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Pregnancy in Perinatally HIV-Infected Adolescents and Young Adults — Puerto Rico, 2002

Since the introduction of highly active antiretroviral (ARV) therapy in the United States in the mid-1990s (1–3), the life expectancy of U.S. children who were infected perinatally with human immunodeficiency virus (HIV) has increased substantially. As a result, the number of perinatally HIV-infected females in the United States who are becoming both sexually active and pregnant is increasing (4). During August 1998–May 2002, a total of 10 pregnancies were identified among eight perinatally HIV-infected adolescents and young adults in Puerto Rico; in April 2002, the Puerto Rico Department of Health (PRDOH) asked CDC to assist in assessing such pregnancies. This report describes these pregnancies and discusses factors associated with sexual activity and pregnancy. The findings suggest that increasing numbers of pregnancies will occur among perinatally HIV-infected adolescents and young adults and that appropriately tailored reproductive health interventions should be developed.

Adolescents and young adults were identified by their health-care providers or by PRDOH, and chart reviews and interviews were conducted during April–August 2002. For females with two pregnancies, interview and chart data on the first pregnancy are reported. Case-patients were defined as perinatally HIV-infected adolescents or young adults with a history of pregnancy, and controls were defined as perinatally HIV-infected females with no history of pregnancy. All controls were age-matched to ≤ 1 year of the age of the pregnant females, except for one patient aged 22 years who had been aged 19 years when she was pregnant; she was matched to a control aged 19 years. Perinatal infection was defined as confirmed HIV-positive serostatus of the patient's biologic mother or an HIV risk factor for the biologic mother and the absence of any other risk factors (e.g., sexual abuse or blood transfusions) for the patient.

A total of eight case-patients were identified in four cities in Puerto Rico. The median age of the case-patients was 18 years (range: 15–22 years), and the median age at the time of first pregnancy was 17 years (range: 13–19 years). Among the 10 pregnancies to the eight patients, seven pregnancies in six patients resulted in live-born infants; as of February 24, no cases of mother-to-child HIV transmission were reported. In addition, two pregnancies ended in elective abortions and one in a spontaneous abortion.

Five case-patients had first pregnancies that resulted in live-born infants; all five received some prenatal care, and four (80%) received ARV therapy consistently during their pregnancies. All infants received zidovudine prophylaxis after delivery. The median viral load of these case-patients during pregnancy was 35,822 copies/mL (range: 3,535–163,064 copies/mL), and the median CD4 count during pregnancy was 218 cells/mm³ (range: 19–956 cells/mm³). The majority of the case-patients were highly ARV-experienced, with a median of ≥ 9 years (range: 3–12 years) of ARV therapy, and five case-patients had each taken at least nine different ARV medications during their lifetimes. All four case-patients who were tested for viral resistance had multiple genotypic mutations.

Five of the eight case-patients reported unintended pregnancies, and two reported using condoms as a form of birth

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control at the time they conceived. Six case-patients are now living with partners; one is in school, two left school because they were pregnant, and five left for reasons other than pregnancy or motherhood.

Eight controls were included in the analysis. The median age of case-patients and of controls at the time they were interviewed was 18 years (range: 15–22 years) and 17 years (range: 14–19 years), respectively. The median age of HIV diagnosis was 7 years (range: 0–13 years) for case-patients and 4 years (range: 2–13 years) for controls. Differences in clinical outcomes included a median viral load since 1999 of 16,263 copies/mL (range: 5,251–65,571 copies/mL) for case-patients and of 53,071 copies/mL (range: 54–476,139 copies/mL) for controls and a median CD4 count since 1999 of 251 cells/mm³ (range: 72–1,296 cells/mm³) for case-patients and of 293 cells/mm³ (range: 66–1,002 cells/mm³) for controls.

Behavioral and social characteristics associated with sexual activity and pregnancy were compared for all 16 case-patients and controls; all eight case-patients and two controls who reported being active sexually were asked questions about sexual activity. More case-patients than controls had dropped out of school before pregnancy and had friends who had become pregnant before they did (Table). The mean age when they were first told their HIV status was 13 years (range: 12–15 years) for case-patients and 12 years (range: 8–14 years) for controls. The median age at first sexual activity was 15 years (range: 13–18 years) for case-patients and 17 years (range: 15–18 years) for controls. The median time that elapsed between being told their HIV status and becoming sexually active was 2 years (range: 0–5 years) for case-patients and 5 years (range: 4–6 years) for controls. Three case-patients and no controls became sexually active at the same age that they were first told their HIV status.

TABLE. Number of perinatally HIV-infected adolescents and young adults reporting selected behavioral and social characteristics — Puerto Rico, 2002

Characteristic	No. case-patients	No. controls
All adolescents and young adults		
Left school before pregnancy	3	1
Had pregnant friends before own pregnancy	5	2
Total	8	8
Sexually active adolescents and young adults		
Had an STD* before pregnancy	2	0
Had more than one sex partner	6	0
Used condoms consistently with sex partners	2	2
Always discussed HIV† status with sex partners	5	1
Had HIV-positive sex partners	1	0
Total	8	2

* Sexually transmitted disease.

† Human immunodeficiency virus.

Case-patients and controls were asked about their counseling needs with respect to sexual activity, pregnancy, and birth control, and case-patients were asked about discussions of sexual activity, pregnancy, and birth control before their pregnancies. Two case-patients and five controls reported having discussed sexual activity, pregnancy, or birth control with a family member. Of all 16 persons surveyed, 10 wanted more reproductive health information, 10 believed that health-care providers were an important source of reproductive health information, and eight believed that families and schools should discuss these topics.

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Editorial Note: This report describes pregnancies in perinatally HIV-infected adolescents and young adults for the first time and highlights the challenges in developing appropriately tailored reproductive health services for this growing population in the United States. During the early 1980s, when the first perinatally acquired AIDS cases were documented, infection in the majority of children progressed rapidly to death. Therefore, these children were not expected to survive to adolescence and mature to become sexually active. The findings of this investigation suggest that the risk-taking sexual behaviors of perinatally HIV-infected adolescents and young adults might not differ from those of non-HIV-infected adolescents and young adults (5,6). Although ARV therapy has made perinatal HIV transmission in this population infrequent in the United States (7), as the perinatally HIV-infected population ages, increasing numbers of pregnancies in perinatally HIV-infected female adolescents and young adults can be anticipated, and reproductive health issues affecting this population will need to be addressed.

Factors that might be associated with pregnancy in these females include a relatively late age at disclosure of HIV status and inconsistent condom use with sex partners. These findings underscore the need for early disclosure of HIV status to infected adolescents and young adults and for increased discussions about sexual risk reduction among all perinatally infected adolescents and young adults. Providing families with the tools for HIV disclosure to children and for reproductive health discussions before sexual initiation might reduce risky behaviors among these females.

The findings in this report are subject to at least two limitations. First, the small sample size makes the findings largely descriptive. Second, matching by age might not reflect social

or physical development. Both of these limitations reduce the degree to which generalizations can be based on the data. Enhanced efforts to identify pregnancies among perinatally HIV-infected adolescents and young adults and more in-depth investigation of such pregnancies could better characterize the factors associated with pregnancies and birth outcomes.

The finding of genotypic mutations of HIV isolated in all persons tested in Puerto Rico reinforces the importance of preventing secondary HIV transmission both to infants and sex partners. Surveillance of birth outcomes in perinatally HIV-infected adolescents and young adults and of cases of mother-to-child transmission and transmission of drug-resistant virus should continue. To permit accurate monitoring of trends in HIV transmission, clinicians should report births to HIV-infected women and adolescents to their health departments according to state surveillance guidelines for HIV/AIDS reporting. In addition, to assist CDC with determining pregnancy outcomes among this population, clinicians are urged to report pregnancies among perinatally HIV-infected adolescents and young adults directly to CDC, telephone, 404-639-6141, or e-mail, mmconnell@cdc.gov, through June 2003.

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This report is based on data contributed by L Ortiz, Univ of Puerto Rico, San Juan; L Pena, O Garcia, MD, Pediatric Immunology Clinic, Bayamon; D Padilla, R Delgado, MD, Center for Prevention and Treatment of Transmissible Diseases, Ponce; A Negron, M de los Angeles del Rio, MD, Center for Prevention and Treatment of Transmissible Diseases, Mayaguez; E Perez, R Jimenez, Puerto Rico Dept of Health. B Bohannon, Northrup Grumman Mission System, Atlanta, Georgia.

References

1. De Martino M, Tovo PA, Balducci M, et al. Reduction in mortality with availability of antiretroviral therapy for children with perinatal HIV-1 infection. *JAMA* 2000;284:190-7.
2. Gortmaker S, Hughes M, Cervia J, et al. Effect of combination therapy including protease inhibitors on mortality among children and adolescents infected with HIV-1. *N Engl J Med* 2001;345:1522-8.
3. Lee LM, Karon JM, Selik R, Neal JJ, Fleming PL. Survival after AIDS diagnosis in adolescents and adults during the treatment era, United States, 1984-1997. *JAMA* 2001;285:1308-15.
4. Battles H, Weiner LS. From adolescence through young adulthood: psychosocial adjustment associated with long-term survival of HIV. *J Adolesc Health* 2002;30:161-8.
5. CDC. Youth risk behavior surveillance—United States, 2001. In: CDC surveillance summaries (June 28). *MMWR* 2002;51(No. SS-4):50.
6. Santelli JS, DiClemente RJ, Miller KS, Kirby D. Sexually transmitted diseases, unintended pregnancy, and adolescent health promotion. In: Fisher M, Juszczak L, Klerman LV, eds. *Adolescent Medicine: State of the Art Reviews*, Vol. 10, No. 1. Philadelphia, Pennsylvania: Hanley and Belfur, 1999.
7. Lindgren ML, Byers RH, Thomas P, et al. Trends in perinatal transmission of HIV/AIDS in the United States. *JAMA* 1999;282:531-8.

Secondhand Smoke Exposure Among Middle and High School Students — Texas, 2001

Secondhand smoke (SHS) exposure causes approximately 3,000 deaths each year in Texas (1,2) and is associated with increased morbidity caused by acute respiratory infections and asthma among children and respiratory problems among adults (3,4). Adult lung cancer risk might be increased as a result of SHS exposure during childhood and adolescence (5). To assess SHS exposure among middle and high school students in Texas, the Texas Department of Health (TDH) analyzed data from the 2001 Texas Youth Tobacco Survey (TYTS). This report summarizes the results of that analysis, which indicate that half of 8,687 middle school students and two-thirds of 8,696 high school students reported SHS exposure within the 7 days preceding the survey. The prevalence of SHS exposure was higher among students who reported living with a cigarette smoker or having at least one close friend who smokes. Among middle school students, the prevalence of SHS exposure was lower among those who perceived SHS to be harmful to their health. These findings emphasize the need for continuing efforts to decrease SHS exposure among youth and to increase understanding of the harmful health effects of SHS exposure.

During fall 2001, TDH conducted the third TYTS. The survey uses a two-stage cluster sample design to produce representative samples of middle and high school students in Texas public schools. The primary sampling units were public schools with students in grades 6–12. Schools were stratified into middle schools (grades 6–8) and high schools (grades 9–12), and two separate samples were drawn. Schools were selected for participation in the survey with a probability proportional to the number of students enrolled. The secondary sampling units were classes selected randomly within schools that agreed to participate. All students in the selected classes, regardless of tobacco-use status, were eligible to participate in the survey. Students completed an anonymous, self-administered questionnaire that included questions on demographics, tobacco use, tobacco-related knowledge and attitudes, media messages about tobacco use, access to tobacco, tobacco-related school curriculum, SHS, and tobacco-use cessation. Data were weighted to adjust for nonresponse at both the student and school level and to provide generalizable estimates for Texas public school students according to grade, sex, and race/ethnicity. To assess SHS exposure, TYTS asked students to report how many days they had been in the same room or riding in a car with someone who was smoking cigarettes during the 7 days preceding the survey. SHS

exposure was compared among middle and high school students by demographics, tobacco use, presence of close contacts who smoke, and attitudes toward SHS. SUDAAN (version 8.0) was used to calculate prevalence estimates and standard errors for 95% confidence intervals (CIs).

A total of 17,383 students from 192 schools participated in the 2001 TYTS. The overall response rate, a product of the school and individual student response rates, was 64.5%. The response rates were 71.3% for middle schools and 60.3% for high schools.

During 2001, the prevalence of SHS exposure increased with grade: 50.6% (95% CI = $\pm 3.1\%$) of middle school students reported SHS exposure compared with 65.8% (95% CI = $\pm 2.2\%$) of high school students. Asians/Pacific Islanders (42.0%; 95% CI = $\pm 9.0\%$) were less likely than other racial/ethnic groups to report SHS exposure. The prevalence of SHS exposure did not differ significantly among blacks (56.0%; 95% CI = $\pm 4.3\%$), Hispanics (58.1%; 95% CI = $\pm 1.8\%$), whites (62.0%; 95% CI = $\pm 3.8\%$), or other racial/ethnic groups (60.5%; 95% CI = $\pm 5.2\%$). Overall, 73.5% (95% CI = $\pm 1.7\%$) of students who had ever used any tobacco product reported SHS exposure, compared with 39.5% (95% CI = $\pm 2.5\%$) of students who never used any tobacco product. Among students who lived with a cigarette smoker, 80.1% (95% CI = $\pm 2.2\%$) reported SHS exposure compared with 43.9% (95% CI = $\pm 1.9\%$) of students who did not live with a cigarette smoker. Among students with no close friends who smoke, 42.0% (95% CI = $\pm 2.0\%$) reported SHS exposure compared with 79.0% (95% CI = $\pm 1.6\%$) of students with at least one close friend who smokes. The prevalence of SHS exposure was 29.7% (95% CI = $\pm 1.1\%$) among students with no social sources of SHS exposure (i.e., those who did not live with a smoker or did not have any close friends who smoke), compared with 90.7% (95% CI = $\pm 2.1\%$) who lived with a smoker and had at least one close friend who smokes.

Students' perception of SHS exposure being harmful to their health varied slightly. Overall, the prevalence of SHS exposure was 58.5% (95% CI = $\pm 1.9\%$) among students who perceived SHS to be harmful to their health, compared with 63.6% (95% CI = $\pm 3.7\%$) of students who did not think SHS was harmful. Among middle school students, those who perceived SHS to be harmful to their health were statistically less likely to report SHS exposure than students who did not think SHS was harmful (Table). Among high school students, perceptions of the health risks for SHS exposure did not affect personal SHS exposure.

Reported by: C Alo, P Huang, Texas Dept of Health. ME McCusker, MD, EIS Officer, CDC.

TABLE. Prevalence of secondhand smoke (SHS) exposure among middle and high school students*, by selected characteristics — Texas Youth Tobacco Survey, Texas, 2001

Characteristic	Middle school students		High school students	
	%	(95% CI) [†]	%	(95% CI)
Race/Ethnicity				
White	51.0	(±4.7)	70.4	(±4.6)
Black	52.7	(±4.9)	58.5	(±6.6)
Hispanic	50.7	(±3.2)	63.8	(±2.0)
Asian/Pacific Islander	31.4	(±14.5)	49.3	(±9.5)
Other	52.5	(±4.4)	67.3	(±9.0)
Sex				
Female	50.6	(±2.6)	64.9	(±2.6)
Male	50.6	(±4.2)	66.6	(±2.3)
Ever smoked a cigarette				
Yes	72.4	(±3.2)	77.8	(±1.6)
No	38.9	(±2.7)	45.3	(±4.4)
Current cigarette smoker				
Yes	91.3	(±2.7)	93.2	(±2.1)
No	45.1	(±2.8)	56.3	(±2.8)
Ever used tobacco				
Yes	67.9	(±3.4)	76.2	(±1.8)
No	37.3	(±2.7)	42.7	(±4.9)
Current tobacco user				
Yes	87.1	(±3.0)	90.3	(±2.7)
No	43.5	(±2.7)	54.1	(±3.4)
Number of closest friends who smoke				
0	37.9	(±2.6)	47.0	(±3.3)
1	65.9	(±4.4)	71.5	(±4.5)
2	76.2	(±5.4)	80.9	(±2.9)
3	82.3	(±5.7)	83.8	(±6.7)
4	88.3	(±4.0)	88.1	(±6.1)
Not sure	55.8	(±4.6)	62.1	(±7.7)
Lives with a smoker				
Yes	74.4	(±3.0)	84.3	(±2.4)
No	33.8	(±3.2)	51.9	(±2.5)
Thinks SHS is harmful to their health				
Yes	49.4	(±3.4)	65.3	(±2.3)
No	57.5	(±4.3)	69.9	(±5.5)
Social SHS exposure[§]				
Yes	86.0	(±2.5)	93.0	(±2.4)
No	24.3	(±2.5)	36.5	(±4.0)
Exposed to SHS during the preceding 7 days	50.6	(±3.1)	65.8	(±2.2)

* N = 17,383; middle school students (n = 8,687), high school students (n = 8,696).

[†] Confidence interval.

[§] Students who lived with a smoker and had at least one close friend who smoked.

Editorial Note: The findings in this report indicate that, despite its known health hazards, SHS exposure among Texas students is common. Perceptions of the health hazards of SHS exposure were associated with less reported exposure among middle school students. Among students who reported living with a smoker and having at least one close friend who smokes, the prevalence of SHS exposure was three-fold that of students who did not have these social SHS exposures. Even among students without any social sources of SHS exposure, approximately one third reported that they were exposed to

SHS. These findings suggest that reducing youth exposure to SHS requires strategies such as policies that limit SHS exposure and interventions to decrease youth tobacco-use initiation and to promote tobacco-use cessation among youth and adults.

Serum cotinine levels, a measure of SHS exposure, are higher among youth than among adults in the United States (6), which underscore the need to reduce SHS exposure, especially among youth. Several communities in Texas have passed ordinances that restrict indoor smoking, including a total ban on indoor smoking in all public places in El Paso and a recent ordinance in Dallas that bans indoor smoking in all public places except freestanding bars. In addition, the Environmental Protection Agency has developed the Smoke-Free Home Pledge Initiative, a campaign to reduce SHS exposure among children in their homes (<http://www.epa.gov/smokefree/index.html>). These initiatives might help reduce SHS exposure both in the community and at home.

The findings in this report are subject to at least three limitations. First, the data are representative only of Texas students who attend public schools and might not apply to students who have dropped out of school or who are enrolled in private schools. During the 1999–00 school year, the average dropout rate for Texas public school students enrolled in grades 7–12 was 1.3% (7). In addition, approximately 10% of middle and high school students are enrolled in private schools (8). Second, because TYTS data are self-reported and anonymous, the validity of the responses is difficult to assess. Studies attempting to validate self-reported smoking among youth suggest that the sensitivity of self-reported data on tobacco use is approximately 81% (9). Finally, TYTS asked only if students had been in the same room or car with someone who was smoking during the preceding 7 days. Details about

how youths are exposed to SHS, including where the exposure occurs and whether youths are exposed more commonly to SHS from household members, parents, or friends, would help in targeting tobacco-control programs designed to reduce SHS exposure.

Effective strategies to reduce SHS exposure include 1) community policies such as smoking bans and restrictions that limit SHS exposure, 2) interventions to decrease youth tobacco-use initiation, and 3) interventions to promote tobacco-use cessation among youth and adults (10). The data

presented in this report underscore the need for increased efforts to implement these strategies to reduce SHS exposure among youths and prevent the negative health effects of SHS exposure.

References

1. CDC. Annual smoking-attributable mortality, years of potential life lost, and economic cost—United States, 1995–1999. *MMWR* 2002;51:300–3.
2. U.S. Census Bureau. State and county quickfacts: Texas. Washington, DC: U.S. Census Bureau, 2002. Available at <http://quickfacts.census.gov/qfd/states/48000.html>.
3. U.S. Environmental Protection Agency. Respiratory health effects of passive smoking: lung cancer and other disorders. Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development, Office of Air and Radiation, 1992; publication no. EPA/600/6-90/006F.
4. California Environmental Protection Agency. Health effects of exposure to environmental tobacco smoke—final report and appendices. Sacramento, California: California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, 1997. Available at http://www.oehha.org/air/environmental_tobacco/finalets.html.
5. Janerich DT, Thompson WD, Varela LR, et al. Lung cancer and exposure to tobacco smoke in the household. *N Engl J Med* 1990;6:632–6.
6. CDC. Second national report on human exposure to environmental chemicals. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, National Center for Environmental Health, 2003; publication no. 02-0716. Available at <http://www.cdc.gov/exposurereport>.
7. Texas Education Agency. Secondary school completion and dropouts in Texas public schools, 1999–00. Austin, Texas: Texas Education Agency, 2001; document no. GE01-601-09.
8. National Center for Education Statistics. The Condition of Education 2002. Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002; publication no. 2002-025. Available at <http://nces.ed.gov/programs/coe/2002/analyses/private/index.asp>.
9. Patrick DL, Cheadle A, Thompson DC, Diehr P, Koepsell T, Kinne S. The validity of self-reported smoking: a review and meta-analysis. *Am J Public Health* 1994;84:1086–93.
10. Task Force on Community Preventive Services. Recommendations regarding interventions to reduce tobacco use and exposure to environmental tobacco smoke. *Am J Prev Med* 2001;20(suppl 2):10–5.

Ambulance Crash-Related Injuries Among Emergency Medical Services Workers — United States, 1991–2002

Ambulance crashes are one of many hazards faced by Emergency Medical Services (EMS) personnel. Although no complete national count of ground ambulance crashes exists, the total number of fatal crashes involving ambulances can be ascertained by using the National Highway Traffic Safety Administration (NHTSA) Fatality Analysis Reporting

System (FARS). To characterize risk factors for EMS workers involved in ambulance crashes, CDC's National Institute for Occupational Safety and Health (NIOSH) and NHTSA investigated three case reports of ambulance crashes. This report summarizes these investigations, presents surveillance data, and discusses recommendations for prevention measures. NIOSH is identifying and testing alternative measures to reduce injury risk for EMS workers.

Case Reports

Case 1. In May 2001, an Emergency Medical Technician (EMT) aged 26 years died when her ambulance was struck head-on by a pick-up truck at 6:30 a.m. The EMT had been riding unrestrained in the patient compartment while attending a patient during a nonemergency transport. During the collision, the EMT struck the front bulkhead of the patient compartment; she died en route to the hospital from blunt force trauma to the head and chest. The patient and pick-up driver also suffered fatal injuries. The ambulance driver had been driving unrestrained and suffered multiple serious injuries, including a fractured leg.

Case 2. In July 2001, an EMT aged 27 years died when her ambulance struck an elevated train-track support column at 12:30 p.m. She had been riding unrestrained in the patient compartment while attending a patient during a nonemergency transport. During the collision, the EMT and the patient both struck the front bulkhead of the patient compartment. Both the driver and patient were hospitalized; the EMT was transported to a hospital, where she was pronounced dead.

Case 3. In March 2002, an EMT aged 22 years who was driving and a paramedic aged 37 years were injured when their ambulance struck an oncoming vehicle head-on and overturned. The paramedic was riding unrestrained on the patient compartment squad bench while attending a patient during a nonemergency transport. A relative of the patient was seated in the rear-facing attendant's seat and was wearing a seatbelt. During the collision, the unrestrained EMT driver sustained minor injuries. The paramedic struck the interior cabinets and shelves of the patient compartment. The EMT and the paramedic were transported to a hospital, where the EMT was treated and released; the paramedic was hospitalized and released 2 days later. The patient's injuries included scalp and shoulder contusions and a shoulder laceration. The patient's relative sustained minor internal injuries.

Surveillance Data

During 1991–2000, the most recent year for which data were available, 300 fatal crashes occurred involving occupied ambulances, resulting in the deaths of 82 ambulance occupants and 275 occupants of other vehicles and pedestrians. The 300 crashes involved a total of 816 ambulance occupants. FARS does not differentiate ambulance workers from passengers among those experiencing nonfatal injuries in fatal crashes; however, the seating positions for all occupants and the severity of injuries can be determined from FARS data (Table).

Although which occupants were EMS workers and which were patients or other passengers cannot be ascertained precisely, calculations using the FARS “fatal injury at work” variable based on death certificate information indicate that 27 of the occupants killed were on-duty EMS workers. These comprised 3% of all ambulance occupants and 33% of occupant fatalities.

The majority of the 27 EMS worker fatalities occurred in the front of the vehicle: 11 (41%) in the driver’s seat and five

(19%) in the front right-side seat.* Those coded as “other enclosed” accounted for seven (26%) of the EMS worker fatalities; these persons probably were working in the patient compartment. Four EMS workers were listed in “other/unknown” seating positions (Table).

Reported by: *SL Proudfoot, NT Romano, MS, TG Bobick, PhD, PH Moore, Div of Safety Research, National Institute for Occupational Safety and Health, CDC.*

Editorial Note: EMS personnel in the United States have an estimated fatality rate of 12.7 per 100,000 workers, more than twice the national average (1). This report documents 27 ambulance crash-related fatalities among EMS workers over a 10-year period. The surveillance data and case investigations identify riding unrestrained as an important risk factor for EMS workers. Among all ambulance occupants, riding in the patient compartment was associated with greater injury severity. However, in 27 incidents coded as “fatal injury at work,” seven (26%) of the EMS workers killed were drivers who were not wearing a restraint, and two (7.4%) were unrestrained in the front right seat. Six (22%) of the EMS workers killed were not wearing restraints while riding in the patient compartment.

In 1966, the National Academy of Sciences cited deficiencies at various levels of emergency care, including unsuitable ambulances with inadequate equipment, incomplete supplies, untrained attendees, lack of traffic control, and lack of voice communication facilities (2). Since 1966, substantial improvements have been made in communications systems, the routine use of modern lifesaving equipment, and the level of worker expertise. In addition, the amount of emergency care has increased in volume, in level of complexity, and in required competency of EMS workers (3). However, in January 1992, minimal workplace safety research was conducted for EMS personnel, and statistics related to worker characteristics and job duties were largely unavailable (4). According to a retrospective study investigating characteristics of fatal ambulance crashes during an 11-year period that emphasized emergency versus nonemergency use incidents, the majority of ambulance crashes occurred during emergency use, and rear compartment occupants were more likely to be injured than those in front (5).

Less than half of EMS workers use restraints in the patient compartment (6). In addition, lap-belt restraint systems commonly provided in patient compartments do not allow full

TABLE. Number of persons injured in ambulance crashes, by injury severity and seating position — United States, 1991–2000

Injury severity/ seating position	No.	% within injury severity group	% of all ambulance occupants
Possible			
Front left	70	41.7%	
Front right	50	29.8%	
Other enclosed*	34	20.2%	
Other/unknown	14	8.3%	
Total	168		20.6%
Nonincapacitating			
Front left	81	36.5%	
Front right	54	24.3%	
Other enclosed*	63	28.4%	
Other/unknown	24	10.8%	
Total	222		27.2%
Incapacitating			
Front left	43	32.8%	
Front right	20	15.3%	
Other enclosed*	50	38.2%	
Other/unknown	18	13.7%	
Total	131		16.0%
Fatal			
Front left	14	17.1%	
Front right	10	12.2%	
Other enclosed*	48	58.5%	
Other/unknown	10	12.2%	
Total	82		10.0%
None†	201		24.6%
Unknown†	12		1.5%

* Inside the patient compartment.

† Seating positions irrelevant or unavailable.

* A total of 14 fatalities occurred among driver’s seat occupants; two of them were coded “unknown” for “fatal injury at work,” and a third was coded “no.” Although an ambulance driver might be an EMS worker, only those coded positively for “fatal injury at work” were included as EMS workers.

access to the patient. When properly used, the squad bench lap belts position the EMS worker against the side wall, making it impossible for the worker to bend forward to access the patient. If the EMS worker needs to access the cabinets along the driver-side wall, the belts must be unbuckled to allow the worker to stand up. If CPR or other procedures such as intubation or insertion of IVs must be performed, EMS personnel might need to stand over or kneel near the cot. For these reasons, EMS workers often ride unrestrained, seated on the edge of the squad bench (7). In addition, unrestrained or improperly restrained patients who become airborne in a crash might pose an additional injury risk to EMS personnel and to themselves.

The findings in this report are subject to at least three limitations. First, FARS records only crashes involving a motor vehicle traveling on a traffic-way customarily open to the public that result in the death of a person (either a vehicle occupant or nonmotorist) within 30 days of the crash (8). As a result, fatal crashes on private property (e.g., driveways, parking lots, or private roads) are excluded. Second, which ambulance occupants were EMS workers cannot be determined precisely by examining injuries by occupation code. EMS might be provided by local career or volunteer fire departments, private ambulance companies, or volunteer rescue services. Finally, data about nonfatal injuries to volunteer firefighters and EMS workers are not included routinely in occupational injury databases.

CDC recommends that EMS employers ensure that EMS workers use patient compartment vehicle occupant restraints whenever possible, ensure that drivers and front-seat passengers of EMS vehicles use the occupant restraints provided, consider equipping ambulances with patient cots that include upper body restraints, and ensure that EMS workers who operate ambulances are qualified and trained appropriately. Ambulance manufacturers should evaluate and develop occupant protection systems designed to increase the crash survivability of EMS workers and patients in ambulance patient compartments and ensure that such systems allow EMS workers mobility to access patients and equipment.

References

1. Maguire BJ, Hunting KL, Smith GS, Levick NR. Occupational fatalities in emergency medical services: a hidden crisis. *Ann Emerg Med* 2002;40:625–32.
2. National Academy of Sciences. Accidental death and disability: the neglected disease of modern society (reprint). Rockville, Maryland: U.S. Public Health Service, 1970; PHS publication no. 1071-A-13.
3. U.S. Fire Administration. Implementation of EMS in the fire service. Emmitsburg, Maryland: U.S. Fire Administration, 1997; report no. FA-167.
4. U.S. Federal Emergency Management Agency, U.S. Fire Administration. EMS safety—techniques and applications. Emmitsburg, Maryland: U.S. Fire Administration, 1994; report no. FA-144.
5. Kahn CA, Pirrallo RG, Kuhn EM. Characteristics of fatal ambulance crashes in the United States: an 11-year retrospective analysis. *Prehosp Emerg Care* 2001;5:261–9.
6. Larmon B, LeGassick TF, Schriger DL. Differential front and back seat safety belt use by prehospital care providers. *Am J Emerg Med* 1993;11:595–9.
7. CDC. 26-year-old emergency medical technician dies in multiple fatality ambulance crash—Kentucky. Washington, DC: U.S. Department of Health and Human Services, Public Health Service, CDC, 2001; DHHS (NIOSH) publication no. FACE-2001-11.
8. U.S. Highway Traffic Safety Administration, U.S. Center for Statistics and Analysis. Fatality Analysis Reporting System (FARS), October 2002. Available at <http://www-nrd.nhtsa.dot.gov/departments/nrd-30/nca/FARS.html>.

Smallpox Vaccine Adverse Events Among Civilians — United States, February 18–24, 2003

During the civilian smallpox vaccination program, CDC and state health departments are conducting surveillance for vaccine-associated adverse events. In the first stage of the program, active surveillance is being conducted for potentially life-threatening, moderate-to-severe, and other serious adverse events and for vaccinia transmission to contacts of vaccinees (1) (Table). Nonserious events are reported through passive surveillance and are expected to be underreported. This report summarizes smallpox vaccine adverse events reported among civilians vaccinated as of February 21, 2003, and received by CDC from the Vaccine Adverse Event Reporting System (VAERS) as of February 24.

Potentially life-threatening and moderate-to-serious events are classified on the basis of evidence in support of the reported diagnoses. For probable cases, other causes are excluded, and supportive information is available. Events are classified as suspected if they have clinical features compatible with the diagnosis but either further investigation is required or additional investigation of the case did not provide supporting evidence for the diagnosis and did not identify an alternative diagnosis. CDC and state health departments also receive reports of other events that are associated temporally with smallpox vaccination. Reported adverse events are not necessarily associated with vaccination, and some or all of these events might be coincidental.

During January 24–February 21, smallpox vaccine was administered to 7,354 civilian health-care and public health

TABLE. Number of cases* of adverse events after smallpox vaccination among civilians, by type — United States, February 18–24, 2003

Adverse events	No. new cases		Total no. cases	
	Suspected	Probable	Suspected	Probable
Potentially life-threatening events				
Eczema vaccinatum	—†	—	—	—
Erythema multiforme major (Stevens-Johnson syndrome)	—	—	—	—
Fetal vaccinia	—	—	—	—
Post-vaccinial encephalitis or encephalomyelitis	—	—	—	—
Progressive vaccinia	—	—	—	—
Moderate-to-severe events				
Generalized vaccinia	1	—	1	—
Inadvertent inoculation, non-ocular	—	—	—	—
Ocular vaccinia	—	—	—	—
Pyogenic infection of vaccination site	—	—	—	—
Other events of concern				
	No. new cases		Total no. cases	
Other serious adverse events§	1	—	1	—
Other nonserious adverse events¶	16	—	23	—
Vaccinia immune globulin release	—	—	—	—
Vaccinia transmission to contacts	—	—	—	—

* Under investigation or completed as of February 24, 2003; numbers and classifications of adverse events will be updated regularly in *MMWR* as more information becomes available.

† No cases reported.

§ Events that result in hospitalization, permanent disability, life-threatening illness, or death; these events are associated temporally with smallpox vaccination but have not been documented to be associated causally with vaccination.

¶ Include expected self-limited responses to smallpox vaccination (e.g., fatigue, headache, pruritus, local reaction at vaccination site, regional lymphadenopathy, lymphangitis, fever, myalgia and chills, and nausea); additional events are associated temporally with smallpox vaccination but have not been documented to be associated causally with vaccination.

workers in 40 jurisdictions. No potentially life threatening adverse events were reported as of February 24.

One moderate-to-severe adverse event was reported, a suspected case of generalized vaccinia in a woman aged 39 years. Nine days after receiving smallpox vaccine, the patient reported increased pain at the vaccination site, malaise, and headache. The following day, she developed a pruritic, papular rash on her chest and back that progressed to scattered pustules by day 12 following vaccination. She was treated as an outpatient with antihistamines, and the rash was resolving by day 15. Specimens from the pustular lesions were collected and sent for virologic testing; results are pending.

One other serious adverse event was reported, angina in a man aged 60 years with a history of hypertension, hyperlipidemia, and exertional chest pain and a family history of coronary artery disease. Angina is not known to be associated causally

with smallpox vaccination. The patient had onset of chest pain while playing tennis 4 days after smallpox vaccination and reported to an emergency department. The patient was diagnosed with right coronary artery occlusion, and an angioplasty was performed. He was discharged after being hospitalized for 2 days.

Among 23 vaccinees with reported other nonserious adverse events during January 24–February 24, the most common signs and symptoms were fever (n = six), pruritus (n = five), rash (n = four), vasodilation (n = four), asthenia (n = three), headache/migraine (n = three), malaise (n = three), paresthesia (n = three), and redness at injection site (n = three). Some vaccinees reported multiple signs and symptoms.

Surveillance for adverse events during the civilian smallpox vaccination program is ongoing; regular surveillance reports will be published in *MMWR*.

Reference

1. CDC. Smallpox Vaccine Adverse Events Monitoring and Response System for the first stage of the smallpox vaccination program. *MMWR* 2002;52:88–9.

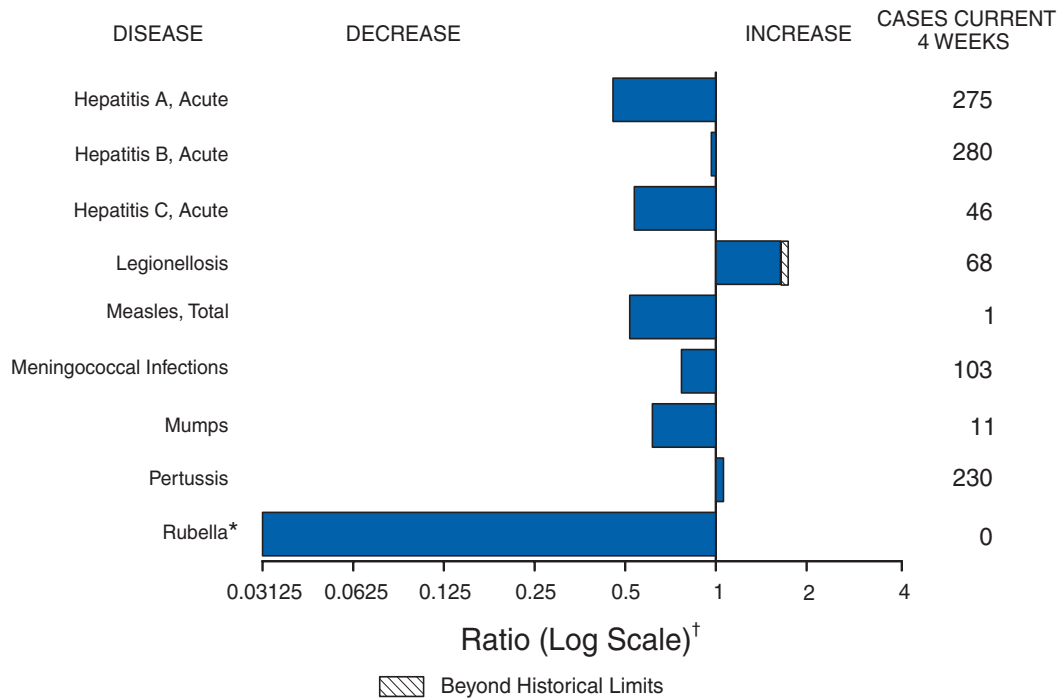
Notice to Readers

Availability of Maxi-Vac Smallpox Vaccination Software

Free copies of the Maxi-Vac software program are now available. Maxi-Vac allows officials to refine smallpox vaccination clinic human resource allocations (e.g., physicians, nurses, and other staff) to maximize patient flow-through.

Maxi-Vac software and the accompanying manual can be downloaded at <http://www.bt.cdc.gov/agent/smallpox/vaccination/maxi-vac>. Operation of Maxi-Vac requires the use of Visual Basic Runtime v. 6.0, which also can be downloaded at the Maxi-Vac web page. The Maxi-Vac manual can be downloaded in either a Microsoft Word format or an Adobe Acrobat format. The Maxi-Vac software and manual are in the public domain and may be used and copied without permission; however, citation as to source is appreciated.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending February 22, 2003, with historical data



* No rubella cases were reported for the current 4-week period yielding a ratio for week 8 of zero (0).
 † Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending February 22, 2003 (8th Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	-	Hansen disease (leprosy)†	4	3
Botulism:	-	-	Hantavirus pulmonary syndrome†	3	-
foodborne	-	4	Hemolytic uremic syndrome, postdiarrheal†	11	12
infant	8	9	HIV infection, pediatric‡§	-	24
other (wound & unspecified)	3	4	Measles, total	2¶	4**
Brucellosis†	5	12	Mumps	24	34
Chancroid	6	6	Plague	-	-
Cholera	-	-	Poliomyelitis, paralytic	-	-
Cyclosporiasis†	4	15	Psittacosis†	2	9
Diphtheria	-	-	Q fever†	6	3
Ehrlichiosis:	-	-	Rabies, human	1	-
human granulocytic (HGE)†	4	7	Rubella	-	1
human monocytic (HME)†	5	2	Rubella, congenital	-	1
other and unspecified	-	-	Streptococcal toxic-shock syndrome†	18	16
Encephalitis/Meningitis:	-	-	Tetanus	2	-
California serogroup viral†	-	-	Toxic-shock syndrome	9	16
eastern equine†	-	-	Trichinosis	1	2
Powassan†	-	-	Tularemia†	2	3
St. Louis†	-	-	Yellow fever	-	-
western equine†	-	-			

-: No reported cases.
 * Incidence data for reporting years 2002 and 2003 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 January 3, 2003.
 ¶ Of two cases reported, one was indigenous and one was imported from another country.
 ** Of four cases reported, three were indigenous and one was imported from another country.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending February 22, 2003, and February 23, 2002 (8th 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	-	4,664	91,254	115,269	480	521	140	313	-	-
NEW ENGLAND	-	114	3,337	3,974	-	-	14	10	-	-
Maine	-	1	138	206	N	N	1	-	-	-
N.H.	-	4	219	245	-	-	-	2	-	-
Vt.	-	4	166	114	-	-	1	-	-	-
Mass.	-	76	1,118	1,511	-	-	7	4	-	-
R.I.	-	5	413	401	-	-	3	3	-	-
Conn.	-	24	1,283	1,497	N	N	2	1	-	-
MID. ATLANTIC	-	1,189	5,682	12,465	-	-	11	26	-	-
Upstate N.Y.	-	50	1,794	1,268	N	N	7	5	-	-
N.Y. City	-	741	688	4,505	-	-	2	13	-	-
N.J.	-	218	1,187	2,106	-	-	1	3	-	-
Pa.	-	180	2,013	4,586	N	N	1	5	-	-
E. N. CENTRAL	-	414	18,188	20,830	1	2	28	105	-	-
Ohio	-	103	5,848	5,286	-	-	7	26	-	-
Ind.	-	52	2,610	2,492	N	N	3	9	-	-
Ill.	-	178	3,298	6,053	-	-	4	21	-	-
Mich.	-	65	4,389	4,426	1	2	10	18	-	-
Wis.	-	16	2,043	2,573	-	-	4	31	-	-
W. N. CENTRAL	-	49	5,123	6,143	-	-	15	21	-	-
Minn.	-	9	1,085	1,598	N	N	6	8	-	-
Iowa	-	15	308	475	N	N	3	2	-	-
Mo.	-	22	1,954	2,106	-	-	2	6	-	-
N. Dak.	-	-	41	164	N	N	-	-	-	-
S. Dak.	-	1	378	320	-	-	4	-	-	-
Nebr.	-	-	310	465	-	-	-	3	-	-
Kans.	-	2	1,047	1,015	N	N	-	2	-	-
S. ATLANTIC	-	1,606	20,911	20,988	-	-	34	67	-	-
Del.	-	21	466	394	N	N	1	-	-	-
Md.	-	245	2,400	2,180	-	-	6	1	-	-
D.C.	-	19	445	522	-	-	-	1	-	-
Va.	-	107	2,134	2,198	-	-	-	1	-	-
W. Va.	-	6	360	373	N	N	-	-	-	-
N.C.	-	134	3,802	3,104	N	N	3	9	-	-
S.C.	-	136	1,771	2,074	-	-	1	-	-	-
Ga.	-	377	3,958	4,209	-	-	16	40	-	-
Fla.	-	561	5,575	5,934	N	N	7	15	-	-
E. S. CENTRAL	-	222	7,965	7,891	-	-	11	14	-	-
Ky.	-	16	1,306	1,315	N	N	-	1	-	-
Tenn.	-	95	2,432	2,570	N	N	4	2	-	-
Ala.	-	56	2,123	2,528	-	-	6	10	-	-
Miss.	-	55	2,104	1,478	N	N	1	1	-	-
W. S. CENTRAL	-	607	12,652	16,274	-	-	2	8	-	-
Ark.	-	35	732	1,004	-	-	1	2	-	-
La.	-	65	2,413	2,736	N	N	-	1	-	-
Okla.	-	33	1,055	1,354	N	N	1	1	-	-
Tex.	-	474	8,452	11,180	-	-	-	4	-	-
MOUNTAIN	-	130	5,087	7,123	406	367	13	9	-	-
Mont.	-	3	272	397	N	N	1	-	-	-
Idaho	-	2	387	357	N	N	5	2	-	-
Wyo.	-	1	182	127	-	-	-	-	-	-
Colo.	-	21	1,237	2,057	N	N	2	3	-	-
N. Mex.	-	7	250	1,178	-	1	-	-	-	-
Ariz.	-	39	2,129	2,060	404	360	2	1	-	-
Utah	-	7	310	56	1	2	3	2	-	-
Nev.	-	50	320	891	1	4	-	1	-	-
PACIFIC	-	333	12,309	19,581	73	152	12	53	-	-
Wash.	-	39	2,272	2,098	N	N	-	10	-	-
Oreg.	-	75	879	843	-	-	3	7	-	-
Calif.	-	216	8,081	15,542	73	152	9	36	-	-
Alaska	-	-	514	492	-	-	-	-	-	-
Hawaii	-	3	563	606	-	-	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	68	-	-	N	N	N	N	-	-
V.I.	-	33	-	31	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

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

* Incidence data for reporting years 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 January 3, 2003.

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending February 22, 2003, and February 23, 2002 (8th 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	115	178	8	7	8	1	1,605	1,997	38,870	51,997
NEW ENGLAND	10	9	-	1	-	-	97	228	907	1,268
Maine	-	-	-	-	-	-	14	25	5	13
N.H.	2	1	-	-	-	-	11	10	18	14
Vt.	-	-	-	-	-	-	9	18	15	19
Mass.	4	3	-	1	-	-	54	127	298	555
R.I.	-	2	-	-	-	-	9	18	148	141
Conn.	4	3	-	-	-	-	-	30	423	526
MID. ATLANTIC	6	12	-	-	2	-	213	362	2,501	5,833
Upstate N.Y.	4	8	-	-	2	-	83	81	839	684
N.Y. City	-	-	-	-	-	-	112	127	270	1,972
N.J.	2	4	-	-	-	-	11	69	685	1,210
Pa.	N	N	-	-	-	-	7	85	707	1,967
E.N. CENTRAL	30	60	1	-	3	-	278	467	9,196	10,898
Ohio	10	12	1	-	3	-	124	127	3,715	3,020
Ind.	3	4	-	-	-	-	-	-	1,028	1,152
Ill.	5	20	-	-	-	-	42	138	1,516	3,427
Mich.	7	9	-	-	-	-	96	123	2,180	2,411
Wis.	5	15	-	-	-	-	16	79	757	888
W.N. CENTRAL	19	27	2	2	2	-	174	190	1,934	2,690
Minn.	8	5	2	2	-	-	48	57	324	487
Iowa	1	7	-	-	-	-	33	41	41	139
Mo.	3	6	N	N	N	N	33	48	1,079	1,333
N. Dak.	1	-	-	-	1	-	4	-	2	9
S. Dak.	2	1	-	-	-	-	7	9	18	38
Nebr.	3	5	-	-	-	-	28	17	69	183
Kans.	1	3	-	-	1	-	21	18	401	501
S. ATLANTIC	17	25	1	2	-	-	320	395	11,124	12,953
Del.	-	1	-	-	-	-	6	10	217	269
Md.	-	-	-	-	-	-	17	18	1,246	1,237
D.C.	-	-	-	-	-	-	-	8	351	453
Va.	2	2	-	-	-	-	17	10	1,124	1,382
W. Va.	-	-	-	-	-	-	-	2	117	146
N.C.	3	4	-	-	-	-	N	N	2,189	2,496
S.C.	-	-	-	-	-	-	4	1	1,056	1,224
Ga.	4	17	-	1	-	-	150	110	2,182	2,445
Fla.	8	1	1	1	-	-	126	236	2,642	3,301
E.S. CENTRAL	5	3	-	-	-	-	40	38	4,144	4,661
Ky.	-	-	-	-	-	-	N	N	579	537
Tenn.	3	3	-	-	-	-	15	12	1,139	1,562
Ala.	2	-	-	-	-	-	25	26	1,383	1,653
Miss.	-	-	-	-	-	-	-	-	1,043	909
W.S. CENTRAL	1	3	-	-	-	1	27	13	5,589	7,529
Ark.	1	-	-	-	-	-	19	13	476	665
La.	-	-	-	-	-	-	-	-	1,580	1,828
Okla.	-	-	-	-	-	-	8	-	427	568
Tex.	-	3	-	-	-	1	-	-	3,106	4,468
MOUNTAIN	14	13	3	1	1	-	185	160	1,157	1,697
Mont.	-	2	-	-	-	-	3	6	20	25
Idaho	2	1	2	-	-	-	20	3	12	15
Wyo.	-	-	-	1	-	-	3	1	10	9
Colo.	4	2	-	-	1	-	55	65	345	589
N. Mex.	-	2	1	-	-	-	5	15	52	224
Ariz.	5	1	N	N	N	N	44	14	577	567
Utah	3	3	-	-	-	-	43	31	32	2
Nev.	-	2	-	-	-	-	12	25	109	266
PACIFIC	13	26	1	1	-	-	271	144	2,318	4,468
Wash.	5	4	-	-	-	-	19	30	419	467
Oreg.	1	7	1	1	-	-	52	84	133	140
Calif.	5	15	-	-	-	-	175	-	1,568	3,672
Alaska	-	-	-	-	-	-	11	13	77	105
Hawaii	2	-	-	-	-	-	14	17	121	84
Guam	N	N	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	-	-
V.I.	-	-	-	-	-	-	-	-	-	12
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 February 22, 2003, and February 23, 2002 (8th 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. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	177	263	2	2	22	48	4	2	590	1,442
NEW ENGLAND	18	26	-	-	1	5	1	-	20	70
Maine	-	1	-	-	-	-	-	-	1	1
N.H.	4	2	-	-	-	-	-	-	2	3
Vt.	4	2	-	-	-	-	-	-	1	-
Mass.	8	13	-	-	1	3	1	-	13	37
R.I.	-	-	-	-	-	-	-	-	1	4
Conn.	2	8	-	-	-	2	-	-	2	25
MID. ATLANTIC	13	44	-	-	2	4	1	-	51	124
Upstate N.Y.	7	17	-	-	1	2	1	-	14	18
N.Y. City	5	11	-	-	1	1	-	-	37	30
N.J.	1	13	-	-	-	1	-	-	-	34
Pa.	-	3	-	-	-	-	-	-	-	42
E.N. CENTRAL	17	49	1	-	4	7	-	-	78	176
Ohio	8	21	-	-	3	3	-	-	22	41
Ind.	4	6	-	-	1	1	-	-	3	5
Ill.	-	21	-	-	-	3	-	-	20	75
Mich.	5	1	1	-	-	-	-	-	30	34
Wis.	-	-	-	-	-	-	-	-	3	21
W.N. CENTRAL	17	3	-	-	3	-	2	1	26	60
Minn.	7	-	-	-	2	-	-	-	2	3
Iowa	-	1	-	-	-	-	-	-	8	13
Mo.	6	2	-	-	-	-	2	1	4	12
N. Dak.	-	-	-	-	-	-	-	-	1	-
S. Dak.	1	-	-	-	-	-	-	-	-	2
Nebr.	-	-	-	-	-	-	-	-	3	4
Kans.	3	-	-	-	1	-	-	-	8	26
S. ATLANTIC	44	59	-	-	3	12	-	-	219	368
Del.	-	-	-	-	-	-	-	-	1	3
Md.	12	16	-	-	1	-	-	-	30	65
D.C.	-	-	-	-	-	-	-	-	-	13
Va.	1	3	-	-	-	1	-	-	2	5
W. Va.	-	-	-	-	-	-	-	-	2	1
N.C.	3	7	-	-	-	-	-	-	5	57
S.C.	1	-	-	-	-	-	-	-	6	7
Ga.	9	21	-	-	1	7	-	-	99	51
Fla.	18	12	-	-	1	4	-	-	74	166
E.S. CENTRAL	21	6	-	1	3	1	-	-	23	58
Ky.	2	-	-	-	-	-	-	-	5	9
Tenn.	9	3	-	-	2	-	-	-	12	25
Ala.	10	2	-	1	1	1	-	-	6	5
Miss.	-	1	-	-	-	-	-	-	-	19
W.S. CENTRAL	12	13	-	1	1	4	-	-	14	139
Ark.	1	1	-	-	-	-	-	-	-	8
La.	3	-	-	-	-	-	-	-	5	4
Okla.	8	11	-	-	1	4	-	-	3	7
Tex.	-	1	-	1	-	-	-	-	6	120
MOUNTAIN	24	33	1	-	4	7	-	-	36	97
Mont.	-	-	-	-	-	-	-	-	-	2
Idaho	-	-	-	-	-	-	-	-	-	7
Wyo.	-	-	-	-	-	-	-	-	-	2
Colo.	6	7	-	-	1	1	-	-	4	16
N. Mex.	2	8	-	-	-	3	-	-	1	4
Ariz.	11	13	1	-	1	2	-	-	23	43
Utah	4	4	-	-	2	-	-	-	5	9
Nev.	1	1	-	-	-	1	-	-	3	14
PACIFIC	11	30	-	-	1	8	-	1	123	350
Wash.	-	-	-	-	-	-	-	-	3	10
Oreg.	9	19	-	-	1	3	-	-	17	21
Calif.	-	5	-	-	-	4	-	1	100	318
Alaska	-	1	-	-	-	1	-	-	1	1
Hawaii	2	5	-	-	-	-	-	-	2	-
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 February 22, 2003, and February 23, 2002 (8th 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	646	754	129	253	106	107	45	52	382	655
NEW ENGLAND	23	33	-	7	6	5	4	7	5	60
Maine	-	-	-	-	-	-	-	1	-	-
N.H.	1	3	-	-	-	1	1	2	-	9
Vt.	1	2	-	4	1	-	-	-	3	1
Mass.	19	24	-	3	1	2	2	2	-	47
R.I.	-	-	-	-	1	-	-	-	2	3
Conn.	2	4	-	-	3	2	1	2	-	-
MID. ATLANTIC	102	141	8	11	8	22	8	6	309	476
Upstate N.Y.	6	5	4	6	6	5	2	3	273	286
N.Y. City	38	63	-	-	2	-	3	1	-	-
N.J.	55	48	4	3	-	7	2	-	34	103
Pa.	3	25	-	2	-	10	1	2	2	87
E.N. CENTRAL	56	62	16	16	31	41	5	10	6	19
Ohio	26	9	2	-	18	25	2	5	4	2
Ind.	-	3	-	-	-	3	1	-	2	2
Ill.	-	3	2	3	-	-	-	1	-	-
Mich.	30	41	12	13	13	9	2	1	-	-
Wis.	-	6	-	-	-	4	-	3	U	15
W.N. CENTRAL	30	31	29	94	2	3	2	1	1	8
Minn.	2	1	-	-	-	-	1	-	-	2
Iowa	1	6	-	1	1	-	-	-	1	3
Mo.	19	14	26	90	-	2	-	1	-	3
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	-
Nebr.	6	5	3	3	-	1	1	-	-	-
Kans.	2	5	-	-	1	-	-	-	-	-
S. ATLANTIC	258	233	29	15	45	13	12	6	44	68
Del.	1	2	-	3	-	3	-	-	-	10
Md.	16	20	3	2	11	5	2	1	31	48
D.C.	-	2	-	-	-	-	-	-	-	3
Va.	6	19	-	-	3	-	-	-	-	-
W. Va.	-	2	-	-	N	N	-	-	-	-
N.C.	17	34	1	3	5	2	1	-	6	3
S.C.	-	3	-	1	-	-	1	2	-	1
Ga.	135	78	3	1	5	3	3	2	1	-
Fla.	83	73	22	5	21	-	5	1	6	3
E.S. CENTRAL	28	59	13	27	1	2	4	2	1	3
Ky.	6	5	2	1	-	1	-	-	-	1
Tenn.	6	25	-	4	1	-	-	1	1	-
Ala.	9	15	1	2	-	1	3	1	-	-
Miss.	7	14	10	20	-	-	1	-	-	2
W.S. CENTRAL	12	26	21	63	2	2	1	4	2	9
Ark.	-	21	-	4	-	-	-	-	-	-
La.	12	4	9	2	-	-	-	-	2	1
Okla.	-	1	-	-	2	-	1	-	-	-
Tex.	-	-	12	57	-	2	-	4	-	8
MOUNTAIN	69	57	7	5	6	4	8	4	1	1
Mont.	2	-	-	-	-	-	1	-	-	-
Idaho	-	-	-	-	1	-	-	-	1	-
Wyo.	1	3	-	2	-	-	-	-	-	-
Colo.	10	11	5	1	1	1	5	1	-	-
N. Mex.	1	11	-	-	-	1	-	-	-	1
Ariz.	50	24	2	-	3	-	2	3	-	-
Utah	4	3	-	-	1	2	-	-	-	-
Nev.	1	5	-	2	-	-	-	-	-	-
PACIFIC	68	112	6	15	5	15	1	12	13	11
Wash.	4	5	1	2	-	-	-	-	-	-
Oreg.	19	24	2	6	N	N	-	1	3	1
Calif.	44	82	3	7	5	15	1	11	10	10
Alaska	-	1	-	-	-	-	-	-	-	-
Hawaii	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 February 22, 2003, and February 23, 2002 (8th 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	92	150	195	297	480	790	419	728	26	39
NEW ENGLAND	5	12	11	24	106	145	57	71	2	-
Maine	1	1	1	2	-	3	4	5	-	-
N.H.	1	4	-	2	4	1	3	1	-	-
Vt.	-	-	-	3	16	19	3	20	-	-
Mass.	3	4	8	14	86	117	23	19	2	-
R.I.	-	-	-	2	-	-	1	5	-	-
Conn.	-	3	2	1	-	5	23	21	-	-
MID. ATLANTIC	12	30	10	34	35	41	39	92	-	4
Upstate N.Y.	6	5	3	9	33	31	37	59	-	-
N.Y. City	4	12	5	6	-	5	-	4	-	-
N.J.	2	9	1	7	2	-	-	16	-	-
Pa.	-	4	1	12	-	5	2	13	-	4
E.N. CENTRAL	9	19	31	42	61	101	4	2	1	2
Ohio	5	7	15	18	52	56	-	1	1	2
Ind.	-	-	4	6	3	5	2	1	-	-
Ill.	1	6	-	6	-	12	-	-	-	-
Mich.	3	5	9	7	5	11	2	-	-	-
Wis.	-	1	3	5	1	17	-	-	-	-
W.N. CENTRAL	4	11	16	18	20	71	62	42	1	1
Minn.	2	-	3	-	3	10	4	4	-	-
Iowa	2	2	4	4	3	23	6	4	1	-
Mo.	-	4	7	8	8	23	-	1	-	1
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	2	1	2	6	15	-	-
Nebr.	-	2	1	2	-	2	-	-	-	-
Kans.	-	3	1	2	5	11	36	18	-	-
S. ATLANTIC	34	37	49	44	63	48	216	224	20	29
Del.	-	-	4	1	-	1	-	3	-	-
Md.	12	16	3	1	12	7	2	56	4	5
D.C.	-	2	-	-	-	-	-	-	-	-
Va.	3	-	2	2	1	15	60	63	-	-
W. Va.	2	-	-	-	-	-	8	21	-	-
N.C.	4	5	4	7	28	9	81	64	16	22
S.C.	-	2	-	6	-	14	13	8	-	2
Ga.	3	11	6	7	14	1	36	-	-	-
Fla.	10	1	30	20	8	1	16	9	-	-
E.S. CENTRAL	5	3	12	14	15	26	5	109	1	2
Ky.	1	-	-	2	3	7	3	1	-	-
Tenn.	2	1	3	3	3	11	-	108	1	2
Ala.	2	1	4	8	7	1	2	-	-	-
Miss.	-	1	5	1	2	7	-	-	-	-
W.S. CENTRAL	2	2	17	43	-	152	12	142	-	1
Ark.	-	-	1	5	-	107	-	-	-	-
La.	1	2	10	3	-	1	-	-	-	-
Okla.	-	-	3	4	-	2	12	16	-	-
Tex.	1	-	3	31	-	42	-	126	-	1
MOUNTAIN	4	5	8	22	118	95	12	18	-	-
Mont.	-	-	-	-	-	2	1	-	-	-
Idaho	-	-	-	-	2	6	-	-	-	-
Wyo.	-	-	-	-	-	2	-	1	-	-
Colo.	3	2	3	8	57	53	-	-	-	-
N. Mex.	-	-	2	-	12	15	-	-	-	-
Ariz.	1	-	3	7	35	9	11	17	-	-
Utah	-	2	-	1	9	6	-	-	-	-
Nev.	-	1	-	6	3	2	-	-	-	-
PACIFIC	17	31	41	56	62	111	12	28	1	-
Wash.	4	1	2	9	17	19	-	-	-	-
Oreg.	5	-	11	12	39	11	-	-	-	-
Calif.	8	27	27	33	6	77	12	13	1	-
Alaska	-	1	-	1	-	1	-	15	-	-
Hawaii	-	2	1	1	-	3	-	-	-	-
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 February 22, 2003, and February 23, 2002 (8th 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	2,769	4,142	2,143	2,079	604	688	340	288	59	23
NEW ENGLAND	121	188	43	38	33	30	2	1	-	1
Maine	5	29	2	2	1	4	-	-	-	-
N.H.	7	5	-	2	4	5	-	-	N	N
Vt.	3	8	-	-	2	1	2	1	-	1
Mass.	76	108	27	30	26	20	N	N	N	N
R.I.	6	5	2	-	-	-	-	-	-	-
Conn.	24	33	12	4	-	-	-	-	-	-
MID. ATLANTIC	171	413	86	89	62	102	9	18	13	6
Upstate N.Y.	53	76	33	11	52	41	9	18	13	6
N.Y. City	97	104	39	40	5	27	U	U	U	U
N.J.	11	148	5	22	1	29	N	N	N	N
Pa.	10	85	9	16	4	5	-	-	-	-
E.N. CENTRAL	392	755	150	299	160	187	75	20	31	14
Ohio	152	215	46	149	56	32	65	-	29	-
Ind.	27	35	9	9	7	6	10	18	2	3
Ill.	112	332	52	94	28	64	-	2	-	-
Mich.	70	99	33	28	68	56	N	N	N	N
Wis.	31	74	10	19	1	29	N	N	-	11
W.N. CENTRAL	185	292	115	215	55	29	45	44	8	1
Minn.	56	54	8	17	24	-	-	-	8	-
Iowa	49	42	3	13	-	-	N	N	N	N
Mo.	38	136	28	28	8	14	1	1	-	1
N. Dak.	3	-	-	-	1	-	1	-	-	-
S. Dak.	10	13	8	92	5	1	-	1	-	-
Nebr.	11	13	56	47	10	6	10	11	N	N
Kans.	18	34	12	18	7	8	33	31	N	N
S. ATLANTIC	991	1,159	1,200	785	107	122	181	158	-	1
Del.	2	10	50	2	1	-	-	3	N	N
Md.	86	77	109	65	37	14	-	-	-	-
D.C.	-	9	-	4	-	2	-	3	-	1
Va.	51	74	32	161	1	8	N	N	N	N
W. Va.	2	4	-	1	-	-	8	3	-	-
N.C.	180	144	121	41	17	32	N	N	U	U
S.C.	39	59	14	8	1	3	9	27	N	N
Ga.	263	298	468	330	14	47	43	81	N	N
Fla.	368	484	406	173	36	16	121	41	N	N
E.S. CENTRAL	226	211	118	131	18	21	11	31	-	-
Ky.	41	24	21	33	3	3	-	3	N	N
Tenn.	67	59	30	9	15	18	11	28	N	N
Ala.	79	71	50	37	-	-	-	-	N	N
Miss.	39	57	17	52	-	-	-	-	-	-
W.S. CENTRAL	88	232	156	143	20	50	13	6	7	-
Ark.	37	41	4	20	1	-	1	2	-	-
La.	15	23	20	12	-	-	12	4	5	-
Okla.	26	31	84	28	13	8	N	N	2	-
Tex.	10	137	48	83	6	42	N	N	-	-
MOUNTAIN	206	245	120	67	107	48	4	10	-	-
Mont.	13	3	-	-	-	-	-	-	-	-
Idaho	11	11	1	2	4	1	N	N	N	N
Wyo.	3	7	1	1	-	1	1	5	-	-
Colo.	71	72	27	16	40	21	-	-	-	-
N. Mex.	17	36	17	8	19	22	3	5	-	-
Ariz.	65	61	68	26	42	-	-	-	N	N
Utah	18	20	4	7	2	3	-	-	-	-
Nev.	8	35	2	7	-	-	-	-	-	-
PACIFIC	389	647	155	312	42	99	-	-	-	-
Wash.	36	21	8	5	-	16	-	-	N	N
Oreg.	34	44	9	26	N	N	N	N	N	N
Calif.	281	539	129	270	28	67	N	N	N	N
Alaska	16	11	2	1	-	-	-	-	N	N
Hawaii	22	32	7	10	14	16	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	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 February 22, 2003, and February 23, 2002 (8th 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	779	831	26	57	506	1,244	15	41	1,853
NEW ENGLAND	23	10	-	-	18	40	1	4	413
Maine	-	-	-	-	-	2	-	-	214
N.H.	1	-	-	-	1	1	-	-	-
Vt.	-	-	-	-	-	-	-	-	156
Mass.	18	6	-	-	8	7	-	3	43
R.I.	4	1	-	-	3	12	-	-	-
Conn.	-	3	-	-	6	18	1	1	-
MID. ATLANTIC	77	79	7	9	35	203	-	6	-
Upstate N.Y.	3	4	5	1	10	21	-	-	N
N.Y. City	50	44	1	3	13	101	-	3	-
N.J.	23	20	1	5	-	46	-	3	-
Pa.	1	11	-	-	12	35	-	-	-
E.N. CENTRAL	113	169	7	5	109	113	2	7	1,017
Ohio	30	21	1	-	13	18	-	2	264
Ind.	4	10	2	-	18	13	1	1	-
Ill.	15	53	3	4	57	53	-	1	-
Mich.	62	79	1	1	18	21	1	2	737
Wis.	2	6	-	-	3	8	-	1	16
W.N. CENTRAL	18	12	-	-	45	70	-	1	3
Minn.	6	5	-	-	16	27	-	1	N
Iowa	1	-	-	-	6	-	-	-	-
Mo.	4	4	-	-	8	28	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	3
S. Dak.	-	-	-	-	4	3	-	-	-
Nebr.	-	2	-	-	-	1	-	-	-
Kans.	7	1	-	-	11	11	-	-	-
S. ATLANTIC	232	197	3	14	82	236	3	10	405
Del.	1	2	-	-	-	-	-	-	1
Md.	37	14	-	1	13	13	1	1	-
D.C.	5	5	-	-	-	-	-	-	-
Va.	11	5	-	-	13	22	-	-	75
W. Va.	-	-	-	-	1	5	-	-	324
N.C.	24	55	-	4	18	29	-	-	N
S.C.	15	18	1	2	15	9	-	-	5
Ga.	45	28	-	3	22	24	-	5	-
Fla.	94	70	2	4	-	134	2	4	-
E. S. CENTRAL	57	89	3	3	56	80	-	-	-
Ky.	10	4	-	-	-	14	-	-	N
Tenn.	26	37	3	2	11	37	-	-	N
Ala.	19	33	-	-	37	22	-	-	-
Miss.	2	15	-	1	8	7	-	-	-
W. S. CENTRAL	99	110	2	17	16	231	-	3	1
Ark.	8	1	-	-	9	4	-	-	-
La.	12	21	-	-	-	-	-	-	1
Okla.	8	11	-	-	7	2	-	-	N
Tex.	71	77	2	17	-	225	-	3	-
MOUNTAIN	25	42	4	3	22	32	2	2	14
Mont.	-	-	-	-	-	-	-	-	N
Idaho	-	1	-	-	-	-	-	-	N
Wyo.	-	-	-	-	1	1	-	-	2
Colo.	2	3	-	1	11	7	2	1	-
N. Mex.	3	5	-	-	-	7	-	-	-
Ariz.	19	33	4	2	9	12	-	-	-
Utah	1	-	-	-	1	2	-	1	12
Nev.	-	-	-	-	-	3	-	-	-
PACIFIC	135	123	-	6	123	239	7	8	-
Wash.	10	7	-	-	27	20	-	-	-
Oreg.	9	4	-	-	6	13	2	1	-
Calif.	114	111	-	6	66	177	5	7	-
Alaska	-	-	-	-	9	13	-	-	-
Hawaii	2	1	-	-	15	16	-	-	-
Guam	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	-
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 February 22, 2003 (8th Week)

Reporting Area	All causes, by age (years)						P&I [†] Total	Reporting Area	All causes, by age (years)						P&I [†] Total
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	645	440	147	33	10	15	64	S. ATLANTIC	1,357	873	330	106	23	25	75
Boston, Mass.	139	78	39	13	2	7	12	Atlanta, Ga.	188	112	49	23	3	1	3
Bridgeport, Conn.	43	30	8	3	1	1	2	Baltimore, Md.	195	116	60	14	4	1	17
Cambridge, Mass.	24	22	2	-	-	-	2	Charlotte, N.C.	102	64	23	9	3	3	6
Fall River, Mass.	26	22	4	-	-	-	4	Jacksonville, Fla.	151	95	40	10	2	4	10
Hartford, Conn.	48	27	17	3	1	-	7	Miami, Fla.	122	86	21	9	3	3	7
Lowell, Mass.	34	27	3	3	-	1	5	Norfolk, Va.	57	38	11	6	-	2	5
Lynn, Mass.	7	6	1	-	-	-	2	Richmond, Va.	54	35	14	2	1	2	5
New Bedford, Mass.	31	24	3	3	-	1	3	Savannah, Ga.	54	39	10	4	-	1	4
New Haven, Conn.	25	16	8	-	-	1	3	St. Petersburg, Fla.	69	48	13	4	1	3	2
Providence, R.I.	116	79	26	3	4	4	14	Tampa, Fla.	189	135	39	11	1	3	13
Somerville, Mass.	4	4	-	-	-	-	1	Washington, D.C.	162	94	48	13	5	2	2
Springfield, Mass.	53	34	16	1	2	-	2	Wilmington, Del.	14	11	2	1	-	-	1
Waterbury, Conn.	42	31	9	2	-	-	2	E.S. CENTRAL	892	609	181	74	12	15	78
Worcester, Mass.	53	40	11	2	-	-	5	Birmingham, Ala.	215	150	36	22	2	4	14
MID. ATLANTIC	2,192	1,522	450	147	36	26	151	Chattanooga, Tenn.	93	64	14	13	1	1	7
Albany, N.Y.	56	37	12	5	1	1	4	Knoxville, Tenn.	108	81	16	9	2	-	6
Allentown, Pa.	24	23	1	-	-	-	1	Lexington, Ky.	52	34	13	3	2	-	9
Buffalo, N.Y.	125	96	17	7	2	3	14	Memphis, Tenn.	195	126	46	14	4	5	31
Camden, N.J.	30	16	10	3	-	1	5	Mobile, Ala.	84	58	21	3	1	1	2
Elizabeth, N.J.	16	9	4	1	2	-	1	Montgomery, Ala.	29	24	4	-	-	1	2
Erie, Pa.	36	31	4	1	-	-	6	Nashville, Tenn.	116	72	31	10	-	3	7
Jersey City, N.J.	47	31	8	5	3	-	-	W.S. CENTRAL	1,614	1,013	366	127	65	42	112
New York City, N.Y.	1,123	777	236	73	17	10	61	Austin, Tex.	80	54	19	5	1	1	9
Newark, N.J.	47	23	13	9	2	-	8	Baton Rouge, La.	29	21	6	1	-	1	1
Paterson, N.J.	18	9	7	2	-	-	2	Corpus Christi, Tex.	U	U	U	U	U	U	U
Philadelphia, Pa.	295	190	67	29	5	4	11	Dallas, Tex.	209	115	45	32	8	9	11
Pittsburgh, Pa. [§]	33	22	8	1	-	2	-	El Paso, Tex.	97	67	21	3	5	1	7
Reading, Pa.	20	16	3	-	1	-	4	Ft. Worth, Tex.	105	68	21	11	3	2	9
Rochester, N.Y.	141	108	28	3	-	2	12	Houston, Tex.	372	214	78	35	32	13	25
Schenectady, N.Y.	26	23	3	-	-	-	3	Little Rock, Ark.	50	31	14	3	1	1	-
Scranton, Pa.	25	18	5	1	1	-	1	New Orleans, La.	42	21	13	5	3	-	-
Syracuse, N.Y.	66	52	11	1	-	2	12	San Antonio, Tex.	345	227	79	23	8	7	20
Trenton, N.J.	25	16	5	1	1	1	1	Shreveport, La.	104	72	24	2	2	4	17
Utica, N.Y.	12	8	2	2	-	-	1	Tulsa, Okla.	181	123	46	7	2	3	13
Yonkers, N.Y.	27	17	6	3	1	-	4	MOUNTAIN	864	623	154	63	14	10	65
E.N. CENTRAL	1,993	1,383	397	129	47	32	148	Albuquerque, N.M.	112	78	18	16	-	-	9
Akron, Ohio	62	42	10	4	2	4	6	Boise, Idaho	52	37	9	4	1	1	4
Canton, Ohio	50	41	8	-	-	1	3	Colorado Springs, Colo.	57	45	7	4	-	1	3
Chicago, Ill.	356	221	80	35	15	4	30	Denver, Colo.	110	78	25	6	-	1	6
Cincinnati, Ohio	79	58	7	9	3	2	10	Las Vegas, Nev.	218	161	34	15	3	5	13
Cleveland, Ohio	113	77	29	5	1	1	4	Ogden, Utah	29	26	2	1	-	-	3
Columbus, Ohio	206	136	48	16	4	2	12	Phoenix, Ariz.	U	U	U	U	U	U	U
Dayton, Ohio	97	75	18	2	2	-	8	Pueblo, Colo.	29	20	8	-	1	-	4
Detroit, Mich.	196	125	49	14	7	1	12	Salt Lake City, Utah	114	71	29	7	6	1	16
Evansville, Ind.	45	36	4	4	-	1	3	Tucson, Ariz.	143	107	22	10	3	1	7
Fort Wayne, Ind.	65	48	11	5	1	-	4	PACIFIC	1,515	1,100	253	97	31	32	118
Gary, Ind.	20	14	5	1	-	-	-	Berkeley, Calif.	10	9	1	-	-	-	1
Grand Rapids, Mich.	50	31	10	3	1	1	5	Fresno, Calif.	97	72	11	12	2	-	9
Indianapolis, Ind.	159	111	36	6	2	4	13	Glendale, Calif.	13	10	-	3	-	-	3
Lansing, Mich.	66	47	13	1	2	3	1	Honolulu, Hawaii	81	59	13	4	1	3	3
Milwaukee, Wis.	143	101	30	6	1	5	14	Long Beach, Calif.	70	45	14	7	1	3	7
Peoria, Ill.	59	49	7	2	1	-	5	Los Angeles, Calif.	240	173	40	17	8	2	13
Rockford, Ill.	60	48	6	3	2	1	8	Pasadena, Calif.	30	22	3	3	-	2	2
South Bend, Ind.	70	52	12	4	1	1	4	Portland, Ore.	90	64	17	3	3	2	13
Toledo, Ohio	97	71	14	9	2	1	6	Sacramento, Calif.	200	146	39	9	4	2	17
Youngstown, Ohio	U	U	U	U	U	U	U	San Diego, Calif.	174	126	28	11	4	5	10
W.N. CENTRAL	539	406	84	27	9	13	43	San Francisco, Calif.	U	U	U	U	U	U	U
Des Moines, Iowa	80	61	17	1	1	-	10	San Jose, Calif.	197	144	34	11	3	5	24
Duluth, Minn.	16	13	-	2	1	-	-	Santa Cruz, Calif.	40	32	6	2	-	-	1
Kansas City, Kans.	39	25	8	5	-	1	6	Seattle, Wash.	119	77	24	9	3	6	3
Kansas City, Mo.	90	61	17	8	-	4	4	Spokane, Wash.	54	45	6	2	-	1	8
Lincoln, Nebr.	36	30	5	1	-	-	1	Tacoma, Wash.	100	76	17	4	2	1	4
Minneapolis, Minn.	47	37	6	2	1	1	7	TOTAL	11,611 [¶]	7,969	2,362	803	247	210	854
Omaha, Nebr.	72	62	3	1	4	2	5								
St. Louis, Mo.	U	U	U	U	U	U	U								
St. Paul, Minn.	57	47	6	2	-	2	5								
Wichita, Kans.	102	70	22	5	2	3	5								

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.

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