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Workers' Memorial Day, April 28, 2004

On April 28, Workers' Memorial Day, the United States will join the international labor community in remembering those workers who have died or been injured on the job. On an average day in the United States, as a result of work-related injuries or illnesses, nearly 11,000 workers are treated in emergency departments, and approximately 200 of these workers are hospitalized (*1*). An estimated 7,000 private-sector workers require time away from their jobs (*2*), 15 workers die from their injuries (*3*), and 134 die from work-related diseases (*4*). The emotional, economic, and social costs of these injuries and illnesses are immense. In 2001, workers' compensation costs for employers alone totaled $64 billion (*5*).

Workers' Memorial Day also will commemorate the 33rd anniversary of the signing of the U.S. Occupational Safety and Health Act, which created the National Institute for Occupational Safety and Health within CDC and the Occupational Safety and Health Administration within the U.S. Department of Labor to lead the effort to create safer workplaces. Additional information about workplace safety is available at http://www.cdc.gov/niosh/homepage.html or telephone, 800-356-4674.

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Occupational Fatalities During Trenching and Excavation Work — United States, 1992–2001

Fatalities associated with trench collapses and other excavation hazards continue to occur despite Occupational Safety and Health Administration (OSHA) standards that specify safe work practices to reduce such hazards to workers (*1*). To assess the hazards of trenching and excavation work in the United States, CDC reviewed data from national occupational fatality records and investigative reports of fatal injuries. This report summarizes the results of that analysis, which indicated that 76% of the deaths were caused by cave-ins and 47% of the deaths occurred among employees of companies with ≤10 workers. Employers can reduce the risk for future deaths by adhering to OSHA standards and by using education and training resources on safe excavation and trenching practices offered by the National Institute for Occupational Safety and Health (NIOSH), OSHA, and labor and trade organizations.

CDC reviewed data for 1992–2001 (the most recent data available to CDC) from the Census of Fatal Occupational Injuries (CFOI) maintained by the Bureau of Labor Statistics (BLS) and reviewed reports from the NIOSH Fatality

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Assessment and Control Evaluation (FACE) program. CFOI is a national reporting system for occupational deaths that derives data from multiple sources (e.g., death certificates, medical examiner/coroner reports, workers' compensation reports, and police reports). The CFOI research file provided to CDC does not include data for New York City (*2*). Trenching and excavation cases were identified in the CFOI database by using specific codes and keywords*. After the initial case selection, a manual review of narratives was performed to select appropriate cases.

Trenching and Excavation Fatalities, 1992–2001

During 1992–2001, CFOI data identified 542 fatalities associated with trenching and excavation (*2*). Annual totals ranged from a low of 44 in 1993 to a high of 65 in 1996 and averaging 54 fatalities per year. The average age of decedents was approximately 38 years (range: mid teens to late 70s). Of the fatalities, 256 (47%) occurred among employees of companies with ≤10 workers, and 381 (70%) occurred in companies with <50 workers. The industries most frequently reporting fatalities were those involved in "excavation work," followed by "water, sewer, pipeline, and communications and power-line construction" (Table 1). A total of 507 (94%) decedents were employed in private industry, 31 (5%) decedents were local government workers, and the remaining four (1%) were employed elsewhere. Although excavation and trenching fatalities occurred in various occupations (Table 2), the largest proportion of deaths occurred among construction laborers. Cave-ins accounted for 76% of fatalities (Table 3). Among decedents, the average length of employment with their employer was 6.7 years (range: <1–40 years); 86 (16%) deceased workers had been with their employer for ≤1 year.

FACE Investigation Reports

Researchers with the FACE program target specific areas and conduct onsite investigations of certain fatalities to characterize the circumstances that resulted in death and to identify prevention strategies (*3*). Reports of FACE investigations, which provide more detailed information than CFOI, were examined for 1990–2000. During that period, 30 incidents with 31 fatalities related to trenching and excavation were

* Cases were selected for initial review if the fatal event was coded as an excavation or trenching cave-in (Occupational Injury and Illness Classification System [OIICS] event code 041); inhalation in enclosed, restricted, or confined space (OIICS event code 3411); depletion of oxygen from cave-in or collapsed material (OIICS event code 383); depletion of oxygen in other enclosed, restricted, or confined space (OIICS event code 384); the worker was employed in the Standard Industrial Classification (SIC) code 1794 (Excavation Work); or if the case narrative contained one or more of the following keywords: "trench," "excav," "shaft," "ditch," or "tunnel."

TABLE 1. Number and percentage of excavation and trenching fatalities, by industry and SIC* code — United States, 1992–2001

Industry and SIC code	No.	(%)
Excavation work (SIC 1794)	141	(26.0)
Water, sewer, pipeline, and communications and power-line construction (SIC 1623)	131	(24.2)
Plumbing, heating, and air conditioning (SIC 1711)	59	(10.9)
Heavy construction, not elsewhere classified (SIC 1629)	27	(5.0)
General contractors, single-family homes (SIC 1521)	19	(3.5)
Highway and street construction, except elevated highways (SIC 1611)	16	(2.9)
General construction — nonresidential buildings, other than industrial buildings warehouses (SIC 1542)	14	(2.6)
All other industries	135	(24.9)
Total	**542**	**(100.0)**

Source: Census of Fatal Occupational Injuries (excludes New York City).
* Standard Industrial Classification.

TABLE 2. Number and percentage of excavation and trenching fatalities, by occupation — United States, 1992–2001

Occupation	No.	(%)
Construction laborers	236	(43.5)
Plumbers/pipe fitters	42	(7.8)
Excavation machine operators	38	(7.0)
Construction trades, not elsewhere classified	33	(6.1)
Construction supervisors, not elsewhere classified	27	(5.0)
All other occupations	166	(30.6)
Total	**542**	**(100.0)**

Source: Census of Fatal Occupational Injuries (excludes New York City).

TABLE 3. Number and percentage of excavation and trenching fatalities, by event — United States, 1992–2001

Event (OIICS* code)	No.	(%)
Excavation/trenching cave-in (041)	411	(75.8)
Struck by object (02)	35	(6.5)
Pedestrian struck by vehicle/equipment (43)	19	(3.5)
Caught in or compressed by equipment/objects (03)	14	(2.6)
All other events	63	(11.6)
Total	**542**	**(100.0)**

Source: Census of Fatal Occupational Injuries (excludes New York City).
* Occupational Injury and Illness Classification System.

identified among incidents investigated by the FACE program. Although the FACE program is not targeting trenching and excavation fatalities, two recent cases (for which Hispanic workers were targeted) were selected as examples.

Case 1. In January 2003, two Hispanic construction laborers (brothers aged 15 and 16 years), who were employed by a company with 65 employees, died when the trench in which they were working caved in (*4*). The laborers were installing conduit in a trench 8 feet deep and 2 feet wide. When work started, the jobsite foreman instructed the crew leader to operate a backhoe to dig the trench and then left the site to check on another job. Approximately 1 hour later, the trench collapsed, burying the two laborers. Co-workers uncovered the two workers and removed them from the trench as the rescue squad arrived. The workers could not be revived. The FACE investigation indicated an absence of protective equipment or precautions (e.g., no trench box, benching, sloping, or shoring) that could have prevented the collapse of the trench.

Case 2. In May 2003, a Hispanic male pipe layer aged 23 years died after being struck by the teeth of an excavator bucket while in a trench (*5*). The pipe layer, who worked for a company with 95 employees, was installing concrete water drainage piping along a roadway. The work process involved the excavator operator cutting a trench and lowering in a new section of pipe, while the pipe layer was in the trench connecting the pipe sections and working around the moving excavator bucket. In this operation, the walls of the trench reportedly were sloped back or benched to prevent cave-ins. A "spotter" designated to ensure that workers remained out of the way of the moving excavator and its bucket had been assigned temporarily to another task at the time of the incident. The operator was reversing the excavator to make a new soil cut when the pipe layer was struck by the bucket at the right-side chest and neck area, causing fatal injuries.

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Editorial Note: Although previous trend analysis indicated the rate of fatalities from trench collapses declined by 66% from approximately 5 years before to approximately 5 years after OSHA excavation standards were revised in 1989 (*6*), fatalities continue to occur during excavation and trench work. OSHA's standards for excavation are comprehensive and effective; key elements of the regulations can reduce the risk for trench collapse and associated injuries and deaths (Box).

The findings in this report are subject to at least two limitations. First, because narrative descriptions provided by CFOI are limited and data from New York City are excluded, the

BOX. Key elements of Occupational Safety and Health Administration excavation standards

- Designate a competent person to conduct daily inspections of excavations, adjacent areas, and protective systems, and take appropriate measures necessary to protect workers.
- Use adequate protective systems (e.g., shoring, shields, or trench boxes) or sloping or benching of the sides of excavations to protect workers from cave-ins (Figure).
- Develop, implement, and enforce a comprehensive written safety program for all workers that includes training in hazard recognition and avoiding unsafe conditions.
- Ensure that the spoil pile and heavy equipment are kept away from the edge of the trench or excavation if workers must be present in the trench.

FIGURE. This properly installed support system for trench work includes a shoring system with crossbracing and vertical plates extending at least 18 inches above the lip of the trench

Photo/CDC

cases identified by using CFOI data likely are undercounted. Second, because no employment data were available regarding the number of workers involved in excavation and trenching, meaningful fatality rates could not be calculated for this work setting.

To reduce the risk for fatalities associated with trenching and excavation, OSHA standards should be followed, and safety interventions should be directed toward companies and workers who perform such work. NIOSH, in partnership with OSHA, labor and trade organizations, insurers, and underground utility contractors, is developing education and training options on safe excavation and trenching practices. These resources will include a computer-based (CD-ROM) safety and health training module; a NIOSH Alert (in English and Spanish) characterizing excavation hazards and providing recommendations for engineering controls, training, and safe work practices; and a clearinghouse of resources (e.g., "toolbox talks," safety checklists, and training videos) describing excavation hazards and how to prevent them. Additional Spanish-language materials also will be available for Spanish-speaking workers, who are a growing percentage of the U.S. workforce.

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Carbon Monoxide Poisonings Resulting from Open Air Exposures to Operating Motorboats — Lake Havasu City, Arizona, 2003

During February 1997–August 2002, two fatal and six nonfatal cases of carbon monoxide (CO) poisoning occurred in vacationers who were wading in or boating near the Bridgewater Channel of Lake Havasu (Lake Havasu City [LHC], Arizona) (*1*). The vacationers were near operating motorboats, primarily in the channel area, where large numbers of boaters congregate during holiday weekends (Figure). One person had a carboxyhemoglobin (%COHb) level of 40% on autopsy. To evaluate CO exposure among municipal employees working in the channel, CDC and the Havasu Regional Medical Center Emergency Department (HRMCED) conducted an initial investigation during Labor Day weekend 2002 (August 31–September 1). CO concentrations in channel air exceeded all short-term exposure criteria*; four of 12 patients reporting to HRMCED because of

*The National Institute for Occupational Safety and Health (NIOSH) ceiling limit for CO exposure is 200 parts per million (ppm), which should not be exceeded at any time. The American Conference of Governmental Industrial Hygienists (ACGIH) excursion limit for CO is 125 ppm (or five times the threshold limit value time-weighted average [TLV-TWA]), which should not be exceeded under any circumstances. The Environmental Protection Agency National Ambient Air Quality Standard for 1-hour CO exposure is 35 ppm.

FIGURE. Vacationers during a holiday weekend in the Bridgewater Channel of Lake Havasu, where carbon monoxide levels were found to be elevated — Lake Havasu City, Arizona, 2003

Photo/CDC

boating-related activities had %COHb levels of >9%[†]. In May 2003, LHC requested assistance from CDC, the Mohave County Department of Public Health (MCDPH), the Arizona Department of Health Services (ADHS), and a private consulting firm to assess CO exposures in the channel during Memorial Day weekend 2003 (May 23–26). Follow-up environmental surveys were conducted during June–September 2003. This report summarizes the findings of these surveys, which documented excessive CO exposure and confirmed the health risk among vacationers and employees working in the channel near crowded motorboat gatherings. Community leaders and safety officials should 1) be aware that employees and vacationers in close proximity to operating motorboats can be exposed to potentially lethal levels of CO, 2) evaluate exposures, and 3) take steps to prevent poisonings.

Exposure Monitoring

During May 23–26, 2003, CDC and MCDPH conducted workshift CO-exposure monitoring and exhaled breath CO analyses among municipal employees and administered questionnaires to determine prevalence of CO-related symptoms. Exhaled breath CO concentrations (measured as parts per million [ppm] by direct-reading instruments) were measured in the morning and evening to determine changes during the day. Concentrations were then converted to estimated %COHb by using the American Conference of Governmental Industrial Hygienists (ACGIH) calculation (*2*). During May 24–25, ADHS investigators measured exhaled breath CO concentrations by using comparable instruments and administered brief questionnaires to a convenience sample of 62 vacationers in the channel. Vacationers' CO concentrations were measured once and converted to an estimated %COHb by using a breath analysis conversion chart.

Of 40 LHC employees, 36 (90%) participated during one or more workshifts, accounting for 78 monitored workshifts. Of these workshifts, 19 (25%) involved CO exposures equal to or exceeding the NIOSH recommended exposure limit (REL)[§]; 54 (69%) involved short-term CO exposures that exceeded the NIOSH ceiling limit (Table 1). Of 63 workshifts involving nonsmoking employees, 42 (67%) had estimated post-shift %COHb levels that equalled or exceeded the ACGIH biologic exposure index of 3.5%[¶]. CO exposures decreased on the last day of the holiday weekend, when many of the boaters left the channel. During the 66 workshifts of the 3 days of heaviest boating (May 23–25), the post-shift symptoms reported most frequently by employees were headache, fatigue or weakness, visual disturbances, and dizziness (Table 2). The average estimated %COHb among nonsmoking employees increased during the day, from 1% in the morning to 6% in the afternoon. Among smokers, the average increase was from 3% to 7%. The maximum estimated %COHb level among employees was 13% in nonsmokers and 11% in smokers.

Among 46 nonsmoking vacationers, the estimated %COHb increased from a mean of 1% in the morning to 11% in the afternoon. Among 16 smoking vacationers, the average estimated %COHb increased from 3% in the early afternoon to 13% in the late afternoon. The maximum estimated %COHb level among vacationers was 23% for nonsmokers and 26% for smokers**.

Since the initial investigation in September 2002 (Labor Day weekend), one fatal and four nonfatal, hospital-treated CO poisonings involving loss of consciousness have occurred among channel vacationers, with %COHb levels ranging from 19% to 47% (P. Mead, MCDPH, and M. Ward, D.O., HRMCED, personal communications, 2003). One poisoning occurred on the back of a boat; the other four (including the fatality) occurred while persons were wading near boats in the channel.

[†] The World Health Organization recommends that %COHb levels should not exceed 2.5% in general population. ACGIH recommends a worker biologic an exposure index (BEI) for CO of 20 ppm in end-of-shift exhaled breath or an estimated %COHb level of 3.5%.

[§] TWA concentration up to a 10-hour workday during a 40-hour workweek to which nearly all workers might be exposed repeatedly without adverse effect.

[¶] ACGIH BEI generally indicates a concentration below which nearly all workers should not experience adverse health effects (not intended for use as a measure of adverse effects or for diagnosis of occupational illness).

** In persons with no occupational exposure to CO, nonsmokers have an average %COHb level of 0.9% (range: <0.5%–2.1%); smokers average 4.3% (range: <1.0%–8.7%) (*3*).

TABLE 1. Number and percentage of municipal employee workshifts equal to or exceeding carbon monoxide (CO) exposure limits, by date and exposure criteria — Lake Havasu City, Arizona, May 23–26, 2003

	May 23 (N* = 14)		May 24 (N = 24)		May 25 (N = 24)		May 26 (N = 15)		Total workshifts (N = 78[†])	
Exposure criteria	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Employee workshifts with air levels of CO ≥NIOSH ceiling limit[§] (200 ppm)	11	(79)	24	(100)	18	(75)	1	(7)	**54**	**(69)**
Employee workshifts with air levels of CO ≥NIOSH REL[¶] (35 ppm)	3	(21)	10	(42)	6	(25)	0	—	**19**	**(25)**
Nonsmoking employee workshifts with estimated %COHb** ≥ACGIH BEI[††] (3.5%)	(n = 11) 7	(64)	(n = 19) 19	(100)	(n = 21) 14	(67)	(n = 2) 2	(17)	**(n = 63[§§]) 42**	**(67)**

* Number of employee workshifts.
[†] Total number of workshifts with air monitoring for all 4 days.
[§] The National Institute for Occupational Safety and Health ceiling limit for CO is 200 ppm, which should not be exceeded at any time.
[¶] NIOSH recommended exposure limit is a time-weighted average concentration up to a 10-hour workday during a 40-hour workweek to which nearly all workers might be exposed repeatedly without adverse effect.
** Carboxyhemoglobin.
[††] The American Conference of Governmental Industrial Hygienists biologic exposure index generally indicates a concentration below which nearly all workers should not experience adverse health effects. It applies to only nonsmoking workers and is not intended for use as a measure of adverse effects or for diagnosis of occupational illness.
[§§] Total number of nonsmoker employee workshifts with exhaled breath analyses for all 4 days.

Ambient Air Monitoring

During June 26–September 9, 2003, meteorologic conditions and CO concentrations were measured at fixed locations on the banks of the channel, on police and fire boats operating in and near the channel, and on police four-wheel, all-terrain vehicles patrolling the east and west banks of the channel. Concentrations in the channel and nearby onshore were higher (maximum 8-hour averages of 20–40 ppm at a typical onshore site) on the holiday weekends, when many boats were in the channel. Concentrations were highest when wind speeds were lower (<1.5 meters per second [<3.4 miles per hour]) and temperatures were higher (>90° F [>32° C]). Concentrations declined considerably with distance from the channel (e.g., maximum 8-hour averages of <1 ppm were measured at a busy intersection 350 meters from the channel). The highest CO concentrations occurred in the late afternoon and early evening, usually during 5–9 p.m., when wind speeds typically decreased.

TABLE 2. Mean prevalence of reported post-shift symptoms among municipal employees during the 3 days of heaviest boating, by symptom — Lake Havasu City, Arizona, May 23–25, 2003*

	3-day average	
Symptom	No.	(%)
Headache	37	(56)
Fatigue or weakness	10	(15)
Visual disturbances	9	(14)
Dizziness	8	(12)
Nausea or vomiting	1	(2)
Drowsiness	1	(2)
Chest pain	1	(2)
Loss of muscle coordination	0	—

* N = 66 workshifts.

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Editorial Note: The surveys described in this report document excessive CO exposures in employees and excessive and fatal CO exposures in vacationers amid large numbers of boats. The surveys also document substantial CO exposures in the late afternoon during crowded boating conditions, mirrored by elevations in expired CO concentrations among employees and vacationers. The majority of LHC employees had estimated %COHb levels indicating the potential for adverse health effects. Vacationers tested had higher %COHb levels than employees. These results indicate that elevated %COHb levels can occur among persons in open, outdoor settings. Previously described outdoor boat-related poisonings involved dangers to occupants of individual boats (e.g., houseboats and ski-boats) (*4,5*).

The findings in this report are subject to at least three limitations. First, evaluation of CO-related symptoms was limited by a lack of participant information on dehydration, heat stress, physical and mental stress, and vacationer alcohol use. Many symptoms of CO overexposure (e.g., headache, fatigue, and dizziness) are associated commonly with these factors.

Second, estimates of %COHb[††], rather than direct measurements (blood analysis), were used to provide indications of %COHb levels. Finally, the convenience sampling method used for vacationers did not provide data to estimate the number of vacationers with increased CO levels.

During the 2003 Memorial Day weekend evaluations, employees with an estimated %COHb of ≥5% were advised to exchange jobs with a co-worker assigned away from the channel area; those with ≥10% were required to remove themselves from the area immediately and, if symptomatic, advised to seek medical attention. Protective measures recommended for workers also should be recommended for vacationers until measures to reduce ambient CO exposures in the channel are implemented (*6*). Exhaled breath measurements should be used to screen vacationers located in areas with high ambient CO during days of heavy boat use in the channel (particularly during calm wind conditions) (*7,8*).

Persons in communities with lakes and rivers where boats congregate in large numbers should be aware of the dangers of open air, boat-related CO poisoning and the need to evaluate CO exposures during high-traffic periods. Boat manufacturers should improve emission controls to reduce consumer CO exposure. The risk for boat-related CO poisonings should be reduced by considering measures such as limiting the number of boats in certain areas; enforcing a "no idle" policy when boats are stationary; and warning vacationers of 1) the signs and symptoms of CO poisoning; 2) the hazards related to occupying the back of the boat any time the motor is running; and 3) the risk for CO poisoning in areas of boat congestion, especially during calm weather conditions.

†† An exhaled CO concentration (in ppm) is converted to an estimated level of %COHb by either a calculation or conversion chart. Estimates of %COHb were derived from the ACGIH formula for employee participants and from a conversion chart for vacationers.

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Work-Related Pilot Fatalities in Agriculture — United States, 1992–2001

Aircraft often are used in agriculture to apply pesticides, herbicides, or fertilizers. During 1992–2001, a total of 141 persons died in agriculture-related plane crashes. To characterize aviation fatalities in agriculture, CDC analyzed data on fatal injuries to pilots working in U.S. agriculture during 1992–2001. This report summarizes the results of that analysis, which indicated that agricultural pilots are at increased risk for fatal injury compared with pilots in all other industries. The agriculture aviation profession continues to work to reduce fatalities by recommending continual skill development and by offering training to aerial application pilots.

CDC analyzed data for 1992–2001 (the most recent years for which data are available to CDC) from the Bureau of Labor Statistics' Census of Fatal Occupational Injuries (CFOI). Using death certificates, workers' compensation reports, state and federal agency records, and other supporting documents, CFOI collects data on all fatal occupational injuries in 50 states* and the District of Columbia to determine worker demographics and the circumstances and causes of the fatality. Cases were selected if they occurred in agriculture (Standard Industrial Classification 0110–0783), the occupation was pilot/navigator (Bureau of Census code 226), and the event was an aircraft crash (Occupational Injury and Illness Classification event codes 4600, 4610, or 4690). Fatality rates based on flight hours for 2000 were calculated by using estimates reported by the Federal Aviation Administration (FAA) of hours flown in aerial applications and all other types of flights.

During 1992–2001, a total of 141 pilots/navigators in the agricultural industry died in aircraft-related events. All were male; median age was 44 years. The majority (63%) of cases occurred during May–August. A total of 70 (50%) cases occurred in Arkansas, California, Louisiana, and Texas. Of the 141 fatalities, 100 (71%) were in fixed-wing aircraft, 22 (16%) were in helicopters, and 19 (13%) were in unknown aircraft types. A total of 71 (50%) cases occurred in companies employing ≤10 persons; 42 (30%) persons were self-employed or worked in a family business. In 46 (33%) cases,

* Data files provided by the Bureau of Labor Statistics CFOI to CDC do not include New York City.

the company size was not reported. Not all fatalities occurred among pilots; in addition, 31 agricultural workers died as farm workers, farmers, passengers, ground crew, or mechanics and were not included among the 141 pilots/navigators described in this report.

In 2001, the rate of pilot/navigator fatalities in agriculture (one death per 100,000 hours flown) was three times the rate for pilots in other industries. Rates are based on 1,038,346 agricultural aerial application hours and 25,978,449 hours flown by pilots/navigators in all other types of flights in 2001 (*1*).

Narrative descriptions of fatal incidents occurring in agricultural operations were reviewed in the National Transportation Safety Board's (NTSB) Accident Database and Synopses (*2*). The following case reports are representative of fatal crashes in agriculture.

Case Reports

Case 1. In March 1998, a commercial-certified pilot aged 50 years with 14,246 hours of flight time left a private airfield in an agricultural aircraft with a load of defoliant at 5:54 a.m. He took off in clear weather and headed toward a field 3 miles away. A witness reported a rapidly developing fog near the airfield at approximately 5:55 a.m. At 5:58 a.m., the aircraft crashed into trees and hit the ground. NTSB determined that the probable cause was flight into adverse weather conditions (fog), resulting in loss of control caused by spatial disorientation.

Case 2. In July 2000, at approximately 7:45 p.m., an agricultural aircraft struck the ground, killing the commercial-certified pilot. After leaving a grass runway with a full load of herbicide, the pilot had begun spraying a field and made several passes over the area. During a turnaround maneuver, the aircraft climbed and turned to the right; however, the plane did not level out to continue the next pass but instead lost altitude and struck the ground. A satellite tracking device recovered after the crash indicated that most turns were made over a 1,000-foot diameter, but the final one was considerably sharper, with only a 660-foot diameter. NTSB determined that the probable cause was the pilot's failure to maintain airspeed during the sharp turn.

Case 3. In July 1999, at approximately 10:50 a.m., an agricultural aircraft was loaded with fuel and chemical product. The pilot reported that he was taking only a partial fuel load because temperatures were near 80° F (27° C), and the increased heat would reduce aircraft flight performance. The planned application was at 3,000 feet above sea level and required a course reversal over an abruptly rising hill. Witnesses reported that the aircraft made one pass but did not return over the field, and soon after, they saw black smoke rising from the direction of the aircraft's last sighting. The commercial-certified pilot was killed, and the plane was consumed by fire. NTSB determined that the probable cause was a failure to maintain airspeed during course reversal. High temperatures and hilly terrain were contributing factors.

Case 4. In June 2003, at approximately 9:15 a.m., an agricultural helicopter left a local airport to apply product to a cotton field. At approximately 10:00 a.m., after all of the product had been dispensed, the helicopter struck a power-transmission line 30 feet above the ground. The helicopter crashed to the ground and was consumed by the post-impact fire. The pilot had 3,714 total flight hours, of which 1,117 were in helicopters. The probable cause was the pilot's failure to maintain clearance from wires during the flight.

Reported by: *TW Struttmann, SM Marsh, Div of Safety Research, National Institute for Occupational Safety and Health, CDC.*

Editorial Note: Of the 1,190 pilot fatalities that occurred in aircraft-related events during 1992–2001, a total of 141 (12%) involved persons engaged in agriculture. In 2002, the fatality rate per 100,000 workers for pilots and navigators (70) was the third highest in the United States, far exceeding the overall occupational fatality rate of four per 100,000 persons (*3*). Only timber cutters and persons engaged in fishing occupations had higher rates (118 and 71, respectively).

As with other agricultural occupations, pilots are exposed to several hazards, variable weather conditions, and time-dependent tasks. Aircraft performance is affected by density altitude, which is a function of atmospheric pressure, temperature, and altitude. High altitudes, high temperature, and humid air adversely impact aircraft performance. Warm, humid air requires longer take-off distances and results in a reduced rate of climb. Low-level turbulence, wind gusts, and the possibility of fast-forming fog present continual challenges to agricultural pilots who maneuver aircraft close to the ground. Nearly one quarter of aerial-application crashes were related to density altitude (*4*).

Agricultural aircraft also are under stress from high-load factors (gravitational forces). Guidelines regarding spray drift and buffer zones (e.g., setbacks around sensitive areas such as water, aquatic habitats, and residential areas) require pilots to maneuver planes quickly and precisely to avoid off-target spray. Obstructions (e.g., antennas, overhead power lines, trees, fences, and towers) pose additional hazards for agricultural pilots. During 1992–1998, one third of pilot fatalities in the crop service industry resulted from aircraft contact with a tower, power line, or tree (*5*).

The findings in this report are subject to at least four limitations. First, CFOI might not capture all relevant fatalities; incidents might have been coded in CFOI into an industry other than agriculture. Second, neither pilot experience (i.e., hours flown in aerial applications) nor pilot certification levels could be determined consistently. Third, fatality rates were calculated for only 1 year. Finally, hours flown were based on survey responses, which are subject to sampling error and other biases (e.g., subjective recall) (*6*).

Companies engaged in agricultural aerial applications should assess risks and safety measures carefully and provide pilots with periodic safety training. Self-employed pilots must exercise constant vigilance regarding safety risks and actively seek out periodic safety training. Several risk-assessment tools and training resources are available, including FAA's 1) checklist to help in risk assessment and risk reduction of controlled flight into terrain (*7*) and 2) self-administered training tool, "Aerial Decision Making," which systematically defines mental processes used by pilots to choose the best action for a given set of circumstances and outlines steps for good aeronautical decision making (ADM) (*8*). These steps include assessing personal attitudes, learning behavior modifications, recognizing and coping with stress, developing risk-assessment skills, using all available resources, and self-evaluating ADM skills. In addition, the Professional Aerial Applicators Support System, sponsored by the National Agricultural Aviation Association Research Education Foundation, offers skill development courses for aerial application pilots (available at http://www.agaviation.org).

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Nosocomial Transmission of *Mycobacterium tuberculosis* Found Through Screening for Severe Acute Respiratory Syndrome — Taipei, Taiwan, 2003

The emergence of severe acute respiratory syndrome (SARS) has highlighted the importance of hospital infection-control programs (*1*). Prevention of *Mycobacterium tuberculosis* transmission also requires effective infection control in health-care facilities (*2,3*). In Taipei, Taiwan, an area with moderate to high incidence of tuberculosis (TB) (50–74 cases per 100,000 population), health-care workers (HCWs) are at increased risk for *M. tuberculosis* (Taiwan Center for Disease Control, unpublished data, 2002). In April 2003, SARS-related screening in a hospital in Taipei resulted in the detection of suspected TB among HCWs. This report summarizes how SARS screening led to the discovery of 60 cases of TB. HCWs in Taiwan should remain vigilant for cases of TB so persons suspected of having TB are evaluated and treated promptly.

In April 2003, an HCW being screened for SARS symptoms (e.g., fever and respiratory illness, including cough and shortness of breath) had a pleural effusion; a pleural biopsy culture grew *M. tuberculosis*. TB screening of close co-workers identified six additional cases of pulmonary TB, and hospital administrators implemented active case-finding. A TB case was defined by bacteriologic confirmation or diagnosis by a clinician (*4*). During June–July 2003, hospitalwide screening of HCWs identified 28 (2%) of 1,409 with TB.

During October–November 2003, a repeat hospitalwide screening of 1,463 HCWs identified an additional 29 cases of TB; five (17%) were later found not to have TB after reinterpretation of their chest radiographs. Another HCW with a normal chest radiograph had cervical TB lymphadenitis diagnosed during an outpatient clinic visit.

A total of 60 cases of TB among HCWs were diagnosed; 51 (85%) were in women, and median age was 30 years (range: 22–65 years). The majority of HCWs had radiologic evidence consistent with early stages of TB; 43 (72%) had pulmonary TB, five (8%) had pleural involvement only, one (2%) had TB of the cervical lymph nodes, and 11 (18%) remain unclassified. All had tested negative for human immunodeficiency virus at the time of initial hire. All were started on anti-TB therapy and continue to be monitored. As of December 3, follow-up evaluations documented that 18 HCWs had improved findings on chest radiograph, and two had stable findings; response to therapy for the remaining 40 is pending further follow-up.

Five (8%) of 59 HCWs with a pulmonary or pleural TB diagnosis reported symptoms suggestive of TB. After multiple submissions (median = three; range: one to four) of induced sputum specimens, 11 (19%) HCWs had bacteriologic evidence of TB. Of these, three (27%) had a single smear-positive result for acid-fast bacilli (AFB), seven (64%) had at least one culture that grew *M. tuberculosis*, and one (9%) was both smear- and culture-positive. Of the eight culture-confirmed cases, seven (88%) had isolates with matching genotypes by spoligotyping and restriction fragment length polymorphism techniques.

Review of patient records revealed that an elderly patient had spent 12 weeks on floor A (pulmonary unit) without respiratory isolation before AFB-positive pulmonary TB was diagnosed in May 2003. The patient's hospital course was complicated, eventually requiring continuous ventilator support and frequent endotracheal suctioning. Isolates from this patient matched the genotype of the seven culture-positive HCWs, five of whom (including the first diagnosed HCW) worked on floor A.

A questionnaire to determine factors associated with being diagnosed with TB during 2003 was completed by 1,555 (88%) of 1,759 full-time, part-time, volunteer, and contract HCWs, including 57 (95%) of the 60 HCWs with TB. Questions included information on personal and household exposure to TB, medical conditions and medications used, living arrangements (e.g., hospital dormitory), occupation, work locations, involvement in the care of TB patients, and presence during potential aerosol-generating clinical procedures* during January–June 2003. The majority of cases occurred among nurses (21 [4%] of 557). However, the attack rate was highest among respiratory technicians (three of seven [43%]) and radiology technicians (four [16%] of 21). HCWs on floor A had the highest attack rate (28 [36%] of 77) (Table).

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Editorial Note: This report describes the need for HCW education and surveillance to prevent outbreaks of TB in health-care facilities. In the hospital in Taipei, special SARS screenings resulted in the discovery of 60 HCWs who were diagnosed

* Including bronchoscopy, endotracheal intubation, respiratory suctioning, sputum induction, and nebulized treatments.

TABLE. Number of health-care workers (HCWs) surveyed* and number with tuberculosis (TB) diagnosed, by hospital floor and unit —Taipei, Taiwan, 2003

			TB diagnosed			
Floor	**Unit**	**No. HCWs**	**No.**	**(%)**	**Odds ratio**	**(95% CL†)**
Floor A	Pulmonary	77	28	(36)	47.3	(23.4–95.4)
Floor B	Intensive care	57	6	(11)	9.7	(2.9–22.0)
Floor C	Radiology	84	4	(5)	4.1	(1.6–16.8)
Floor D	Dialysis	165	5	(3)	2.6	(0.9–7.2)
Remaining floors		1,172	14	(1)	Referent	

* Only HCWs who completed the questionnaire are included.
† Confidence limits.

with TB and started on anti-TB therapy early during the course of illness, which potentially averted increased morbidity and further transmission.

Nosocomial transmission of *M. tuberculosis* among HCWs was confirmed by frequent aerosol-generating clinical procedures on a known TB patient during an extended stay on one floor, positive cultures from eight HCWs, matching genotypes from seven of these HCWs and the putative source patient, and work locations near the source patient. Work practices can be adjusted to reduce the likelihood of *M. tuberculosis* exposure to HCWs (*2,3*). For example, aerosol-generating procedures should be performed in separate ventilated areas with negative pressure (relative to adjacent areas), where all HCWs wear appropriate personal respiratory protection (*2*).

The majority of HCWs described in this report were considered to have TB on the basis of radiologic abnormalities. In this investigation, chest radiographs were a helpful component of active case-finding; however, TB diagnosis on the basis of chest radiograph alone, particularly in an asymptomatic person, can be unreliable, and bacteriologic confirmation should be sought for suspected cases of TB (*5*). For routine surveillance, radiographs are costly and inefficient because the yield usually is low. Active screening for TB-compatible symptoms, with targeted further evaluation as needed, might yield more true cases and is more cost-effective. The World Health Organization recommends that HCWs be educated about signs and symptoms of TB and instructed to report for evaluation if these develop. Consideration also should be given to establishing an HCW TB registry (*2*).

During 1998–2002, all specialized TB hospitals in Taiwan were closed; as a result, more cases are being managed in general hospital settings, which increases the risk for nosocomial transmission of *M. tuberculosis*. HCWs in Taiwan should remain vigilant for cases of TB so persons suspected of having TB are evaluated and treated promptly.

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Brief Report

Vancomycin-Resistant *Staphylococcus aureus* — New York, 2004

Staphylococcus aureus is a common cause of hospital- and community-acquired infections (*1,2*). The development of vancomycin-resistant enterococci in 1988 led the way to the emergence of vancomycin-resistant *S. aureus* (VRSA) (minimum inhibitory concentration [MIC] ≥32 µg/mL [*3*]), first recognized in 2002 (*4–7*). This report describes the third documented clinical isolate of VRSA from a patient in the United States and provides evidence of failure to detect this VRSA by commonly used automated antimicrobial susceptibility testing.

On March 17, a urine culture obtained from a resident of a long-term–care facility yielded *S. aureus*. The isolate was tested for antimicrobial susceptibility by using Microscan® overnight panels (Dade Behring, Deerfield, Illinois); vancomycin MIC was 4 µg/mL. Further testing by Etest® (AB Biodisk North America, Inc., Piscataway, New Jersey) indicated that the isolate was resistant to vancomycin (MIC >256 µg/mL). After notification and subsequent analysis by the New York State Department of Health (NYSDOH), the isolate was forwarded to CDC, where it was confirmed to be VRSA (vancomycin MIC = 64 µg/mL, using the National Committee for Clinical Laboratory Standards broth microdilution reference method). The isolate contained both the *mecA* and *vanA* genes mediating oxacillin and vancomycin resistance, respectively. The isolate was susceptible to chloramphenicol, linezolid, minocycline, quinupristin-dalfopristin, rifampin, and trimethoprim-sulfamethoxazole.

The patient remains in a long-term–care facility, and NYSDOH is investigating the case. The goals of the investigation include assessment of infection-control practices and whether transmission to other patients, health-care providers, family, and other contacts has occurred. Previous investigations of VRSA demonstrated no transmission among contacts (*5,6*).

This VRSA isolate appears to be unrelated epidemiologically to the VRSA isolate identified previously in Michigan and Pennsylvania (*5,6*). Although the New York isolate contained the *vanA* resistance gene, the vancomycin MIC of the isolate appeared low when tested initially by an automated method. Additional testing at CDC indicated that Microscan® and Vitek® (bioMerieux, Hazelwood, Missouri) testing panels and cards available in the United States did not detect vancomycin resistance in this VRSA isolate. Consequently, additional VRSA infections might have occurred but were undetected by laboratories using automated methods. Potential VRSA isolates should be saved for confirmatory testing, and clinical microbiology laboratories must ensure that they are using susceptibility testing methods that will detect VRSA. The most accurate form of vancomycin susceptibility testing for staphylococci is a nonautomated MIC method (e.g., broth microdilution, agar dilution, or agar-gradient diffusion) in which the organisms are incubated for a full 24 hours before reading results. Therefore, when performing automated susceptibility testing of *S. aureus* strains, particularly methicillin-resistant *S. aureus*, laboratories should include a vancomycin-agar screening plate containing 6 μg/mL of vancomycin and examine the plate for growth after 24-hour incubation.

The public health response to identification of this VRSA infection is ongoing. Use of proper infection-control practices and appropriate antimicrobial agent management can help limit the emergence and spread of antimicrobial-resistant microorganisms, including VRSA. CDC recommends contact precautions when caring for patients with these infections, including 1) placing the patient in a private room; 2) wearing gloves and a gown during patient contact; 3) washing hands after contact with the patient, infectious body tissues, or fluids; and 4) limiting the use of patient-care items to individual patients. In addition, the number of persons caring for a patient with VRSA or vancomycin-intermediate *S. aureus* should be minimized (e.g., by assigning dedicated staff to care for the patient)*. Isolation of *S. aureus* with confirmed or presumptive vancomycin resistance should be reported immediately through state and local health departments to the Division of Healthcare Quality Promotion, National Center for Infectious Diseases, CDC, telephone 800-893-0485.

Reported by: *M Kacica, MD, New York State Dept of Health. LC McDonald, MD, Div of Healthcare Quality Promotion, National Center for Infectious Diseases, CDC.*

Acknowledgments

This report is based in part on contributions by C Scott, DJ Bopp, MS, NB Dumas, G Johnson, DJ Kohlerschmidt, P Kurpiel, RJ Limberger, PhD, KA Musser, PhD, B Wallace, MD, P Smith, MD, New York State Dept of Health.

* Additional CDC guidelines for preventing spread of VRSA are available at http://www.cdc.gov/ncidod/hip/vanco/vanco.htm.

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Update: Multistate Investigation of Measles Among Adoptees from China — April 16, 2004

On April 16, this report was posted as an MMWR Dispatch *on the* MMWR *website* (http://www.cdc.gov/mmwr).

CDC recently published information about six confirmed and three suspected cases of measles among children who were adopted in China (*1,2*). Preliminary investigation into the source of measles exposure among the recent U.S. adoptees has traced the presumed source of the outbreak to an orphanage in China where an outbreak of measles has been reported. While control measures are being implemented, CDC recommends that adoption proceedings of children from the affected orphanage be suspended temporarily.

The children departed for the United States with their families on March 26. Four of these children probably were infectious while traveling from China to the United States*.

The Chinese Ministry of Health and the Central China Adoption Agency are aware of the problem and are investigating further. CDC is collaborating with these agencies and other partners in China to initiate measures to control and prevent further spread of measles among adopted children. The public health response to this outbreak is similar to the activities conducted after an outbreak of measles among adoptees from China in 2001 (*3*).

Prospective parents who are traveling internationally to adopt children and their household contacts should ensure that they have a history of natural disease or have been vaccinated according to guidelines of the Advisory Committee on Immunization Practices (*4*). Prospective parents of international adoptees from China should stay informed as more information becomes available about the measles outbreak. Additional information about this outbreak and information for prospective parents adopting children internationally is available from CDC at http://wwwn.cdc.gov/travel/yellowBookCh8-Adoptions.aspx.

Reported by: *Div of Global Migration and Quarantine, National Center for Infectious Diseases; Epidemiology and Surveillance Div, National Immunization Program, CDC.*

* Flight numbers for one of the four children were reported incorrectly previously (*2*). The correct flight information is as follows: March 26, China Southern flight 327 from Guangzhou, China, to Los Angeles; March 27, Delta Airlines flight 48 from Los Angeles to Cincinnati; and March 27, Delta Airlines flight 5180 from Cincinnati to Washington, DC.

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Notice to Readers

Africa Malaria Day — April 25, 2004

On April 25, Africa Malaria Day 2004 marks the fourth anniversary of the Abuja declaration, when heads of state and representatives of 44 African countries set a goal to reduce the number of deaths from malaria by 50% by 2010. Measures to reduce malaria deaths include timely and correct treatment of patients and protection against malaria among groups at high risk (e.g., children and pregnant women) by using insecticide-treated mosquito nets and preventive use of drugs during pregnancy.

According to the World Health Organization, every 30 seconds a child in Africa dies from malaria; of the estimated 1 million malaria deaths occurring each year worldwide, 90% occur in Africa, primarily among young children (*1*). The slogan of Africa Malaria Day 2004, “Children for Children to Roll Back Malaria,” reflects the day’s focus on children as teachers and advocates for malaria control. Through activities in schools, youth clubs, religious institutions, and other facilities, children will campaign on their own behalf and work toward raising awareness about malaria prevention and control.

Progress in the fight against malaria is being made with the support of global consortiums such as the Roll Back Malaria (RBM) partnership and the Global Fund to Fight AIDS, Tuberculosis, and Malaria. Additional information about Africa Malaria Day is available at http://www.afro.who.int/amd2004/. Information about RBM is available at http://rbm.who.int. Information about CDC’s efforts to combat malaria is available at http://www.cdc.gov/malaria.

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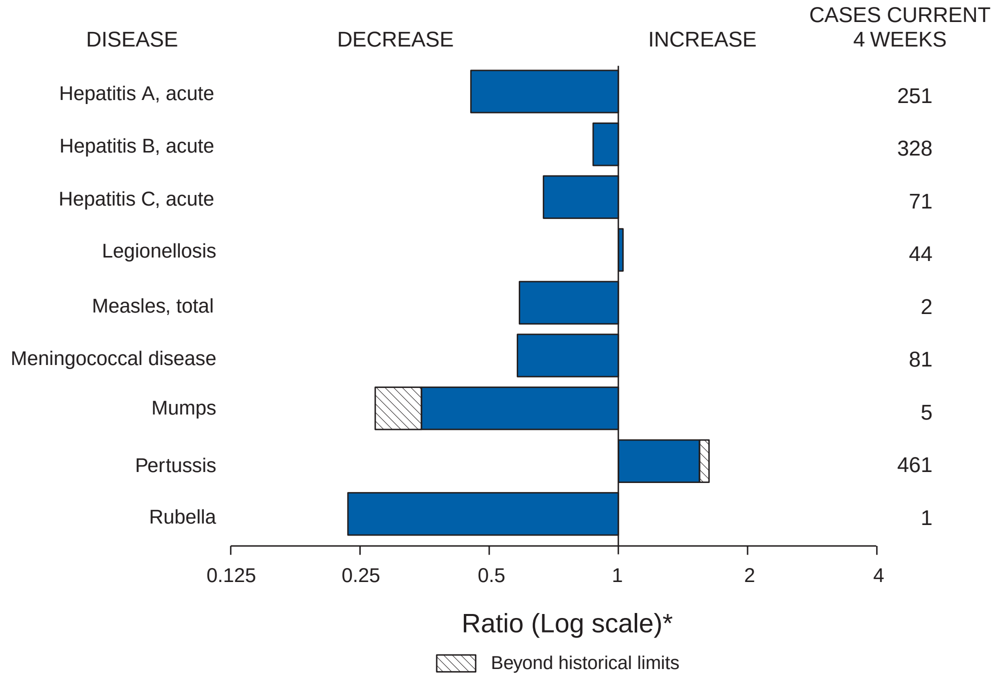
Erratum: Vol. 53, No. 14

In the brief report, “Update: Measles Among Adoptees from China—April 14, 2004,” two incorrect flight numbers were provided for March 27 flights. The correct number for the Delta Airlines flight from Los Angeles to Cincinnati was flight 48, and the correct number for the Delta Airlines flight from Cincinnati to Washington, DC was flight 5180.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals April 17, 2004, with historical data



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

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending April 17, 2004 (15th Week)*

	Cum. 2004	Cum. 2003		Cum. 2004	Cum. 2003
Anthrax	-	-	Hemolytic uremic syndrome, postdiarrheal[†]	14	34
Botulism:	-	-	HIV infection, pediatric[†§]	52	73
foodborne	4	5	Measles, total	11[¶]	9**
infant	21	19	Mumps	46	68
other (wound & unspecified	4	5	Plague	-	-
Brucellosis[†]	16	32	Poliomyelitis, paralytic	-	-
Chancroid	9	16	Psittacosis[†]	2	6
Cholera	1	-	Q fever[†]	6	19
Cyclosporiasis[†]	26	22	Rabies, human	-	-
Diphtheria	-	-	Rubella	12	3
Ehrlichiosis:	-	-	Rubella, congenital syndrome	1	1
human granulocytic (HGE)[†]	6	26	SARS-associated coronavirus disease[† ††]	-	5
human monocytic (HME)[†]	9	17	Smallpox[† §§]	-	NA
human, other and unspecified	-	2	*Staphylococcus aureus*:	-	-
Encephalitis/Meningitis:	-	-	Vancomycin-intermediate (VISA)[† §§]	4	NA
California serogroup viral[†]	-	-	Vancomycin-resistant (VRSA)[† §§]	-	NA
eastern equine[†]	-	2	Streptococcal toxic-shock syndrome[†]	32	68
Powassan[†]	-	-	Tetanus	3	4
St. Louis[†]	1	2	Toxic-shock syndrome	36	42
western equine[†]	-	-	Trichinosis	2	-
Hansen disease (leprosy)[†]	19	28	Tularemia[†]	4	4
Hantavirus pulmonary syndrome[†]	2	4	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 March 26, 2004.
¶ Of 11 cases reported, eight were indigenous, and three were imported from another country.
** Of nine cases reported, five were indigenous, and four were 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 April 17, 2004, and April 12, 2003 (15th 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	8,910	12,447	216,854	241,531	1,355	989	662	628	7	57
NEW ENGLAND	311	429	8,094	7,936	-	-	36	37	-	-
Maine	5	13	487	555	N	N	6	2	-	-
N.H.	11	7	482	447	-	-	10	4	-	-
Vt.	7	5	340	310	-	-	5	5	-	-
Mass.	84	186	4,177	3,060	-	-	9	20	-	-
R.I.	32	29	996	904	-	-	1	4	-	-
Conn.	172	189	1,612	2,660	N	N	5	2	-	-
MID. ATLANTIC	1,283	2,836	29,821	28,788	-	-	112	81	2	-
Upstate N.Y.	134	139	6,136	4,971	N	N	24	15	-	-
N.Y. City	380	1,589	9,003	9,929	-	-	24	31	-	-
N.J.	386	424	3,869	4,153	-	-	7	3	-	-
Pa.	383	684	10,813	9,735	N	N	57	32	2	-
E.N. CENTRAL	806	1,182	38,846	44,026	5	2	143	119	1	-
Ohio	229	154	8,825	12,597	-	-	42	17	1	-
Ind.	117	178	5,120	4,884	N	N	22	7	-	-
Ill.	279	554	9,096	14,296	-	-	8	17	-	-
Mich.	132	236	11,831	7,245	5	2	36	26	-	-
Wis.	49	60	3,974	5,004	-	-	35	52	-	-
W.N. CENTRAL	228	194	12,927	14,120	4	1	73	46	1	-
Minn.	48	41	2,341	3,134	N	N	29	27	-	-
Iowa	11	27	-	1,450	N	N	11	7	-	-
Mo.	107	83	5,749	5,081	3	1	15	2	1	-
N. Dak.	10	-	324	386	N	N	-	1	-	-
S. Dak.	-	4	749	692	-	-	8	7	-	-
Nebr.¶	6	18	1,567	1,305	1	-	1	2	-	-
Kans.	46	21	2,197	2,072	N	N	9	-	-	-
S. ATLANTIC	3,510	3,586	35,196	43,979	-	1	145	183	2	57
Del.	42	57	867	890	N	N	-	1	-	-
Md.	343	193	5,588	4,614	-	1	7	6	-	-
D.C.	149	380	1,020	1,006	-	-	1	-	-	-
Va.	141	297	1,245	4,753	-	-	16	7	-	-
W. Va.	30	20	804	725	N	N	2	-	-	-
N.C.	243	437	7,861	6,713	N	N	29	10	-	-
S.C.¶	204	213	5,475	4,223	-	-	5	1	2	-
Ga.	509	492	1,959	9,237	-	-	51	29	-	-
Fla.	1,849	1,497	10,377	11,818	N	N	34	129	-	57
E.S. CENTRAL	446	493	14,245	16,120	N	N	32	35	-	-
Ky.	42	57	1,657	2,463	N	N	7	7	-	-
Tenn.¶	187	221	6,251	5,642	N	N	12	11	-	-
Ala.	127	110	3,286	4,280	-	-	9	14	-	-
Miss.	90	105	3,051	3,735	N	N	4	3	-	-
W.S. CENTRAL	1,307	1,280	28,655	29,979	1	5	20	13	1	-
Ark.	43	35	2,258	1,812	1	-	8	2	-	-
La.	281	137	7,290	5,420	N	N	-	-	1	-
Okla.	37	51	2,955	2,633	N	N	8	3	-	-
Tex.	946	1,057	16,152	20,114	-	5	4	8	-	-
MOUNTAIN	257	459	12,092	14,880	851	696	33	22	-	-
Mont.	-	7	263	656	N	N	3	2	-	-
Idaho	2	5	918	740	N	N	2	4	-	-
Wyo.	2	4	311	291	-	-	2	1	-	-
Colo.	48	105	2,274	3,812	N	N	18	5	-	-
N. Mex.	20	41	1,245	2,168	6	-	1	1	-	-
Ariz.	109	217	4,967	4,572	820	683	5	2	-	-
Utah	17	22	845	868	7	1	1	5	-	-
Nev.	59	58	1,269	1,773	18	12	1	2	-	-
PACIFIC	762	1,988	36,978	41,703	492	284	68	92	-	-
Wash.	127	160	5,014	4,237	N	N	4	-	-	-
Oreg.	53	87	1,759	2,192	-	-	8	8	-	-
Calif.	543	1,700	29,132	32,699	492	284	55	84	-	-
Alaska	8	9	1,062	1,028	-	-	-	-	-	-
Hawaii	31	32	11	1,547	-	-	1	-	-	-
Guam	1	1	-	-	-	-	-	-	-	-
P.R.	143	325	494	566	N	N	N	N	-	-
V.I.	2	9	20	103	-	-	-	-	-	-
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 monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update March 26, 2004.

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending April 17, 2004, and April 12, 2003 (15th Week)*

	Escherichia coli, Enterohemorrhagic (EHEC)									
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped		Giardiasis		Gonorrhea	
Reporting area	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	256	318	33	69	32	28	3,942	5,140	76,284	91,572
NEW ENGLAND	15	14	1	7	4	3	357	309	1,942	2,012
Maine	-	1	-	-	-	-	35	34	80	42
N.H.	2	4	-	1	-	-	13	17	34	38
Vt.	-	-	-	-	-	-	22	21	23	28
Mass.	2	4	-	2	4	3	183	164	992	761
R.I.	1	1	-	-	-	-	23	29	271	284
Conn.	10	4	1	4	-	-	81	44	542	859
MID. ATLANTIC	18	32	1	1	9	4	859	903	9,649	11,554
Upstate N.Y.	6	8	1	-	3	2	262	203	2,057	1,968
N.Y. City	4	3	-	-	-	-	273	348	2,884	3,852
N.J.	-	4	-	-	2	-	71	129	1,479	2,584
Pa.	8	17	-	1	4	2	253	223	3,229	3,150
E.N. CENTRAL	51	71	7	11	4	4	484	745	15,558	19,796
Ohio	15	15	-	8	4	4	217	217	4,320	6,510
Ind.	9	9	-	-	-	-	-	-	1,811	1,854
Ill.	7	14	-	-	-	-	59	224	3,612	6,262
Mich.	10	14	1	-	-	-	145	178	4,680	3,422
Wis.	10	19	6	3	-	-	63	126	1,135	1,748
W.N. CENTRAL	48	39	7	6	7	6	462	428	4,476	4,750
Minn.	20	14	3	5	-	-	159	130	965	768
Iowa	5	3	-	-	-	-	61	61	-	291
Mo.	6	14	4	1	2	-	131	136	2,333	2,448
N. Dak.	2	1	-	-	3	1	8	13	37	14
S. Dak.	1	2	-	-	-	-	19	13	81	41
Nebr.	7	4	-	-	-	-	42	43	318	438
Kans.	7	1	-	-	2	5	42	32	742	750
S. ATLANTIC	21	59	12	35	3	10	655	1,510	16,343	21,826
Del.	-	-	N	N	N	N	16	15	292	379
Md.	2	-	-	-	-	-	26	29	2,427	2,227
D.C.	-	1	-	-	-	-	20	9	666	723
Va.	1	4	5	-	-	-	101	69	472	2,265
W. Va.	1	1	-	-	-	-	9	7	240	241
N.C.	-	-	4	8	-	-	N	N	4,274	3,770
S.C.	-	-	-	-	-	-	15	34	2,573	2,403
Ga.	6	6	2	2	-	-	172	211	1,095	4,568
Fla.	11	47	1	25	3	10	296	1,136	4,304	5,250
E.S. CENTRAL	8	12	1	-	3	-	85	87	6,557	7,991
Ky.	4	2	1	-	3	-	N	N	703	1,015
Tenn.	2	6	-	-	-	-	33	37	2,285	2,452
Ala.	1	3	-	-	-	-	52	50	1,939	2,607
Miss.	1	1	-	-	-	-	-	-	1,630	1,917
W.S. CENTRAL	15	10	-	2	1	-	69	59	10,727	12,183
Ark.	1	2	-	-	-	-	35	33	1,037	1,064
La.	-	-	-	-	-	-	8	4	3,413	3,066
Okla.	3	-	-	-	-	-	26	22	1,282	1,064
Tex.	11	8	-	2	1	-	-	-	4,995	6,989
MOUNTAIN	47	34	3	6	1	1	345	336	3,002	3,148
Mont.	2	-	-	-	-	-	8	12	11	40
Idaho	6	9	1	4	-	-	49	42	22	25
Wyo.	-	-	-	-	-	-	3	5	16	14
Colo.	23	14	1	1	1	1	108	95	747	867
N. Mex.	3	-	-	1	-	-	15	15	152	364
Ariz.	4	8	N	N	N	N	67	59	1,405	1,220
Utah	5	3	-	-	-	-	64	72	102	76
Nev.	4	-	1	-	-	-	31	36	547	542
PACIFIC	33	47	1	1	-	-	626	763	8,030	8,312
Wash.	6	16	-	-	-	-	60	59	802	800
Oreg.	4	8	1	1	-	-	104	81	225	272
Calif.	16	23	-	-	-	-	422	573	6,817	6,780
Alaska	1	-	-	-	-	-	17	24	185	160
Hawaii	6	-	-	-	-	-	23	26	1	300
Guam	N	N	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	25	5	23	46	68
V.I.	-	-	-	-	-	-	-	-	4	28
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 April 17, 2004, and April 12, 2003 (15th Week)*

Reporting area	*Haemophilus influenzae*, invasive: All ages, All serotypes, Cum. 2004	Cum. 2003	Age <5 years: Serotype b, Cum. 2004	Cum. 2003	Non-serotype b, Cum. 2004	Cum. 2003	Unknown serotype, Cum. 2004	Cum. 2003	Hepatitis (viral, acute), by type: A, Cum. 2004	Cum. 2003
UNITED STATES	609	593	6	7	33	38	66	68	1,539	2,086
NEW ENGLAND	56	41	1	1	3	3	2	1	278	54
Maine	5	2	-	-	-	-	-	1	8	1
N.H.	10	4	-	-	2	-	-	-	6	4
Vt.	4	6	-	-	-	-	-	-	5	2
Mass.	24	19	1	1	-	3	2	-	228	28
R.I.	1	1	-	-	-	-	-	-	6	4
Conn.	12	9	-	-	1	-	-	-	25	15
MID. ATLANTIC	112	88	-	-	1	1	16	12	183	348
Upstate N.Y.	40	26	-	-	1	1	3	3	25	28
N.Y. City	16	15	-	-	-	-	4	4	63	134
N.J.	22	16	-	-	-	-	2	1	39	57
Pa.	34	31	-	-	-	-	7	4	56	129
E.N. CENTRAL	96	74	-	1	9	2	14	15	130	191
Ohio	43	19	-	-	2	-	7	5	16	30
Ind.	13	12	-	-	3	1	1	-	6	11
Ill.	19	30	-	-	-	-	5	9	45	69
Mich.	9	6	-	1	4	1	-	-	50	59
Wis.	12	7	-	-	-	-	1	1	13	22
W.N. CENTRAL	25	35	1	-	2	4	2	3	46	53
Minn.	11	14	-	-	2	4	-	-	11	14
Iowa	1	-	1	-	-	-	-	-	8	13
Mo.	8	14	-	-	-	-	1	3	15	11
N. Dak.	-	1	-	-	-	-	-	-	-	-
S. Dak.	-	1	-	-	-	-	-	-	2	-
Nebr.	4	-	-	-	-	-	-	-	7	3
Kans.	1	5	-	-	-	-	1	-	3	12
S. ATLANTIC	167	198	-	1	5	9	13	14	306	714
Del.	4	-	-	-	-	-	2	-	3	3
Md.	29	24	-	-	2	2	-	-	48	40
D.C.	-	-	-	-	-	-	-	-	3	9
Va.	11	12	-	-	-	-	-	2	28	31
W. Va.	8	3	-	-	-	-	3	-	2	4
N.C.	17	10	-	-	1	-	-	-	22	26
S.C.	-	2	-	-	-	-	-	-	11	17
Ga.	60	24	-	-	-	-	8	3	120	172
Fla.	38	123	-	1	2	7	-	9	69	412
E.S. CENTRAL	21	34	-	-	-	2	5	3	51	54
Ky.	-	3	-	-	-	1	-	-	8	9
Tenn.	13	18	-	-	-	1	4	2	28	26
Ala.	8	12	-	-	-	-	1	1	5	9
Miss.	-	1	-	-	-	-	-	-	10	10
W.S. CENTRAL	19	29	-	-	2	3	-	3	97	177
Ark.	1	4	-	-	-	1	-	-	18	10
La.	3	8	-	-	-	-	-	3	2	27
Okla.	15	17	-	-	2	2	-	-	13	4
Tex.	-	-	-	-	-	-	-	-	64	136
MOUNTAIN	90	58	2	2	10	8	11	9	158	114
Mont.	-	-	-	-	-	-	-	-	3	1
Idaho	2	-	-	-	-	-	1	-	7	6
Wyo.	-	-	-	-	-	-	-	-	1	1
Colo.	27	11	-	-	-	-	5	4	24	12
N. Mex.	14	9	-	-	3	2	2	1	3	8
Ariz.	37	28	-	2	6	3	1	2	97	64
Utah	5	6	2	-	-	1	1	2	20	7
Nev.	5	4	-	-	1	2	1	-	3	15
PACIFIC	23	36	2	2	1	6	3	8	290	381
Wash.	3	3	2	-	-	2	1	1	13	16
Oreg.	12	13	-	-	-	-	-	3	17	25
Calif.	3	17	-	2	1	4	2	4	251	334
Alaska	-	-	-	-	-	-	-	-	3	3
Hawaii	5	3	-	-	-	-	-	-	6	3
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	5	15
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 April 17, 2004, and April 12, 2003 (15th Week)*

Reporting area	Hepatitis (viral, acute), by type B Cum. 2004	B Cum. 2003	C Cum. 2004	C Cum. 2003	Legionellosis Cum. 2004	Legionellosis Cum. 2003	Listeriosis Cum. 2004	Listeriosis Cum. 2003	Lyme disease Cum. 2004	Lyme disease Cum. 2003
UNITED STATES	1,529	2,506	342	671	269	395	110	158	1,769	2,132
NEW ENGLAND	68	90	1	-	4	11	4	5	132	175
Maine	1	-	-	-	-	-	1	-	27	-
N.H.	15	3	-	-	-	-	1	1	8	4
Vt.	1	1	1	-	-	1	-	-	5	3
Mass.	50	65	-	-	1	5	-	2	42	96
R.I.	1	1	-	-	1	1	-	-	18	32
Conn.	-	20	U	U	2	4	2	2	32	40
MID. ATLANTIC	222	270	35	40	60	56	26	25	1,394	1,583
Upstate N.Y.	19	19	4	6	13	16	7	3	505	482
N.Y. City	16	102	-	-	2	7	3	7	-	1
N.J.	106	73	-	-	13	4	6	5	309	353
Pa.	81	76	31	34	32	29	10	10	580	747
E.N. CENTRAL	105	125	16	40	66	70	14	11	33	51
Ohio	51	40	2	3	36	27	7	2	27	8
Ind.	2	4	-	-	4	4	1	1	-	4
Ill.	-	1	1	11	2	11	-	3	-	-
Mich.	52	60	13	26	22	22	5	5	-	-
Wis.	-	20	-	-	2	6	1	-	6	39
W.N. CENTRAL	123	80	162	82	7	8	4	3	24	21
Minn.	8	5	1	1	-	2	2	1	6	14
Iowa	3	4	-	-	1	3	1	-	4	2
Mo.	100	55	161	81	4	1	1	-	13	4
N. Dak.	1	-	-	-	1	1	-	-	-	-
S. Dak.	-	1	-	-	1	-	-	-	-	-
Nebr.	7	9	-	-	-	-	-	2	-	-
Kans.	4	6	-	-	-	1	-	-	1	1
S. ATLANTIC	525	1,121	58	111	66	190	18	61	156	234
Del.	5	2	-	-	2	-	N	N	9	36
Md.	48	32	5	7	10	14	3	3	87	86
D.C.	5	1	1	-	-	1	-	-	1	2
Va.	61	37	9	-	5	6	1	4	6	10
W. Va.	2	2	3	-	2	-	1	1	1	-
N.C.	44	49	5	3	7	7	4	6	33	17
S.C.	24	42	-	14	1	4	-	2	1	-
Ga.	176	320	7	7	6	7	4	7	1	3
Fla.	160	636	28	80	33	151	5	38	17	80
E.S. CENTRAL	111	109	17	28	10	6	7	4	3	16
Ky.	13	17	10	5	2	-	2	-	2	2
Tenn.	51	36	5	3	6	3	5	-	1	5
Ala.	18	25	-	4	2	1	-	3	-	-
Miss.	29	31	2	16	-	2	-	1	-	9
W.S. CENTRAL	28	284	27	343	13	18	9	16	2	26
Ark.	11	31	-	2	-	-	-	-	-	-
La.	8	50	10	52	-	-	-	1	-	3
Okla.	9	13	2	-	2	2	-	1	-	-
Tex.	-	190	15	289	11	16	9	14	2	23
MOUNTAIN	145	164	14	9	21	15	5	10	3	3
Mont.	-	4	2	1	-	-	-	1	-	-
Idaho	3	2	-	1	1	1	1	-	-	1
Wyo.	4	5	-	-	4	1	-	-	1	-
Colo.	19	28	4	3	3	4	1	4	-	-
N. Mex.	5	12	-	-	-	1	-	1	-	-
Ariz.	79	83	2	3	5	4	-	4	1	-
Utah	15	10	-	-	7	2	-	-	1	1
Nev.	20	20	6	1	1	2	3	-	-	1
PACIFIC	202	263	12	18	22	21	23	23	22	23
Wash.	21	15	2	2	3	2	5	1	3	-
Oreg.	26	38	4	4	N	N	3	1	7	6
Calif.	149	202	4	11	19	19	15	21	12	16
Alaska	4	2	-	-	-	-	-	-	-	1
Hawaii	2	6	2	1	-	-	-	-	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	6	37	-	-	-	-	-	-	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 April 17, 2004, and April 12, 2003 (15th 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	261	350	510	668	2,162	1,894	943	1,891	128	96
NEW ENGLAND	16	8	25	30	540	192	117	118	4	-
Maine	-	1	7	3	-	1	11	11	-	-
N.H.	-	2	3	3	11	14	6	6	-	-
Vt.	1	-	1	-	20	21	5	8	-	-
Mass.	8	5	14	20	495	141	42	42	4	-
R.I.	2	-	-	1	9	1	8	11	-	-
Conn.	5	-	-	3	5	14	45	40	-	-
MID. ATLANTIC	52	66	60	62	606	192	115	231	12	9
Upstate N.Y.	10	13	16	9	452	70	86	81	1	-
N.Y. City	21	36	11	15	-	20	-	1	1	4
N.J.	8	5	9	10	51	31	-	55	2	4
Pa.	13	12	24	28	103	71	29	94	8	1
E.N. CENTRAL	18	29	70	94	253	126	4	8	7	1
Ohio	6	5	29	27	126	71	2	2	6	1
Ind.	-	-	10	13	16	9	1	2	-	-
Ill.	2	12	1	24	-	-	-	1	-	-
Mich.	5	9	24	19	30	13	1	3	1	-
Wis.	5	3	6	11	81	33	-	-	-	-
W.N. CENTRAL	19	8	26	48	128	92	101	177	4	2
Minn.	8	5	7	11	28	33	14	5	-	-
Iowa	1	2	5	7	17	31	13	21	-	1
Mo.	3	-	7	22	68	17	3	2	4	1
N. Dak.	1	-	-	-	4	1	15	17	-	-
S. Dak.	1	-	1	1	1	2	10	33	-	-
Nebr.	1	-	1	3	-	1	15	33	-	-
Kans.	4	1	5	4	10	7	31	66	-	-
S. ATLANTIC	91	139	96	170	134	230	470	779	84	80
Del.	2	-	1	7	3	1	9	-	-	-
Md.	23	21	4	11	32	16	50	101	4	8
D.C.	4	3	-	-	1	-	-	-	-	-
Va.	7	7	4	6	28	33	109	126	-	1
W. Va.	-	2	3	1	2	1	17	20	-	-
N.C.	5	6	14	16	26	53	176	198	73	47
S.C.	4	1	8	9	10	6	40	46	2	3
Ga.	12	7	13	13	17	6	64	104	3	3
Fla.	34	92	49	107	15	114	5	184	2	18
E.S. CENTRAL	7	7	24	26	26	32	35	54	12	4
Ky.	1	1	3	2	3	4	6	9	-	-
Tenn.	1	3	9	6	15	17	13	39	5	3
Ala.	4	2	6	7	4	8	16	5	2	-
Miss.	1	1	6	11	4	3	-	1	5	1
W.S. CENTRAL	20	29	53	76	68	94	46	456	-	-
Ark.	1	1	12	7	3	4	15	25	-	-
La.	2	1	12	24	2	4	-	-	-	-
Okla.	1	-	3	5	10	4	31	56	-	-
Tex.	16	27	26	40	53	82	-	375	-	-
MOUNTAIN	12	9	30	29	253	294	21	22	1	-
Mont.	-	-	1	2	4	-	3	2	-	-
Idaho	-	1	2	2	14	9	-	-	-	-
Wyo.	-	-	2	2	3	91	-	-	-	-
Colo.	5	7	14	5	152	104	-	-	1	-
N. Mex.	1	-	4	3	10	19	-	-	-	-
Ariz.	1	1	4	12	46	46	18	20	-	-
Utah	3	-	3	-	21	20	-	-	-	-
Nev.	2	-	-	3	3	5	-	-	-	-
PACIFIC	26	55	126	133	154	642	34	46	4	-
Wash.	2	7	8	11	103	96	-	-	-	-
Oreg.	2	5	29	24	45	73	-	-	2	-
Calif.	22	43	85	90	-	472	26	41	2	-
Alaska	-	-	1	2	3	-	8	5	-	-
Hawaii	-	-	3	6	3	1	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	2	4	1	-	16	21	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 April 17, 2004, and April 12, 2003 (15th Week)*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		*Streptococcus pneumoniae*, invasive: Drug resistant, all ages		*Streptococcus pneumoniae*, invasive: 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	6,501	11,179	2,692	7,448	1,580	2,297	870	1,329	131	166
NEW ENGLAND	309	344	58	90	66	222	8	36	3	1
Maine	17	20	1	3	3	12	-	-	-	-
N.H.	18	25	3	1	9	15	-	-	N	N
Vt.	16	8	1	3	3	11	3	4	1	1
Mass.	185	202	38	57	49	102	N	N	N	N
R.I.	13	17	1	2	2	1	5	-	2	-
Conn.	60	72	14	24	-	81	-	32	U	U
MID. ATLANTIC	852	894	330	469	226	361	51	48	30	27
Upstate N.Y.	198	156	146	75	87	125	22	23	21	17
N.Y. City	250	280	89	126	27	49	U	U	U	U
N.J.	154	159	55	114	39	85	N	N	N	N
Pa.	250	299	40	154	73	102	29	25	9	10
E.N. CENTRAL	922	1,057	223	408	266	525	198	161	46	67
Ohio	255	307	51	75	95	112	158	109	31	39
Ind.	77	78	41	31	29	37	40	52	11	7
Ill.	228	368	74	202	25	145	-	-	-	-
Mich.	185	148	32	66	106	151	N	N	N	N
Wis.	177	156	25	34	11	80	N	N	4	21
W.N. CENTRAL	456	391	101	185	130	135	82	78	17	16
Minn.	102	100	13	25	63	55	-	-	14	13
Iowa	87	86	29	9	N	N	N	N	N	N
Mo.	137	103	26	66	26	29	3	3	3	1
N. Dak.	12	8	1	3	4	7	-	3	-	2
S. Dak.	19	19	6	8	8	13	1	-	-	-
Nebr.	38	31	7	50	8	16	-	-	N	N
Kans.	61	44	19	24	21	15	78	72	N	N
S. ATLANTIC	1,581	5,646	850	3,858	382	532	436	897	3	4
Del.	9	24	3	93	2	4	3	-	N	N
Md.	118	172	30	164	72	117	-	2	-	-
D.C.	11	9	13	16	2	3	2	-	3	-
Va.	173	148	29	74	15	36	N	N	N	N
W. Va.	29	15	-	-	9	11	42	16	-	4
N.C.	216	286	121	222	45	36	N	N	U	U
S.C.	83	91	118	60	21	11	31	63	N	N
Ga.	327	232	185	380	146	83	157	205	N	N
Fla.	615	4,669	351	2,849	70	231	201	611	N	N
E.S. CENTRAL	354	408	156	266	75	62	51	49	-	-
Ky.	68	77	23	34	26	12	13	3	N	N
Tenn.	105	145	58	87	49	50	38	46	N	N
Ala.	124	121	56	95	-	-	-	-	N	N
Miss.	57	65	19	50	-	-	-	-	-	-
W.S. CENTRAL	433	661	443	1,201	72	114	22	47	27	28
Ark.	65	73	14	16	4	3	4	14	4	4
La.	33	102	30	111	-	1	18	33	4	5
Okla.	56	57	97	181	19	31	N	N	11	5
Tex.	279	429	302	893	49	79	N	N	8	14
MOUNTAIN	546	478	210	264	202	178	13	12	5	23
Mont.	26	30	3	1	-	-	-	-	-	-
Idaho	43	56	3	5	3	10	N	N	N	N
Wyo.	16	5	1	1	5	-	4	2	-	-
Colo.	142	132	45	43	62	55	-	-	3	21
N. Mex.	33	41	32	48	27	49	5	10	-	-
Ariz.	180	136	99	139	91	60	-	-	N	N
Utah	60	47	11	14	13	4	2	-	2	2
Nev.	46	31	16	13	1	-	2	-	-	-
PACIFIC	1,048	1,300	321	707	161	168	9	1	-	-
Wash.	72	112	19	52	20	-	-	-	N	N
Oreg.	71	123	18	23	N	N	N	N	N	N
Calif.	802	994	269	618	110	138	N	N	N	N
Alaska	29	27	2	4	-	-	-	-	N	N
Hawaii	74	44	13	10	31	30	9	1	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	32	137	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 April 17, 2004, and April 12, 2003 (15th Week)*

	Syphilis									
	Primary & secondary		Congenital		Tuberculosis		Typhoid fever		Varicella (Chickenpox)	
Reporting area	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	1,745	2,028	59	136	1,904	2,951	64	93	4,429	5,314
NEW ENGLAND	38	53	1	-	67	86	8	6	268	1,242
Maine	-	3	-	-	-	-	-	-	43	344
N.H.	1	7	-	-	4	4	-	-	-	-
Vt.	-	-	-	-	-	2	-	-	225	273
Mass.	27	34	-	-	50	42	8	2	-	77
R.I.	3	4	-	-	8	11	-	2	-	2
Conn.	7	5	1	-	5	27	-	2	-	546
MID. ATLANTIC	230	222	7	22	510	587	11	15	18	6
Upstate N.Y.	23	4	1	1	51	43	1	3	-	-
N.Y. City	124	121	3	12	264	295	4	8	-	-
N.J.	41	52	3	9	110	90	4	3	-	-
Pa.	42	45	-	-	85	159	2	1	18	6
E.N. CENTRAL	184	272	23	23	256	267	3	8	2,019	2,170
Ohio	59	61	1	2	55	45	1	-	588	469
Ind.	13	12	4	6	13	34	-	2	-	-
Ill.	56	103	1	10	160	126	-	1	-	-
Mich.	49	91	17	5	8	48	2	5	1,399	1,353
Wis.	7	5	-	-	20	14	-	-	32	348
W.N. CENTRAL	34	64	-	3	68	125	2	-	93	12
Minn.	4	21	-	-	32	46	1	-	-	-
Iowa	-	5	-	-	7	8	-	-	N	N
Mo.	21	22	-	3	11	32	1	-	2	-
N. Dak.	-	-	-	-	2	-	-	-	66	12
S. Dak.	-	-	-	-	3	9	-	-	25	-
Nebr.	4	1	-	-	6	5	-	-	-	-
Kans.	5	15	-	-	7	25	-	-	-	-
S. ATLANTIC	476	525	7	28	382	532	12	31	722	766
Del.	2	2	-	-	-	-	-	-	3	3
Md.	90	84	2	5	55	43	2	3	-	-
D.C.	21	12	-	-	-	-	-	-	9	7
Va.	1	25	-	1	31	49	4	9	210	136
W. Va.	1	-	-	-	6	4	-	-	408	551
N.C.	44	53	1	5	50	56	2	2	-	-
S.C.	39	38	-	4	44	40	-	-	92	69
Ga.	71	115	-	5	11	138	2	2	-	-
Fla.	207	196	4	8	185	202	2	15	-	-
E.S. CENTRAL	96	107	2	7	105	184	1	1	1	-
Ky.	14	16	-	1	17	29	-	-	-	-
Tenn.	43	43	1	1	41	58	1	-	-	-
Ala.	30	39	1	4	47	72	-	1	-	-
Miss.	9	9	-	1	-	25	-	-	1	-
W.S. CENTRAL	285	237	15	19	150	476	4	3	336	1,028
Ark.	12	12	-	-	36	24	-	-	-	-
La.	67	30	-	-	-	-	-	-	3	7
Okla.	7	13	2	-	39	34	-	-	-	-
Tex.	199	182	13	19	75	418	4	3	333	1,021
MOUNTAIN	112	90	4	15	51	68	5	3	972	90
Mont.	-	-	-	-	-	-	-	-	-	-
Idaho	8	4	-	-	-	1	-	-	-	-
Wyo.	1	-	-	-	-	1	-	-	14	12
Colo.	-	10	-	3	6	28	2	3	725	-
N. Mex.	20	19	-	4	-	4	-	-	23	-
Ariz.	76	52	4	8	31	26	1	-	-	-
Utah	3	1	-	-	14	6	1	-	210	78
Nev.	4	4	-	-	-	2	1	-	-	-
PACIFIC	290	458	-	19	315	626	18	26	-	-
Wash.	21	18	-	-	57	68	1	-	-	-
Oreg.	9	14	-	-	18	26	1	2	-	-
Calif.	260	421	-	19	201	482	11	24	-	-
Alaska	-	-	-	-	8	19	-	-	-	-
Hawaii	-	5	-	-	31	31	5	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	38	60	-	7	14	22	-	-	92	142
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 April 17, 2004 (15th Week)

Reporting Area	All causes, by age (years)						P&I†
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	503	364	98	27	7	7	71
Boston, Mass.	198	127	44	16	6	5	26
Bridgeport, Conn.	38	27	7	4	-	-	9
Cambridge, Mass.	10	10	-	-	-	-	1
Fall River, Mass.	36	32	3	-	-	1	9
Hartford, Conn.	U	U	U	U	U	U	U
Lowell, Mass.	27	19	7	1	-	-	1
Lynn, Mass.	9	5	4	-	-	-	-
New Bedford, Mass.	23	19	3	1	-	-	2
New Haven, Conn.	U	U	U	U	U	U	U
Providence, R.I.	57	45	11	1	-	-	8
Somerville, Mass.	4	4	-	-	-	-	1
Springfield, Mass.	U	U	U	U	U	U	U
Waterbury, Conn.	34	24	8	2	-	-	6
Worcester, Mass.	67	52	11	2	1	1	8
MID. ATLANTIC	2,197	1,538	459	131	37	31	159
Albany, N.Y.	51	41	8	1	-	1	2
Allentown, Pa.	22	20	2	-	-	-	3
Buffalo, N.Y.	82	54	23	2	-	3	7
Camden, N.J.	32	20	7	3	-	2	2
Elizabeth, N.J.	23	19	2	2	-	-	-
Erie, Pa.	40	36	-	4	-	-	1
Jersey City, N.J.	51	31	13	4	2	1	-
New York City, N.Y.	1,071	760	211	68	19	12	71
Newark, N.J.	62	31	12	13	4	2	5
Paterson, N.J.	U	U	U	U	U	U	U
Philadelphia, Pa.	395	248	102	26	11	8	22
Pittsburgh, Pa.§	20	15	5	-	-	-	1
Reading, Pa.	31	25	6	-	-	-	3
Rochester, N.Y.	128	85	35	7	1	-	15
Schenectady, N.Y.	22	18	4	-	-	-	2
Scranton, Pa.	33	23	9	1	-	-	4
Syracuse, N.Y.	94	78	15	-	-	1	19
Trenton, N.J.	21	18	2	-	-	1	-
Utica, N.Y.	19	16	3	-	-	-	2
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,061	1,390	457	136	37	38	138
Akron, Ohio	50	38	9	2	1	-	7
Canton, Ohio	36	29	5	1	-	1	4
Chicago, Ill.	321	181	80	38	12	7	30
Cincinnati, Ohio	76	55	13	4	3	1	4
Cleveland, Ohio	306	221	60	12	5	8	11
Columbus, Ohio	188	120	53	7	2	6	15
Dayton, Ohio	110	80	22	6	1	1	11
Detroit, Mich.	191	106	58	20	5	2	17
Evansville, Ind.	58	40	15	2	1	-	5
Fort Wayne, Ind.	70	51	9	7	1	2	1
Gary, Ind.	25	13	6	5	1	-	1
Grand Rapids, Mich.	61	42	16	1	-	2	4
Indianapolis, Ind.	168	108	44	11	3	2	10
Lansing, Mich.	43	36	6	1	-	-	2
Milwaukee, Wis.	99	65	25	7	-	2	3
Peoria, Ill.	62	45	9	5	-	3	4
Rockford, Ill.	49	37	10	2	-	-	3
South Bend, Ind.	59	48	7	2	2	-	2
Toledo, Ohio	89	75	10	3	-	1	4
Youngstown, Ohio	U	U	U	U	U	U	U
W.N. CENTRAL	608	401	144	49	9	5	47
Des Moines, Iowa	70	53	11	4	2	-	5
Duluth, Minn.	32	24	7	1	-	-	2
Kansas City, Kans.	32	16	12	3	1	-	1
Kansas City, Mo.	95	65	25	4	-	1	12
Lincoln, Nebr.	35	29	3	2	-	1	3
Minneapolis, Minn.	64	37	19	7	-	1	5
Omaha, Nebr.	93	61	21	9	-	2	12
St. Louis, Mo.	105	62	26	14	3	-	3
St. Paul, Minn.	50	38	8	2	2	-	3
Wichita, Kans.	32	16	12	3	1	-	1
S. ATLANTIC	1,334	857	287	110	59	21	68
Atlanta, Ga.	151	96	32	13	9	1	1
Baltimore, Md.	207	128	48	22	5	4	20
Charlotte, N.C.	98	58	20	7	9	4	6
Jacksonville, Fla.	131	83	32	6	7	3	8
Miami, Fla.	184	117	39	18	10	-	5
Norfolk, Va.	52	34	7	4	4	3	3
Richmond, Va.	60	33	19	6	2	-	1
Savannah, Ga.	67	47	11	5	3	1	2
St. Petersburg, Fla.	46	35	5	2	2	2	6
Tampa, Fla.	215	153	43	14	4	1	14
Washington, D.C.	99	59	27	9	2	2	1
Wilmington, Del.	24	14	4	4	2	-	1
E.S. CENTRAL	827	553	185	58	18	13	59
Birmingham, Ala.	158	107	32	12	4	3	12
Chattanooga, Tenn.	100	71	22	4	2	1	6
Knoxville, Tenn.	111	77	24	6	4	-	-
Lexington, Ky.	101	63	23	9	3	3	5
Memphis, Tenn.	117	74	29	9	2	3	3
Mobile, Ala.	85	59	16	8	1	1	3
Montgomery, Ala.	32	23	6	3	-	-	13
Nashville, Tenn.	123	79	33	7	2	2	17
W.S. CENTRAL	1,179	732	275	109	23	40	51
Austin, Tex.	77	57	10	5	-	5	3
Baton Rouge, La.	37	24	6	5	-	2	2
Corpus Christi, Tex.	54	37	9	5	1	2	5
Dallas, Tex.	207	114	61	22	4	6	17
El Paso, Tex.	U	U	U	U	U	U	U
Ft. Worth, Tex.	107	64	25	10	2	6	-
Houston, Tex.	349	201	89	36	7	16	12
Little Rock, Ark.	76	47	19	6	4	-	1
New Orleans, La.	58	32	16	10	-	-	-
San Antonio, Tex.	U	U	U	U	U	U	U
Shreveport, La.	69	46	13	3	5	2	4
Tulsa, Okla.	145	110	27	7	-	1	7
MOUNTAIN	1,032	694	223	72	25	18	61
Albuquerque, N.M.	124	81	23	12	5	3	6
Boise, Idaho	46	33	12	-	1	-	-
Colo. Springs, Colo.	69	53	11	2	-	3	2
Denver, Colo.	102	63	24	8	2	5	9
Las Vegas, Nev.	259	182	51	17	8	1	14
Ogden, Utah	32	18	11	3	-	-	1
Phoenix, Ariz.	123	74	29	12	4	4	6
Pueblo, Colo.	21	13	7	1	-	-	4
Salt Lake City, Utah	111	74	24	8	3	2	9
Tucson, Ariz.	145	103	31	9	2	-	10
PACIFIC	1,500	1,044	297	99	37	23	129
Berkeley, Calif.	11	8	2	1	-	-	1
Fresno, Calif.	131	91	26	9	5	-	8
Glendale, Calif.	12	9	2	-	1	-	-
Honolulu, Hawaii	79	62	12	4	-	1	5
Long Beach, Calif.	51	33	14	3	-	1	6
Los Angeles, Calif.	298	190	70	23	10	5	27
Pasadena, Calif.	29	21	7	1	-	-	3
Portland, Oreg.	149	99	31	11	5	3	9
Sacramento, Calif.	128	95	26	6	-	1	11
San Diego, Calif.	146	91	30	14	7	4	18
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	172	124	32	7	4	5	17
Santa Cruz, Calif.	U	U	U	U	U	U	U
Seattle, Wash.	100	78	11	8	2	1	6
Spokane, Wash.	64	49	9	6	-	-	8
Tacoma, Wash.	130	94	25	6	3	2	10
TOTAL	11,241¶	7,573	2,425	791	252	196	783

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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