

Weekly

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## Hepatitis Awareness Month — May 2007

May 2007 marks the 12th anniversary of Hepatitis Awareness Month. This issue of *MMWR* highlights public health measures to vaccinate and protect children from hepatitis B virus (HBV) infection in China and to monitor the characteristics of persons with chronic hepatitis B in San Francisco, California.

Worldwide, 370 million persons have chronic HBV infection, and 500,000–700,000 persons die annually from HBV-related liver disease; approximately 75% of HBV infections occur in Asia (World Health Organization, unpublished data, 2006). In the United States, approximately half of the 1 million persons with chronic HBV infection are Asians/Pacific Islanders, most of whom became infected with HBV before arriving in the United States, including many who remain unaware of their infection (1). The HBV-related death rate among Asians/Pacific Islanders is seven times greater than the rate among whites (CDC, unpublished data, 2007).

Persons with chronic HBV infection are at risk for premature death from liver cirrhosis and cancer. Hepatitis B vaccination of infants worldwide will protect successive generations from chronic HBV infection and associated liver disease. Persons already infected with HBV can benefit from HBV screening, care, and treatment to protect their health and prevent transmission to others.

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## Progress in Hepatitis B Prevention Through Universal Infant Vaccination — China, 1997–2006

Hepatitis B virus (HBV) infection is a leading cause of illness and death in China. Approximately 60% of the population has a history of HBV infection, and 9.8% of persons in China are chronically infected with HBV and at risk for premature death from liver disease (1). Each year, an estimated 263,000 persons in China die from HBV-related liver cancer or cirrhosis, accounting for 37%–50% of HBV-related deaths worldwide (2). Because most HBV infections occur during infancy or early childhood, when HBV infection is most likely to become chronic, vaccination of infants beginning at birth is the key strategy for preventing chronic HBV infection. This report describes China's progress in increasing coverage among infants with hepatitis B vaccine (HepB) and timely administration of the HepB birth dose (i.e., within 24 hours of birth). Infant vaccination coverage with both the timely birth dose and the complete vaccine series was substantially higher among children born during 2003 than among those born during 1997; timely birth-dose coverage increased from 29.1% to 75.8%, and HepB series completion increased from 70.7% to 89.8%. Furthermore, in economically disadvantaged

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populations in western and middle provinces\* targeted by the China-Global Alliance for Vaccines and Immunization (China-GAVI) project, reported coverage with timely HepB birth dose increased from 64% in 2004 to 81% in 2006, and coverage with the complete HepB series increased from 52% in 2001 to 92% in 2006. China has established a goal to reduce chronic HBV infection among children aged <5 years to <1% by 2010 (*3*). Achieving this goal will require continued commitment to increasing vaccination coverage in impoverished regions and ensuring that infants born at home are vaccinated within 24 hours of birth.

## Hepatitis B Immunization Program

HepB was first recommended for routine vaccination of infants in China in 1992, with the first dose to be administered within 24 hours of birth and subsequent doses at ages 1 and 6 months. However, because of high vaccine prices and user fees charged to parents by local health departments for vaccine purchase and administration, until 2002, infant vaccination occurred primarily in large cities of the wealthier eastern provinces.<sup>†</sup> Beginning in 2002, infant hepatitis B vaccination was added to China's National Immunization Programme. Also in 2002, the China Ministry of Health began a project with the GAVI Alliance<sup>§</sup> (formerly known as the Global Alliance for Vaccines and Immunisation) to ensure HepB availability in China's poorest provinces and counties. The 5-year China-GAVI project provides free HepB, targeting approximately 5.6 million children born each year in 12 western provinces and in government-designated poor counties in 10 middle provinces, covering approximately 36% of China's child population. In 2005, a new vaccination regulation abolished all charges and user fees for all nationally recommended vaccines, including hepatitis B; the vaccine is now free to all children in China.

To estimate national 3-dose HepB coverage and timely (i.e., within 24 hours of birth) HepB birth-dose coverage and to describe the effects of province and location of birth (e.g., home versus hospital) on vaccination coverage levels, data from two national vaccination coverage surveys conducted by the China Ministry of Health in 1999 and 2004 were reviewed. In both 1999 and 2004, parents were interviewed

<sup>\*</sup> China-GAVI-funded western provinces: Chongqing, Gansu, Guangxi, Guizhou, Neimenggu (Inner Mongolia), Ningxia, Qinghai, Shaanxi, Sichuan, Tibet, Yunnan, and Xinjiang; middle provinces with GAVI funding in government-designated poor counties: Anhui, Hainan, Hebei, Heilongjiang, Henan, Hubei, Hunan, Jiangxi, Jilin, and Shanxi.

<sup>&</sup>lt;sup>†</sup> Eastern provinces: Beijing, Fujian, Guangdong, Jiangsu, Liaoning, Shandong, Shanghai, Tianjin, and Zhejiang.

<sup>&</sup>lt;sup>§</sup>Additional information regarding the GAVI Alliance is available at http:// www.gavialliance.org.

in house-to-house surveys regarding the vaccination status of eligible children born during the study periods. Sampling of households in each province was conducted using the probability proportional to size (PPS) method. In the 1999 survey, counties in each province were divided into four economic strata, and PPS sampling was conducted within each strata. In 2,173 counties in 31 provinces, parents of 25,878 children born during 1997 were interviewed (4). In the 2004 survey, 273 counties were selected randomly from all counties throughout the country, including at least three counties in each province, and PPS sampling was conducted in each county; parents of 171,188 children born during 2001-2003 were interviewed (5). For both surveys, 3-dose HepB and timely HepB birth-dose coverage were measured by dividing the number of children receiving 3-dose HepB and timely HepB birth dose, respectively, by the number of children surveyed, taking into account the PPS sampling design.

To examine in more detail the impact of the China-GAVI project, routine immunization-reporting-system data from 2001 through 2006 for China-GAVI-funded provinces were reviewed. In this national reporting system, the numbers of children targeted for and receiving each dose of routinely recommended vaccines are compiled by each immunization clinic and reported monthly to provincial and national immunization programs. For this analysis, 3-dose HepB and timely HepB birth-dose coverage in China-GAVI-funded provinces were measured by comparing the ratio of the number of children receiving doses of HepB to the number of children targeted to receive doses of diphtheria, tetanus, pertussis (DTP) vaccine, because the latter represents the most accurate local estimate of the number of children requiring routine childhood vaccination. Timely HepB birth-dose coverage could only be analyzed from 2004 through 2006 since reporting of HepB birth-dose timing was not required by the China Ministry of Health until 2004. A mathematical model was used to calculate hepatitis B disease burden before inception of the vaccination program and to estimate the number of deaths prevented through vaccination (1,2).

## National Vaccination Coverage Survey

Comparison of the two national vaccination coverage surveys indicated that estimated 3-dose HepB coverage increased substantially overall, from 70.7% among children born in 1997 to 89.8% among children born in 2003 (Figure 1). Timely HepB birth-dose coverage also increased, from 29.1% among children born in 1997 to 75.8% among children born in 2003 (Figure 1). During 1997–2003, estimated national 3-dose DTP coverage remained level (93%). The difference between 3-dose HepB coverage and 3-dose DTP coverage was reduced from 20% in 1997 to 3% in 2003.





SOURCE: China Ministry of Health national vaccination coverage surveys, 1999 and 2004.

\* Within 24 hours of birth.

In the 2004 survey, estimated coverage was substantially lower in western provinces (68.0% for 3 doses of HepB and 49.5% for timely birth dose) than in middle provinces (91.8% for 3 doses of HepB and 72.7% for timely birth dose) or eastern provinces (94.1% for 3 doses of HepB and 81.9% for timely birth dose) (Figure 2).

Timely birth-dose coverage among infants born at home during 2001–2003 was less than half that of those born in hospitals. Among children born in 2004, timely birth-dose coverage for infants born in township hospitals was only two thirds that of those born in county, provincial, or national hospitals.

## China-GAVI Project

For the period 2003–2006, 3-dose HepB coverage and timely HepB birth-dose coverage increased in the 12 western provinces and in the counties in 10 middle provinces supported by the China-GAVI project. In 2006, the ratios of 3-dose HepB/3-dose DTP coverage and timely HepB birth dose/first-dose DTP coverage were 92% and 81%, respectively (Figure 3). During 2003–2006, approximately 15.4 million children in China-GAVI project counties received the 3-dose HepB series, preventing an estimated 1.47 million chronic HBV infections in children and 265,000 future deaths attributable to chronic HBV infection.

**Reported by:** FQ Cui, MD, XJ Wang, MD, L Cao, MD, XF Liang, MD, China Center for Disease Control and Prevention, Beijing; Y Lu, MD, Shaanxi Provincial Center for Disease Control and Prevention, Xian, Shaanxi; YS Hu, Qinghai Provincial Center for Disease Control and Prevention, Xining, Qinghai; SC Hadler, MD, World Health FIGURE 2. Estimated infant vaccination coverage with 3 doses of hepatitis B vaccine (HepB3) and timely\* administration of the HepB birth dose (HepB1), by region — China, 2001–2003



SOURCE: China Ministry of Health national vaccination coverage survey, 2004

Within 24 hours of birth.

<sup>t</sup> China-GAVI-funded western provinces: Chongqing, Gansu, Guangxi, Guizhou, Neimenggu (Inner Mongolia), Ningxia, Qinghai, Shaanxi, Sichuan, Tibet, Yunnan, and Xinjiang. (GAVI was formerly known as Global Alliance for Vaccines and Immunisation.)

Middle provinces with GAVI funding in government-designated poor counties: Anhui, Hainan, Hebei, Heilongjiang, Henan, Hubei, Hunan, Jiangxi, Jilin, and Shanxi. <sup>1</sup>Eastern provinces: Beijing, Fujian, Guangdong, Jiangsu, Liaoning,

Shandong, Shanghai, Tianjin, and Zhejiang.

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Editorial Note: China has made substantial progress in implementing universal, timely hepatitis B vaccination for infants and in reducing disparities in coverage between the poorest and wealthiest parts of the country. The support from the China-GAVI project has improved vaccination coverage and helped prevent chronic HBV infection in children. During 2003-2006, approximately 15 million children in China-GAVI-funded provinces and approximately 42 million children nationwide received HepB.

Since 2002, implementation of universal infant hepatitis B vaccination in China has focused particularly on improving timely administration of the birth dose. Approaches used to FIGURE 3. Estimated infant vaccination coverage with 3 doses of hepatitis B vaccine (HepB3)/3 doses of DTP\* vaccine (DTP3) and timely<sup>†</sup> administration of the HepB birth dose (HepB1)/ first dose of DTP vaccine (DTP1), by year of birth - China-GAVI<sup>§</sup>-funded provinces and counties,<sup>1</sup> China, 2001-2006



SOURCE: Routine Immunization Reporting System, China Center for Disease Control and Prevention.

\* Diphtheria, tetanus, pertussis.

Within 24 hours of birth.

Formerly known as Global Alliance for Vaccines and Immunisation.

China-GAVI-funded western provinces: Chongqing, Gansu, Guangxi, Guizhou, Neimenggu (Inner Mongolia), Ningxia, Qinghai, Shaanxi, Sichuan, Tibet, Yunnan, and Xinjiang; middle provinces with GAVI funding in government-designated poor counties: Anhui, Hainan, Hebei, Heilongjiang, Henan, Hubei, Hunan, Jiangxi, Jilin, and Shanxi.

increase timely birth-dose coverage have included 1) increasing the percentage of births that occur in hospitals; 2) improving vaccine availability in hospitals and township health facilities; 3) building collaboration among delivery services (i.e., maternal and child health programs and obstetrics) and between vaccination services (i.e., immunization programs and pediatrics) in hospitals and township health centers; 4) increasing the awareness of the importance of timely birthdose administration among providers and parents; 5) intensifying training, supervision, and monitoring of county, township, and village health workers; and 6) providing subsidies to village doctors to provide vaccines.

Disparities in vaccination coverage continue to exist by region and by location of birth. Despite the China-GAVI activities, during 1997–2006, children from eastern provinces had substantially higher coverage than those from middle or western provinces, as did children born in hospitals versus those born at home. Income levels continue to be highest in China's eastern provinces and lowest in the western provinces; residents in eastern provinces generally have greater access to and ability to pay for health care, including hospital care for childbirth. Children born in hospitals generally have better access to immunization services and can be vaccinated more easily within 24 hours of birth. In western China, children are more likely to live in remote, mountainous areas and have less access to hospital delivery and immunization services. The China Ministry of Health is implementing programs to increase births in hospitals nationwide by expanding and improving obstetric care in health-care facilities throughout China and providing incentives to give birth in hospitals.

Prevention of chronic HBV infection in China is integral to global initiatives to reduce the burden of HBV infection. In 1992, the World Health Assembly passed resolution 45.17, which called for all World Health Organization (WHO) member states to integrate cost-effective new vaccines, including HepB, into national immunization programs where feasible. The same year, WHO recommended that HepB be included in routine vaccination schedules for all children in all countries (6). During 2000–2006, the GAVI Alliance has provided support for HepB introduction to 51 less developed member states (i.e., countries with less than [U.S.] \$1,000 per capita gross national income), and these countries have made substantial progress in introducing HepB into their vaccination schedules (7). As of 2005, a total of 154 (80%) of 192 WHO member states reported having integrated HepB into their routine infant vaccination schedules; global coverage with 3dose HepB had increased from 32% in 2001 to 55% in 2005, with 2005 coverage varying by WHO region (South-East Asia: 27%; Africa: 39%; Eastern Mediterranean: 74%: Europe: 76%; Americas: 85%; Western Pacific: 87%) (8). The advances in hepatitis B vaccination have led countries and WHO regions to set goals for the elimination of HBV transmission. The WHO Western Pacific Region has committed to reducing chronic HBV infection in children aged <5 years to <2% by 2012.

The findings in this report are subject to at least two limitations. First, the design of the national surveys conducted in 1999 and 2004 differed in how counties were stratified before PPS sampling, which might limit comparability of the two surveys. Second, for the analyses using data from the routine immunization reporting system, the precise number of children requiring vaccination at local levels is not known because some children might not be registered; hence, the use of children targeted to receive DTP vaccine as a surrogate for total number of children might result in overestimation of reported vaccination coverage.

Despite China's progress in increasing hepatitis B vaccination coverage and timely administration of the birth dose, challenges remain to reaching the national goal of <1% chronic HBV infection among children aged <5 years by 2010. Achieving this goal will require increasing 3-dose HepB coverage to the same level as 3-dose DTP coverage and increasing timely HepB birth-dose coverage to 90% in all provinces. The greatest challenge is to increase administration of the birth dose among children born at home. Three provinces (Guizhou, Tibet, and Yunnan) and 42% of China-GAVI project counties still have timely birth-dose coverage levels of <75% and are most in need of targeted interventions. Although most hospitals now are achieving >95% timely birth-dose coverage for infants born in hospitals, strategies are needed to ensure that false contraindications to vaccination, including low birth weight and unstable medical condition at birth (9), do not delay administration of the birth dose. Innovative measures also are needed to reach infants born at home, particularly through linking prenatal care and birthing-care providers with immunization program staff at township and village levels. With these improvements, China can reduce substantially the burden of hepatitis B.

#### Acknowledgments

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## Characteristics of Persons with Chronic Hepatitis B — San Francisco, California, 2006

Chronic hepatitis B is the most common cause of cirrhosis and liver cancer worldwide. Approximately 45% of the world's population lives in regions where chronic hepatitis B virus (HBV) infection is endemic, including most of Asia and the Pacific Islands, Africa, and the Middle East (1). Nearly one fourth of the population of San Francisco was born in Asia and the Pacific Islands.\* In 2006, the San Francisco Department of Public Health (SFDPH) received reports consistent with probable chronic HBV infection for 2,238 persons. To characterize persons with reported confirmed chronic HBV infection in San Francisco in 2006, SFDPH collected additional data on a subset of 567 cases reported to the SFDPH chronic hepatitis B registry. Eighty-four percent of the persons were Asians/Pacific Islanders (A/PIs), 80% of whom were foreign born. Fewer than half had been referred to a gastroenterologist/hepatologist for evaluation at the time of reporting. Persons with chronic HBV infection can benefit from medical care by providers with expertise in viral hepatitis. In addition, close contacts of infected persons should be screened and offered vaccination if found to be susceptible to HBV infection. Culturally appropriate counseling for and follow-up of persons with chronic HBV infection and their contacts could help reduce the transmission of HBV infection.

Hepatitis B surface antigen (HBsAg), hepatitis B e antigen (HBeAg), HBV DNA, and immunoglobulin M antibody to hepatitis B core antigen (IgM anti-HBc) are detectable during acute HBV infection. The presence of HBsAg, HBeAg, or HBV DNA for more than 6 months is evidence of chronic infection. The California Code of Regulations<sup>†</sup> requires laboratories to report all positive test results for HBsAg to local health departments. Health-care providers also are required to report cases of acute and chronic hepatitis B. Reporting requirements for both laboratories and providers include supplying the name, age, sex, and contact information of persons with positive tests and the contact information for the associated health-care provider, although not all reports contain this information. SFDPH has maintained a registry of persons with positive HBsAg test results reported to SFDPH since 1984; the registry contains HBsAg test results for approximately 25,700 persons. Based on the standard case definitions approved by state epidemiologists for 2007, a confirmed case

\* US Census Bureau. American factfinder. Available at http://factfinder.census.gov. <sup>†</sup> California Code of Regulations. 17 CCR §2500. Reportable diseases and conditions. Available at http://www.dhs.ca.gov/ps/dcdc/disb/pdf/ Title%2017%20lab%20reportable%20conditions.pdf. of chronic HBV infection is defined as an infection in a person who tests HBsAg positive, HBV DNA positive, or HBeAg positive two times at least 6 months apart.<sup>§</sup> A probable case is defined as an infection in a person with a single HBsAgpositive, HBV-DNA-positive, or HBeAg-positive laboratory result with either a negative IgM anti-HBc or no IgM anti-HBc test reported.

To further characterize persons with known chronic HBV infection, in January 2006, SFDPH began requesting data from health-care providers on persons who met the case definition for confirmed HBV infection for whom a second positive HBsAg result was reported to SFDPH during 2006. SFDPH formed an advisory panel of clinicians from public, private, and academic settings, who provided input into the development of the supplemental data collection form and endorsed the activity in a letter mailed by SFDPH to local health-care providers. SFDPH faxed supplemental data forms to the providers who had ordered the most recent positive HBsAg test, requesting information on patient race/ethnicity, primary language, reasons for HBsAg testing, risk factors for HBV infection, referral for specialist care, and treatment history. Providers used information obtained from a chart review or during patient visits to complete the form. Providers who did not respond were sent faxes two more times and then contacted by telephone one time.

During 2006, SFDPH received reports of 2,238 persons with test results consistent with probable chronic HBV infection; all were reported by laboratories. Of these, 1,156 (52%) were male, and 1,090 (49%) were aged 30–49 years (Table 1). Among the 714 women of childbearing age (i.e., aged 12–45 years) for whom a positive HBsAg test result was reported to SFDPH, 170 (24%) were pregnant when follow-up was conducted by the perinatal hepatitis B coordinator.

Of the 2,238 positive HBsAg reports received by the registry in 2006, a total of 1,162 (52%) met the case definition for confirmed chronic HBV infection. Of these, 736 had available health-care provider contact information. Supplemental data forms were faxed to these providers; 567 forms were returned to SFDPH with at least partial information. Of persons for whom place of birth was reported, 84% were foreign born (Table 2); of persons for whom both race/ethnicity and place of birth were reported, 80% were foreign-born A/PIs. Cantonese Chinese was reported to be the primary language of 52% of persons. Reasons for HBsAg testing included screening (43%), follow-up of a history of hepatitis B (41%), or evaluation of abnormal liver enzymes (9%). The most frequently reported risk for HBV infection was birth in an

<sup>§</sup> CDC. National notifiable diseases surveillance system. Chronic hepatitis B virus. Available at http://www.cdc.gov/epo/dphsi/casedef/hepatitisbcurrent.htm.

# TABLE 1. Number and percentage of persons with probable chronic hepatitis B virus (HBV) infection,\* by sex and age group — San Francisco, California, 2006

<u> </u>	,		
Characteristic	No.	(%)	
Sex (n = 2,215)			
Female	1,059	(47.8)	
Male	1,156	(52.2)	
Age group (yrs) (n = 2,232)			
<30	544	(24.4)	
30–49	1,090	(48.8)	
≥50	598	(26.8)	

\*A person with a single positive hepatitis B surface antigen result with either a negative immunoglobulin M antibody to hepatitis B core antigen (IgM anti-HBc) or no IgM anti-HBc test reported. N = 2,238.

HBV-endemic region (74%); male-to-male sexual contact accounted for 12% (Table 2). A total of 21% of persons were reported to have been treated for chronic HBV infection, and 32% were reported to have been referred to a gastroenterologist/ hepatologist at the time of reporting.

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**Editorial Note:** The findings in this report suggest that, in 2006, nearly 85% of persons with confirmed chronic HBV infection in San Francisco were A/PIs, 80% of whom were born outside the United States. These persons likely acquired their infections in their countries of origin, countries where HBV infection is endemic and infections usually are acquired at birth or during early childhood. Of persons who acquire chronic HBV infection when they are aged <5 years, an estimated 15%–40% will eventually have chronic liver disease, including cirrhosis and liver cancer (2). Treatment for chronic hepatitis B is increasingly effective and can prevent or slow the development of these sequelae (2). However, fewer than one third of persons with chronic HBV infection in San Francisco in 2006 had been referred to a specialist for evaluation or undergone treatment at the time of reporting.

Persons from countries where HBV infection is endemic might be unaware of their increased risk for hepatitis-B– related liver disease (3,4). Hepatitis B screening programs in A/PI communities in the United States can be an effective means of identifying persons with chronic HBV infection and encouraging them to seek medical care (5–7).

Health departments and large health systems can use electronic disease registries to characterize and provide services for persons with chronic HBV infection and their close contacts. Persons with chronic HBV infection should receive referrals for appropriate medical care, which can include treatment for HBV infection. Their close contacts should undergo screening for HBV infection and, if found to be susceptible, TABLE 2. Number and percentage of persons with confirmed chronic hepatitis B virus (HBV) infection\* and a completed supplemental data form (N = 567), by selected characteristics — San Francisco, California, 2006

Characteristic	No.	(%)
Sex (n = 561)		
Female	311	(55.4)
Male	250	(44.6)
Age group (yrs) (n = 567)		
<30	76	(13.4)
30–49	301	(53.1)
<u>≥</u> 50	190	(33.5)
Race/Ethnicity (n = 498)		
American Indian/Alaska Native	1	(0.2)
Asian/Pacific Islander	419	(84.1)
Black, non-Hispanic	15	(3.0)
Hispanic <sup>†</sup>	8	(1.6)
White, non-Hispanic	51	(10.2)
Other	4	(0.8)
Primary language (n = 470)		
Cantonese Chinese	245	(52.1)
English	171	(36.4)
Mandarin Chinese	19	(4.0)
Other	35	(7.5)
Foreign born (n = 388)	324	(83.5)
Risk factors for HBV infection (n = 423)		
Born in a country where HBV is endemic	313	(74.0)
Male-to-male sexual contact	52	(12.3)

\* A person who tests positive for hepatitis B surface antigen two times at least 6 months apart.

<sup>†</sup>Might be of any race.

should receive hepatitis B vaccination. Registries also can provide local population-based data on the epidemiology of chronic HBV infection.

At least five factors are critical to ensuring that registry data are representative and complete. First, legally mandated laboratory reporting of test results is essential for complete ascertainment of cases. Second, electronic information systems are needed to promote efficiency, allowing the registry to receive data securely, account for duplicate case reports, and merge data from multiple reporting sources. Third, collaboration with laboratories is needed so that health departments can obtain additional patient demographic information and clinician contact information through laboratory reports. Fourth, communication with and timely feedback of surveillance data to clinicians are needed to increase cooperation with health departments that are requesting supplemental information on cases. Finally, because the majority of infected persons and their contacts might not speak English as their primary language, multilingual staff and culturally appropriate health education materials are needed to support these activities.

The findings in this report are subject to at least three limitations. First, the results are limited to persons who received medical care, who were tested for chronic HBV infection, and whose laboratory results or diagnoses were reported to SFPDH. Therefore, these findings do not represent the actual number of persons with chronic HBV infection in San Francisco, especially among those who do not have regular access to medical care. Second, persons included in the analysis of confirmed cases were limited to those for whom provider contact information was available. Although the California Code of Regulations mandates reporting of provider name and contact information for all notifiable diseases and conditions, this information is not reported frequently. Finally, the findings are based on data collected from persons with confirmed chronic HBV infection. Because the case definition for confirmed cases requires additional laboratory testing, the 567 persons described in this analysis might represent a subset of patients with greater access to care or those who were more likely to have undergone follow-up and treatment.

During 2007, local organizations in San Francisco are planning low-cost, community-based HBV screening and vaccination activities targeted to A/PIs and educational outreach to promote awareness of HBV screening, prevention, and treatment guidelines (http://www.sfhepbfree.org). SFDPH plans to provide persons newly reported to the registry with information on how to reduce the risk for transmission to others and the need for medical monitoring. SFDPH also will explore different approaches to identifying persons who are household and sex contacts of infected persons to inform them of their potential exposure to HBV, to recommend testing and vaccination, and to better understand the barriers to obtaining HBV preventive services.

With proper resources, chronic hepatitis B registries can help health departments characterize the burden of chronic HBV infection. Such registries also enable health departments and health-care providers to link HBV-infected persons and their contacts with recommended prevention and care services.

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#### CDC's 60th Anniversary

## Director's Perspective — William L. Roper, M.D., M.P.H., 1990–1993

The years 1990–1993 saw tremendous change in public health. CDC expanded its effectiveness and capacity by building key partnerships with academia, public health agencies, and the private sector. The explosion of telecommunications greatly enhanced CDC's ability to communicate the results of studies and recommendations directly with the public, which increased the visibility of the agency and the public health community. The agency's priorities were clear: strengthening the public health infrastructure, improving the health of children, and making prevention a practical reality in the nation's health system.

As the 21st century approached, CDC faced challenges more complex than could have been foreseen by the public health visionaries who first spoke of the need for a "center of excellence" devoted to communicable diseases. Overarching these priorities was a new strategic planning process at CDC that served to articulate the vision and mission of the agency and to establish strategies for accomplishing these goals.

The need for a stronger public health system was described in numerous scientific reports by the Institute of Medicine (IOM) (1–4). In 1990, the U.S. Department of Health and Human Services issued a national framework for addressing these concerns in *Healthy People 2000: The National Health Promotion and Disease Prevention Objectives* (5). CDC provided national leadership for development of these objectives and served as the lead or co-lead agency for 12 of the 22 *Healthy People* priority areas.

Using strategic planning processes derived from leading management experts (6) against the backdrop of the *Healthy* 

In commemoration of CDC's 60th Anniversary, MMWR is departing from its usual report format. This is the fourth in a series of occasional commentaries by directors of CDC. The directors were invited to give their personal perspectives on the key public health achievements and challenges that occurred during their tenures. *People* goals, CDC's vision for the world emerged as "Healthy People in a Healthy World." Later, this statement was refined to add "Through Prevention," adding greater emphasis to CDC's role as the nation's prevention agency. CDC's mission statement also was articulated: to promote health and quality of life by preventing and controlling disease, injury, and disability.

In crafting CDC's design for the future, five cross-cutting strategies emerged:

- Partnerships: strengthen relationships with public health partners while building new partnerships with community, national, and international organizations.
- Reinventing government: encourage integration and coordination of prevention programs.
- Health communications and social marketing: use consumer research to craft and strategically deliver health messages.
- Effectiveness: evaluate the efficacy, effectiveness, and costeffectiveness of preventive services and public health programs.
- Workforce diversity: build a diverse workforce that reflects the populations that CDC serves.

The vision, mission, and strategy developed in the early 1990s laid the foundation for CDC's work. Key activities focused on the public health infrastructure, improving children's health in the United States and around the world, and the broader prevention agenda.

## Strengthening the Public Health Infrastructure

In 1988, the IOM report *The Future of Public Health* had sounded the alarm that the public health infrastructure was inadequate to protect the nation's health and that dire consequences would result if the nation did not attend to infrastructure and leadership needs (1). CDC understood these needs and the associated challenges and quickly worked to shore up public health. The solutions developed and put in place invariably focused on empowering communities, community leaders, and community processes (7). The solutions also made use of the latest technological advances to reach out across the nation to build a human, information, and organizational infrastructure.

**Distance-based learning.** In the early 1990s, only 11% of public health departments surveyed reported having a trained epidemiologist or statistician on their staffs. At the same time, obtaining training for employees was becoming increasingly difficult because of budget cuts. As a result, distance-based learning became a priority and a focus for educational efforts developed and funded by CDC. The Public Health Training Network (PHTN) was developed by CDC and launched in 1993 (8), using a broad range of media (e.g., satellite, Internet, CD-ROM, and print) to reach the widest possible audience. To date, PHTN has provided training to approximately 5 million health professionals and, in some circumstances, has created and disseminated training products in less than 48 hours (e.g., in response to public health emergencies such as the multicountry outbreak of severe acute respiratory syndrome [SARS] in 2003).

**Public Health Leadership Institute.** A key point in the 1988 IOM report was that the public health field soon would have a significant lack of experienced leadership. In 1991, CDC established the National Public Health Leadership Institute, designed to strengthen the leadership competencies of senior public health officials and build interorganizational teams that could go back to their communities and take actions that would lead to improvements in health. Now, more than a decade later, the institute continues to prepare public health professionals to grow in leadership positions and to move public health forward as the challenges and opportunities become increasingly complex.

**Information Network for Public Health Officials** (**INPHO**) and Health Alert Network (HAN). Before the Internet became a household word, CDC created INPHO to give local and state public health officials access to what was then called "the information superhighway." As concerns regarding public health preparedness increased in later years, INPHO was expanded to include HAN, a computer-based network providing rapid and timely emergent health information to local and state public health agencies across the country.

National Profile of Local Public Health Departments and Essential Services of Public Health. CDC needed to know more about the organizational characteristics of public health, particularly the local health department, a cornerstone of the public health infrastructure. To that end, CDC created the National Profile of Local Public Health Departments, in partnership with the National Association of County & City Health Officials. In addition, the 10 Essential Services of Public Health were defined as a guide to building capacity in public health agencies. This delineation formed the basis for creation of the National Public Health Performance Standards, a national tool for assessing and building organizational infrastructure in the United States and globally (9).

## Improving the Health of Children

Vaccine financing. Today, the life-saving and healthpreserving impact of immunizations exceeds almost all other public health interventions, both in terms of effectiveness and cost-effectiveness. However, in the early 1990s, costs were a significant barrier to obtaining recommended vaccines for persons who were uninsured or underinsured (10). The necessity for achieving high vaccination coverage rates was made especially clear through a resurgence of measles in 1989 (11), which involved more than 55,000 cases and 123 deaths, with preschoolers disproportionately affected (10). In 1993, the challenge of addressing vaccine financing led to the Childhood Immunization Initiative, which set a goal of 90% vaccination coverage for preschool children and addressed vaccine financing to make this possible (11).

Many solutions were considered and supported by various perspectives, but the compromise approach involved passage in 1993 of the Vaccines for Children (VFC) Act, which ensures that children who are uninsured or on Medicaid, who are American Indians/Alaska Natives, or who are underinsured and seen in Federally Qualified Health Centers, all have a right to receive free of charge any vaccines recommended by the Advisory Committee on Immunization Practices. The innovation of this entitlement was provision of vaccines directly to clinical-care providers, who then administer them to children as needed, permitting children to remain in their primary medical homes without requiring referrals and without loss of continuity of care. This collaboration between public health and the private sector created a large network of VFC providers and within 3 years led to >75% vaccination coverage. Today, more than 40% of vaccinations for children are provided through VFC (10), and vaccination rates are at record or nearrecord highs. Measles vaccinations for preschoolers exceed 90%, and racial and ethnic disparities in vaccination have been reduced dramatically (12).

Polio eradication. In 1988, CDC had joined forces with the World Health Organization (WHO), UNICEF, and Rotary International to spearhead the Global Polio Eradication Initiative. Despite elimination from the Americas in 1991, polio remained at high rates in many countries in Asia and Africa. CDC's commitment to global eradication intensified in the early 1990s, when CDC began assigning epidemiologists to the Pan American Health Organization and WHO to help in the polio battle. These dedicated CDC workers traveled around the world helping other countries develop and implement plans of action to eradicate polio. At the same time, CDC began hosting global polio eradication meetings. With the technical aid of CDC's immunization, laboratory, and epidemiology experts, as well as substantial financial contributions, the number of children with paralytic polio has been reduced worldwide from 350,000 in 1988 to approximately 2,000 in 2006.\*

Recommending folic acid to reduce neural tube defects. Neural tube defects (NTDs) are major birth defects that occur when the neural tube, from which the brain and spinal cord develop, does not form correctly. Because these defects occur very early in pregnancy, often before a woman even is aware that she is pregnant, identifying early preventive approaches was essential. Rigorous research conducted in the late 1980s demonstrated that if women at risk for becoming pregnant took a daily dose of folic acid (vitamin B9), the number of cases of NTDs could be reduced by 50%–70%. In 1992, the U.S. Public Health Service (USPHS) recommended that all women of childbearing age in the United States who are capable of becoming pregnant consume 0.4 mg of folic acid per day to reduce their risk for having a pregnancy affected with spina bifida or other NTDs (13). At the time, the recommendation listed three potential approaches to achieving this goal: 1) improvement of dietary habits, 2) fortification of the U.S. food supply, and 3) use of dietary supplements. The USPHS recommendation had both a national and an international impact. In the United States, the recommendation led directly to efforts by the Food and Drug Administration (FDA) to fortify cereal grain products, which became mandatory in 1998. Internationally, the recommendation has influenced more than 40 countries to adopt folic acid fortification of wheat flour for the prevention of NTDs.

## Making Prevention a Practical Reality

The idea that prevention underscored the work of CDC was key to all of the efforts described. One reflection of this was the 1992 change of CDC's name to Centers for Disease Control and Prevention. This important symbolic change was reflected in the practical efforts of CDC.

In 1992, the National Center for Injury Prevention and Control was established, giving focus and energy to understanding and preventing both unintentional and intentional injuries. Injuries were and continue to be a leading cause of death. A cornerstone of this work was to prevent violence among young persons by scientifically determining the factors that put persons at risk for violence, disseminating information about violence-prevention programs, and evaluating potential violence-prevention interventions.

**Preventing mortality from breast and cervical cancer.** The 1990 Breast and Cervical Cancer Mortality Prevention Act authorized CDC to fund states for breast and cervical cancer follow-up. Through this program, CDC directed \$23 million to help eight states develop comprehensive programs for the early detection of breast and cervical cancer, primarily in low-income minority women. In 1992, the program was expanded to 12 states, and by 1997, all states were funded. In addition

<sup>\*</sup>Additional information available at http://www.polioeradication.org/ casecount.asp.

to outreach and screening of low-income, uninsured women, program activities included provider and public education, surveillance of screening outcomes, and quality assurance (in collaboration with FDA) (14). Since 1991, the program has served more than 2.9 million women, provided more than 6.9 million screening examinations, and diagnosed more than 29,000 breast cancers, 94,000 precursor cervical lesions, and 1,800 cervical cancers (14).

Expanding efforts to stop HIV/AIDS. CDC continued its leadership role in activities aimed at preventing human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS). Recognizing that the disease affected certain vulnerable populations disproportionately, CDC funded prevention programs directed toward minorities and initiated a program to evaluate these activities to make sure they were effective. In 1991, CDC also identified a sharp increase in cases of tuberculosis that were related to HIV infection and AIDS; in that same year, CDC reported that the number of reported AIDS cases in the United States had reached 200,000. Recognizing that prevention activities were needed at the community level, CDC funded five HIV/AIDS demonstration projects that extended prevention efforts to community sites and elicited the help of community residents and peer groups to motivate behavior change. The following year, the HIV classification system was revised, with an expanded AIDS surveillance case definition. In 1992, CDC also launched Business Responds to AIDS, a program designed to help large and small businesses and labor groups to meet the challenges of HIV infection and AIDS on the job and in the community.

Managing the effects of tobacco use. In 1990, the Surgeon General's report on smoking made clear the substantial benefits not only of preventing tobacco use altogether but also of quitting smoking (15). These benefits included decreased risks for lung and other cancers, heart attack, stroke, and chronic lung disease. To act upon the recommendations in the report and move forward quickly on mediating the effects of tobacco use, funding for the National Tobacco Prevention and Control Program was established to build capacity in all state health departments. In coordination with the National Cancer Institute, the CDC program moved tobacco-control strategies beyond the individual-based medical model into a broader and more effective public health approach, emphasizing environmental and policy change. The Office on Smoking and Health was integrated fully into the Atlanta-based offices of CDC, with expanded staffing and programs located within the National Center for Chronic Disease Prevention and Health Promotion.

**Enhancing the role of health communication.** The agency's commitment to prevention, the arrival of videoconferencing and e-mail, and a backdrop of 24-hour news cycles led CDC to identify health communications as a core strategy to achieve its mission (Figure). An intense review of health communications science led first to the development of partnerships with the private sector and then, in 1993, to establishment of the Office of Health Communications.

**Prevention effectiveness program.** If prevention was to be a practical reality, CDC needed to develop methods for assessing and establishing the effectiveness of prevention activities. New scientific skills were added to the CDC toolkit, including economic and policy analysis, which opened the door for the rapidly expanded use of other scientific modalities, such as social sciences and law. The commitment to prevention effectiveness led to products such as the influential *Guide to Community Preventive Services (16)* and the *MMWR* report *A Framework for Assessing the Effectiveness of Disease and Injury Prevention (17)*.

**CDC Foundation.** As public health threats continued to grow in number and complexity and the agency continued to have success in crossing public- and private-sector lines to address them, the benefit of establishing a new entity to assist CDC in forging partnerships became evident. In 1992, Congress passed legislation that authorized creation of an independent, nonprofit foundation to support CDC, and an organizing committee met 1 year later. Today, the CDC Foundation (http://www.cdcfoundation.org) has facilitated development of a diverse portfolio that includes the Management Academy for Public Health, an Emergency Preparedness and Response Fund, as well as the Knight Public Health Journalism Fellowship, which provides public health training for working journalists.

FIGURE. In 1991, Bill Roper (third from left) marks the 30th anniversary of *MMWR* at CDC (pictured also, from left to right, are Minnie Johnson, Steve Thacker, and Elliott Churchill)



Photo/CDC (reprinted from the March 1991 issue of Dateline: CDC)

## **Stronger Role for Public Health**

Overall, efforts at CDC during 1990–1993 were focused on strengthening the role of public health in the nation's health system and emphasizing the value of prevention as the essential path to good health. By strengthening relationships with public health partners, building new partnerships with the private sector, and increasing the diversity of CDC's workforce, CDC became better equipped to fulfill its role as the nation's prevention agency.

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William L. Roper, M.D., M.P.H., led CDC from 1990 to 1993. He has also served as dean of the University of North Carolina's School of Public Health, president of the Prudential Center for Healthcare Research, and administrator of the Health Care Financing Administration (now known as the Centers for Medicare & Medicaid Services). Dr. Roper is currently the chief executive officer of the University of North Carolina Health Care System, where he also serves as dean of the School of Medicine and vice chancellor for medical affairs.

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## Notice to Readers

## Public Health Information Network Conference, August 27–29, 2007

The fifth annual Public Health Information Network (PHIN) Conference will be held August 27–29, 2007, in Atlanta, Georgia, at the Omni Hotel at CNN Center. The theme for this year's conference is Harmonizing Public Health Voices in National Health Information Technology (IT).

Sponsored by CDC and the National Association of County & City Health Officials, the conference will feature workshops on knowledge management and standards implementation; training on informatics by the American Medical Informatics Association; opportunities for networking with informatics professionals from local, state, national, and international levels; and opportunities to provide input to CDC on how to implement the PHIN initiative in the context of the larger national Health IT Initiative. The goals of this year's conference are 1) to accelerate the development of a community that facilitates innovation and collaboration in public health informatics and the national Health IT Initiative and 2) to improve the ability of public health stakeholders to advance CDC's PHIN initiative and the national Health IT Initiative.

The call for abstracts, conference registration, and hotel registration are available online at the conference website: http://wwwlink.cdc.gov/phinconference. The deadline for abstract submission is midnight, May 18, 2007. The deadline for online registration is August 6, 2007.

## Notice to Readers

## Update on Supply of Vaccines Containing Varicella-Zoster Virus

In February 2007, CDC received notice from Merck & Co., Inc., that because of lower than expected amounts of varicellazoster virus (VZV) in its recently manufactured bulk vaccine, Merck was prioritizing production of varicella (Varivax<sup>®</sup>) and zoster vaccines (Zostavax<sup>®</sup>) over production of MMR-V vaccine (ProQuad<sup>®</sup>) (1).

In May 2007, CDC received further notice from Merck that current projections of orders indicate ProQuad will be unavailable beginning in July 2007, although timing will depend on market demand. This might cause extended back orders for the next few months. After depletion of the existing supply, ProQuad is not expected to be available for the remainder of 2007. Merck is requesting that customers begin transitioning from ProQuad to M-M-R II<sup>®</sup> and Varivax at their earliest convenience.

Merck expects to continue to meet demands for Varivax and M-M-R II to fully implement the recommended immunization schedule. This will allow for continued use of varicella vaccine for all age groups, including the routine 2-dose schedule for children aged 12–15 months and 4–6 years, catchup vaccination with the second dose for children or adolescents who received only 1 dose, and vaccination with 2 doses for other children, adolescents, and adults without evidence of immunity (2–4). For zoster vaccine, the supply of Zostavax is expected to be adequate for routine vaccination of adults aged  $\geq 60$  years (5).

Questions regarding the supply of these Merck products should be addressed to Merck's National Service Center at 800-637-2590. Updates on vaccine shortages and delays are available from CDC at http://www.cdc.gov/nip/news/ shortages/default.htm.

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## **QuickStats** FROM THE NATIONAL CENTER FOR HEALTH STATISTICS Respondent-Assessed Health Status\* Among Persons Aged >25 Years, by Education Level — National Health Interview Survey, United States, 2005<sup>†</sup> 80 Bachelor's degree or higher 70 Some college High school diploma or GED<sup>§</sup> 60 Less than a high school diploma 50 Percentage 40 30 20 10 0 Excellent Good Fair or very good or poor Health status \* Health status data were obtained by asking respondents to assess their own health and that of family members living in the same household as excellent, very good, good, fair, or poor. Data are reported only for family members aged ≥25 years. <sup>†</sup> Estimates are based on household interviews of a sample of the U.S. civilian, noninstitutionalized population. Denominators for each category exclude persons for whom data were missing. Estimates are age adjusted to the 2000 U.S. standard population using four age groups: 25-44 years, 45-64 years, 65-74 years, and $\geq$ 75 years. § General Educational Development high school equivalency diploma. ¶95% confidence interval. The percentage of adults aged >25 years whose health was reported as excellent or very good increased with education level. Persons with a bachelor's degree or higher (74.9%) were nearly twice as likely to be reported having excellent or very good health than persons with less than a high school diploma (39.8%). Persons with less than a high school diploma were most likely to be reported having fair or poor health.

**SOURCE:** National Health Interview Survey, 2005. Available at http://www.cdc.gov/nchs/nhis.htm. Additional information available at http://www.cdc.gov/nchs/data/series/sr\_10/sr10\_233.pdf.

TABLE I. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending May 5, 2007 (18th Week)\*

	Current	Cum	5-year weekly	Total o	cases rep	orted for	r previou	s years	
Disease	week	2007	averaget	2006	2005	2004	2003	2002	States reporting cases during current week (No.)
Anthrax	_	_	_	1	_	_	_	2	
Botulism:								_	
foodborne		_	0	19	19	16	20	28	
infant	_	18	1	96	85	87	76	69	
other (wound & unspecified)		4	0	45	31	30	33	21	
Brucellosis	4	39	3	117	120	114	104	125	NC (2), FL (2)
Chancroid	_	9	1	34	17	30	54	67	
Cholera	_	_	0	7	8	5	2	2	
Cyclosporiasis <sup>§</sup>	2	19	15	135	543	171	75	156	NY (1), IN (1)
Diphtheria	_	_			_	_	1	1	
Domestic arboviral diseases <sup>§,1</sup> :									
California serogroup	_	_	0	63	80	112	108	164	
eastern equine	_	_	_	7	21	6	14	10	
Powassan	_	_	_	1	1	1	_	1	
St. Louis	_	_	0	9	13	12	41	28	
western equine	_	_	_	_	_	_	_	_	
Ehrlichiosis <sup>§</sup> :									
human granulocytic	1	16	4	619	786	537	362	511	NY (1)
human monocytic	4	37	3	501	506	338	321	216	NC (2), FL (2)
human (other & unspecified)	_	13	1	237	112	59	44	23	
Haemophilus influenzae,**									
invasive disease (age <5 yrs):									
serotype b	_	4	0	13	9	19	32	34	
nonserotype b	2	31	3	130	135	135	117	144	NC (2)
unknown serotype	5	95	4	224	217	177	227	153	PA (2), MD (1), FL (1), OR (1)
Hansen disease§	_	17	1	62	87	105	95	96	
Hantavirus pulmonary syndrome§	—	2	1	37	26	24	26	19	
Hemolytic uremic syndrome, postdiarrheal§	2	36	3	268	221	200	178	216	CT (1), CA (1)
Hepatitis C viral, acute	4	200	21	820	652	713	1,102	1,835	MO (1), TX (1), CO (1), CA (1)
HIV infection, pediatric (age <13 yrs) <sup>††</sup>	—	_	4	52	380	436	504	420	
Influenza-associated pediatric mortality <sup>§,§§</sup>	3	56	0	41	45	_	N	Ν	CA (2), NM (1)
Listeriosis	8	156	10	831	896	753	696	665	NY (1), PA (2), IN (1), MO (1), DE (1), FL (1), CA (1)
Measles <sup>111</sup>	—	6	1	52	66	37	56	44	
Meningococcal disease, invasive***:									
A, C, Y, & W-135	2	84	5	260	297	_	—	—	IN (1), OK (1)
serogroup B	1	35	2	163	156	—	_	_	FL (1)
other serogroup		7	0	28	27	—	_	_	
unknown serogroup	6	256	15	674	765				NYC (1), OH (2), AL (1), WA (1), CA (1)
Mumps	9	325	120	6,567	314	258	231	270	NY (1), OH (1), KS (1), MD (1), FL (1), WA (4)
Novel influenza A virus infections	—	_		N	N	N	N	N	
Plague	_	_	0	17	8	3	1	2	
Poliomyelitis, paralytic	_	_	_		1				
Poliovirus infection, nonparalytic <sup>®</sup>	_	_	_	N	N	N	N	N	
Psittacosis	_	3	0	20	16	12	12	18	
	4	51	2	1/2	136	70	/1	61	MI (1), MO (2), FL (1)
Rables, numan		_	_	3	2	10	2	3	
Rubella	_	8	0	9	11	10	1	18	
Rubella, congenital syndrome	_	_	_	I	I	_	1	I N	
SARS-COV <sup>37333</sup>	_	_	_	_	_	_	8	IN	
Smallpox <sup>s</sup>				100	100	100	101	110	OUL (1) IN (1)
Surphilia congenital (age of un)	2	20	4	123	129	132	101	110	OH(1), IN(1)
Syphilis, congenital (age <1 yr)	_	54	0	340	329	353	413	412	
Tetanus	-	3	1	34	27	34	122	100	AL (1)
Trichingligeic	I	24 1	2	10	90	90	133	109	
Tularomia	_	1	1	13	10	5 194	100	14	
Tunhoid fever		ۍ ۵۷	1	215	104	134	129	90 201	MN(2) MD(1) CA(1)
Vancomycin intermediate Stanbyloceccus curs	4 24/2	04	0	515	024	522	000	JZ I NI	$(1), \forall A (1)$
Vancomycin-resistant Staphylococcus aurous			_	1	2	1	N	N	
Vibriosis (non-cholera Vibrio species infections	)§ 6	45	_	N	N	N	N	N	NY (1) FL (3) CA (2)
Yellow fever	., _		_					1	(1), 1 = (0), 0, (1)

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

Data for *H. influenzae* (all ages, all serotypes) are available in Table II. Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV †† reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly. Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. A total of 57 cases were reported for the 2006–07 flu season.

88 11 No measles cases were reported for the current week. \*\*\*

Data for meningococcal disease (all serogroups) are available in Table II. No rubella cases were reported for the current week. +++

\$8\$ Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.

			Chlamyd	lia†			Coccid	ioidomy	cosis			Cryp	otosporid	iosis	
		Pre	vious	_			Pre	vious	_			Pre	vious		
Reporting area	Current week	<u>52 v</u> Med	weeks Max	Cum 2007	Cum 2006	Current week	52 Med	Max	Cum 2007	Cum 2006	Current week	52 v Med	veeks Max	Cum 2007	Cum 2006
United States	11,755	19,886	23,844	320,483	346,801	85	151	649	2,748	2,944	21	69	302	788	880
New England Connecticut Maine <sup>§</sup> Massachusetts New Hampshire Rhode Island <sup>§</sup> Vermont <sup>§</sup>	495 62 36 296 22 79	671 198 47 302 38 63 20	1,150 616 74 604 69 108 45	11,142 2,665 870 5,494 655 1,169 289	10,667 2,567 728 5,130 639 1,161 442	N 	0 0 0 0 0 0	0 0 0 0 0 0	N       N	N 		3 0 0 1 0 1	22 10 6 14 5 5 4	36 10 7 8 5 6	74 38 9 22 3 2
<b>Mid. Atlantic</b> New Jersey New York (Upstate) New York City Pennsylvania	1,855 — 556 815 484	2,583 382 509 753 819	4,164 541 2,745 1,526 1,264	46,820 5,132 8,544 15,045 18,099	42,512 6,715 7,583 14,522 13,692	N N N	0 0 0 0	0 0 0 0	N N N	N N N N	1 - 1 -	11 0 3 2 4	33 1 13 12 18	93 — 34 16 43	145 9 31 35 70
<b>E.N. Central</b> Illinois Indiana Michigan Ohio Wisconsin	1,579 618  412 439 110	3,221 997 376 765 643 376	6,123 1,263 641 1,225 3,646 528	56,071 15,187 6,874 12,558 15,222 6,230	59,192 19,109 7,241 9,930 15,387 7,525	       	1 0 1 0	3 0 3 2 0	10 — 8 2 N	15  11  N	5  1 	15 2 1 2 5 4	110 22 18 10 33 53	183 17 15 43 64 44	195 24 12 32 70 57
W.N. Central Iowa Kansas Minnesota Missouri Nebraska <sup>§</sup> North Dakota South Dakota	475 113 180 — 141 — 41	1,192 160 149 241 440 104 28 50	1,445 239 266 314 628 180 64 84	17,096 2,883 2,832 3,117 5,220 1,772 418 854	21,359 2,973 2,809 4,561 7,671 1,756 671 918	N     N N N	0 0 0 0 0 0 0 0	54 0 54 1 0 0	3 N 3 N 2 N N N	N N     N N N N N N N N N N N N N N N	8 5 2 - 1	12 2 1 2 1 0 1	77 28 25 21 16 1 7	122 21 18 31 24 6 1 21	134 12 18 55 26 10 1
S. Atlantic Delaware District of Columbia Florida Georgia Maryland <sup>§</sup> North Carolina South Carolina <sup>§</sup> Virginia <sup>§</sup> West Virginia	2,592 94 96 	3,595 69 73 932 700 339 624 402 473 54	6,740 111 1,187 3,648 779 1,772 2,105 685 80	50,155 1,229 1,841 3,300 7,608 6,064 10,436 10,184 8,655 838	66,250 1,247 1,033 16,328 11,666 6,166 12,883 7,776 8,122 1,029		0 0 0 0 0 0 0 0 0 0	1 0 0 0 1 0 0 0 0	1 N N 1 N N N	2 N N 2 N N N N N N	4 3 1 	17 0 8 5 0 1 1 1	68 3 2 12 2 11 14 5 3	213 2 3 103 52 10 13 13 15 2	204 5 87 59 6 25 7 13 2
E.S. Central Alabama <sup>s</sup> Kentucky Mississippi Tennessee <sup>s</sup>	889 22 206 178 483	1,489 419 126 410 530	2,095 539 691 959 703	27,026 6,366 2,618 7,970 10,072	26,539 8,609 3,502 5,697 8,731	N N N	0 0 0 0	0 0 0 0	N N N	N N N N	1 - 1 -	3 0 1 0 1	14 11 3 8 5	42 12 16 8 6	28 8 10 2 8
<b>W.S. Central</b> Arkansas <sup>§</sup> Louisiana Oklahoma Texas <sup>§</sup>	1,560 205  243 1,112	2,175 162 315 264 1,429	3,027 337 610 472 1,910	37,659 3,049 5,125 4,472 25,013	38,728 2,822 5,986 3,662 26,258	N N N	0 0 0 0	1 0 1 0	N N N	N N N	 	5 0 1 0 2	45 2 9 4 36	32 2 14 11 5	43 5 11 27
Mountain Arizona Colorado Idaho <sup>§</sup> Montana <sup>§</sup> Nevada <sup>§</sup> New Mexico <sup>§</sup> Utah Wyoming <sup>§</sup>	266 23 59 5  153 26	1,245 479 306 6 52 107 179 96 29	2,018 993 416 253 144 397 324 200 54	16,738 6,410 2,481 74 878 2,234 2,591 1,635 435	22,124 6,691 5,403 1,169 819 2,139 3,635 1,756 512	71 71 N N 	100 98 0 0 1 0 1 0	296 296 0 0 3 3 4 0	1,905 1,868 N N 12 6 19 —	2,139 2,078 N N 27 6 26 2 2	1 — — — — — —	4 0 1 0 0 0 0 0 0	40 4 7 26 2 5 3 11	45 12 11 3 4 2 8 1 4	33 4 9 3 5 3 4 5
<b>Pacific</b> Alaska California Hawaii Oregon <sup>§</sup> Washington	2,044 80 1,366 — 191 407	3,371 87 2,663 107 160 348	4,070 157 3,262 130 394 621	57,776 1,426 45,176 1,652 3,248 6,274	59,430 1,435 46,277 2,019 3,365 6,334	14 N 14 N N N	53 0 53 0 0 0	299 0 299 0 0 0	829 N 829 N N N	788 N 788 N N N	1   	1 0 0 1 0	5 1 0 1 4 0	22 — — 22 —	24 1  23 
American Samoa C.N.M.I. Guam Puerto Rico U.S. Virgin Islands	U U 147 U	0  114 4	46  235 	U U 2,505 U	U U 1,706 U	U U N U	0  0 0	0  0 0	U U N U	U U N U	U U N U	0  0 0	0  0 0	U U N U	U U N U

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2006 and 2007 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly. Chamydia refers to genital infections caused by *Chlamydia trachomatis*. S Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

			Giardiasi	s			G	onorrhe	a		Hae	<i>mophilu</i> All age	<i>s influen:</i> s, all ser	z <i>ae</i> , invas otypes⁺	sive
		Prev	/ious				Pre	evious				Prev	/ious		
Reporting area	week	<u> </u>	<u>eeкs</u> Max	2007	2006	week	Med	<u>weeкs</u> Max	2007	2006	week	Med	<u>/eeкs</u> Max	2007	2006
United States	132	314	1,029	4,255	5,060	3,430	6,806	8,664	102,371	117,117	31	44	144	814	812
New England	10	18	45	178	364	82	110	211	1,798	1,821	_	2	12	26	45
Connecticut		5	25	70	94	13	43	153	597	650	_	0	6	17	8
Massachusetts		4	14	40	167	55	47	96	926	854	_	0	7		25
New Hampshire		0	9	2	2	1	3	8	53	85	_	0	3	3	2
Rhode Island <sup>®</sup> Vermont <sup>§</sup>	8	0	17 12	21 37	27 48	6	10	19 5	1/4	167 21	_	0	3	1	2
Mid. Atlantic	28	66	123	773	1.029	492	679	1.519	12.328	11.334	2	10	26	186	172
New Jersey		7	17	36	159		102	156	1,483	1,848	_	1	5	17	31
New York (Upstate)	17	25	101	289	304	140	121	1,035	2,088	2,030	_	3	14	53	42
Pennsylvania	8	14	35	192	239	212	240	414	5,445	3,881	2	3	10	79	63
E.N. Central	15	43	97	612	851	471	1,292	2,498	22,330	23,344	3	6	14	88	135
Illinois		9	27	103	191	183	356	485	5,307	7,018		1	5	11	38
Michigan	2	13	38	201	235	97	307	290 880	2,790	3,128	_	0	5	11	18
Ohio	13	15	32	224	258	151	315	1,557	6,687	6,975	2	2	6	48	31
Wisconsin	_	9	27	84	167	40	133	181	2,184	2,476	_	1	4	1	26
W.N. Central	6	23	539 16	287	503	114	385	515	5,217	6,412	_	3	23	47	39
Kansas	1	3	11	39	53	43	43	87	805	787	_	0	2	4	8
Minnesota	_	0	514	12	165	—	66	87	841	1,054	—	1	17	18	15
Missouri Nebraska§	1	9	28 9	127	142 29	 50	195	269 48	2,354	3,387	_	1	5	19	13
North Dakota	_	ō	4	4	5	_	2	6	22	40	_	õ	2	1	_
South Dakota	1	1	6	19	29	3	6	15	97	114	—	0	0	—	_
S. Atlantic	22	52	98	790	730	846	1,578	3,085	19,641	28,090	19	11	28	229	205
Delaware District of Columbia	1	0	4	9 17	8 20	26 38	28 36	44 63	489 783	506 643	_	0	3	5	1
Florida	19	24	44	381	300	_	438	549	1,564	7,547	5	3	8	72	69
Georgia	_	12	26	162	173		348	1,928	3,159	5,282	_	2	6	53	47
Naryland <sup>®</sup> North Carolina	2	4	12	/1	49	92 354	317	202 676	5 227	2,342	3	2	5	41 27	29 15
South Carolina <sup>§</sup>	_	2	8	20	33	204	168	1,026	4,163	3,512	2	ĩ	4	21	17
Virginia <sup>§</sup>	—	9	28	120	141	124	121	238	2,061	2,178	_	0	7	1	17
vvest virginia		0	21	100	101	0	570	44	0 705	2/1	-	0	0	1	9
Alabama <sup>§</sup>	4	3	34 22	57	58	306	578 191	271	2,559	3.951		2	3	43	52 11
Kentucky	N	0	0	Ν	Ν	61	48	268	906	1,203	_	0	1	2	4
Mississippi Tennessee§	N 1	05	0 12	N 73	N 63	66 175	158 194	434 240	2,828	2,099	1	0	1	33	4
	1	7	26	07	47	520	040	1 / 92	15 224	16 424	2	2	27	42	21
Arkansas <sup>§</sup>	_	3	13	44	21	96	80	1403	1,445	1,573		0	2	43	2
Louisiana		1	6	22	_		193	366	3,087	3,502		0	3	4	1
Oklahoma Texas <sup>§</sup>	1 N	2	13	31 N	26 N	78 365	103 556	237 931	1,806	1,250 10 099	1	1	25	33	26
Mountain	16	30	69	406	453	61	263	455	3 281	4 743	2	4	14	112	96
Arizona		3	11	57	41	1	104	220	1,318	1,672	1	2	9	52	36
Colorado	8	9	26	128	155	42	70	93	683	1,246	_	1	4	21	29
Idano <sup>s</sup> Montana <sup>§</sup>	2	3	12	37 26	50 23	_	3	20	6 32	71 49	_	0	0	4	3
Nevada§	_	2	9	27	34	_	28	135	534	742	_	Õ	2	5	6
New Mexico <sup>§</sup>		1	6	28	20	10	30	65	443	591		0	3	13	13
Wyoming <sup>§</sup>	0	1	4	12	6	10	2	20 5	243	57	_	0	1	1	9
Pacific	30	60	147	982	962	519	765	938	12,737	14,504	2	2	8	40	37
Alaska	1	1	17	20	13	8	10	27	147	191	—	0	2	4	3
Hawaii	19	43	/1 4	690 22	/1/ 21	431	638 14	807 26	10,768	376	_	0	6	2	10 7
Oregon§	5	9	14	139	131	22	26	46	379	472	2	ĩ	6	34	16
Washington	5	8	68	111	80	58	75	142	1,245	1,445	—	0	2	—	1
American Samoa	U	0	0	U	U	U	0	2	U	U	U	0	0	U	U
Guam	<u> </u>	_	_	<u> </u>	<u> </u>	<u> </u>	_	_	0	<u> </u>	<u> </u>	_	_	<u> </u>	0
Puerto Rico	1	5	19	50	32	2	5	16	121	121		0	2	1	
U.S. Virgin Islands	U	0	0	U	U	U	0	3	U	U	U	0	0	U	U

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Med \* Incidence data for reporting years 2006 and 2007 are provisional. \* Data for *H. influenzae* (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I. \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS). Med: Median. Max: Maximum.

			Hepatit	is (viral, a	cute), by ty	/pe <sup>†</sup>							giopollog	sie	
		Prev	A ious				Prev	B vious				Prev	ious	515	
Departing area	Current	52 w	eeks	Cum	Cum	Current	52 v	veeks	Cum	Cum	Current	52 w	/eeks	Cum	Cum
United States	23	54	120	827	1.318	28	79	309	1 224	1 402	10	49	107	436	437
New England		1	19	11	72	1	2	5	21	47	_	2	13	9	18
Maines	_	0	2	4	4	_	0	2	1	8	_	0	9		2
Massachusetts	—	0	1		47		0	1		14	—	0	4	—	10
Rhode Island§	_	0	2	3	2	_	0	4	5	3	_	0	6	5	
Vermont <sup>§</sup>	—	0	2	_	4	—	0	1	1	1	_	0	2	1	1
Mid. Atlantic	3	7	19 4	108	106 34	_2	9	19	143 30	178 54	5	15	53 11	117 12	125
New York (Upstate)	2	2	12	29	18	2	1	14	28	24	2	5	30	38	41
New York City	1	2	11	41 17	37 17	_	2	6	27 58	37 63		2	20	16 51	18
	2	6	13	74	105	- 7	8	10	13/	157	5	10	30	86	87
Illinois		1	4	18	22		1	5	17	57	_	1	11		15
Indiana Michigan	1	0	7	5 27	7	2	0	17	13	10 51	_	1	5 10	5	3 10
Ohio	1	1	4	24	29	5	3	10	57	36	_	4	19	45	36
Wisconsin	—	0	4	_	11	—	0	3	5	3	_	0	3	4	14
W.N. Central	2	2	17	46	45	_	2	14	46	49	_	1	16	14	13
Kansas	1	0	1	1	16	_	Ő	2	4	6	_	0	3		1
Minnesota	—	0	17	24	2	—	0	13	4	3	—	0	11	2	
Nebraska§	_	0	2	o 4	6	_	0	3	24	29	_	0	2	0 1	2
North Dakota	—	0	0	_		_	0	0		_	_	0	0	_	
		0	2	2	5		0	1	2	1	_	0	1	1	105
5. Atlantic Delaware	5	9	27	155	186	—	23	53 4	337	400	_	9	24	1	105
District of Columbia	_	0	5	14	2	_	0	2	1	4	_	0	5		4
Georgia	3	3	13	57 16	66 16	9	3	14 8	120 39	144 58	1	3	9 5	52 11	51
Maryland <sup>§</sup>	2	1	7	24	27	1	2	8	31	59	_	2	8	22	17
North Carolina South Carolina <sup>§</sup>	_	0	11	/ 4	40 7	_	1	16 5	52 26	67 23	_	0	5	9 5	13
Virginia <sup>§</sup>	_	1	5	30	21	1	2	5	43	13	_	1	5	7	13
vvest virginia	_	0	3	2	1	_	0	23	19	17	_	0	4	3	1
E.S. Central Alabama <sup>§</sup>	_	2	2	22	45 2	1	6	20 10	80 25	123	1	2	9	21	15 3
Kentucky	_	0	2	4	21	_	1	3	2	31	_	1	6	9	3
Mississippi Tennessee§	_	0	4 5	4 11	3 19	1	0	7	7 46	14 45	1	0	2	11	1
W.S. Central	1	6	18	62	114	_	19	151	214	219	_	1	12	22	8
Arkansas§	—	0	2	4	27	—	1	4	7	20	—	0	1	1	1
Oklahoma	_	0	4	8	3	_	1	5 37	11	1	_	0	2	_	1
Texas§	1	5	15	47	81	—	15	108	179	191	—	1	12	20	6
Mountain	2	5	16	109	112	2	3	9	74	53	2	2	8	28	30
Colorado	2	4	3	92 7	66 17	2	0	5 4	33 10	15	_	0	4	5	10
Idaho <sup>§</sup>	_	0	2	1	4	_	0	2	4	6	_	0	3	1	4
Montana <sup>®</sup> Nevada <sup>§</sup>	_	0	3	1	2	_	0	0	13	14	_	0	1	1	4
New Mexico <sup>§</sup>	_	Õ	2	1	8	_	Ó	2	5	8	_	Õ	2	2	1
Utah Wyoming§	_	0	2	2	8 1	_	0	4	9	8	1	0	2	5	6
Pacific	8	15	38	240	533	4	11	38	175	176	1	1	11	29	36
Alaska	_	0	1	1	1	—	0	3	3	1	_	Ó	1		
California Hawaii	6	12	36	218	495	3	8	26	132	138	1	1	11	23	36
Oregon <sup>§</sup>	_	1	∠ 3	29	15	_	2	5	28	25	_	0	1	1	_
Washington	2	0	4	10	16	1	1	12	12	10	—	0	2	5	_
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
Guam		_	_			<u> </u>	_	_			<u> </u>	_	_		0
Puerto Rico	1	1	10	16	17		1	9	14	10		0	1		1

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 2006 and 2007 are provisional. \* Data for acute hepatitis C, viral are available in Table I. § Contains data reported through the National Electronic Disease Surveillance System (NEDSS). Med: Median. Max: Maximum.

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		L	yme disea	ase			Γ	lalaria			Men	ingococ All	cal disea serogrou	se, invasi ıps	ve†
	Current	Prev 52 w	vious	Cum	Cum	Curront	Prev 52 w	vious	Cum	Cum	Curront	Prev 52 w	/ious	Cum	Cum
Reporting area	week	Med	Max	2007	2006	week	Med	Max	2007	2006	week	Med	Max	2007	2006
United States	86	253	1,029	1,844	2,064	5	24	49	236	376	9	19	39	382	503
New England	9	22	255	90	120	_	0	6	4	10	_	1	3	8	15
Connecticut Maine§	4	9	227 39	25 18	52 29	_	0	3	3	1	_	0	2	3	4
Massachusetts	_	ō	3		26	_	Ő	3	_	6	_	Ő	1		9
New Hampshire	_2	5	97 93	39	6 1	_	0	3	1	_	_	0	2	1	_
Vermont <sup>§</sup>	_	1	15	8	6	_	0	0	_	1	_	0 0	1	2	_
Mid. Atlantic	62	147	571	931	1,412	_	5	18	55	100	1	2	8	44	83
New Jersey New York (Upstate)		26 52	190 392	102 287	354 583	_	1	7	15	28 8	_	0	2	1	8 14
New York City		2	24	6	18	_	2	9	34	53	1	1	4	12	31
Pennsylvania	7	45	237	536	457	_	1	4	6	11	_	0	5	20	30
E.N. Central	_	9	158 1	21	135	_	3	10	32 10	45 17	3	2	8	56 13	69 17
Indiana	_	õ	3	1	3	_	Ó	2	1	5	1	õ	4	14	8
Michigan Ohio	_	1	5	6	3 12	_	0	2	7	6 12	2	0	3 4	12 14	13 19
Wisconsin	_	7	154	9	117	_	0	3	6	5		Ó	2	3	12
W.N. Central	_	5	188	48	55	4	1	13	18	19	_	1	5	28	28
lowa Kansas	_	1	8	6	14	_	0	1	2	1	_	0	3	7	8
Minnesota	_	2	188	32	39	4	Ő	12	11	14	_	õ	3	8	4
Missouri Nebraska§	_	0	3	7	1	_	0	1	2	2	_	0	3	9 1	9
North Dakota	_	0	Ō	_	_	_	0	Ó		1	_	Ő	1	1	1
South Dakota	—	0	1	—	—	—	0	1	1	1	—	0	1	1	_
S. Atlantic	8 4	44 9	135	689 139	303	1	5	15	54 2	97 2	1	3	9 1	53	85
District of Columbia	_	0	7	3	7	_	0	2	2		_	0	1	_	
Florida	1	0	3	11	7	_	1	4	14	16 33	1	1	7	23	35
Maryland§	2	21	105	434	164	_	1	4	17	15	_	ŏ	2	13	5
North Carolina	_	0	4	6 4	8 1	1	0	4	5	10 4	_	0	6	4	14 q
Virginia§	1	7	36	88	6	_	1	4	9	16	_	Ő	2	2	10
West Virginia	_	0	14	4	_	_	0	1	1	1	_	0	2	_	1
E.S. Central	_	0	4	9 1	2	_	0	3	10	8	1	1	4	21	18 4
Kentucky	_	Ő	2	_	_	_	Ő	1	1	1	_	Ő	1	1	5
Mississippi Tennessee§	_	0	1	8		_	0	1	1	2	_	0	4	4	3
WS Central	_	1	6	10	2		2	7	13	18	1	1	13	39	32
Arkansas§	_	0	Ő			_	0	2		_	_	Ó	2	5	5
Louisiana Oklahoma	_	0	1	_2	_	_	0	2	11	1		0	4	11 10	5
Texas <sup>§</sup>	_	1	6	8	2	_	1	6	1	15	_	ŏ	9	13	16
Mountain	_	0	4	5	3	_	1	6	11	21	_	1	4	32	32
Arizona	_	0	2	_	3	_	0	3	4	6	_	0	3	10	9 11
Idaho§	_	0	2	1	_	_	0	1	_	_	_	0	1	2	1
Montana§ Nevada§	_	0	1	1	_	_	0	1	1	1	_	0	1	1	1
New Mexico <sup>§</sup>	_	0	1	_	_	_	0	1	_	1	_	0	1	1	1
Utah Wyoming§	_	0	1	_	_	_	0	2	2	7	_	0	2	6 1	4
Pacific	7	2	17	41	20		1	14	20	59		5	10	101	1/1
Alaska		0	1	2		_	4	4	2	6		0	1	1	2
California Hawaii	7	3	14	39	32	—	3	6	29	45	1	3	10	72	93
Oregon <sup>§</sup>		0	1			_	0	3	7	4	_	0	3	12	23
Washington	—	0	3	_	—	—	0	11	1	3	1	0	5	14	19
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	_	_
Guam		_	_	_	_		_	_	_	_		_	_	_	_
Puerto Rico	N	0	0	N	N		0	1	1			0	1	4	_3
o.o. virgin Islanus	0	0	0	0	0	0	0	0	0	0	0	0	0		

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2006 and 2007 are provisional. \* Data for meningococcal disease, invasive caused by serogroups A, C, Y, & W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I. \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

			Pertussis	5			Rabi	es, anim	nal		Ro	ocky Mou	untain sp	otted feve	er
Demonstration and a	Current	Prev 52 w	ious eeks	Cum	Cum	Current	Prev 52 w	vious veeks	Cum	Cum	Current	Prev 52 w	/ious /eeks	Cum	Cum
Heporting area	90	241	980	2007	4 763	48	as	174	1 121	1 786	<u>wеек</u> 15	29	114	185	345
New England Connecticut Maine <sup>†</sup> Massachusetts New Hampshire Rhode Island <sup>†</sup> Vermont <sup>†</sup>	1 — — 1 —	16 2 2 0 2 0 2 0	54 10 15 22 28 30 14	2,142 76 15 32 — 13 — 16	4,763 516 24 23 356 45 21 47	40 9 5 1 - 1 1 1	93 11 4 2 0 1 0 2	25 14 8 7 5 3 10	1,121 154 52 27 — 12 13 50	196 42 28 102 	N	29 0 0 0 0 0	8 0 1 1 8 0	N 	343 1  N 1  
<b>Mid. Atlantic</b> New Jersey New York (Upstate) New York City Pennsylvania	$ \frac{10}{6} \\ -4 $	32 4 20 0 9	159 12 150 6 22	405 46 244 — 115	582 128 204  250	 	16 0 0 1 15	57 0 0 5 56	121 — 24 97	247 — 2 245	 	2 0 0 1	7 2 2 3 4	14 — 4 10	22 6 
<b>E.N. Central</b> Illinois Indiana Michigan Ohio Wisconsin	16 —  14 	39 9 3 10 12 3	79 23 37 39 56 10	501 59 11 104 276 51	716 182 57 139 242 96	13 1 12 	2 0 0 0 0	18 7 2 5 9 0	21 3 1 4 13 —	13 2 1 10 —	 	1 0 0 0 0	6 4 1 4 1	6 1 1 3	5 2 1 2
W.N. Central Iowa Kansas Minnesota Missouri Nebraska <sup>†</sup> North Dakota South Dakota	5 2 2 1	17 4 3 0 4 1 0 0	140 16 14 120 10 4 9 4	151 43 58  24 8 4 14	559 145 122 72 148 60 4 8	3 1 1 1 	5 1 2 0 1 0 0	20 7 6 6 0 7 3	61 7 39 4 4 	74 10 28 8 7 	1  1 	3 0 0 3 0 0	13 1 2 12 5 0 0	26 — — 26 — —	14 — 1 13 —
S. Atlantic Delaware District of Columbia Florida Georgia Maryland <sup>†</sup> North Carolina South Carolina <sup>†</sup> Virginia <sup>†</sup> West Virginia	22  1 -1 18 2  	17 0 4 0 2 0 3 2 0	163 1 2 18 3 7 112 11 19 19	318 2 94 	351 2 3 77 8 64 70 51 72 4	19 — — 8 — 11	38 0 0 4 6 11 3 12 2	62 0 19 16 12 21 11 31 8	622 — 42 36 93 157 35 235 24	797 — 176 81 134 117 43 216 30	13 — — — 12 — 1	11 0 0 1 4 1 2 0	67 3 4 5 61 5 12 2	100 4 1 5 2 14 58 6 9 1	261 4 6 5 9 228 3 6
E.S. Central Alabama <sup>†</sup> Kentucky Mississippi Tennessee <sup>†</sup>	1 	6 1 0 3	24 17 5 8 11	73 21 1 8 43	91 23 14 11 43	 	4 1 0 2	13 8 4 1 7	28 7 21	76 25 5 3 43	1  1	5 1 0 4	27 9 1 1 22	38 6 1 	29 7  22
<b>W.S. Central</b> Arkansas <sup>†</sup> Louisiana Oklahoma Texas <sup>†</sup>	 	16 1 0 14	147 13 2 9 134	94 3 6 1 84	210 18 6 2 184	 	2 0 0 1 0	34 5 0 9 29	27 9 18	283 11  20 252	 	1 0 0 0	28 10 1 18 6	 	6 4 1 1
Mountain Arizona Colorado Idaho <sup>†</sup> Montana <sup>†</sup> Nevada <sup>†</sup> New Mexico <sup>†</sup> Utah Wyoming <sup>†</sup>	31 12 6 1 — 12 12	34 6 7 1 0 2 10	75 31 20 7 8 9 8 50	430 108 16 14 3 13 156 12	1,125 215 431 27 43 24 31 327 27	1     1	2 1 0 0 0 0 0 0	28 10 24 2 1 2 1 2	26 24 — — — 1	45 38 — 3 — 4 —		0 0 0 0 0 0 0	4 2 1 3 2 0 2 0	1  1  	6 2 1  2 
Pacific Alaska California Hawaii Oregon <sup>†</sup> Washington	4 1 — 1 2	31 1 22 0 1 4	229 8 226 7 9 46	94 9  7 33 45	613 28 351 49 52 133	3   3   	4 0 3 0 0	12 6 11 0 4 0	61 26 35 N —	55 11 43 N 1	         	0 0 0 0 0	1 0 1 0 1 0	         	1 N  1 N
American Samoa C.N.M.I. Guam Puerto Rico U.S. Virgin Islands	U U 	0  0	0 — 1		U U 	U U 1	0 — 1	0	U U 18	U U 33	U U N N	0 0	0	U U N	U U N

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		s	almonello	sis		Shiga t	oxin-pro	ducing E	. <i>coli</i> (ST	EC)†		S	higellos	is	
	Current	Prev 52 w	vious	Cum	Cum	Current	Prev 52 w	/ious	Cum	Cum	Current	Prev	ious	Cum	Cum
Reporting area	week	Med	Max	2007	2006	week	Med	Max	2007	2006	week	Med	Max	2007	2006
United States	354	832	1,337	8,771	9,580	35	75	178	636	655	175	259	526	3,500	3,119
New England Connecticut	6	17 0	84 83	186 83	844 503	_	2 0	16 7	26 7	99 75	_2	2	14 9	26 9	133 67
Maine <sup>§</sup>	1	2	14	30	24	_	0	8	11	3	_	0	5	12	
Nassachusetts New Hampshire	3	0 4	53 26	31	279	_	0	9 4	4	17	1	0	11	3	61
Rhode Island <sup>§</sup> Vermont <sup>§</sup>	1	2 1	15 6	26 16	19 8	_	0	2 4	1 3	1 2	1	0	3 2	1	4 1
Mid. Atlantic	41	99	194	1,176	1,166	2	8	62	74	79	1	13	48	144	273
New York (Upstate)	26	19 28	50 93	54 381	230	2	3	16	33	22 26	_	3	34 43	13 34	79
New York City Pennsylvania	2 13	24 30	50 67	306 435	320 378	_	1 3	4 47	6 34	8 23	1	5 1	14 6	74 23	81 32
E.N. Central	46	104	199	1,162	1,367	7	9	61	82	103	11	24	72	192	325
Indiana	24	27 15	55	169	394 144	4	1	8	9 9	17	2	2	50 17	29 22	42
Michigan	9	18	35	205	232		1	6	14	22	1	2	5	11	74
Wisconsin		17	30 32	194	261		2	41	12	26 27	<u> </u>	4	14	43	52 46
W.N. Central Iowa	40 1	46 8	109 26	697 101	636 111	9	11 2	45 38	93 15	91 17	64	43 2	84 14	745 20	270 11
Kansas Minnopoto	4	7	16	108	95		0	4	6	2		2	11	12	28
Missouri	7	15	35	220	179		3	13	18	26	60	14	72	598	151
Nebraska§ North Dakota	5	3	9	39	60	_	1	11	14	9	_	1	14 18	7	26
South Dakota	_	3	11	45	40	_	0	5	_	3	=	6	24	13	26
S. Atlantic	83	226	395 10	2,561	2,253	3	13	32	158	110	56	71	143	1,223	747
District of Columbia		1	4	8	19		Ő	1	-	-		ŏ	5	4	3
Florida Georgia	48	95 34	176 66	1,105 408	1,017 325	1	2	8 7	47 16	19 20	54	36 24	76 54	811 318	326 267
Marylands	6	14	32	182	99	_	3	9	28	9	_	1	10	23	17
South Carolina	18	29 19	55	395 205	394 163		2	3	25 4	26	2	0	14	19 21	65 52
Virginia <sup>§</sup> West Virginia	1	20	58	195	187	_	3	11	33	32	_	2	9	22	17
E.S. Central	19	53	138	580	508	1	4	21	29	46	7	12	80	265	204
Alabama <sup>§</sup>	8	10	70	147	147	1	0	5	6	4	3	4	66 15	95	38
Mississippi		12	23 85	85	103	_	0	0	9	12		1	71	71	26
Tennessee§	4	17	32	216	150	—	2	9	14	30	3	3	14	69	30
W.S. Central Arkansas <sup>§</sup>	13	84 14	186 45	358 105	792 242	_	3	52 7	31 5	30	16 2	38	192 10	350 38	406
Louisiana	_	17	42	120	79	_	Ő	1		_		3	24	68	8
Oklahoma Texas <sup>§</sup>	8	9 46	40 107	97 36	68 403	_	0 2	17 48	8 18	3 25	3 11	2 31	9 174	19 225	28 342
Mountain	36	52	88	680	649	7	8	36	73	68	6	25	86	211	240
Arizona Colorado	7 16	18 11	45 30	258 159	185 186		1	12 8	32 9	17 18	5 1	11 3	34 15	110 31	122 36
Idaho <sup>§</sup>	—	3	9	37	42	_	1	8	4	11	—	0	3	4	6
Nevada§	_	2	20	30 47	34 45	_	0	0 5	4	10	_	1	20	9 11	24
New Mexico <sup>§</sup>		5	15	50	59	_	1	5	11	5	_	2	15	28	34
Wyoming§	1	1	4	22	20	_	0	3		1	_	0	19	12	3
Pacific	70	116	306	1,371	1,365	6	5	24	70	29	12	33	94	344	521
Alaska California	1 43	1 89	5 218	1,053	30 1,016	N 6	0	0 5	N 42	N N	7	28	2 81	6 272	4 397
Hawaii Orogon <sup>§</sup>		4	16	63	75	—	0	3	3	4	—	1	3	12	13
Washington	25	11	83	155	129	_	3	9 22	15	8	5	2	13	38	57 50
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
C.N.M.I. Guam	<u> </u>	_	_	<u> </u>	<u> </u>	U N	_	_	U N	U N	<u> </u>	_	_	<u> </u>	U
Puerto Rico	15	14	65	151	87		0	0				0	6	5	3
U.U. VITUITI ISIAITUS	0	0	0	0	0	0	0	0	0	0	U	0	0	0	0

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Me \* Incidence data for reporting years 2006 and 2007 are provisional. \* Includes *E. coli* O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped. \* Contains data reported through the National Electronic Disease Surveillance System (NEDSS). Med: Median. Max: Maximum.

	Stre	ptococcal	disease,	invasive, g	roup A	Strept	ococcus p	<i>neumonia</i> Age <5 yea	<i>e</i> , invasive ars	disease <sup>†</sup>	
		Prev	ious				Prev	ious			
	Current	52 w	eeks	Cum	Cum	Current	52 w	eeks	Cum	Cum	
Reporting area	week	Med	Max	2007	2006	week	Med	Max	2007	2006	
United States	69	88	220	1,840	2,327	25	26	99	541	497	
New England	4	3	21	59	124	_	1	7	10	42	
Connecticut	—	1	17	22	45	_	0	6	_	17	
Maine <sup>§</sup>	1	0	2	8	8	—	0	2	—		
Massachusetts		0	5	10	61	—	0	4		25	
Rhode Island <sup>§</sup>		0	9	10	4	_	0	4	3	_	
Vermont§	_	õ	2	11	3	_	õ	1	1	_	
Mid Atlantic	12	17	30	372	467	2	з	20	48	74	
New Jersev		2	6	28	83		0	4		25	
New York (Upstate)	8	5	26	140	143	2	2	14	48	49	
New York City		3	9	79	88		0	3			
Pennsylvania	4	6	11	125	153	N	0	0	N	N	
E.N. Central	9	15	31	313	516	7	6	14	88	144	
Illinois	_	4	11	71	164	_	1	6	9	34	
Michigan	2	2	12	46	54 109	2	1	10	10	20	
Ohio	6	4	14	114	129	4	1	7	31	30	
Wisconsin	_	1	6	2	60	_	0	2	2	23	
W.N. Central	19	5	32	161	169	4	2	10	49	37	
lowa		õ	0				0	0		_	
Kansas	1	0	3	22	34	_	0	3	3	9	
Minnesota	16	0	29	76	78	3	1	6	29	14	
Missouri	-	2	6	42	30	1	0	3	13	8	
North Dakota	_	0	2	0 9	6	_	0	2	3	4	
South Dakota	1	Ő	2	4	5	_	Ő	0	_		
S Atlantic	13	10	12	112	452	5	2	11	106	22	
Delaware	1	0	42	442	452		0	0	100		
District of Columbia	_	Ō	2	4	5	_	0	1	_	_	
Florida	6	5	16	107	109	2	0	5	28	_	
Georgia		4	11	94	117	_	0	5	31		
North Carolina	4	4	26	51	61	3	0	0	33	17	
South Carolina <sup>§</sup>	1	1	5	37	35	_	Ő	3	9	_	
Virginia§	1	2	10	57	51	_	0	1	3	_	
West Virginia	—	0	6	9	8	—	0	3	2	5	
E.S. Central	5	4	11	78	98	3	0	6	35	6	
Alabama§	N	0	0	N	N	N	0	0	N	Ν	
Kentucky	1	0	4	18	27	_	0	0	_	_	
MISSISSIPPI	N 4	0	0	IN 60	N 71	3	0	2	2	6	
	4	0	,	00	/ 1	0	0	0			
W.S. Central	3	6	61	124	1/2	—	4	39	101	/4	
Louisiana	_	0	2	4	2	_	0	4	24	2	
Oklahoma	2	2	5	40	53	_	ĭ	12	22	16	
Texas§	_	3	56	68	102	—	2	24	48	44	
Mountain	3	11	42	249	295	3	4	12	91	95	
Arizona	_	5	34	101	152	_	2	7	54	57	
Colorado	3	2	9	70	51	3	1	4	22	22	
Idano <sup>s</sup> Montana <sup>§</sup>	N	0	1	6	5 N	N	0	1	2	1 N	
Nevada§		0	1	1	1		0	1	1		
New Mexico§	_	1	6	20	59	_	0	4	12	15	
Utah	_	1	7	48	25	—	0	0	_	_	
Wyoming <sup>®</sup>	—	0	1	3	2	—	0	0	—	—	
Pacific	1	3	9	42	34	1	0	4	13	3	
Alaska	1	0	2	10	N	1	0	2	11		
California Hawaii	N	0	0	N 22	N 24	N	0	0	N	N 2	
Oregon <sup>§</sup>	N	0	9	N	04 N	N	0	0	N	N	
Washington	N	Ő	õ	N	N	N	õ	õ	N	N	
American Samoa	Ш	0	0	П	11	U	0	0	Ш	11	
C.N.M.I.	Ŭ	_	_	Ŭ	Ŭ	Ŭ	_	_	Ŭ	Ŭ	
Guam	_	_	_	—	_	N	_	_	Ν	Ν	
Puerto Rico		0	0			N	0	0	N	N	

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		Str	All organ	us pneum	<i>oniae</i> , inva	sive diseas	e, drug re	esistant <sup>*</sup>			C.um	hilio nr	imoni on	daaaand	
		Prev	vious	,			Prev	ious	5		Зур	Prev	vious	u seconu	ary
	Current	52 w	eeks	Cum	Cum	Current	52 v	veeks	Cum	Cum	Current	52 v	/eeks	Cum	Cum
Reporting area	week	Med	Max	2007	2006	week	Med	Max	2007	2006	week	Med	Max	2007	2006
United States	29	43	242	990	1,149	7	7	32	149	148	79	182	297	2,707	3,046
New England	1	1	7	24	70	1	0	2	4	2	2	4	13	70	65
Maine <sup>§</sup>	_	0	2	5	3	_	0	1	1	1	_	0	1	9 1	3
Massachusetts	—	0	0	_	_	_	0	0	—	—	2	2	7	43	35
New Hampshire	—	0	0		_	—	0	0	_	—	—	0	2	7	5
Vermont <sup>§</sup>	1	0	4	8 11	3	1	0	1	2	1	_	0	5 1	9 1	5
Mid. Atlantic	3	3	7	67	64	_	0	5	16	10	15	24	44	532	381
New Jersey		0	0		-	_	0	0	_	_	_	3	8	57	66
New York (Upstate)	1	1	5	22	17	—	0	4	7	4	15	3	14	41	53
Pennsylvania	2	2	6	45	47	_	0	2	9	6	15	5	35 12	357	84
E.N. Central	14	10	40	258	248	1	1	7	30	42	9	15	32	182	307
Illinois	_	0	2	_3	9	—	0	1	1	3	—	6	13	35	170
Indiana Michigan	8	2	30	59	56	_	0	5	5	12	2	2	5 10	15 /1	26
Ohio	5	5	38	195	174	1	1	5	24	26	4	4	9	71	66
Wisconsin	Ν	0	0	Ν	Ν	—	0	0	—	—	3	1	4	20	13
W.N. Central	1	1	124	42	19	—	0	15	5	1		5	14	52	86
Kansas	_	0	1	4	_	_	0	0	_	_	_	0	3	28	9
Minnesota	_	Õ	123	_	_	_	Õ	15	_	_	_	ı 1	5	21	20
Missouri	1	1	6	32	19	—	0	2	3	1	—	3	9	21	48
Nebraska <sup>s</sup> North Dakota	_	0	1	2	_	_	0	0	_	_	_	0	2	_	2
South Dakota	_	0	3	4	_	_	0	1	2	_	_	0	3	_	_
S. Atlantic	8	21	54	455	604	3	3	8	70	52	30	42	175	477	656
Delaware	_	0	1	3	17	_	0	1	1		1	0	3	3 51	10
Florida	8	11	29	264	281	3	2	8	63	49	_	13	23	68	247
Georgia	_	6	17	157	267		0	1	_	1	—	6	144	20	65
Maryland <sup>§</sup>	—	0	1	1	—	—	0	0	—	—	7	5	15	109	113
South Carolina <sup>§</sup>	_	0	0	_	_	_	0	0	_	_	2	э 1	23	31	27
Virginia <sup>§</sup>	Ν	õ	õ	N	Ν	_	Ő	õ	_	_	5	4	17	71	47
West Virginia	_	1	17	26	39	_	0	1	6	_	_	0	2	2	1
E.S. Central	1 N	3	8	64	86	2	0	3	13	16	2	14	29	256	207
Kentucky	IN	0	2	12	23	_	0	1	1	3	_	1	7	02 29	94 30
Mississippi	_	Õ	ō	_	_	_	Õ	Ö	_	_	2	2	10	45	21
Tennessee§	1	2	8	52	63	2	0	3	12	13	—	6	12	100	62
W.S. Central	1	1	7	56	9	—	0	2	5	3	17	29	56	505	489
Arkansas <sup>®</sup>	_	0	3	22	4	_	0	0	2	2		1	30	37	34
Oklahoma	1	0	6	33		_	0	2	3	_	_	1	5	27	27
Texas§	—	0	0	—	—	—	0	0	—	—	9	21	31	332	360
Mountain	_	1	5	24	49	_	0	5	6	22	_	8	27	87	153
Arizona	_	0	0	_	_	_	0	0	_	_	_	3	16	29	65
Idaho§	N	0	0	N	N	_	0	0	_	_	_	0	1	1	20
Montana§	_	0	0	_	_	_	0	0	_	_	—	0	1	1	1
Nevada§	—	0	3	13	12	—	0	2	3	—	_	1	12	19	32
New Mexico <sup>3</sup>	_	0	5	8	21	_	0	0	2	16	_	0	5	24	23
Wyoming <sup>§</sup>	_	õ	3	3	16	_	õ	2	1	6	_	õ	1	1	
Pacific	_	0	0	_	_	_	0	0	_	_	4	37	55	546	702
Alaska	N	0	0		N		0	0	_	_		0	2	4	5
Hawaii	IN	0	0	IN	IN	_	0	0	_	_	4	0	52 1	494	9
Oregon§	Ν	Ō	Ō	Ν	Ν	_	Ō	Ō	_	_	_	ō	6	5	5
Washington	N	0	0	N	Ν	_	0	0	—	—	_	2	11	42	70
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
Guam	N	_	_	N	N	_	_	_	_	_	_	_	_	_	
Puerto Rico	N	0	0	Ν	Ν		0	0			1	2	11	43	53
U.S. Virgin Islands	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U

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		Verie	alla (ahial	(			Mau	Wes	t Nile viru	s disease	,†	Nen			
		Varice	ella (chick	(enpox)			Reu	roinvasiv	ve			Non-I	vious	asive	
	Current	52 w	eeks	Cum	Cum	Current	52 v	veeks	Cum	Cum	Current	52 v	veeks	Cum	Cum
Reporting area	week	Med	Max	2007	2006	week	Med	Max	2007	2006	week	Med	Max	2007	2006
United States	659	786	1,543	16,103	20,500	_	0	178	_	9	_	1	399	_	3
New England	25	39	121	273	1,279	—	0	3	—	—	—	0	2	—	—
Maine <sup>1</sup>	_	13	76 17	_	739 115	_	0	3	_	_	_	0	0	_	_
Massachusetts	_	0	1		92	_	0	1	_	_	_	0	1	—	_
New Hampshire Bhode Island <sup>1</sup>	4	6 0	43	95	35	_	0	0	_	_	_	0	0	_	_
Vermont <sup>¶</sup>	21	10	66	178	298	_	õ	õ	_	_	_	õ	Ő	_	_
Mid. Atlantic	97	104	193	2,056	2,279	_	0	11	_	_	_	0	4	_	_
New Jersey	N	0	0	N	N	_	0	2	_	_	_	0	1	_	_
New York City		0	0			_	0	4	_	_	_	0	2	_	_
Pennsylvania	97	104	193	2,056	2,279	—	0	2	—	—	—	0	1	—	_
E.N. Central	257	228 1	568 10	4,840	7,651	_	0	43	_	_	_	0	33	_	_
Indiana	_	0	0			_	0	7	_	_	_	0	12	_	_
Michigan	48	90	258	1,870	2,227	_	0	11	_	_	_	0	2	_	_
Wisconsin	209	122	449 57	2,499 417	4,777	_	0	2	_	_	_	0	3	_	_
W.N. Central	47	30	136	929	980	_	0	36	_	_	_	0	79	_	_
lowa	N	0	0	N	N	_	0	3	_	_	_	0	4	_	_
Minnesota	21	0	52 0	308	1/6	_	0	6	_	_	_	0	3	_	_
Missouri	26	15	78	435	756	_	0	14	_	_	_	0	2	_	_
Nebraska <sup>1</sup> North Dakota	N	0	0 60	N 84	N 18	_	0	9 5	_	_	_	0	38 28	_	_
South Dakota	_	1	15	42	30	_	Ō	7	_	_	_	Ō	22	_	_
S. Atlantic	45	85	211	1,813	2,052	—	0	2	—	—	—	0	7	—	_
Delaware District of Columbia	_	1	6 5	12	39 14	_	0	0	_	_	_	0	0	_	_
Florida	33	Ő	43	517	N	—	Ő	1	_	—	—	Ö	Ö		_
Georgia Maryland <sup>1</sup>	N	0	0	N	N	_	0	1	_	_	_	0	4	_	_
North Carolina	_	Ö	0	_	_	_	Ö	1	_	_	_	Ő	0	_	_
South Carolina <sup>1</sup>	7	22	72	530	581	—	0	1	—	—	—	0	0	—	_
West Virginia	4	22	52	248 506	774	_	0	1	_	_	_	0	0	_	_
E.S. Central	16	5	43	152	34	_	0	15	_	3	_	0	16	_	_
Alabama <sup>1</sup>	16 N	5	43	150 N	34 N	_	0	2	_	_	_	0	0	_	_
Mississippi		0	2	2		_	0	10	_	3	_	0	16	_	_
Tennessee <sup>1</sup>	N	0	0	N	N	—	0	4	—	_	—	0	2	—	_
W.S. Central	137	200	966	4,808	4,750	—	0	58	—	4	—	0	26	—	2
Louisiana	1	9 1	92 11	46	383	_	0	4 13	_	_	_	0	2	_	1
Oklahoma		0	0	4 501		—	0	6	_		—	0	4	—	_
	136	1/2	8/3	4,591	4,328	_	0	38	_	4	_	0	16	_	1
Arizona	35	54 0	0	1,212	1,475	_	0	9	_		_	0	228 15	_	_
Colorado	22	21	51	439	757	—	0	10	—	2	—	0	51	—	1
Idano" Montana <sup>1</sup>	N	0	0 26	N 167	N N	_	0	30	_	_	_	0	157	_	_
Nevada <sup>1</sup>	_	Ő	3		5	—	Ö	9	_	—	—	Ö	16		_
New Mexico <sup>1</sup>	13	18	19 65	159	271 430	_	0	1	_	_	_	0	1	_	_
Wyoming <sup>1</sup>		0	11	13	12	_	Ö	7	_	_	_	Ő	10	_	_
Pacific	_	0	9	20		_	0	15	_	_	_	0	51	_	_
Alaska California	_	0	9	20	N	_	0	0 15	_	_	_	0	0 37	_	_
Hawaii	_	0	0	_	_	_	Ö	0	_	_	_	Ő	0	_	_
Oregon <sup>1</sup> Washington	N	0	0	N	N	_	0	2	_	_	_	0	14	_	_
American Samoa	11	0	0	11	11		0	n				n	ے م		
C.N.M.I.	Ŭ	_	_	Ŭ	Ŭ	Ŭ	_	_	Ŭ	Ŭ	Ŭ	_	_	Ŭ	Ŭ
Guam Puerto Bico	20		24	207	205	_			_	_	_			_	_
U.S. Virgin Islands	20 U	0	0	U	200 U	U	Ő	õ	U	U	U	Ő	Ő	U	U

C.N.M.I.: Commonwealth of Northern Mariana Islands. U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum. \* Incidence data for reporting years 2006 and 2007 are provisional. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data § for California serogroup, eastern equine, Powassan, St. Louis, and western equine diseases are available in Table I. Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 for the domestic arboviral diseases and influenza-1 associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at http://www.cdc.gov/epo/dphsi/phs/infdis.htm. "Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

#### TABLE III. Deaths in 122 U.S. cities,\* week ending May 5, 2007 (18th Week)

	All causes, by age (years)								All causes, by age (years)						
Reporting Area	All Ages	<u>≥</u> 65	45-64	25-44	1-24	<1	P&l⁺ Total	Reporting Area	All Ages	<u>≥</u> 65	45-64	25-44	1-24	<1	P&l⁺ Total
Reporting Area New England Boston, MA Bridgeport, CT Cambridge, MA Fall River, MA Hartford, CT Lowell, MA Lynn, MA New Bedford, MA New Haven, CT Providence, RI Somerville, MA Springfield, MA Waterbury, CT Worcester, MA Mid. Atlantic	Ages 582 152 24 20 60 24 10 23 15 64 3 47 26 93 2,143	≥65 420 92 17 19 19 44 15 5 9 23 11 46 3 29 20 73 1,460	45-64 102 38 4 1 1 1 1 6 - 2 12 10 5 12 411	<b>25-44</b> 32 10 2 1 - 1 2 1 2 - 1 2 - 6 - 6 164	1-24 11 5 1 - 1 1 1 - 1 - 1 - 1 - 1 - 1 - - - - - - - - - - - - -	<1 17 7  3  3  4  4  2  1 43	Total           56           12           3           4           8           4           8           4           8           4           8           4           3           6           2           3           4           2           3           116	Reporting Area S. Atlantic Atlanta, GA Baltimore, MD Charlotte, NC Jacksonville, FL Miami, FL Norfolk, VA Richmond, VA Savannah, GA St. Petersburg, FL Tampa, FL Washington, D.C. Wilmington, DE E.S. Central Birmingham, AL Chattanooga, TN	Ages 1,229 159 193 132 112 100 52 54 52 58 190 118 9 793 175 73	≥65 770 95 111 93 76 65 28 30 33 39 125 67 8 503 114 54	<b>45-64</b> 288 39 54 25 23 19 16 13 10 11 41 36 1 1 184 41 17	<b>25-44</b> 97 11 20 10 8 10 6 4 4 4 4 4 4 4 4 56 7 7 1	1-24 46 9 5 1 4 4 4 1 4 3 2 8 5 	<1 28 5 3 1 2 1 3 2 2 2 4 - 31 8 1	Total           72              17           11           5           8           4           9           4              65           13           4
Albany, NY Allentown, PA Buffalo, NY Camden, NJ Elizabeth, NJ Erie, PA Jersey City, NJ New York City, NY Newark, NJ Paterson, NJ Philadelphia, PA Pittsburgh, PA <sup>§</sup> Reading, PA Rochester, NY Schenectady, NY Scranton, PA Syracuse, NY Trenton, NJ Utica, NY	44 14 78 23 13 59 21 1,110 61 17 347 32 27 126 26 26 58 30 19	26 11 53 15 10 46 15 788 21 12 195 26 19 92 21 43 20 10	$ \begin{array}{c} 13\\3\\12\\4\\-\\222\\16\\1\\5\\5\\5\\14\\9\\2\end{array} $	1 5 4 2 1 2 67 9 2 58 3 - 8 - 1 1	2 5 1 24 1 26 1 2 1 2 1 1 2 1	2 3       8 14 1 1 3 	$ \begin{array}{c} 1 \\ -2 \\ 5 \\ 1 \\ 51 \\ 4 \\ 1 \\ 3 \\ 11 \\ 2 \\ 1 \\ 3 \\ 1 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2$	Knoxville, TN Lexington, KY Memphis, TN Mobile, AL Montgomery, AL Nashville, TN <b>W.S. Central</b> Austin, TX Baton Rouge, LA Corpus Christi, TX Dallas, TX El Paso, TX Fort Worth, TX Houston, TX Little Rock, AR New Orleans, LA <sup>11</sup> San Antonio, TX Shreveport, LA Tulsa, OK	91 52 147 69 38 148 1,594 106 30 64 187 135 121 351 69 U 293 110 128	56 31 84 49 26 89 997 63 23 43 107 94 86 198 44 U 195 69 75	23 11 36 13 8 35 401 21 5 5 77 48 26 28 101 18 0 72 27 38	7 4 13 4 4 16 113 14 2 2 15 11 2 15 5 U 14 6 11	1 11 1 38 5 9 3 1 10 0 7 1 2	5 5 3 2   7 45 3   2 8 1 4 11 2 U 5 7 2	6 5 16 4 3 14 86 11 3 14 6 6 13 3 0 8 7 5
E.N. Central Akron, OH Canton, OH Chicago, IL Cincinnati, OH Cleveland, OH Columbus, OH Dayton, OH Detroit, MI Evansville, IN Fort Wayne, IN Gary, IN Grand Rapids, MI Indianapolis, IN Lansing, MI Milwaukee, WI Peoria, IL Rockford, IL South Bend, IN Toledo, OH Youngstown, OH W.N. Central	2,058 42 34 349 92 270 185 125 174 50 59 23 52 193 46 73 52 34 36 117 52 648	1,370 26 27 191 57 189 128 91 99 36 44 10 34 126 35 53 46 22 30 81 45 441	438 10 5 87 18 32 27 53 10 12 11 12 46 9 15 4 5 4 21 4 140	143 5 47 7 8 12 4 15 2 3 2 9 - 2 2 4 2 8 1 39	63 1 23 6 4 6 2 3 1   2 9   2 2 1 2 13	43   1 1 4 6 7 1 4 1   4 3 2 3     6   15	$ \begin{array}{c}     163 \\     1 \\     3 \\     355 \\     15 \\     14 \\     24 \\     12 \\     7 \\     2 \\     4 \\     8 \\     13 \\     2 \\     3 \\     6 \\     2 \\     6 \\     6 \\     39 \\ \end{array} $	Mountain Albuquerque, NM Boise, ID Colorado Springs, CO Denver, CO Las Vegas, NV Ogden, UT Phoenix, AZ Pueblo, CO Salt Like City, UT Tucson, AZ Pacific Berkeley, CA Fresno, CA Glendale, CA Honolulu, HI Long Beach, CA Los Angeles, CA Pasadena, CA Portland, OR Sacramento, CA San Diego, CA	1,093 148 44 67 99 257 36 181 32 122 107 1,521 175 176 U 87 86 U 29 124 219 172 120	718 98 33 44 62 164 25 103 22 86 81 1,076 8 132 0 63 58 U 22 90 153 125 76	238 32 7 16 22 71 6 35 9 9 22 18 306 6 30 U 14 17 U 5 26 42 24 34	88 11 2 3 8 20 2 26 1 10 5 81 	31 4 1 2 2 3 2 3 2 30 6 0 3 0 2 6 5 2	18 3 1 2 5     5   1 1 28 1   U 5 1 U 1 2 7 3 1	75 8 4 9 16 1 9 3 14 7 103 2 14 0 10 4 0 4 9 11 11
Des Moines, IA Duluth, MN Kansas City, KS Kansas City, MO Lincoln, NE Minneapolis, MN Omaha, NE St. Louis, MO St. Paul, MN Wichita, KS	73 29 14 117 44 60 74 89 64 84	47 27 79 35 38 55 53 48 52	21 2 4 29 7 13 13 20 9 22	4 26253746	1 2 1 6 2 1	1  - 3  2 2 3 1 3	4 1 2 5 6 4 7 7 1 2	San Jose, CA Santa Cruz, CA Seattle, WA Spokane, WA Tacoma, WA <b>Total</b>	120 176 42 96 73 106 11,661**	128 30 61 54 76 7,755	34 38 9 25 15 21 2,508	7 5 3 6 3 6 813	1 2 3 315	4 2 1 268	12 10 1 6 3 775

U: Unavailable.

J: 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>1</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>1</sup>Because of Hurricane Katrina, weekly reporting of deaths has been temporarily disrupted. \*\* Total includes unknown ages.



## FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals May 5, 2007, with historical data

\* No measles cases were reported for the current 4-week period, yielding a ratio for week 18 of zero (0). † Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

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