



# MMWR<sup>TM</sup>

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### World TB Day, March 24, 2003

World TB Day is an annual event that commemorates the date in 1882 when Robert Koch announced his discovery of the tuberculosis (TB) bacillus. TB is one of the leading causes of death from infectious diseases worldwide. An estimated 2 billion persons—one third of the world's population—are infected with the bacteria that cause TB, and approximately 2 million persons die each year from TB. After years of decline in the United States, the number of reported TB cases increased 20% during 1985–1992. This resurgence was associated with deterioration of the infrastructure for TB services, the human immunodeficiency virus (HIV) epidemic, immigration of persons from countries where TB is endemic, TB transmission in congregate settings (e.g., hospitals and prisons), and development of multidrug-resistant TB. However, a renewed emphasis on TB control and prevention in the 1990s resulted in substantial declines in the disease. Provisional data indicate that 2002 will mark the 10th consecutive year of declining TB cases reported in the United States.

CDC is committed to the goal of eliminating TB in the United States. However, achieving this goal will not be possible without strengthening collaborations with national and international health partners to reach those at highest risk for TB and identifying innovative strategies to improve testing and treatment among high-risk populations. One important CDC effort has been the establishment of a binational TB referral system for TB patients who cross the United States–Mexico border. Other efforts include supporting public health action through prompt and accurate TB surveillance, assisting with the control of domestic outbreaks, and contributing to the global effort against TB. Additional information about World TB Day and CDC's TB elimination activities is available at <http://www.cdc.gov/nchstp/tb/worldtb2003/default.htm>.

### Trends in Tuberculosis Morbidity — United States, 1992–2002

During 2002, a total of 15,078 TB cases were reported to CDC, representing a 5.7% decline from 2001, a 43.5% decline from the 1992 peak of the TB resurgence, and the lowest recorded TB rate in the United States since reporting began in 1953. Declines have occurred since 1992 in all age groups, racial/ethnic populations, and regions of the United States. Despite this progress, the 2002 rate of 5.2 per 100,000 population remained higher than the 2000 interim goal of 3.5 set as part of the national strategic plan for TB elimination (<1 case per 1,000,000 by 2010) (1). This report summarizes data from the national TB surveillance system for 2002 and describes trends over the past decade. Overall national declines in TB incidence mask substantial disparities between rates in the majority of U.S. residents and rates in the two populations, foreign-born persons and U.S.-born non-Hispanic blacks, which now account for approximately three fourths of TB cases. Further progress toward TB elimination in the United States will depend on 1) domestic programs that provide services to foreign-born persons with latent TB infection, 2) collaborative efforts that reduce the burden of TB disease globally, and 3) intensified TB-control efforts that address higher TB rates in the U.S.-born non-Hispanic black population.

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The 50 states and the District of Columbia report to the national TB surveillance system by using a standard case definition and report form (2). Completeness of reporting to the national system is estimated to be >95% (3). Data were analyzed for cases reported during 1992–2002 by using case reports updated as of February 18, 2003. A U.S.-born person was defined as someone born in the United States or its associated jurisdictions, or someone born in a foreign country but having at least one U.S.-born parent; others were classified as foreign-born. U.S.-born and foreign-born population counts in 1992 were obtained from postcensus estimates (4). Overall U.S.-born and foreign-born population counts for 2002 were based on an extrapolation from the April 2000 U.S. Census, and the distribution of racial/ethnic groups was estimated from the March 2000 Current Population Survey (5).

In 2002, the overall TB case rate of 5.2 represents a decline of 7.1% from 2001 and 50.5% from 1992. During 1992–2002, case rates declined in all but three states (Table 1). Five states (California, Florida, Illinois, New York, and Texas) accounted for 52.5% of cases and 68.3% of the overall decrease in the number of cases; case rates in these states declined an average of approximately 50% during 1992–2002. The proportion of patients with multidrug-resistant TB (i.e., resistance to at least isoniazid and rifampin) decreased from 486 (2.7%) of 17,690 culture-positive cases with initial susceptibility results in 1993 (the first year for which data were collected) to 138 (1.3%) of 10,601 cases in 2002.

During 1992–2002, rates declined in both the U.S.-born and the foreign-born populations. However, the decline was substantially less among foreign-born populations (Table 2), and the ratio of foreign-born to U.S.-born rates doubled, from 4.2 in 1992 to 8.4 in 2002. In 2002, for the first time, TB cases among foreign-born persons accounted for the majority (51.0%) of TB cases in the United States. The number of states with >50% of cases among foreign-born persons increased from four in 1992 to 22 in 2002 (Figure). In seven states, approximately 70% of cases were among foreign-born persons (New Hampshire [79.0%], Idaho [76.9%], Minnesota [76.4%], California [75.8%], Massachusetts [75.7%], Hawaii [74.3%], and Colorado [70.2%]). As in 1992, the most common birth countries for foreign-born persons with TB in 2002 were Mexico (24.8%), the Philippines (11.3%), Vietnam (8.6%), India (7.6%), China (4.5%), Haiti (3.4%), and South Korea (2.7%). The proportion of patients who completed recommended treatment within 1 year was 81.0% in the U.S.-born and 79.2% in the foreign-born populations in 1999 (the most recent year for which these outcome data were available).

Despite a 68.4% decline in rates from 1992, U.S.-born non-Hispanic blacks in 2002 continued to have the highest TB

**TABLE 1. Number and rate\* of reported tuberculosis cases, percentage change in number of cases and rate, and rank according to percentage change in rate, by state and year — United States, 1992 and 2002†**

State	1992		2002		% change 1992–2002		Overall rank by % change in rate
	No.	Rate	No.	Rate	No.	Rate	
<b>≥500 cases in 2002</b>							
New York	4,574	(25.2)	1,435	(7.5)	-68.6	(-70.2)	1
Georgia	893	(13.2)	524	(6.1)	-41.3	(-53.8)	11
New Jersey	984	(12.6)	530	(6.2)	-46.1	(-50.8)	14
Illinois	1,270	(10.9)	680	(5.4)	-46.5	(-50.5)	15
Texas	2,510	(14.2)	1,550	(7.1)	-38.2	(-50.0)	16
Florida	1,707	(12.7)	1,086	(6.5)	-36.4	(-48.8)	20
California	5,382	(17.4)	3,169	(9.0)	-41.1	(-48.3)	22
<b>100–499 cases in 2002</b>							
Kentucky	402	(10.7)	146	(3.6)	-63.7	(-66.4)	4
Mississippi	281	(10.7)	135	(4.7)	-52.0	(-56.1)	9
Pennsylvania	758	(6.3)	353	(2.9)	-53.4	(-54.0)	10
Arkansas	257	(10.7)	136	(5.0)	-47.1	(-53.3)	12
Indiana	247	(4.4)	128	(2.1)	-48.2	(-52.3)	13
Tennessee	527	(10.5)	308	(5.3)	-41.6	(-49.5)	17
Hawaii	273	(23.5)	148	(11.9)	-45.8	(-49.4)	18
Missouri	245	(4.7)	136	(2.4)	-44.5	(-48.9)	19
Alabama	418	(10.1)	233	(5.2)	-44.3	(-48.5)	21
South Carolina	387	(10.7)	256	(6.2)	-33.9	(-42.1)	26
North Carolina	604	(8.8)	434	(5.2)	-28.1	(-40.9)	28
Massachusetts	428	(7.1)	271	(4.2)	-36.7	(-40.8)	29
Michigan	495	(5.2)	315	(3.1)	-36.4	(-40.4)	30
Virginia	457	(7.2)	315	(4.3)	-31.1	(-40.3)	31
Louisiana	373	(8.7)	231	(5.2)	-38.1	(-40.2)	32
Maryland	442	(9.0)	306	(5.6)	-30.8	(-37.8)	33
Connecticut	156	(4.8)	104	(3.0)	-33.3	(-37.5)	34
Oregon	145	(4.9)	111	(3.2)	-23.4	(-34.7)	35
Washington	306	(6.0)	252	(4.2)	-17.6	(-30.0)	38
Arizona	259	(6.8)	263	(4.8)	1.5	(-29.4)	39
Ohio	358	(3.2)	257	(2.3)	-28.2	(-28.1)	41
Colorado	104	(3.0)	104	(2.3)	0.0	(-23.3)	42
Oklahoma	216	(6.7)	190	(5.4)	-12.0	(-19.4)	44
Minnesota	165	(3.7)	237	(4.7)	43.6	(27.0)	50
<b>&lt;100 cases in 2002</b>							
Utah	78	(4.3)	31	(1.3)	-60.3	(-69.8)	2
West Virginia	92	(5.1)	30	(1.7)	-67.4	(-66.7)	3
Wyoming	8	(1.7)	3	(0.6)	-62.5	(-64.7)	5
South Dakota	32	(4.5)	13	(1.7)	-59.4	(-62.2)	6
Delaware	55	(8.0)	25	(3.1)	-54.5	(-61.3)	7
Idaho	26	(2.4)	14	(1.0)	-46.2	(-58.3)	8
Nevada	99	(7.5)	85	(3.9)	-14.1	(-48.0)	23
North Dakota	11	(1.7)	6	(0.9)	-45.5	(-47.1)	24
New Mexico	88	(5.6)	57	(3.1)	-35.2	(-44.6)	25
District of Columbia	146	(24.8)	82	(14.4)	-43.8	(-41.9)	27
Wisconsin	106	(2.1)	78	(1.4)	-26.4	(-33.3)	36
Montana	16	(1.9)	12	(1.3)	-25.0	(-31.6)	37
Iowa	49	(1.7)	34	(1.2)	-30.6	(-29.4)	39
Alaska	57	(9.7)	49	(7.6)	-14.0	(-21.6)	43
Rhode Island	54	(5.4)	49	(4.6)	-9.3	(-14.8)	45
New Hampshire	18	(1.6)	19	(1.5)	5.6	(-6.3)	46
Nebraska	28	(1.7)	28	(1.6)	0.0	(-5.9)	47
Maine	24	(1.9)	23	(1.8)	-4.2	(-5.3)	48
Vermont	7	(1.2)	8	(1.3)	14.3	(8.3)	49
Kansas	56	(2.2)	89	(3.3)	58.9	(50.0)	51
<b>Total</b>	<b>26,673</b>	<b>(10.5)</b>	<b>15,078</b>	<b>(5.2)</b>	<b>-43.5</b>	<b>(-50.5)</b>	

\* Per 100,000 population.

† Data for 1992 are final; data for 2002 are provisional.

**TABLE 2. Number and rate\* of tuberculosis cases, and percentage change in rate in U.S.-born and foreign-born persons, by race/ethnicity — United States, 1992 and 2002†**

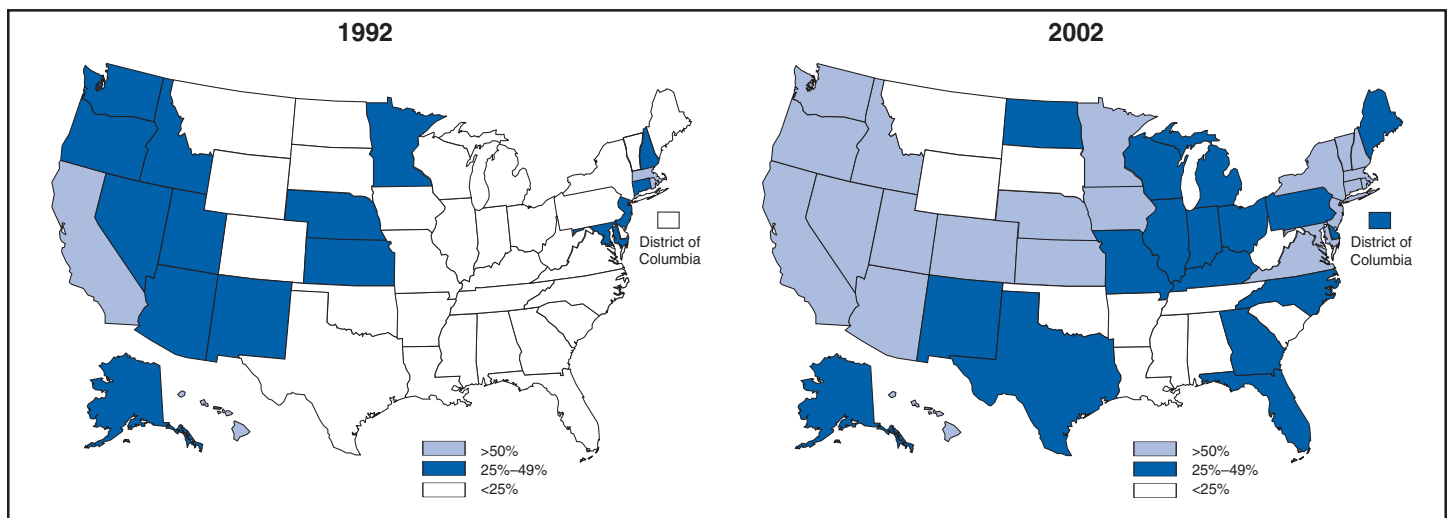
Race/Ethnicity	U.S.-born					Foreign-born					Total§				
	1992		2002		% change	1992		2002		% change	1992		2002		% change
	No.	Rate	No.	Rate	1992–2002	No.	Rate	No.	Rate	1992–2002	No.	Rate	No.	Rate	1992–2002
White, non-Hispanic	7,043	(3.8)	2,509	(1.3)	-65.8	540	(8.7)	484	(6.1)	-29.9	7,618	(4.0)	3,019	(1.5)	-62.5
Black, non-Hispanic	9,010	(31.0)	3,350	(9.8)	-68.4	591	(44.6)	1,008	(49.9)	11.9	9,623	(31.7)	4,425	(12.3)	-61.2
Hispanic	2,530	(16.1)	975	(4.7)	-70.8	2,828	(33.0)	2,914	(20.1)	-39.1	5,437	(22.4)	3,977	(11.3)	-49.6
American Indian/Alaska Native	298	(16.3)	177	(7.0)	-57.1	—	—	—	—	—	299	(16.1)	191	(7.4)	-54.0
Asian/Pacific Islander	319	(10.1)	162	(3.8)	-62.4	3,296	(66.5)	3,092	(41.3)	-37.9	3,649	(46.7)	3,312	(28.2)	-39.6
<b>Total¶</b>	<b>19,225</b>	<b>(8.2)</b>	<b>7,252</b>	<b>(2.8)</b>	<b>-65.9</b>	<b>7,270</b>	<b>(34.5)</b>	<b>7,544</b>	<b>(23.6)</b>	<b>-31.6</b>	<b>26,673</b>	<b>(10.5)</b>	<b>15,078</b>	<b>(5.2)</b>	<b>-50.5</b>

\* Per 100,000 population.

† Data for 1992 are final; data for 2002 are provisional.

§ Persons included for whom country of birth was unknown: 178 in 1992 and 282 in 2002.

¶ Persons included for whom race/ethnicity was unknown: 47 for all, 25 for U.S.-born, and 15 for foreign-born persons in 1992; 154 for all, 79 for U.S.-born, and 46 for foreign-born persons in 2002.

**FIGURE. Percentage of tuberculosis cases among foreign-born persons — United States, 1992 and 2002\***

\* Data for 1992 are final; data for 2002 are provisional.

rate of any U.S.-born racial/ethnic population. U.S.-born non-Hispanic blacks comprised the largest number of TB cases among both U.S.-born and foreign-born populations, representing 46.7% of TB cases in U.S.-born persons and approximately one fourth of all cases. Among U.S.-born racial/ethnic populations, rates among non-Hispanic blacks were 7.5 times higher and 2.1 times higher, respectively, than those among non-Hispanic whites and Hispanics, the two other U.S.-born groups that account for the majority of TB cases (Table 2).

**Reported by:** Div of Tuberculosis Elimination, National Center for HIV, STD, and TB Prevention, CDC.

**Editorial Note:** Since 1992, when TB cases in the United States peaked after 7 years of stable or increasing rates, TB case rates have declined an average of 5% per year. The strengthened TB control efforts that have been effective in reversing increases in TB rates among U.S.-born persons have had far less effect on TB rates among foreign-born persons (6). The reasons for these differences are unclear and require further study. The differences are not related to timeliness of

completion of therapy, which is similar among U.S.-born and foreign-born persons. However, the accelerated decline in overall U.S. TB cases probably resulted from the implementation of control measures that reduced ongoing transmission of *Mycobacterium tuberculosis* and the subsequent number of TB cases caused by recent infection (7). These measures are relatively less effective in controlling TB among foreign-born persons. Genotyping studies of *M. tuberculosis* isolates suggest that the majority of TB cases in foreign-born persons are the result of progression to disease among persons infected before immigrating to the United States (8).

Closing the gap in TB rates between U.S.-born and foreign-born populations is critical to TB elimination in the United States. Success will depend on domestic programs that provide services to foreign-born persons with latent TB infection and on collaborative efforts that reduce the burden of TB disease globally. To address the high rates in the foreign-born population, CDC is collaborating with other national and international public health organizations to 1) optimize

dis·patch: *n*

(dis-'pach) 1 : A written message, particularly an official communication, sent with speed; see also *MMWR*.



know what matters.





overseas screening of immigrants and refugees, 2) enhance the notification system that alerts local health departments to the arrival of immigrants or refugees with suspected TB to improve diagnosis and treatment, 3) establish a binational TB referral and case management system for the United States and Mexico to improve treatment completion by TB patients who cross the United States–Mexico border (the U.S.–Mexico Binational TB Referral and Case Management Project), 4) identify and treat persons arriving from high-incidence countries who have latent TB infection, and 5) strengthen collaborations with the World Health Organization and other international partners aimed at improving TB control in high-incidence countries (the STOP TB Partnership). In support of these efforts, CDC and its 22 partner research institutes, clinical centers, and health departments in the United States and Canada that compose the Tuberculosis Epidemiologic Studies Consortium have initiated a study to identify missed opportunities for TB prevention among foreign-born persons.

Although intensified TB control efforts helped reduce the TB case rate in the U.S.-born non-Hispanic black population by approximately 70% during 1992–2002, that rate has remained approximately eight times higher than the rate among non-Hispanic whites. Because much of this disparity is associated with socioeconomic status (9), intensified outreach programs tailored to the needs of low-income persons might accelerate TB elimination. CDC is funding demonstration projects in South Carolina, Georgia, and Chicago, Illinois, to identify innovative strategies to improve TB screening, diagnosis, and treatment adherence in high-risk black communities.

Elimination of health disparities is one of the national health goals for 2010 (Goal 2) (10). Closing the gaps in TB rates will help achieve this and the goal of TB elimination.

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## Transmission of *Mycobacterium Tuberculosis* Associated with Failed Completion of Treatment for Latent Tuberculosis Infection — Chickasaw County, Mississippi, June 1999–March 2002

During June 1999–March 2002, a total of 16 tuberculosis (TB) cases were reported from Chickasaw County, Mississippi (2000 population: 19,440), corresponding to annual TB incidences of 20.5–27.6 cases per 100,000 population. In comparison, annual TB incidences for Mississippi during the same period decreased from 7.8 to 5.4 cases per 100,000 population. This report summarizes the results of an investigation of the patients and their contacts and demonstrates the need for strategies to increase the proportion of infected contacts that successfully complete treatment for latent TB infection (LTBI).

During April–May 1, 2002, the Mississippi State Department of Health (MSDH) conducted an epidemiologic investigation of the high incidence of TB in Chickasaw County. Patients were interviewed, and health department medical records were reviewed for clinical data. Restriction fragment length polymorphism (RFLP) analysis using IS6110 was performed on all culture isolates. For contacts, LTBI was defined as infection in a patient with a tuberculin skin test (TST)  $\geq 5$  mm induration and no evidence of TB disease. Contact investigation logs were reviewed and health department records used to establish outcomes of treatment for LTBI.

The median age of the 16 TB patients was 31 years (range: 2–64 years); five (31%) were aged <16 years. Ten (63%) patients were male, and 15 (94%) were black. All 16 TB patients were born in the United States and were human immunodeficiency virus (HIV)-seronegative. For 11 patients from whom sputum specimens were obtained for bacteriologic examination, eight (73%) were culture-positive for *Mycobacterium tuberculosis*, of whom six (55%) also were sputum-smear positive for acid-fast bacilli. RFLP analysis performed on all eight culture-positive isolates showed seven (88%) with matching 10-band patterns. The contact investi-

gations and matching RFLP patterns suggest recent transmission of *M. tuberculosis*. Isolates from all culture-confirmed patients were susceptible to first-line anti-TB drugs (isoniazid, rifampin, pyrazinamide, and ethambutol). All 16 patients successfully completed a CDC-recommended course of treatment.

Among the 16 TB patients, five had been diagnosed previously with LTBI as a result of TB contact investigations; patients ranged in age from 28 to 51 years, and four (80%) had a history of regular alcohol use. MSDH attempted to treat all five patients, but all had either refused or stopped treatment. The patients subsequently progressed to active TB and became sources of infection for an additional 10 TB patients, including the five patients aged <16 years.

The 16 TB patients identified 364 contacts (median: 19 contacts per case; range: 6–90). The patients, with the assistance of a health department worker, classified 350 (96%) of these contacts as either close (63%) or casual (37%). The 364 contacts represented 253 persons. As of May 1, 2002, TST screening, including if indicated a 10–12 week follow-up TST, was completed for 230 (91%) of the 253 persons. TST screening results and subsequent evaluation (including chest radiograph, and if indicated, sputum examination) detected LTBI in 67 (26%) persons. Patients with LTBI were not offered HIV testing and counseling routinely.

Adults with LTBI were offered a 9-month regimen of daily self-administered isoniazid, dispensed at 1-month increments. Directly observed treatment for LTBI was offered both to children and those adults with known HIV infection. Treatment for LTBI was defined as complete if the patient had retrieved  $\geq 6$  months of isoniazid and was assessed by a supervising nurse as having completed treatment. Among the 67 persons with LTBI diagnosed, treatment was initiated in 57 (85%), discontinued in nine (13%) because of side effects, and completed in 36 (54%).

As a result of this investigation, patients in Chickasaw County with untreated LTBI were again offered treatment. To enhance completion of treatment for LTBI, MSDH hired additional outreach workers and expanded the use of direct observation of treatment for LTBI. MSDH staff targeted the use of direct observation to adult patients considered at high risk for treatment default, including persons who regularly used alcohol and those who had interrupted treatment previously. MSDH also is considering the use of incentives such as grocery coupons.

To identify barriers to LTBI treatment completion, MSDH in partnership with CDC, conducted three focus groups with TB-control staff, patients adherent to treatment for LTBI, and patients nonadherent to treatment for LTBI. Focus group participants suggested that TB-control staff persistence and

flexibility helped adherence to treatment for LTBI, as did participation of sex and race-matched community outreach workers. Many participants cited community and family stigma as treatment barriers and identified a need for additional information about the importance of LTBI treatment.

To address patient concerns and misconceptions, MSDH has initiated ongoing individual counseling during treatment for LTBI. Furthermore, MSDH has engaged community leaders, churches, and civic organizations to disseminate TB-related educational messages.

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**Editorial Note:** The findings in this investigation underscore the need to ensure completion of treatment for LTBI by infected contacts of TB patients. Integral components of successful contact investigations include patient interview, contact identification, and medical evaluation for active TB and LTBI (1), followed by successful initiation and completion of treatment for LTBI.

This investigation found that contact identification and evaluation were thorough and effective. For example, the median number of contacts identified and the proportion of contacts evaluated for LTBI were higher than those found in five other TB programs in a recent study of contact investigations (1,2). Despite these efforts, patients with untreated LTBI subsequently developed active TB and served as the source of ongoing TB transmission in the community. This contributed to the persistently high TB incidences in Chickasaw County.

The discovery of LTBI during contact investigation suggests recent infection. Because the risk for progression from infection to active disease is highest during the first 2 years following infection, priority should be given to treating infected contacts identified during contact investigations (3). Studies among populations at highest risk for loss to follow-up (e.g., injection-drug users, released jail inmates, and homeless persons) have shown that the use of incentives and direct observation of treatment substantially improves LTBI treatment completion rates (4–7). Among high-risk groups, these interventions might be cost-effective (8). Additional evaluation is needed to determine if patients outside these high-risk groups might benefit from incentives and direct observation of treatment. Qualitative evaluation of patient, staff, and sys-

tem barriers might identify community-specific barriers to treatment initiation and completion. In Chickasaw County, focus group findings suggested that ongoing individual counseling for patients with LTBI and efforts to reduce stigma through community engagement might promote completion of treatment for LTBI. A follow-up evaluation might help determine the effectiveness of these interventions.

Completion of treatment for LTBI is the final component of an effective contact investigation. If the actual number of infected contacts substantially exceeds those identified and successfully screened, the treatment completion rate might overestimate the contact investigation effectiveness (2). To effectively interrupt *M. tuberculosis* transmission, successful implementation of all elements of contact investigation is necessary (8). Treating patients with LTBI increasingly challenges the response capacity of state and local TB-control programs (9). Although the decline of TB in blacks has paralleled the overall national trends, in 2001, incidence among non-Hispanic blacks remained 8.6 times higher than incidence among whites (10). TB-control programs serving black communities with high TB incidence should have the resources necessary to control TB and reduce this health disparity.

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## Update: Influenza Activity — United States, 2002–03 Season

This report summarizes influenza activity in the United States during September 29, 2002–March 8, 2003,\* and updates the previous summary (1). Influenza activity was mild in the United States overall but varied by region. Preliminary data collected through the four components of the CDC influenza surveillance system suggest that national influenza activity peaked during the week ending February 8, 2003 (2).

As of the week ending March 8, the World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System collaborating laboratories in the United States tested 59,731 specimens for influenza viruses, of which 6,433 (10.8%) were positive. The percentage of specimens testing positive for influenza exceeded 10.0% during the week ending January 18 and appears to have peaked at 25.0% during the week ending February 8. During the three most recent influenza seasons (1999–00, 2000–01, and 2001–02), the peak percentage of specimens testing positive for influenza ranged from 23.9% to 30.9% (3; CDC, unpublished data, 2003). Of the 6,433 influenza viruses reported during the 2002–03 season, 2,916 (45.3%) were influenza type A and 3,517 (54.7%) were influenza type B viruses. However, during the weeks ending February 22–March 8, influenza A viruses have been reported more frequently (57.0%) than influenza B viruses. Of the 1,329 influenza type A viruses that have been subtyped, 1,089 (81.9%) are influenza A (H1N1)† viruses and 240 (18.1%) are influenza A (H3N2) viruses. For the season, influenza type A viruses have predominated in the New England, East North Central, Mountain, Pacific, and Mid-Atlantic regions, and influenza B viruses have predominated in the West South Central, South Atlantic, West North Central, and East South Central regions. However, during the weeks ending February 22–March 8, influenza A viruses were reported more frequently (71.1%) in the West South Central region than influenza B viruses.

CDC has characterized antigenically 266 influenza viruses submitted by U.S. laboratories since September 29, 2002: 65 influenza A (H1N1) viruses, 54 influenza A (H3N2) viruses, and 147 influenza B viruses. Of the 65 influenza A (H1N1) viruses, 45 (69.2%) had the N1 neuraminidase and 20 (30.8%) had the N2 neuraminidase. The hemagglutinin proteins of all 65 influenza A (H1N1) viruses were similar antigenically to the hemagglutinin of the vaccine strain A/New Caledonia/20/99 (H1N1). Of the 54 influenza A (H3N2) isolates that have been characterized, 47 (87.0%) were similar to A/Panama/2007/99, the H3N2 component of the 2002–03 influenza vaccine, and seven (13.0%) showed reduced

\* As of March 14, 2003. Reporting is incomplete.

† Includes both the A (H1N1) and A (H1N2) influenza virus subtypes.



titers to ferret antisera produced against A/Panama/2007/99. Of the 147 influenza B viruses that have been characterized, 146 (99.3%) belonged to the B/Victoria lineage and were similar antigenically to the vaccine strain B/Hong Kong/330/01, and one (0.7%) belonged to the B/Yamagata lineage and was similar to B/Sichuan/379/99.

During the weeks ending January 11–March 8, the weekly percentages of patient visits for influenza-like illness (ILI)<sup>§</sup> to approximately 750 sentinel providers in 49 states ranged from 1.5% to 3.1% and exceeded the national baseline of 1.9%<sup>¶</sup> for 7 consecutive weeks (the weeks ending January 25–March 8). The peak percentage of patient visits for ILI (3.1%) occurred during the weeks ending February 8 and 15. For the week ending March 8, the percentage of patient visits for ILI was 2.0%. During the 1999–2000, 2000–01, and 2001–02 influenza seasons, the peak percentages of patient visits for ILI ranged from 3.2% to 5.6% (3; CDC, unpublished data, 2003).

Since October 20, influenza activity\*\* has been reported by state and territorial epidemiologists as regional in at least one state each week. During the weeks ending December 7–21, widespread influenza activity was reported in Texas. Widespread activity was not reported again until the week ending January 18 and has been reported by two to 13 states each week since then. The greatest number of states reporting regional or widespread activity was 34 during the weeks ending February 8 and February 15. For the week ending March 8, nine states reported widespread influenza activity, and 23 reported regional influenza activity.

During the week ending March 8, of the deaths in the 122 Cities Mortality Reporting System, 8% were attributed to pneumonia and influenza (P&I). This percentage was below the epidemic threshold<sup>††</sup> of 8.3% for that week. The percentage of P&I deaths has been below the epidemic threshold each week during September 29–March 8.

**Reported by:** L Brammer, MPH, A Postema, MPH, S Harper, MD, A Klimov, PhD, N Cox, PhD, WHO Collaborating Center for Surveillance, Epidemiology and Control of Influenza, Div of Viral and

*Rickettsial Diseases, National Center for Infectious Diseases; P Terebuh, MD, EIS Officer, CDC.*

**Editorial Note:** Although overall influenza activity has been mild this season, numerous outbreaks have been reported among school children, some leading to school closures, and severe illnesses and deaths associated with influenza have been reported in children. These severe illnesses and deaths were not associated with a single influenza virus type; both influenza A (H1) and influenza B viruses were identified.

CDC contributes to the international surveillance for influenza through the World Health Organization's (WHO) Global Influenza Programme as the WHO Collaborating Center for Surveillance, Epidemiology and Control of Influenza. In February, the Hong Kong Department of Health (DOH) confirmed influenza A (H5N1) infection in two patients from a single family of Hong Kong residents who had traveled recently to Fujian Province on the Chinese mainland. The first case occurred in a boy aged 9 years who was hospitalized in Hong Kong and recovered. The second case occurred in the boy's father, who died in a Hong Kong hospital on February 16. Additional family members had respiratory symptoms, and the boy's sister aged 8 years died while the family was in China. The Hong Kong DOH has intensified its influenza surveillance, and no additional human infections with A (H5N1) virus have been identified. No indication exists that the influenza A (H5N1) virus has spread outside Asia. On February 26, CDC issued recommendations to state health departments for enhanced influenza surveillance in the United States. CDC is in communication with WHO about these cases of influenza A (H5N1) and will continue to monitor the situation.

Influenza surveillance reports for the United States are published weekly during October–May and are available at <http://www.cdc.gov/ncidod/diseases/flu/weekly.htm> or through CDC's voice (telephone, 888-232-3228) and fax (telephone, 888-232-3299, document number 361100) information systems.

### Acknowledgments

This report is based on data contributed by participating state and territorial epidemiologists and state public health laboratory directors, WHO collaborating laboratories, National Respiratory and Enteric Virus Surveillance System collaborating laboratories, U.S. Influenza Sentinel Provider Surveillance System, and Div of Public Health Surveillance and Informatics, Epidemiology Program Office, CDC.

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

<sup>¶</sup> The national baseline was calculated as the mean percentage of visits for ILI during noninfluenza weeks plus two standard deviations. Wide variability in regional data precludes calculating region-specific baselines and makes it inappropriate to apply the national baseline to regional data.

\*\* Levels of activity are 1) *no activity*, 2) *sporadic*—sporadically occurring ILI or laboratory-confirmed influenza with no outbreaks detected, 3) *regional*—outbreaks of ILI or laboratory-confirmed influenza in counties with a combined population of <50% of a state's population, and 4) *widespread*—outbreaks of ILI or laboratory-confirmed influenza in counties with a combined population of  $\geq 50\%$  of a state's population.

<sup>††</sup> The expected seasonal baseline proportion of P&I deaths reported by the 122 Cities Mortality Reporting System is projected by using a robust regression procedure in which a periodic regression model is applied to the observed percentage of deaths from P&I during the previous 5 years. The epidemic threshold is 1.654 standard deviations above the seasonal baseline (3).

## Outbreak of Severe Acute Respiratory Syndrome —Worldwide, 2003

Since late February 2003, CDC has been supporting the World Health Organization (WHO) in the investigation of a multicountry outbreak of atypical pneumonia of unknown etiology. The illness is being referred to as severe acute respiratory syndrome (SARS). This report describes the scope of the outbreak, preliminary case definition, and interim infection control guidance for the United States.

On February 11, the Chinese Ministry of Health notified WHO that 305 cases of acute respiratory syndrome of unknown etiology had occurred in six municipalities in Guangdong province in southern China during November 16, 2002–February 9, 2003. The disease was characterized by transmission to health-care workers and household contacts; five deaths were reported (*1*). On February 26, a man aged 47 years who had traveled in mainland China and Hong Kong became ill with a respiratory illness and was hospitalized shortly after arriving in Hanoi, Vietnam. Health-care providers at the hospital in Hanoi subsequently developed a similar illness. The patient died on March 13 after transfer to an isolation facility in Hong Kong. During late February, an outbreak of a similar respiratory illness was reported in Hong Kong among workers at another hospital; this cluster was linked to a patient who had traveled previously to southern China. On March 12, WHO issued a global alert about the outbreak and instituted worldwide surveillance.

As of March 19, WHO has received reports of 264 patients from 11 countries with suspected and probable\* SARS (Table). Areas with reported local transmission include Hong Kong and Guangdong province, China; Hanoi, Vietnam; and

\* Suspected cases (Box) with either a) radiographic evidence of pneumonia or respiratory distress syndrome or b) evidence of unexplained respiratory distress syndrome by autopsy are designated probable cases by the WHO case definition.

**TABLE. Number of suspected and probable cases and deaths from severe acute respiratory syndrome, by location — Worldwide, 2003\***

Location	No. cases	Deaths	
		No.	(%)
Hong Kong	150	5	(3)
Vietnam	56	2	(4)
Singapore	31	0	—
Canada	8	2	(25)
Taiwan	3	0	—
Germany	1	0	—
Thailand	1	0	—
Slovenia	1	0	—
United Kingdom	1	0	—
United States	11	0	—
Spain	1	0	—
<b>Total</b>	<b>264</b>	<b>9</b>	<b>(3)</b>

\* As of March 19, 2003.

Source: World Health Organization.

Singapore. More limited transmission has been reported in Taipei, Taiwan, and Toronto, Canada. The initial cases reported in Singapore, Taiwan, and Toronto were among persons who all had traveled to China.

On March 15, after issuing a preliminary case definition for suspected cases (Box), CDC initiated enhanced domestic surveillance for SARS. CDC also issued a travel advisory suggesting that persons planning nonessential travel to Hong Kong, Guangdong, or Hanoi consider postponing their travel ([http://www.cdc.gov/travel/other/acute\\_resp\\_syn\\_multi.htm](http://www.cdc.gov/travel/other/acute_resp_syn_multi.htm)). On March 16, CDC began advising passengers arriving on direct flights from these three locations to seek medical attention if they have symptoms of febrile respiratory illness. As of March 18, approximately 12,000 advisory notices had been distributed to airline passengers. In addition, surveillance is being heightened for suspected cases of SARS among arriving passengers. As of March 19, a total of 11 suspected cases of SARS in the United States are under investigation by CDC and state health authorities.

Among patients reported worldwide as of March 19, the disease has been characterized by rapid onset of high fever, myalgia, chills, rigor, and sore throat, followed by shortness of breath, cough, and radiographic evidence of pneumonia. The incubation period has generally been 3–5 days (range: 2–7 days). Laboratory findings have included thrombocytopenia and leukopenia. Many patients have had respiratory distress or severe pneumonia requiring hospitalization, and several have required mechanical ventilation. Of the 264 suspected and probable cases reported by WHO, nine (3%) persons have died. In addition, secondary attack rates of >50% have been observed among health-care workers caring for patients with

### BOX. CDC preliminary case definition for severe acute respiratory syndrome (SARS)\*

#### Suspected case

Respiratory illness of unknown etiology with onset since February 1, 2003, and the following criteria:

- Documented temperature >100.4°F (>38.0°C)
- One or more symptoms of respiratory illness (e.g., cough, shortness of breath, difficulty breathing, or radiographic findings of pneumonia or acute respiratory distress syndrome)
- Close contact<sup>†</sup> within 10 days of onset of symptoms with a person under investigation for or suspected of having SARS or travel within 10 days of onset of symptoms to an area with documented transmission of SARS as defined by the World Health Organization (WHO).

\* As of March 19, 2003.

<sup>†</sup> Defined as having cared for, having lived with, or having had direct contact with respiratory secretions and/or body fluids of a person suspected of having SARS.

SARS in both Hong Kong and Hanoi. Additional clinical and epidemiologic details are available from WHO at <http://www.who.int/wer/pdf/2003/wer7812.pdf>.

In the United States, initial diagnostic testing for persons with suspected SARS should include chest radiograph, pulse oximetry, blood cultures, sputum Gram stain and culture, and testing for viral respiratory pathogens, particularly influenza types A and B and respiratory syncytial virus. Clinicians should save any available clinical specimens (e.g., respiratory samples, blood, serum, tissue, and biopsies) for additional testing until diagnosis is confirmed. Instructions for specimen collection are available from CDC at <http://www.cdc.gov/ncidod/sars/pdf/specimencollection-sars.pdf>. Specimens should be forwarded to CDC by state health departments after consultation with the SARS State Support Team at the CDC Emergency Operations Center.

Clinicians evaluating suspected cases should use standard precautions (e.g., hand hygiene) together with airborne (e.g., N-95 respirator) and contact (e.g., gowns and gloves) precautions (<http://www.cdc.gov/ncidod/sars/infectioncontrol.htm>). Until the mode of transmission has been defined more precisely, eye protection also should be worn for all patient contact. As more clinical and epidemiologic information becomes available, interim recommendations will be updated.

**Reported by:** CDC SARS Investigative Team; AT Fleischauer, PhD, EIS Officer, CDC.

**Editorial Note:** During 2000, approximately 83 million non-resident passengers arrived in China, 13 million in Hong Kong, and 2 million in Vietnam, and approximately 460,000 residents of China, Hong Kong, and Vietnam traveled to the United States (2). During January 1, 1997–March 18, 2003, an estimated 5% of ill tourists worldwide who sought post-travel care from one of 35 worldwide GeoSentinel travel clinics had pneumonia (International Society of Tropical Medicine, unpublished data, 2003). In the United States, approximately 500,000 persons with pneumonia require hospitalization each year; in approximately half of these cases, no etiologic agent is identified despite intensive investigation (3,4). On the basis of these data and the broad and necessarily nonspecific case definition, cases meeting the criteria for SARS are anticipated worldwide and in the United States. However, most of the anticipated cases are expected to be unrelated to the current outbreak.

Electron microscopic identification of paramyxovirus-like particles has been reported from Germany and Hong Kong (5). This family of viruses includes measles, mumps, human parainfluenza viruses, and respiratory syncytial virus in addition to the recently identified henipaviruses and metapneumovirus. Additional testing is under way to confirm a definitive etiology. Identification of the causative agent

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should lead to specific diagnostic tests, simplify surveillance, and focus treatment guidelines and infection control guidance.

Clinicians and public health officials who suspect cases of SARS are requested to report such cases to their state health departments. CDC requests that reports of suspect cases from state health departments, international airlines, cruise ships, or cargo carriers be directed to the SARS Investigative Team at the CDC Emergency Operations Center, telephone 770-488-7100. Additional information about SARS (e.g., infection control guidance and procedures for reporting suspected cases) is available at <http://www.cdc.gov/ncidod/sars>. Global case counts are available at <http://www.who.int>.

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#### *Public Health Dispatch*

### **Absence of Transmission of the d9 Measles Virus — Region of the Americas, November 2002–March 2003**

In 1994, countries of the Region of the Americas set a goal of interrupting indigenous measles transmission (1), and the regional plan of action for achieving this goal was begun in 1996. As of March 16, 2003, the Region of the Americas has been free for 17 weeks from known circulation of the d9\* measles virus, the strain responsible for the only large outbreak of measles in the region during 2002 (Figure).

The measles vaccination strategy recommended by the Pan American Health Organization (PAHO) includes a one-time, national “catch-up” campaign for all children aged 1–14 years, routine “keep-up” vaccination for infants aged 1 year, and national “follow-up” campaigns every 3–4 years for all children aged 1–4 years, regardless of measles vaccination history (2). Other key components of the strategy include rapid house-

to-house monitoring for local validation of vaccination activities and active epidemiologic and virologic surveillance (3).

During 1997–2001, reported confirmed measles cases in the Region of the Americas decreased 99%, from 53,683 in 1997 to 541 in 2001 (4–6). During September 2001, transmission of the D6 measles virus genotype, which had circulated in the region since 1995 and had caused large outbreaks in Argentina, Bolivia, Brazil, the Dominican Republic, and Haiti, was finally interrupted. However, also during September 2001, the recently discovered measles genotype d9 was introduced into Venezuela by a Venezuelan traveler returning from Europe and resulted in an outbreak that spread to neighboring Colombia during January 2002. This outbreak was attributable to low routine vaccination coverage in Venezuela (7). Because Colombia, unlike Venezuela, did not have a large cohort of susceptible children, the outbreak was controlled easily. Following nationwide vaccination efforts by both countries, transmission of the d9 measles virus has been interrupted. The last reported case occurred in Carabobo, Venezuela, on November 16, 2002. During the outbreak, 2,501 cases were reported in Venezuela and 140 in Colombia. As of March 16, no circulation of the d9 measles virus has been reported anywhere in the region for the preceding 17 weeks. During this same 17-week period, 1,066 suspected cases of measles were reported, of which 846 (79%) were measles IgM-antibody negative and discarded, 216 (20%) are still under investigation but do not appear to be linked to a measles outbreak; four (<1%) were confirmed, one from Canada and three from the United States. These confirmed cases are presumed to be associated with importations; virus genotyping data are pending.

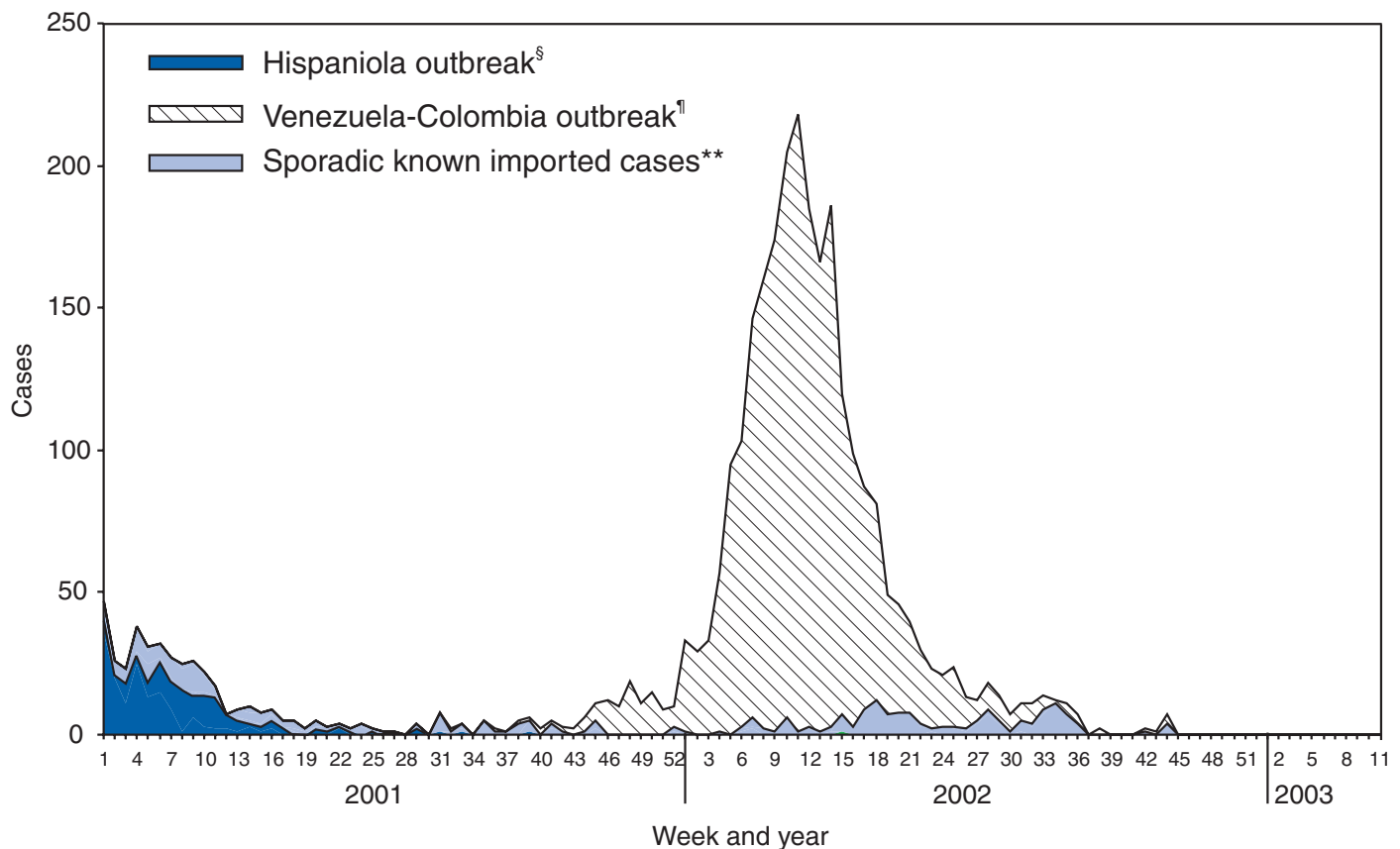
Progress toward interruption of indigenous measles transmission in the Region of the Americas reflects sustained high political commitment by member countries and full implementation of PAHO's recommended measles-control strategies and suggests that global measles eradication is achievable. However, important challenges remain. Measles is still endemic in other regions, and sporadic cases continue to occur in the Region of the Americas because of importation. The majority of countries in the region have not achieved and sustained routine measles vaccination coverage rates of  $\geq 95\%$  in all municipalities. Because poor, underserved neighborhoods in large cities that attract migrants of rural origin are particularly at risk for measles outbreaks when the virus is reintroduced, persons living in these areas are targeted for supplementary vaccination activities.

**Reported by:** H Izurieta, MD, V Dietz, MD, P Carrasco, MPH, M Landaverde, MD, C Castillo, MD, Immunization Unit; M Brana, MPP, G Tambini, MD, Family and Community Health Area, Pan American Health Organization, Washington, DC. W Bellini, PhD, J Rota, MPH, P Rota, PhD, Div of Viral and Rickettsial Diseases,

\*The lowercase letter is used for newly identified measles genotypes, pending an update of measles genotypes in the World Health Organization Weekly Epidemiological Record.



FIGURE. Number of measles cases\*, by week and year of rash onset — Region of the Americas, January 2001–March 2003†



\* n = 3,095.

† As of March 16, 2003.

§ D6 measles virus genotype isolated.

¶ d9 measles virus genotype isolated. The lowercase letter is used for newly identified measles genotypes, pending an update of measles genotypes in the World Health Organization Weekly Epidemiological Record.

\*\* Other measles genotypes isolated.

National Center for Infectious Diseases; F Lievano, MD, P Strelbel, MD, Global Immunization Div, National Immunization Program, CDC.

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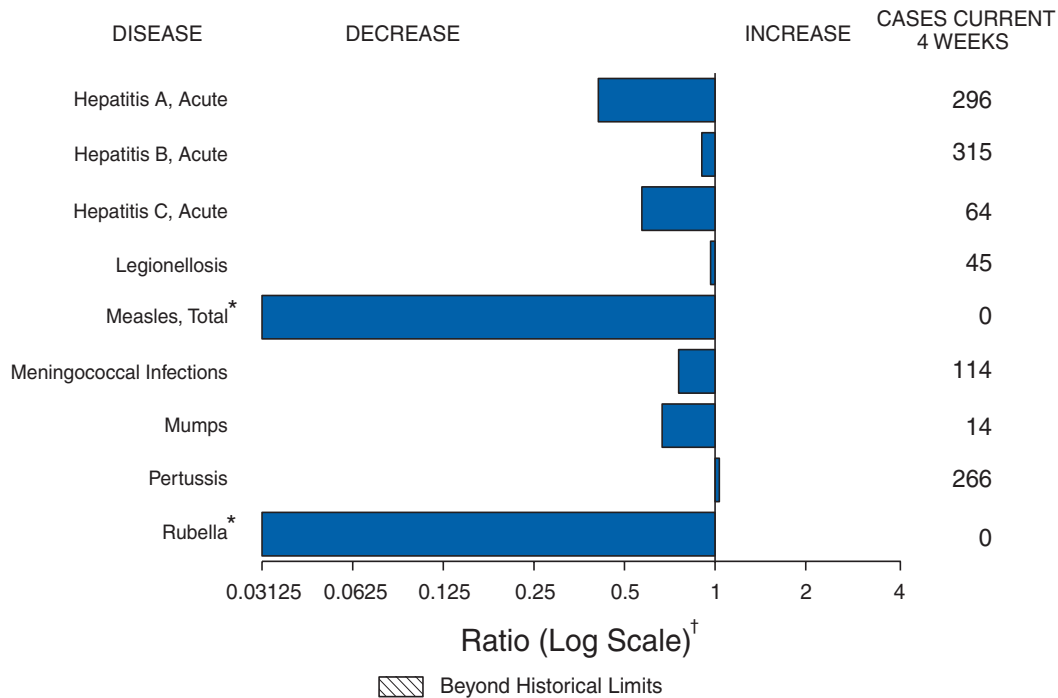
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#### Notice to Readers

### Smallpox Vaccine Adverse Events Among Civilians — United States, 2003

During January 24–March 14, smallpox vaccine was administered to 21,698 civilian health-care and public health workers in 52 jurisdictions. Surveillance for adverse events during the civilian smallpox vaccination program is ongoing. The number of weekly smallpox vaccine adverse events reported among civilian vaccinees and civilian contacts of civilian and military vaccinees that are received by CDC from the Vaccine Adverse Event Reporting System is posted every Thursday at <http://www.cdc.gov/od/oc/media/smpxrprt.htm>. Surveillance reports including brief clinical descriptions of noteworthy cases are published regularly in *MMWR*.

(Continued on page 239)

**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending March 15, 2003, with historical data**

\* No measles and rubella cases were reported for the current 4-week period yielding a ratio for week 11 of zero (0).

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

**TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending March 15, 2003 (11th Week)\***

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	1	Hansen disease (leprosy) <sup>†</sup>	10	12
Botulism:	-	-	Hantavirus pulmonary syndrome <sup>†</sup>	4	-
foodborne	2	4	Hemolytic uremic syndrome, postdiarrheal <sup>†</sup>	20	23
infant	12	15	HIV infection, pediatric <sup>§</sup>	49	28
other (wound & unspecified)	4	5	Measles, total	3 <sup>¶</sup>	5 <sup>**</sup>
Brucellosis <sup>†</sup>	10	17	Mumps	37	62
Chancroid	8	16	Plague	-	-
Cholera	-	1	Poliomyelitis, paralytic	-	-
Cyclosporiasis <sup>†</sup>	8	21	Psittacosis <sup>†</sup>	2	11
Diphtheria	-	-	Q fever <sup>†</sup>	8	6
Ehrlichiosis:	-	-	Rabies, human	-	-
human granulocytic (HGE) <sup>†</sup>	7	11	Rubella	-	1
human monocytic (HME) <sup>†</sup>	6	2	Rubella, congenital	-	1
other and unspecified	-	-	Streptococcal toxic-shock syndrome <sup>†</sup>	27	23
Encephalitis/Meningitis:	-	-	Tetanus	1	4
California serogroup viral <sup>†</sup>	-	-	Toxic-shock syndrome	17	30
eastern equine <sup>†</sup>	-	-	Trichinosis	1	3
Powassan <sup>†</sup>	-	-	Tularemia <sup>†</sup>	4	4
St. Louis <sup>†</sup>	-	-	Yellow fever	-	1
western equine <sup>†</sup>	-	-			

-: No reported cases.

\* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

<sup>†</sup> Not notifiable in all states.

<sup>§</sup> Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP). Last update February 23, 2003.

<sup>¶</sup> Of three cases reported, two were indigenous and one was imported from another country.

\*\* Of five cases reported, four were indigenous and one was imported from another country.

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 15, 2003, and March 16, 2002 (11th Week)\***

Reporting area	AIDS		Chlamydia†		Coccidiomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2003§	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	6,085	6,339	140,338	163,833	705	841	235	447	-	-
NEW ENGLAND	209	205	4,981	5,562	-	-	17	15	-	-
Maine	-	1	163	275	N	N	1	-	-	-
N.H.	3	4	282	347	-	-	-	3	-	-
Vt.	5	4	226	151	-	-	3	1	-	-
Mass.	49	132	1,808	2,171	-	-	8	5	-	-
R.I.	21	21	589	567	-	-	3	3	-	-
Conn.	131	43	1,913	2,051	N	N	2	3	-	-
MID. ATLANTIC	1,622	1,364	11,454	18,078	-	-	23	56	-	-
Upstate N.Y.	73	70	3,270	2,381	N	N	11	8	-	-
N.Y. City	962	857	761	6,294	-	-	4	23	-	-
N.J.	179	257	2,109	2,964	-	-	2	3	-	-
Pa.	408	180	5,314	6,439	N	N	6	22	-	-
E.N. CENTRAL	617	664	24,817	29,645	1	4	55	131	-	-
Ohio	99	152	6,649	7,619	-	-	12	35	-	-
Ind.	95	84	3,394	3,559	N	N	4	11	-	-
Ill.	239	333	5,481	8,371	-	-	5	24	-	-
Mich.	156	66	6,219	6,575	1	4	15	22	-	-
Wis.	28	29	3,074	3,521	-	-	19	39	-	-
W.N. CENTRAL	115	105	9,012	8,941	-	-	29	34	-	-
Minn.	14	19	1,555	2,210	N	N	14	10	-	-
Iowa	18	22	953	710	N	N	5	4	-	-
Mo.	71	34	3,521	2,963	-	-	2	9	-	-
N. Dak.	-	-	168	237	N	N	-	2	-	-
S. Dak.	3	1	509	451	-	-	6	2	-	-
Nebr.	1	13	792	782	-	-	2	5	-	-
Kans.	8	16	1,514	1,588	N	N	-	2	-	-
S. ATLANTIC	1,157	1,963	30,795	29,460	1	-	58	88	-	-
Del.	27	45	643	580	N	N	1	1	-	-
Md.	47	250	3,357	3,108	1	-	7	3	-	-
D.C.	164	87	741	748	-	-	-	1	-	-
Va.	197	155	3,232	3,156	-	-	5	1	-	-
W. Va.	3	11	520	488	N	N	-	1	-	-
N.C.	75	134	4,956	3,826	N	N	7	11	-	-
S.C.	132	136	2,746	2,980	-	-	1	1	-	-
Ga.	218	472	6,556	6,193	-	-	25	46	-	-
Fla.	294	673	8,044	8,381	N	N	12	23	-	-
E.S. CENTRAL	237	258	10,953	11,334	-	-	13	20	-	-
Ky.	8	31	1,814	1,910	N	N	-	1	-	-
Tenn.	119	115	3,709	3,608	N	N	5	6	-	-
Ala.	45	57	3,039	3,554	-	-	6	12	-	-
Miss.	65	55	2,391	2,262	N	N	2	1	-	-
W.S. CENTRAL	804	726	20,084	22,579	-	-	2	8	-	-
Ark.	23	35	1,267	1,565	-	-	1	2	-	-
La.	49	182	3,338	3,941	N	N	-	1	-	-
Okla.	40	33	1,562	1,867	N	N	1	1	-	-
Tex.	692	476	13,917	15,206	-	-	-	4	-	-
MOUNTAIN	293	194	8,672	9,947	570	565	16	20	-	-
Mont.	6	4	410	438	N	N	1	-	-	-
Idaho	-	4	507	502	N	N	4	5	-	-
Wyo.	1	2	222	180	-	-	-	1	-	-
Colo.	56	34	1,783	2,921	N	N	3	5	-	-
N. Mex.	21	7	818	1,557	-	2	-	1	-	-
Ariz.	145	78	3,200	2,844	563	553	2	4	-	-
Utah	38	13	712	254	1	3	4	2	-	-
Nev.	26	52	1,020	1,251	6	7	2	2	-	-
PACIFIC	1,031	860	19,570	28,287	133	272	22	75	-	-
Wash.	68	82	3,124	2,886	N	N	-	15	-	-
Oreg.	46	90	1,496	1,344	-	-	5	7	-	-
Calif.	908	675	13,417	22,490	133	272	17	53	-	-
Alaska	6	2	561	699	-	-	-	-	-	-
Hawaii	3	11	972	868	-	-	-	-	-	-
Guam	1	-	-	-	-	-	-	-	-	-
P.R.	58	165	218	6	N	N	N	N	-	-
V.I.	1	45	-	43	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.

\* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

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

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update February 23, 2003.

**TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 15, 2003, and March 16, 2002 (11th Week)\***

Reporting area	<i>Escherichia coli</i> , Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped		Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002				
UNITED STATES	175	243	17	11	7	1	2,419	3,194	56,767	71,685
NEW ENGLAND	10	17	2	1	-	-	145	327	1,303	1,706
Maine	-	-	-	-	-	-	18	35	6	14
N.H.	2	1	-	-	-	-	11	13	22	28
Vt.	-	-	-	-	-	-	14	22	21	24
Mass.	4	9	-	1	-	-	83	185	428	744
R.I.	-	2	-	-	-	-	18	18	198	190
Conn.	4	5	2	-	-	-	1	54	628	706
MID. ATLANTIC	10	17	1	-	2	-	402	654	4,806	8,331
Upstate N.Y.	5	12	1	-	2	-	142	170	1,315	1,343
N.Y. City	2	1	-	-	-	-	196	202	345	2,596
N.J.	3	4	-	-	-	-	31	106	1,155	1,634
Pa.	N	N	-	-	-	-	33	176	1,991	2,758
E.N. CENTRAL	41	83	3	-	2	-	422	636	12,169	15,030
Ohio	13	14	3	-	2	-	178	184	4,094	4,234
Ind.	6	7	-	-	-	-	-	-	1,329	1,580
Ill.	5	24	-	-	-	-	80	185	2,646	4,741
Mich.	8	17	-	-	-	-	134	168	2,992	3,286
Wis.	9	21	-	-	-	-	30	99	1,108	1,189
W.N. CENTRAL	30	34	3	3	2	-	271	278	3,139	3,760
Minn.	11	8	3	3	-	-	83	83	401	671
Iowa	3	8	-	-	-	-	40	53	180	215
Mo.	8	9	N	N	N	N	72	71	1,730	1,794
N. Dak.	1	-	-	-	1	-	8	3	5	16
S. Dak.	2	1	-	-	-	-	10	13	25	52
Nebr.	4	5	-	-	-	-	34	26	233	296
Kans.	1	3	-	-	1	-	24	29	565	716
S. ATLANTIC	24	33	3	5	-	-	442	489	15,815	17,510
Del.	-	1	-	-	-	-	10	10	287	365
Md.	-	-	-	-	-	-	22	19	1,687	1,764
D.C.	-	-	-	-	-	-	-	11	551	612
Va.	2	3	-	-	-	-	39	16	1,598	2,071
W. Va.	-	-	-	-	-	-	5	4	168	191
N.C.	6	6	-	-	-	-	N	N	2,871	2,944
S.C.	-	-	-	-	-	-	10	3	1,566	1,699
Ga.	8	18	-	4	-	-	171	116	3,307	3,358
Fla.	8	5	3	1	-	-	185	310	3,780	4,506
E. S. CENTRAL	10	4	-	-	-	-	55	59	5,520	6,398
Ky.	1	-	-	-	-	-	N	N	753	741
Tenn.	5	3	-	-	-	-	22	22	1,690	2,030
Ala.	3	-	-	-	-	-	33	37	1,875	2,278
Miss.	1	1	-	-	-	-	-	-	1,202	1,349
W.S. CENTRAL	1	4	-	-	-	1	42	17	8,483	10,305
Ark.	1	-	-	-	-	-	27	17	754	975
La.	-	-	-	-	-	-	3	-	2,158	2,528
Okla.	-	-	-	-	-	-	12	-	628	846
Tex.	-	4	-	-	-	1	-	-	4,943	5,956
MOUNTAIN	22	17	4	1	1	-	256	252	1,987	2,341
Mont.	-	3	-	-	-	-	5	14	29	26
Idaho	6	1	2	-	-	-	30	6	16	22
Wyo.	-	-	-	1	-	-	3	2	11	14
Colo.	5	2	1	-	1	-	71	93	523	837
N. Mex.	-	2	1	-	-	-	11	26	164	311
Ariz.	8	3	N	N	N	N	55	42	890	728
Utah	3	3	-	-	-	-	56	38	64	19
Nev.	-	3	-	-	-	-	25	31	290	384
PACIFIC	27	34	1	1	-	-	384	482	3,545	6,304
Wash.	11	5	-	-	-	-	33	42	572	626
Oreg.	4	7	1	1	-	-	67	99	193	190
Calif.	12	21	-	-	-	-	250	295	2,496	5,232
Alaska	-	-	-	-	-	-	16	17	87	136
Hawaii	-	1	-	-	-	-	18	29	197	120
Guam	N	N	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	2	-	20	3
V.I.	-	-	-	-	-	-	-	-	-	16
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

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

\* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).



TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 15, 2003, and March 16, 2002 (11th Week)\*

Reporting area	<i>Haemophilus influenzae</i> , invasive								Hepatitis (viral, acute), by type	
	All ages		Age <5 years						A	
	All serotypes		Serotype B		Non-serotype B		Unknown serotype		Cum.	Cum.
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	2003	2002
UNITED STATES	282	400	2	4	39	73	9	4	902	2,077
NEW ENGLAND	22	35	-	-	1	5	1	-	27	87
Maine	1	1	-	-	-	-	-	-	1	3
N.H.	4	4	-	-	-	-	-	-	3	3
Vt.	4	2	-	-	-	-	-	-	1	-
Mass.	8	18	-	-	1	3	1	-	17	46
R.I.	-	-	-	-	-	-	-	-	2	4
Conn.	5	10	-	-	-	2	-	-	3	31
MID. ATLANTIC	45	72	-	1	7	10	2	-	115	226
Upstate N.Y.	23	32	-	1	6	4	1	-	21	34
N.Y. City	6	17	-	-	1	4	-	-	68	99
N.J.	8	19	-	-	-	2	-	-	15	40
Pa.	8	4	-	-	-	-	1	-	11	53
E.N. CENTRAL	23	63	1	1	5	9	-	-	111	257
Ohio	13	25	-	-	4	3	-	-	31	64
Ind.	6	6	-	-	1	1	-	-	6	10
Ill.	-	29	-	-	-	5	-	-	25	99
Mich.	4	3	1	1	-	-	-	-	41	52
Wis.	-	-	-	-	-	-	-	-	8	32
W.N. CENTRAL	20	11	-	-	3	1	2	2	34	79
Minn.	8	8	-	-	3	1	-	1	4	5
Iowa	-	1	-	-	-	-	-	-	11	19
Mo.	7	2	-	-	-	-	2	1	6	17
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	1	-	-	-	-	-	-	-	-	2
Nebr.	-	-	-	-	-	-	-	-	4	4
Kans.	4	-	-	-	-	-	-	-	9	32
S. ATLANTIC	63	91	-	-	4	20	-	-	283	545
Del.	-	-	-	-	-	-	-	-	1	5
Md.	15	18	-	-	1	-	-	-	39	77
D.C.	-	-	-	-	-	-	-	-	-	20
Va.	2	8	-	-	-	2	-	-	2	11
W. Va.	2	1	-	-	-	-	-	-	4	5
N.C.	3	10	-	-	-	1	-	-	15	75
S.C.	1	3	-	-	-	1	-	-	10	12
Ga.	15	28	-	-	2	10	-	-	112	68
Fla.	25	23	-	-	1	6	-	-	100	272
E.S. CENTRAL	24	18	-	1	3	4	-	-	31	78
Ky.	2	1	-	-	-	-	-	-	6	16
Tenn.	10	8	-	-	2	2	-	-	13	34
Ala.	11	5	-	1	1	2	-	-	9	7
Miss.	1	4	-	-	-	-	-	-	3	21
W.S. CENTRAL	17	18	-	1	1	4	-	-	34	174
Ark.	3	1	-	-	-	-	-	-	-	13
La.	4	1	-	-	-	-	-	-	6	6
Okla.	10	15	-	-	1	4	-	-	3	10
Tex.	-	1	-	1	-	-	-	-	25	145
MOUNTAIN	50	48	1	-	10	9	3	1	80	152
Mont.	-	-	-	-	-	-	-	-	-	5
Idaho	-	1	-	-	-	-	-	-	-	10
Wyo.	-	1	-	-	-	-	-	-	-	2
Colo.	9	11	-	-	2	1	-	-	7	21
N. Mex.	5	10	-	-	1	4	2	-	5	4
Ariz.	29	17	1	-	5	3	-	-	54	80
Utah	5	5	-	-	2	-	-	-	5	12
Nev.	2	3	-	-	-	1	1	1	9	18
PACIFIC	18	44	-	-	5	11	1	1	187	479
Wash.	3	-	-	-	2	-	1	-	12	21
Oreg.	11	24	-	-	2	4	-	-	20	30
Calif.	1	10	-	-	1	6	-	1	150	413
Alaska	-	1	-	-	-	1	-	-	3	5
Hawaii	3	9	-	-	-	-	-	-	2	10
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	-	-
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

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

\* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

**TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 15, 2003, and March 16, 2002 (11th Week)\***

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C		Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002						
UNITED STATES	1,051	1,252	263	392	156	150	58	76	701	1,018
NEW ENGLAND	35	45	-	9	8	6	5	8	9	96
Maine	-	1	-	-	-	-	-	1	-	-
N.H.	2	3	-	-	-	1	1	2	1	11
Vt.	1	2	-	4	1	-	-	-	3	1
Mass.	30	28	-	5	2	3	2	3	1	77
R.I.	-	-	-	-	1	-	-	-	4	3
Conn.	2	11	-	-	4	2	2	2	-	4
MID. ATLANTIC	180	283	13	19	17	36	8	9	566	762
Upstate N.Y.	15	21	6	12	10	7	2	3	351	466
N.Y. City	59	158	-	-	3	1	3	2	-	31
N.J.	98	62	-	3	2	10	2	-	65	146
Pa.	8	42	7	4	2	18	1	4	150	119
E.N. CENTRAL	97	110	27	26	42	52	5	13	9	30
Ohio	34	18	4	-	22	28	2	6	6	4
Ind.	-	4	-	-	2	4	1	-	3	2
Ill.	-	12	2	6	-	-	-	1	-	-
Mich.	51	68	21	20	18	14	2	3	-	-
Wis.	12	8	-	-	-	6	-	3	U	24
W.N. CENTRAL	53	49	49	166	4	7	2	2	17	8
Minn.	4	1	1	-	1	1	1	-	13	2
Iowa	4	6	-	1	1	-	-	-	2	3
Mo.	31	26	46	162	1	2	-	1	1	3
N. Dak.	-	-	-	-	-	-	-	1	-	-
S. Dak.	1	-	-	-	-	1	-	-	-	-
Nebr.	10	9	2	3	-	3	1	-	-	-
Kans.	3	7	-	-	1	-	-	-	1	-
S. ATLANTIC	367	360	53	23	57	19	20	9	74	82
Del.	1	4	-	3	-	3	-	-	10	13
Md.	24	35	4	3	13	6	4	1	46	58
D.C.	-	2	-	-	-	-	-	-	-	3
Va.	6	29	-	-	2	2	-	1	-	-
W. Va.	1	6	-	-	N	N	-	-	-	-
N.C.	31	40	3	3	5	3	5	1	9	5
S.C.	3	7	13	1	-	2	1	2	-	1
Ga.	164	137	3	2	7	3	4	3	2	-
Fla.	137	100	30	11	30	-	6	1	7	2
E.S. CENTRAL	63	76	19	52	3	4	4	3	2	3
Ky.	13	8	2	1	-	2	-	-	-	1
Tenn.	16	33	1	9	2	-	-	2	2	-
Ala.	17	18	2	2	-	2	3	1	-	-
Miss.	17	17	14	40	1	-	1	-	-	2
W.S. CENTRAL	29	65	60	71	6	4	1	8	2	13
Ark.	1	30	-	5	-	-	-	-	-	-
La.	17	11	11	3	-	1	-	-	2	1
Okla.	4	1	-	-	2	-	1	3	-	-
Tex.	7	23	49	63	4	3	-	5	-	12
MOUNTAIN	118	84	13	7	11	6	10	8	4	2
Mont.	4	2	1	-	-	1	1	-	-	-
Idaho	-	-	-	-	1	-	-	-	1	-
Wyo.	1	3	-	2	1	-	-	-	-	-
Colo.	17	16	8	1	2	2	5	2	-	-
N. Mex.	3	16	-	-	-	1	-	-	-	1
Ariz.	68	34	3	-	3	-	4	4	-	1
Utah	8	5	-	-	2	2	-	2	2	-
Nev.	17	8	1	4	2	-	-	-	1	-
PACIFIC	109	180	29	19	8	16	3	16	18	22
Wash.	10	9	1	2	1	-	1	1	-	-
Oreg.	31	31	3	7	N	N	1	1	5	1
Calif.	65	135	5	10	7	16	1	14	13	21
Alaska	2	3	19	-	-	-	-	-	-	-
Hawaii	1	2	1	-	-	-	-	-	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.  
 \* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 15, 2003, and March 16, 2002 (11th Week)\*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	132	237	342	436	824	1,235	648	1,145	40	59
NEW ENGLAND	5	15	18	32	134	190	74	121	1	-
Maine	1	1	1	2	-	3	6	5	-	-
N.H.	1	4	1	4	9	1	3	1	-	-
Vt.	-	-	-	3	16	29	6	24	-	-
Mass.	3	6	14	19	109	152	29	38	1	-
R.I.	-	-	-	2	-	-	2	6	-	-
Conn.	-	4	2	2	-	5	28	47	-	-
MID. ATLANTIC	26	55	20	45	80	71	47	153	1	6
Upstate N.Y.	8	8	7	12	53	55	47	93	-	-
N.Y. City	11	28	5	7	-	5	-	5	-	-
N.J.	2	11	3	9	5	-	-	22	1	-
Pa.	5	8	5	17	22	11	-	33	-	6
E.N. CENTRAL	11	30	48	63	75	167	4	3	1	2
Ohio	5	7	19	23	56	102	-	1	1	2
Ind.	-	1	12	10	6	12	2	1	-	-
Ill.	1	10	-	7	-	19	-	1	-	-
Mich.	5	8	14	14	9	15	2	-	-	-
Wis.	-	4	3	9	4	19	-	-	-	-
W.N. CENTRAL	4	18	29	38	52	112	88	63	2	3
Minn.	2	7	4	6	27	32	6	5	-	-
Iowa	2	2	5	5	7	26	9	6	1	-
Mo.	-	4	17	17	10	32	-	1	1	3
N. Dak.	-	-	-	-	-	-	14	-	-	-
S. Dak.	-	-	-	2	1	5	6	18	-	-
Nebr.	-	2	1	4	2	2	11	-	-	-
Kans.	-	3	2	4	5	15	42	33	-	-
S. ATLANTIC	46	68	77	64	114	80	355	387	32	44
Del.	-	1	6	1	1	1	-	3	-	-
Md.	18	19	7	2	14	11	2	74	5	8
D.C.	-	2	-	-	-	-	-	-	-	-
Va.	3	4	4	7	28	22	101	100	-	1
W. Va.	2	-	1	-	1	1	12	25	-	-
N.C.	4	6	5	10	41	11	130	101	27	27
S.C.	1	2	3	10	2	18	25	15	-	4
Ga.	4	33	10	8	14	10	63	47	-	4
Fla.	14	1	41	26	13	6	22	22	-	-
E.S. CENTRAL	5	5	19	20	19	40	9	111	1	3
Ky.	1	1	-	3	3	9	4	3	-	-
Tenn.	2	1	3	5	6	22	-	108	1	3
Ala.	2	1	6	9	8	2	5	-	-	-
Miss.	-	2	10	3	2	7	-	-	-	-
W.S. CENTRAL	7	2	49	59	5	238	39	235	-	1
Ark.	1	-	3	7	-	140	13	-	-	-
La.	1	2	17	4	3	1	-	-	-	-
Okla.	-	-	4	6	2	9	26	22	-	-
Tex.	5	-	25	42	-	88	-	213	-	1
MOUNTAIN	8	7	15	33	176	141	14	27	1	-
Mont.	-	-	1	1	-	2	1	-	-	-
Idaho	1	-	-	-	6	20	-	-	-	-
Wyo.	-	-	-	-	15	4	-	1	-	-
Colo.	6	2	4	10	78	74	-	-	-	-
N. Mex.	-	-	2	1	13	20	-	-	-	-
Ariz.	1	2	6	10	44	12	13	26	1	-
Utah	-	2	-	1	14	7	-	-	-	-
Nev.	-	1	2	10	6	2	-	-	-	-
PACIFIC	20	37	67	82	169	196	18	45	1	-
Wash.	4	1	8	12	53	56	-	-	-	-
Oreg.	5	-	21	17	49	12	-	-	-	-
Calif.	11	33	36	49	67	123	17	26	1	-
Alaska	-	1	-	1	-	1	1	19	-	-
Hawaii	-	2	2	3	-	4	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

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

\* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 15, 2003, and March 16, 2002 (11th Week)\*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		<i>Streptococcus pneumoniae</i> , invasive			
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Drug resistant, all ages		Age <5 years	
							Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	4,075	5,683	3,193	2,809	982	996	542	472	75	39
NEW ENGLAND	192	280	61	52	56	48	2	1	1	1
Maine	9	40	2	2	4	7	-	-	-	-
N.H.	12	9	-	3	5	12	-	-	N	N
Vt.	3	12	-	-	6	1	2	1	1	1
Mass.	116	155	37	39	41	28	N	N	N	N
R.I.	10	5	2	-	-	-	-	-	-	-
Conn.	42	59	20	8	-	-	-	-	-	-
MID. ATLANTIC	330	743	177	176	135	165	16	24	18	11
Upstate N.Y.	99	129	47	21	91	70	15	24	15	11
N.Y. City	125	200	54	73	15	34	U	U	U	U
N.J.	27	211	45	39	10	43	N	N	N	N
Pa.	79	203	31	43	19	18	1	-	3	-
E.N. CENTRAL	582	975	228	386	236	249	105	38	36	20
Ohio	215	266	59	194	84	48	81	-	32	-
Ind.	46	48	25	11	15	7	24	36	4	6
Ill.	169	405	82	115	41	91	-	2	-	-
Mich.	102	140	47	36	95	67	N	N	N	N
Wis.	50	116	15	30	1	36	N	N	-	14
W.N. CENTRAL	288	397	157	269	84	61	70	94	9	6
Minn.	81	77	15	31	31	21	-	36	9	5
Iowa	67	55	7	25	-	-	N	N	N	N
Mo.	76	175	52	32	20	19	3	1	-	1
N. Dak.	6	5	-	-	3	-	3	-	-	-
S. Dak.	15	18	8	100	8	3	-	1	-	-
Nebr.	14	18	63	59	11	6	12	18	N	N
Kans.	29	49	12	22	11	12	52	38	N	N
S. ATLANTIC	1,285	1,457	1,595	1,036	173	171	302	249	2	1
Del.	4	12	66	3	2	-	-	3	N	N
Md.	121	103	134	116	68	22	-	-	-	-
D.C.	-	15	-	13	-	3	-	16	-	1
Va.	78	92	47	205	2	14	N	N	N	N
W. Va.	5	6	-	2	5	-	16	6	2	-
N.C.	237	197	158	60	22	43	N	N	U	U
S.C.	60	65	34	9	3	12	20	52	N	N
Ga.	310	357	612	390	16	50	99	101	N	N
Fla.	470	610	544	238	55	27	167	71	N	N
E.S. CENTRAL	287	286	165	198	31	31	23	45	-	-
Ky.	55	33	32	41	5	5	1	6	N	N
Tenn.	86	87	46	14	26	26	22	39	N	N
Ala.	96	94	62	64	-	-	-	-	N	N
Miss.	50	72	25	79	-	-	-	-	-	-
W.S. CENTRAL	182	346	368	186	48	63	15	7	9	-
Ark.	51	56	8	26	1	-	3	2	-	-
La.	38	48	40	22	1	1	12	5	7	-
Okla.	36	48	132	42	22	11	N	N	2	-
Tex.	57	194	188	96	24	51	N	N	-	-
MOUNTAIN	332	334	210	88	155	69	8	14	-	-
Mont.	16	7	-	-	-	-	-	-	-	-
Idaho	24	18	3	2	8	1	N	N	N	N
Wyo.	4	13	1	1	-	3	1	7	-	-
Colo.	98	95	31	23	55	28	-	-	-	-
N. Mex.	26	50	29	12	34	32	7	7	-	-
Ariz.	119	82	131	36	53	-	-	-	N	N
Utah	27	26	6	7	5	5	-	-	-	-
Nev.	18	43	9	7	-	-	-	-	-	-
PACIFIC	597	865	232	418	64	139	1	-	-	-
Wash.	69	29	26	12	-	26	-	-	N	N
Oreg.	58	55	14	27	N	N	N	N	N	N
Calif.	422	723	178	366	43	98	N	N	N	N
Alaska	20	15	3	1	-	-	-	-	N	N
Hawaii	28	43	11	12	21	15	1	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	3	-	-	-	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

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

\* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).



TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 15, 2003, and March 16, 2002 (11th Week)\*

Reporting area	Syphilis				Tuberculosis		Typhoid fever		Varicella (Chickenpox)
	Primary & secondary		Congenital		Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002					
UNITED STATES	1,189	1,238	59	84	1,079	1,886	28	64	23,287
NEW ENGLAND	31	14	-	-	23	69	2	4	521
Maine	-	-	-	-	-	4	-	-	262
N.H.	3	-	-	-	3	3	-	-	-
Vt.	-	-	-	-	-	-	-	-	204
Mass.	24	8	-	-	11	22	1	3	53
R.I.	4	2	-	-	3	16	-	-	2
Conn.	-	4	-	-	6	24	1	1	-
MID. ATLANTIC	129	122	7	10	248	314	4	20	1
Upstate N.Y.	4	4	5	1	28	39	2	2	N
N.Y. City	65	69	1	3	196	160	2	10	-
N.J.	33	29	1	6	-	74	-	6	-
Pa.	27	20	-	-	24	41	-	2	1
E.N. CENTRAL	160	252	17	13	166	172	2	8	22,222
Ohio	38	41	2	-	23	23	-	3	354
Ind.	5	11	3	-	27	19	1	1	-
Ill.	41	75	9	12	82	82	-	1	-
Mich.	74	119	3	1	31	34	1	2	982
Wis.	2	6	-	-	3	14	-	1	20,886
W.N. CENTRAL	32	17	-	-	68	89	-	3	8
Minn.	9	7	-	-	26	37	-	2	N
Iowa	2	-	-	-	5	-	-	-	-
Mo.	12	5	-	-	13	30	-	1	-
N. Dak.	-	-	-	-	-	-	-	-	8
S. Dak.	-	-	-	-	8	5	-	-	-
Nebr.	-	2	-	-	2	1	-	-	-
Kans.	9	3	-	-	14	16	-	-	-
S. ATLANTIC	332	300	8	19	157	341	5	10	519
Del.	1	4	-	-	-	-	-	-	1
Md.	56	30	-	2	28	35	2	1	-
D.C.	6	10	1	-	-	-	-	-	-
Va.	15	7	1	-	27	41	-	-	113
W. Va.	-	-	-	-	2	6	-	-	377
N.C.	33	73	3	6	24	41	1	-	N
S.C.	25	28	1	2	21	21	-	-	28
Ga.	65	43	-	4	42	58	-	5	-
Fla.	131	105	2	5	13	139	2	4	-
E. S. CENTRAL	81	132	9	8	118	126	1	2	-
Ky.	14	14	1	2	16	17	-	2	N
Tenn.	35	52	4	3	32	62	-	-	N
Ala.	29	47	4	1	55	38	1	-	-
Miss.	3	19	-	2	15	9	-	-	-
W. S. CENTRAL	166	164	8	23	30	353	-	3	2
Ark.	10	10	-	-	15	9	-	-	-
La.	16	34	-	-	-	-	-	-	2
Okla.	9	16	-	-	15	20	-	-	N
Tex.	131	104	8	23	-	324	-	3	-
MOUNTAIN	49	56	8	4	32	47	2	2	14
Mont.	-	-	-	-	-	-	-	-	N
Idaho	-	1	-	-	1	-	-	-	N
Wyo.	-	-	-	-	1	1	-	-	2
Colo.	3	4	2	1	11	13	2	1	-
N. Mex.	7	5	-	-	-	9	-	-	-
Ariz.	35	45	6	3	18	15	-	-	-
Utah	2	-	-	-	1	5	-	1	12
Nev.	2	1	-	-	-	4	-	-	-
PACIFIC	209	181	2	7	237	375	12	12	-
Wash.	13	11	-	-	48	42	-	-	-
Oreg.	11	4	-	-	14	17	2	2	-
Calif.	179	165	2	7	141	276	10	10	-
Alaska	-	-	-	-	12	17	-	-	-
Hawaii	6	1	-	-	22	23	-	-	-
Guam	-	-	-	-	-	-	-	-	-
P.R.	26	4	1	-	-	-	-	-	16
V.I.	-	1	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-

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

\* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,\* week ending March 15, 2003 (11th Week)

Reporting Area	All causes, by age (years)							P&I <sup>†</sup> Total	Reporting Area	All causes, by age (years)							P&I <sup>†</sup> Total
	All Ages	≥65	45-64	25-44	1-24	<1	All Ages			≥65	45-64	25-44	1-24	<1			
NEW ENGLAND	463	358	67	22	8	8	63	S. ATLANTIC	1,442	923	339	97	39	43	108		
Boston, Mass.	104	85	3	10	3	3	14	Atlanta, Ga.	347	200	86	33	9	19	19		
Bridgeport, Conn.	30	23	7	-	-	-	4	Baltimore, Md.	214	134	57	15	5	3	19		
Cambridge, Mass.	20	17	3	-	-	-	-	Charlotte, N.C.	113	77	25	4	5	2	17		
Fall River, Mass.	27	25	2	-	-	-	4	Jacksonville, Fla.	154	101	40	6	1	5	11		
Hartford, Conn.	40	23	8	5	2	2	8	Miami, Fla.	60	38	13	7	1	1	5		
Lowell, Mass.	24	20	3	-	-	1	6	Norfolk, Va.	51	34	10	3	4	-	6		
Lynn, Mass.	11	8	3	-	-	-	2	Richmond, Va.	51	31	10	3	3	4	6		
New Bedford, Mass.	28	22	5	1	-	-	3	Savannah, Ga.	57	38	14	1	2	2	7		
New Haven, Conn.	40	30	8	1	1	-	7	St. Petersburg, Fla.	79	51	21	1	4	2	1		
Providence, R.I.	U	U	U	U	U	U	U	Tampa, Fla.	191	141	34	8	3	5	11		
Somerville, Mass.	7	5	2	-	-	-	-	Washington, D.C.	104	66	25	11	2	-	2		
Springfield, Mass.	36	32	2	1	1	-	5	Wilmington, Del.	21	12	4	5	-	-	4		
Waterbury, Conn.	37	23	11	1	1	1	2	E.S. CENTRAL	1,022	697	228	65	16	15	97		
Worcester, Mass.	59	45	10	3	-	1	8	Birmingham, Ala.	217	162	37	13	4	1	19		
MID. ATLANTIC	2,717	1,928	533	172	37	44	151	Chattanooga, Tenn.	68	44	14	6	3	1	9		
Albany, N.Y.	49	37	10	1	-	1	6	Knoxville, Tenn.	101	72	21	7	1	-	8		
Allentown, Pa.	22	21	1	-	-	-	1	Lexington, Ky.	106	77	24	5	-	-	7		
Buffalo, N.Y.	95	62	25	2	2	4	9	Memphis, Tenn.	229	149	56	16	4	4	33		
Camden, N.J.	38	27	4	6	-	1	5	Mobile, Ala.	73	50	20	2	1	-	4		
Elizabeth, N.J.	23	15	6	2	-	-	7	Montgomery, Ala.	46	33	9	3	1	-	6		
Erie, Pa.	43	37	4	2	-	-	4	Nashville, Tenn.	182	110	47	13	2	9	11		
Jersey City, N.J.	49	39	5	4	1	-	-	W.S. CENTRAL	1,675	1,061	348	132	88	46	129		
New York City, N.Y.	1,575	1,094	328	105	21	24	60	Austin, Tex.	107	69	21	10	1	6	9		
Newark, N.J.	65	34	16	10	2	3	6	Baton Rouge, La.	80	63	10	2	3	2	2		
Paterson, N.J.	31	16	9	5	1	-	-	Corpus Christi, Tex.	55	37	14	3	1	-	5		
Philadelphia, Pa.	305	213	65	20	3	4	15	Dallas, Tex.	245	159	51	16	11	8	13		
Pittsburgh, Pa. <sup>§</sup>	27	21	4	-	-	2	2	El Paso, Tex.	87	64	12	9	1	1	4		
Reading, Pa.	24	19	4	1	-	-	2	Ft. Worth, Tex.	120	67	36	9	3	5	9		
Rochester, N.Y.	153	122	21	6	2	2	16	Houston, Tex.	399	199	82	43	57	18	37		
Schenectady, N.Y.	31	27	3	1	-	-	1	Little Rock, Ark.	94	48	30	8	5	3	7		
Scranton, Pa.	15	13	2	-	-	-	-	New Orleans, La.	44	25	12	6	1	-	-		
Syracuse, N.Y.	110	86	17	3	2	2	10	San Antonio, Tex.	333	249	58	18	5	3	31		
Trenton, N.J.	26	16	4	3	2	1	1	Shreveport, La.	9	8	-	1	-	-	-		
Utica, N.Y.	16	11	4	-	1	-	2	Tulsa, Okla.	102	73	22	7	-	-	12		
Yonkers, N.Y.	20	18	1	1	-	-	4	MOUNTAIN	1,000	678	214	68	30	10	88		
E.N. CENTRAL	2,209	1,487	481	150	34	57	157	Albuquerque, N.M.	130	89	30	8	3	-	10		
Akron, Ohio	59	40	11	6	1	1	8	Boise, Idaho	46	33	10	2	1	-	8		
Canton, Ohio	49	39	8	2	-	-	2	Colorado Springs, Colo.	73	52	11	2	7	1	3		
Chicago, Ill.	393	226	95	34	10	28	21	Denver, Colo.	115	72	21	11	5	6	14		
Cincinnati, Ohio	83	53	23	5	2	-	5	Las Vegas, Nev.	282	175	75	26	6	-	21		
Cleveland, Ohio	139	90	34	13	-	2	7	Ogden, Utah	27	21	6	-	-	-	2		
Columbus, Ohio	207	150	37	11	3	6	12	Phoenix, Ariz.	U	U	U	U	U	U	U		
Dayton, Ohio	126	94	23	9	-	-	11	Pueblo, Colo.	26	16	7	1	2	-	3		
Detroit, Mich.	202	121	56	21	3	1	17	Salt Lake City, Utah	129	95	19	9	4	2	13		
Evansville, Ind.	47	40	4	-	2	1	4	Tucson, Ariz.	172	125	35	9	2	1	14		
Fort Wayne, Ind.	71	52	15	1	2	1	9	PACIFIC	1,794	1,294	304	111	42	42	156		
Gary, Ind.	17	9	6	2	-	-	1	Berkeley, Calif.	18	7	6	2	-	3	2		
Grand Rapids, Mich.	58	44	9	1	-	4	9	Fresno, Calif.	139	103	22	9	4	1	18		
Indianapolis, Ind.	211	138	48	14	6	5	12	Glendale, Calif.	26	22	4	-	-	-	-		
Lansing, Mich.	59	45	9	3	-	2	10	Honolulu, Hawaii	81	62	9	1	2	7	2		
Milwaukee, Wis.	156	102	39	13	2	-	11	Long Beach, Calif.	81	51	23	6	1	-	7		
Peoria, Ill.	59	39	13	2	-	5	4	Los Angeles, Calif.	333	234	58	23	8	10	16		
Rockford, Ill.	51	36	14	1	-	-	5	Pasadena, Calif.	29	25	2	2	-	-	6		
South Bend, Ind.	64	46	13	3	2	-	3	Portland, Ore.	170	133	25	5	4	3	7		
Toledo, Ohio	95	73	12	9	-	1	5	Sacramento, Calif.	201	162	21	9	6	3	34		
Youngstown, Ohio	63	50	12	-	1	-	1	San Diego, Calif.	187	122	40	14	7	4	15		
W.N. CENTRAL	637	452	117	34	19	15	62	San Francisco, Calif.	U	U	U	U	U	U	U		
Des Moines, Iowa	85	66	14	2	2	1	10	San Jose, Calif.	191	144	29	9	3	6	25		
Duluth, Minn.	36	29	4	3	-	-	3	Santa Cruz, Calif.	39	30	5	2	1	1	3		
Kansas City, Kans.	27	15	5	3	2	2	3	Seattle, Wash.	138	90	29	14	3	2	12		
Kansas City, Mo.	115	73	23	9	5	5	7	Spokane, Wash.	54	39	11	3	-	1	6		
Lincoln, Nebr.	29	21	4	3	1	-	3	Tacoma, Wash.	107	70	20	12	3	1	3		
Minneapolis, Minn.	95	64	20	4	5	2	8	TOTAL	12,959 <sup>¶</sup>	8,878	2,631	851	313	280	1,011		
Omaha, Nebr.	89	70	15	2	1	1	9										
St. Louis, Mo.	U	U	U	U	U	U	U										
St. Paul, Minn.	65	52	10	1	-	2	10										
Wichita, Kans.	96	62	22	7	3	2	9										

U: Unavailable. -:No reported cases.

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

† Pneumonia and influenza.

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

¶ Total includes unknown ages.

(Continued from page 229)

### Notice to Readers

#### **World Water Day, March 22, 2003**

In 1992, the United Nations Conference on Environment and Development designated March 22 of each year as World Water Day. The theme for this year is "Water for the Future." The objective of World Water Day is to promote activities, such as the publication and diffusion of documents and the organization of conferences and seminars, related to the conservation and development of water resources (1). The third annual World Water Forum will be held in Kyoto, Shiga, and Osaka, Japan during March 16–23.

Approximately 1.1 billion persons lack access to an improved water source, and 2.4 billion persons do not have access to adequate sanitation. Diarrhea accounts for approximately 4 billion episodes of illness and 2.2 million deaths every year, disproportionately affecting young children. Safe water, adequate sanitation, and hygiene education can reduce diarrheal disease deaths by an estimated 65% and related morbidity by 26% (2). One of the Millennium Development Goals set at the World Summit for Sustainable Development in 2002 is to reduce by 50% the proportion of persons without access to safe water by 2015.

CDC's Safe Water System is a water-quality intervention that uses simple, inexpensive technologies to enable persons to treat and safely store drinking water in their homes. It has been adapted for use by street vendors, schools, and health clinics. *Safe Water Systems for the Developing World: A Handbook for Implementing Household-Based Water Treatment and Safe Storage Projects* is a resource for program managers, technical staff, and other personnel in organizations involved in water and sanitation projects (3). It is available in English, French, and Spanish; an Arabic edition will be published later this year. CDC, in collaboration with its partners, is establishing a Global Network to promote safe household water treatment and storage to reduce waterborne disease, especially among children and the poor.

Additional information about World Water Day is available at <http://www.waterday2003.org>. Information about

CDC's Safe Water System is available at <http://www.cdc.gov/safewater>.

#### **References**

1. United Nations Environment Programme. World Water Day 2003: water for the future. Available at <http://www.waterday2003.org>.
2. World Health Organization and United Nations Children's Fund. Global water supply and sanitation assessment 2000 report. Geneva, Switzerland and New York, New York: World Health Organization and United Nations Children's Fund, 2000.
3. CDC. Safe water systems for the developing world: a handbook for implementing household-based water treatment and safe storage projects. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, 2001.

### Notice to Readers

#### **Satellite Broadcast on Sexual Violence Prevention**

CDC will present a live, interactive satellite broadcast and webcast, "Sexual Violence Prevention: Building Leadership and Commitment to Underserved Communities," on April 3, 2003, from 12:00 p.m. to 2:00 p.m. EST. Participants will learn to identify strategies that can help prevent sexual violence in underserved communities. A question and answer session will enable participants nationwide to pose questions to panelists by toll-free telephone, fax, or TTY lines.

The program is designed for rape-prevention and education practitioners and program managers; state health department officials (injury prevention programs, maternal and child health, and women's health) and other public health officials; health professionals; state sexual violence prevention coalitions; local rape crisis centers; private and nonprofit organizations; Violence Against Women Act (VAWA) grantees and administrators; Victims Of Crime Acts (VOCA) grantees and administrators; and other partners.

Additional information about program content, registration, resource materials, continuing education credit, and accessing the live broadcast/webcast is available at <http://www.phppo.cdc.gov/phtn/svprev>. Information about registration also is available at CDC, telephone, 800-418-7246 or 404-639-1292.

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

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