6	15	69	55	
Delaware District of Columbia	_	9 0	37 2	53 5	94 1	_	0 0	1 2	_	1 1	
Florida	1	1	8	11	9	3	1	6	10	11	
Georgia Maryland	1	0 16	1 86	90	1 135	1	0 1	6 9	17 20	9 18	
North Carolina		0	5	7	12		0	8	8	7	
South Carolina <sup>†</sup> Virginia <sup>†</sup>	_	0 3	3 21	2	5 14		0 0	2 9	2 11	1 6	
West Virginia	_	0	42	_	—	1	0	2	1	1	
E.S. Central	_	0	4	_	4	_	1	2	5	6	
Alabama <sup>†</sup>	_	0	1 1	_	—	—	0	1	2	1	
Kentucky Mississippi	_	0 0	0	_	_	_	0 0	2 0	1	2	
Tennesseet	—	0	4	—	4	_	0	2	2	3	
W.S. Central	—	1	7	_	12	—	1	15	7	26	
Arkansas Louisiana	_	0 0	2 1	_	1	_	0 0	2 1	_	1 1	
Oklahoma	—	0	0	_	—	—	0	6	1	2	
Texas <sup>†</sup>	—	1	7	_	11	—	1	14	6	22	
Mountain Arizona	_	0 0	4 4	2 2	1	2	1 0	6 4	13 1	13 2	
Colorado	_	0	1		_	_	0	3	4	6	
Idaho† Montana	_	0 0	1 0	—	_	1	0 0	0 0	1	—	
Nontana Nevada <sup>†</sup>	_	0	0	_	_	1	0	0	1	_	
New Mexico <sup>†</sup>	_	0	1	_	_	_	0	1	_	1	
Utah Wyoming	_	0 0	1 1	_	1	1	0 0	2 1	7	3 1	
Pacific	1	4	18	65	16	3	4	12	37	52	
Alaska	_	0	1		1	1	0	1	2	2	
California Hawaii	1 N	2 0	18 0	65 N	14 N	2	2 0	9 4	29	45 3	
Oregon <sup>†</sup>	_	0	3		1	_	0	2	2	2	
Washington	—	0	3	—	—	—	0	5	4	—	
American Samoa	U	0	0	U	U	U	0	0	U	U	
C.N.M.I. Guam	U	0 0	0 0	U	U	U 	0 0	0 0	U	U	
Puerto Rico	Ν	0	0	Ν	Ν	_	0	1	—	—	
U.S. Virgin Islands	—	0	0	_	—	—	0	0	_	—	

 TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 25, 2006, and March 26, 2005

 (12th Week)\*

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-\* Incidence data for reporting years 2005 and 2006 are provisional. \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS). Cum: Cumulative year-to-date counts. Med: Median.

(12th Week)*	-			Mani		diagona int									
			All serog		ngococcai	disease, inv	nknown				Pertus	sis			
		Prev	ious				Previo	us				Prev	ious		
Reporting area	Current week	52 w Med	eeks Max	Cum 2006	Cum 2005	Current week	52 wee Med	eks Max	Cum 2006	Cum 2005	Current week	<u>52 w</u> Med	<u>eeks</u> Max	Cum 2006	Cum 2005
United States	20	22	73	300	374	13	13	53	205	202	163	428	1,674	2,489	4,632
New England	1	1	5	14	28	1	1	3	14	9	_	27	55	174	311
Connecticut Maine	_	0 0	2 1	3 2	7 1	_	0 0	2 1	3 2	1	_	0 0	4 5	8	19 12
Massachusetts	_	0	3	7	13	_	0	3	7	3	_	21	44	137	234
New Hampshire Rhode Island	1	0 0	2 1	2	3 2	1	0 0	2 0	2	3	_	1 0	15 8	7	5
Vermont <sup>†</sup>	—	0	1	_	2	_	0	1	—	1	—	1	6	22	41
Mid. Atlantic New Jersey	3	2 0	15 2	27	44 13	3	2 0	13 2	23	32 13	30	22 3	126 8	278 14	408 56
New York (Upstate)	1	0	7	6	11	1	0	5	5	3	16	10	115	102	137
New York City Pennsylvania	2	0 1	5 3	3 18	6 14	2	0 1	5 3	3 15	6 10	14	2 7	6 16	9 153	24 191
E.N. Central	2	2	9	27	38	2	1	6	23	34	36	60	124	340	1,235
Illinois Indiana	_	0	4 3	8 2	8 4	_	0 0	4 2	8 1	8 2	9	13 4	31 74	10 39	223 71
Michigan	1	1	3	6	7	1	0	3	3	5	5	5	26	85	51
Ohio Wisconsin	1	1 0	5 1	11	11 8	1	0 0	4 1	11	11 8	22	17 20	43 41	182 24	472 418
W.N. Central	2	1	4	15	26	2	0	3	6	10	5	58	205	333	680
lowa Kansas	_	0 0	2 1	1	9 3	_	0 0	2 1	1	1 3	3	10 11	55 29	63 123	241 85
Minnesota	1	0	2	2	5	1	0	1	1	1	2	0	148	—	93
Missouri Nebraska†	1	0 0	3 1	8 4	6 2	1	0 0	2 1	2 2	3 2		10 3	39 14	111 32	117 67
North Dakota South Dakota	_	0	1	_	1	_	0 0	1 0	_	_	_	0 2	28 9	4	21 56
S. Atlantic	6	4	14	58	59	3	2	8	25	25	7	23	90	227	311
Delaware District of Columbia	_	0	1 0	2	_2	_	0 0	1 0	2	_2	_	0	1 3	1 3	11
Florida	3	1	7	24	22	1	1	6	11	7	5	4	14	56	36
Georgia Maryland	1 2	0 0	2 2	2 6	7 6	1 1	0 0	2 2	2 3	7	2	1 4	3 8	5 53	10 61
North Carolina South Carolina <sup>†</sup>	_	0	11 2	11 5	6 10	_	0 0	3 1	3 2	7	_	0 5	21 22	43 28	21 111
Virginia†	_	1	4	8	5	—	0	3	2	1	_	3	72	36	43
West Virginia E.S. Central	_	0 1	1 3		1 18	_	0 1	1 3	 10	1 12		0 8	5 25	2 56	18 125
Alabama <sup>†</sup>	—	0	1	2	—		0	1	2	_	1	1	9	15	26
Kentucky Mississippi	_	0 0	2 1	3 1	6 4	_	0 0	2 1	3 1	6 4	_	2 1	10 4	3 9	41 18
Tennessee <sup>†</sup>	—	0	2	6	8	_	0	2	4	2	2	3	17	29	40
W.S. Central Arkansas	1	2 0	18 3	34 3	34 6	_	1 0	9 2	16 3	10 1	1	44 4	144 19	155 17	148 28
Louisiana		1	4	19	12	—	0	3	11	2		0	3	4	9
Oklahoma Texas†	1	0 1	3 12	6 6	4 12	_	0 0	3 4	1 1	1 6	1	0 38	1 139	3 131	111
Mountain	—	2	7	27	26	_	1	5	19	3	71	75	144	783	956
Arizona Colorado	_	0 0	5 2	14 11	10 10		0 0	5 1	14 4	2	20 13	16 25	86 41	133 340	64 443
Idaho† Montana	_	0 0	2 0	_	1	_	0	2 0	_	1	1 2	3 7	14 29	15 31	75 205
Nevada <sup>†</sup>	_	0	2	—	2	_	Ō	1	_	—	—	1	5	8	12
New Mexico† Utah	_	0	2 2	2	1 2	_	0	2 1	1	_		2 14	9 38	6 239	63 87
Wyoming	—	0	0	—	—		0	0	—	—	_	1	4	11	7
<b>Pacific</b> Alaska	5	4 0	28 1	86	101 1	2	3 0	16 1	69	67 1	10	70 2	1,111 15	143 23	458 10
California	2	2	9	58	54	2	2	9	58	54	_	40	923	1	126
Hawaii Oregon†	_	0 1	1 5	1 12	7 23	_	0 0	1 3	1 4	2 4	_	3 5	10 33	17 32	32 223
Washington	3	0	25	15	16	—	0	11	6	6	10	12	185	70	67
American Samoa C.N.M.I.	U U	0 0	1 0	_	_	U U	0 0	1 0	U U	U U	U U	0 0	0 0	U U	U U
Guam	_	0	0	_	_	_	0	0	—	_	_	0	0	_	_
Puerto Rico U.S. Virgin Islands	_	0 0	1 0	_	4	_	0 0	1 0	_	4	_	0 0	2 0	_	1

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 25, 2006, and March 26, 2005 (12th Week)\*

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-\* Incidence data for reporting years 2005 and 2006 are provisional. \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS). Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

Max: Maximum.

		B	abies. ani	mal		Bo	sky Mour	tain sno	tted fever				almonello	eie	
			vious	IIIdi			Previo		lieu ievei			Prev		1515	
Reporting area	Current week		eeks Max	Cum 2006	Cum 2005	Current week	52 wee	eks Max	Cum 2006	Cum 2005	Current week	52 wo		Cum 2006	Cum 2005
United States	51	102	160	663	1,225		34	99	262	125	306	869	1,899	5,305	5,513
New England	21	12	33	102	156	_	0	1	_	1	6	40	77	260	292
Connecticut Maine	3 2	3 1	13 4	23 13	21 11	N	0 0	0 0	N	N	_	8 3	59 8	59 11	65
Massachusetts	13	4	22	49	106		0	1			6	20	6 41	163	18 167
New Hampshire Rhode Island	2	0	3 4	4 1	2 2	_	0 0	1 0	_	1	_	2 0	12 15	16 9	16 11
Vermont <sup>†</sup>	1	1	7	12	14	_	0	0	_	_	_	1	10	2	15
Mid. Atlantic		18	40	124	150	—	1	7	3	7	40	93	237	483	662
New Jersey New York (Upstate)	N	0 12	0 24	N 70	N 65	_	0 0	2 2	_	_	26	17 22	41 198	42 136	126 149
New York City	—	0	3	—	7	—	0	2	1	1	2	24	43	85	189
Pennsylvania E.N. Central	_	7 2	22 19	54	78 10	_	1 0	6 6	2	6 2	12 18	31 96	61 223	220 647	198 703
Illinois	_	1	4		3	_	0	3	1	∠ 1	_	30	140	107	213
Indiana Michigan	_	0	3 4	2	1 2	_	0 0	1	_	_	1 2	10 17	71 35	75 132	41 150
Ohio	_	0	12	2	4	_	0	3	1	1	15	24	52	233	156
Wisconsin	N	0	3	N	N	_	0	1	_	_	_	15	45	100	143
W.N. Central Iowa	1	7 1	23 10	32 9	58 11	_	2 0	16 2	4	4	20	42 7	92 18	360 47	367 72
Kansas	—	1	5	9	18	_	0	2	—	—	2	7	17	60	37
Minnesota Missouri	1	1 1	5 7	2 3	12 5	_	0 1	1 14	4	4	11 7	10 14	31 40	90 112	94 95
Nebraska <sup>†</sup>	_	0	0		1	_	0	2	_	_	_	2	10	28	35
North Dakota South Dakota	_	0 1	4 6	2 7	11	_	0 0	0 2	_	_	_	0 2	5 11	1 22	6 28
S. Atlantic	21	32	54	315	554	_	17	95	247	89	91	257	507	1,522	1,442
Delaware District of Columbia	_	0	0	_	_	_	0 0	2 1	2	_	2	2 1	9 7	12 15	11 10
Florida	_	0	14	40	201	_	0	3	6	4	49	99	230	646	567
Georgia Maryland	6	4 6	15 16	16 50	65 70	_	1 2	9 7	15 13	3 5	3 6	33 14	74 39	242 106	190 110
North Carolina	15	8 0	19 0	70	92	—	5	87	206	70	30	32	114	318	275
South Carolina† Virginia†	_	10	26	123	5 116	_	1 2	6 10	3 2	6	_	21 20	146 66	59 114	116 145
West Virginia	_	0	13	16	5	_	0	2	—	1	1	2	13	10	18
E.S. Central Alabama <sup>†</sup>	_	3 1	9 5	36 13	24 17	_	5 0	24 9	4 1	4 1	4 3	56 13	134 39	284 113	315 94
Kentucky	_	0	3	4	_	_	0	1	_	_	—	7	26	48	34
Mississippi Tennessee†	_	0 1	1 4	19	7	_	0 3	3 18	3	3	- 1	13 14	66 40	39 84	44 143
W.S. Central	1	13	42	12	209	_	2	34	3	1	34	85	728	575	391
Arkansas Louisiana	—	0 0	3 0	1	10	_	0 0	32 2	3	1	30	15 15	67 42	213 54	49 93
Oklahoma	1	1	7	11	22	_	0	23	_	_	2	7	26	49	50
Texas <sup>†</sup>	_	11	39	_	177	_	0	8	_		2	44	695	259	199
<b>Mountain</b> Arizona	_	4 2	19 11	16 16	40 34	_	0 0	4 4	_	15 12	37 11	50 13	112 28	390 125	358 120
Colorado	_	0	2	—	_	_	0	1	—	_	20	10	45	114	87
Idaho† Montana	_	0 0	12 3	_	_	_	0 0	2 1	_	_	1	2 2	17 16	15 19	20 18
Nevada† New Mexico†	_	0 0	2 1	_	1	_	0 0	0 1	_	_	_	3 4	8 14	22 29	36 34
Utah	_	0	5	_	_	_	0	1	_	2	3	4 5	31	29 52	35
Wyoming	—	0	2	—	5	_	0	1	—	1	2	1	12	14	8
<b>Pacific</b> Alaska	7	4 0	15 3	22 5	24 1	_	0 0	2 0	_	_2	56 2	99 1	407 5	784 21	983 12
California	7	3	15	17	23	_	0	1	_	2	48	76	282	612	776
Hawaii Oregon <sup>†</sup>	_	0	0 1	_	_	_	0 0	0 1	_	_	1	5 8	15 25	43 52	69 66
Washington	U	Ő	Ó	U	U	Ν	0	0	Ν	Ν	5	8	116	56	60
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	2	U	1
C.N.M.I. Guam	U	0 0	0 0		U	U	0 0	0 0	U	U		0 0	0 0	U	U
Puerto Rico	2	2	4	26	18	N	0	0	Ν	Ν	2	7	23 0	10	77
U.S. Virgin Islands	_	U	U	—	—	_	U	0	_	—	_	U	U	_	—

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 25, 2006, and March 26, 2005 (12th Week)\*

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-\* Incidence data for reporting years 2005 and 2006 are provisional. \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS). Cum: Cumulative year-to-date counts. Med: Median.

	Shig			E. coli (S	ΓEC) <sup>†</sup>			igellosis	3		Streptor			nvasive, g	roup A
	Current		ious eeks	Cum	Cum	Current	Previo 52 wee		Cum	Cum	Current	Previ 52 we		Cum	Cum
Reporting area	week	Med	Max	2006	2005	week	Med	Max	2006	2005	week	Med	Max	2006	2005
United States	12	48	229	165	276	82	288	587	1,819	2,304	142	80	175	1,291	1,164
New England Connecticut	_	4 1	13 4	11	27 11	1	5 1	17 6	51 6	47 10	2 U	4 0	7 0	42 U	45 U
Maine Massachusetts	_	0 2	5 7	9	2 11	1	0 3	3 11	38	1 29	2	0 2	2 7	3 28	2 31
New Hampshire Rhode Island	—	0	2	2	1	_	0	4	3	3	_	0	3 3	8	3
Vermont <sup>§</sup>	_	0	2	1	1	_	0	4	1	3	_	0	2	2 1	6
Mid. Atlantic New Jersey	—	6 1	99 7	_	29 9	7	20 5	69 18	123 34	245 71	21	13 2	42 8	194 9	246 40
New York (Úpstate)	1	2	96	8	11	4	4	53	54	68	13	4	32	82	87
New York City Pennsylvania	_	0 2	2 8	_	1 8	3	6 2	22 48	16 19	93 13	8	2 5	9 12	6 97	45 74
E.N. Central	4	7	29	44	58	5	17	78	149	172	23	14	39	248	237
Illinois Indiana	_	1 1	7 7	7	16 4	_	6 1	25 56	28 18	46 13	2	3 2	9 12	55 37	73 22
Michigan Ohio	2 2	0 2	3 14	13 13	 23	1 4	4 3	10 11	45 39	77 14	2 19	4 4	12 14	57 83	70 49
Wisconsin	_	2	15	11	15	_	3	9	19	22		1	8	16	23
W.N. Central Iowa	3	7 1	39 10	36 9	38 7	3	38 1	64 9	189 3	156 31	57 N	5 0	13 0	115 N	70 N
Kansas Minnesota	3	1 2	4 23	26	4 6	_	4 2	20 6	19 20	5 10	3 52	1	5 8	30 52	10 25
Missouri	_	2	7	14	12	3	22	45	114	84	1	1	6	18	21
Nebraska <sup>§</sup> North Dakota	_	0 0	4 2	2	7	_	1 0	9 2	18 2	18 2	_	0 0	4 3	11 3	7 2
South Dakota	_	0	5	1	2	_	1	17	13	6	1	0	2	1	5
<b>S. Atlantic</b> Delaware	3	7 0	41 2	25	45	22	47 0	116 2	500	333 2	18	19 0	39 2	312 1	226
District of Columbia Florida	3	0 1	1 31		 17	 13	0 21	2 66	3 220	3 146	9	0 5	2 12	4 78	2 64
Georgia Maryland	_	0 1	6 5	_	8 7	7 2	12 2	37 8	166 30	95 15	1 8	4 4	9 12	71 70	50 59
North Carolina	—	1 0	11	11	9	_	2	22	49 23	29	_	1	13	34 24	25
South Carolina <sup>§</sup> Virginia <sup>§</sup>	_	2	2 9	2	4	_	2 2	6 9	9	25 18	_	1	11	24	12 11
West Virginia E.S. Central	_	0 2	2 12	7	— 11	3	0 18	1 50	113	 296	3	0 4	5 10	6 57	3 50
Alabama§	_	0	3	—	3	_	3	20	24	60	Ň	0	0	N	N
Kentucky Mississippi	_	1 0	9 2	5	1	_	6 2	31 7	49 20	18 21	_	1 0	4 0	14	12
Tennessee§	_	1	3	15	7	3	4	46	20	197	3	3	8	43	38
W.S. Central Arkansas	_	2 0	24 2	2 1	12 1	9 9	64 1	237 4	204 23	489 14	4	6 0	33 2	79 3	63 6
Louisiana Oklahoma	_	0 0	2 3	- 1	6 1	_	2 10	11 41	28 23	34 103	4	0 2	2 13	5 51	4 34
Texas <sup>§</sup>	—	1	24	6	4	—	47	230	130	338	_	3	26	20	19
<b>Mountain</b> Arizona	1	6 0	16 4	15	38 3	7 6	17 9	48 29	150 83	131 57	13 5	12 4	43 28	224 118	200 84
Colorado Idaho§	1	1 1	6 8	11 3	9 7	_	3 0	18 4	21 4	20	5	3 0	10 2	58 3	70 1
Montana Nevada <sup>§</sup>	_	0 0	2 3		, 1 8	—	0 1	1 6		 23	_	0 0	0	_	_
New Mexico§	_	0	3	2	2		2	9	17	20		1	6	20	22
Utah Wyoming	_	1 0	7 3		7 1	1	1 0	4 1	12 1	11	3	2 0	6 1	23 2	22 1
Pacific	1	6	52	25	18	25	39	136	340	435	1	2	8	20	27
Alaska California	_	0 1	2 6	17	2 8	25	0 33	1 97	1 252	6 388	_	0 0	0 0	_	_
Hawaii Oregon <sup>§</sup>	_	0 1	4 47	2 7	2 1	_	1 1	4 28	10 46	7 23	1 N	2 0	8 0	20 N	27 N
Washington	1	1	40	6	5	—	2	38	31	11	Ν	0	0	Ν	Ν
American Samoa C.N.M.I.	U U	0 0	0 0	U U	U U	U U	0 0	2 0	U U	1 U	U U	0 0	0 0	U U	U U
Guam Puerto Rico	_	Ö O	0 1		- - 1		0 0	0 1				0 0	Ö O		N
U.S. Virgin Islands	_	0	0				0	0	_	_		0	0		

Med: Median.

Max: Maximum.

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 25, 2006, and March 26, 2005 (12th Week)\*

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. \* Incidence data for reporting years 2005 and 2006 are provisional. \* Includes *E. coli* O157:H7; Shiga toxin positive, serogroup non-0157; and Shiga toxin positive, not serogrouped. S Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

(12th Week)*	Strento	coccus n	neumonia	e, invasive	disease										
	Зперю		resistant,		uisease	Sypl	nilis, prin	nary and	seconda	ry		Varice	ella (chicl	kenpox)	
	Current		vious veeks	Cum	Cum	Current	Previo 52 wee		Cum	Cum	Current	Prev 52 w		Cum	Cum
Reporting area	week	Med	Max	2006	2005	week	Med	Max	2006	2005	week	Med	Max	2006	2005
United States	75	49	119	763	773	130	171	291	1,549	1,648	755	607	2,531	10,874	6,325
New England		1	12	6	39	2	4	17	38	42	16	34	1,130	260	741
Connecticut Maine	U N	0 0	0 0	U N	U N	_	0 0	11 2	4 3	1 1	<u> </u>	0 4	0 20	U 19	U 81
Massachusetts New Hampshire	_	1 0	6 0	_	37	1	2 0	5 2	27 4	35 2	 16	19 5	86 1,110	2 86	644
Rhode Island	_	0	7	1	_	_	0	6	_	3	_	0	0	_	_
Vermont <sup>†</sup>	2	0 2	2 14	5 32	2 79	— 13	0 20	1 33		 217	 139	2 115	25	153	16
Mid. Atlantic New Jersey	N	0	0	N	N	4	2	7	35	28	139	0	183 0	1,512	1,199
New York (Upstate) New York City	U	1 0	10 0	8 U	31 U	6	2 11	15 21	30 21	14 142	_	0 0	0 0	_	_
Pennsylvania	2	2	9	24	48	3	4	8	39	33	139	115	183	1,512	1,199
E.N. Central Illinois	37	12 0	31 2	201 7	164	17 8	19 9	42 32	202 79	108 28	378	128 2	525 5	4,646 4	1,830 21
Indiana	5	3	20	43	48	_	1	5	18	12	Ν	0	245	N	N
Michigan Ohio	32	1 7	4 20	9 142	14 102	4 5	2 4	8 11	36 57	13 48	84 294	82 31	231 382	1,308 3,230	1,166 478
Wisconsin	N	0	0	Ν	Ν	—	1	3	12	7	_	8	27	104	165
W.N. Central Iowa	N	1 0	15 0	15 N	13 N	2	5 0	9 1	37 2	54 3	25 N	14 0	73 0	497 N	40 N
Kansas	N	0	0	Ν	Ν	1	0	2	6	3	—	0	0	_	_
Minnesota Missouri	_	0 0	15 3	15	12	1	1 2	5 8	6 22	12 35	 25	0 10	0 72	470	2
Nebraska† North Dakota	_	0 0	1	_	_	_	0 0	1 1	1	1	_	0 0	1 25	 13	9
South Dakota	_	0	1	_	1	_	0 0	1	_	_	_	1	23	14	29
S. Atlantic	30	21	42	399	339	43	42	169	404	396	47	52	808	1,075	586
Delaware District of Columbia	3	0 0	2 4	13	6	1 3	0 2	2 9	7 23	2 26	- 1	1 0	5 6	24 6	6 5
Florida Georgia	26	11 5	34 19	227 135	180 130	9 1	15 9	29 128	166 26	177 40	_	0 0	0 0	_	_
Maryland		0	0	—	—	10	5	19	59	63	—	0	0 0	—	_
North Carolina South Carolina <sup>†</sup>	N	0	0	N		17 2	5 1	17 7	71 18	51 16	4	12	43	231	153
Virginia† West Virginia	N 1	0 2	0 10	N 24	N 23	_	3 0	12 1	34	20 1	2 40	11 19	788 70	321 493	31 391
E.S. Central	5	3	14	57	45	12	9	20	132	106	_	0	0	_	_
Alabama <sup>†</sup> Kentucky	N	0	0 5	N 5	N 8	3 5	3 1	12 4	69 11	50 6	N	0 0	0 0	N	N
Mississippi	_	0	0	—	—	_	0	5	11	12	_	0	0	—	_
Tennessee <sup>†</sup> W.S. Central	5	3 1	13 7	52 29	37 66	4 23	4 24	11 37	41 284	38 262	N 87	0 141	0 1,558	N 1,979	N 940
Arkansas	_	0	3	6	6	3	1	6	24	11	37	0	39	153	_
Louisiana Oklahoma	N	1 0	5 0	23 N	60 N	2 1	3 1	17 6	17 18	35 11	_	1 0	19 0	72	60
Texas <sup>†</sup>	Ν	0	0	Ν	Ν	17	16	27	225	205	50	135	1,526	1,754	880
<b>Mountain</b> Arizona	1 N	1 0	27 0	24 N	28 N	12 11	8 3	17 13	82 49	89 26	63	48 0	128 0	905	989
Colorado	N	0	0	N	N	1	1	3	7	16	41	35	74 0	560	683
Idaho† Montana		0	0 1	N		_	0 0	3 1	1	6 5	_	0 0	0	_	_
Nevada <sup>†</sup> New Mexico <sup>†</sup>	_	0	27 0	1	1	_	2 1	7 3	19 5	21 12	2	0 3	2 21	101	 76
Utah	- 1	0	6 3	12 11	16 11	_	0	1 0	1	3	20	8 0	55 3	237 7	192
Wyoming Pacific	_	0	0			6	33	56	245	374	_	0	0		38
Alaska		0	0	_		4	0	2	4	2	—	0	0	_	—
California Hawaii	N	0 0	0 0	<u>N</u>	<u>N</u>	1	29 0	54 2	177 5	331 1	N	0 0	0 0	N	N
Oregon <sup>†</sup> Washington	N N	0	0	N N	N N	1	0 3	6 11	4 55	4 36	N N	0	0	N N	N N
American Samoa	_	0	0	_	_	U	0	0	U	U	U	0	0	U	U
C.N.M.I. Guam	_	0	0	_	_	U	0	0	U	U	U	0	0	U	U
Puerto Rico	N	0	0	Ν	Ν	_	4	16	33	27	3	6	47	40	145
U.S. Virgin Islands	—	0	0	_	_	—	0	0	_	_	—	0	0	_	—

 TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 25, 2006, and March 26, 2005

 (12th Week)\*

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-\* Incidence data for reporting years 2005 and 2006 are provisional. \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS). Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

(12th Week)*	,													
Reporting area	West Nile virus disease*           Neuroinvasive         Non-neuroinvasive													
			vious	SIVE										
	Current week		veeks Max	Cum 2006	Cum 2005	Current week		vious veeks Max	Cum 2006	Cum 2005				
United States		1	154	1	1	_	2	202	_	3				
New England	_	0	3	_	_	_	0	2	_	_				
Connecticut	_	0	2	_	_	_	0	ī	_	_				
Maine	—	0	0	—	_	—	0	0	_	—				
Massachusetts New Hampshire	_	0 0	3 0	_	_	_	0 0	1 0	_	_				
Rhode Island	_	0	1	_	_	_	ő	0	_	_				
Vermont <sup>§</sup>	_	0	0	_	_	_	0	0	_	_				
Mid. Atlantic	_	0	9	_	_	_	0	3	_	_				
New Jersey	_	0	1	_	_	—	0	2	—	_				
New York (Upstate)	—	0	6	—	—	—	0	1	—	_				
New York City Pennsylvania	_	0 0	2 3	_	_	_	0 0	2 2	_	_				
•														
E.N. Central Illinois	_	0 0	39 25	_	_	_	0 0	18 16	_	_				
Indiana	_	0	23	_	_	_	0	1	_	_				
Michigan	—	0	14	—	_	—	0	3	—	—				
Ohio	—	0	9	—	—	—	0	4	—	_				
Wisconsin		0	3	_	_	_	0	2	_	_				
W.N. Central	—	0	26	—	—	—	0	80	—	—				
lowa Kansas	_	0 0	3 3	_	_	N	0 0	5 3	N	N				
Minnesota	_	Ő	5	_	_		Ő	5						
Missouri	—	0	4	—	—	—	0	3	_	—				
Nebraska§	—	0	9	—	—	—	0	24	—	—				
North Dakota South Dakota	_	0 0	4 7	_	_	_	0 0	15 33	_	_				
		0					0							
<b>S. Atlantic</b> Delaware	_	0	6 1	_	_	_	0	4 0	_	_				
District of Columbia	_	Ő	1	_	_	_	Ő	1	_	_				
Florida	_	0	2	_	_	—	0	4	—	_				
Georgia	—	0	3	—	—	—	0	3	—	_				
Maryland North Carolina	_	0 0	2 1	_	_	_	0 0	1	_	_				
South Carolina <sup>§</sup>	_	Ő	1	_	_	_	Ő	0	_	_				
Virginia§	_	0	0	_	—		0	1						
West Virginia	—	0	0	—	—	N	0	0	N	Ν				
E.S. Central	—	0	10	1	_	—	0	5	—	_				
Alabama§	_	0	1	_	_	—	0	2	_	—				
Kentucky Mississippi	_	0 0	1 9	1	_	_	0 0	0 5	_	_				
Tennessee§	_	Ő	3	_	_	_	Ő	1	_	_				
W.S. Central	_	0	32	_	_	_	0	21	_	2				
Arkansas	_	0	3	_	_	_	0	2	_					
Louisiana	_	0	20	_	_	_	0	8	_	2				
Oklahoma Texas§	—	0 0	6 16	—	—	_	0 0	3	—	—				
	_		16	_				13	_	_				
<b>Mountain</b> Arizona	_	0 0	16 8	—	1 1	—	0 0	39 8	—	—				
Colorado	_	0	о 5	_	_	_	0	13	_	_				
Idaho§	_	0	2	_	_	_	0	3	_	_				
Montana	_	0	3	—	—	_	0	9	—	—				
Nevada§ New Mexico§	_	0 0	3 3	_	_	_	0 0	8 4	_	_				
New Mexico <sup>s</sup> Utah	_	0	6	_	_	_	0	4 8	_	_				
Wyoming	_	õ	2	_	_	_	õ	1	_	_				
Pacific	_	0	50	_	_	_	0	89	_	1				
Alaska	_	0	0	_	_	_	0	0	_	—				
California	_	0	50	—	—	_	0	88	—	1				
Hawaii Oregon <sup>§</sup>	_	0 0	0 1	_	_	_	0 0	0 2	_	_				
Oregon <sup>§</sup> Washington	_	0	1	_	_	_	0	2	_	_				
American Samoa	U	0	0	U	U	U	0	0	U	U				
American Samoa C.N.M.I.	U	0	0	U	U	U	0	0	U	U				
Guam	_	0	0	_	_	_	0	0	_	_				
Puerto Rico	_	0	0	—	—	_	0	0	—	—				
U.S. Virgin Islands	_	0	0	—	—	—	0	0	_	—				

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 25, 2006, and March 26, 2005 (12th Week)\*

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: No U: Unavailable.

N: Not notifiable. Cum: Cumulative year-to-date counts.

Med: Median. Max: Maximum.

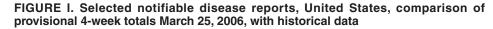
\* Incidence data for reporting years 2005 and 2006 are provisional. \* Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance). \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

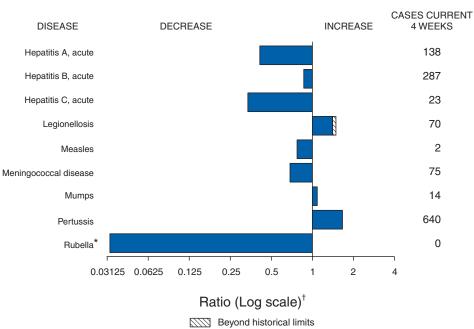
#### TABLE III. Deaths in 122 U.S. cities.\* week ending March 25, 2006 (12th Week)

TABLE III. Deaths	in 122 U.S. cities,* week ending March 25, 2006 ( All causes, by age (years)						JO (12th		All causes, by age (years)						
Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	P&l⁺ Total	Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	P&I <sup>†</sup> Total
New England	609	444	104	37	9	14	69	S. Atlantic	1,226	<u>205</u> 817	256	95	35	22	86
Boston, MA	153	100	36	7	5	5	13	Atlanta, GA	224	130	230 59	23	10	22	10
Bridgeport, CT	28	24	3	1	_	_	3	Baltimore, MD	152	93	46	7	3	3	12
Cambridge, MA	18	13	4	_	_	_	1	Charlotte, NC	106	60	29	11	2	4	5
Fall River, MA	38	32	5	1			6	Jacksonville, FL	168	124	18	14	8	4	14
Hartford, CT	60	39	11	5	1	4	4	Miami, FL	105	69	25	7	3	1	5
Lowell, MA	20	14	6	—	—	_	6	Norfolk, VA	58	38	15	3	1	1	1
Lynn, MA	13	9	4	_	_	_	4	Richmond, VA	64	39	14	6	3	1	8
New Bedford, MA	29	27	1	—	1	_	3	Savannah, GA	77	51	14	8	3	1	5
New Haven, CT	45	25	6	11	1	2	9	St. Petersburg, FL	69	52	11	4		2	5
Providence, RI	54	44	6	3	_	1	6	Tampa, FL	179	144	20	10	2	3	11
Somerville, MA	7	6	1	_	_	_	_	Washington, D.C.	U	U	U	U	U	U	U
Springfield, MA	44	31	9	2	1	1	3	Wilmington, DE	24	17	5	2	_	—	10
Waterbury, CT	41	35	2	4 3	_	1	3 8	E.S. Central	930	627	199	75	19	10	80
Worcester, MA	59	45	10	3	_	1	0	Birmingham, AL	204	142	40	14	6	2	25
Mid. Atlantic	2,118	1,502	426	121	32	37	128	Chattanooga, TN	68	48	15	5	_	_	6
Albany, NY	51	34	13	2	1	1	3	Knoxville, TN	98	64	21	10	2	1	4
Allentown, PA	37	31	6				1	Lexington, KY	74	49	18	4	1	2	4
Buffalo, NY	85	55	22	6	1	1	8	Memphis, TN	175	114	45	14	2		20
Camden, NJ	31	17	8	3		3	2	Mobile, AL	108	75	23	8	1	1	6
Elizabeth, NJ	20	15	2	2	1	_	1	Montgomery, AL	39	21	8	4	5	1	2
Erie, PA	37	29	6	1		1	_	Nashville, TN	164	114	29	16	2	3	13
Jersey City, NJ	49	34	9	4	1 14	1 19	62	W.S. Central	1,618	1,058	362	115	54	29	105
New York City, NY Newark, NJ	1,089 52	777 31	217 12	62 6	14	2	62 8	Austin, TX	85	47	28	4	5	1	4
Paterson, NJ	16	13	2	1	_		1	Baton Rouge, LA	42	25	12	5	_	—	—
Philadelphia, PA	272	182	60	19	7	4	10	Corpus Christi, TX	83	54	15	9	3	2	7
Pittsburgh, PA§	30	22	7	1	_	_	2	Dallas, TX	235	150	59	16	6	4	15
Reading, PA	24	21	2	_	1	_	4	El Paso, TX	127	89	17	12	7	2	6
Rochester, NY	128	94	23	5	2	4	12	Fort Worth, TX	121	91	17	10	1	2	11
Schenectady, NY	33	25	7	_	1	_	4	Houston, TX	380	229	105	25	13	8	21
Scranton, PA	39	32	4	2	_	1	1	Little Rock, AR	78	42	18	6	9 U	3	2
Syracuse, NY	41	30	10	1	_	_	6	New Orleans, LA <sup>1</sup> San Antonio, TX	U 225	U 165	U 46	U 11	2	U 1	U 24
Trenton, NJ	37	22	10	3	2	_	1	Shreveport, LA	87	54	22	5	2	3	24
Utica, NY	20	18	1	1	—	_	_	Tulsa, OK	155	112	23	12	5	3	6
Yonkers, NY	27	20	5	2	_	—	2								
E.N. Central	2,144	1,441	495	133	33	42	164	Mountain	1,002	657	227	65	30	23	77
Akron, OH	61	36	17	5	_	3	_	Albuquerque, NM Boise, ID	119 46	79 34	30 8	8 3	2 1	_	8 3
Canton, OH	48	34	13	1	_	_	4	Colorado Springs, CO	40 82	53	0 21	5	2	1	6
Chicago, IL	255	158	71	16	5	5	30	Denver, CO	104	58	26	7	5	8	10
Cincinnati, OH	100	67	18	7	1	7	12	Las Vegas, NV	266	171	73	13	6	3	21
Cleveland, OH	253	184	52	14	1	2		Ogden, UT	35	30	4		_	1	1
Columbus, OH	223	142	54	20	3	4	27	Phoenix, AZ	189	122	35	16	11	5	17
Dayton, OH	153	117	25	9	_	2	18	Pueblo, CO	35	26	7	2	_		2
Detroit, MI	162 47	84 35	47 8	18 3	9	4	19 3	Salt Like City, UT	126	84	23	11	3	5	9
Evansville, IN Fort Wayne, IN	82	52	23	3	1	3	5	Tucson, AZ	U	U	U	U	U	U	U
Gary, IN	21	10	6	1	3	1		Pacific	1,435	988	309	91	30	15	146
Grand Rapids, MI	66	47	11	6	_	2	3	Berkeley, CA	1,400	6	3	1			5
Indianapolis, IN	215	140	54	10	5	6	16	Fresno, CA	Ŭ	Ŭ	Ŭ	Ů	U	U	Ŭ
Lansing, MI	50	31	15	4	_		4	Glendale, CA	27	25	1	_	1	_	4
Milwaukee, WI	93	71	16	4	1	1	6	Honolulu, HI	30	18	6	5	1	_	_
Peoria, IL	48	34	8	4	1	1	5	Long Beach, CA	91	57	22	9	1	2	9
Rockford, IL	59	35	19	4	_	1	_	Los Angeles, CA	343	231	83	22	5	2	35
South Bend, IN	58	50	6	1	1	_	2	Pasadena, CA	18	15	1	_	1	1	3
Toledo, OH	86	60	23	2	1	_	5	Portland, OR	135	98	28	3	2	3	18
Youngstown, OH	64	54	9	1	_	_	5	Sacramento, CA	173	126	30	10	5	2	18
W.N. Central	698	466	148	38	22	24	53	San Diego, CA	174	112	42	14	3	2	15
Des Moines, IA	101	76	17	4	_	4	6	San Francisco, CA	100	62 U	23	11	3 U	1 U	12
Duluth, MN	39	34	5	_	_	_	2	San Jose, CA	U 25		U	U	U	0	U
Kansas City, KS	31	12	15	3	_	1	2	Santa Cruz, CA Seattle, WA	35 128	26 83	7 29	2 10	5	1	3 11
Kansas City, MO	89	65	17	2	3	2	9	Spokane, WA	60	83 44	29 13	10	э 1	1	9
Lincoln, NE	41	27	9	4	—	1	2	Tacoma, WA	111	44 85	21	3	2	_	9 4
Minneapolis, MN	64	36	14	5	5	4	5	,							
Omaha, NE	104	69	19	6	7	3	11	Total	11,780**	8,000	2,526	770	264	216	908
St. Louis, MO	96	53	30	7	2	4	8								
St. Paul, MN	57	42	9	1	2	3	4								
Wichita, KS	76	52	13	6	3	2	4								

U: Unavailable. -: No reported cases.

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.
 <sup>†</sup> Pneumonia and influenza.
 <sup>§</sup> 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.
 <sup>¶</sup> Because of Hurricane Katrina, weekly reporting of deaths has been temporarily disrupted.
 \*\* Total includes unknown ages.





\* No rubella cases were reported for the current 4-week period yielding a ratio for week 12 of zero (0).
<sup>†</sup> 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.

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 material in the MMWR Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

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: 2006-523-056/40034 Region IV ISSN: 0149-2195