



## **Morbidity and Mortality Weekly Report**

Weekly

September 27, 2002 / Vol. 51 / No. 38

# Primary and Secondary Syphilis Among Men Who Have Sex with Men — New York City, 2001

After declining steadily for 10 years, the number of reported cases of primary and secondary (P&S) syphilis more than doubled in New York City (NYC) from 117 in 2000 to 282 in 2001 (1). The increases have occurred primarily among men who have sex with men (MSM). Of particular concern is the high proportion of syphilis cases among MSM who also have human immunodeficiency virus (HIV). This report summarizes 2001 P&S syphilis data for NYC and compares it with surveillance data for 1999 and 2000; findings indicate a substantial increase in the number of syphilis cases among MSM. These data suggest increases in high-risk sexual behavior among some MSM and underscore the importance of coordinating efforts between the MSM community public health officials, and health-care providers to strengthen HIV-prevention efforts.

Syphilis cases are reported to the NYC Department of Health and Mental Hygiene (NYCDOHMH) by private health-care providers, health-care institutions, and laboratories in accordance with New York state and NYC laws. NYCDOHMH reports confirmed syphilis cases to CDC. NYCDOHMH interviews persons with syphilis of <1 year duration to obtain demographic and risk-behavior data and to provide disease-intervention counseling, which facilitates locating and treating sex partners in addition to treating patients.

A case of P&S syphilis was defined as darkfield-positive lesions or reactive serologic tests for syphilis and accompanying symptoms in a person residing in NYC. For this analysis, patients were classified as MSM if they reported having sex with another man during the time when syphilis might have been acquired or transmitted to a sex partner. This time is based on stage of disease at the time of treatment. For primary syphilis, this period is defined as 3 months before the date of onset of a syphilitic lesion through the date of

treatment, and for secondary syphilis, from 6½ months before onset of associated symptoms (e.g., rash, mucocutaneous lesions, lymphadenopathy, and fever) through the date of treatment. Behavioral data collected from male patients included sexual behavior, HIV status, number and sex of sex partners, frequency of condom use, alcohol and recreational drug use, and venues for meeting sex partners. HIV status was determined by self-reports or by laboratory-confirmed tests from specimens collected at the time of the interview or treatment.

During 2001, a total of 282 cases of P&S syphilis were reported to NYCDOHMH; 263 (93%) were in males. The overall P&S syphilis rate in 2001 (3.5 per 100,000 population) was the highest since 1995, and the rate among males (6.9) was the highest since 1994 (Figure). The male:female case ratio for P&S syphilis increased from 3.6:1 in 1999 to 13.8:1 in 2001.

The median age of male patients in 2001 was 35 years (range: 16–64 years); mean age was similar to that during previous years (Table). The number of cases among males increased in all racial/ethnic groups in 2001. Among males whose race/ethnicity was known, the proportion of cases that occurred among whites increased in 2001 (33%), compared with the proportion in 2000 (23%) and in 1999 (24%). In

## INSIDE

- 856 Trends in Sexual Risk Behaviors Among High School Students — United States, 1991–2001
- 859 Lightning-Associated Injuries and Deaths Among Military Personnel United States, 1998–2001
- 862 West Nile Virus Activity United States, September 19–25, 2002, and Michigan, January 1–September 24, 2002
- 864 Notices to Readers

The MMWR series of publications is published by the Epidemiology Program Office, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, GA 30333.

#### SUGGESTED CITATION

Centers for Disease Control and Prevention. [Article Title]. MMWR 2002;51:[inclusive page numbers].

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

Julie L. Gerberding, M.D., M.P.H. *Director* 

David W. Fleming, M.D.

Deputy Director for Science and Public Health

Dixie E. Snider, Jr., M.D., M.P.H.

Associate Director for Science

## **Epidemiology Program Office**

Stephen B. Thacker, M.D., M.Sc. *Director* 

#### Office of Scientific and Health Communications

John W. Ward, M.D. *Director Editor*, MMWR Series

David C. Johnson

Acting Managing Editor, MMWR (Weekly)

Jude C. Rutledge Teresa F. Rutledge Jeffrey D. Sokolow, M.A. Writers/Editors, MMWR (Weekly)

Lynda G. Cupell Malbea A. Heilman Beverly J. Holland Visual Information Specialists

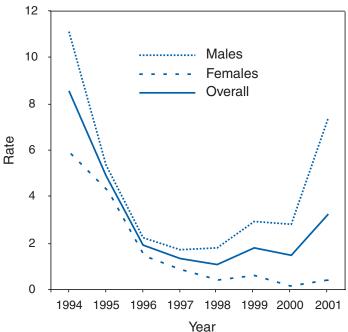
Quang M. Doan Erica R. Shaver Information Technology Specialists

## Division of Public Health Surveillance and Informatics

#### Notifiable Disease Morbidity and 122 Cities Mortality Data

Robert F. Fagan Deborah A. Adams Felicia J. Connor Lateka Dammond Patsy A. Hall Pearl C. Sharp

FIGURE. Primary and secondary syphilis rates\*, by sex and year — New York City, 1994–2001



\* Per 100,000 population.

comparison, the proportion of cases among black males was less in 2001 (36%) and 2000 (38%) than in 1999 (47%). A greater proportion of cases was reported from private health-care providers and private hospitals in 2000 and 2001 than in 1999. The proportion of male patients residing in Manhattan was greater in 2000 and 2001 than in 1999.

Information about sex partners was obtained for 188 males in 2001; of these, 79% were classified as MSM compared with 77% in 2000 and 42% in 1999 (Table). HIV status was known for 86 MSM in 2001; of these, 48% were HIV-infected compared with 49% in 2000 and 20% in 1999 (Table).

Behavioral data from interviews of 103 MSM patients in 2001 indicated that during the interval when syphilis could have been transmitted or acquired, 77 (75%) reported having more than one sex partner, and 37 (36%) reported using alcohol or other recreational drugs. The venues cited most frequently for meeting sex partners were nightclubs and bars (31%), public cruising sites (22%), Internet chat rooms (14%), and bathhouses (11%). A total of 5% of MSM patients reported exchanging sex for money.

**Reported by:** C de Luise, MPH, S Blank, MD, J Brown, S Rubin, A Meyers, MPH, L Neylans, MPA, STD Control Program, New York City Dept of Health and Mental Hygiene, New York, New York. G Paz-Bailey, MD, L Markowitz, MD, Div of STD Prevention, National Center for HIV, STD, and TB Prevention, CDC.

TABLE. Number and percentage of males with primary and secondary syphilis, by selected characteristics — New York City, 1999–2001

	19	99	20	00	20	01
Characteristic	No.	(%)	No.	(%)	No.	(%)
Race/Ethnicity*						
White	18	(24)	23	(23)	80	(33)
Black	35	(47)	38	(38)	89	(36)
Hispanic	21	(28)	24	(24)	59	(24)
Other	1	(1)	15	(15)	16	(7)
Total	75	(100)	100	(100)	244	(100)
Source of reporting						
Private providers	20	(20)	48	(41)	96	(37)
STD clinics	60	(59)	38	(32)	103	(38)
Hospitals	13	(12)	14	(12)	44	(17)
Other	9	(9)	7	(15)	20	(8)
Total	102	(100)	107	(100)	263	(100)
Borough of residence	t					
Bronx	22	(22)	15	(14)	33	(13)
Brooklyn	20	(20)	22	(21)	65	(25)
Manhattan	39	(39)	57	(53)	142	(56)
Queens	19	(19)	13	(12)	13	( 5)
Staten Island	2	(2)	0	( 0)	3	(1)
Total	102	(100)	107	(100)	256	(100)
Sexual behavior						
MSM/Males						
interviewed	33/78	( 42)	62/80	(77)	149/188	( 79)
HIV status						
HIV+/MSM with						
reported HIV status	5/25	(20)	20/41	( 49)	41/86	( 48)
HIV+/Non-MSM with	4/10	( 21)	1/1	(100)	6/16	( 20)
reported HIV status	4/19	( 21)	4/4	(100)	6/16	( 38)
Total males§	102		107		263	

<sup>\*</sup> In 1999, race/ethnicity was unknown for 27 patients; in 2000, seven; and in 2001, 19.

Editorial Note: The findings in this report indicate an increasing rate of P&S syphilis among males in NYC, particularly among MSM, a pattern seen in several urban areas of the United States (2–4). Data obtained from case interviews indicated high-risk behavior among male patients, including having multiple sex partners, substance use, and frequenting venues in which they were likely to meet sex partners. A high proportion of patients with syphilis were infected with HIV. Transmission of HIV is enhanced by syphilis and other sexually transmitted diseases (STDs). Syphilis outbreaks often have affected economically disadvantaged minority groups with poor access to health care and have been commonly associated with heterosexual transmission, drug use,

and exchange of sex for money or drugs. In comparison, urban outbreaks, including that in NYC, involve whites and minority groups, MSM, and persons who use private healthcare services.

The increasing rate of MSM cases is not unique to NYC; since 1997, syphilis outbreaks among MSM have occurred in other U.S. cities, including Seattle, Chicago, San Francisco, Los Angeles, and Miami (2-4). In each of these outbreaks, high rates of HIV co-infection were documented, ranging from 20% to 73%. Increases in gonorrhea among MSM also have been observed in the United States (5) and internationally (6). Several factors might be associated with increased highrisk sexual behavior among MSM, including the availability of highly active antiretroviral therapy (HAART) (7). HAART has had a substantial impact on the decline in AIDS-related mortality and is responsible for improved physical wellbeing, allowing higher rates of sexual activity than before treatment. Increased sexual risk taking might also be related to "AIDS burnout," which is associated with years of exposure to prevention messages and long-term efforts to maintain safer sex practices (8). Other factors described among young MSM include alcohol and drug use, unrecognized HIV infection, and misperception of risk (9).

In response to the outbreak, NYCDOHMH has enhanced syphilis surveillance, intensified education about prevention and treatment of syphilis to affected communities, strengthened partnerships with community-based organizations, and encouraged health-care providers to increase screening of patients at high risk for other STDs and HIV. Despite these efforts, increases in syphilis rates, including among MSM, have continued in 2002 (1). A similar pattern has been observed in Los Angeles, where, despite extensive efforts to control a syphilis outbreak among MSM, syphilis transmission in this group has continued for several years (10).

The findings in this report are subject to at least two limitations. First, information from public health records and from interviews was not collected systematically; variation occurred in data collection and recording. Second, behavioral data were not available for all patients.

The increasing rate of syphilis among MSM reflects increased sexual risk-taking behavior among subpopulations of MSM, many of whom have HIV. Such behavior increases the risk for STDs and HIV and threatens the health of MSM. Public health officials, the MSM community, and others should continue to develop and implement new, effective prevention approaches to reduce the risk for STDs and HIV among MSM.

In 2001, borough of residence was unknown for seven patients.

Total number of cases reported in 1999 was 130; in 2000, 117; and in 2001, 282.

#### References

- CDC. Provisional cases of selected notifiable disease, United States, weeks ending August 17, 2002, and August 18, 2001 (33rd week). MMWR 2001;51:746-54.
- CDC. Resurgent bacterial sexually transmitted disease among men who have sex with men—King County, Washington, 1997–1999. MMWR 1999;48:773–7.
- 3. Ciesielski C, Beidinger H. Emergence of primary and secondary syphilis among men who have sex with men in Chicago and relationship to HIV infection [abstract no. 470]. In: Program and abstracts of the 7th Conference on Retroviruses and Opportunistic Infections, Chicago, Illinois, January 30–February 2, 2000.
- CDC. Outbreak of syphilis among men who have sex with men— Southern California, 2000. MMWR 2001;50:117–20.
- Fox KK, del Rio C, Holmes KK, et al. Gonorrhea in the HIV era: a reversal in trends among men who have sex with men. Am J Public Health 2001;91:907–14.
- Stolte IG, Dukers NH, de Wit JB, Fennema JS, Coutinho RA. Increase in sexually transmitted infections among homosexual men in Amsterdam in relation to HAART. Sex Transm Infect 2001;77:184–6.
- 7. Stall RD, Hays RB, Waldo MR, McFarland W. The Gay 90s: a review of research in the 1990s on sexual behavior and HIV risk among men who have sex with men. AIDS 2000;14:S101–S114.
- 8. Wolitski RJ, Valdiserri RO, Denning PH, Levine WC. Are we headed for a resurgence of the HIV epidemic among men who have sex with men? Am J Public Health 2001;91:883–8.
- 9. MacKellar DA, Valleroy LA, Secura GM, Behel SK. Unrecognized HIV infection, risk behaviors, and mis-perceptions of risk among men who have sex with men—6 United States cities, 1994–2000 [abstract no. MoPeC3427]. In: Final program and abstracts of the XIV International AIDS Conference, Barcelona, Spain, July 7–12, 2002.
- Kahn RH, Heffelfinger JD, Berman SM. Syphilis outbreaks among men who have sex with men: a public health trend of concern. Sex Transm Dis 2002;29:285–7.

## Trends in Sexual Risk Behaviors Among High School Students — United States, 1991–2001

Unprotected sexual intercourse places young persons at risk for human immunodeficiency virus (HIV) infection, other sexually transmitted diseases (STDs), and unintended pregnancy. Responsible sexual behavior among adolescents is one of the 10 leading health indicators of the national health objectives for 2010 (objective 25.11) (1). To examine changes in sexual risk behavior that occurred among high school students in the United States during 1991–2001, CDC analyzed data from six national Youth Risk Behavior surveys (YRBS). This report summarizes the results of the analysis, which indicate that, during 1991–2001, the percentage of U.S. high school students who ever had sexual intercourse and the percentage who had multiple sex partners decreased. Among students who are currently sexually active, the prevalence of condom use increased, although it has leveled off since 1999. However, the percentage of these students who used alcohol or drugs before last sexual intercourse increased. Despite

decreases in some sexual risk behaviors, efforts to prevent sexual risk behaviors will need to be intensified to meet the national health objective for responsible sexual behavior.

YRBS, a component of CDC's Youth Risk Behavior Surveillance System, measures the self-reported prevalence of health risk behaviors among adolescents through representative national, state, and local surveys. The six biennial national surveys conducted during 1991–2001 used independent, three-stage cluster samples to obtain cross-sectional data representative of students in grades 9–12 in all 50 states and the District of Columbia. During 1991–2001, sample sizes ranged from 10,904 to 16,296 students, school response rates ranged from 70% to 79%, student response rates ranged from 83% to 90%, and overall response rates ranged from 60% to 70%.

For each cross-sectional survey, students completed an anonymous, self-administered questionnaire, which included identically worded questions about sexual intercourse, number of sex partners, condom use, and alcohol or drug use before last sexual intercourse. Sexual experience was defined as ever having had sexual intercourse. Having multiple sex partners was defined as having had four or more sex partners during one's lifetime. Current sexual activity was defined as having had sexual intercourse during the 3 months preceding the survey. Condom use was defined as having used a condom at last sexual intercourse among currently sexually active students. Alcohol or drug use was defined as having used alcohol or drugs before last sexual intercourse among currently sexually active students. Race/ethnicity-specific trends are presented only for non-Hispanic black, non-Hispanic white, and Hispanic students because the numbers of students from other racial/ethnic groups were too small for meaningful analysis.

Data were weighted to provide national estimates, and SUDAAN was used for all data analysis. Overall temporal changes were analyzed by using logistic regression analyses that assessed linear and quadratic time effects simultaneously and that controlled for sex, race/ethnicity, and grade. Similarly, temporal changes for sex, race/ethnicity, and grade subgroups were analyzed by using separate logistic regression analyses that assessed linear and quadratic time effects in one type of subgroup while holding the other two constant. Quadratic trends indicated a significant but nonlinear trend in the data over time. When a significant quadratic trend accompanied a significant linear trend, the data demonstrated some nonlinear variation (e.g., leveling off or change in direction) in addition to a linear trend.

During 1991–2001, the prevalence of sexual experience decreased 16% among high school students. Logistic regression analysis indicated a significant linear decrease overall and

among female, male, 10th-grade, 11th-grade, 12th-grade, black, and white students (Table). Among 11th-grade students, a significant quadratic trend also was detected, indicating that the prevalence of sexual experience declined during 1991–1997 and then leveled off. Prevalence of sexual experience did not decrease significantly among 9th-grade or Hispanic students.

During 1991–2001, the prevalence of multiple sex partners decreased 24%. A significant linear decrease was detected overall and among male, 11th-grade, 12th-grade, black, and white students (Table). Prevalence of multiple sex partners did not show a significant linear decrease among female, 9th-grade, 10th-grade, or Hispanic students.

During 1991–2001, the overall prevalence of current sexual activity did not change. However, the prevalence of current sexual activity decreased 12% among 11th-grade students and 23% among black students (Table). Among students who are currently sexually active, a significant linear and quadratic trend was observed in the overall prevalence of condom use, indicating an increase in condom use during 1991–1999 and then a leveling off by 2001. A similar pattern was detected among female, 10th-grade, 12th-grade, and black students with the prevalence of condom use peaking in 1997 or 1999 and then leveling off. A significant linear increase in condom use was detected among male, 9th-grade, 11th-grade, Hispanic, and white students.

During 1991–2001, the prevalence of alcohol or drug use before last sexual intercourse among students who are currently sexually active increased 18%. Logistic regression analysis indicated a significant linear increase overall and among male, 11th-grade, 12th-grade, black, and Hispanic students (Table). Among 9th-grade students, a significant quadratic trend was detected, indicating that the prevalence of alcohol or drug use before last sexual intercourse increased during 1991–1997 and then decreased. Prevalence of alcohol or drug use before last sexual intercourse did not show a significant linear increase among female, 10th-grade, or white students.

**Reported by:** N Brener, PhD, R Lowry, MD, L Kann, PhD, L Kolbe, PhD, Div of Adolescent and School Health; J Lehnherr, Div of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion; R Janssen, MD, Div of HIV/AIDS Prevention; H Jaffe, MD; Div of STD Prevention, National Center for HIV, STD, and TB Prevention, CDC.

**Editorial Note:** During 1971–1979, the percentage of females aged 15–19 years living in metropolitan areas nationwide who ever had sexual intercourse increased from 30% to 50% (2); during 1982–1988, the percentage of females aged 15–19 years nationwide who ever had sexual intercourse increased from 47% to 53% (3). The findings in this report indicate that, during 1991–2001, the percentages of high

school students who ever had sexual intercourse and multiple sex partners decreased, and the percentage of sexually active students who used a condom at last sexual intercourse increased and then leveled off. Overall, fewer high school students are engaging in behaviors that might result in pregnancy and STDs, including HIV infection. This decrease in health risk behaviors corresponds to a simultaneous decrease in gonorrhea, pregnancy, and birth rates among adolescents (4-7). These improvements in health outcomes probably resulted from the combined efforts of parents and families, schools, community organizations that serve young persons, healthcare providers, religious organizations, the media, and government agencies to reduce sexual risks among young persons. For example, the percentage of high school students who received HIV-prevention education in school increased from 83% in 1991 to 92% in 1997 and then leveled off to 89% in 2001 (CDC, unpublished data, 2002).

The findings in this report are subject to at least two limitations. First, these data pertain only to adolescents who attend high school. In 1998, 5% of those aged 16–17 years were not enrolled in a high school program and had not completed high school (8). Second, although the survey questions demonstrate good test-retest reliability (9), the extent of underreporting or overreporting in YRBS cannot be determined.

One of the national health objectives for 2010 is to increase from 85% to 95% the proportion of adolescents in grades 9-12 who have never had sexual intercourse, have had sexual intercourse but not during the preceding 3 months, or used a condom the last time they had sexual intercourse during the preceding 3 months (1). In 2001, 86% of high school students met this objective, compared with 80% in 1991. Efforts to prevent sexual risk behaviors will need to be intensified to meet the 2010 objective; to sustain decreases in gonorrhea, pregnancy, and birth rates among adolescents; and to reduce HIV infections and other STDs among young persons. In 1998, the birth rate in the United States was 52.1 per 1,000 females aged 15–19 years, four times higher than the average rate among nations in the Organization for Economic Cooperation and Development (10). In addition, interventions are needed to reverse the increasing percentage of sexually active high school students who use alcohol or drugs before their last sexual intercourse.

## References

- 1. U.S. Department of Health and Human Services. Healthy people 2010. 2nd ed. With understanding and improving health and objectives for improving health (2 vols). Washington, DC: U.S. Department of Health and Human Services, 2000.
- Zelnik M, Kantner, JF. Sexual activity, contraceptive use and pregnancy among metropolitan-area teenagers: 1971–1979. Fam Plann Perspect 1980;12:230–7.

TABLE. Percentage of high school students who reported sexual risk behaviors, by sex, grade, race/ethnicity, and survey year — United States, Youth Risk Behavior Survey, 1991, 1993, 1995, 1997, 1999, and 2001

	Ever had sexual intercourse					≥4 sex partners during lifetime		during sexual	dru befo se	ohol or ig use ore last exual course <sup>§</sup>
Characteristic	%	(95% CI*)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Sex										
Female										
1991	50.8	( <u>+</u> 4.0)	13.8	( <u>+</u> 1.8)	38.2	( <u>+</u> 3.4)	38.0	( <u>+</u> 4.3)	16.8	$(\pm 3.2)$
1993	50.2	( <u>+</u> 2.5)	15.0	( <u>+</u> 1.9)	37.5	( <u>+</u> 1.8)	46.0	( <u>+</u> 2.8)	16.6	( <u>+</u> 2.2)
1995	52.1	( <u>+</u> 5.0)	14.4	( <u>+</u> 3.5)	40.4	( <u>+</u> 4.2)	48.6	( <u>+</u> 5.2)	16.8	$(\pm 3.0)$
1997	47.7	( <u>+</u> 3.7)	14.1	( <u>+</u> 2.0)	36.5	( <u>+</u> 2.7)	50.8	( <u>+</u> 3.0)	18.5	( <u>+</u> 3.0)
1999	47.7	( <u>+</u> 4.1)	13.1	( <u>+</u> 2.2)	36.3	( <u>+</u> 4.1)	50.7	( <u>+</u> 5.8)	18.6	( <u>+</u> 3.4)
2001	42.9	( <u>+</u> 2.8)¶	11.4	( <u>+</u> 1.5)	33.4	( <u>+</u> 2.5)	51.3	( <u>+</u> 3.4) <sup>¶</sup> **	20.7	$(\pm 2.7)$
Male										
1991	57.4	(±4.1)	23.4	( <u>+</u> 3.0)	36.8	( <u>+</u> 3.4)	54.5	( <u>+</u> 3.8)	26.3	( <u>+</u> 3.3)
1993	55.6	(±4.1) (+3.5)	22.3	( ±3.0) ( ±2.7)	37.5	(±3.4) (±3.0)	59.2	(±3.8)	25.7	(±3.0)
1995	54.0	( <u>+</u> 4.7)	20.9	( ±2.7) ( ±2.6)	35.5	( <u>+</u> 3.5)	60.5	( ±4.3)	32.8	( <u>+</u> 4.1)
1997	48.8	(±3.4)	17.6	( <u>+</u> 1.5)	33.4	( <u>+</u> 2.6)	62.5	( ±2.8)	30.5	( <u>+</u> 2.8)
1999	52.2	(±4.0)	19.3	(±1.5)	36.2	(±3.9)	65.5	( ±4.3)	31.2	(±4.0)
2001	48.5	( <u>+</u> 2.7)¶	17.2	( ±1.6)¶	33.4	( <u>+</u> 2.3)	65.1	( <u>+</u> 2.7)¶	30.9	( <u>+</u> 2.9)¶
	40.0	(12.7)	17.2	( 1.0)	00.4	( <u>1</u> 2.0)	00.1	(	00.0	(12.0)
Grade										
9										
1991	39.0	( <u>+</u> 5.0)	12.5	( <u>+</u> 2.9)	22.4	( <u>+</u> 3.9)	53.3	( <u>+</u> 6.2)	20.9	( <u>+</u> 6.9)
1993	37.7	( <u>+</u> 4.2)	10.9	( <u>+</u> 2.0)	24.8	( <u>+</u> 3.2)	61.6	( <u>+</u> 5.7)	22.4	( <u>+</u> 3.9)
1995	36.9	( <u>+</u> 5.9)	12.9	( ±3.0)	23.6	( <u>+</u> 4.0)	62.9	( <u>+</u> 5.5)	29.7	( <u>+</u> 5.7)
1997	38.0	( <u>+</u> 3.8)	12.2	( <u>+</u> 2.5)	24.2	( <u>+</u> 3.3)	58.8	( <u>+</u> 5.6)	33.2	( <u>+</u> 8.3)
1999	38.6	( <u>+</u> 6.1)	11.8	( <u>+</u> 2.3)	26.6	( <u>+</u> 5.7)	66.6	( <u>+</u> 7.8)	25.6	( <u>+</u> 5.2)
2001	34.4	( <u>+</u> 3.6)	9.6	( ±1.6)	22.7	( <u>+</u> 3.1)	67.5	( <u>+</u> 3.3) <sup>¶</sup>	24.0	(±4.4)**
10										
1991	48.2	( <u>+</u> 5.7)	15.1	( <u>+</u> 2.8)	33.2	( <u>+</u> 4.6)	46.3	( <u>+</u> 4.7)	22.3	$(\pm 4.9)$
1993	46.1	( <u>+</u> 3.6)	15.9	( <u>+</u> 2.0)	30.1	( <u>+</u> 3.0)	54.7	( <u>+</u> 4.5)	24.2	( <u>+</u> 4.2)
1995	48.0	( <u>+</u> 5.1)	15.6	( <u>+</u> 2.0)	33.7	( <u>+</u> 3.1)	59.7	( <u>+</u> 4.6)	28.6	( <u>+</u> 5.9)
1997	42.5	( <u>+</u> 4.3)	13.8	( <u>+</u> 2.7)	29.2	( <u>+</u> 2.9)	58.9	( <u>+</u> 3.6)	22.9	$(\pm 3.3)$
1999	46.8	( <u>+</u> 5.6)_	15.6	( <u>+</u> 5.0)	33.0	( <u>+</u> 5.2)	62.6	( <u>+</u> 6.1)_	23.1	$(\pm 4.2)$
2001	40.8	( <u>+</u> 3.0)¶	12.6	( <u>+</u> 1.8)	29.7	( <u>+</u> 2.9)	60.1	( <u>+</u> 4.5) <sup>¶</sup> **	27.7	( <u>+</u> 3.1)
11										
1991	62.4	( <u>+</u> 3.2)	22.1	( <u>+</u> 3.6)	43.3	( <u>+</u> 3.6)	48.7	( <u>+</u> 5.8)	22.2	( <u>+</u> 3.5)
1993	57.5	( <u>+</u> 3.5)	19.9	( <u>+</u> 3.1)	40.0	( <u>+</u> 3.6)	55.3	( <u>+</u> 3.0)	22.0	$(\pm 2.6)$
1995	58.6	( <u>+</u> 5.0)	19.0	( <u>+</u> 3.7)	42.4	( <u>+</u> 4.4)	52.3	( <u>+</u> 6.2)	24.3	( <u>+</u> 3.1)
1997	49.7	(±5.2)	16.7	( <u>+</u> 2.9)	37.8	( <u>+</u> 4.8)	60.1	( <u>+</u> 5.2)	23.1	( <u>+</u> 4.1)
1999	52.5	( <u>+</u> 3.8)	17.3	( <u>+</u> 4.1)	37.5	( <u>+</u> 3.4)	59.2	( <u>+</u> 4.8)	28.6	( <u>+</u> 5.8)
2001	51.9	( <u>+</u> 2.9)¶ **	15.2	( <u>+</u> 1.5) <sup>¶</sup>	38.1	( <u>+</u> 2.6)¶	58.9	( <u>+</u> 4.0)¶	24.7	( <u>+</u> 2.9)¶
12		•						. ,		
1991	66.7	$(\pm 4.4)$	25.0	( <u>+</u> 4.0)	50.6	( <u>+</u> 4.5)	41.4	( <u>+</u> 3.6)	20.8	( <u>+</u> 3.7)
1993	68.3	( <u>+</u> 4.6)	27.0	( <u>+</u> 3.6)	53.0	( <u>+</u> 3.9)	46.5	(±4.0)	19.1	( <u>+</u> 3.3)
1995	66.4	(±4.0)	22.9	( ±3.5)	49.7	( <u>+</u> 3.9)	49.5	$(\pm 4.4)$	20.3	(±3.6)
1997	60.9	(±6.5)	20.6	( ±3.5)	46.0	(±5.0)	52.4	(±3.5)	23.2	(±1.8)
1999	64.9	(±4.9)	20.6	( ±2.8)	50.6	( <u>+</u> 5.1)	47.9	(±5.7)	22.0	(±3.8)
2001	60.5	(±4.0)¶	21.6	( <u>+</u> 2.4)¶	47.9	( <u>+</u> 4.0)	49.3	( ±3.1) <sup>¶</sup> **	25.4	( <u>+</u> 2.6)¶

<sup>\*</sup> Confidence interval.
† Sexual intercourse during the 3 months preceding the survey.
§ Among students who are currently sexually active.
Significant linear effect (p<0.05).
\*\* Significant quadratic effect (p<0.05).

TABLE (Continued). Percentage of high school students who reported sexual risk behaviors, by sex, grade, race/ethnicity, and survey year — United States, Youth Risk Behavior Survey, 1991, 1993, 1995, 1997, 1999, and 2001

	Ever had sexual intercourse		≥4 sex partners during lifetime		Currently sexually active <sup>†</sup>		Condom use during last sexual intercourse <sup>§</sup>		Alcohol or drug use before last sexual intercourse <sup>§</sup>	
Characteristic	%	(95% CI*)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Race/Ethnicity <sup>††</sup>										
Black										
1991	81.4	( <u>+</u> 3.2)	43.1	( <u>+</u> 3.5)	59.3	( <u>+</u> 3.8)	48.0	( <u>+</u> 3.8)	13.7	( <u>+</u> 2.9)
1993	79.7	( <u>+</u> 3.2)	42.7	( <u>+</u> 3.8)	59.1	( <u>+</u> 4.4)	56.5	( ±3.8)	12.2	(±3.5)
1995	73.4	( <u>+</u> 4.5)	35.6	$(\pm 4.4)$	54.2	( <u>+</u> 4.7)	66.1	( ±4.8)	19.2	( <u>+</u> 4.6)
1997	72.6	( <u>+</u> 2.8)	38.5	( <u>+</u> 3.6)	53.6	( <u>+</u> 3.2)	64.0	( <u>+</u> 2.8)	18.1	( <u>+</u> 3.1)
1999	71.2	( <u>+</u> 8.2)	34.4	( <u>+</u> 10.3)	53.0	( <u>+</u> 8.9)	70.0	( <u>+</u> 5.4)	18.1	$(\pm 7.9)$
2001	60.8	( <u>+</u> 6.6) <sup>¶</sup>	26.6	( <u>+</u> 3.7) <sup>¶</sup>	45.6	( <u>+</u> 5.4) <sup>¶</sup>	67.1	( ±3.5) <sup>¶</sup> **	17.8	( <u>+</u> 2.6) <sup>¶</sup>
Hispanic										
1991	53.1	( <u>+</u> 3.5)	16.8	( <u>+</u> 2.6)	37.0	( <u>+</u> 3.6)	37.4	( <u>+</u> 6.2)	17.8	( <u>+</u> 4.2)
1993	56.0	( <u>+</u> 4.1)	18.6	( <u>+</u> 3.1)	39.4	( <u>+</u> 3.7)	46.1	$(\pm 4.4)$	18.2	( <u>+</u> 4.8)
1995	57.6	( <u>+</u> 8.6)	17.6	( <u>+</u> 3.7)	39.3	( <u>+</u> 7.1)	44.4	( <u>+</u> 11.1)	24.9	( <u>+</u> 5.2)
1997	52.2	( <u>+</u> 3.6)	15.5	( <u>+</u> 2.4)	35.4	( <u>+</u> 3.9)	48.3	( <u>+</u> 5.6)	25.3	( <u>+</u> 5.3)
1999	54.1	( <u>+</u> 4.8)	16.6	( <u>+</u> 3.6)	36.3	( <u>+</u> 4.0)	55.2	( <u>+</u> 6.8)	22.5	$(\pm 4.0)$
2001	48.4	( <u>+</u> 4.5)	14.9	( <u>±</u> 1.7)	35.9	( <u>+</u> 3.2)	53.5	( <u>+</u> 5.1) <sup>¶</sup>	24.1	( <u>+</u> 2.8)¶
White										
1991	50.0	( <u>+</u> 3.2)	14.7	( <u>+</u> 1.8)	33.9	( <u>+</u> 2.8)	46.5	( <u>+</u> 4.6)	25.3	( <u>+</u> 3.7)
1993	48.4	( <u>+</u> 2.8)	14.3	( <u>+</u> 2.1)	34.0	( <u>+</u> 2.1)	52.3	( ±3.9)	24.4	( <u>+</u> 2.7)
1995	48.9	( <u>+</u> 5.0)	14.2	( <u>+</u> 2.4)	34.8	( <u>+</u> 3.9)	52.5	$(\pm 4.0)$	26.6	( <u>+</u> 3.1)
1997	43.6	( <u>+</u> 4.2)	11.6	( <u>+</u> 1.5)	32.0	( <u>+</u> 3.1)	55.8	( <u>+</u> 2.0)	26.0	( <u>+</u> 2.5)
1999	45.1	( <u>+</u> 3.9)	12.4	( <u>+</u> 2.1)	33.0	( <u>+</u> 3.3)	55.0	( <u>+</u> 5.1)	27.4	( <u>+</u> 4.8)
2001	43.2	( <u>+</u> 2.5)¶	12.0	( <u>±</u> 1.4)¶	31.3	( <u>+</u> 2.2)	56.8	( <u>+</u> 3.0) <sup>¶</sup>	27.8	( <u>+</u> 2.2)
Total										
1991	54.1	(±3.5)	18.7	( <u>+</u> 2.1)	37.4	(±3.1)	46.2	( ±3.3)	21.6	$(\pm 2.9)$
1993	53.0	(+2.7)	18.7	( <u>+</u> 2.0)	37.5	( <u>+</u> 2.1)	52.8	(+2.7)	21.3	( <u>+</u> 2.0)
1995	53.1	( <u>+</u> 4.5)	17.8	( <u>+</u> 2.6)	37.9	( <u>+</u> 3.4)	54.4	( <u>+</u> 3.5)	24.8	( <u>+</u> 2.8)
1997	48.4	( <u>+</u> 3.1)	16.0	( <u>+</u> 1.4)	34.8	( <u>+</u> 2.2)	56.8	( <u>+</u> 1.6)	24.7	( <u>+</u> 1.8)
1999	49.9	( <u>+</u> 3.7)	16.2	( <u>+</u> 2.6)	36.3	( <u>+</u> 3.5)	58.0	$(\pm 4.2)$	24.8	( <u>+</u> 3.0)
2001	45.6	( <u>+</u> 2.3)¶	14.2	( <u>+</u> 1.2)¶	33.4	( <u>+</u> 2.0)	57.9	( <u>+</u> 2.2)¶ **	25.6	( <u>+</u> 1.7)¶

<sup>\*</sup> Confidence interval.

- 3. Forrest JD, Singh S. The sexual and reproductive behavior of American women, 1982–88. Fam Plann Perspect 1990;22:206–14.
- 4. CDC. Sexually transmitted disease surveillance, 1993. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, 1994.
- CDC. Sexually transmitted disease surveillance, 2000. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, 2001.
- Ventura SJ, Mosher WD, Curtin SA, Abma JC. Trends in pregnancy rates for the United States, 1976–97: an update. Nat Vital Stat Rep 2001;49:1–12.
- 7. Martin JA, Park MM, Sutton PD. Births: preliminary data for 2001. Nat Vital Stat Rep 2002;50:1–20.
- Kaufman P, Kwon JY, Klein S, Chapman CD. Dropout rates in the United States: 1998. Washington, DC: U.S. Department of Education, National Center for Education Statistics; 1999.
- Brener ND, Kann L, McManus T, Kinchen SA, Sundberg EC, Ross JG. Reliability of the 1999 Youth Risk Behavior Survey questionnaire. J Adolesc Health 2002 (in press).
- 10. United Nations International Children's Emergency Fund. A league table of teenage births in rich nations. Innocenti report card no. 3. Florence, Italy: UNICEF Innocenti Research Centre, 2001.

## Lightning-Associated Injuries and Deaths Among Military Personnel — United States, 1998–2001

After flooding, lightning is the second leading cause of weather-related death in the United States; approximately 300 injuries and 100 deaths are associated annually with lightning strikes in the United States (1–4). To characterize lightning-associated injuries and deaths among U.S. Armed Forces personnel, the U.S. Army and CDC analyzed data from the Defense Medical Surveillance System (DMSS). This report summarizes the results of that analysis, which indicate that the highest lightning-related injury rates during 1998–2001 occurred among male U.S. military members who were aged <40 years, single, with a high school education or less,

Sexual intercourse during the 3 months preceding the survey.

Among students who are currently sexually active.

<sup>&</sup>quot;Significant linear effect (p<0.05).

<sup>\*\*</sup> Significant quadratic effect (p<0.05).

Numbers of students in racial/ethnic groups other than white, black, or Hispanic were too small for meaningful analysis.

stationed near the Gulf of Mexico or the East Coast, and in the U.S. Army. The findings suggest that the risk for lightning-associated injury depends primarily on the frequency, timing, duration, and nature of outdoor exposure to thunderstorms. Military personnel should be aware of severe weather onset and take reasonable precautions to protect themselves and their companions from exposure to lightning.

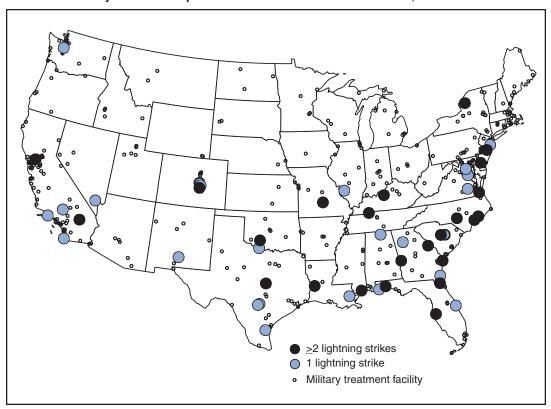
DMSS maintains hospitalization and ambulatory clinic visit data on U.S. Armed Forces personnel (both active-duty and reserve) and links health data with personnel data (e.g., age, race, sex, education, occupational specialty, and duty station). This analysis considered lightning-associated injuries or deaths among active-duty and reserve military personnel that occurred during 1998–2001. A lightning-associated injury or death was defined as a hospitalization or ambulatory clinic visit in the 50 states and the District of Columbia that was assigned a primary or secondary diagnosis of "effects from lightning, shock from lightning, or struck by lightning" according to the *International Classification of Diseases, Ninth Clinical Modification* (ICD-9-CM) code 994.0. Because isolated cloud-to-ground lightning strikes could not be distinguished from multiple lightning strikes at the same time and

location, it was assumed that two or more lightningassociated injuries or deaths at the same time and location were caused by a single lightning strike. Descriptive statistics were analyzed, including event date, location, percentage of strikes causing injury resulting in hospitalization or death, casualties per strike, and military status (i.e., active or reserve) of affected persons. Because accurate denominator data were not available for reserve personnel, lightning casualty rates and relations of selected demographic factors to those rates were calculated for active-duty personnel only. Military personnel comprise a highly mobile population, and many duty assignments last for <1 year; therefore, lightningassociated casualty rates were expressed as casualties per 100,000 person years. Rate

ratios and 95% confidence intervals (CIs) were based on Poisson regression. The descriptive nature of this report precluded calculating adjusted estimates.

During 1998–2001, a total of 142 lightning strikes caused 350 service member injuries and one service member death at U.S. military installations in the United States (Figure); 64 (18.0%) persons required hospitalization. The majority (123 [86.6%]) of lightning strikes injured either one or two persons; 12 (8.5%) strikes injured three to nine persons; and seven (4.9%) strikes injured ≥10 persons, including one that injured 44 persons during an outdoor training exercise. Three fourths (106 [74.6%]) of lightning strikes occurred during May-September, with a peak (71 [50.0%]) during July-August. Lightning strikes occurred more often near the coasts, particularly in southern and eastern areas. Activeduty personnel constituted the majority (246 [70.1%]) of lightning-associated casualties. Overall, the lightning strike casualty rate was 5.8 per 100,000 person years (Table 1). By state, Louisiana (39.6), Georgia (25.2), and Oklahoma (23.5) had the highest rates. Comparisons among age groups showed a strong inverse relation between age and risk for lightningassociated injury (Table 2). Men were 3.3 times more likely

FIGURE. Geographic location of lightning strikes\* causing injury or death among U.S. Armed Forces active duty and reserve personnel — continental United States<sup>†</sup>, 1998–2001



\* n=138.

Location codes for Hawaii and Alaska military installations were not available in the database used to create this map.

TABLE 1. Number, person years, and rate of lightningassociated casualties\* among U.S. Armed Forces active personnel, by state — United States, 1998–2001

0111100		
No.	Person years <sup>†</sup>	Rate§
6	100,802	6.0
3	34,899	8.6
3	65,903	4.6
173	2,392,911	7.2
2	15,145	13.2
1	62,364	1.6
13	258,669	5.0
67	266,359	25.2
12	142,048	8.4
25	63,122	39.6
2	71,708	2.8
29	377,010	7.7
2	145,403	1.4
14	446,982	3.1
6	544,101	1.1
3	372,626	0.8
1	117,288	0.9
2	61,323	3.3
51	1,135,690	4.5
1	66,474	1.5
10	610,913	1.6
12	111,109	10.8
3	170,825	1.8
1	30,959	3.2
1	47,412	2.1
23	97,998	23.5
233	4,002,029	5.8
	No. 6 3 3 173 2 1 13 67 12 25 2 9 2 14 6 3 1 2 51 1 10 12 3 1 1 23	6 100,802 3 34,899 3 65,903 173 2,392,911 2 15,145 1 62,364 13 258,669 67 266,359 12 142,048 25 63,122 2 71,708 29 377,010 2 145,403 14 446,982 6 544,101 3 372,626 1 117,288 2 61,323 51 1,135,690 1 66,474 10 610,913 12 111,109 3 170,825 1 30,959 1 47,412 23 97,998

<sup>\*</sup>Injuries (n=232) and deaths (n=1).

than women to be struck by lightning. Service members with a high school education or less and those in combat-related occupations (e.g., infantry or artillery) were at higher risk than their counterparts. Among the services, the Army had the highest lightning casualty rate (9.5), and the Navy had the lowest (1.4); the Army-to-Navy rate ratio was 7.0 (95% CI=4.4–11.7).

**Reported by:** MJ Silverberg, PhD, A Frommelt, MPH, JL Lange, PhD, JF Brundage, MD, MV Rubertone, MD, BH Jones, MD, Army Medical Surveillance Activity, US Army Center for Health Promotion and Preventive Medicine. BS Winterton, DVM, EIS Officer, CDC.

**Editorial Note:** The findings in this report are consistent with previous studies indicating that the majority of lightning-associated casualties were men aged <40 years (2). However, among military personnel, this age and sex distribution reflects the overall make-up of the military and also might reflect age and sex differences in military occupational or recreational exposure to lightning hazards. Previous studies found that the highest lightning-associated mortality frequencies were reported in Florida and Texas (2,3) and the highest lightning-associated mortality rates were in Arizona, Arkansas, Florida,

TABLE 2. Number, person years, rate, and rate ratios (RR) of lightning-associated casualties\* among U.S. Armed Forces active personnel, by selected demographics — United States, 1998–2001

1998–2001					
Characteristic	No.	Person years <sup>†</sup>	Rate§	RR	(95% CI <sup>1</sup> )
Military service					
Army	180	1,891,752	9.5	6.8	(4.4-11.7)
Marines	19	684,609	2.8	2.0	(1.0-4.0)
Air Force	27	1,419,659	1.9	1.4	(0.8-2.6)
Navy	20	1,471,933	1.4	1.0	
Age group (yrs)					
0–19	34	417,703	8.1	7.5	(3.1-21.9)
20-29	144	2,826,217	5.1	4.7	(2.1-13.1)
30-39	62	1,668,813	3.7	3.4	(1.5 - 9.7)
≥40	6	555,132	1.1	1.0	
Sex					
Male	234	4,683,513	5.0	3.3	(1.8- 6.4)
Female	12	784,430	1.5	1.0	,
Education <sup>†</sup>					
High school or les	s 174	3,515,236	4.9	4.5	(1.7–16.8)
Some college		, ,			,
or degree	53	1,484,381	3.6	3.3	(1.2-12.4)
Some postgradua	te 4	364,721	1.1	1.0	,
Race/Ethnicity					
Black	56	1,100,844	5.1	1.1	(0.8- 1.5)
Hispanic	18	402,913	4.5	1.0	(0.6- 1.6)
Other**	9	350,949	2.6	0.6	(0.3– 1.1)
White	163	3,598,983	4.5	1.0	(010 111)
Marital status					
Single, never					
married	145	2,262,888	6.4	2.0	(1.6- 2.6)
Married or other	101	3,196,114	3.2	1.0	(
Occupation <sup>†</sup>		3,.33,	J		
Combat	86	1,216,864	7.1	2.6	(1.4- 5.3)
Noncombat,	00	1,210,004	7.1	2.0	(1.4 0.0)
nonmedical	132	3,737,567	3.5	1.3	(0.7- 1.5)
Medical	12	450,525	2.7	1.0	(3.7 1.0)
Military rank		, -			
Enlisted	207	4,593,127	4.5	1.0	(0.7- 1.5)
Officer	39	874,827	4.5	1.0	(3.7 1.0)
Total	246	5,467,953	4.7	-	
10141	270	3,701,333	7.7		

<sup>\*</sup> Injuries and deaths.

Mississippi, New Mexico, and Wyoming (1,3). The difference in geographic distribution of lightning casualties between those reported here and those reported previously reflects the geographic distribution of military service members across the United States; a disproportionate number of service members are stationed in rural areas and in southern and eastern coastal states. Service members in combat occupations (generally associated with increased outdoor exposure) had higher casualty rates than those in other military occupations. These findings suggest that lightning injury risk

Not shown: 29 states for which n=0.

<sup>§</sup>Per 100,000 person years.

 $<sup>\</sup>frac{1}{8}$  Numbers might not add to total because of missing data.

<sup>§</sup> Per 100,000 person years.

<sup>&</sup>lt;sup>1</sup> Confidence interval.

<sup>\*\*</sup> Numbers too small to calculate reliable rates.

is determined by the frequency, timing, duration, and nature of outdoor exposure to thunderstorms and that specific demographic factors (age, sex, education, and race) are associated with lightning injury risk only to the extent they correlate with the primary risk determinant.

Lightning-associated injuries and deaths among military personnel might be undercounted for at least three reasons. First, because casualties were determined from military inpatient and outpatient records at "fixed" U.S. military medical treatment facilities, military casualties treated at deployed or "field" military medical treatment facilities might not be represented fully. Second, because external cause-of-injury codes ("E codes," including ICD-9-CM code E907) are not used in the Military Health System, any lightning-associated casualties assigned codes other than ICD-9-CM code 994.0 would not have been captured. Finally, deaths not preceded by hospitalization or ambulatory clinic visit could not be ascertained.

Approximately 30 million cloud-to-ground lightning strikes occur each year in the United States (5), each of which has the potential to cause serious injury and death. U.S. military personnel are a potentially high-risk population for lightning-associated injury and death because military training and operational activities occur outdoors in all types of weather conditions and within areas of the country with high lightning-associated morbidity and mortality. The identification of features common to lightning strike victims can be used to focus prevention efforts. Persons with outdoor exposure during active military service should be aware of approaching severe weather and should take reasonable precautions to protect themselves and their fellow soldiers, sailors, airmen, and marines.

Guidelines for preventing lightning-related injuries are available from the National Lightning Safety Institute at http://www.lightningsafety.com/nlsi\_pls/1st.html. These guidelines are equally applicable to military personnel and to anyone else with potential exposure to thunderstorms.

#### References

- 1. Lopez RE, Holle RL. Demographics of lightning casualties. Semin Neurol 1995;15:286–95.
- CDC. Lightning-associated deaths—United States, 1980–1995. MMWR 1998;47:391–4.
- Duclos PJ, Sanderson LM. An epidemiological description of lightningrelated deaths in the United States. Int J Epidemiol 1990;19:673–9.
- Duclos PJ, Sanderson LM, Klontz KC. Lightningrelated mortality and morbidity in Florida. Public Health Rep 1990;105:276–82.
- Krider EP, Uman MA. Cloud-to-ground lightning: mechanisms of damage and methods of protection. Semin Neurol 1995;15:227–32.

## West Nile Virus Activity — United States, September 19–25, 2002, and Michigan, January 1– September 24, 2002

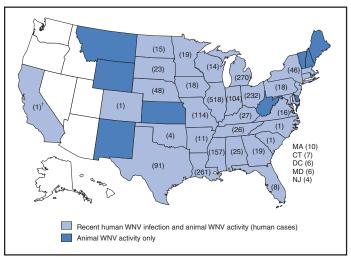
This report summarizes West Nile virus (WNV) surveillance data reported to CDC through ArboNET and by states and other jurisdictions as of 7 a.m. Mountain Daylight Time, September 25, 2002.

## **United States**

During the reporting period of September 19-25, a total of 480 laboratory-positive human cases of WNV-associated illness were reported from Illinois (n=119), Michigan (n=104), Ohio (n=63), Indiana (n=26), Nebraska (n=25), Louisiana (n=23), Missouri (n=16), Pennsylvania (n=15), Mississippi (n=13), New York (n=11), Iowa (n=seven), Kentucky (n=seven), Texas (n=seven), Minnesota (n=six), North Dakota (n=six), Arkansas (n=five), South Dakota (n=five), Virginia (n=five), Alabama (n=four), the District of Columbia (n=three), Wisconsin (n=three), Georgia (n=two), Connecticut (n=one), Maryland (n=one), Massachusetts (n=one), New Jersey (n=one), and North Carolina (n=one). During this period, North Carolina reported its first human WNV case ever. During the same period, WNV infections were reported in 387 dead crows and 409 other dead birds. A total of 1,106 veterinary cases were reported: 1,099 equine, three canine, and four other species. During the same period, 377 WNV-positive mosquito pools were reported.

During 2002, a total of 2,121 human cases with laboratory evidence of recent WNV infection have been reported from Illinois (n=518), Michigan (n=270), Louisiana (n=261), Ohio (n=232), Mississippi (n=157), Missouri (n=114), Indiana (n=104), Texas (n=91), Nebraska (n=48), New York (n=46), Kentucky (n=27), Tennessee (n=26), Alabama (n=25), South Dakota (n=23), Georgia (n=19), Minnesota (n=19), Iowa (n=18), Pennsylvania (n=18), Virginia (n=16), North Dakota (n=15), Wisconsin (n=14), Arkansas (n=11), Massachusetts (n=10), Florida (n=eight), Connecticut (n=seven), the District of Columbia (n=six), Maryland (n=six), New Jersey (n=four), Oklahoma (n=four), California (n=one), Colorado (n=one), North Carolina (n=one), and South Carolina (n=one) (Figure 1). Among the 1,814 patients for whom data were available, the median age was 55 years (range: 1 month-99 years); 963 (54%) were male, and the dates of illness onset ranged from June 10 to September 21. A total of 95 human deaths have been reported. The median age of decedents was 79 years (range: 27–99 years); 55 (58%) deaths were among

FIGURE 1. Areas reporting West Nile virus (WNV) activity — United States, 2002\*



\* As of 7 a.m. Mountain Daylight Time, September 25, 2002. † California has reported human WNV activity only.

men. In addition, 4,949 dead crows and 3,775 other dead birds with WNV infection were reported from 42 states, New York City, and the District of Columbia; 3,350 WNV infections in mammals (3,343 equines, three canines, and four other species) have been reported from 33 states (Alabama, Arkansas, Colorado, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, and Wyoming). During 2002, WNV seroconversions have been reported in 309 sentinel chicken flocks from Florida, Iowa, Nebraska, Pennsylvania, and New York City; 3,353 WNVpositive mosquito pools have been reported from 26 states (Alabama, Arkansas, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kentucky, Maryland, Massachusetts, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Vermont, and Virginia), New York City, and the District of Columbia.

## Michigan

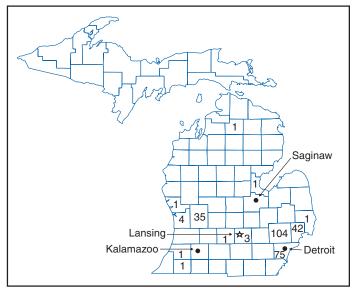
During January 1–September 24, 2002, the Michigan Department of Community Health (MDCH) identified 270 persons with laboratory evidence of WNV infection; 236 cases were laboratory confirmed and 34 were probable. Thirteen cases were fatal; all 13 presented with either encephalitis or aseptic meningitis.

The 270 patients had a median age of 61 years (range: 9 months–91 years); 157 (58%) were male. Of the 215 patients for whom clinical information was available, 184 (86%) had aseptic meningitis or encephalitis. The median age of these 184 cases was 67 years (range: 9 months–91 years). Median age of decedents was 79 years (range: 42–90 years). Date of illness onset for all cases was July 29–September 12.

Of Michigan's 83 counties, 68 (82%) have reported WNV activity (positive animal, mosquito, or human cases). Human cases have occurred among persons in 13 counties, with 256 cases (95%), including all 13 deaths, occurring in the state's four most populous counties (Kent [35], Macomb [42], Oakland [104], and Wayne [75]) (Figure 2). Of 580 birds tested, 324 (56%) from 67 counties have tested positive for WNV by immunohistochemistry test and confirmatory polymerase chain reaction at state public health laboratories; the first bird tested positive on May 24. A total of 145 horses from 30 counties have tested laboratory positive. The first horse tested positive on August 16.

MDCH provides daily updates on human cases of WNV on its website (http://www.michigan.gov/mdch), and animal case information is located on the Michigan Department of Agriculture (MDA) website (http://www.michigan.gov/mda). Results on specimens submitted for laboratory testing are provided electronically and by fax to patient providers, submitting laboratories, and local health departments. MDCH issues multiple press releases each week updating case numbers, reminding the public of personal protection measures, and advising elimination of sources of standing water around residences. Mosquito-control program recommendations,

FIGURE 2. Number of West Nile virus cases in humans\*, by county — Michigan, January 1–September 24, 2002



<sup>\*</sup> n=270.

developed jointly by MDCH and MDA, are provided on the MDA website. The decision to initiate a control program has been left to local municipalities. The state has developed a surveillance system for report of side effects associated with mosquito spraying occurring as a component of WNV-control programs.

Additional information about WNV activity is available from CDC at http://www.cdc.gov/ncidod/dvbid/westnile/index.htm and http://www.cindi.usgs.gov/hazard/event/west\_nile/west\_nile.html.

## Notice to Readers

# National Adult Immunization Awareness Week, October 13–19, 2002

This year's National Adult Immunization Awareness Week (NAIAW) will be October 13–19. NAIAW highlights the influenza vaccination season, which typically begins in early fall of each year. NAIAW emphasizes the need for health-care providers and public health officials to intensify their efforts to vaccinate adults and adolescents according to recommendations of the Advisory Committee on Immunization Practices. In addition to specifying the appropriate use of influenza and pneumococcal vaccines for adults and adolescents, the recommendations cover vaccination of adults and adolescents against diphtheria, hepatitis A and B, measles, mumps, rubella, tetanus, meningococcal disease, and varicella.

Information about NAIAW is available from the National Foundation for Infectious Diseases, the National Coalition for Adult Immunization, and the National Partnership for Immunization, 4733 Bethesda Avenue, Suite 750, Bethesda, MD 20814; telephone, 301-656-0003; fax, 301-907-0878; e-mail, ncai@nfid.org; and online at http://www.nfid.org or http://www.partnersforimmunization.org. Additional information about influenza, the influenza vaccine, and influenza education materials is available at http://www.cdc.gov/nip/flu.

## Notice to Readers

# Updated Post-Event Smallpox Response Plan and Guidelines

CDC has released an updated version of the post-event *Smallpox Response Plan and Guidelines*. This is the second revision to these guidelines since they were released in November 2001.

Version 3 of the guidelines contains an important addition—the "Smallpox Vaccination Clinic Guide." This guide provides the operational and logistical considerations

associated with implementing a large-scale, voluntary vaccination program as part of a multifaceted response to a confirmed smallpox outbreak. Following a confirmed smallpox outbreak within the United States, rapid, voluntary vaccination of a large segment of the population might be required to 1) supplement priority surveillance and containment control strategies in areas with smallpox cases, 2) reduce the atrisk population for additional intentional releases of smallpox virus if the probability of such occurrences is considered significant, and 3) address heightened public concerns about access to voluntary vaccination.

The most important component of smallpox containment is the rapid identification, isolation, and vaccination of close contacts of infected patients and contacts of their contacts (i.e., ring vaccination). This strategy involves identification of infected persons through intensive surveillance, isolation of infected persons, vaccination of household contacts and other close contacts of infected persons (i.e., primary contacts), and vaccination of household and other potential contacts of the primary contacts (i.e., secondary contacts).

The clinic guide will assist planning for larger-scale, postevent vaccination when exposure circumstances indicate the need to supplement the ring vaccination approach with broader protective measures. The clinic guide describes the activities and staffing needs associated with large-scale smallpox vaccination clinics, including suggested protocols for vaccine safety monitoring and treatment. The clinic guide provides an example of a model smallpox clinic and provides samples of pertinent clinic consent forms and patient information sheets that would be used at a clinic.

The clinic guide and the *Smallpox Response Plan and Guidelines, Version 3* are available at http://www.cdc.gov/smallpox. CDC will take additional steps to increase preparedness to respond to a smallpox exposure of any magnitude, including updates to the *Smallpox Response Plan and Guidelines*. Updates on infection control, in-hospital isolation recommendations, post-event vaccination protocols, and outbreak response strategies are under way and will be posted on the CDC website.

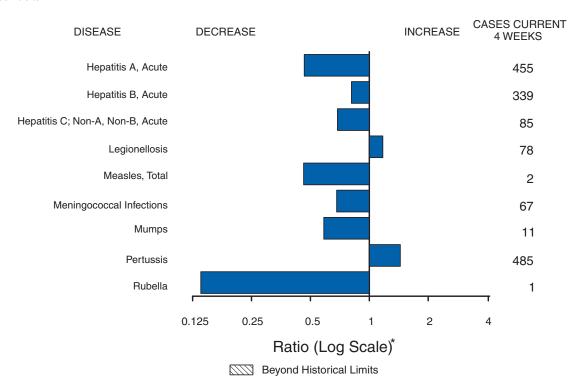
## Notice to Readers

# Expansion of Eligibility for Influenza Vaccine Through the Vaccines for Children Program

On June 20, 2002, the Advisory Committee on Immunization Practices (ACIP) adopted a resolution expanding the group of children eligible for influenza vaccine coverage under the Vaccines for Children (VFC) program. The

(Continued on page 875)

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending September 21, 2002, with historical data



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

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending September 21, 2002 (38th Week)\*

		Cum. 2002	Cum. 2001		Cum. 2002	Cum. 2001
Anthrax		2	2	Encephalitis: West Nile†	597	35
Botulism:	foodborne	11	33	Hansen disease (leprosy)†	57	50
	infant	42	68	Hantavirus pulmonary syndrome†	11	6
	other (wound & unspecified)	17	13	Hemolytic uremic syndrome, postdiarrheal <sup>†</sup>	147	122
Brucellosis†	. ,	57	95	HIV infection, pediatric <sup>†§</sup>	116	134
Chancroid		52	28	Plague	-	2
Cholera		5	4	Poliomyelitis, paralytic	-	-
Cyclosporiasi	S <sup>†</sup>	155	115	Psittacosis†	17	10
Diphtheria		1	2	Q fever <sup>†</sup>	27	20
Ehrlichiosis:	human granulocytic (HGE)†	236	163	Rabies, human	2	1
	human monocytic (HME)†	113	89	Streptococcal toxic-shock syndrome†	62	60
	other and unspecified	6	5	Tetanus	19	26
Encephalitis:	California serogroup viral†	67	68	Toxic-shock syndrome	84	90
·	eastern equine <sup>†</sup>	2	6	Trichinosis	12	13
	Powassan <sup>†</sup>	-	-	Tularemia <sup>†</sup>	47	107
	St. Louis†	-	70	Yellow fever	1	-
	western equine†	-	-			

<sup>-:</sup> No reported cases.

<sup>\*</sup>Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

Not notifiable in all states.

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 July 28, 2002.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending September 21, 2002, and September 22, 2001 (38th Week)\*

							Esch	erichia coli, E	nterohemorrhag	gic
	Δ1	DS	Chlai	nydia <sup>†</sup>	Cryptos	poridiosis	015	57:H7		in Positive, p non-O157
Reporting Area	Cum. 2002§	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	24,713	28,424	550,851	557,608	1,759	2,831	2,415	2,247	114	104
NEW ENGLAND	1,011	1,059	19,307	17,507	128	106	190	197	27	33
Maine	23	36	1,168	974	9	13	26	24	5	1
N.H.	20	27	1,157	1,003	24	8	24	26	-	3
Vt. Mass.	8 519	13 594	639 7,923	448 7,536	25 41	27 44	6 87	11 97	1 7	1 9
R.I.	71	70	1,981	2,131	16	3	10	10	-	-
Conn.	370	319	6,439	5,415	13	11	37	29	14	19
MID. ATLANTIC	5,619	7,236	63,109	60,397	212	242	164	162	-	-
Jpstate N.Y. N.Y. City	404 3,210	1,043 3,733	12,107 20,572	9,695 21,461	81 86	75 96	125 10	103 15	-	-
N.J.	925	1,283	9,533	10,357	8	13	29	44	-	-
Pa.	1,080	1,177	20,897	18,884	37	58	N	N	-	-
E.N. CENTRAL	2,494	2,001	93,114	102,453	416	1,333	597	585	13	6
Ohio nd.	453 347	362 223	21,753 11,863	26,545 11,311	95 27	133 65	112 43	132 63	11	4
II.	1,170	880	25,100	31,198	54	458	126	144	-	-
Mich.	398	410	23,412	21,461	81	135	98	73	2	2
Wis.	126	126	10,986	11,938	159	542	218	173	-	-
W.N. CENTRAL Minn.	421 90	618 101	31,010 6,848	28,566 5,926	290 151	373 120	369 125	359 138	20 16	28 25
owa	54	65	3,830	3,517	35	68	92	62	-	-
Mo.	189	302	10,993	10,175	26	36	49	48	N	N
N. Dak.	1 3	2	682	738	6	9 6	3 31	13 29	- 1	1 1
S. Dak. Nebr.	43	19 58	1,516 2,362	1,305 2,414	17 43	132	44	52	3	1
Kans.	41	71	4,779	4,491	12	2	25	17	-	-
S. ATLANTIC	7,537	8,735	104,806	107,637	248	275	210	180	34	20
Del.	131	185	1,908	2,041	2	4	4	4	-	1
Md. D.C.	1,066 371	1,373 586	11,262 2,417	10,865 2,360	16 4	31 11	19	24	-	-
Va.	538	714	11,154	13,308	10	17	44	46	7	2
W. Va.	_58	_56	1,774	1,714	2	2	6	9	-	-
N.C. S.C.	555 547	549 489	17,757 8,565	15,982 11,573	28 6	21 6	33 4	36 12	-	-
Ga.	1,160	931	21,577	23,025	116	119	50	24	10	9
Fla.	3,111	3,852	28,392	26,769	64	64	50	25	17	8
E.S. CENTRAL	1,128	1,325	34,505	36,215	96	40	81	110	-	-
Ky.	173	244	6,127	6,525	4	4	23	58	-	-
Tenn. Ala.	483 197	418 347	11,774 9,112	10,858 10,047	49 37	12 12	35 16	30 14	-	-
Miss.	275	316	7,492	8,785	6	12	7	8	-	-
W.S. CENTRAL	2,696	2,992	78,127	77,905	27	104	51	152	-	-
Ark.	163	143	4,805	5,504	7	6	9	10	-	-
La. Okla.	693 133	589 171	14,346 8,045	13,267 7,647	4 11	7 10	1 16	7 22	-	-
Tex.	1,707	2,089	50,931	51,487	5	81	25	113	-	-
MOUNTAIN	790	1,032	33,925	33,116	124	153	266	216	15	11
Mont.	8	14	1,568	1,441	4	25	23	16	-	-
daho Wyo.	18 6	17 3	1,828 670	1,362 600	22 9	13 4	36 12	46 7	7 1	2
Colo.	157	244	10,058	9,420	44	36	77	76	3	6
N. Mex.	53	107	4,613	4,441	18	19	5	11	3	3
Ariz. Utah	327 43	385 83	10,858 1,879	10,478 1,696	12 12	6 45	29 62	21 27	1 -	-
Nev.	178	179	2,451	3,678	3	5	22	12	-	-
PACIFIC	3,017	3,426	92,948	93,812	218	205	487	286	5	6
Wash.	302	361	10,372	9,656	37	U	109	65	-	-
Oreg. Calif.	216 2,416	135 2,859	4,932 72,126	5,362 73,942	30 150	39 162	177 160	48 153	5	6
Calli. Alaska	2,416 17	2,859 16	2,612	1,954	-	1	6	4	-	-
Hawaii	66	55	2,906	2,898	1	3	35	16	-	-
Guam	2	. 9	-	292	-	-	N	N	-	-
P.R.	668	815	1,790	1,860	-	-	-	2	-	-
V.I. Amer. Samoa	66 U	2 U	98 U	120 U	U	Ū	U	U	U	U
AIIIEI. Saiiiua										

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

\* Incidence data for reporting year 2001 and 2002 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 July 28, 2002.

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending September 21, 2002, and September 22, 2001 (38th Week)\*

(38th Week)*			T			T	Haomonhili	ıs influenzae,	
	Esche	richia coli,						is innuenzae, asive	
	Enterol	nemorrhagic	_					Age <5	Years
		oxin Positive, progrouped	Giardiasis	Gond	orrhea		Ages, erotypes	Serot B	
Reporting Area	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	27	11	11,458	233,261	257,853	1,133	1,103	16	20
NEW ENGLAND	-	1	1,182	5,417	4,896	80	79	-	1
Maine N.H.	-	-	144 31	94 92	106 127	1 7	1 4	-	-
Vt.	-	1	95	76	50	6	3	-	-
Mass. R.I.	-	-	586 115	2,398 632	2,295 590	41 10	37 3	-	1 -
Conn.	-	-	211	2,125	1,728	15	31	-	-
MID. ATLANTIC	-	1	2,443	29,100	29,800	202	162	3	3
Upstate N.Y. N.Y. City	-	-	840 929	6,257 8,425	5,934 9,033	91 46	54 41	2	-
N.J. Pa.	-	- 1	223 451	5,527 8,891	5,343 9,490	45 20	38 29	- 1	3
E.N. CENTRAL	10	5	2,039	45,044	53,866	172	29	3	2
Ohio	9	5	645	11,995	14,722	63	53	-	1
Ind. III.	-	-	463	5,092 13,472	4,879 17,294	35 57	39 70	1	-
Mich.	1	-	622	10,501	12,591	10	12	2	-
Wis.	-	-	309	3,984	4,380	7	27	-	1
W.N. CENTRAL Minn.	-	2	1,418 557	12,085 2,077	12,147 1,882	48 34	55 30	1 1	-
Iowa Mo.	- N	- N	222 343	875 6,247	950 6,248	1 10	- 16	-	-
N. Dak.	-	2	11	37	32	-	6	-	-
S. Dak. Nebr.	-	-	48 122	179 711	211 864	-	2	-	- 1
Kans.	-	-	115	1,959	1,960	3	1	-	-
S. ATLANTIC	-	-	2,082	60,214	67,311	296	273	2	1
Del. Md.	-	-	37 86	1,155 6,116	1,212 6,442	- 68	69	2	-
D.C.	-	-	29	1,988	2,119	-	-	-	-
Va. W. Va.	-	-	204 44	6,798 701	8,034 479	26 14	21 14	-	1
N.C. S.C.	-	-	94	11,637 5,180	12,631 8,319	30 9	41 4	-	-
Ga.	-	-	645	11,895	12,759	76	68	-	-
Fla.	-	-	943	14,744	15,316	73	56	-	-
E.S. CENTRAL Ky.	7 7	1 1	256	19,804 2,582	23,368 2,553	49 4	62 2	1	-
Tenn.	-	-	117	6,833	7,308	26	32	<del>-</del>	-
Ala. Miss.	-	-	139	5,883 4,506	7,771 5,736	14 5	26 2	1 -	-
W.S. CENTRAL	-	-	164	34,836	38,323	44	41	2	1
Ark. La.	-	-	116 3	2,836 8,896	3,387 9,148	2 4	- 6	-	-
Okla.	-	-	45	3,441	3,493	33	34	-	-
Tex.	-	-	-	19,663	22,295	5	1	2	1
MOUNTAIN Mont.	10	1 -	1,146 72	7,152 68	7,575 83	138	121	2	7
Idaho	-	-	86	65	59	2	1	-	-
Wyo. Colo.	10	1	22 381	44 2,482	57 2,290	1 26	1 34	-	-
N. Mex.	-	-	125	927	718	21	19	-	1
Ariz. Utah	-	-	147 217	2,643 183	2,873 134	64 15	50 5	1 -	4 -
Nev.	-	-	96	740	1,361	9	11	1	2
PACIFIC Wash.	-	-	728 280	19,609 2,065	20,567 2,140	104 2	109 2	2 1	4
Oreg.	-	-	311	612	836	51	32	-	-
Calif. Alaska	-	-	- 70	16,064 426	16,837 298	22 1	48 6	1 -	4
Hawaii	-	-	67	442	456	28	21	-	-
Guam	-	-	-	-	33	-	-	-	-
P.R. V.I.	-	-	26	265 25	427 20	1 -	1 -	-	-
Amer. Samoa C.N.M.I.	U -	U U	U 1	U 13	U U	U -	U U	U -	U U
N: Not notifiable	II: I Inavailable	- · No reported		10		-			

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

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 21, 2002, and September 22, 2001 (38th Week)\*

	Нае	emophilus in	<i>fluenzae</i> , Invas	ive						
			5 Years		1	н	epatitis (Viral,	Acute), By Ty	/pe	
	Non-Ser		Unknown S	Serotype		A	1	В	-	A, Non-B
B	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.
Reporting Area	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001
UNITED STATES	184	181	14	24	6,172	7,171	4,860	5,197	11,887	2,973
NEW ENGLAND Maine	8 -	13	-	-	229 7	459 10	179 8	95 5	20	30
N.H.	-	1	-	-	11	11	15	11	-	-
Vt. Mass.	- 5	7	- -	-	1 102	8 211	4 95	5 19	12 8	6 24
R.I.	-	-	-	-	30	29	21	20	-	
Conn.	3	5	-	-	78	190	36	35	-	-
MID. ATLANTIC Upstate N.Y.	25 10	24 7	-	3 1	693 135	912 180	1,002 99	992 90	1,170 47	955 20
N.Y. City	7	6	-	-	297	328	492	466	-	-
N.J. Pa.	5 3	4 7	-	2	89 172	225 179	247 164	214 222	1,098 25	887 48
			1	2	802	907				
E.N. CENTRAL Ohio	27 7	32 9	1	-	802 255	907 179	592 78	695 85	75 6	130 8
Ind.	7	6	-	1	37	76	31	37	-	1
III. Mich.	11 1	11 -	-	1	208 178	339 255	83 400	111 431	11 58	9 112
Wis.	i	6	-	-	124	58	-	31	-	
W.N. CENTRAL	2	2	3	6	248	291	163	154	666	887
Minn. Iowa	2	1	1 -	2	36 65	30 28	20 12	16 18	1	8
Mo.	-	-	2	4	68	67	88	88	651	868
N. Dak.	-	1	-	-	1	2	4	- 1	-	-
S. Dak. Nebr.	-	-	-	-	3 17	2 30	1 22	20	1 9	5
Kans.	-	-	-	-	58	132	16	11	4	6
S. ATLANTIC	44	39	1	6	1,884	1,544	1,263	1,039	133	64
Del. Md.	3	7	-	1	9 234	11 174	7 90	21 104	5 9	4 6
D.C.	-	-	-	-	65	38	16	11	-	-
Va. W. Va.	4 1	5 1	- 1	- 1	89 15	101 10	153 18	124 20	7	9
vv. va. N.C.	3	2	-	4	179	152	175	149	2 22	16
S.C.	2	1	-	-	51	62	71	24	4	5
Ga. Fla.	16 15	15 8	-	-	382 860	717 279	338 395	307 279	29 55	24
E.S. CENTRAL	10	12	1	3	194	305	261	345	158	168
Ky.	1	-	-	1	40	104	43	37	3	8
Tenn.	6	6	-	1	80	110	100	174	24	55
Ala. Miss.	3 -	5 1	1 -	1 -	29 45	68 23	54 64	67 67	4 127	3 102
W.S. CENTRAL	11	5	-	_	400	693	367	597	9,523	589
Ark.	1	-	-	-	30	60	67	70	5	6
La. Okla.	2 6	- 5	- -	-	25 38	76 96	33 23	94 80	17 4	123 4
Tex.	2	-	-	-	307	461	244	353	9,497	456
MOUNTAIN	34	20	7	1	449	567	449	362	54	43
Mont. Idaho	- 1	-	-	-	12 24	10 48	7 6	3 10	-	1 2
Wyo.	-	-	-	-	2	7	15	2	5	5
Colo. N. Mex.	2 6	2 8	- 1	1	67 17	69 32	59 108	79 102	17 1	6 11
Ariz.	16	8	5	-	242	288	175	111	4	9
Utah	5 4	2	- 1	-	49 36	58 55	38 41	19 36	4	2 7
Nev.		-	•						23	
PACIFIC Wash.	23 1	34 1	1 -	3 1	1,273 130	1,493 98	584 52	918 101	88 17	107 17
Oreg.	5	5	-	-	54	88	96	123	15	13
Calif. Alaska	13 1	26 1	1 -	1 -	1,079 8	1,277 14	427 3	669 9	56 -	77 -
Hawaii	3	i	-	1	2	16	6	16	-	-
Guam	-	-	-	-	-	1	-	-	-	-
P.R. V.I.	-	1	-	-	84	152	73	194	-	1
v.i. Amer. Samoa	Ū	Ū	Ū	U	Ū	Ū	U	Ū	Ū	Ū
C.N.M.I.	_	U	_	U	_	U	37	U	_	U

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

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 21, 2002, and September 22, 2001 (38th Week)\*

	Legion	ellosis	Listeri	osis	Lyme	Disease	Mai	laria			
Donouting Avec	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum. 2002	Cum.	Cum.	Cum. 2001	
Reporting Area UNITED STATES	<b>2002</b> 690	<b>2001</b> 747	<b>2002</b> 369	<b>2001</b> 433	<b>2002</b> 9,794	2001 11,217	882	<b>2001</b> 1,140	2002 23 <sup>†</sup>	101§	
NEW ENGLAND	59	46	41	38	2,574	3,343	45	73	-	5	
Maine	2	6	4	-	53	-	4	4	-	-	
\.H.	4	7	4	3	177	64	6	2	-	-	
∕t. ⁄lass.	23 21	5 15	2 20	2 20	23 905	14 986	2 15	1 39	-	1 3	
7.1.	1	4	20 1	1	226	341	4	6	-	- -	
conn.	8	9	10	12	1,190	1,938	14	21	-	1	
IID. ATLANTIC	173	166	96	74	5,840	5,930	188	337	7	18	
Jpstate N.Y.	60	44	38	22	3,601	2,214	32	48	1	4	
Í.Y. City	29	27	23	18	101	61	118	198	6	6	
l.J. Pa.	18 66	16 79	15 20	14 20	457 1,681	1,849 1,806	20 18	53 38	-	1 7	
E.N. CENTRAL	168	210	41	66	59	650	101	142	3	10	
Ohio	67	92	16	12	45	32	16	21	1	3	
nd.	14	15	6	5	14	20	9	15	2	4	
l.	-	22	1	21	-	29	24	58	-	3	
⁄lich. Vis.	64 23	46 35	14 4	20 8	U	5 564	41 11	30 18	-	-	
V.N. CENTRAL	39	43	11	11	184	294	51	31	3	A	
Minn.	39 9	43 9	2	-	104	294 237	16	6	3 1	4 2	
owa	9	8	1	1	30	24	4	5	-	-	
lo.	10	17	5	6	33	27	15	12	2	2	
I. Dak. S. Dak.	2	1 3	1	-	1	-	1	-	-	-	
Nebr.	9	4	1	1	5	4	5	2	-	-	
lans.	-	1	1	3	4	2	10	6	-	-	
S. ATLANTIC	139	132	61	54	964	788	269	238	2	5	
Del.	7	5	-	2	126	140	2	1	-	-	
Лd. D.C.	25 5	29 7	12	10	525 17	477 8	86 16	99 13	-	3	
/a.	17	18	4	9	111	104	22	42	-	1	
V. Va.	N	N	_	5	12	10	.3	.1	-	-	
N.C. B.C.	8 5	7 9	5 8	2 4	98 12	32 4	19 6	12 6	-	-	
3.0. 3a.	10	10	13	11	1	-	59	38	-	1	
la.	62	47	19	11	62	13	56	26	2	-	
S. CENTRAL	25	48	10	18	34	48	17	32	-	2	
ζy.	9	11	2	6	18	18	6	13	-	2	
「enn. ∖la.	10 6	21 12	5 3	7 5	16	15 8	3 3	10 5	-	-	
Miss.	-	4	-	-	-	7	5	4	-	-	
V.S. CENTRAL	8	19	12	30	16	70	11	71	2	1	
Ark.	-	-	-	1	2	-	1	3	-	-	
.a.	1	6	-	-	1	5	3	5	-	-	
Okla. Tex.	3 4	3 10	7 5	2 27	13	65	7	2 61	2	1	
/OUNTAIN	29	34	25	31	17	9	37	42	2	2	
Mont.	3	-	-	-	-	-	1	2	-	-	
daho	1	2	2	1	3	4	-	3	1	1	
Vyo. Colo.	1 4	2 12	6	1 9	1 3	1	20	20	-	-	
,010. I. Mex.	1	2	2	6	3 1	-	20	3	-	-	
riz.	8	8	11	6	2	-	6	5	-	1	
ltah	8	5 3	3 1	2 6	6	1	5 3	3	-	-	
lev.	3				1	3		6	1		
ACIFIC Vash.	50 5	49 7	72 8	111 7	106 9	85 6	163 15	174 5	4	54 15	
reg.	N N	Ň	8	9	13	9	8	13	-	2	
alif.	45	37	49	89	82	68	132	144	3	30	
laska Iawaii	-	1 4	- 7	6	2 N	2 N	2 6	1 11	- 1	- 7	
	-	4	,	O	IN	IN	O	1.1	1	1	
iuam !R.	-	2	1	-	N	N	-	4	-	1	
I.	-	-	-	-	-	-	-	-	-	-	
mer.Samoa	U	U	U	U	U	U	U	U	U	U	
.N.M.I.	-	U	-	U	-	U	-	U	-	U	

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

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

† Of 23 cases reported, 11 were indigenous and 12 were imported from another country.

§ Of 101 cases reported, 49 were indigenous and 52 were imported from another country.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 21, 2002, and September 22, 2001 (38th Week)\*

	Meningo Dise		Ми	mps	Peri	tussis	Rabies	, Animal
Reporting Area	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
JNITED STATES	1,285	1,786	196	176	5,341	3,801	4,411	5,329
NEW ENGLAND	78	82	7	1	434	329	680	557
Maine N.H.	7 11	2 11	4	-	8 10	5 15	45 35	52 18
/t.	4	5	-	-	89	26	81	51
Mass. R.I.	38 5	46 3	2	1	292 11	261 5	212 58	205 51
Conn.	13	15	1	-	24	17	249	180
MID. ATLANTIC	125	190	19	21	275	252	833	973
Jpstate N.Y. I.Y. City	37 21	50 32	3 1	3 11	204 10	113 41	525 10	603 26
l.J.	24	32	-	2	3	13	133	154
Pa.	43	76	15	5	58	85	165	190
E.N. CENTRAL Dhio	169 63	271 75	19 3	22 1	641 315	589 243	120 29	123 42
nd.	25	31	2	1	91	61	30	2
II. ⁄lich.	36 33	65 59	6 7	16 2	100 41	66 55	24 37	24 38
Vis.	12	41	1	2	94	164	-	17
V.N. CENTRAL	117	115	15	7	516	192	301	290
Minn. owa	29 16	16 23	3 1	3	236 127	70 18	30 62	32 68
Ло.	39	41	5	-	97	78	42	35
I. Dak. S. Dak.	2	5 5	1 -	-	5	3	12 47	33 40
lebr.	25	12	Ē	1	6	4	-	4
(ans.	6	13	5	3	45	19	108	78
S. ATLANTIC Del.	227 6	281 3	23	28	326 2	189	1,841 24	1,815 30
/ld.	7	36	5	4	49	33	168	370
).C. /a.	33	33	3	6	1 117	1 34	397	324
V. Va.	4	11	-	-	30	2	144	111
N.C. B.C.	29 21	59 29	1 2	3 2	29 34	51 31	545 97	438 88
Ga.	29	40	4	8	18	19	284	314
Fla.	98	70	8	5	46	18	182	140
E.S. CENTRAL (y.	72 11	115 20	12 4	7 1	178 76	107 33	109 20	184 21
ēnn.	31	49	2	1	67	41	80	106
∖la. ∕liss.	18 12	30 16	3 3	- 5	28 7	29 4	9	54 3
V.S. CENTRAL	159	267	16	9	1,349	365	92	873
ark.	22	19	-	-	435	16	3	-
.a. Okla.	24 17	65 25	1 -	2	6 66	6 17	89	7 53
ex.	96	158	15	7	842	326	-	813
MOUNTAIN	72	82	15	13	691	1,118	219	221
flont. daho	2 3	4 7	2	1 1	5 55	30 168	16 30	31 21
Vyo.	-	5	-	1	10	1	16	27
Colo. J. Mex.	21 4	30 10	2 1	3 2	278 145	245 110	35 7	14
Ariz.	23	13	1	1	106	489	103	116
Jtah lev.	4 15	7 6	5 4	1 3	50 42	61 14	9 3	11 1
PACIFIC	266	383	70	68	931	660	216	293
Vash.	51	52	-	1	340	108	-	-
Oreg. Calif.	37 169	49 269	N 57	N 30	165 408	44 472	5 187	3 252
Alaska	3	2	-	1	4	6	24	38
Hawaii	6	11	13	36	14	30	-	-
Guam P.R.	- 5	- 5	-	-	- 2	-	49	- 72
		5	-	-	-	-	49	12
V.I. Amer. Samoa	U	U	U	Ū	U	U	U	U

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

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 21, 2002, and September 22, 2001 (38th Week)\*

(38th Week)*	1			Ru	bella			
		Mountain ed Fever	Dub	ella	Cong	enital pella	Salmor	allasia
Reporting Area	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	700	429	7	17	2	-	27,425	28,361
NEW ENGLAND	3	3	-	-	-	-	1,571	1,864
Maine	-	-	-	-	-	-	107	147
N.H. Vt.	-	1	-	-	-	-	98 59	139 64
Mass.	-	2	-	-	-	-	869	1,077
R.I.	3	-	-	-	-	-	122	86
Conn.	-		-	-	-	-	316	351
MID. ATLANTIC Upstate N.Y.	36 7	25 2	1	7 1	-	-	3,332 1,106	3,725 856
N.Y. City	8	1	-	5	-	-	929	945
N.J.	9	6	-	1	-	-	497	933
Pa.	12	16	-	-	-	-	800	991
E.N. CENTRAL Ohio	14	15 1	-	2	-	-	3,811 998	3,852 1,055
Ind.	10 2	i	-	-	-	-	335	400
III.	-	12	-	2	-	-	1,193	1,098
Mich.	2	1	-	-	-	-	658	658
Wis.	-	-	-	-	-	-	627	641
W.N. CENTRAL Minn.	83	60	-	3	-	-	1,857 426	1,672 486
Iowa	3	2	-	1	-	-	309	247
Mo.	76	56	-	1	-	-	671	434
N. Dak. S. Dak.	-	2	-	-	-	-	25 70	43 116
Nebr.	4	-	-	-	-	-	126	127
Kans.	-	-	-	1	-	-	230	219
S. ATLANTIC	365	206	-	4	-	-	7,386	6,505
Del.	4	6	-	-	-	-	59	79
Md. D.C.	43	36	-	1	-	-	715 54	607 60
Va.	28	17	-	-	-	-	806	1,051
W.Va.	. 1		-	-	-	-	98	95
N.C. S.C.	218 45	110 24	-	2	-	-	999 501	932 602
Ga.	18	9	-	-	-	-	1,331	1,235
Fla.	8	4	-	1	-	-	2,823	1,844
E.S. CENTRAL	78	88	-	-	1	-	2,050	1,888
Ky.	5	2	-	-	-	-	247	279
Tenn. Ala.	58 15	60 13	-	-	1	-	542 540	451 520
Miss.	-	13	-	-	-	-	721	638
W.S. CENTRAL	103	23	2	-	_	_	2,066	3,545
Ark.	42	5	-	-	-	-	676	600
La. Okla.	- 61	2 16	-	-	-	-	217 350	623 323
Tex.	-	-	2	-	-	-	823	1,999
MOUNTAIN	12	9	1	_	_	_	1,634	1,581
Mont.	1	1	-	-	-	-	74	59
Idaho	-	1	-	-	-	-	104	107
Wyo. Colo.	3 2	2 1	-	-	-	-	44 461	53 431
N. Mex.	1	i	-	-	-	-	226	200
Ariz.	-	<del>-</del>	<del>-</del>	-	-	-	440	425
Utah Nev.	- 5	3	1	-	-	-	143 142	171 135
		-	-	-	-	-		
PACIFIC Wash.	6	-	3	1	1	-	3,718 349	3,729 370
Oreg.	2	-	-	-	-	-	275	216
Calif.	4	-	3	-	-	-	2,840	2,836
Alaska Hawaii	-	-	-	- 1	- 1	-	45 209	32 275
	-	-	-	•		-	203	
Guam P.R.	-	-	-	3	-	-	148	19 708
V.I.	-	-	<u>-</u>	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	25	U

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

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 21, 2002, and September 22, 2001 (38th Week)\*

	Shig	ellosis	Streptococo Invasive,			<i>s pneumoniae,</i> ant, Invasive	Streptococcus pneumoniae, Invasive (<5 Years)		
Reporting Area	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	
UNITED STATES	11,828	13,613	3,182	2,816	1,669	2,067	173	316	
NEW ENGLAND	235	238	152	182	15	96	2	34	
Maine N.H.	4 8	6 4	20 30	10 N	-	-	N	N	
Vt.	1 147	7	9 79	10 57	4 N	7 N	1 N	- N	
Mass. R.I.	12	167 16	14	11	11	3	1	3	
Conn.	63	38	-	94	-	86	-	31	
MID. ATLANTIC Upstate N.Y.	851 213	1,135 394	518 241	515 215	89 78	136 130	50 50	82 82	
N.Y. City	291	315	128	144	U	U	U	U	
N.J. Pa.	198 149	227 199	103 46	103 53	N 11	N 6	N -	N -	
E.N. CENTRAL	1,232	3,345	565	661	170	142	73	86	
Ohio Ind.	463 69	2,245 168	176 42	168 53	33 132	- 142	5 43	42	
III.	453	441	105	214	2	-	-	44	
Mich. Wis.	127 120	242 249	242	175 51	3 N	N	N 25	N -	
W.N. CENTRAL	790	1,269	194	290	162	112	37	48	
Minn. Iowa	164 100	337 324	100	131	48 N	51 N	37 N	40 N	
Mo.	125	238	39	61	6	9	-	-	
N. Dak. S. Dak.	15 150	20 229	11	11 9	1 1	5 3	-	8 -	
Nebr. Kans.	166 70	60 61	16 28	32 46	29 77	14 30	N N	N N	
S. ATLANTIC	4,510	1,831	649	475	1,047	1,114	4	5	
Del. Md.	126 850	12 116	2 103	2 N	3 N	4 N	N N	N N	
D.C.	43	44	6	16	48	5	1	3	
Va. W. Va.	700 9	227 8	63 16	63 18	N 36	N 37	N 3	N 2	
N.C.	258	279	107	124	N	N	U	U	
S.C. Ga.	75 1,170	206 255	29 139	9 150	147 258	229 324	N N	N N	
Fla.	1,279	684	184	93	555	515	N	N	
E.S. CENTRAL Ky.	937 101	1,180 504	82 16	89 32	113 12	199 23	- N	- N	
Tenn.	60	75	66	57	101	175	N	N	
Ala. Miss.	497 279	180 421	-	-	-	1 -	N -	N -	
W.S. CENTRAL	878	2,141	105	252	37	232	3	61	
Ark. La.	153 108	449 183	5 -	1	6 31	14 218	1	61	
Okla. Tex.	352 265	43 1,466	37 63	36 215	N N	N N	2	-	
MOUNTAIN	577	702	454	294	36	33	4		
Mont.	3	4	-	-	-	-	-	-	
Idaho Wyo.	9 7	27 5	7 7	7 9	N 9	N 5	N -	N -	
Cólo. N. Mex.	135 115	179 95	115 80	125 64	- 27	- 26	-	-	
Ariz.	245	281	216	86	-	-	N	N	
Utah Nev.	26 37	47 64	29	3 -	-	2	4 -	-	
PACIFIC	1,818	1,772	463	58	-	3	-	-	
Wash. Oreg.	113 83	146 83	65 N	- N	- N	- N	N N	N N	
Calif.	1,576	1,488	341	-	N	N	N	N	
Alaska Hawaii	4 42	5 50	- 57	- 58	-	3	N -	N -	
Guam	-	37	-	1	-	-	-	-	
P.R. V.I.	5	15	N	N -	-	-	N -	N -	
Amer. Samoa	U	U	U	Ü	-	-	U	Ü	
C.N.M.I.  N: Not notifiable. U:	Unavailable: No	U reported cases.	-	U	-	-	-	U	

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

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending September 21, 2002, and September 22, 2001 (38th Week)\*

(38th Week)*									
			hilis				Typhoid		
	Primary & S	· -	†	genital	Tubero	_	Fev		
Reporting Area	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	
UNITED STATES	4,455	4,279	226	372	8,478	9,812	189	258	
NEW ENGLAND	100	42	-	3	266	336	13	12	
Maine N.H.	2	1	-	-	10 9	15 11	-	1 1	
Vt. Mass.	1 68	2 22	-	- 2	- 152	4 175	9	9	
R.I.	6	8	-	-	25	46	-	-	
Conn.	20	9	-	1	70	85	4	1	
MID. ATLANTIC Upstate N.Y.	493 24	366 15	41 5	56 3	1,554 223	1,660 256	45 7	87 15	
N.Y. City	296	204	17	28	795	820	23	37	
N.J. Pa.	100 73	83 64	18 1	25 -	364 172	371 213	12 3	31 4	
E.N. CENTRAL	761	730	33	53	863	992	16	30	
Ohio Ind.	106 50	63 119	1	2 8	135 76	198 73	6 2	3 2	
III.	218	248	25	34	432	458	1	16	
Mich. Wis.	367 20	281 19	7 -	5 4	179 41	209 54	3 4	5 4	
W.N. CENTRAL	78	69	-	9	399	381	8	10	
Minn. Iowa	37 2	28 4	-	2	163 24	165 18	3	5	
Mo.	21	16	-	5	105	97	1	5	
N. Dak. S. Dak.	-	-	-	-	1 9	3 10	-	-	
Nebr. Kans.	3 15	3 18	-	- 2	20 77	29 59	4	-	
S. ATLANTIC	1,169	1,491	53	91	1,681	1,788	30	33	
Del.	9	11	-	-	13	15	-	-	
Md. D.C.	141 43	188 26	9 1	3 2	199 -	160 51	7	9	
Va. W.Va.	48 2	80	1	4	134 26	179 22	1	9	
N.C.	212	340	17	10	236	248	1	2	
S.C. Ga.	89 246	189 281	5 8	19 20	129 294	130 323	8	9	
Fla.	379	376	12	33	650	660	13	4	
E.S. CENTRAL Ky.	351 66	467 35	12 3	24	535 101	607 90	4	1	
Tenn.	131	245	3	14	216	223	-	1	
Ala. Miss.	120 34	91 96	4 2	4 6	143 75	194 100	-	-	
W.S. CENTRAL	621	524	51	64	1,178	1,516	4	15	
Ark. La.	21 112	30 121	1	6	94	102 100	-	-	
Okla.	49	47	2	5	96	101	- -	. =	
Tex.	439	326	48	53	988	1,213	4	15	
MOUNTAIN Mont.	204	163	10	23	253 6	393 6	10 -	8 1	
Idaho Wyo.	1	1 1	-	-	9 2	7 3	-	-	
Colo.	30	20	1	1	40	95	5	1	
N. Mex. Ariz.	23 139	14 114	9	2 20	21 142	44 150	1 -	1	
Utah Nev.	5 6	7 6	-	-	20 13	26 62	2 2	1 4	
PACIFIC	678	427	26	49	1,749	2,139	59	62	
Wash.	41	37	1	-	171	174	4	4	
Oreg. Calif.	11 619	11 368	1 23	49	78 1,351	79 1,748	2 51	6 49	
Alaska Hawaii	7	11	1	-	37 112	36 102	2	1 2	
Guam	-	2	-	1	112	47	-	2	
P.R.	178	196	12	9	33	95	-	-	
V.I. Amer. Samoa	1 U	Ū	Ū	Ū	Ū	U	U	Ū	
C.N.M.I.	15	U	-	U	32	U	-	U	

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

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities.\* week ending September 21, 2002 (38th Week)

TABLE III. Deaths in 122 U.S. cities,* week ending September 21, 2002 (38th Week)  All Causes, By Age (Years)  All Causes, By Age (Years)															
	<b></b>	All C	auses, E	y Age (1	ears)		P&I <sup>†</sup>		All All				- no		
Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	Total	Reporting Area	Ages	≥65	45-64	25-44	1-24	<1	P&I <sup>†</sup> Total
NEW ENGLAND	387	273	81	18	9	6	26	S. ATLANTIC	1,227	734	306	118	27	42	54
Boston, Mass.	U 48	U 37	U 11	U	U	U	U 3	Atlanta, Ga. Baltimore, Md.	219 178	120 97	55 53	26 20	3 3	15 5	5 8
Bridgeport, Conn. Cambridge, Mass.	13	9	4	-	-		3	Charlotte, N.C.	101	57	24	8	2	10	6
Fall River, Mass.	22	17	5	-	-	-	4	Jacksonville, Fla.	106	59	30	10	7	-	1
Hartford, Conn.	44	29	10	2	2	1	-	Miami, Fla.	109	67	25	9	4	4	9
Lowell, Mass.	10	9	-	-	-	1	1	Norfolk, Va.	35	24	6	3	1	1	-
Lynn, Mass.	8	7	-	1	-	-	-	Richmond, Va.	62	37	16	8	-	1	5
New Bedford, Mass. New Haven, Conn.	32 49	26 29	6 13	4	2	1	3 7	Savannah, Ga. St. Petersburg, Fla.	51 75	32 48	13 14	4 9	2	2	2 9
Providence, R.I.	53	40	7	2	3	1	1	Tampa, Fla.	192	136	45	8	1	2	8
Somerville, Mass.	4	2	2	-	-	-	1	Washington, D.C.	99	57	25	13	2	2	1
Springfield, Mass.	31	17	11	2	1	-	-	Wilmington, Del.	U	U	U	U	U	U	U
Waterbury, Conn.	19	12	5	2	-	-	-	E.S. CENTRAL	614	397	144	43	21	9	40
Worcester, Mass.	54	39	7	5	1	2	3	Birmingham, Ala.	174	113	36	19	3	3	16
MID. ATLANTIC	2,088	1,461	406	150	45	23	94	Chattanooga, Tenn.	35	20	9	2	2	2	1
Albany, N.Y.	36	23	10	2	-	1	2	Knoxville, Tenn.	90	61	25	2	2	-	5
Allentown, Pa. Buffalo, N.Y.	20 64	17 50	3 10	2	-	2	- 5	Lexington, Ky. Memphis, Tenn.	76 U	54 U	15 U	3 U	4 U	U	4 U
Camden, N.J.	24	14	4	2	2	2	2	Mobile, Ala.	77	48	17	8	3	1	2
Elizabeth, N.J.	21	13	4	4	-	-	1	Montgomery, Ala.	37	26	9	1	1	-	3
Erie, Pa.	52	43	6	3	-	-	1	Nashville, Tenn.	125	75	33	8	6	3	9
Jersey City, N.J.	. 48	30	10	6	.2	-	-	W.S. CENTRAL	1,412	884	318	116	48	46	91
New York City, N.Y.	1,153	811	233	82	17	9 1	49	Austin, Tex.	83	54	17	9	3	-	2
Newark, N.J. Paterson, N.J.	52 18	27 11	12 4	8 1	3 2	-	5 1	Baton Rouge, La.	61	41	16	3	1	-	1
Philadelphia, Pa.	231	145	49	20	11	5	7	Corpus Christi, Tex.	48	32	12	2	1	1	1
Pittsburgh, Pa.§	27	18	8	-	1	-	4	Dallas, Tex. El Paso, Tex.	198 80	111	53	15	9	10 3	13 1
Reading, Pa.	18	16	1	-	1	-	1	Ft. Worth, Tex.	146	58 103	15 33	2 8	2 1	1	14
Rochester, N.Y.	116	85	22	6	3	-	2	Houston, Tex.	265	153	51	31	19	11	19
Schenectady, N.Y.	27 31	22 25	4 2	1 4	-	-	4 1	Little Rock, Ark.	59	32	14	5	1	7	2
Scranton, Pa. Syracuse, N.Y.	82	62	11	5	3	1	3	New Orleans, La.	U	U	U	U	U	U	U
Trenton, N.J.	21	16	2	1	-	2	2	San Antonio, Tex.	234	154	52	13	6	9	15
Utica, N.Y.	24	15	8	1	-	-	1	Shreveport, La. Tulsa, Okla.	112 126	69 77	20 35	16 12	4 1	3 1	12 11
Yonkers, N.Y.	23	18	3	2	-	-	3	MOUNTAIN	821	531	195	63	18	14	55
E.N. CENTRAL	1,649	1,112 35	340 7	111	42	44 2	102 8	Albuquerque, N.M.	88	54	193	8	3	4	2
Akron, Ohio Canton, Ohio	45 46	31	11	1 2	-	2	4	Boise, Idaho	51	38	9	2	-	2	3
Chicago, III.	Ü	Ü	Ü	Ú	Ū	Ū	Ū	Colo. Springs, Colo.	48	37	9	1	1	-	3
Cincinnati, Ohio	90	62	16	4	4	4	7	Denver, Colo. Las Vegas, Nev.	102 221	59 137	34 55	5 23	2 6	2	11 10
Cleveland, Ohio	114	79	27	6		2	8	Ogden, Utah	32	19	9	23 1	1	2	5
Columbus, Ohio	214	147	34	16	11	6	11	Phoenix, Ariz.	U	Ü	Ŭ	Ü	Ü	Ū	Ŭ
Dayton, Ohio Detroit, Mich.	121 178	78 97	24 46	14 19	3 10	2 6	8 8	Pueblo, Colo.	27	15	9	2	-	1	3
Evansville, Ind.	45	33	12	-	-	-	4	Salt Lake City, Utah	92	58	23	7	2	2	5
Fort Wayne, Ind.	65	41	17	5	1	1	5	Tucson, Ariz.	160	114	28	14	3	1	13
Gary, Ind.	12	10	-	1	1	-	-	PACIFIC	1,640	1,132	313	135	32	26	80
Grand Rapids, Mich.	45	34	9	2	-	-	5	Berkeley, Calif.	17	11	3	2	1	-	1
Indianapolis, Ind.	200 65	118 44	52 11	15 5	9	6 5	11 3	Fresno, Calif. Glendale, Calif.	78 24	54 20	17 3	5 1	1	1	3
Lansing, Mich. Milwaukee, Wis.	113	81	21	5	1	5	11	Honolulu, Hawaii	71	44	18	6	1	2	4
Peoria, III.	48	37	7	3	-	1	2	Long Beach, Calif.	71	52	13	5	1	-	7
Rockford, III.	42	30	8	2	1	1	2	Los Angeles, Calif.	394	272	67	39	10	6	-
South Bend, Ind.	54	43	9	1	1	-	1	Pasadena, Calif.	20	15	5	-	-	-	4
Toledo, Ohio	100	72	18	9	-	1	3	Portland, Oreg.	140	97	22	16	2	3	6
Youngstown, Ohio	52	40	11	1	-	-	1	Sacramento, Calif. San Diego, Calif.	183 137	118 85	47 33	11 12	3 3	3 4	21 9
W.N. CENTRAL	626	417	117	47	25	20	42	San Francisco, Calif.	U	U	U	U	U	Ü	U
Des Moines, Iowa	116	78 26	23	10	4	1	14	San Jose, Calif.	177	130	27	11	6	3	-
Duluth, Minn. Kansas City, Kans.	43 35	26 24	12 6	3 3	2 1	1	2 4	Santa Cruz, Calif.	54	39	10	4	1	-	2
Kansas City, Kans. Kansas City, Mo.	92	59	18	9	4	2	4	Seattle, Wash.	130	89	27	11	3	-	9
Lincoln, Nebr.	40	29	7	2	1	1	2	Spokane, Wash.	52	40	5	6	-	1	6
Minneapolis, Minn.	79	48	15	4	4	8	7	Tacoma, Wash.	92	66	16	6	-	3	8
Omaha, Nebr.	72	53	10	4	3	2	3	TOTAL	10,464¶	6,941	2,220	801	267	230	584
St. Louis, Mo.	U	U	U	U	U	U	U								
St. Paul, Minn.	56 93	39 61	11 15	2 10	4 2	5	3 3								
Wichita, Kans.	93	וס	10	10		5	ა	<u> </u>							

U: Unavailable. -: No reported cases.

Or Orlavaliable.
 1.No reported class.
 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 864)

resolution extends VFC coverage for influenza vaccine to all VFC-eligible children aged 6–23 months and VFC-eligible children aged 2–18 years who are household contacts of children aged <2 years. The resolution becomes effective on March 1, 2003, for vaccine to be administered during the 2003–04 influenza vaccination season and subsequent seasons. ACIP is expanding VFC influenza coverage because children aged ≤23 months are at substantially increased risk for influenza-related hospitalizations.

For the upcoming 2002-03 influenza season, no changes are being made to groups of children eligible for influenza vaccine under the VFC program. Children aged 6 months-18 years who are eligible for the VFC program and who have a high-risk medical condition or are household members of a person at high risk for complications may receive influenza vaccine through the program. Groups of children with highrisk medical conditions include those who 1) have chronic disorders of the pulmonary or cardiovascular systems, including asthma; 2) have required medical follow-up or hospitalization during the preceding year because of chronic metabolic diseases (including diabetes mellitus), renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications); 3) are receiving long-term aspirin therapy; 4) are residents of long-term care facilities; and 5) are adolescent females in the second or third trimester of pregnancy during the influenza season (typically November-March).

The availability of additional supplies of influenza vaccine through the VFC program for the 2003–04 season will be based on anticipated need. VFC providers should provide their state's vaccination program with accurate and practical estimates of the number of VFC patients they plan to vaccinate.

Accurate estimates are essential to ensure an adequate supply of vaccine and to avoid vaccine wastage. ACIP recommendations for the 2002–03 influenza season are available at http://www.cdc.gov/nip/flu/target-groups.htm and http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5103a1.htm. Information about the VFC program is available at http://www.cdc.gov/nip/vfc. The VFC Resolution for Influenza Vaccine (10/98-4), effective during the 2002–03 season, is available at http://www.cdc.gov/nip/vfc/flu.pdf.

## Notice to Readers

## Advancing the Health of Women: Prevention, Practice, and Policy Conference

CDC, the Agency for Toxic Substances and Disease Registry, the Chronic Disease Directors Women's Health Council, and Emory University's Nell Hodgson Woodruff School of Nursing will be presenting the conference, Advancing the Health of Women: Prevention, Practice, and Policy, during October 7–9, 2002, at the Atlanta Marriott Marquis Hotel in Atlanta, Georgia. The conference will provide participants with the opportunity to expand their knowledge on women's health issues and increase their effectiveness in helping women live healthier lives.

Plenary and concurrent sessions will focus on disease prevention and health promotion in the context of a variety of diseases and conditions, life stages, and cross-cutting issues. General conference information is available at http://www.cdc.gov/od/spotlight/wmconf/index.htm; e-mail, kwilson6@cdc.gov; or telephone, 404-639-4623.

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

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

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

## **MMWR**

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

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone 888-232-3228.

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