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Recovery of a Patient from Clinical Rabies — Wisconsin, 2004

Rabies is a viral infection of the central nervous system, usually contracted from the bite of an infected animal, and is nearly always fatal without proper postexposure prophylaxis (PEP) (*1*). In October 2004, a previously healthy female aged 15 years in Fond du Lac County, Wisconsin, received a diagnosis of rabies after being bitten by a bat approximately 1 month before symptom onset. This report summarizes the investigation conducted by the Wisconsin Division of Public Health (WDPH), the public health response in Fond du Lac County, and the patient's clinical course through December 17. This is the first documented recovery from clinical rabies by a patient who had not received either pre- or postexposure prophylaxis for rabies.

While attending a church service in September, the girl picked up a bat after she saw it fall to the floor. She released the bat outside the building; it was not captured for rabies testing, and no one else touched the bat. While handling the bat, she was bitten on her left index finger. The wound was approximately 5 mm in length with some blood present at the margins; it was cleaned with hydrogen peroxide. Medical attention was not sought, and rabies PEP was not administered.

Approximately 1 month after the bat bite, the girl complained of fatigue and tingling and numbness of the left hand. These symptoms persisted, and 2 days later she felt unsteady and developed diplopia (i.e., double vision). On the third day of illness, with continued diplopia and onset of nausea and vomiting, she was examined by her pediatrician and referred to a neurologist. At that time, the patient continued to have blurred vision and also had partial bilateral sixth-nerve palsy. Magnetic resonance imaging (MRI) with and without contrast and magnetic resonance angiography (MRA) studies of her brain were normal, and the patient was sent home.

On the fourth day of illness, the patient's symptoms continued, and she was admitted to a local hospital for lumbar puncture and supportive care. On admission, she was afebrile, alert, and able to follow commands. She had partial sixth-nerve palsy, blurred vision, and unsteady gait. Standard precautions for infection control were observed. Lumbar puncture revealed a white blood cell count of 23 cells/μL (normal: 0 cells/μL) with 93% lymphocytes, a red blood cell count of 3 cells/μL (normal: 0 cells/μL), a protein concentration of 50 mg/dL (normal: 15–45 mg/dL), and a glucose concentration of 58 mg/dL (normal: 40–70 mg/dL). During the next 36 hours, she had slurred speech, nystagmus, tremors of the left arm, increased lethargy, and a temperature of 102°F (38.9°C).

On the sixth day of illness, the bat-bite history was reported, and rabies was considered in the differential diagnosis. The patient was transferred to a tertiary care hospital. Because rabies was recognized as a possibility, expanded infection-control measures, including droplet precautions and one-to-one nursing, were instituted at time of transport. On arrival, the patient had a temperature of 100.9°F (38.3°C), impaired muscular coordination, difficulty speaking, double vision, muscular twitching, and tremors in the left arm. She was somewhat obtunded but answered questions appropriately and complied with commands.

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Blood serum, cerebrospinal fluid (CSF), nuchal skin samples, and saliva were submitted to CDC for rabies testing. MRI with and without contrast and angiogram/venogram sequences were normal. She had hypersalivation and was intubated. Rabies-virus–specific antibodies were detected in the patient's serum and CSF. Direct fluorescent antibody staining of nuchal skin biopsies was negative for viral antigen, and rabies virus was not isolated from saliva by cell culture. Rabies-virus RNA was not detectable by reverse transcriptase polymerase chain reaction assay of either sample. Therefore, identification of the virus variant responsible for this infection was not possible.

Clinical management of the patient consisted of supportive care and neuroprotective measures, including a drug-induced coma and ventilator support. Intravenous ribavirin was used under an investigational protocol. The patient was kept comatose for 7 days; during that period, results from lumbar puncture indicated an increase in antirabies IgG by immunofluorescent assay from 1:32 to 1:2,048. Her coma medications were tapered, and the patient became increasingly alert. On the 33rd day of illness, she was extubated; 3 days later she was transferred to a rehabilitation unit. At the time of transfer, she was unable to speak after prolonged intubation. As of December 17, the patient remained hospitalized with steady improvement. She was able to walk with assistance, ride a stationary cycle for 8 minutes, and feed herself a soft, solid diet. She solved math puzzles, used sign language, and was regaining the ability to speak. The prognosis for her full recovery is unknown.

To provide community members accurate information about rabies and its transmission, local and state health officials held a press conference on October 21. Public health officials and community pediatricians visited the patient's school to assess the need for rabies prophylaxis among students. WDPH distributed assessment tools to the local health department to screen health-care workers and community contacts of the patient for exposure to potentially infectious secretions. The patient's five family members, five of 35 health-care workers, and 27 of 55 community contacts received rabies PEP, either because of exposure to the patient's saliva during sharing of beverages or food items or after contact with vomitus. No health-care workers at the tertiary care hospital required PEP. Site inspection of the church revealed no ongoing risk for exposure to bats.

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Editorial Note: This case represents the sixth known occurrence of human recovery after rabies infection; however, the case is unique because the patient received no rabies prophylaxis either before or after illness onset. Historically, the mortality rate among previously unvaccinated rabies patients has been 100% (*2*). The five previous patients who survived were either previously vaccinated (*3*) or received some form of PEP before the onset of illness (*4–7*). As in this case, viral antigen was not detected nor was virus isolated from those patients; increased antibody titers detected in serum and CSF (inconsistent with vaccination alone) confirmed the diagnosis of clinical rabies. Only one of the five patients recovered without neurologic sequelae (*4*). No specific course of treatment for rabies in humans has been demonstrated to be effective, but a combination of treatments, which might include rabies vaccine, rabies immune globulin, monoclonal antibodies, ribavirin, interferon-alpha, or ketamine, has been proposed (*2*). Given the lack of therapeutic utility observed to date, and because the patient had rabies-virus–neutralizing antibodies on diagnosis, a decision was made to avoid use of immunemodulators (e.g., rabies vaccine, rabies immune globulin, or interferon). However, the particular benefits of the regimen received by this patient remain to be determined.

The history of a bat bite 1 month before this patient's illness suggests an etiology of bat-associated rabies-virus variant. This is consistent with the epidemiologic pattern of rabies in humans in the United States during the preceding 2 decades. During 1980–2000, a total of 26 (74%) of rabies-virus variants obtained from patients in the United States were associated with insectivorous bats, most commonly silver-haired and eastern pipistrelle bats (*8,9*), including a variant from a fatal case of rabies reported in Wisconsin in 2000 (*10*).

In this case, only five health-care workers received PEP. Previous reports of rabies cases have noted large numbers of contacts being treated (*8*); however, delivery of health care to a patient with rabies is not an indication for PEP unless the mucuous membranes or open wound of a health-care worker are contaminated by infectious material (e.g., saliva, tears, CSF, or neurologic tissue). Adherence to standard precautions for infection control will minimize the risk for exposure (*1*).

Rabies in humans is preventable with proper wound care and timely and appropriate administration of PEP before onset of clinical disease (*1*). PEP is recommended for all persons with a bite, scratch, or mucous-membrane exposure to a bat, unless the bat tests negative for rabies. When direct contact between a human and a bat has occurred and the animal is not available for testing, PEP should be administered when a strong probability of exposure exists. However, if a bat bite is unrecognized or if the significance of exposure is underestimated, medical intervention might not be sought and appropriate treatment not administered. Once clinical signs of rabies are evident, a progressive and usually fatal encephalitis ensues.

This report underscores the need for increasing public awareness to minimize the risk for rabies following contact with bats and other wildlife. Persons bitten by a potentially rabid animal should immediately 1) wash the wound thoroughly with soap and water, 2) capture the animal (if this can be done safely by avoiding direct contact) and submit it for testing or quarantine, 3) contact local or state public health officials, and 4) visit a physician for treatment and evaluation regarding the need for PEP. Persons should not handle or keep bats as pets and should keep bats away from living quarters and public places. Despite the recovery of this patient, no proven therapy for clinical rabies has been established, and the reasons for recovery in this case are unknown. Clinicians and the public should recognize the risk for contracting rabies from any direct contact with bats and not regard it as a curable disease on the basis of the outcome of this case.

Acknowledgments

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References

1. CDC. Human rabies prevention—United States, 1999: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1999;48(No. RR-1).
2. Jackson AC, Warrell MJ, Rupprecht CE, et al. Management of rabies in humans. Clin Infect Dis 2003;36:60–3.
3. CDC. Rabies in a laboratory worker—New York. MMWR 1977;26:183–4.
4. Hattwick MA, Weis TT, Stechschulte CJ, Baer GM, Gregg MB. Recovery from rabies. A case report. Ann Intern Med 1972;76: 931–42.
5. Porras C, Barboza JJ, Fuenzalida E, Adaros HL, Oviedo AM, Furst J. Recovery from rabies in man. Ann Intern Med 1976;85:44–8.
6. Alvarez L, Fajardo R, Lopez E, et al. Partial recovery from rabies in a nine-year-old boy. Pediatr Infect Dis J 1994;13:1154–5.
7. Madhusudana SN, Nagaraj D, Uday M, Ratnavalli E, Kumar MV. Partial recovery from rabies in a six-year-old girl. Int J Infect Dis 2002;6:85–6.
8. Noah DL, Drenzek CL, Smith JS, et al. Epidemiology of human rabies in the United States, 1980 to 1996. Ann Intern Med 1998;128:922–30.
9. CDC. Human death associated with bat rabies—California, 2003. MMWR 2004;53:33–5.
10. CDC. Human rabies—California, Georgia, Minnesota, New York, and Wisconsin, 2000. MMWR 2000;49:1111–5.

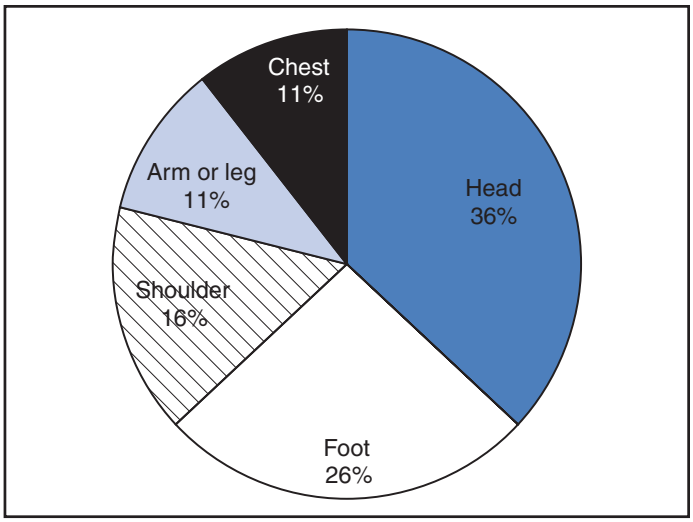
New Year's Eve Injuries Caused by Celebratory Gunfire — Puerto Rico, 2003

Bullets fired into the air during celebrations fall with sufficient force to cause injury and death (*1*). However, few data exist regarding the epidemiology of injuries related to celebratory gunfire. In Puerto Rico, where such celebratory actions are common, news media reports have indicated that approximately two persons die and an estimated 25 more are injured each year from celebratory gunfire on New Year's Eve. The Puerto Rico Department of Health (PRDOH) invited CDC and local law enforcement agencies to assist in the investigation of injuries resulting from celebratory gunfire that occurred during December 31, 2003–January 1, 2004. This report summarizes the findings of that investigation, which determined that 1) bullets from probable celebratory gunfire caused 19 injuries, including one death and 2) such injuries affected a higher percentage of women and children aged <15 years than injuries from noncelebratory gunfire, with the majority occurring in certain public housing areas in densely populated, metropolitan San Juan. Education and enforcement of existing laws are needed to prevent these injuries.

A probable celebratory gunfire injury was defined as an unintentional firearm injury (*International Classification of Diseases, Tenth Revision* codes W32–W34 [*2*]) inflicted outdoors by an unidentified assailant during the 48-hour period beginning 12 a.m., December 31, 2003, and ending 11:59 p.m., January 1, 2004. Available information regarding the injury or event had to be consistent with the return trajectory of a bullet fired into the air. Cases were identified from newspaper and law enforcement reports and hospital and medical examiner records. For persons who sustained injuries from celebratory gunfire, information was collected on age, sex, time of injury, injury severity, body location of injury, and geographic location where the injury occurred. Age and sex information were also collected for persons who sustained injuries from noncelebratory gunfire that occurred during the study period.

During the 2-day period, 43 persons were injured by gunfire. Of these injuries, 28 (65%) were identified as unintentional; 19 (68%) of those met the case definition for probable celebratory gunfire injuries. Median age of the 19 persons injured from celebratory gunfire was 24 years (range: 4 months–82 years); 12 (63%) were male. Four (21%) persons were hospitalized, including one who died from a head injury. The most common body location for injury from celebratory gunfire was the head (36%), followed by foot (26%) and shoulder (16%) (Figure 1).

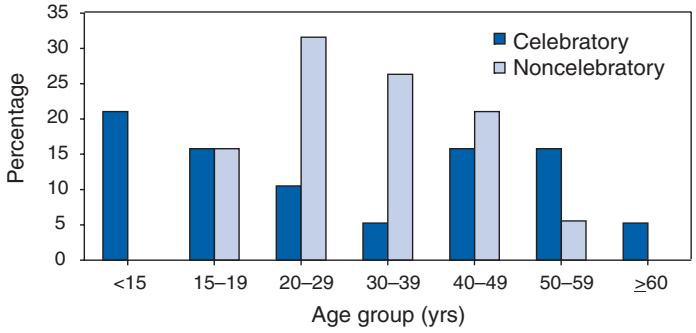
FIGURE 1. Celebratory gunfire injuries, by body location — Puerto Rico, December 31, 2003–January 1, 2004



Of the 19 injuries, 18 (95%) occurred in metropolitan San Juan; 14 (78%) occurred among persons in 10 of the city's 51 public housing areas. Four public housing areas accounted for eight (42%) cases. Eight (42%) injuries occurred during 6 p.m.–10 p.m. on December 31, 2003, and nine (47%) injuries occurred between 10 p.m. on December 31, 2003, and 2 a.m. on January 1, 2004.

The sex and age of the 19 persons with a probable celebratory gunfire injury were compared with the sex and age of 24 other persons with a noncelebratory gunfire injury. Seven (37%) persons who sustained injuries from celebratory gunfire were female, compared with three (13%) females among 24 persons with injuries from noncelebratory gunfire. Four (21%) persons who sustained injuries from celebratory gunfire were children aged <15 years; no injuries from noncelebratory gunfire occurred among this age group (Figure 2).

FIGURE 2. Percentage of persons injured by celebratory and noncelebratory gunfire, by age group — Puerto Rico, December 31, 2003–January 1, 2004



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Editorial Note: When fired into the air, bullets can return to the ground at speeds greater than 200 ft./sec., a sufficient force to penetrate the human skull and cause serious injury or death (*1*). News media reports from around the world suggest that celebratory gunfire injuries might be a widespread public health problem; however, further data are needed to determine the extent of the problem. The data presented in this report indicate that bullets from probable celebratory gunfire caused 19 injuries, including one death, during December 31, 2003–January 1, 2004, in Puerto Rico. These injuries primarily occurred at midnight on December 31 in a limited number of public housing areas. Celebratory gunfire injuries affected a high percentage of children and females, populations not typically at high risk for such injuries. These findings are consistent with a previous study of celebratory gunfire injuries in a metropolitan area (*1*).

Firearm-related injuries are a significant public health concern in Puerto Rico. In 2001, a total of 738 deaths were attributed to firearm injuries, a rate of 19.2 per 100,000 population, which is substantially higher than the U.S. national rate (10.4) and higher than the rates for all U.S. states (*3*). The celebratory gunfire injuries described in this report represent a small but preventable proportion of firearm injuries in Puerto Rico.

The findings in this report are subject to at least three limitations. First, no standards exist for defining cases of celebratory gunfire injuries. For example, the "lost bullet" classification used by Puerto Rico law enforcement does not differentiate between falling bullets and stray bullets. The data sources used in this study were not developed for identifying celebratory gunfire injuries and provided limited context information, preventing definitive confirmation of falling bullet trajectory for some injuries. In addition, law enforcement records did not record injury severity, and not all medical records contained adequate information to determine injury severity; therefore, injury severity was not analyzed. Second, the lack of electronic databases containing records for previous years limited evaluation of possible trends. Finally, no information was available regarding persons who used firearms, and no direct information was available from victims and witnesses, who might have provided information about the circumstances of the injuries.

To limit celebratory gunfire, in 2002, the Puerto Rico legislature increased penalties for reckless discharge of firearms. In addition, previous prevention efforts by PRDOH included a public awareness campaign advising residents to remain indoors from 11 p.m. on New Year's Eve to 2 a.m. on New Year's Day (J. Alonso, MD, PRDOH, personal communication, 2004). PRDOH, in collaboration with local law enforcement and the Puerto Rico Departments of Family, Housing, and Education, is participating in a multi-agency prevention effort for New Year's Eve 2004 to reduce celebratory gunfire injuries.

On the basis of this study, investigators made several recommendations to the Puerto Rico Ministry of Health. First, existing laws against celebratory gunfire should be actively enforced. Second, PRDOH, in collaboration with community leaders of public housing areas, should develop a campaign focused on changing attitudes and behaviors toward celebratory gunfire in these areas. Third, to minimize the risk for injury from celebratory gunfire, residents should remain indoors from 6 p.m. on New Year's Eve to 2 a.m. on New Year's Day. Finally, to more accurately monitor these and other injuries over time, an emergency department–based injury surveillance system should be implemented.

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References

1. Ordog GJ, Dornhoffer P, Ackroyd G, et al. Spent bullets and their injuries: the result of firing weapons into the sky. J Trauma 1994;37:1003–6.
2. World Health Organization. International statistical classification of diseases and related health problem, tenth revision. Geneva, Switzerland: World Health Organization; 1992.
3. CDC. Deaths: final data for 2001. Natl Vital Stat Rep 2003;52(3).

Survey of Airport Smoking Policies — United States, 2002

Exposure to secondhand smoke (SHS) causes approximately 38,000 deaths among nonsmokers each year in the United States (*1,2*). The Task Force on Community Preventive Services has documented strong scientific evidence that smoking bans and restrictions are effective in reducing exposure to SHS (*3*). In 2002, an estimated 1.9 million workers had jobs at U.S. airports, and more than 1.9 million passengers per day passed through these airports (*4*). During the fall of 2002, the Center for Health Promotion and Disease Prevention at the Henry Ford Health System (Detroit, Michigan) conducted

the Airport Smoking Policy Survey. This report summarizes the key findings from that survey, which indicated that 61.9% of airports reported being smoke-free in 2002 and that larger airports, which account for the majority of passenger boardings, were less likely than smaller airports to have a smoke-free policy. Increased adoption and enforcement of smoke-free policies are needed to protect the health of workers and travelers at U.S. airports.

During September–November 2002, a cross-sectional telephone survey was conducted with appropriate personnel at primary commercial-service airports. Primary commercial-service airports are defined as airports having more than 10,000 passenger boardings per year. These airports receive hub size designations (i.e., large hub, medium hub, small hub, and nonhub) from the Federal Aviation Administration (FAA) based on the percentage share of total U.S. passenger boardings an airport accounted for during the previous calendar year (*5*). Large hubs account for at least 1% of total passenger boardings by scheduled air carriers in the 50 states, the District of Columbia, and other U.S. areas designated by FAA; medium hubs account for 0.99%–0.25%; small hubs account for 0.249%–0.05%; and nonhubs account for less than 0.05% but more than 10,000 boardings annually.

Using 2001 FAA passenger boarding data, the survey targeted all large- (n = 31), medium- (n = 35), and small-hub (n = 71) airports and a simple random sample of nonhub airports (64 of 282). Large-hub, medium-hub, small-hub, and nonhub airports accounted for 69.3%, 19.8%, 7.6%, and 3.2%, respectively, of all U.S. passenger boardings in 2001 (*5*). The survey collected information on the locations (if any) where smoking was allowed at the airport; whether designated smoking areas were enclosed or physically separated from the rest of the airport and whether they had a separate ventilation system; whether airports required smokers to be a minimal distance from airport entrances while smoking outside airport buildings; and methods by which the no-smoking message was communicated to employees, passengers, and visitors at the airport (i.e., written policies, signage, or announcements on the public address system). For this study, a smoke-free airport was defined as an airport that prohibited smoking by anyone, anywhere, and at any time inside the airport. Overall, 197 (98.0%) of the targeted airports participated in the survey, including all 31 large-hub, 34 of 35 medium-hub, 69 of 71 small-hub, and 63 of 64 nonhub airports.

Survey results demonstrated airport size to be inversely related to the percentage of airports having a smoke-free policy (Table 1). Smoke-free policies were reported by 122 (61.9%) airports, including 13 (41.9%) large-hub airports, 18 (52.9%) medium-hub airports, 40 (58.0%) small-hub airports, and 51 (81.0%) nonhub airports.

Among smoke-free airports, the percentage having a written smoking policy varied by hub size, with 76.9% of large-hub, 66.7% of medium-hub, 65.0% of small-hub, and 82.4% of nonhub airports having a written policy. The majority of smoke-free airports (93.4%) had signage concerning their smoke-free policy. Large-hub airports were more likely to report having public address announcements about their smoking policy than were airports of smaller hub size (Table 1).

Travelers and airport employees are also at risk for being exposed to SHS when entering, leaving, or working outside of airport buildings. The 122 smoke-free airports were more likely to have designated outdoor smoking areas (71.3%) than were the 75 non–smoke-free airports (44.0%) (Table 2). Smoke-free airports were also more likely (55.7%) than non–smoke-free airports (20.0%) to require that persons maintain a minimum distance from entrances when smoking outside airport buildings.

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TABLE 1. Percentage of U.S. airports that are smoke-free and percentage of smoke-free airports having written policies, signage, and public address announcements to communicate the prohibition of smoking, by hub size* — United States, 2002

	Airports			Smoke-free airports		
		Smoke-free				
Hub size	Total no.	No.	(%)	Written policies %	Signage %	Announcements %
Large	**31**	13	(41.9)	76.9	92.3	84.6
Medium	**34**	18	(52.9)	66.7	83.3	50.0
Small	**69**	40	(58.0)	65.0	92.5	46.2
Nonhub	**63**	51	(81.0)	82.4	98.0	11.8

* Federal Aviation Administration hub-size designations are based on the percentage share of total U.S. passenger boardings an airport accounted for during the previous calendar year (*5*).

TABLE 2. Percentage of airports having policies regarding smoking outside of the airport, by hub size* — United States, 2002

	Have designated outdoor smoking areas		Require smokers to be a minimum distance from entrances to airport buildings	
Hub size	Smoke-free airports %	Non–smoke-free airports %	Smoke-free airports %	Non–smoke-free airports %
Large	100.0	44.4	100.0	33.3
Medium	72.2	56.3	77.8	31.3
Small	80.0	34.5	65.0	10.3
Nonhub	56.9	50.0	29.4	8.3

* Federal Aviation Administration hub-size designations are based on the percentage share of total U.S. passenger boardings an airport accounted for during the previous calendar year (*5*).

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Editorial Note: The results of the Airport Smoking Policy Survey indicate that travelers and employees at many U.S. airports lack adequate protection from SHS. At the time of the survey, fewer than half of large-hub airports, which service nearly 70% of all airline travelers passing through U.S. airports, were smoke-free. As a result of heightened security following the attacks of September 11, 2001, travelers and airline employees are spending more time in and around U.S. airports and might now be at greater risk for prolonged exposure. SHS is a known human carcinogen (*6*), and the Surgeon General has concluded that exposure to SHS causes lung cancer among persons who have never smoked (*7*). The workplace is a major source of SHS exposure, and workplace exposure to SHS is a key predictor of total exposure to tobacco smoke as measured by levels of cotinine, a metabolite of nicotine (*2*). No safe level of exposure to SHS is known. A recent study indicated that nonsmokers who spent as little as 4 hours in a well-ventilated casino that permitted smoking had significant increases in NNK [4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone], a tobacco-specific lung carcinogen (*8*). Moreover, low levels of exposure increase the risk for acute myocardial infarction and coronary heart disease (*9*). Therefore, airport employees and travelers, like employees and patrons at any workplace that permits smoking, are at elevated risk for death and disease caused by SHS (*10*).

Public health authorities recommend that smoking be prohibited in all indoor environments. Smoking lounges and designated smoking areas do not provide sufficient protection because tobacco smoke drifts from smoking to no-smoking areas and smoke-contaminated air is recirculated through a common ventilation system in most buildings where smoking is allowed. When smoking is permitted indoors, authorities recommend that it be confined to a designated area that is separately ventilated and physically separated from adjacent no-smoking areas (*10*).

The findings in this report are subject to at least four limitations. First, the data are based on self-reports of survey participants. However, whenever possible, the survey interviewer spoke with airport personnel who were in the best position to answer the questions in the survey, and follow-up telephone contacts were made whenever necessary to maximize the accuracy and completeness of the information collected. Second, not all medium-, small-, and nonhub airports responded to the survey. However, because nonresponse rates were low (2.9%, 2.8%, and 1.6% for medium-, small-, and nonhub airports, respectively), this potential bias was minimal. Third, the study did not measure the level of tobacco-smoke constituents within the airport environments. Finally, the study did not measure compliance with or enforcement of smoke-free airport policies, and the results might underestimate potential exposure to SHS. Poor compliance with or failure to publicize and enforce smoke-free airport policies would provide little if any protection from SHS exposure among travelers and airport employees. Further studies are needed to assess compliance with and enforcement of smoke-free airport policies to verify the elimination of SHS at "smoke-free" airports.

Since the Airport Smoking Policy Survey was completed in November 2002, Connecticut, Delaware, Maine, Massachusetts, and New York have joined California in adopting statewide legislation requiring all workplaces (including restaurants and bars) to be smoke-free. The adoption of smoke-free workplace legislation in these states means that eight additional airports (two large-hub, two medium-hub, and four small-hub airports) that were not smoke-free at the time the survey was conducted are now smoke-free. Several other states and localities are currently considering the adoption of smoke-free workplace legislation, which would further increase the number of smoke-free airports. Nevertheless, the findings from this study demonstrate that many U.S. airports are still not smoke-free and that further efforts are needed to protect airline travelers and airport employees from exposure to SHS at U.S. airports.

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References

1. CDC. Annual smoking-attributable mortality, years of potential life lost, and economic costs—United States, 1995–1999. MMWR 2002;51:300–3.
2. National Cancer Institute. Health effects of exposure to environmental tobacco smoke: the report of the California Environmental Protection Agency. Smoking and tobacco control monograph no. 10. Bethesda, MD: US Department of Health and Human Services, National Institutes of Health, National Cancer Institute; 1999. NIH pub. no. 99-4645.
3. CDC. Strategies for reducing exposure to environmental tobacco smoke, increasing tobacco-use cessation, and reducing initiation in communities and health-care systems: a report of recommendations of the Task Force on Community Preventive Services. MMWR 2000;49(No. RR–12).
4. Airports Council International. The economic impact of U.S. airports 2002. Washington, DC: Airports Council International; 2003. Available at http://www.aci-na.org/docs/us_econ_impact.pdf.

5. Federal Aviation Administration. Enplanement data for primary airports in the United States. Washington, DC: US Department of Transportation, Federal Aviation Administration; 2002. Available at http://www.faa.gov/arp/planning/stats/2001/prim01.xls.
6. National Toxicology Program. Tenth report on carcinogens. Research Triangle Park, NC: US Department of Health and Human Services, National Institute of Environmental Health Sciences; 2002. Available at http://ehp.niehs.nih.gov/roc/toc10.html.
7. US Department of Health and Human Services. Women and smoking: a report of the Surgeon General. Rockville, MD: US Department of Human and Human Services, Public Health Service, Office of the Surgeon General; 2001.
8. Anderson KE, Kliris J, Murphy L, et al. Metabolites of a tobacco-specific lung carcinogen in nonsmoking casino patrons. Cancer Epidemiol 2003;12:1544–6.
9. Pechacek TF, Babb S. How acute and reversible are the cardiovascular risks of secondhand smoke? BMJ 2004;328:980–3.
10. Davis RM. Exposure to environmental tobacco smoke: identifying and protecting those at risk. JAMA 1998;280:1947–9.

Alcohol Consumption Among Women Who Are Pregnant or Who Might Become Pregnant — United States, 2002

Alcohol use during pregnancy is associated with health problems that adversely affect the mother and fetus (*1,2*); no level of alcohol consumption during pregnancy has been determined safe (*3*). Fetal alcohol syndrome (FAS) is recognized as the foremost preventable condition involving neurobehavioral and developmental abnormalities (*1*). Women who drink during pregnancy place themselves at risk for having a child with FAS or fetal alcohol spectrum disorders (FASD) (*4*). To determine the alcohol consumption patterns among all women of childbearing age, including those who are pregnant or might become pregnant, CDC analyzed data for women aged 18–44 years from the 2002 Behavioral Risk Factor Surveillance System (BRFSS) survey (*5*). The results of that analysis indicated that approximately 10% of pregnant women used alcohol, and approximately 2% engaged in binge drinking or frequent use of alcohol. The results further indicated that more than half of women who did not use birth control (and therefore might become pregnant) reported alcohol use and 12.4% reported binge drinking. Women who are pregnant or who might become pregnant should abstain from alcohol use (*3*).

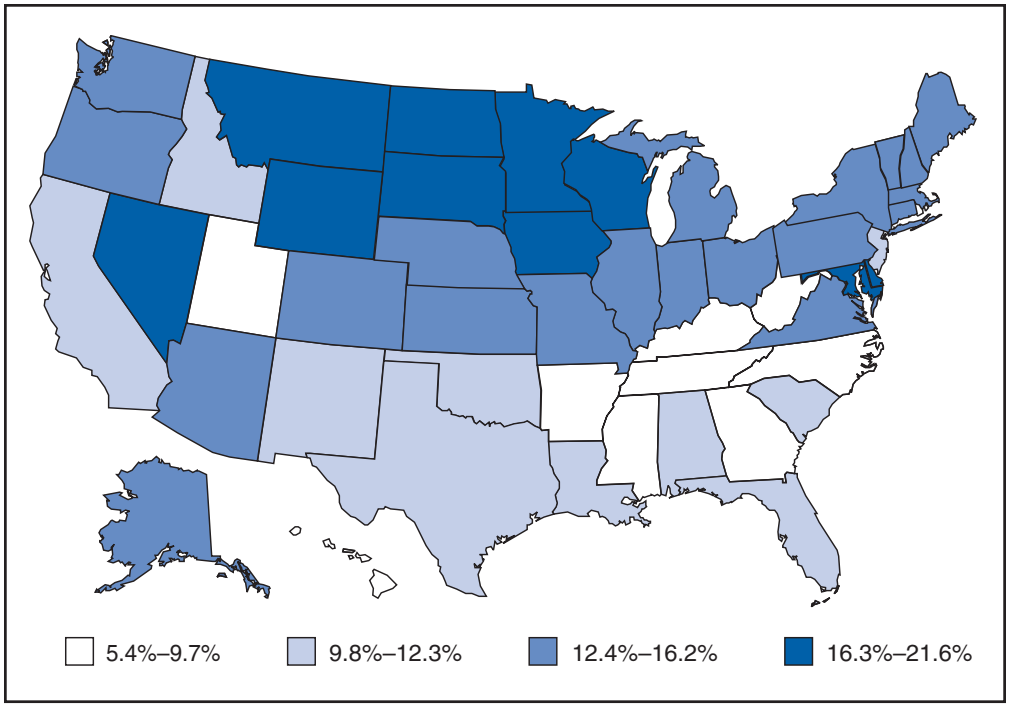
CDC monitors the prevalence of alcohol use among women of childbearing age through BRFSS. In 2002, with the inclusion of a family planning module in the BRFSS survey, information became available to assess the alcohol consumption patterns among pregnant women and also among women who might become pregnant. BRFSS is a monthly, state-based, random-digit–dialed telephone survey of the U.S. civilian, noninstitutionalized population aged ≥18 years in all 50 states, the District of Columbia, and three U.S. territories (*5*). In 2002, the median state/area response rate was 58.3% (range: 42.2%–82.6%). For 2002, a total of 64,181 women aged 18–44 years were included as the general population of childbearing-aged women. Participants were asked about their use of alcohol during the 30 days preceding the interview. Alcohol usage questions included the number of days per week or month the respondents had at least one drink, the average number of drinks consumed on a drinking day, the number of times the respondents had five or more drinks per occasion, and the number of times they drove when they had "perhaps too much to drink." The following alcohol consumption patterns were assessed: any use (at least one drink on one occasion), binge drinking (five or more drinks on one occasion), and frequent drinking (seven or more drinks in a week or binge drinking). In addition, women were asked whether they or their partners were doing anything to prevent pregnancy. Reasons were collected from women who responded that they or their sex partners were not doing anything to prevent pregnancy.

For this analysis, 4,404 women who might become pregnant were defined as those who were not using any type of birth control and provided one of the following reasons: wanted a pregnancy (52.4%), did not care whether pregnancy occurred (19.1%), did not think they would become pregnant (14.3%), did not want to use birth control (5.7%), feared the side effects of birth control (4.2%), thought they were too old to become pregnant (1.8%), could not pay for birth control (1.3%), or had lapsed in use of a method (1.2%). Excluded from this defined category were women who were not sexually active, had a same-sex partner, had no sex partner, had undergone sterilization or hysterectomy, were postpartum breastfeeding, were currently pregnant, had other unspecified reasons for not using birth control, or did not provide any reason. Prevalences for alcohol consumption patterns were calculated for women who were pregnant, those who might become pregnant, and women of childbearing age overall.

A total of 2,689 women reported that they were pregnant. Because of the limited number of pregnant women available in the 2002 BRFSS sample population, additional analyses were performed by focusing only on the demographic characteristics of women who might become pregnant and who engaged in binge drinking. To obtain appropriate statistics, weighted data analyses were performed to reflect general population estimates (*6*), and standard errors were calculated by using statistical analysis software.

The 2,689 women who reported that they were pregnant and the 4,404 women who might become pregnant represented population-weighted estimates of 4.7% and 7.6%, respectively. Among those who reported not using birth control, 52.4% said that they wanted to become pregnant. The prevalence of binge drinking was 12.4%, both for childbearing-aged women overall and for those who might become pregnant, and 1.9% for pregnant women (Table 1). The prevalence of frequent drinking was 13.2% for childbearing-aged women overall, 13.1% for women who might become pregnant, and 1.9% for pregnant women. The prevalence of any use of alcohol was 52.6% for the childbearing-aged population overall, 54.9% for women who might become pregnant, and 10.1% for pregnant women (Table 1). Binge drinking prevalences for childbearing-aged women overall varied among participating states, ranging from 21.6% in Wisconsin (95% confidence interval [CI] = 18.8%–24.8%) to 5.4% in Kentucky (CI = 3.8%–7.5%) (Figure).

FIGURE. Prevalence* of binge† drinking among childbearing-aged women (18–44 years), by state — United States, 2002



* Estimated prevalence population weighted to represent U.S. women aged 18–44 years (U.S. average: 12.4%; state range: 5.4%–21.6%).
† Five or more drinks on any one occasion.

To generate odds ratios for the risk of binge drinking among women with selected characteristics, additional analyses using logistic regression were conducted for women who might become pregnant (Table 2). Greater binge-drinking prevalence was observed among younger women, non-Hispanic whites, current smokers, unmarried women, and impaired drivers. These populations also reported more binge-drinking episodes per person per year than did their reference populations (Table 2).

TABLE 1. Prevalence* of alcohol consumption among childbearing-aged women (18–44 years)†, by drinking pattern and pregnancy status — United States, 2002

Pregnancy status	Drinking pattern§	%	(95% CI¶)
Pregnant	Binge**	1.9	(1.3–2.8)
	Frequent use††	1.9	(1.3–2.8)
	Any use	10.1	(8.4–12.1)
Might become pregnant	Binge	12.4	(11.0–14.1)
	Frequent use	13.1	(11.6–14.8)
	Any use	54.9	(52.4–57.4)
All respondents	Binge	12.4	(12.0–12.9)
	Frequent use	13.2	(12.7–13.6)
	Any use	52.6	(51.9–53.3)

* Estimated prevalence population weighted to represent U.S. women aged 18–44 years.
† A total of 64,181 women, including 2,689 who were pregnant and 4,404 who might become pregnant.
§ Categories are not mutually exclusive.
¶ Confidence interval.
** Five or more drinks on one occasion.
†† Seven or more drinks per week or binge drinking.

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Editorial Note: The 2002 BRFSS survey provided an opportunity to monitor alcohol consumption among women of childbearing age, including those who were pregnant and, for the first time at the national level, those who might become pregnant. The results of this analysis indicated that the prevalences of alcohol use among women who might become pregnant were similar to those for childbearing-aged women overall. In addition, the prevalences for childbearing-aged women overall and those who were pregnant were similar to those reported previously (*7*). The findings indicated that more than half of women who might become pregnant reported drinking alcohol, including 12.4% who reported binge drinking and, therefore, were at particular risk for an alcohol-exposed pregnancy (*8*). A dose-response relation has been

TABLE 2. Prevalence* of binge† drinking and number of binge episodes per person among women aged 18–44 years who might become pregnant, by selected characteristics — United States, 2002

Characteristic	Binge drinking %	OR§	(95% CI¶)	Episodes/person/year No.	(95% CI)
Age group (yrs)					
18–24	19.4	2.5	(1.6–4.0)	8.0	(4.6–11.5)
25–34	13.1	1.6	(1.2–2.2)	4.0	(2.9–5.0)
35–44	8.6	1.0	(ref)**	3.0	(1.8–4.2)
Race/Ethnicity					
White, non-Hispanic	15.0	2.3	(1.7–3.3)	5.0	(4.0–6.2)
Nonwhite or Hispanic	7.0	1.0	(ref)	2.2	(1.4–3.0)
Education					
Less than a college degree	13.3	1.2	(0.9–1.7)	4.9	(3.7–6.1)
College degree	11.1	1.0	(ref)	3.1	(1.9–4.3)
Current smoker					
Yes	25.2	3.8	(2.8–5.1)	9.6	(7.0–12.1)
No	8.1	1.0	(ref)	2.5	(1.8–3.2)
Married					
Yes	10.3	1.0	(ref)	3.0	(2.2–3.8)
No	19.6	2.1	(1.5–2.9)	8.5	(5.9–11.0)
Annual income					
<$25,000	11.2	0.8	(0.5–1.3)	4.6	(2.2–7.0)
≥$25,000	13.3	1.0	(ref)	4.4	(3.5–5.5)
Employment					
Yes	13.5	1.3	(1.0–1.8)	5.0	(3.8–6.2)
No	10.3	1.0	(ref)	2.6	(1.8–3.5)
Impaired driver††					
Yes	90.7	78.1	(30.1–202.6)	52.9	(30.8–75.1)
No	11.1	1.0	(ref)	3.5	(2.6–4.2)
Health coverage§§					
Yes	11.7	1.0	(ref)	3.7	(2.8–4.6)
No	15.9	1.4	(1.0–2.0)	7.2	(4.3–10.0)

* Estimated prevalence population weighted to represent U.S. women aged 18–44 years who might become pregnant.
† Five or more drinks on any one occasion.
§ Odds ratio.
¶ Confidence interval.
** Reference value.
†† Based on response to the question: Driven when had perhaps too much to drink?
§§ Based on response to the question: Have any health coverage, including health insurance, HMO, or Medicare?

observed between prenatal alcohol consumption and dysmorphic brain development in the fetus as early as 3–6 weeks' gestation (*2*), a period during which the majority of women might not know they are pregnant. Further studies have determined that alcohol consumption can be associated with prenatal growth delays and neurodevelopmental insults throughout the entire pregnancy (*8*).

The findings in this report are subject to at least two limitations. First, because data were self-reported, they are subject to recall bias (*5*). Second, only women who reported they were not using birth control were counted as women who might become pregnant. Women using ineffective birth control methods were not included, although they might become pregnant because of improper usage or failure of a method.

These findings signal the need for continued efforts to inform all women of childbearing age about the adverse effects of alcohol on pregnancy, and to identify and intervene with those women at higher risk for alcohol-exposed pregnancy (*9*). Providing primary-care screening of childbearing-aged women for alcohol use and risk for pregnancy and initiating intervention when appropriate is essential for prevention of FAS or FASD (*10*).

References

1. Abel EL, Hannigan JH. Maternal risk factors in fetal alcohol syndrome: provocative and permissive influences. Neurotoxicol Teratol 1995;17:445–62.
2. Konovalov HV, Kovetsky NS, Bobryshev YV, Ashwell KW. Disorders of brain development in the progeny of mothers who used alcohol during pregnancy. Early Hum Dev 1997;48:153–66.
3. US Department of Health and Human Services, US Department of Agriculture. Nutrition and your health: dietary guidelines for Americans. 5th ed. Washington, DC: US Department of Health and Human Services, US Department of Agriculture; 2000.
4. Sokol RJ, Delaney-Black V, Nordstrom B. Fetal alcohol spectrum disorder. JAMA 2003;290:2996–9.
5. CDC. Behavioral Risk Factor Surveillance System. Atlanta, GA: US Department of Health and Human Services, CDC. Available at http://www.cdc.gov/brfss.

6. Brogan DJ. Pitfalls of using standard statistical software packages for sample survey data. Design of experiments and sample surveys. In: Armitage P, Colton T, eds. Encyclopedia of biostatistics. New York, NY: John Wiley and Sons; 1998.
7. CDC. Alcohol use among women of childbearing age—United States, 1991–1999. MMWR 2002;51:273–6.
8. Day NL, Richardson GA. An analysis of the effects of prenatal alcohol exposure on growth: a teratologic model. Am J Med Genet C Semin Med Genet 2004;127:28–34.
9. Project CHOICES Research Group. Alcohol-exposed pregnancy: characteristics associated with risk. Am J Prev Med 2002;23:166–73.
10. US Preventive Services Task Force. Screening and behavioral counseling interventions in primary care to reduce alcohol misuse: recommendations statement. Ann Intern Med 2004;140:554–6.

Brief Report

Investigation of a Home with Extremely Elevated Carbon Dioxide Levels — West Virginia, December 2003

Investigations of indoor air quality complaints typically focus on mold, water damage, ventilation systems, and combustion byproducts and are guided by the nature of the symptoms observed in affected persons. This report documents the investigation of exposures at a home in which the occupants had unusual respiratory and neurologic symptoms.

Case Report and Initial Investigations

In June 2001, a man and a woman, both of whom were smokers, previously healthy, and aged 42 years, moved into a newly built, two-story home. Shortly after moving in, the woman noted episodic shortness of breath, lightheadedness, dizziness, and fatigue while in the finished basement. The man reported episodic mild confusion, poor concentration, headache, and blurry vision while working in the basement. Their symptoms always resolved within minutes of returning upstairs.

The natural gas water-heater pilot light located in the basement recurrently went out; however, gas company and fire department inspections did not reveal gas leaks, methane, or carbon monoxide (CO). In July 2003, the woman went to a hospital emergency department (ED) on two consecutive mornings with shortness of breath, rapid heart rate, and panic. She was admitted and had new asthma diagnosed, as well as a cardiomyopathy (35% cardiac ejection fraction) attributed to a 1997 varicella infection. However, her basement-related symptoms persisted despite newly prescribed cardiac and respiratory medications.

In October 2003, the man entered a 30- by 70- by 3-foot crawlspace adjacent to the finished basement for a 3-hour period to investigate potential gas leaks. He reported feeling breathless and felt a "strong gush" of air when he opened an access door to the below-grade crawlspace, and later noted hoarseness. In November 2003, the man and a hired contractor became breathless after they entered the crawlspace. That day, another fire department inspection indicated negative readings for CO and methane in the basement. Four hours later, the man went to a hospital ED with rapid respiration and a burning sensation in his eyes. He had a mildly elevated carboxyhemoglobin level (6%) and was discharged with a diagnosis of acute CO exposure (*1*)*.

In December 2003, two contractors had onset of hoarseness and rapid heart rate while at the crawlspace entrance. One man reported a metallic taste. The fire department responded and, on arrival, the first firefighter felt a strong draft at the crawlspace entrance that "took his breath away." Levels of CO, methane, and other explosive gases were below limits of detection. The fire department then called the county Hazardous Materials Incident Response Team (HMIRT).

HMIRT found low oxygen (O_2) levels in the basement and called the West Virginia Department of Environmental Protection (WVDEP) to investigate further. The WVDEP field investigator documented O_2 concentrations as low as 14% in the crawlspace (normal air: 21%). Suspecting that carbon dioxide (CO_2), a colorless and odorless gas, had displaced the oxygen, WVDEP requested technical assistance from CDC's National Institute for Occupational Safety and Health (NIOSH) to measure CO_2 concentrations and, if levels were elevated, to help identify CO_2 sources and recommend control strategies. NIOSH assisted WVDEP with CO_2 sampling, contacted the county and state health departments, and assisted with interviewing the homeowners and reviewing relevant records.

CO_2 Sampling and Monitoring

A direct-reading, high-concentration CO_2 monitor (detection range up to 50% CO_2) was used for short-term sampling and continuous monitoring. WVDEP documented CO_2 concentrations as high as 9.5% in the basement crawlspace, 11% in the crawlspace gravel, and 12% in the basement floor drain (normal air: 0.035% CO_2). CO_2 levels on the upper floors exceeded the upper limit of detection (1%) of a standard CO_2 monitor. CO_2 levels in the soil surrounding the home were as high as 8%. Basement CO_2 levels remained elevated, regardless of whether the furnace was operating. The NIOSH Recommended Exposure Limit for CO_2 in workplaces is 0.5% (5,000 ppm) for a 40-hour workweek and 3.0% for a

* Blood carboxyhemoglobin levels of smokers might be higher than those of nonsmokers. In smokers, levels commonly reach 10% and can exceed 15%, compared with 1%–3% in nonsmokers.

15-minute short-term exposure limit; a level of 4.0% is designated as "immediately dangerous to life or health" (*2*).

Carbon isotopic composition analysis of air samples indicated a carbonate source of the excess CO_2 in the home, likely from mining (*3*). Mine maps confirmed that the home was built on a reclaimed surface coal mine and that an abandoned deep coal mine lay beneath the property. Renovations to the crawlspace redirected and limited ground CO_2 infiltration into the home. CO_2 concentrations have decreased to a maximum of 0.2% measured in the basement; O_2 concentrations have returned to normal, and related symptoms in the homeowners have resolved. Whether any neighboring homes were at risk for elevated CO_2 concentrations was unknown.

The results of this investigation underscore the need for heightened public awareness and special training for emergency response and utility workers, careful environmental measurements to assess potential risks, and precautions to avoid incapacitation and prepare for rescue during immediately dangerous conditions. Building codes that mandate preventive construction, including sealing cracks, maintaining positive pressure within the structure, and subsurface ventilation for new buildings over landfills, caves, and abandoned mines might also be appropriate public health actions.

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Acknowledgments

The findings in this report are based, in part, on contributions by JA Moore, West Virginia Dept of Environmental Protection. T Jefferson, National Institute for Occupational Safety and Health, CDC.

References

1. Ernst A, Zibrak JD. Carbon monoxide poisoning. N Engl J Med 1998;339:1603–7.
2. National Institute for Occupational Safety and Health. Pocket guide to chemical hazards. Washington, DC: US Department of Health and Human Services, CDC, National Institute for Occupational Safety and Health; 2004. DHHS publication no. (NIOSH) 2004-103. Available at http://www.cdc.gov/niosh/npg/npg.html.
3. Laughrey CD, Baldassare FJ. Some applications of isotopic geochemistry for determining sources of stray carbon dioxide gas. Environ Geosci 2003;10:107–22.

Brief Report

Acute Illness from Dry Ice Exposure During Hurricane Ivan — Alabama, 2004

Natural disasters such as hurricanes often impair delivery of essential services, including electricity. When normal refrigeration methods are unavailable, affected populations seek alternative means of protecting perishable foodstuffs. One alternative is to use frozen carbon dioxide (CO_2) (i.e., dry ice).

In September 2004, in anticipation of a power outage during the aftermath of Hurricane Ivan, a man aged 34 years in Mobile, Alabama, purchased a 100-lb block of dry ice from a local ice house. The block of dry ice was divided into four equal parts and packaged in brown paper bags, which were placed in the front seat of the man's pickup truck. The windows were closed, and the air conditioner was set to recirculate air inside the cab of the truck. After driving approximately one quarter mile from the ice house, the man had shortness of breath; his breathing difficulty increased as he drove the next mile. The man telephoned his wife and asked her to call 911. He then pulled his truck into a parking lot, parked, and lost consciousness. His wife drove to the parking lot and located her husband's truck; immediately after she opened the door to the vehicle, her husband began to awaken.

Emergency medical services personnel arrived soon afterward. They determined that the man's vital signs were normal and he required no further medical evaluation. Although the man complained of a headache for the next 24 hours, he recovered completely.

Dry ice has a temperature of -109.3°F (-78.5°C) and can be used to keep perishable foods cold (*1*). As dry ice melts, it undergoes sublimation (i.e., direct conversion from a solid into gaseous CO_2, bypassing the liquid state). Improper ventilation during use, transport, or storage of dry ice can lead to inhalation of large concentrations of CO_2 with subsequent harmful effects, including death (*1,2*). Previous reports have described illness and death caused by occupational exposures and unintentional nonoccupational exposures to dry ice in enclosed spaces such as automobiles and submarines (*1,2*).

Under normal conditions at ambient temperature, CO_2 is a colorless, odorless gas and a simple asphyxiant that displaces oxygen when inhaled. As the inhaled concentration of CO_2 increases, more oxygen is displaced from the lung alveoli, where gas exchange takes place. The central nervous system (CNS) tightly regulates dissolved CO_2 in the blood; changes in the partial pressure of CO_2 cause changes in the respiratory rate. An increase in CO_2 concentrations triggers an increase in respiratory rate, causing further uptake of CO_2, which can ultimately lead to signs and symptoms of hypoxia and hypoxemia, including headache, confusion, disorientation, and death. Respiratory and CNS changes can occur within seconds of exposure to high levels of CO_2, suggesting that the toxicity of CO_2 might be related to systemic effects that are not fully understood.

Because CO_2 is colorless and odorless, persons who transport, use, and store dry ice must be educated about its potential dangers. Dry ice should be kept in small quantities in an insulated "cold box" or similar transport medium that is maintained at (-94.0°F (-70.0°C) or in an open, well-ventilated space (*3*). Persons with signs or symptoms of illness while exposed to dry ice should be moved to an area with fresh air and provided with supplemental oxygen. Usually, the long-term outcome for patients with mild-to-moderate CO_2 poisoning is excellent.

In the case described in this report, the man did not receive any warnings from the ice house regarding the potential danger of CO_2 exposure from dry ice. If the air conditioner had not been set to recirculate air inside the cab of the truck, the CO_2 poisoning symptoms might not have occurred. In addition, placing the ice in the bed of the man's truck would have reduced exposure.

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References

1. Goldfrank LR, Flomenbaum NE, Lewin NA, Howland MA, Hoffman RS, Nelson LS, eds. Goldfrank's toxicologic emergencies. 7th ed. New York, NY: McGraw-Hill; 2002.
2. Gill JR, Ely SF, Hua Z. Environmental gas displacement: three accidental deaths in the workplace. Am J Forensic Med Pathol 2002;23:26–30.
3. Baxter PJ, Kapila M, Mfonfu D. Lake Nyos disaster, Cameroon, 1986: the medical effects of large scale emission of carbon dioxide? BMJ 1989;298:1437–41.

Updated Interim Influenza Vaccination Recommendations — 2004–05 Influenza Season

On October 5, 2004, CDC was notified by Chiron Corporation that none of its inactivated influenza vaccine (Fluvirin®) would be available for distribution in the United States for the 2004–05 influenza season. At that time, CDC, in coordination with the Advisory Committee on Immunization Practices (ACIP), issued interim recommendations to direct available inactivated influenza vaccine to persons in certain priority groups. CDC has been working with Aventis Pasteur, Inc., to distribute the remaining supply of its inactivated influenza vaccine Fluzone® so that it reaches persons in the priority groups established on October 5. In addition, on December 7, the U.S. Department of Health and Human Services announced that up to 4 million doses of the GlaxoSmithKline influenza vaccine Fluarix®, authorized for use by the Food and Drug Administration under an Investigational New Drug (IND) application, would be available to help alleviate the influenza vaccine shortage this season.

The primary goal of the annual influenza vaccination recommendations by CDC and ACIP is to reduce the risk for complications from influenza among persons who are most vulnerable. This year, the reduced national supply of inactivated influenza vaccine led CDC and ACIP to issue interim influenza vaccination recommendations that were more restrictive than usual. Since the interim recommendations were issued on October 5, the influenza vaccine supply and demand situation has continued to evolve in the United States such that some, but not all, local areas appear to have adequate supplies to meet the demand for vaccine from persons in the interim priority groups. This has resulted in unused vaccine in some areas of the country.

Influenza disease activity in the United States has remained relatively low but is expected to increase during the weeks ahead. In addition, influenza vaccination coverage among this season's interim priority groups is lower than it has been in recent influenza seasons. Given these considerations, CDC recommends that aggressive efforts should continue to reach unvaccinated persons in high-risk priority groups and use available vaccine to vaccinate such persons. Adequate time remains for persons in these priority groups to receive the benefits of vaccination before influenza begins to widely circulate in most communities. CDC will continue to allocate available vaccine to states that have insufficient supplies of vaccine to reach these priority groups.

In addition to these ongoing activities, in coordination with ACIP, CDC is issuing updated interim recommendations for influenza vaccination during the 2004–05 season. If the locally available supply is sufficient to meet the local demand for vaccine from persons listed below under the heading, Priority Groups for Inactivated Influenza Vaccination, vaccination may expand to also include persons listed below under the heading, Additional Priority Groups for Inactivated Influenza Vaccination in Areas of Sufficient Supply. Decisions to expand priority groups are left to the discretion of state and local health departments. Vaccine providers and health departments with vaccine should aggressively reach out to vaccinate persons in the priority groups established on October 5. These persons include those at highest risk for complications from influenza and health-care professionals caring for persons at high risk, and should remain a focus even where vaccine supplies are sufficient to support expansion to other groups.

These recommendations were formally approved by ACIP on December 17, 2004, to take effect on January 3, 2005. Implementation is being delayed to allow extra time for

vaccine to reach the initial priority groups and to allow time for state and local health departments to prepare for increased requests for vaccination.

Priority Groups for Inactivated Influenza Vaccination*

Inactivated influenza vaccine is recommended for persons in the following priority groups:

- all children aged 6–23 months;
- adults aged ≥65 years;
- persons aged 2–64 years with underlying chronic medical conditions;
- all women who will be pregnant during the influenza season;
- residents of nursing homes and long-term–care facilities;
- children aged 2–18 years on chronic aspirin therapy;
- health-care workers involved in direct patient care; and
- out-of-home caregivers and household contacts of children aged <6 months.

Additional Priority Groups for Inactivated Influenza Vaccination in Areas of Sufficient Supply*

Where supply is sufficient, inactivated influenza vaccine also is recommended for persons in the following additional priority groups:

- out-of-home caregivers and household contacts of persons in high-risk groups (e.g., persons aged ≥65 years; persons with chronic conditions such as diabetes, heart or lung disease, or weakened immune systems because of illness or medication; and children aged <2 years); and
- all adults aged 50–64 years.

Use of Live, Attenuated Influenza Vaccination

Intranasally administered, live, attenuated influenza vaccine, if available, should be encouraged for all healthy persons who are aged 5–49 years and are not pregnant, especially health-care workers and out-of-home caregivers and household contacts of persons in high-risk groups (e.g., persons aged ≥65 years; persons with chronic conditions such as diabetes, heart or lung disease, or weakened immune systems because of illness or medication; and children aged <2 years).

However, health-care workers who care for severely immunocompromised patients in special care units should receive the inactivated vaccine.

Other Vaccination Recommendations

Persons in the priority groups identified above should be encouraged to search locally for vaccine if their regular health-care provider does not have vaccine available.

Children aged <9 years require 2 doses of vaccine if they have not previously been vaccinated. All children who are at high risk for complications from influenza, including those aged 6–23 months, should be vaccinated with a first or second dose, depending on vaccination status. However, doses should not be held in reserve to ensure that 2 doses will be available. Instead, available vaccine should be used to vaccinate persons in priority groups on a first-come, first-serve basis.

Vaccination of Persons in Nonpriority Groups

Persons who are not included in one of the priority groups or additional priority groups described above should be informed about the vaccine supply situation and asked to forego or defer vaccination with inactivated influenza vaccine. Live, attenuated influenza vaccine, if available, should be encouraged for all healthy persons aged 5–49 years.

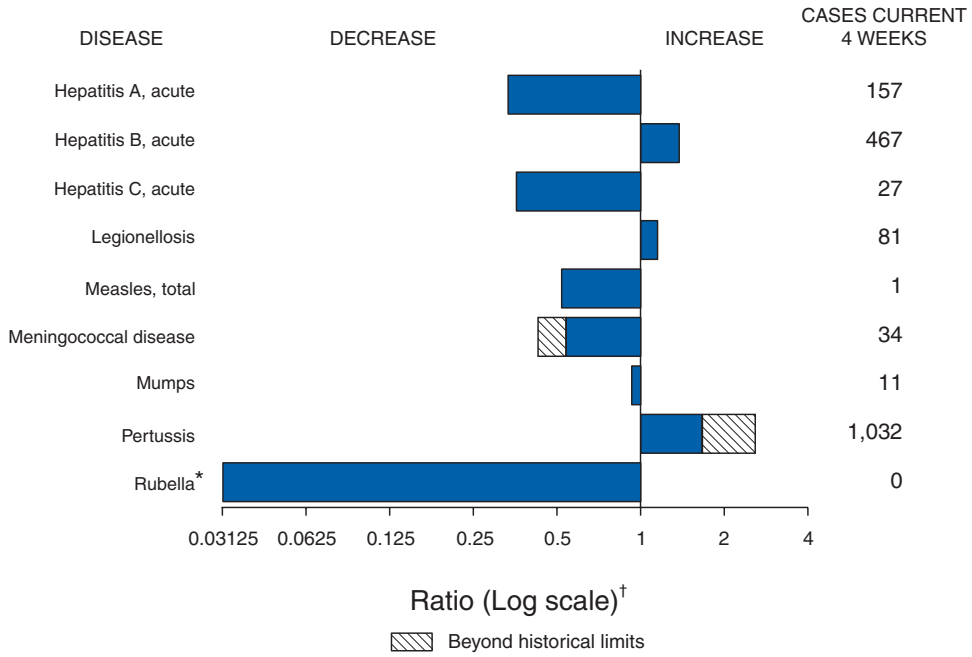
Persons Who Should Not Receive Influenza Vaccine

Persons in the following groups should not receive influenza vaccine without the recommendation of their physicians:

- persons with a severe allergy (i.e., anaphylactic allergic reaction) to hens' eggs; and
- persons who previously had onset of Guillain-Barré syndrome during the 6 weeks after receiving influenza vaccine.

* Persons in groups for which the IND influenza vaccine Fluarix® is indicated should follow these recommendations where applicable, per FDA-approved protocol.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals December 18, 2004, with historical data



* No rubella cases were reported for the current 4-week period yielding a ratio for week 50 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 December 18, 2004 (50th Week)*

	Cum. 2004	Cum. 2003		Cum. 2004	Cum. 2003
Anthrax	-	-	HIV infection, pediatric†¶	149	193
Botulism:	-	-	Influenza-associated pediatric mortality**	-	NA
foodborne	19	19	Measles, total	30††	53§§
infant	75	71	Mumps	227	212
other (wound & unspecified)	13	30	Plague	2	1
Brucellosis†	115	95	Poliomyelitis, paralytic	-	-
Chancroid	39	54	Psittacosis†	10	12
Cholera	4	1	Q fever†	68	63
Cyclosporiasis†	210	72	Rabies, human	7	2
Diphtheria	-	1	Rubella	11	7
Ehrlichiosis:	-	-	Rubella, congenital syndrome	-	1
human granulocytic (HGE)†	354	319	SARS-associated coronavirus disease† **	-	8
human monocytic (HME)†	309	267	Smallpox† ¶¶	-	NA
human, other and unspecified	35	46	*Staphylococcus aureus*:	-	-
Encephalitis/Meningitis:	-	-	Vancomycin-intermediate (VISA)† ¶¶	-	NA
California serogroup viral† §	91	108	Vancomycin-resistant (VRSA)† ¶¶	1	NA
eastern equine† §	5	14	Streptococcal toxic-shock syndrome†	96	147
Powassan† §	-	-	Tetanus	23	18
St. Louis† §	8	41	Toxic-shock syndrome	117	116
western equine† §	-	-	Trichinosis	5	5
Hansen disease (leprosy)†	79	83	Tularemia†	101	83
Hantavirus pulmonary syndrome†	20	23	Yellow fever	-	-
Hemolytic uremic syndrome, postdiarrheal†	139	163			

-: No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).
¶ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update November 28, 2004.
** Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases.
†† Of 30 cases reported, 14 were indigenous, and 16 were imported from another country.
§§ Of 53 cases reported, 31 were indigenous, and 22 were imported from another country.
¶¶ Not previously notifiable.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending December 18, 2004, and December 13, 2003 (50th Week)*

Reporting area	AIDS		Chlamydia†		Coccidioidomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile§	
	Cum. 2004¶	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	39,097	41,489	832,857	829,390	5,780	4,026	3,253	3,321	883	2,866
NEW ENGLAND	1,318	1,433	28,397	26,731	-	-	161	188	-	31
Maine	48	52	2,035	1,936	N	N	20	20	-	-
N.H.	44	36	1,684	1,535	-	-	30	25	-	2
Vt.**	16	16	983	1,017	-	-	24	32	-	-
Mass.	495	598	12,949	10,672	-	-	56	78	-	12
R.I.	131	101	3,266	2,866	-	-	4	16	-	5
Conn.	584	630	7,480	8,705	N	N	27	17	-	12
MID. ATLANTIC	9,011	9,678	103,254	103,195	-	-	523	436	17	223
Upstate N.Y.	1,406	978	21,841	19,282	N	N	180	129	5	-
N.Y. City	4,804	5,200	32,194	33,472	-	-	113	124	2	57
N.J.	1,360	1,451	13,617	15,306	-	-	33	19	1	21
Pa.	1,441	2,049	35,602	35,135	N	N	197	164	9	145
E.N. CENTRAL	3,311	3,878	142,551	150,322	13	7	932	993	64	150
Ohio	617	778	33,294	40,486	N	N	219	170	11	84
Ind.	364	516	17,851	16,376	N	N	85	105	8	15
Ill.	1,559	1,708	40,010	46,039	-	-	90	98	28	30
Mich.	614	707	35,137	30,406	13	7	146	143	12	14
Wis.	157	169	16,259	17,015	-	-	392	477	5	7
W.N. CENTRAL	802	767	50,824	48,874	6	3	401	569	85	696
Minn.	206	160	9,444	10,226	N	N	130	148	13	48
Iowa	65	83	5,900	5,712	N	N	83	119	13	81
Mo.	338	363	19,633	17,607	3	1	77	50	26	39
N. Dak.	18	3	1,403	1,540	N	N	12	12	2	94
S. Dak.	11	14	2,418	2,490	-	-	40	45	6	151
Nebr.**	54	49	4,890	4,464	3	2	28	24	7	194
Kans.	110	95	7,136	6,835	N	N	31	171	18	89
S. ATLANTIC	11,845	11,367	162,049	155,250	-	5	504	383	59	191
Del.	143	199	2,863	2,889	N	N	-	4	-	12
Md.	1,363	1,438	18,900	16,025	-	5	23	27	8	49
D.C.	911	862	3,288	3,026	-	-	13	13	1	3
Va.	615	848	20,545	18,317	-	-	58	44	4	19
W. Va.	86	85	2,684	2,480	N	N	6	4	-	1
N.C.	1,080	1,042	27,492	24,319	N	N	76	49	3	16
S.C.**	709	753	18,579	13,968	-	-	15	9	-	3
Ga.	1,558	1,827	27,355	34,513	-	-	177	115	12	27
Fla.	5,380	4,313	40,343	39,713	N	N	136	118	31	61
E.S. CENTRAL	1,833	1,871	55,295	52,706	4	1	119	128	60	91
Ky.	232	199	6,241	7,633	N	N	44	24	1	11
Tenn.**	722	795	21,147	19,587	N	N	29	40	13	21
Ala.	442	442	10,504	13,748	-	-	23	54	15	25
Miss.	437	435	17,403	11,738	4	1	23	10	31	34
W.S. CENTRAL	4,332	4,519	100,466	102,881	2	-	118	121	212	611
Ark.	184	171	6,989	7,547	1	-	17	20	12	23
La.	865	607	20,808	19,675	1	-	7	5	81	101
Okla.	202	203	9,532	10,555	N	N	20	19	11	56
Tex.**	3,081	3,538	63,137	65,104	N	N	74	77	108	431
MOUNTAIN	1,415	1,441	47,707	46,647	3,752	2,375	163	134	232	871
Mont.	6	13	2,164	2,214	N	N	34	18	2	75
Idaho	18	25	2,555	2,366	N	N	27	27	-	-
Wyo.	18	6	1,053	912	2	1	4	5	2	92
Colo.	313	342	11,460	12,438	N	N	58	37	39	621
N. Mex.	178	99	5,235	7,109	21	9	13	14	30	74
Ariz.	550	634	16,263	12,470	3,634	2,322	19	6	128	7
Utah	72	69	3,484	3,617	37	9	6	19	6	-
Nev.	260	253	5,493	5,521	58	34	2	8	25	2
PACIFIC	5,230	6,535	142,314	142,784	2,003	1,635	332	369	154	2
Wash.	373	490	16,917	15,943	N	N	36	58	-	-
Oreg.	282	242	8,155	7,168	-	-	32	36	-	-
Calif.	4,383	5,688	109,039	110,826	2,003	1,635	262	274	154	2
Alaska	56	19	3,436	3,597	-	-	-	1	-	-
Hawaii	136	96	4,767	5,250	-	-	2	-	-	-
Guam	2	5	560	574	-	-	-	-	-	-
P.R.	642	1,024	3,401	2,580	N	N	N	N	-	-
V.I.	18	33	272	400	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	32	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 2003 and 2004 are provisional and cumulative (year-to-date).

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

§ Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).

¶ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update November 28, 2004.

** Contains data reported through National Electronic Disease Surveillance System (NEDSS).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 18, 2004, and December 13, 2003 (50th Week)*

Reporting area	*Escherichia coli*, Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped					
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	2,378	2,530	264	238	221	148	17,612	18,397	295,951	317,097
NEW ENGLAND	161	152	42	45	17	13	1,618	1,577	6,490	6,994
Maine	11	10	1	3	-	-	126	180	210	218
N.H.	23	18	5	3	-	-	45	41	127	116
Vt.	12	18	-	-	-	-	165	119	84	91
Mass.	68	66	10	9	17	13	716	822	2,990	2,786
R.I.	13	4	1	-	-	-	120	114	792	915
Conn.	34	36	25	30	-	-	446	301	2,287	2,868
MID. ATLANTIC	283	241	58	23	30	35	3,658	3,679	33,241	39,448
Upstate N.Y.	122	91	43	12	14	19	1,335	1,028	6,926	7,634
N.Y. City	36	7	-	-	-	-	928	1,170	10,323	12,991
N.J.	52	31	4	2	5	-	403	499	5,558	7,614
Pa.	73	112	11	9	11	16	992	982	10,434	11,209
E.N. CENTRAL	428	560	40	34	28	20	2,642	3,134	60,566	67,120
Ohio	98	131	9	16	20	20	780	871	17,317	21,448
Ind.	58	83	-	-	-	-	-	-	6,627	6,441
Ill.	69	121	2	2	2	-	504	900	17,714	20,719
Mich.	80	90	11	1	6	-	666	755	14,705	13,115
Wis.	123	135	18	15	-	-	692	608	4,203	5,397
W.N. CENTRAL	488	440	45	53	18	20	2,069	2,023	16,113	17,072
Minn.	112	130	20	21	1	1	791	772	2,810	3,014
Iowa	122	102	-	-	-	-	279	265	1,042	1,369
Mo.	95	84	19	19	8	1	546	495	8,452	8,348
N. Dak.	15	13	-	4	7	8	23	45	90	95
S. Dak.	33	28	2	4	-	-	73	83	285	215
Nebr.	71	48	4	5	-	-	149	140	1,008	1,509
Kans.	40	35	-	-	2	10	208	223	2,426	2,522
S. ATLANTIC	170	146	37	46	108	43	2,659	2,656	73,236	77,353
Del.	3	11	N	N	N	N	45	47	865	1,085
Md.	20	17	5	3	5	1	132	115	7,910	7,625
D.C.	1	1	-	-	-	-	64	55	2,447	2,397
Va.	38	38	18	13	-	-	520	356	8,020	8,495
W. Va.	3	5	-	-	-	-	45	49	873	813
N.C.	-	-	-	-	92	34	N	N	14,347	14,014
S.C.	7	4	-	-	-	-	64	136	9,108	8,188
Ga.	26	26	8	8	-	-	716	831	12,058	17,020
Fla.	72	44	6	22	11	8	1,073	1,067	17,608	17,716
E.S. CENTRAL	100	84	3	2	9	6	345	385	23,897	26,585
Ky.	30	29	1	2	6	6	N	N	2,698	3,410
Tenn.	31	35	2	-	3	-	157	180	7,959	8,160
Ala.	29	16	-	-	-	-	188	205	6,595	8,941
Miss.	10	4	-	-	-	-	-	-	6,645	6,074
W.S. CENTRAL	81	97	3	4	11	4	316	287	39,429	42,721
Ark.	16	12	1	-	-	-	120	142	3,513	4,063
La.	4	3	-	-	2	-	52	14	9,967	11,178
Okla.	19	29	-	-	4	-	144	131	4,050	4,367
Tex.	42	53	2	4	5	4	N	N	21,899	23,113
MOUNTAIN	240	312	35	27	-	7	1,476	1,554	10,483	10,003
Mont.	16	17	-	-	-	-	80	111	68	112
Idaho	50	81	16	16	-	-	181	197	88	68
Wyo.	9	5	7	1	-	-	25	22	58	43
Colo.	50	66	2	4	-	7	501	448	2,515	2,732
N. Mex.	9	13	6	5	-	-	68	51	751	1,122
Ariz.	27	38	N	N	N	N	173	240	3,932	3,473
Utah	52	69	3	-	-	-	328	347	538	381
Nev.	27	23	1	1	-	-	120	138	2,533	2,072
PACIFIC	427	498	1	4	-	-	2,829	3,102	32,496	29,801
Wash.	144	116	-	1	-	-	394	364	2,661	2,637
Oreg.	68	100	1	3	-	-	428	395	1,225	956
Calif.	204	268	-	-	-	-	1,844	2,166	27,013	24,487
Alaska	1	5	-	-	-	-	88	87	486	537
Hawaii	10	9	-	-	-	-	75	90	1,111	1,184
Guam	N	N	-	-	-	-	-	2	92	66
P.R.	3	3	-	-	-	-	142	330	252	266
V.I.	-	-	-	-	-	-	-	-	80	86
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	3	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 18, 2004, and December 13, 2003 (50th Week)*

Reporting area	*Haemophilus influenzae*, invasive								Hepatitis (viral, acute), by type	
	All ages		Age <5 years							
	All serotypes		Serotype b		Non-serotype b		Unknown serotype		A	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	1,732	1,796	14	25	102	103	154	199	5,446	7,229
NEW ENGLAND	158	143	1	2	6	5	4	5	990	338
Maine	13	4	-	-	-	-	-	1	11	18
N.H.	19	13	-	1	2	-	1	-	26	18
Vt.	8	9	-	-	-	-	1	-	8	6
Mass.	62	71	1	1	-	5	2	3	856	197
R.I.	6	9	-	-	1	-	-	1	23	15
Conn.	50	37	-	-	3	-	-	-	66	84
MID. ATLANTIC	384	377	1	3	5	4	37	48	666	1,774
Upstate N.Y.	123	132	1	3	5	4	5	9	112	132
N.Y. City	77	67	-	-	-	-	14	12	265	441
N.J.	73	69	-	-	-	-	4	11	138	204
Pa.	111	109	-	-	-	-	14	16	151	997
E.N. CENTRAL	275	298	1	3	6	6	37	55	517	659
Ohio	103	69	1	-	2	1	16	11	50	162
Ind.	53	49	-	-	4	-	1	9	95	69
Ill.	64	106	-	-	-	-	11	24	184	182
Mich.	20	26	-	3	-	5	6	1	136	201
Wis.	35	48	-	-	-	-	3	10	52	45
W.N. CENTRAL	105	115	2	2	4	7	12	14	170	174
Minn.	44	53	1	2	4	7	1	2	32	44
Iowa	1	-	1	-	-	-	-	-	51	30
Mo.	37	40	-	-	-	-	7	11	43	59
N. Dak.	4	4	-	-	-	-	-	-	1	2
S. Dak.	-	1	-	-	-	-	-	-	4	-
Nebr.	10	2	-	-	-	-	2	-	12	13
Kans.	9	15	-	-	-	-	2	1	27	26
S. ATLANTIC	390	405	1	2	24	18	24	24	970	1,656
Del.	-	-	-	-	-	-	-	-	6	9
Md.	65	98	-	1	6	8	-	1	105	174
D.C.	-	2	-	-	-	-	-	-	7	43
Va.	39	55	-	-	-	-	1	6	130	101
W. Va.	17	17	-	-	1	-	3	-	6	14
N.C.	58	40	1	-	6	3	1	2	101	120
S.C.	4	7	-	-	-	-	-	2	24	39
Ga.	99	76	-	-	-	-	17	8	310	768
Fla.	108	110	-	1	11	7	2	5	281	388
E.S. CENTRAL	68	78	1	1	2	3	9	9	143	262
Ky.	13	7	-	-	2	2	1	1	30	32
Tenn.	38	47	-	-	-	1	6	5	80	190
Ala.	14	22	1	1	-	-	2	3	9	24
Miss.	3	2	-	-	-	-	-	-	24	16
W.S. CENTRAL	76	75	1	2	8	10	2	4	582	678
Ark.	3	6	-	-	-	1	1	-	57	37
La.	15	21	-	-	-	2	1	4	54	47
Okla.	57	45	-	-	8	7	-	-	20	22
Tex.	1	3	1	2	-	-	-	-	451	572
MOUNTAIN	181	162	4	6	27	23	22	17	443	458
Mont.	-	-	-	-	-	-	-	-	8	8
Idaho	5	6	-	-	-	-	2	2	21	18
Wyo.	1	2	-	-	1	-	-	-	5	1
Colo.	45	36	-	-	-	-	6	6	52	63
N. Mex.	37	18	1	-	8	4	6	1	23	24
Ariz.	62	78	-	6	13	10	2	4	272	258
Utah	18	12	2	-	2	5	5	4	48	37
Nev.	13	10	1	-	3	4	1	-	14	49
PACIFIC	95	143	2	4	20	27	7	23	965	1,230
Wash.	3	11	2	-	-	7	1	3	60	67
Oreg.	44	39	-	-	-	-	3	3	66	61
Calif.	35	58	-	4	20	20	1	10	807	1,080
Alaska	4	21	-	-	-	-	1	7	5	9
Hawaii	9	14	-	-	-	-	1	-	27	13
Guam	-	-	-	-	-	-	-	-	1	2
P.R.	-	1	-	-	-	-	-	1	26	82
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 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 18, 2004, and December 13, 2003 (50th Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C							
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	6,444	6,795	834	1,043	1,818	2,044	646	643	17,743	19,647
NEW ENGLAND	354	337	14	13	72	116	48	53	2,700	3,798
Maine	4	1	-	2	-	2	7	7	53	163
N.H.	39	19	-	-	11	9	4	4	206	173
Vt.	5	4	8	11	6	6	2	1	48	43
Mass.	208	205	4	-	22	54	15	18	988	1,515
R.I.	6	18	-	-	18	17	2	1	234	576
Conn.	92	90	2	-	15	28	18	22	1,171	1,328
MID. ATLANTIC	1,227	734	145	127	515	588	152	128	11,596	12,927
Upstate N.Y.	89	92	18	17	109	147	48	35	4,013	4,288
N.Y. City	126	187	-	-	58	70	22	24	-	213
N.J.	725	175	-	-	94	88	26	23	3,209	2,848
Pa.	287	280	127	110	254	283	56	46	4,374	5,578
E.N. CENTRAL	502	506	107	137	474	435	100	86	959	908
Ohio	120	136	6	9	219	221	40	24	62	66
Ind.	42	36	10	9	77	31	17	10	18	23
Ill.	71	69	12	22	33	48	13	23	1	71
Mich.	237	216	79	92	130	117	25	19	29	11
Wis.	32	49	-	5	15	18	5	10	849	737
W.N. CENTRAL	314	329	53	259	61	69	22	17	702	458
Minn.	49	35	18	9	7	3	6	5	591	331
Iowa	14	14	-	1	6	10	3	-	44	52
Mo.	188	227	34	246	33	36	8	6	55	68
N. Dak.	4	2	-	-	2	1	-	-	-	-
S. Dak.	-	2	-	-	5	2	2	-	1	1
Nebr.	42	32	1	3	4	6	3	4	8	2
Kans.	17	17	-	-	4	11	-	2	3	4
S. ATLANTIC	1,879	1,927	189	149	379	511	113	133	1,518	1,284
Del.	42	11	28	-	13	27	N	N	301	205
Md.	163	129	24	9	76	131	17	27	801	681
D.C.	19	12	3	-	11	19	-	2	11	11
Va.	272	187	17	11	53	93	18	12	173	159
W. Va.	39	38	24	9	9	21	4	7	28	27
N.C.	182	150	11	11	39	37	26	17	120	137
S.C.	82	151	6	24	5	7	4	5	15	15
Ga.	577	648	15	13	36	34	15	31	13	10
Fla.	503	601	61	72	137	142	29	32	56	39
E.S. CENTRAL	419	466	91	88	87	101	21	31	48	61
Ky.	73	73	23	22	39	43	4	9	15	15
Tenn.	174	196	35	19	33	34	10	8	17	17
Ala.	66	94	5	6	12	19	5	12	5	8
Miss.	106	103	28	41	3	5	2	2	11	21
W.S. CENTRAL	606	1,122	125	153	74	76	33	49	92	91
Ark.	77	81	3	3	-	2	2	1	8	-
La.	63	114	69	100	6	1	3	4	5	6
Okla.	47	56	3	2	8	7	-	3	-	-
Tex.	419	871	50	48	60	66	28	41	79	85
MOUNTAIN	516	546	37	49	81	70	27	32	32	14
Mont.	2	16	2	3	3	4	-	2	-	-
Idaho	10	8	-	1	9	4	1	2	6	3
Wyo.	9	31	2	-	7	2	-	-	3	2
Colo.	57	76	-	13	19	12	12	9	-	-
N. Mex.	12	34	7	-	4	3	1	3	2	1
Ariz.	300	253	6	7	11	11	-	10	6	3
Utah	56	47	5	-	24	23	5	2	14	2
Nev.	70	81	15	25	4	11	8	4	1	3
PACIFIC	627	828	73	68	75	78	130	114	96	106
Wash.	52	78	22	19	13	10	11	8	13	3
Oreg.	108	112	15	15	N	N	7	5	33	16
Calif.	441	605	30	30	61	67	107	96	48	84
Alaska	15	6	-	-	1	-	-	-	2	3
Hawaii	11	27	6	4	-	1	5	5	N	N
Guam	6	9	-	5	-	1	-	-	-	-
P.R.	55	128	-	-	2	-	-	-	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 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 18, 2004, and December 13, 2003 (50th Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	1,239	1,283	1,201	1,575	17,339	9,784	5,659	6,541	1,454	947
NEW ENGLAND	83	62	68	72	1,719	1,786	668	583	21	9
Maine	6	3	11	6	34	12	54	69	-	-
N.H.	5	6	7	5	96	93	30	29	-	-
Vt.	4	2	3	3	116	66	36	38	1	-
Mass.	46	30	35	43	1,421	1,522	295	207	15	9
R.I.	7	2	2	2	40	20	38	66	3	-
Conn.	15	19	10	13	12	73	215	174	2	-
MID. ATLANTIC	329	345	149	195	2,766	1,332	927	887	99	40
Upstate N.Y.	51	55	37	51	1,842	710	509	413	5	-
N.Y. City	175	186	24	40	161	144	13	6	24	13
N.J.	58	61	34	28	244	177	-	62	33	16
Pa.	45	43	54	76	519	301	405	406	37	11
E.N. CENTRAL	103	107	177	242	5,339	1,268	160	169	24	21
Ohio	29	23	70	56	633	299	76	53	12	9
Ind.	18	4	30	42	287	68	10	29	6	1
Ill.	23	45	18	70	471	126	50	24	2	5
Mich.	19	24	44	46	264	131	15	49	4	6
Wis.	14	11	15	28	3,684	644	9	14	-	-
W.N. CENTRAL	66	50	82	121	2,157	495	473	624	131	65
Minn.	25	21	23	26	437	141	89	40	4	2
Iowa	4	6	17	26	194	153	104	100	1	2
Mo.	20	7	20	49	470	131	59	43	103	51
N. Dak.	3	1	2	1	745	7	62	55	-	-
S. Dak.	1	3	2	1	73	5	10	131	4	5
Nebr.	4	-	4	7	78	15	53	98	19	4
Kans.	9	12	14	11	160	43	96	157	-	1
S. ATLANTIC	319	313	205	261	696	664	1,868	2,545	749	580
Del.	6	2	3	9	5	9	9	60	6	1
Md.	73	72	10	27	133	87	310	338	78	105
D.C.	13	15	4	5	7	3	-	-	-	1
Va.	52	40	20	25	233	91	461	493	37	31
W. Va.	2	4	6	6	24	26	67	81	5	5
N.C.	21	25	32	36	96	126	571	761	514	317
S.C.	9	4	12	21	48	185	151	237	21	42
Ga.	51	64	15	33	20	31	298	387	65	64
Fla.	92	87	103	99	130	106	1	188	23	14
E.S. CENTRAL	28	30	60	90	273	154	136	204	174	126
Ky.	4	9	11	19	79	47	23	37	2	3
Tenn.	7	7	15	29	135	74	36	101	88	69
Ala.	12	7	17	20	42	19	66	62	48	21
Miss.	5	7	17	22	17	14	11	4	36	33
W.S. CENTRAL	108	130	118	177	910	734	1,041	1,125	223	96
Ark.	8	4	18	16	78	44	48	25	138	39
La.	5	5	36	40	11	11	-	5	5	1
Okla.	7	4	10	20	33	90	101	195	71	42
Tex.	88	117	54	101	788	589	892	900	9	14
MOUNTAIN	49	42	62	93	1,755	979	212	175	28	9
Mont.	1	-	3	6	65	5	26	21	3	1
Idaho	1	1	7	7	37	75	8	15	4	2
Wyo.	1	1	3	2	35	126	6	6	5	2
Colo.	15	22	15	25	979	361	43	38	1	2
N. Mex.	4	3	9	12	140	72	5	5	2	1
Ariz.	13	8	12	29	233	182	111	71	4	-
Utah	8	5	6	4	221	123	10	14	9	1
Nev.	6	2	7	8	45	35	3	5	-	-
PACIFIC	154	204	280	324	1,724	2,372	174	229	5	1
Wash.	20	29	31	39	731	737	-	-	-	-
Oreg.	18	11	56	58	471	436	6	7	3	-
Calif.	111	157	182	208	486	1,121	160	213	2	1
Alaska	2	1	3	7	12	66	8	9	-	-
Hawaii	3	6	8	12	24	12	-	-	-	-
Guam	-	1	1	-	-	1	-	-	-	-
P.R.	-	2	11	12	7	4	58	67	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 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 18, 2004, and December 13, 2003 (50th Week)*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		*Streptococcus pneumoniae*, invasive			
							Drug resistant, all ages		Age <5 years	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	38,894	41,402	12,112	22,289	4,268	5,384	2,015	1,929	701	723
NEW ENGLAND	1,963	2,043	281	333	169	440	70	100	71	9
Maine	90	137	9	7	11	29	2	-	3	-
N.H.	135	138	9	9	19	29	-	-	N	N
Vt.	60	72	4	8	9	19	12	7	3	5
Mass.	1,107	1,195	171	225	109	194	37	N	56	N
R.I.	135	122	20	19	21	16	19	10	9	4
Conn.	436	379	68	65	-	153	-	83	U	U
MID. ATLANTIC	5,299	4,758	1,104	2,311	679	908	134	130	120	104
Upstate N.Y.	1,212	1,129	401	573	222	339	56	70	85	73
N.Y. City	1,173	1,282	375	411	103	141	U	U	U	U
N.J.	948	839	228	352	147	171	-	-	7	4
Pa.	1,966	1,508	100	975	207	257	78	60	28	27
E.N. CENTRAL	4,675	5,395	1,070	1,810	798	1,240	475	421	171	313
Ohio	1,200	1,287	169	293	215	281	329	275	81	98
Ind.	613	531	215	177	94	117	146	146	42	30
Ill.	1,278	1,898	313	977	165	330	-	-	9	127
Mich.	774	767	205	232	270	346	N	N	N	N
Wis.	810	912	168	131	54	166	N	N	39	58
W.N. CENTRAL	2,339	2,391	439	766	286	322	23	19	102	76
Minn.	603	546	63	98	138	153	-	-	67	54
Iowa	409	380	63	85	N	N	N	N	N	N
Mo.	604	860	177	353	58	76	18	15	14	3
N. Dak.	42	37	3	10	15	17	-	3	4	7
S. Dak.	130	119	13	17	20	22	5	1	-	-
Nebr.	178	163	40	87	14	25	-	-	7	5
Kans.	373	286	80	116	41	29	N	N	10	7
S. ATLANTIC	10,731	10,682	2,567	6,572	831	882	976	1,026	60	18
Del.	101	100	9	163	3	6	4	1	N	N
Md.	794	825	147	564	179	221	-	25	44	-
D.C.	62	49	40	73	10	9	8	1	3	7
Va.	1,135	1,049	163	425	69	97	N	N	N	N
W. Va.	223	124	9	-	25	36	106	80	13	11
N.C.	1,632	1,351	372	971	124	102	N	N	U	U
S.C.	858	800	300	510	38	39	71	141	N	N
Ga.	1,829	1,999	605	1,138	166	174	241	228	N	N
Fla.	4,097	4,385	922	2,728	217	198	546	550	N	N
E.S. CENTRAL	2,435	2,855	758	1,000	190	195	124	142	6	-
Ky.	340	384	74	127	58	47	30	21	N	N
Tenn.	523	733	327	374	132	148	93	121	N	N
Ala.	728	756	309	328	-	-	-	-	N	N
Miss.	844	982	48	171	-	-	1	-	6	-
W.S. CENTRAL	3,954	5,880	3,232	5,670	279	285	69	77	127	133
Ark.	565	787	77	103	17	6	10	22	8	8
La.	804	854	272	440	3	2	59	55	26	28
Okla.	381	451	468	831	61	88	N	N	43	63
Tex.	2,204	3,788	2,415	4,296	198	189	N	N	50	34
MOUNTAIN	2,315	2,194	822	1,244	504	503	43	10	42	70
Mont.	183	110	4	2	-	1	-	-	-	-
Idaho	145	171	13	35	9	19	N	N	N	N
Wyo.	53	75	6	8	10	2	11	9	-	-
Colo.	520	479	153	322	132	137	-	-	39	53
N. Mex.	261	286	122	262	82	116	5	-	-	12
Ariz.	737	688	412	501	224	193	N	N	N	N
Utah	237	214	49	48	43	33	25	1	3	5
Nev.	179	171	63	66	4	2	2	-	-	-
PACIFIC	5,183	5,204	1,839	2,583	532	609	101	4	2	-
Wash.	561	583	108	166	53	74	-	-	N	N
Oreg.	394	417	80	209	N	N	N	N	N	N
Calif.	3,813	3,889	1,600	2,151	348	403	N	N	N	N
Alaska	60	94	6	11	-	-	-	-	N	N
Hawaii	355	221	45	46	131	132	101	4	2	-
Guam	26	43	33	41	-	-	-	-	-	-
P.R.	302	715	11	27	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	3	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending December 18, 2004, and December 13, 2003 (50th Week)*

Reporting area	Syphilis: Primary & secondary		Syphilis: Congenital		Tuberculosis		Typhoid fever		Varicella (Chickenpox)	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	7,120	6,730	302	417	10,790	11,847	273	344	17,932	16,712
NEW ENGLAND	171	208	5	1	361	392	21	28	701	3,247
Maine	2	8	-	-	-	21	-	-	290	781
N.H.	4	18	3	-	17	13	-	4	-	-
Vt.	-	1	-	-	-	9	-	-	411	826
Mass.	110	129	-	-	239	205	14	15	-	147
R.I.	22	25	1	-	30	45	1	2	-	5
Conn.	33	27	1	1	75	99	6	7	-	1,488
MID. ATLANTIC	961	847	39	64	1,924	2,123	61	78	85	41
Upstate N.Y.	96	40	4	12	264	282	8	12	-	-
N.Y. City	600	489	15	31	923	1,078	22	36	-	-
N.J.	141	167	19	21	413	435	16	21	-	-
Pa.	124	151	1	-	324	328	15	9	85	41
E.N. CENTRAL	838	858	57	75	1,104	1,143	18	33	6,203	5,993
Ohio	223	189	1	3	189	194	5	2	1,479	1,206
Ind.	55	50	9	16	124	130	-	4	139	-
Ill.	355	361	16	21	489	544	-	17	2	-
Mich.	174	242	31	34	216	212	10	10	3,955	3,832
Wis.	31	16	-	1	86	63	3	-	628	955
W.N. CENTRAL	135	143	5	5	418	451	10	6	130	77
Minn.	16	43	1	-	169	186	6	2	-	-
Iowa	5	10	-	-	33	31	-	2	N	N
Mo.	85	57	2	4	111	110	2	1	5	1
N. Dak.	-	2	-	-	4	4	-	-	82	76
S. Dak.	-	2	-	-	8	20	-	-	43	-
Nebr.	6	6	-	1	36	27	2	1	-	-
Kans.	23	23	2	-	57	73	-	-	-	-
S. ATLANTIC	1,875	1,775	52	80	2,488	2,445	44	54	2,146	2,135
Del.	9	6	1	-	17	23	-	-	5	29
Md.	349	296	9	12	248	238	11	10	-	1
D.C.	90	47	1	-	71	-	-	-	26	29
Va.	95	79	3	1	277	255	10	14	562	508
W. Va.	2	2	-	-	22	21	-	-	1,274	1,306
N.C.	182	146	12	19	330	354	8	9	N	N
S.C.	113	94	8	14	167	159	-	-	279	262
Ga.	340	485	2	13	399	507	5	6	-	-
Fla.	695	620	16	21	957	888	10	15	-	-
E.S. CENTRAL	372	309	19	12	536	677	7	8	-	-
Ky.	47	32	1	1	120	123	3	1	-	-
Tenn.	123	131	8	2	230	218	4	3	-	-
Ala.	153	111	8	7	153	229	-	4	-	-
Miss.	49	35	2	2	33	107	-	-	-	-
W.S. CENTRAL	1,142	892	50	78	1,038	1,746	27	30	6,120	4,551
Ark.	39	45	-	3	110	95	-	-	-	-
La.	265	164	-	1	-	-	-	-	51	16
Okla.	24	61	2	1	143	147	1	1	-	-
Tex.	814	622	48	73	785	1,504	26	29	6,069	4,535
MOUNTAIN	323	314	44	34	500	429	8	7	2,547	668
Mont.	3	-	-	-	14	5	-	-	-	-
Idaho	22	12	2	3	4	8	-	1	-	-
Wyo.	3	-	-	-	5	4	-	-	56	101
Colo.	38	35	-	3	107	102	3	4	1,927	-
N. Mex.	56	67	1	10	34	46	-	-	101	4
Ariz.	155	176	41	18	219	207	2	2	-	-
Utah	8	12	-	-	37	35	1	-	463	563
Nev.	38	12	-	-	80	22	2	-	-	-
PACIFIC	1,303	1,384	31	68	2,421	2,441	77	100	-	-
Wash.	137	75	-	-	225	231	6	4	-	-
Oreg.	27	43	-	-	74	103	2	4	-	-
Calif.	1,127	1,252	30	66	1,979	1,943	63	91	-	-
Alaska	5	1	-	-	35	54	-	-	-	-
Hawaii	7	13	1	2	108	110	6	1	-	-
Guam	-	1	-	-	15	53	-	-	112	153
P.R.	161	196	5	14	84	100	-	-	275	590
V.I.	4	1	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	10	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending December 18, 2004 (50th Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45–64	25–44	1–24	<1	
NEW ENGLAND	507	362	103	27	6	9	47
Boston, Mass.	138	89	37	4	2	6	16
Bridgeport, Conn.	35	23	8	4	-	-	2
Cambridge, Mass.	15	12	2	-	1	-	1
Fall River, Mass.	25	23	-	2	-	-	2
Hartford, Conn.	63	41	15	7	-	-	5
Lowell, Mass.	23	20	2	1	-	-	4
Lynn, Mass.	18	13	5	-	-	-	2
New Bedford, Mass.	19	15	1	2	1	-	-
New Haven, Conn.	U	U	U	U	U	U	U
Providence, R.I.	52	34	12	3	-	3	6
Somerville, Mass.	1	1	-	-	-	-	-
Springfield, Mass.	32	21	8	2	1	-	4
Waterbury, Conn.	24	19	5	-	-	-	2
Worcester, Mass.	62	51	8	2	1	-	3
MID. ATLANTIC	2,186	1,490	473	144	43	35	114
Albany, N.Y.	58	39	12	3	2	2	3
Allentown, Pa.	22	16	6	-	-	-	-
Buffalo, N.Y.	85	63	17	2	1	2	6
Camden, N.J.	28	13	7	6	1	1	1
Elizabeth, N.J.	19	11	7	1	-	-	2
Erie, Pa.	29	24	3	2	-	-	4
Jersey City, N.J.	39	28	9	2	-	-	-
New York City, N.Y.	1,121	791	232	66	15	17	52
Newark, N.J.	50	27	16	3	2	1	4
Paterson, N.J.	19	11	5	2	1	-	-
Philadelphia, Pa.	336	189	86	38	16	7	20
Pittsburgh, Pa.§	18	10	3	2	3	-	1
Reading, Pa.	28	19	8	1	-	-	1
Rochester, N.Y.	135	107	21	5	2	-	9
Schenectady, N.Y.	19	14	3	2	-	-	2
Scranton, Pa.	28	19	6	3	-	-	1
Syracuse, N.Y.	87	59	20	3	-	5	3
Trenton, N.J.	30	24	5	1	-	-	1
Utica, N.Y.	19	13	5	1	-	-	2
Yonkers, N.Y.	16	13	2	1	-	-	2
E.N. CENTRAL	2,071	1,409	462	112	45	39	109
Akron, Ohio	42	31	9	1	-	1	3
Canton, Ohio	39	30	6	2	-	1	1
Chicago, Ill.	289	175	79	22	8	5	22
Cincinnati, Ohio	95	57	20	6	2	6	3
Cleveland, Ohio	223	169	36	9	4	5	5
Columbus, Ohio	245	174	50	18	2	1	17
Dayton, Ohio	120	85	25	5	3	2	7
Detroit, Mich.	196	114	59	9	6	8	12
Evansville, Ind.	52	46	4	2	-	-	2
Fort Wayne, Ind.	67	47	17	1	1	1	2
Gary, Ind.	19	10	6	1	2	-	1
Grand Rapids, Mich.	58	38	13	4	2	1	7
Indianapolis, Ind.	225	157	47	11	7	3	8
Lansing, Mich.	43	28	9	3	3	-	2
Milwaukee, Wis.	118	77	30	6	2	3	5
Peoria, Ill.	60	45	11	2	2	-	2
Rockford, Ill.	50	32	13	4	-	1	5
South Bend, Ind.	38	29	6	2	1	-	1
Toledo, Ohio	92	65	22	4	-	1	4
Youngstown, Ohio	U	U	U	U	U	U	U
W.N. CENTRAL	558	347	148	29	12	22	34
Des Moines, Iowa	33	23	8	1	-	1	2
Duluth, Minn.	23	15	5	3	-	-	-
Kansas City, Kans.	40	21	12	4	2	1	5
Kansas City, Mo.	95	56	27	6	2	4	4
Lincoln, Nebr.	41	29	9	1	-	2	6
Minneapolis, Minn.	62	40	16	1	1	4	7
Omaha, Nebr.	63	45	14	2	1	1	5
St. Louis, Mo.	50	30	14	1	1	4	1
St. Paul, Minn.	52	40	10	1	1	-	2
Wichita, Kans.	99	48	33	9	4	5	2
S. ATLANTIC	1,349	831	328	119	36	35	69
Atlanta, Ga.	166	94	43	19	7	3	10
Baltimore, Md.	198	102	64	23	5	4	13
Charlotte, N.C.	111	80	20	6	1	4	9
Jacksonville, Fla.	167	107	40	16	2	2	5
Miami, Fla.	66	44	11	5	3	3	3
Norfolk, Va.	56	39	13	2	-	2	6
Richmond, Va.	53	29	16	6	2	-	3
Savannah, Ga.	56	44	6	2	1	3	2
St. Petersburg, Fla.	52	33	14	2	-	3	4
Tampa, Fla.	198	132	38	14	9	5	7
Washington, D.C.	204	110	60	24	4	6	5
Wilmington, Del.	22	17	3	-	2	-	2
E.S. CENTRAL	902	592	194	63	33	20	64
Birmingham, Ala.	199	141	36	12	5	5	14
Chattanooga, Tenn.	69	45	16	4	4	-	3
Knoxville, Tenn.	110	77	20	9	3	1	10
Lexington, Ky.	67	47	17	1	1	1	2
Memphis, Tenn.	189	119	41	21	4	4	14
Mobile, Ala.	92	57	17	6	6	6	1
Montgomery, Ala.	33	20	8	3	1	1	5
Nashville, Tenn.	143	86	39	7	9	2	15
W.S. CENTRAL	1,416	907	313	116	52	24	83
Austin, Tex.	90	55	22	8	2	3	9
Baton Rouge, La.	54	40	9	3	1	1	1
Corpus Christi, Tex.	83	53	16	10	4	-	9
Dallas, Tex.	217	133	46	27	6	2	20
El Paso, Tex.	67	42	11	10	1	3	3
Ft. Worth, Tex.	128	82	33	7	5	1	5
Houston, Tex.	308	191	75	19	15	7	18
Little Rock, Ark.	73	48	12	7	5	1	3
New Orleans, La.	46	31	12	3	-	-	-
San Antonio, Tex.	186	120	44	12	8	2	10
Shreveport, La.	47	32	9	3	1	2	2
Tulsa, Okla.	117	80	24	7	4	2	3
MOUNTAIN	1,035	682	237	61	21	32	53
Albuquerque, N.M.	142	99	32	7	4	-	10
Boise, Idaho	51	34	15	1	-	1	5
Colo. Springs, Colo.	68	44	19	4	1	-	-
Denver, Colo.	101	55	25	11	2	8	4
Las Vegas, Nev.	258	179	52	13	8	6	12
Ogden, Utah	22	16	4	1	1	-	1
Phoenix, Ariz.	116	71	33	6	2	2	4
Pueblo, Colo.	32	25	6	1	-	-	3
Salt Lake City, Utah	108	65	22	8	1	12	2
Tucson, Ariz.	137	94	29	9	2	3	12
PACIFIC	1,606	1,114	335	101	31	24	140
Berkeley, Calif.	18	14	3	1	-	-	2
Fresno, Calif.	117	88	22	5	1	-	7
Glendale, Calif.	15	12	2	1	-	-	-
Honolulu, Hawaii	75	57	13	2	2	1	2
Long Beach, Calif.	76	57	12	5	-	2	13
Los Angeles, Calif.	197	123	46	20	6	2	23
Pasadena, Calif.	12	10	-	1	-	1	2
Portland, Oreg.	146	98	32	10	2	4	9
Sacramento, Calif.	215	153	47	11	2	2	20
San Diego, Calif.	140	96	28	7	5	4	9
San Francisco, Calif.	121	77	29	12	2	1	13
San Jose, Calif.	178	123	35	10	9	1	20
Santa Cruz, Calif.	31	21	5	5	-	-	1
Seattle, Wash.	108	67	34	3	2	2	9
Spokane, Wash.	62	45	13	3	-	1	5
Tacoma, Wash.	95	73	14	5	-	3	5
TOTAL	11,630¶	7,734	2,593	772	279	240	713

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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