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Use of Carbon Monoxide Alarms to Prevent Poisonings During a Power Outage — North Carolina, December 2002

Each year in the United States, approximately 500 persons die from unintentional carbon monoxide (CO) poisoning (*1*), often during electric power outages caused by severe storms (*2–4*). Use of residential CO alarms has been recommended to reduce the incidence of CO poisoning (*5,6*). In September 2000, Mecklenburg County, North Carolina (2002 population: 722,367), adopted a public health ordinance requiring a CO alarm in the majority of residences; all-electric residences without attached garages (35.4% of all homes) were exempt. The ordinance also permitted use of alarms without battery back-up. On December 4, 2002, an ice storm caused 78.9% of county households to lose power. During the next 9 days, 124 cases of symptomatic CO poisoning were reported. To characterize these poisonings and the effectiveness of the CO alarm ordinance, local emergency physicians, fire department authorities, and CDC conducted an investigation. This report summarizes the results of that investigation, which determined that 96.2% of the severe poisonings occurred in homes with no reported functioning CO alarm. As a result of these findings, on October 8, 2003, Mecklenburg County officials amended the ordinance to require alarms with battery back-ups in all residences (*7*). Officials in other communities should consider enacting such alarm ordinances to prevent CO poisonings.

Data were extracted from 1) medical records of patients with CO poisoning at all hospitals serving Mecklenburg County, 2) emergency medical service (EMS) and fire department reports, and 3) readings from handheld CO meters operated by members of the Charlotte Fire Department (Figure 1). Cases were included if they occurred from the time electric power was lost on December 4 until full restoration on December 13. Confirmed CO exposure was defined as an elevated CO level in the ambient air of a person's home (>50 ppm) or in a person's blood (carboxyhemoglobin level >10% in smokers

FIGURE 1. A firefighter uses a portable meter to measure the carbon monoxide (CO) level after CO exposure caused by a generator forced evacuation of an apartment building — Charlotte, North Carolina, 2003

Photo/Charlotte Fire Department

INSIDE

DEPARTMENT OF HEALTH AND HUMAN SERVICES
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and >2% in nonsmokers) or in the blood of another person who shared the same breathing space. CO poisoning was defined as exposure plus any symptom (e.g., headache, nausea, dyspnea, or chest pain) not explained by a different diagnosis. Severe CO poisoning was defined as exposure and one or more of the following signs or symptoms: 1) loss of consciousness; 2) hypotension; or 3) physician-documented altered mental status, ataxia, or cardiac ischemia. Patients poisoned outside Mecklenburg County but transported into the county for medical care were excluded from the study; one burn victim and a group of warehouse workers who were mildly poisoned in an occupational exposure also were excluded.

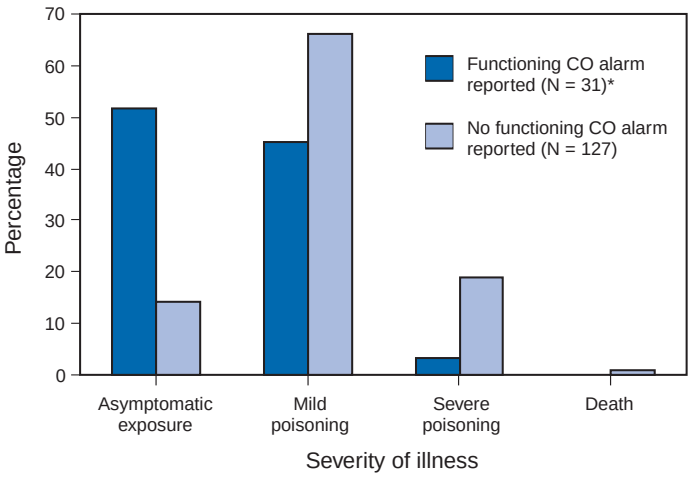
Characteristics of the study population (e.g., age, sex, and language spoken) were compared with those of the general population of Mecklenburg County (*8*). For persons aged ≥5 years, language was coded as "English" if all interviews by medical, rescue, and fire personnel were completed in English without documented difficulty or the use of an interpreter. If an interpreter was required, language was coded as "Spanish," "Asian/Pacific language," or "other language" to parallel classifications used by the U.S. Census Bureau.

Data about homes (e.g., type, value, age, and CO alarm ordinance exemption status) were obtained from county records (*9*). A home was considered to have a functioning alarm if CO alarm activation was mentioned in a fire department dispatch record, fire department narrative report, EMS report, or hospital record for any household member.

Among 161 persons with confirmed CO exposures, 124 (77.0%) had symptomatic poisoning (rate: 17.2 per 100,000 population), including 25 (15.5%) with severe poisoning and one death. Age data were known for 142 exposed persons; median age was 24 years (range: 6 days–90 years), and 59 (41.5%) were aged <18 years (relative risk [RR] = 2.0; 95% confidence interval [CI] = 1.4–2.8). Sex was known for 149 persons; 86 (57.7%) were female (RR = 1.3; 95% CI = 0.9–1.8). Language status was known for 128 persons aged >5 years; 72 (56.3%) did not speak English (RR = 15.1; 95% CI = 10.6–21.4), and both the Spanish-speaking (52 [40.6%]) and Asian/Pacific language–speaking (17 [13.3%]) populations were overrepresented (RR = 12.0; 95% CI = 8.4–17.1 and RR = 13.2; 95% CI = 7.9–22.0, respectively).

The number of cases of asymptomatic CO exposure occurred almost equally among homes with a functioning CO alarm (n = 16) and homes with no reported functioning alarm (n = 18). However, 109 (87.9%) of the 124 cases of symptomatic CO poisoning occurred in homes in which no functioning CO alarm was reported (Figure 2); 25 (19.7%) of 127 persons with CO exposure in these homes had severe poisoning, including one who died. Of the 26 severe poisonings, 25 (96.2%) occurred in homes with no reported functioning alarm.

FIGURE 2. Percentage of persons exposed to household carbon monoxide (CO) during a power outage, by severity of illness and CO alarm status — Mecklenburg County, North Carolina, December 2002



* Does not include three patients with illness of unknown severity.

Of the 56 CO exposure incidents reported, 30 (53.6%) occurred in rental homes (RR = 1.7; 95% CI = 1.0–3.0). Among the CO exposures, 46 (83.6%) were attributed to portable devices, including 41 (74.5%) grills (i.e., charcoal or gas) and electric generators (Table). CO exposures occurred more often in older residences (median age: 34 years; range: 1–62 years, compared with a county median of 18 years) and in homes of lower value (median value: $89,200; range: $19,000–$247,200, compared with a county median of $165,376 [rental homes excluded]). Exposure incidents occurred almost proportionally in homes subject to and homes exempt from the CO alarm ordinance; 35.4% of homes in Mecklenburg County were exempt from the ordinance, and 27.9% of the CO incidents were in exempt homes (RR = 0.7; 95% CI = 0.4–1.4).

TABLE. Number* of carbon monoxide (CO) exposure incidents during a power outage, by CO source — Mecklenburg County, North Carolina, December 2002

Source	No.†
Grill (charcoal or propane)	26
Electric generator	15
Propane space heater	3
Stove or oven	3
Wood fire	3
Natural gas fireplace log	2
Kerosene space heater	1
Furnace	1
Candles	1
Unknown source	5
Total	**60**

* N = 56.
† Four incidents were associated with two CO sources.

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Editorial Note: Gas furnaces and other fuel-burning appliances are common sources of CO poisonings (*1*). However, during power outages, all-electric homes can be just as likely as gas-fueled homes to harbor sources of CO poisoning (i.e., portable cooking and heating devices such as grills and generators) (*2–4*). The findings in this report indicate that a functioning CO alarm can protect against severe CO poisoning during a power outage, supporting the recommendation of the U.S. Consumer Product Safety Commission (*6*).

A dual strategy of CO alarm deployment and public education might reduce CO exposures and poisonings; safety messages should emphasize that grills and generators must never be used inside a home or garage. However, because of language barriers, multilingual educational campaigns are necessary to reach non-English–speaking populations. After the North Carolina ice storm, recent immigrants and other non-English–speaking residents were at particular risk for CO poisoning, with the majority prevented from receiving multilingual emergency messages via television because of loss of electric power. In 2002, a total of 14,714 (4.6%) Mecklenburg County households had no adult who spoke English fluently, and 18,198 (2.5%) county residents had resided in the United States <2 years (*8*).

The findings in this report are subject to at least two limitations. First, no distinctions could be made between homes with no alarms and homes with alarms that did not function because they had no battery power source or their batteries failed or were absent. Second, the number of survivors suffering permanent injury as a result of CO poisoning was not determined; approximately 10%–30% of CO poisoning survivors have persistent or delayed neurologic injury (*10*).

After receiving these findings, the Mecklenburg Board of County Commissioners amended the county's CO alarm ordinance to require an alarm in every residence, regardless of heating source and appliance type, and a battery back-up in each CO alarm (*7*). County officials continue to provide free alarms to low-income homeowners and to target recent immigrants and other non-English–speaking residents with a multilingual program to prevent CO poisonings. Officials in other communities should consider these strategies in adopting CO poisoning–prevention programs.

References

1. Mott JA, Wolfe MI, Alverson CJ, et al. National vehicle emissions policies and practices and declining US carbon monoxide-related mortality. JAMA 2002;288:988–95.

2. CDC. Unintentional carbon monoxide poisoning following a winter storm—Washington, January 1993. MMWR 1993;42:109–11.
3. CDC. Deaths associated with Hurricane Georges—Puerto Rico, September 1998. MMWR 1998;47:897–8.
4. CDC. Community needs assessment and morbidity surveillance following an ice storm—Maine, January 1998. MMWR 1998;47:351–4.
5. Krenzolek EP, Roth R, Full R. Carbon monoxide . . . the silent killer with an audible solution. Am J Emerg Med 1996;14:484–6.
6. U.S. Consumer Product Safety Commission. Carbon Monoxide Detectors Can Save Lives. Washington, DC: U.S. Consumer Product Safety Commission, 2003; CPSC document #5010. Available at http://www.cpsc.gov/cpscpub/pubs/5010.html.
7. Mecklenburg Board of County Commissioners. Charlotte, North Carolina: Minutes of county commissioner meeting, October 8, 2003.
8. U.S. Census Bureau. American Community Survey Profile, 2002. Mecklenburg County, North Carolina. Available at http://www.census.gov/acs/www/Products/Profiles/Single/2002/ACS/Tabular/050/05000US371191.htm.
9. Mecklenburg County Real Estate Lookup System. Charlotte, North Carolina. Available at http://meckcama.co.mecklenburg.nc.us/relookup.
10. Ernst A, Zibrak JD. Carbon monoxide poisoning. N Engl J Med 1998;339:1603–8.

Mycobacterium chelonae Infections Associated with Face Lifts — New Jersey, 2002–2003

In March 2003, the New Jersey Department of Health and Senior Services (NJDHSS) was notified about three patients who acquired surgical-site infections caused by *Mycobacterium chelonae* after having face lifts (i.e., rhytidectomies) performed at an outpatient surgical center. NJDHSS learned subsequently of another patient with *M. chelonae* infection who had a rhytidectomy performed at a second surgical center. The four patients received diagnoses of *M. chelonae* infection during March 2002–February 2003. NJDHSS conducted an epidemiologic, environmental, and microbiologic investigation. This report summarizes the results of that investigation, which identified contaminated methylene blue used as a tissue-marking agent as the source of infection. Surgeons should use only sterile, single-use, tissue-marking agents during procedures that require aseptic technique, and clinicians should consider *M. chelonae* when evaluating surgical-site infections.

To search for additional cases of *M. chelonae* infection, NJDHSS interviewed surgical center staff, reviewed logs maintained at the two surgical centers to identify postoperative infections, and interviewed clinicians who performed procedures at these surgical centers about cases of mycobacterial infection. A clinical case was defined as a case involving a nonhealing surgical incision lasting >30 days or a surgical-site infection unresponsive to empiric antibiotic therapy in a patient who had an operation during February 2002–March 2003 at either center. Cases were classified as confirmed, probable, or suspect. A patient with a confirmed case had cutaneous signs of infection (e.g., erythema, swelling, or drainage) consistent with the clinical case definition and isolation of *M. chelonae* from surgical-site drainage. A patient with a probable case had cutaneous signs of infection consistent with the clinical case definition and evidence of acid-fast bacilli on a smear prepared from surgical-site drainage but lacked culture confirmation. A patient with a suspect case had cutaneous signs of infection consistent with the clinical case definition but lacked laboratory evidence of bacterial infection.

Of the four cases identified initially, three were confirmed, and one was suspect; no additional cases were identified. All patients had been treated by the same surgeon, who performed 55 procedures (including six face lifts) at the two surgical centers during the study period. Two patients had rhytidectomies only, one patient had a combined rhytidectomy and blepharoplasty, and one had a rhytidectomy combined with blepharoplasty and liposuction of the lower extremities. All patients were female. The median age of the women was 56 years (range: 44–69 years). Two patients had had previous facial cosmetic surgery; none had an immunocompromising medical condition. The median time from surgical procedure to onset of clinically apparent infection was 30 days (range: 18–34 days). The median time from illness onset to presumptive diagnosis of mycobacterial infection was approximately 21 days (range: 8–38 days). Clinical findings included erythema, tenderness, nodular lesions, and drainage localized to the area of the surgical incision. No patient reported systemic manifestations (e.g., fever or chills).

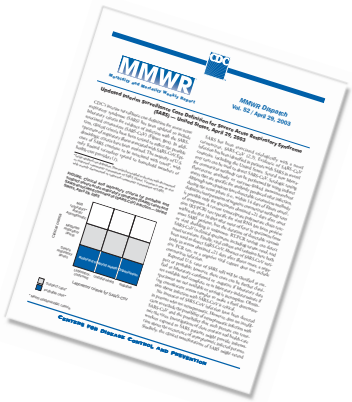
One patient's infection resolved without sequelae after 8 months of treatment with clarithromycin. Another patient had areas of hyperpigmentation at the surgical site despite 9 months of clarithromycin and 6 months of concurrent ciprofloxacin therapy. This patient also underwent incision and drainage of her surgical wound. Of the remaining two patients, one had hyperpigmentation and scarring after taking an antibiotic regimen that consisted of varying courses of imipenem-cilastatin, linezolid, and clarithromycin during a 9-month period, and one patient was lost to follow-up.

Investigation of this cluster included an onsite review of the patients' surgical records and the surgical centers' infection-control policies. An environmental investigation did not identify substantial breaches in cleaning, disinfectant, or sterilization practices. Environmental samples obtained included the swabbed surface of a surgical instrument, wastewater from a steam sterilizer, and tap water from lines supplying a steam sterilizer and ultrasonic cleaner. None of the samples yielded mycobacteria.

Interviews with surgical center staff indicated that the patients' surgeon used a water-based solution of methylene

up-to-the-minute: *adj*

1 : extending up to the immediate present, including the very latest information; see also *MMWR*.



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blue to mark incisions on exposed muscle during rhytidectomies. No other surgeons affiliated with the surgical centers used methylene blue in this manner. In addition, the surgeon used this dye only during rhytidectomies. All sources of methylene blue that were available when the patients had their rhytidectomies were removed from circulation and tested at the New Jersey Public Health and Environmental Laboratories. These sources included 1) a 4-ounce bottle of 0.5% unsterile methylene blue that was prepared commercially in September 1999 and found in an office at the surgical center where three cases occurred, 2) a tube containing dye, 3) a single syringe used to dispense dye into a cup during multiple rhytidectomy procedures, and 4) an opened, single-use vial of 1% methylene blue. Mycobacteria identified as *M. chelonae* were isolated from each source.

Wound isolates from the three patients with culture-confirmed infections and the isolates from the four sources of methylene blue were sent to CDC for species confirmation and molecular typing. On the basis of the results of high-performance liquid chromatography, the isolates were confirmed to be *M. chelonae*. Molecular typing, using random amplification of polymorphic DNA, indicated that the methylene blue and wound isolates were the same strain. No additional cases were reported after the surgical centers replaced their stock of methylene blue with sterile, single-use vials.

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Editorial Note: *M. chelonae* (formerly known as *M. chelonae* subspecies *chelonae*) is one of a group of rapidly growing mycobacteria that can cause localized soft-tissue and skeletal infections in otherwise healthy persons and disseminated disease in patients with impaired immune function (*1*). Soft-tissue infections caused by *M. chelonae* typically manifest initially as slightly tender nodules with scant drainage and minimal surrounding cellulitis; systemic manifestations often are absent (*2*). The indolent course typical of these infections, together with a low index of suspicion and failure to request or perform the appropriate diagnostic tests (e.g., acid-fast staining), can make timely diagnosis of *M. chelonae* infections difficult (*3*).

Clarithromycin is effective against *M. chelonae*, but a course of treatment for ≥6 months might be necessary for cure (*4*). Because monotherapy can lead to antimicrobial resistance, clarithromycin might be used in conjunction with another antibiotic that is effective against *M. chelonae* (e.g., amikacin, imipenem, or tobramycin) (*4*). Even with antibiotic therapy, abscess and ulcer formation can occur, which might require surgical debridement (*3*). Scarring also is a potential outcome of infection caused by rapidly growing mycobacteria after cosmetic surgery (*5*).

In the United States, the burden of disease caused by *M. chelonae* is unknown. Clinicians and laboratories are not required to report infections caused by nontuberculous mycobacteria. Because *M. abscessus* was classified previously as a subspecies of *M. chelonae*, determining which pathogen was responsible for RGM infections described in older reports is difficult. Limited information about disease trends is available through CDC's Public Health Laboratory Information System (PHLIS), which receives voluntary reports of nontuberculous species suspected to be involved in disease. During 1993–1996, the rate of *M. chelonae* reports received by PHLIS increased from 0.93 to 2.64 per million population, suggesting that *M. chelonae* might be recognized increasingly as a cause of disease (*6*).

M. chelonae has been identified as the cause of approximately 10% of nosocomial outbreaks attributed to rapidly growing mycobacteria (*1*). *M. chelonae* might be less virulent than or not as widespread in the environment as other rapidly growing mycobacteria that are commonly responsible for such outbreaks (e.g., *M. abscessus* and *M. fortuitum*) (*1*).

The findings in this report indicate the risks associated with multiuse supplies, specifically the use of unsterile, methylene blue to outline surgical incisions. Because methylene blue is a potential reservoir for *M. chelonae*, surgeons should use only sterile, single-use, tissue-marking agents during procedures that require aseptic technique, and clinicians should consider *M. chelonae* when evaluating surgical-site infections.

References

1. Wallace RJ Jr, Brown BA, Onyi GO. Skin, soft tissue, and bone infections due to *Mycobacterium chelonae*: importance of prior corticosteroid therapy, frequency of disseminated infections, and resistance to oral antimicrobials other than clarithromycin. J Infect Dis 1992;166:405–12.
2. McFarland EJ, Kuritzkes DR. Clinical features and treatment of infection due to *Mycobacterium fortuitum/chelonae* complex. Curr Clin Top Infect Dis 1993;13:188–202.
3. Kullavanijaya P. Atypical mycobacterial cutaneous infection. Clin Dermatol 1999;17:153–8.
4. Wallace RJ Jr, Tanner D, Brennan PJ, Brown BA. Clinical trial of clarithromycin for cutaneous (disseminated) infection due to *Mycobacterium chelonae*. Ann Intern Med 1993;119:482–6.
5. Safranek TJ, Jarvis WR, Carson LA, et al. *Mycobacterium chelonae* wound infections after plastic surgery employing contaminated gentian violet skin-marking solution. N Engl J Med 1987;317:197–201.
6. CDC. Nontuberculous mycobacteria reported to the Public Health Laboratory Information System by state public health laboratories, 1993–1996. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, 1999. Available at http://www.cdc.gov/ncidod/dastlr/tb/ntmfinal.pdf.

Silicosis in Dental Laboratory Technicians — Five States, 1994–2000

Silicosis is a debilitating, sometimes fatal, yet preventable occupational lung disease caused by inhaling respirable crystalline silica dust. Although crystalline silica exposure and silicosis have been associated historically with work in mining, quarrying, sandblasting, masonry, founding, and ceramics, certain materials and processes used in dental laboratories also place technicians at risk for silicosis (*1*–*3*). During 1994–2000, occupational disease surveillance programs in five states identified nine confirmed cases of silicosis among persons who worked in dental laboratories; four persons resided in Michigan, two in New Jersey, and one each in Massachusetts, New York, and Ohio. This report describes three of the cases and underscores the need for employers of dental laboratory technicians to ensure appropriate control of worker exposure to crystalline silica.

Silicosis cases in Michigan, New Jersey, and Ohio were identified through the Sentinel Event Notification Systems for Occupational Risks (SENSOR) surveillance program (*4*). The case in New York was identified through the state's Occupational Lung Disease Registry, and the case in Massachusetts was identified through the state's Occupational Disease and Injury Surveillance System; both use the SENSOR model. Although cases were identified during 1994–2000, diagnoses preceded state surveillance system identification. State surveillance programs identify suspected cases of silicosis through various sources, including hospital discharge data, death certificate data, workers' compensation reports, and physician reports. Cases are confirmed on the basis of the silicosis surveillance case definition (Box 1) adopted by these state surveillance programs and information from interviews, medical record review, or chest radiograph classification by a National Institute for Occupational Safety and Health (NIOSH)–certified B-reader*.

Case Reports

Case 1. In November 1992, a man aged 65 years in New Jersey died 4 days after being admitted to a hospital with abdominal pain, nausea, and vomiting. The cause of death was shock, pancreatitis, and respiratory failure. At age 48 years, silicosis had been diagnosed in the patient. He had worked for 46 years in dental laboratories, 27 years as an owner, and had performed routine dental laboratory operations. He reportedly was exposed to dust, cobalt, and chemicals, and never wore a respirator. A B-reader classification of a chest radiograph taken 1 day before his death revealed small, rounded opacities involving the upper zones, with a profusion category of 1/2, consistent with silicosis.

Case 2. In September 1995, silicosis was diagnosed in a man aged 66 years in New York. He had worked as a dental technician for 30 years and had been exposed to various min-

*NIOSH B-reader certification is granted to physicians who demonstrate proficiency in classifying chest radiographs for pneumoconioses by using the International Labour Office Classification System (*5*).

BOX 1. Silicosis surveillance guidelines for state health departments

Reporting guidelines

State health departments should encourage physicians, including radiologists, pathologists, and other health-care professionals to report all diagnosed or suspected cases of silicosis. These reports should include persons with one or more of the following:

- a physician's provisional or working diagnosis of silicosis
- a chest radiograph interpreted as consistent with silicosis
- pathologic findings consistent with silicosis.

State health departments should collect appropriate clinical, epidemiologic, and workplace information on persons reported with silicosis to set priorities for workplace investigations.

Surveillance case definition

- History of occupational exposure to airborne silica dust* and one or both of the following:
  - — chest radiograph or other imaging technique interpreted as consistent with silicosis†
  - — pathologic findings characteristic of silicosis§.

Source: National Institute for Occupational Safety and Health.

* The induction period between initial silica exposure and development of radiographically detectable nodular silicosis usually is ≥10 years. Shorter induction periods are associated with heavy exposures, and acute silicosis might develop within months after massive silica exposure.

† Cases can be classified as nodular or acute. Common radiographic findings of nodular silicosis include multiple, bilateral, rounded opacities in the upper lung zones; other patterns have been described. Because patients might have mixed dust exposure, irregular opacities might be present or even predominant. To be considered consistent with silicosis, radiographs of nodular silicosis classified by National Institute for Occupational Safety and Health–certified B-readers should have small opacity profusion categories of ≥1/0 by the International Labour Office classification system. If the largest opacity is >1 cm in diameter, progressive massive fibrosis (i.e., "complicated" silicosis) is present. A bilateral alveolar filling pattern is characteristic of acute silicosis and might be followed by rapid development of bilateral small or large nodular opacities.

§ Characteristic lung tissue pathology in nodular silicosis consists of fibrotic nodules with concentric "onion-skin" arrangement of collagen fibers, central hyalinization, and a cellular peripheral zone, with lightly birefringent particles observed under polarized light. In acute silicosis, microscopic pathology shows a periodic acid-Schiff–positive alveolar exudate (i.e., alveolar lipoproteinosis) and a cellular infiltrate in the alveolar walls.

eral and metallic dusts. A chest radiograph taken at a local hospital revealed category 2/3 profusion of small, nodular opacities in the middle and lower lung zones, consistent with silicosis. Asbestosis and berylliosis† also were diagnosed.

Case 3. In November 1992, a man aged 67 years in New Jersey died 3 days after being admitted to a hospital with progressive confusion. The cause of death was urosepsis caused by scleroderma, anemia, and renal failure. He had worked for 28 years in dental laboratories, 24 years as an owner. He reportedly was exposed to various dusts, performed sandblasting in dental laboratories, and never wore a respirator. A chest radiograph taken 10 weeks before his death revealed small, rounded opacities involving the upper zones, with a profusion category of 3/2, consistent with silicosis.

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Editorial Note: The findings in this report suggest that dental laboratory technicians might be at risk for silicosis as a result of uncontrolled exposure to airborne crystalline silica dust. For the patients described in this report, the only identified source of crystalline silica exposure was their work as dental technicians. Exposure to respirable crystalline silica in dental laboratories can occur during procedures that generate airborne dust (e.g., mixing powders, removing castings from molds, grinding and polishing castings and porcelain, and using silica sand for abrasive blasting). The proportion of crystalline silica in mold and porcelain materials, by weight, can range up to 70%. A study of dental technicians in South Korea (*6*) that described materials and processes similar to those used in the United States found exposures during polishing operations that exceeded the NIOSH recommended exposure limit of 0.05 mg/m^3 (*7*).

The United States has approximately 14,000 dental laboratories (*8*), and approximately 6,400 dental laboratory technicians are certified by the National Association of Dental Laboratories (NADL) (NADL, unpublished data, 2004). Because dental laboratories are not registered or licensed, the actual number of dental laboratory technicians is unknown.

The findings in this report are subject to at least three limitations. First, data for some variables (e.g., month or year of diagnosis and job history) were not available for all cases. Second, the risk for exposure to crystalline silica could not be

† Asbestosis is caused by exposure to asbestos, once commonly used in dental laboratories; berylliosis is caused by exposure to the metal beryllium, a component of some alloys used in dental prostheses.

quantified because data on exposure levels among dental laboratory technicians are limited. Finally, silicosis case ascertainment is not complete (*9*).

Occupational diseases such as silicosis frequently are not recognized or reported by physicians (*10*). Health-care providers and employers should be educated on the importance of screening and reporting silicosis to their state-based surveillance systems.

Methods to control exposure to silica are well established. Through industrywide educational outreach, state-based surveillance programs can alert employers to a potential occupational hazard and provide guidance for controlling worker exposure. The Occupational Safety and Health Administration (OSHA) requires employers to identify occupational health hazards and control them by instituting engineering and work-practice controls, issuing personal protective equipment (PPE), and ensuring that PPE is working and used properly. As part of an effective OSHA-compliant hazard communication program, dental technicians should be trained in the hazards of crystalline silica exposure and the methods to control exposure (Box 2). Guidance for controlling silica exposure in dental laboratory settings is available at http://www.state.nj.us/health/eoh/survweb. Additional information about silica and silicosis is available at http://www.cdc.gov/niosh/topics/silica.

BOX 2. Exposure-control methods for crystalline silica in dental laboratories

- Substitute nonsilica-containing materials for silica-containing materials (e.g., aluminum oxide as an abrasive blasting media instead of silica sand).
- Isolate the source of silica exposure from the dental technician (e.g., perform divestment of castings while materials are immersed in water).
- Remove dust at its point of generation by using engineering controls (e.g., local exhaust ventilation system with dust collector).
- Incorporate work and housekeeping practices that minimize the release of dust into the workroom air (e.g., use high-efficiency particulate aerosol-filtered vacuums for clean-up instead of dry sweeping).
- Use respiratory protection devices (e.g., half-mask air-purifying respirator fitted with type N-100 filters).

References

1. Choudat D. Occupational lung disease among dental technicians. Tuber Lung Dis 1994;75:99–104.
2. Rom WN, Lockey JE, Lee JS, et al. Pneumoconiosis and exposures of dental laboratory technicians. Am J Public Health 1984;74:1252–7.
3. CDC. Silicosis surveillance—Michigan, New Jersey, Ohio, and Wisconsin, 1987–1990. In: CDC Surveillance Summaries (November 19). MMWR 1993;42(No. SS-5).
4. Baker EL. Sentinel Event Notification Systems for Occupational Risks (SENSOR): the concept. Am J Public Health 1989;79(suppl):18–20.
5. International Labour Office. Guidelines for the Use of the ILO International Classification of Radiographs of Pneumoconioses, 2000 ed. Geneva, Switzerland: International Labour Office, 2002 (Occupational Safety and Health Series, No. 22, rev. 2000).
6. Kim TS, Kim HA, Heo Y, Park Y, Park CY, Roh YM. Level of silica in the respirable dust inhaled by dental technicians with demonstration of respirable symptoms. Ind Health 2002;40:260–5.
7. National Institute for Occupational Safety and Health. NIOSH Hazard Review: Health Effects of Occupational Exposure to Respirable Crystalline Silica, 2002. Cincinnati, Ohio: U.S. Department of Health and Human Services, CDC, National Institute for Occupational Safety and Health, 2002; DHHS publication no. (NIOSH)2002-129.
8. Marketplace [CD-ROM database]. New York, New York: Dun & Bradstreet, April 2002.
9. Rosenman KD, Reilly MJ, Henneberger PK. Estimating the total number of newly-recognized silicosis cases in the United States. Am J Ind Med 2003;44:141–7.
10. CDC. Mandatory reporting of occupational diseases by clinicians. MMWR 1990;39(No. RR-9).

Brief Report

Azithromycin Treatment Failures in Syphilis Infections — San Francisco, California, 2002–2003

The San Francisco Department of Public Health (SFDPH) is investigating several clinical failures in syphilis patients treated with the macrolide antibiotic azithromycin. This report describes the use of azithromycin for syphilis treatment, recent treatment failures in San Francisco, and CDC recommendations for syphilis treatment. Clinicians should exercise caution in using azithromycin for treating incubating syphilis or syphilis infection until the risk and mechanism of failure are better understood.

Syphilis has been increasing in the United States since 2000 and is of particular concern in San Francisco, which, in 2002, had one of the highest rates of primary and secondary syphilis in the United States. To facilitate treatment of early syphilis patients and their sexual contacts, certain disease-control programs have administered azithromycin as a single oral regimen. Several small studies have documented the efficacy of a single oral dose of azithromycin in the treatment of incubating and early syphilis infection in patients who were not infected with the human immunodeficiency virus (HIV) (*1*). In addition, the oral dose is more convenient to administer than intramuscular benzathine penicillin, CDC's recommended treatment for sexually transmitted diseases (*2*).

In April 2003, SFDPH became aware of an azithromycin failure in the treatment of primary syphilis in one patient and subsequently collected case information on this and seven other apparent treatment failures occurring during September 2002–July 2003. The median patient age was 34 years (range: 23–

39 years); seven patients were non-Hispanic whites, and one was Asian-American; all were male and self-reported as homosexual. Five patients were positive for HIV, and the median number of sex partners during the 90 days preceding diagnosis was three (range: two to 100 partners; one nonrespondent among the eight patients who provided such information).

Treatment failure was well documented in three patients with ulcers (two penile and one oral). After treatment of each patient with 2 grams of azithromycin, one penile ulcer was still positive by dark-field microscopy after 5 days, one penile ulcer persisted and was dark-field positive during the next 5 weeks, and the oral ulcer worsened during the next 18 days. Five other patients who were asymptomatic, seronegative contacts to early syphilis patients received 1 gram of azithromycin but seroconverted subsequently or had early syphilis. One patient returned to the clinic 11 days after treatment with a penile ulcer. Four patients either returned with symptoms (i.e., rash in two cases and penile ulcer in one) or seroconverted (rapid plasma reagin: 1:128) 6–12 weeks after treatment. Investigation by SFDPH indicated that two patients had direct sexual contact with each other, but no other common partners were found. All patients were treated subsequently with penicillin or doxycycline and responded clinically and serologically.

SFDPH continues to conduct surveillance for azithromycin treatment failure. Because resistance to the macrolide antibiotic erythromycin has been reported in *Treponema pallidum* (*3*), investigators at the University of Washington are collaborating with SFDPH and other sites to identify the molecular mechanism that confers azithromycin resistance. The likelihood of azithromycin treatment failure in treating syphilis is unknown. CDC recommends penicillin as the preferred therapy for syphilis. However, a 2-gram dose of azithromycin may be considered for penicillin-allergic patients, but only with close follow-up because treatment efficacy is not well documented and has not been studied in persons with HIV infection (*2*).

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References

1. Hook EW III, Martin DH, Stephens J, Smith BS, Smith K. A randomized, comparative pilot study of azithromycin versus benzathine penicillin G for treatment of early syphilis. Sex Transm Dis 2002;29:486–90.
2. CDC. Sexually transmitted diseases treatment guidelines 2002. MMWR 2002;51(No. RR-6).
3. Stapleton JT, Stamm LV, Bassford PJ. Potential for development of antibiotic resistance in pathogenic treponemes. Rev Infect Dis 1985;7(suppl 2):S314–S317.

Manufacturer's Recall of Rapid Cartridge Assay Kits on the Basis of False-Positive *Cryptosporidium* Antigen Tests — Colorado, 2004

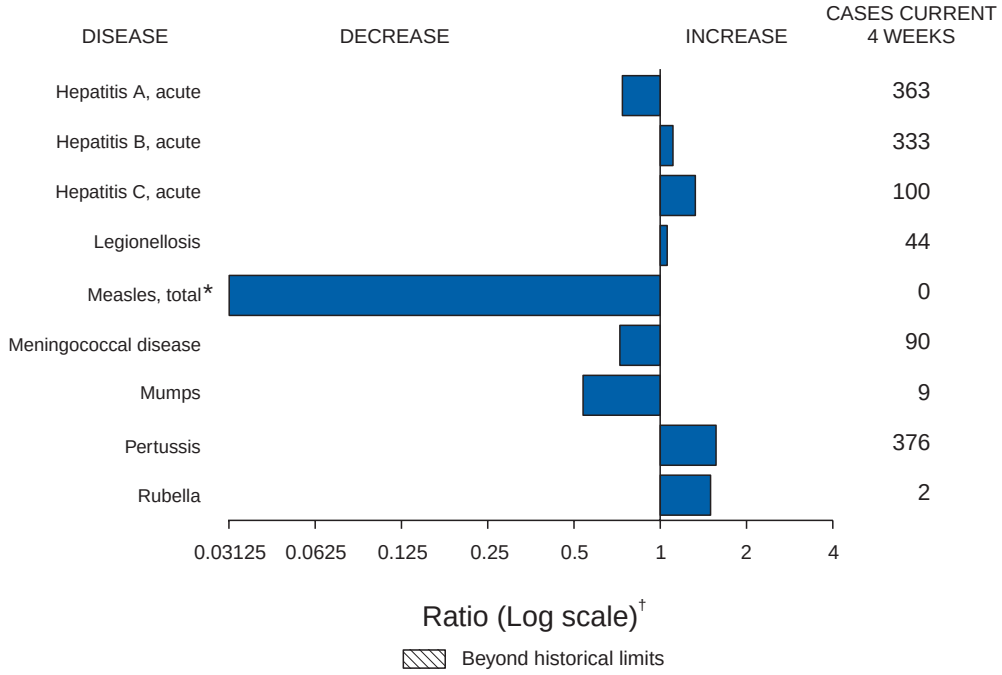
On March 4, this report was posted on the MMWR *website* (http://www.cdc.gov/mmwr).

The Colorado Department of Public Health and Environment (CDPHE) has determined that a fourfold increase in the number of reported cryptosporidiosis cases in Colorado during January–February 2004 might be attributed primarily to false-positive test results. Since January 1, 2004, a total of 13 in-state cases and one out-of-state case were reported to CDPHE. During the previous 7 years, an average of three cases were reported during January–February. In eight of 14 patients, rapid testing was performed by using the ImmunoCard STAT!® *Cryptosporidium/Giardia* Rapid Assay (Meridian Bioscience, Inc., Cincinnati, Ohio). This assay is a solid-phase qualitative immunochromatographic assay designated to detect and distinguish between *Giardia intestinalis* (*lamblia*) and *Cryptosporidium parvum* in aqueous extracts of human fecal specimens. Seven of these samples were tested by using lot no. 081093 (expires August 11, 2004). Of the seven samples that tested positive initially for *Cryptosporidium* with this lot number, four were retested by using other, more specific tests. One patient sample was positive by direct microscopy, one was negative by direct microscopy, and two were negative by direct fluorescent-antibody testing, suggesting that results for three of the four samples were false positive. The results of testing for *Giardia intestinalis* (*lamblia*) with these kits are unclear. Several other states have noted increases in the number of reported cryptosporidiosis cases that also might be associated with use of these rapid assays.

Meridian Bioscience, Inc., has voluntarily recalled two lots (lot no. 081077 [expires July 11, 2004] and lot no. 081093) from laboratories. CDC recommends reconfirmation of positive test results obtained with ImmunoCard STAT!® rapid assays from these lots.

Reported by: *A Cronquist, MPH, Colorado Dept of Public Health and Environment. MJ Beach, PhD, SP Johnston, MS, A da Silva, PhD, Div of Parasitic Diseases, National Center for Infectious Diseases, CDC.*

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals March 6, 2004, with historical data



* No measles cases were reported for the current 4-week period yielding a ratio for week 9 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 March 6, 2004 (9th Week)*

	Cum. 2004	Cum. 2003		Cum. 2004	Cum. 2003
Anthrax	-	-	Hemolytic uremic syndrome, postdiarrheal†	9	24
Botulism:	-	-	HIV infection, pediatric†§	-	48
foodborne	3	2	Measles, total	3¶	3**
infant	10	13	Mumps	24	39
other (wound & unspecified	3	3	Plague	-	-
Brucellosis†	8	25	Poliomyelitis, paralytic	-	-
Chancroid	4	8	Psittacosis†	2	5
Cholera	1	-	Q fever†	4	14
Cyclosporiasis†	4	21	Rabies, human	-	-
Diphtheria	-	-	Rubella	5	1
Ehrlichiosis:	-	-	Rubella, congenital syndrome	1	-
human granulocytic (HGE)†	3	15	SARS-associated coronavirus disease† ††	-	1
human monocytic (HME)†	4	18	Smallpox† §§	-	NA
human, other and unspecified	-	1	*Staphylococcus aureus*:	-	-
Encephalitis/Meningitis:	-	-	Vancomycin-intermediate (VISA)† §§	3	NA
California serogroup viral†	-	-	Vancomycin-resistant (VRSA)† §§	-	NA
eastern equine†	-	2	Streptococcal toxic-shock syndrome†	18	38
Powassan†	-	-	Tetanus	2	4
St. Louis†	1	2	Toxic-shock syndrome	21	16
western equine†	-	-	Trichinosis	1	-
Hansen disease (leprosy)†	7	18	Tularemia†	2	4
Hantavirus pulmonary syndrome†	2	5	Yellow fever	-	-

-: No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update December 28, 2003.
¶ Of three cases reported, three were indigenous, and none were imported from another country.
** Of three cases reported, two were indigenous, and one was imported from another country.
†† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (notifiable as of July 2003).
§§ Not previously notifiable.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 6, 2004, and March 1, 2003 (9th Week)*

Reporting area	AIDS		Chlamydia†		Coccidiodomycosis		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	-	8,321	120,410	140,014	1,219	602	418	412	4	57
NEW ENGLAND	-	279	4,442	4,708	-	-	26	24	-	-
Maine	-	8	181	298	N	N	4	1	-	-
N.H.	-	3	309	257	-	-	6	3	-	-
Vt.	-	5	178	192	-	-	3	3	-	-
Mass.	-	111	2,569	1,761	-	-	10	12	-	-
R.I.	-	21	646	467	-	-	-	3	-	-
Conn.	-	131	559	1,733	N	N	3	2	-	-
MID. ATLANTIC	-	2,163	17,580	15,485	-	-	75	43	1	-
Upstate N.Y.	-	92	3,108	2,369	N	N	17	8	-	-
N.Y. City	-	1,272	4,717	5,548	-	-	8	19	-	-
N.J.	-	296	1,996	2,482	-	-	4	2	-	-
Pa.	-	503	7,759	5,086	N	N	46	14	1	-
E.N. CENTRAL	-	856	18,786	26,888	-	2	85	65	-	-
Ohio	-	128	2,490	7,458	-	-	30	9	-	-
Ind.	-	119	3,117	3,094	N	N	12	3	-	-
Ill.	-	365	4,821	8,745	-	-	5	12	-	-
Mich.	-	202	6,744	4,649	-	2	21	16	-	-
Wis.	-	42	1,614	2,942	-	-	17	25	-	-
W.N. CENTRAL	-	136	6,708	8,083	-	-	50	22	1	-
Minn.	-	23	992	1,883	N	N	17	11	-	-
Iowa	-	23	-	688	N	N	7	5	-	-
Mo.	-	73	2,917	3,000	-	-	12	2	1	-
N. Dak.	-	-	165	172	N	N	-	-	-	-
S. Dak.	-	4	405	398	-	-	4	4	-	-
Nebr.¶	-	6	894	715	-	-	-	-	-	-
Kans.	-	7	1,335	1,227	N	N	10	-	-	-
S. ATLANTIC	-	1,814	19,652	24,997	-	-	73	157	1	57
Del.	-	49	513	517	N	N	-	1	-	-
Md.	-	187	3,171	2,701	-	-	6	6	-	-
D.C.	-	233	536	567	-	-	1	-	-	-
Va.	-	264	1,245	2,398	-	-	8	2	-	-
W. Va.	-	13	404	432	N	N	-	-	-	-
N.C.	-	192	4,350	4,186	N	N	20	4	-	-
S.C.¶	-	169	2,896	2,182	-	-	-	1	-	-
Ga.	-	415	659	5,125	-	-	21	14	-	-
Fla.	-	292	5,878	6,889	N	N	17	129	1	57
E.S. CENTRAL	-	324	7,861	9,499	N	N	20	16	-	-
Ky.	-	38	978	1,530	N	N	5	1	-	-
Tenn.	-	145	3,178	3,039	N	N	11	7	-	-
Ala.	-	64	2,025	2,560	-	-	2	6	-	-
Miss.	-	77	1,680	2,370	N	N	2	2	-	-
W.S. CENTRAL	-	940	17,124	17,728	-	1	15	8	1	-
Ark.	-	23	1,289	1,056	-	-	7	2	-	-
La.	-	49	4,405	3,552	N	N	-	-	1	-
Okla.	-	40	1,301	1,221	N	N	5	1	-	-
Tex.	-	828	10,129	11,899	-	1	3	5	-	-
MOUNTAIN	-	312	7,343	8,941	966	479	23	15	-	-
Mont.	-	7	27	355	N	N	1	1	-	-
Idaho	-	4	620	403	N	N	-	4	-	-
Wyo.	-	2	174	188	-	-	2	-	-	-
Colo.	-	72	534	2,297	N	N	14	3	-	-
N. Mex.	-	27	1,245	1,347	2	-	1	-	-	-
Ariz.	-	145	3,402	2,900	951	471	4	1	-	-
Utah	-	14	365	387	4	1	-	4	-	-
Nev.	-	41	976	1,064	9	7	1	2	-	-
PACIFIC	-	1,497	20,914	23,685	253	120	51	62	-	-
Wash.	-	117	2,837	2,426	N	N	-	-	-	-
Oreg.	-	66	1,312	1,066	-	-	8	3	-	-
Calif.	-	1,294	16,286	18,667	253	120	42	59	-	-
Alaska	-	7	468	601	-	-	-	-	-	-
Hawaii	-	13	11	925	-	-	1	-	-	-
Guam	-	1	-	-	-	-	-	-	-	-
P.R.	-	235	298	139	N	N	N	N	-	-
V.I.	-	6	-	53	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	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 monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update December 28, 2003.

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending March 6, 2004, and March 1, 2003 (9th 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	152	206	23	47	18	20	2,187	3,506	42,864	55,011
NEW ENGLAND	9	9	2	1	2	2	192	190	1,012	1,290
Maine	-	-	-	-	-	-	20	17	36	19
N.H.	1	2	-	1	-	-	5	14	19	18
Vt.	-	-	-	-	-	-	12	16	8	18
Mass.	1	3	1	-	2	2	91	91	598	469
R.I.	-	-	-	-	-	-	9	9	160	160
Conn.	7	4	1	-	-	-	55	43	191	606
MID. ATLANTIC	12	17	1	1	2	2	435	507	5,959	6,684
Upstate N.Y.	4	3	1	-	-	-	146	92	1,119	1,012
N.Y. City	3	3	-	-	-	-	114	212	1,603	2,252
N.J.	-	3	-	-	1	-	33	68	888	1,550
Pa.	5	8	-	1	1	2	142	135	2,349	1,870
E.N. CENTRAL	30	46	4	5	3	2	283	455	7,241	12,295
Ohio	11	13	-	2	3	2	130	143	1,117	3,865
Ind.	6	3	-	-	-	-	-	-	1,149	1,193
Ill.	2	7	-	-	-	-	44	132	1,914	3,902
Mich.	7	9	-	-	-	-	82	108	2,582	2,262
Wis.	4	14	4	3	-	-	27	72	479	1,073
W.N. CENTRAL	19	24	6	3	6	2	209	247	2,300	2,840
Minn.	9	11	2	3	-	-	74	52	403	487
Iowa	-	2	-	-	-	-	35	35	-	127
Mo.	5	3	4	-	1	-	61	94	1,154	1,510
N. Dak.	1	1	-	-	3	1	2	7	15	5
S. Dak.	-	2	-	-	-	-	8	7	35	19
Nebr.	1	4	-	-	-	-	13	28	218	219
Kans.	3	1	-	-	2	1	16	24	475	473
S. ATLANTIC	9	52	6	31	1	10	371	1,350	9,531	12,774
Del.	-	-	N	N	N	N	11	9	183	237
Md.	2	-	-	-	-	-	16	20	1,351	1,367
D.C.	-	-	-	-	-	-	7	-	356	432
Va.	-	2	2	-	-	-	50	29	472	1,209
W. Va.	-	-	-	-	-	-	1	4	128	143
N.C.	-	-	3	5	-	-	N	N	2,736	2,429
S.C.	-	-	-	-	-	-	1	12	1,366	1,275
Ga.	3	3	-	1	-	-	103	140	447	2,540
Fla.	4	47	1	25	1	10	182	1,136	2,492	3,142
E.S. CENTRAL	5	9	1	-	3	-	35	49	3,751	4,825
Ky.	1	1	1	-	3	-	N	N	447	649
Tenn.	2	5	-	-	-	-	22	21	1,218	1,412
Ala.	1	3	-	-	-	-	13	28	1,200	1,605
Miss.	1	-	-	-	-	-	-	-	886	1,159
W.S. CENTRAL	9	6	-	2	-	2	47	33	6,572	7,462
Ark.	-	1	-	-	-	-	23	22	601	627
La.	-	-	-	-	-	-	7	1	2,115	2,030
Okla.	3	-	-	-	-	-	17	10	619	510
Tex.	6	5	-	2	-	2	-	-	3,237	4,295
MOUNTAIN	33	19	2	3	1	-	254	221	1,891	2,005
Mont.	1	-	-	-	-	-	5	4	8	26
Idaho	3	5	-	2	-	-	35	28	12	14
Wyo.	-	-	-	-	-	-	1	3	9	9
Colo.	15	4	1	-	1	-	77	62	310	556
N. Mex.	1	-	-	1	-	-	9	11	152	234
Ariz.	8	8	N	N	N	N	66	47	937	814
Utah	2	2	-	-	-	-	44	46	39	38
Nev.	3	-	-	-	-	-	17	20	424	314
PACIFIC	26	24	1	1	-	-	361	454	4,607	4,836
Wash.	4	8	-	-	-	-	31	25	492	455
Oreg.	4	1	1	1	-	-	60	55	159	154
Calif.	14	15	-	-	-	-	252	346	3,875	3,958
Alaska	-	-	-	-	-	-	6	11	80	93
Hawaii	4	-	-	-	-	-	12	17	1	176
Guam	N	N	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	10	24	19
V.I.	-	-	-	-	-	-	-	-	-	11
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 March 6, 2004, and March 1, 2003 (9th 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	337	394	4	6	21	23	32	41	910	1,347
NEW ENGLAND	30	27	-	1	2	2	1	-	166	30
Maine	3	-	-	-	-	-	-	-	5	1
N.H.	9	3	-	-	1	-	-	-	2	3
Vt.	2	5	-	-	-	-	-	-	4	2
Mass.	9	14	-	1	-	2	1	-	139	16
R.I.	1	-	-	-	-	-	-	-	-	1
Conn.	6	5	-	-	1	-	-	-	16	7
MID. ATLANTIC	62	48	-	-	1	-	9	6	103	191
Upstate N.Y.	22	11	-	-	1	-	1	2	11	16
N.Y. City	7	10	-	-	-	-	2	2	34	78
N.J.	10	7	-	-	-	-	2	-	13	30
Pa.	23	20	-	-	-	-	4	2	45	67
E.N. CENTRAL	46	43	-	1	9	2	5	10	74	116
Ohio	27	11	-	-	2	-	4	3	12	20
Ind.	9	4	-	-	3	1	1	-	4	4
Ill.	-	18	-	-	-	-	-	7	24	46
Mich.	7	5	-	1	4	1	-	-	29	33
Wis.	3	5	-	-	-	-	-	-	5	13
W.N. CENTRAL	9	22	1	-	1	2	-	3	20	31
Minn.	6	7	-	-	1	2	-	-	-	4
Iowa	1	-	1	-	-	-	-	-	6	9
Mo.	1	10	-	-	-	-	-	3	6	7
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	1	-	-	-	-	-	-	2	-
Nebr.	1	-	-	-	-	-	-	-	3	3
Kans.	-	4	-	-	-	-	-	-	3	8
S. ATLANTIC	101	158	-	1	1	8	9	11	197	586
Del.	1	-	-	-	-	-	1	-	2	2
Md.	20	13	-	-	-	1	1	-	34	33
D.C.	-	-	-	-	-	-	-	-	2	-
Va.	10	5	-	-	-	-	-	1	17	10
W. Va.	4	1	-	-	-	-	2	-	1	4
N.C.	6	3	-	-	-	-	-	-	12	9
S.C.	-	1	-	-	-	-	-	-	-	11
Ga.	37	12	-	-	-	-	4	1	80	106
Fla.	23	123	-	1	1	7	1	9	49	411
E.S. CENTRAL	13	25	-	-	-	1	3	3	24	32
Ky.	-	3	-	-	-	1	-	-	2	5
Tenn.	8	10	-	-	-	-	2	2	16	16
Ala.	5	11	-	-	-	-	1	1	-	7
Miss.	-	1	-	-	-	-	-	-	6	4
W.S. CENTRAL	15	15	-	-	2	1	-	-	26	85
Ark.	-	2	-	-	-	-	-	-	6	4
La.	1	4	-	-	-	-	-	-	-	12
Okla.	14	9	-	-	2	1	-	-	7	2
Tex.	-	-	-	-	-	-	-	-	13	67
MOUNTAIN	51	36	1	1	5	5	4	5	103	54
Mont.	-	-	-	-	-	-	-	-	-	-
Idaho	1	-	-	-	-	-	1	-	3	3
Wyo.	-	-	-	-	-	-	-	-	1	-
Colo.	15	6	-	-	-	-	2	1	8	3
N. Mex.	5	4	-	-	1	2	-	-	3	5
Ariz.	26	20	-	1	3	1	1	3	76	29
Utah	1	4	1	-	-	1	-	1	10	5
Nev.	3	2	-	-	1	1	-	-	2	9
PACIFIC	10	20	2	2	-	2	1	3	197	222
Wash.	3	2	2	-	-	1	1	1	11	5
Oreg.	6	10	-	-	-	-	-	2	15	18
Calif.	-	6	-	2	-	1	-	-	168	195
Alaska	-	-	-	-	-	-	-	-	1	2
Hawaii	1	2	-	-	-	-	-	-	2	2
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	1	4
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 March 6, 2004, and March 1, 2003 (9th 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	789	1,786	230	425	168	315	59	106	865	1,283
NEW ENGLAND	33	52	-	-	2	8	1	4	18	60
Maine	1	-	-	-	-	-	-	-	5	-
N.H.	6	1	-	-	-	-	-	1	-	1
Vt.	1	1	-	-	-	1	-	-	-	3
Mass.	25	39	-	-	1	3	-	2	6	54
R.I.	-	-	-	-	-	1	-	-	-	2
Conn.	-	11	U	U	1	3	1	1	7	-
MID. ATLANTIC	82	198	28	21	36	37	10	16	705	976
Upstate N.Y.	8	8	3	2	7	7	3	2	210	288
N.Y. City	2	92	-	-	-	5	1	4	-	-
N.J.	39	48	-	-	10	4	3	3	113	202
Pa.	33	50	25	19	19	21	3	7	382	486
E.N. CENTRAL	56	85	10	28	45	45	7	7	20	27
Ohio	33	28	1	3	29	19	3	1	15	4
Ind.	1	-	-	-	2	1	1	1	-	2
Ill.	-	1	-	8	-	9	-	3	-	-
Mich.	22	39	9	17	12	13	2	2	-	-
Wis.	-	17	-	-	2	3	1	-	5	21
W.N. CENTRAL	61	48	107	37	4	3	1	2	11	17
Minn.	5	2	-	-	-	-	-	1	3	12
Iowa	1	3	-	-	-	1	-	-	2	2
Mo.	50	36	107	37	3	1	1	-	5	2
N. Dak.	1	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	1	-	-	-	-	-
Nebr.	4	4	-	-	-	-	-	1	-	-
Kans.	-	3	-	-	-	1	-	-	1	1
S. ATLANTIC	283	949	30	91	40	179	15	47	88	158
Del.	1	2	-	-	2	-	N	N	3	21
Md.	24	18	1	3	6	12	2	2	54	46
D.C.	4	-	1	-	-	-	-	-	1	-
Va.	19	15	3	-	3	4	-	1	1	2
W. Va.	-	1	1	-	1	-	1	-	-	-
N.C.	24	17	1	2	6	5	4	1	19	6
S.C.	-	12	-	-	-	2	-	2	1	-
Ga.	101	248	5	6	5	5	4	3	-	3
Fla.	110	636	18	80	17	151	4	38	9	80
E.S. CENTRAL	49	55	33	15	6	3	2	4	1	8
Ky.	7	9	7	2	2	-	1	-	-	-
Tenn.	22	8	25	2	3	2	1	-	1	1
Ala.	2	18	-	2	1	1	-	3	-	-
Miss.	18	20	1	9	-	-	-	1	-	7
W.S. CENTRAL	11	165	13	217	6	18	2	8	1	21
Ark.	4	17	-	1	-	-	-	-	-	-
La.	5	24	7	32	-	-	-	-	1	2
Okla.	2	7	-	-	2	2	-	1	-	-
Tex.	-	117	6	184	4	16	2	7	-	19
MOUNTAIN	98	92	4	5	13	10	6	9	3	2
Mont.	-	3	-	-	-	-	-	1	-	-
Idaho	2	2	-	-	1	1	-	-	-	1
Wyo.	1	2	-	-	2	1	-	-	1	-
Colo.	10	11	-	2	2	2	1	5	-	-
N. Mex.	2	6	-	-	-	-	-	-	-	-
Ariz.	64	51	2	2	2	3	4	3	1	-
Utah	8	5	-	-	5	2	-	-	1	-
Nev.	11	12	2	1	1	1	1	-	-	1
PACIFIC	116	142	5	11	16	12	15	9	18	14
Wash.	10	7	1	1	3	1	3	-	1	-
Oreg.	17	28	1	3	N	N	3	-	5	4
Calif.	87	102	2	6	13	11	9	9	12	10
Alaska	2	2	-	-	-	-	-	-	-	-
Hawaii	-	3	1	1	-	-	-	-	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	1	17	-	-	-	-	-	-	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 March 6, 2004, and March 1, 2003 (9th 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	151	249	315	406	1,153	1,101	438	785	78	56
NEW ENGLAND	10	7	9	15	355	118	36	69	4	-
Maine	-	1	-	1	-	-	2	4	-	-
N.H.	-	2	-	-	6	6	4	5	-	-
Vt.	-	-	1	-	9	17	4	4	-	-
Mass.	6	4	8	12	338	94	15	27	4	-
R.I.	1	-	-	-	-	-	-	1	-	-
Conn.	3	-	-	2	2	1	11	28	-	-
MID. ATLANTIC	23	39	40	37	314	110	79	119	7	7
Upstate N.Y.	7	6	12	4	225	45	50	46	1	-
N.Y. City	7	21	7	10	-	-	-	1	1	2
N.J.	2	4	3	5	26	18	-	28	-	4
Pa.	7	8	18	18	63	47	29	44	5	1
E.N. CENTRAL	11	18	37	50	147	85	3	4	-	1
Ohio	3	5	18	18	86	55	2	-	-	1
Ind.	-	-	3	4	6	4	1	2	-	-
Ill.	-	8	1	11	-	-	-	-	-	-
Mich.	5	3	13	11	19	9	-	2	-	-
Wis.	3	2	2	6	36	17	-	-	-	-
W.N. CENTRAL	10	4	15	18	55	62	62	74	2	2
Minn.	6	2	3	3	8	19	7	5	-	-
Iowa	1	2	3	4	9	25	8	7	-	1
Mo.	2	-	4	9	31	12	2	-	2	1
N. Dak.	-	-	-	-	1	-	9	12	-	-
S. Dak.	-	-	1	-	-	1	10	6	-	-
Nebr.	-	-	-	1	-	-	12	7	-	-
Kans.	1	-	4	1	6	5	14	37	-	-
S. ATLANTIC	66	119	58	142	63	167	210	456	57	42
Del.	-	-	1	4	2	-	1	-	-	-
Md.	19	16	4	5	20	13	13	48	3	4
D.C.	3	-	-	-	1	-	-	-	-	-
Va.	4	3	2	5	10	1	15	66	-	1
W. Va.	-	2	3	1	-	-	11	9	-	-
N.C.	3	4	7	5	16	34	90	96	52	18
S.C.	1	-	1	5	2	1	16	23	-	-
Ga.	10	2	10	10	-	4	64	46	2	1
Fla.	26	92	30	107	12	114	-	168	-	18
E.S. CENTRAL	3	5	15	19	19	21	9	20	7	2
Ky.	1	1	2	1	2	3	2	3	-	-
Tenn.	-	2	7	3	12	8	5	15	2	1
Ala.	1	2	2	4	1	8	2	2	1	-
Miss.	1	-	4	11	4	2	-	-	4	1
W.S. CENTRAL	4	16	32	43	4	25	18	14	-	2
Ark.	1	1	5	2	2	1	7	-	-	-
La.	2	1	9	14	2	4	-	-	-	-
Okla.	1	-	1	3	-	2	11	14	-	-
Tex.	-	14	17	24	-	18	-	-	-	2
MOUNTAIN	7	5	22	13	124	146	13	12	-	-
Mont.	-	-	1	-	4	-	-	1	-	-
Idaho	-	1	3	-	13	7	-	-	-	-
Wyo.	-	-	2	-	2	-	-	-	-	-
Colo.	3	3	9	4	69	71	-	-	-	-
N. Mex.	1	-	1	2	3	16	-	-	-	-
Ariz.	1	1	5	4	16	36	13	11	-	-
Utah	1	-	1	-	17	11	-	-	-	-
Nev.	1	-	-	3	-	5	-	-	-	-
PACIFIC	17	36	87	69	72	367	8	17	1	-
Wash.	2	4	5	6	49	28	-	-	-	-
Oreg.	1	5	16	15	22	45	-	-	-	-
Calif.	14	27	62	45	-	293	8	16	1	-
Alaska	-	-	1	-	1	-	-	1	-	-
Hawaii	-	-	3	3	-	1	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	1	-	-	11	8	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 March 6, 2004, and March 1, 2003 (9th 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	3,784	8,411	1,552	5,518	838	1,372	513	1,031	66	86
NEW ENGLAND	169	171	38	59	36	97	1	25	1	1
Maine	8	8	-	3	1	3	-	-	-	-
N.H.	8	11	2	-	5	7	-	-	N	N
Vt.	5	4	-	1	-	4	-	3	-	1
Mass.	102	109	28	39	28	50	N	N	N	N
R.I.	7	6	-	2	2	-	1	-	1	-
Conn.	39	33	8	14	-	33	-	22	U	U
MID. ATLANTIC	434	534	155	289	114	211	27	23	14	16
Upstate N.Y.	92	58	66	34	49	58	12	10	8	14
N.Y. City	112	173	37	72	5	32	U	U	U	U
N.J.	88	115	26	74	19	53	N	N	N	N
Pa.	142	188	26	109	41	68	15	13	6	2
E.N. CENTRAL	515	619	136	246	128	287	116	82	27	49
Ohio	158	185	38	48	54	72	93	71	19	32
Ind.	38	27	10	9	6	11	23	11	7	2
Ill.	135	237	49	129	5	79	-	-	-	-
Mich.	103	82	24	35	60	82	N	N	N	N
Wis.	81	88	15	25	3	43	N	N	1	15
W.N. CENTRAL	220	230	52	125	73	69	42	59	7	10
Minn.	49	62	11	11	36	24	-	-	7	8
Iowa	42	56	3	3	N	N	N	N	N	N
Mo.	63	57	18	49	11	21	2	3	-	-
N. Dak.	5	4	1	-	3	3	-	2	-	2
S. Dak.	11	11	1	8	5	7	-	-	-	-
Nebr.	17	14	2	41	3	7	-	-	N	N
Kans.	33	26	16	13	15	7	40	54	N	N
S. ATLANTIC	1,012	5,231	492	3,480	245	361	271	787	2	2
Del.	5	8	2	67	-	2	1	-	N	N
Md.	65	101	21	113	47	47	-	1	-	-
D.C.	4	-	8	-	2	-	-	-	2	-
Va.	105	60	18	39	8	8	N	N	N	N
W. Va.	6	3	-	-	6	1	8	10	-	2
N.C.	137	195	89	143	21	20	N	N	U	U
S.C.	57	61	15	22	1	4	17	37	N	N
Ga.	203	134	103	247	111	48	121	128	N	N
Fla.	430	4,669	236	2,849	49	231	124	611	N	N
E.S. CENTRAL	190	272	76	145	42	26	31	21	-	-
Ky.	26	44	8	23	20	5	8	1	N	N
Tenn.	61	91	38	40	22	21	23	20	N	N
Ala.	60	88	15	56	-	-	-	-	N	N
Miss.	43	49	15	26	-	-	-	-	-	-
W.S. CENTRAL	221	374	193	537	30	104	17	27	14	7
Ark.	33	48	11	4	2	2	3	7	1	2
La.	21	55	16	63	-	1	14	20	2	3
Okla.	36	30	63	101	13	16	N	N	8	2
Tex.	131	241	103	369	15	85	N	N	3	-
MOUNTAIN	395	286	200	189	68	119	8	6	1	1
Mont.	11	14	3	-	-	-	-	-	-	-
Idaho	28	17	-	2	1	5	N	N	N	N
Wyo.	5	3	1	1	3	-	4	-	-	-
Colo.	87	80	37	26	38	27	-	-	-	-
N. Mex.	22	25	24	33	14	32	3	6	-	-
Ariz.	191	108	117	118	4	53	-	-	N	N
Utah	30	20	8	4	8	2	-	-	1	1
Nev.	21	19	10	5	-	-	1	-	-	-
PACIFIC	628	694	210	448	102	98	-	1	-	-
Wash.	47	47	11	16	-	-	-	-	N	N
Oreg.	46	41	10	10	N	N	N	N	N	N
Calif.	470	566	181	413	78	81	N	N	N	N
Alaska	18	17	-	2	-	-	-	-	N	N
Hawaii	47	23	8	7	24	17	-	1	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	9	68	1	2	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 March 6, 2004, and March 1, 2003 (9th 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	986	1,160	29	81	745	1,258	34	60	1,878	2,859
NEW ENGLAND	11	29	-	-	26	32	3	3	154	487
Maine	-	-	-	-	-	-	-	-	7	244
N.H.	1	4	-	-	-	2	-	-	-	-
Vt.	-	-	-	-	-	1	-	-	147	196
Mass.	7	21	-	-	22	8	3	2	-	47
R.I.	2	2	-	-	3	7	-	-	-	-
Conn.	1	2	-	-	1	14	-	1	-	-
MID. ATLANTIC	142	132	5	12	215	285	4	11	8	3
Upstate N.Y.	9	3	2	1	17	22	-	1	-	-
N.Y. City	73	63	3	3	164	154	1	6	-	-
N.J.	25	36	-	8	-	43	2	3	-	-
Pa.	35	30	-	-	34	66	1	1	8	3
E.N. CENTRAL	90	162	13	16	149	134	2	4	941	1,429
Ohio	37	28	-	1	18	20	1	-	181	349
Ind.	10	6	-	5	13	21	-	2	-	-
Ill.	19	62	-	9	102	65	-	1	-	-
Mich.	21	64	13	1	8	20	1	1	728	892
Wis.	3	2	-	-	8	8	-	-	32	188
W.N. CENTRAL	19	39	-	-	35	76	-	-	40	5
Minn.	1	14	-	-	16	23	-	-	-	-
Iowa	-	2	-	-	4	3	-	-	N	N
Mo.	12	14	-	-	11	19	-	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	21	5
S. Dak.	-	-	-	-	-	8	-	-	19	-
Nebr.	4	-	-	-	-	2	-	-	-	-
Kans.	2	9	-	-	4	21	-	-	-	-
S. ATLANTIC	271	264	1	13	141	269	6	22	268	445
Del.	1	1	-	-	-	-	-	-	-	1
Md.	44	41	-	3	20	17	2	2	1	-
D.C.	14	4	-	-	-	-	-	-	4	-
Va.	1	11	-	1	6	21	1	4	23	80
W. Va.	-	-	-	-	4	2	-	-	233	350
N.C.	28	27	-	-	15	22	2	1	-	-
S.C.	22	24	-	3	16	16	-	-	7	14
Ga.	31	56	-	4	7	64	-	-	-	-
Fla.	130	100	1	2	73	127	1	15	-	-
E.S. CENTRAL	52	70	1	2	46	99	-	-	1	-
Ky.	12	12	-	1	6	13	-	-	-	-
Tenn.	23	26	1	1	26	30	-	-	-	-
Ala.	12	24	-	-	14	45	-	-	-	-
Miss.	5	8	-	-	-	11	-	-	1	-
W.S. CENTRAL	173	138	9	13	31	250	2	1	-	476
Ark.	9	9	-	-	13	9	-	-	-	-
La.	34	14	-	-	-	-	-	-	-	4
Okla.	6	8	2	-	18	14	-	-	-	-
Tex.	124	107	7	13	-	227	2	1	-	472
MOUNTAIN	76	47	-	14	30	37	5	2	466	14
Mont.	-	-	-	-	-	-	-	-	-	-
Idaho	5	-	-	-	-	-	-	-	-	-
Wyo.	1	-	-	-	-	1	-	-	11	2
Colo.	-	8	-	2	2	17	-	2	306	-
N. Mex.	20	10	-	4	-	-	-	-	14	-
Ariz.	47	26	-	8	19	18	3	-	-	-
Utah	1	1	-	-	9	1	1	-	135	12
Nev.	2	2	-	-	-	-	1	-	-	-
PACIFIC	152	279	-	11	72	76	12	17	-	-
Wash.	11	10	-	-	37	33	1	-	-	-
Oreg.	9	11	-	-	9	11	-	2	-	-
Calif.	132	254	-	11	-	-	8	15	-	-
Alaska	-	-	-	-	4	12	-	-	-	-
Hawaii	-	4	-	-	22	20	3	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	20	26	-	1	-	11	-	-	39	80
V.I.	-	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 March 6, 2004 (9th Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	550	402	99	29	4	16	68
Boston, Mass.	119	78	26	9	2	4	9
Bridgeport, Conn.	32	20	11	-	-	1	3
Cambridge, Mass.	18	14	4	-	-	-	4
Fall River, Mass.	24	20	3	-	-	1	2
Hartford, Conn.	40	31	4	2	-	3	3
Lowell, Mass.	21	15	4	2	-	-	2
Lynn, Mass.	13	9	4	-	-	-	-
New Bedford, Mass.	29	25	3	1	-	-	5
New Haven, Conn.	42	28	7	4	-	3	8
Providence, R.I.	76	59	11	4	-	2	14
Somerville, Mass.	1	-	1	-	-	-	-
Springfield, Mass.	40	29	7	2	1	1	3
Waterbury, Conn.	31	28	2	1	-	-	5
Worcester, Mass.	64	46	12	4	1	1	10
MID. ATLANTIC	2,827	2,031	552	160	43	39	177
Albany, N.Y.	47	35	9	1	-	2	5
Allentown, Pa.	18	17	-	-	1	-	1
Buffalo, N.Y.	79	54	18	4	-	3	5
Camden, N.J.	33	22	6	2	1	2	-
Elizabeth, N.J.	28	21	4	2	-	1	-
Erie, Pa.	36	27	6	2	-	1	1
Jersey City, N.J.	36	26	7	3	-	-	-
New York City, N.Y.	1,713	1,203	352	107	28	22	95
Newark, N.J.	62	34	13	10	3	2	5
Paterson, N.J.	26	17	8	1	-	-	-
Philadelphia, Pa.	347	258	71	14	2	1	24
Pittsburgh, Pa.§	17	12	2	1	2	-	2
Reading, Pa.	25	21	4	-	-	-	3
Rochester, N.Y.	124	92	21	4	4	3	12
Schenectady, N.Y.	31	28	2	1	-	-	2
Scranton, Pa.	36	29	4	2	1	-	3
Syracuse, N.Y.	92	76	13	1	-	2	13
Trenton, N.J.	31	24	5	2	-	-	1
Utica, N.Y.	22	20	2	-	-	-	2
Yonkers, N.Y.	24	15	5	3	1	-	3
E.N. CENTRAL	2,189	1,493	481	110	45	59	119
Akron, Ohio	49	33	9	5	1	1	7
Canton, Ohio	40	30	9	-	-	1	3
Chicago, Ill.	229	139	63	15	9	2	10
Cincinnati, Ohio	65	54	6	3	-	2	6
Cleveland, Ohio	300	224	55	10	3	8	-
Columbus, Ohio	222	157	44	11	6	4	6
Dayton, Ohio	138	110	21	3	2	2	16
Detroit, Mich.	215	118	65	16	3	13	10
Evansville, Ind.	45	32	10	2	-	1	6
Fort Wayne, Ind.	63	45	16	1	-	1	3
Gary, Ind.	14	8	1	-	3	2	1
Grand Rapids, Mich.	64	42	12	4	1	5	6
Indianapolis, Ind.	225	138	49	20	9	9	12
Lansing, Mich.	67	48	14	4	-	1	2
Milwaukee, Wis.	134	94	29	5	3	3	9
Peoria, Ill.	38	24	12	-	-	2	2
Rockford, Ill.	48	29	14	2	3	-	5
South Bend, Ind.	74	49	19	4	1	1	6
Toledo, Ohio	103	70	26	5	1	1	8
Youngstown, Ohio	56	49	7	-	-	-	1
W.N. CENTRAL	773	521	157	52	24	18	64
Des Moines, Iowa	47	34	5	3	4	1	6
Duluth, Minn.	41	29	9	2	1	-	2
Kansas City, Kans.	41	25	9	6	-	1	5
Kansas City, Mo.	99	70	16	6	4	3	11
Lincoln, Nebr.	59	47	10	-	2	-	7
Minneapolis, Minn.	63	45	10	4	1	3	6
Omaha, Nebr.	95	65	19	9	-	2	6
St. Louis, Mo.	161	89	43	14	9	5	12
St. Paul, Minn.	63	41	16	5	-	1	5
Wichita, Kans.	104	76	20	3	3	2	4
S. ATLANTIC	1,308	815	291	112	49	41	90
Atlanta, Ga.	210	121	43	17	11	18	3
Baltimore, Md.	222	123	61	24	10	4	12
Charlotte, N.C.	139	104	21	9	4	1	15
Jacksonville, Fla.	150	97	29	15	6	3	14
Miami, Fla.	126	81	23	13	8	1	12
Norfolk, Va.	54	29	18	3	3	1	3
Richmond, Va.	67	39	16	6	4	2	4
Savannah, Ga.	59	36	17	4	-	2	4
St. Petersburg, Fla.	49	38	7	3	1	-	4
Tampa, Fla.	218	138	53	16	2	9	18
Washington, D.C.	U	U	U	U	U	U	U
Wilmington, Del.	14	9	3	2	-	-	1
E.S. CENTRAL	973	661	206	64	26	15	67
Birmingham, Ala.	251	175	53	15	6	1	13
Chattanooga, Tenn.	66	52	10	2	1	1	5
Knoxville, Tenn.	110	77	22	7	3	1	1
Lexington, Ky.	88	54	21	9	2	2	6
Memphis, Tenn.	187	122	42	12	10	1	23
Mobile, Ala.	112	79	24	5	1	3	6
Montgomery, Ala.	14	10	3	1	-	-	4
Nashville, Tenn.	145	92	31	13	3	6	9
W.S. CENTRAL	1,609	1,011	388	130	30	50	98
Austin, Tex.	94	69	22	2	-	1	3
Baton Rouge, La.	40	25	11	2	1	1	-
Corpus Christi, Tex.	73	47	15	8	2	1	6
Dallas, Tex.	202	115	57	18	2	10	20
El Paso, Tex.	135	95	20	15	4	1	10
Ft. Worth, Tex.	121	83	27	10	1	-	3
Houston, Tex.	437	244	126	34	9	24	20
Little Rock, Ark.	92	51	25	7	4	5	2
New Orleans, La.	43	19	16	8	-	-	-
San Antonio, Tex.	173	117	34	14	5	3	16
Shreveport, La.	80	63	11	5	-	1	12
Tulsa, Okla.	119	83	24	7	2	3	6
MOUNTAIN	1,086	738	222	72	32	22	78
Albuquerque, N.M.	147	114	21	7	5	-	6
Boise, Idaho	52	37	10	4	-	1	4
Colo. Springs, Colo.	51	35	10	5	1	-	5
Denver, Colo.	128	74	35	8	4	7	5
Las Vegas, Nev.	292	191	63	22	10	6	25
Ogden, Utah	29	23	6	-	-	-	2
Phoenix, Ariz.	52	32	11	3	4	2	4
Pueblo, Colo.	31	23	3	3	2	-	3
Salt Lake City, Utah	132	86	31	9	4	2	17
Tucson, Ariz.	172	123	32	11	2	4	7
PACIFIC	1,850	1,332	345	112	36	25	186
Berkeley, Calif.	16	8	4	3	1	-	-
Fresno, Calif.	77	56	13	6	-	2	6
Glendale, Calif.	49	37	5	5	2	-	4
Honolulu, Hawaii	89	71	13	2	1	2	4
Long Beach, Calif.	76	59	12	3	2	-	12
Los Angeles, Calif.	740	531	139	42	15	13	86
Pasadena, Calif.	30	24	2	2	2	-	3
Portland, Oreg.	142	102	32	4	3	1	7
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	U	U	U	U	U	U	U
San Francisco, Calif.	129	84	27	15	2	1	15
San Jose, Calif.	151	119	24	6	1	1	23
Santa Cruz, Calif.	31	23	5	2	1	-	2
Seattle, Wash.	162	108	36	13	2	3	13
Spokane, Wash.	50	34	9	6	1	-	2
Tacoma, Wash.	108	76	24	3	3	2	9
TOTAL	13,165¶	9,004	2,741	841	289	285	947

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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