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Workers' Memorial Day — April 28, 2002

April 28, 2002, has been designated Workers' Memorial Day to remember workers who have died from occupational injuries or diseases. Although workers in the United States are experiencing substantial improvements in occupational health and safety (*1*), occupational injuries and fatalities continue to occur.

During 1980–1998, approximately 109,000 civilian workers died from work-related injuries, an average of 16 deaths per day (CDC, unpublished data, 1998). In 1998, 3.6 million workers were seen in hospital emergency departments in the United States because of injuries that occurred on the job (*2*). In 2000, costs of fatal and nonfatal unintentional work-related injuries were an estimated $131.2 billion (*3*).

Workers' Memorial Day can serve as a reminder of the need to continue efforts to reduce the burden of work-related injuries and illnesses. Data and research findings on occupational injuries and illnesses can help focus such efforts. This issue of *MMWR* presents three reports of work-related injuries, illnesses, and deaths.

Information about causes and prevention of work-related injury and disease is available from CDC's National Institute for Occupational Safety and Health, telephone 800-356-4674, or at http://www.cdc.gov/niosh/homepage.html.

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Fixed Obstructive Lung Disease in Workers at a Microwave Popcorn Factory — Missouri, 2000–2002

In May 2000, an occupational medicine physician contacted the Missouri Department of Health and Senior Services (MoDHSS) to report eight cases of fixed obstructive lung disease in former workers of a microwave popcorn factory. Four of the patients were on lung transplant lists. All eight had a respiratory illness resembling bronchiolitis obliterans with symptoms of cough and dyspnea on exertion, had worked at the same popcorn factory (factory A) at some time during 1992–2000, and had spirometric test results that were lower than normal for both FEV_1 (forced expiratory volume in 1 second) and FEV_1/FVC (forced vital capacity) ratio. Employment durations ranged from 8 months to 9 years. MoDHSS requested assistance from CDC's National Institute for Occupational Safety and Health in evaluating factory A for respiratory hazards to workers. This report summarizes the epidemiologic findings motivating the technical assistance request and preliminary results. The findings of this investigation indicate that workers exposed to flavorings at microwave popcorn factories are at risk for developing fixed obstructive lung disease. Public health authorities, employers, and health-care providers are collaborating to prevent obstructive lung disease in popcorn factory workers.

At factory A, soybean oil, salt, and flavorings are mixed into a large heated tank in a process that produces visible dust,

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aerosols, and vapors with a strong buttery odor. To determine whether exposure to inhaled mixing-tank substances was associated with disease, MoDHSS analyzed patients according to job categories determined by work proximity to the mixing tank: workers who were mixers of oil, salt, and flavorings and who had direct contact with the tank; microwave-packaging workers who worked 5–30 meters from the tank; and workers in other areas of the factory who were >30 meters from the tank.

During 1992–2000, factory A employed approximately 560 workers; 425 no longer worked at the factory as of May 2000. Of the eight patients reported, four were mixers and four were microwave-packaging workers. No microwave-packaging workers had ever worked as mixers. Discussions with workers and management staff at factory A indicated that an estimated 13 (3%) of the 425 former workers had been mixers, 276 (65%) had worked in microwave packaging, and 136 (32%) had worked in other areas of the factory. On the basis of this estimated distribution, the crude incidence of illness was highest in mixers (four of 13 [31%]) and microwave-packaging workers (four of 276 [1%]) (Table 1); no cases were reported in the estimated 136 workers in other areas of the factory (Chi square for trend=19.0, p=0.00001).

Assuming exposure to factory work contributed to reported occupational lung disease, former workers had 1,148–2,819 person-years at risk, depending on assumptions about whether risk for disease continues after employment ceases. On the basis of the eight cases reported during this period, the calculated rate of illness was 28–70 cases per 10,000 person-years. Assuming that all eight reported patients represented cases of occupational lung disease, this represents a five- to 11-fold excess over the expected number of reported occupational respiratory conditions attributed to toxins (*1*).

MoDHSS and CDC investigated the worksite for possible exposures to airborne respiratory toxins, but found no known substance that could explain the illnesses. The focus shifted to assessing risk for current workers and a possible new cause of occupational airways obstruction. Because of the apparent high risk to mixers and microwave-packaging workers, CDC recommended that all workers in both groups wear

TABLE 1. Reported fixed-airways obstruction among former factory A workers, by job category — Missouri, 1992–2000*

Job category	No. workers reporting fixed-airways obstruction	Estimated no. workers in job category	Total
Mixer	4	9	**13**
Microwave packaging	4	272	**276**
Other	0	136	**136**
Total	**8**	**417**	**425**

* Chi square for trend=19.0, p=0.00001

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respirators while the investigation proceeded, with the minimum recommended respirator being a half-face, nonpowered respirator equipped with P-100 filters and organic vapor cartridges.

In November 2000, CDC conducted a cross-sectional survey of 117 current workers that included interviews, pulmonary-function testing, and air sampling for volatile organic compounds (VOCs) and dusts at factory A. On the basis of national data adjusted for smoking and age, current workers had two to three times the expected rates of respiratory symptoms and self-reports of physician diagnoses of asthma or chronic bronchitis; the rate of obstruction on spirometry was 3.3 times higher than expected (*2*).

Industrial hygiene sampling conducted during the November 2000 survey detected approximately 100 VOCs in the plant air. Diacetyl, a ketone with butter-flavor characteristics, was measured as a marker for exposure to flavoring vapors. The geometric mean air concentration of diacetyl was 18 parts per million parts air (ppm) in the room where the mixing tank was located, 1.3 ppm in the microwave-packaging area, and 0.02 ppm in other areas of the plant. Rates of obstructive abnormalities on spirometry increased with increasing cumulative exposure to airborne flavoring chemicals. Concentrations of total and respirable dust were below SHA-permissible exposure limits (PELs) for particulates not otherwise regulated. No OSHA-PELs or NIOSH-recommended exposure levels exist for diacetyl. To reduce exposures, CDC investigators recommended engineering controls including increased ventilation and isolation of VOC sources.

CDC is conducting repeated air sampling and medical surveillance at 4-month intervals to monitor response to interventions. To date, serial pulmonary function testing has documented excessive declines in FEV_1 and additional persons with airways obstruction among those working in the plant before engineering controls lowered exposures by several orders of magnitude. The adequacy of controls in protecting workers hired since exposures were lowered is being assessed by interval changes in FEV_1.

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Editorial Note: Bronchiolitis obliterans, a rare, severe lung disease characterized by cough, dyspnea on exertion, and airways obstruction that does not respond to bronchodilators, can occur after certain occupational exposures. Inhalation exposure to agents such as nitrogen dioxide, sulfur dioxide, anhydrous ammonia, chlorine, phosgene, and certain mineral and organic dusts can cause irreversible damage to small airways without affecting chest radiograph and diffusing capacity (*3*).

This investigation initiated by MoDHSS identified a large cluster of conditions resembling bronchiolitis obliterans associated with occupation at a microwave popcorn factory. The results of this investigation raise concern about possible risk for workers in other flavoring and food production industries. Recent reports to CDC document bronchiolitis obliterans cases in the settings of flavoring manufacture and a case of fixed-airways obstruction in a worker at a microwave popcorn factory in Nebraska (CDC, unpublished data, 2001).

Preliminary animal studies at CDC suggest severe damage to airway epithelium after inhalation exposure to high air concentrations of a butter flavoring used in factory A. Further animal studies are planned to determine the causal ingredients in the complex butter-flavoring mixture.

The Food and Drug Administration regulates flavorings based on the safety of the amounts consumed, not the safety of prolonged worker inhalation of high concentrations. CDC has no evidence to suggest risk for consumers in the preparation and consumption of microwave popcorn.

CDC is investigating whether other cases of fixed obstructive lung disease have occurred in workers at other microwave popcorn factories. Health-care providers should report to state health authorities and CDC any cases of suspected occupational respiratory disease in workers exposed to food flavorings.

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Factors Associated with Pilot Fatalities in Work-Related Aircraft Crashes — Alaska, 1990–1999

Despite its large geographic area, Alaska has only 12,200 miles of public roads, and 90% of the state's communities are not connected to a highway system (*1*). Commuter and air-taxi flights are essential for transportation of passengers and delivery of goods, services, and mail to outlying communities (Figure 1). Because of the substantial progress in decreasing

FIGURE 1. A floatplane typical of aircraft used in remote areas of Alaska

Photo/National Park Service file

fatalities in the fishing and logging industries (*2*), aviation crashes are the leading cause of occupational death in Alaska. During 1990–1999, aircraft crashes in Alaska caused 107 deaths among workers classified as civilian pilots. This is equivalent to 410 fatalities per 100,000 pilots each year, approximately five times the death rate for all U.S. pilots (*3*) and approximately 100 times the death rate for all U.S. workers (*4*). As part of a collaborative aviation safety initiative that CDC's National Institute for Occupational Safety and Health (NIOSH) is implementing with the Federal Aviation Administration (FAA), the National Transportation Safety Board (NTSB), and the National Weather Service, CDC analyzed data from NTSB crash* reports to determine factors associated with pilot fatalities in work-related aviation crashes in Alaska. This report summarizes the result of this analysis, which found that the following factors were associated with pilot fatalities: crashes involving a post-crash fire, flights in darkness or weather conditions requiring instrument use, crashes occurring away from an airport, and crashes in which the pilot was not using a shoulder restraint. Additional pilot training, improved fuel systems that are less likely to ignite in crashes, and company policies that discourage flying in poor weather conditions might help decrease pilot fatalities. More detailed analyses of crash data, collaborations with aircraft operators to improve safety, and evaluation of new technologies are needed.

Aircraft crash reports are compiled by NTSB and entered into a database maintained by FAA's National Aviation Safety Data Analysis Center. Crashes in which pilots in command died were compared retrospectively with those in which they survived. All variables, except age, were dichotomized. Wald Chi-squared analyses were then completed. Factors that were evaluated included age, shoulder-restraint use, weather conditions (used as a marker for poor visibility), light conditions (light or dark), aircraft type (plane or helicopter), occurrence of post-crash fire, location (on or off airport), flight experience (median: 4,350 hours, range: 78–20,000 hours), and whether the pilot was an Alaska resident (a surrogate for familiarity with geography and flight conditions in Alaska). The Statistical Analysis System (SAS) software was used to generate odds ratios.

The study identified 675 work-related crashes; in 567 (84%), the pilot survived, and in 108 (16%), the pilot died. The estimated likelihood of pilot death was 14 times higher when a fire occurred than when one did not, seven times higher for flights that crashed in instrument meteorological conditions than for crashes in conditions of greater visibility, and approximately two times higher for crashes that occurred away from an airport or in darkness; the estimated likelihood of a pilot dying was significantly lower when the pilot used a shoulder restraint (Table 1).

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Editorial Note: The results of this study indicate that crashes involving a post-crash fire, flights in darkness or weather conditions requiring instrument use, and crashes occurring away from an airport were significantly more likely to result in a pilot fatality. Conversely, crashes in which the pilot was using a shoulder restraint were less likely to result in a pilot fatality. These findings appear consistent with other studies identifying conditions associated with pilot fatality (*5,6*) .

These findings suggest several possible approaches to reducing pilot death rates in Alaska. Companies should direct pilots to return to base if they encounter weather requiring instrument use and to avoid flying if they are likely to encounter such weather. Additional training in procedures to follow if weather conditions requiring instrument use are encountered unexpectedly should be provided. Use of improved fuel systems that are less likely to ignite following a crash could improve post-crash survivability.

Many aircraft manufactured before July 1978 are not equipped with shoulder harnesses (*7*). Although installing shoulder harnesses in small aircraft manufactured before July 1978 is voluntary by the owner/operator, doing so is often relatively simple and inexpensive (depending on the amount of structural reinforcement needed for each aircraft). FAA requires shoulder harnesses to be worn only for takeoff and

* An aviation crash, defined by FAA and NTSB as an aviation "accident," is "[a]n occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and until such time as all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage."

TABLE 1. Number* of work-related aircraft crash injuries and fatalities, by risk factors — Alaska 1990–1999

Risk Factor	Fatal†	Nonfatal§	OR¶	95% CI**
Fire				
Yes	28	15	13.8††	(6.8–26.2)
No	77	552	1.0	
Unknown	3	0		
Shoulder restraint				
Yes	52	468	0.5††	(0.2– 0.8)
No	19	77	1.0	
Unknown	36	22		
Weather				
IMC§§	37	45	6.5††	(3.9–10.8)
VMC¶¶	66	522	1.0	
Unknown	5	0		
Light conditions				
Daylight	84	490	1.8††	(1.0– 2.9)
Darkness	23	77	1.0	
Unknown	1	0		
Off airport				
Yes	27	218	1.9††	(1.2– 3.0)
No	81	349	1.0	
State				
Non-Alaska	20	67	1.7	(1.0– 3.1)
Alaska	88	495	1.0	
Unknown	0	5		
Flight experience				
>4,350 hours	47	284	0.8	(0.5– 1.2)
≤4,350 hours	60	277	1.0	
Unknown	1	6		
Aircraft type				
Helicopter	9	60	0.8	(0.4– 1.7)
Plane	99	507	1.0	

* Numbers vary because of missing data.
† Number=108.
§ Number=567.
¶ Odds ratio.
** Confidence interval.
†† $p < 0.05$.
§§ Instrument meteorological conditions.
¶¶ Visual meteorological conditions.

landing, but not during flight (*8*). In this study, some crashes were catastrophic events for which no restraint system would provide protective effects; in other crashes, the pilot might have been incapacitated temporarily, preventing escape before fire consumed the aircraft. For crashes in which the initial impact is survivable, using a fastened shoulder harness might decrease temporary incapacitation from crash-related injuries. Recommendations to pilots and FAA that shoulder harnesses be used throughout a flight might reduce fatalities.

The findings in this report are subject to at least one limitation. Information about use of shoulder harnesses was missing for a substantial proportion of fatal crashes, which might have resulted in bias for this variable. Crashes for which information on shoulder-harness use is missing might have been more severe. In very severe crashes, especially those with an ensuing fire, evidence of harness use might have been destroyed.

On a trial basis, FAA is installing improved avionics in commercial aircraft and providing weather observation, data link communications, surveillance, and flight information services to equipped aircraft through the Capstone program (*9*). More detailed analyses of crash data to determine other potential risk factors, collaborations with aircraft operators to aid in the implementation of interventions, and evaluation of new technologies such as ground-proximity warning systems also will be conducted.

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Respiratory Illness in Workers Exposed to Metalworking Fluid Contaminated with Nontuberculous Mycobacteria — Ohio, 2001

In January 2001, three machinists at an automobile brake manufacturing facility in Ohio (plant A) were hospitalized with respiratory illness characterized by dyspnea, cough, fatigue, weight loss, hypoxia, and pulmonary infiltrates. Hypersensitivity pneumonitis (HP) was diagnosed in all three workers. In March 2001, additional employees began seeking medical attention for respiratory and systemic symptoms. In May 2001, union and management representatives requested assistance from CDC's National Institute for Occupational Safety and Health (NIOSH) in determining the cause of the illnesses and preventing further illness in employees. This report describes two case reports and the preliminary results of the ongoing investigation, which found that exposure to aerosolized nontuberculous mycobacteria (NTM) might be contributing to the observed respiratory illnesses in this manufacturing facility. Clinicians and public health professionals should be alert to the variable presentation of occupational respiratory disease that might occur in workers in the machining industry.

Plant A is an automobile brake manufacturing facility machining primarily cast-iron parts. Approximately 400 persons work at plant A, including approximately 150 workers in machining areas and 250 workers in nonmachining areas. The nonmachining areas of plant A are separated from the machining areas by a wall and are serviced by a separate ventilation system. Plant A machines receive metalworking fluid (MWF) from either dedicated sumps or one of four central MWF systems, with volumes of 4,500–20,000 gallons. The semisynthetic MWF in use at the plant included a formaldehyde-releasing biocide; a second biocide (isothiazolinone-based) was added as indicated to control microbial growth.

Case Reports

Case 1. In mid-January 2001, a male machinist aged 45 years who had been employed at plant A for 26 years was hospitalized for worsening respiratory symptoms, hypoxia, and pulmonary infiltrates. He had been treated by his family physician 1 month earlier with a course of antibiotics for a nonspecific respiratory illness that improved during a holiday layoff from work. On his return to work in early January 2001, the patient's symptoms of dyspnea, chest tightness, and non-productive cough recurred. On admission, a high-resolution computed tomography (HRCT) scan revealed diffuse interstitial infiltrates with a nodular pattern superimposed on the infiltrates. Oxygen tension on room air at rest was 49 millimeters of mercury (mm Hg) (normal: 80–100 mm Hg) with 87% saturation (normal: 96%–100%); a white blood cell count was 8,000 (normal: 4,800–10,800) with a normal differential; and a Legionella titer was <1:256 (normal: <1:256). HP was diagnosed, and the patient was removed from work and treated with intravenous, oral, and inhaled corticosteroids and with bronchodilators. Repeat HRCT scan 1 month after hospitalization, while the patient was still away from work, revealed clear lung fields. Pulmonary function tests (PFTs) revealed improvement in initial restrictive findings and diffusing capacity (Table 1). Two months after hospitalization, oxygen saturation on room air at rest was 96%. Serum precipitin analysis was strongly positive for precipitating antibodies to *Mycobacterium* sp. cultured in February 2001 from MWF at plant A (*1*). The same tests performed on two co-workers from plant A who also had been hospitalized in January 2001 with HP also were strongly positive.

Case 2. In July 2001, a woman aged 47 years presented to a private physician with a 1-day history of dyspnea, cough, chest tightness, wheezing, epistaxis, nausea, emesis, and fatigue that began <2 hours after she began steam-cleaning machining equipment in plant A. She had not performed this type of job previously and wore no respiratory protection. Physical examination revealed diminished breath sounds in all lung fields. Oxygen tension was 65 mm Hg with 92% saturation. PFTs revealed an obstructive deficit that improved after the administration of bronchodilators (Table 1). HRCT was normal. Occupational asthma and hypoxemia were diagnosed; the patient was removed from work and treated with oral and inhaled corticosteroids and with bronchodilators. The patient returned to work in August 2001; follow-up PFTs (Table 1) and oxygen saturation were within normal ranges.

Medical Record Review

In November 2001, CDC investigators reviewed plant A records and found that 107 (27%) of 400 workers had been placed on work restriction by their treating physicians during the preceding 11 months because of respiratory conditions; 37 (35%) of these 107 workers remained on medical leave and 70 (65%) had returned to work. Medical records through October 2001 were reviewed for 32 (86%) of the 37 workers

TABLE 1. Actual pulmonary function (PF) and percent predicted value (%) of automobile-brake production workers, by test* — Ohio, December 2000–September 2001

	FEV_1		FVC		FEV_1/FVC	TLC		DLCO	
	PF	(%)	PF	(%)	Ratio	PF	(%)	PF	(%)
Case 1									
December 2000[†]	2.5	(62)	2.8	(58)	89	4.0	(59)	9.6	(26)
February 2001[§]	3.1	(84)	3.9	(79)	79	5.1	(74)	22.3	(59)
April 2001	3.1	(83)	3.9	(79)	79	5.2	(76)	23.6	(62)
Case 2									
April 2001[¶]	2.6	(108)	3.1	(111)	82	5.8	(138)	14.3	(70)
July 2001**	0.7	(30)	1.4	(48)	53	3.8	(90)	9.4	(48)
July 2001[††]	1.3	(56)	1.7	(61)	78	ND[§§]		ND	
September 2001	2.3	(91)	3.1	(102)	74	ND		ND	

* FEV_1=forced expiratory volume at one second in liters (L); FVC=forced vital capacity in L; TLC=total lung capacity in L; DLCO=diffusion capacity for carbon monoxide in milliliters per minute per millimiters of mercury.
† One month before hospitalization.
§ One month after hospitalization and removal from work.
¶ 2.5 months before acute presentation.
** At the time of acute symptoms.
†† Post administration of inhaled bronchodilator.
§§ Not done.

remaining on medical leave. All 32 workers had either full- or part-time work duties in the machining side of the plant; the median length of time working at plant A was 18 years (range: 3–32 years). Initial symptom onset for these workers occurred during October 2000–April 2001, with onset for 13 of these 32 workers occurring in December 2000. Of the 32 workers, 14 (44%) met a definition for occupational asthma (OA)* and 12 (38%) met a definition for HP[†]. Of the six workers with respiratory or upper respiratory symptoms not meeting definitions for OA or HP, three had illnesses consistent with work-related bronchitis, two had illnesses consistent with work-related rhinosinusitis, and one was symptomatic primarily with dyspnea.

Environmental Sampling

Multiple samples of bulk MWF from all central MWF systems at plant A analyzed for microbial contaminants during February–July 2001 revealed predominant growth of *M. immunogenum*, a newly proposed species of the *Mycobacterium abscessus/Mycobacterium chelonae* group (*2*), at levels up to 10^6 colony-forming units per milliliter. Subsequent sampling conducted weekly since July 2001 has revealed noncultivable mycobacteria at decreasing concentrations[§] but virtually no viable bacteria. Area and personal air sampling performed during April 2001 in the machining areas revealed concentrations of MWF aerosol of <0.1–0.9 milligrams of total particulate per cubic meter (mg/m^3) of air (median: 0.6 mg/m^3). Two of five personal samples were above the NIOSH-recommended exposure limit (REL).[¶]

To minimize potential exposures to MWF and MWF contaminants, plant A conducted steam-cleaning of the MWF systems and machines, improved local ventilation of selected machines, and installed a conditioned air system for the machining areas and fresh MWF combined with a new biocide effective against mycobacteria. No workers at plant A with symptom onset after April 2001 have been identified. Local health-care providers continue to monitor workers who have been ill and assess their ability to return to work. Plant A and CDC representatives are assessing control measures already in place and the need for additional measures.

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Editorial Note: This report, combined with previously published data, suggests that exposure to aerosolized NTM might be contributing to the observed respiratory illnesses in this manufacturing facility. Illnesses reported in persons with exposure to aerosolized NTM have included HP (*3,4*) and other pulmonary diseases difficult to classify as hypersensitivity or true infection (*5,6*). However, because pulmonary illness in machinists has been described in outbreaks in which NTM have not been implicated as a primary contaminant (*1*) and NTM have been cultured from MWF in plants without reported respiratory illness (CDC, unpublished data, 2001), the importance of finding any specific microbe as an MWF contaminant remains uncertain.

The spectrum of illnesses observed in machinists in this outbreak indicates that several mechanisms of illness probably are occurring. HP is a diffuse interstitial granulomatous lung disease involving an immunologic reaction of the lung to repeated inhalation of foreign antigens. OA is a disease of the airways that can be caused by immunologic and irritant reactions. The known irritant effects of MWF and MWF contaminants might be contributing to observed health effects; however, because affected employees generally have worked for many years in the machining environment without reported problems before the outbreak, other factors also are probably contributing to illness.

The ability to determine specific exposure at plant A related to respiratory illnesses is limited for at least three reasons. First, the specific agent(s) causing these illnesses remains undetermined, and clinical and/or laboratory tests are needed to identify specific constituents or contaminants of MWF related to observed respiratory illness. Second, actual personal exposures to MWF, contaminants in MWF, or other substances in the work environment remain unknown for most workers who have become ill. Finally, illness might be misclassified because affected workers presented most commonly with signs and symptoms that appeared to represent a mixture of interstitial, airway, and upper respiratory effects not easily classifiable into well-established categories of occupational illness (e.g., HP or OA).

* Defined as one or more work-related respiratory symptoms (cough, dyspnea, wheezing, or chest tightness) and the absence of systemic signs or symptoms; no infiltrate seen on CXR or HRCT scan; and spirometry consistent with reversible airway obstruction (an obstructive pattern with ≥12% improvement in FEV_1 after administration of inhaled bronchodilators).

† Defined as the presence of one or more work-related respiratory symptoms (cough, dyspnea, wheezing, or chest tightness), one or more systemic signs or symptoms (fever, chills, extreme fatigue, myalgia, or night sweats), an infiltrate seen on chest radiograph or HRCT scan, and abnormal spirometry (either an obstructive or restrictive pattern).

§ Assessed semi-quantitatively by comparison of microscopic evaluation (acid-fast stain) of a pellet obtained by centrifugation of an MWF sample (which evaluates both viable and nonviable organisms) with culture techniques (which evaluate viable organisms).

¶ REL for MWF aerosol=0.5 milligrams of total particulate (0.4 milligrams of thoracic particulate) per cubic meter of air.

The findings in this report represent one of the largest reported outbreaks of work-related respiratory illness in the machining environment in the United States and have health implications for the estimated one million workers occupationally exposed to MWF (*1,4,7*). Because the etiologic agents responsible for the observed illnesses are unknown, employees, unions, manufacturing companies involved in machining processes and private and public health professionals must be educated about appropriate prevention and control measures, including appropriate engineering controls, MWF management practices, and use of personal protective equipment (*8–10*). Early recognition of potential occupational illness in workers in the machining environment and ongoing medical surveillance for these workers also are needed to detect and prevent both acute illness and irreversible respiratory impairment.

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Notice to Readers

Smallpox: What Every Clinician Should Know — A Self-Study Course

Smallpox disease was eradicated in 1977, but because smallpox virus could be used as an agent of bioterrorism, health-care providers should familiarize themselves with the disease and the vaccine that prevents it. On the program "Smallpox: What Every Clinician Should Know," specialists discuss methods designed to improve health-care providers' ability to recognize, diagnose, and report smallpox disease. The program may be viewed on the Internet or on videotape, and continuing education credits (CEU, CNE, CME, and CHES) are offered until the end of 2003.

Additional information and the archived webcast are available at http://www.phppo.cdc.gov/phtn/1213smallpox.asp. A videotape of the program is available from the Public Health Foundation, telephone 877-252-1200 (United States) or 301-645-7773 (International) from 9 a.m. to 5 p.m. EST, or e-mail info@phf.org. When requesting a videotape by e-mail, indicate "Smallpox: What Every Clinician Should Know" on the subject line.

Notice to Readers

Introduction to Public Health Surveillance

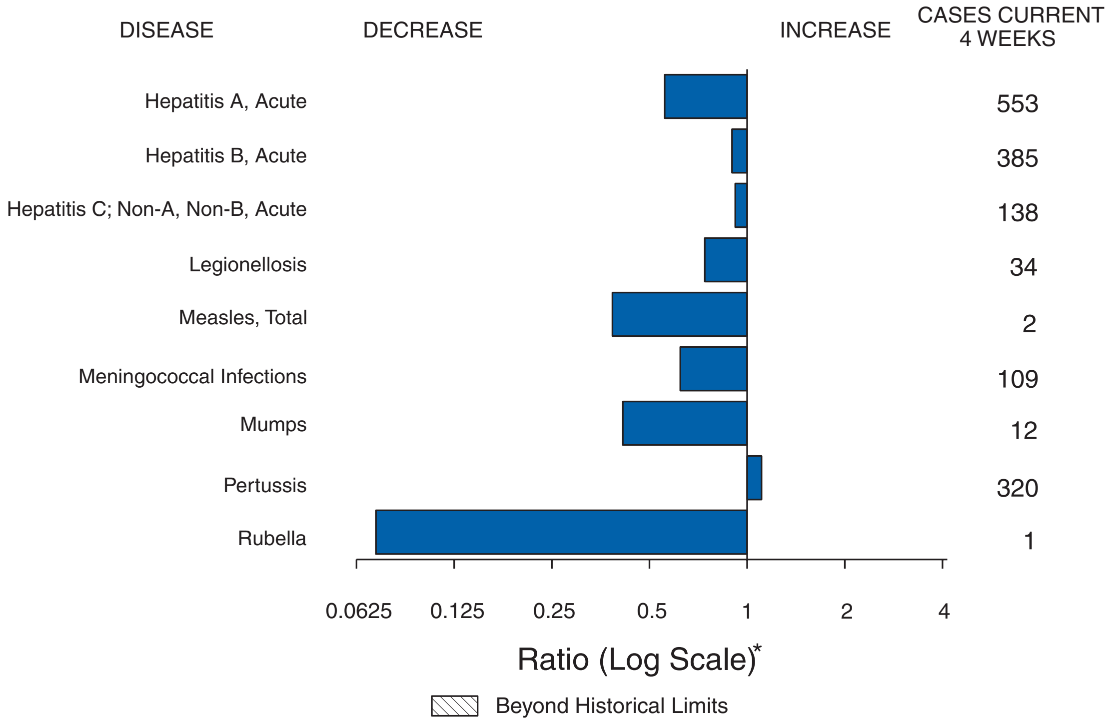
CDC and Emory University's Rollins School of Public Health will co-sponsor a course, "Introduction to Public Health Surveillance" during June 10–14, 2002, at Emory University. The course is designed for state and local public health professionals.

The course will provide practicing public health professionals with the theoretical and practical tools necessary to design, implement, and evaluate effective surveillance programs. Topics include overview and history of surveillance systems; planning considerations; sources and collection of data; analysis, interpretation, and communication of data; surveillance systems technology; ethics and legalities; state and local concerns; and future considerations. There is a tuition charge.

Additional information and applications are available from Emory University, International Health Dept., 1518 Clifton Rd. N.E., Rm. 746, Atlanta, GA 30322; telephone 404-727-3485; fax 404-727-4590; at http://www.sph.emory.edu/epicourses; or e-mail pvaleri@sph.emory.edu.

(Continued on page 363)

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending April 20, 2002, with historical data



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

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending April 20, 2002 (16th Week)*

Disease		Cum. 2002	Cum. 2001
Anthrax		1	-
Botulism:	foodborne	6	6
	infant	14	30
	other (wound & unspecified)	7	1
Brucellosis†		24	19
Chancroid		20	12
Cholera		1	1
Cyclosporiasis†		29	42
Diphtheria		1	-
Ehrlichiosis:	human granulocytic (HGE)†	22	21
	human monocytic (HME)†	7	10
	other and unspecified	-	-
Encephalitis:	California serogroup viral†	6	1
	eastern equine†	-	-
	Powassan†	-	-
	St. Louis†	-	-
	western equine†	-	-
Encephalitis:	West Nile†	14	-
Hansen disease (leprosy)†		23	31
Hantavirus pulmonary syndrome†		-	3
Hemolytic uremic syndrome, postdiarrheal†		28	22
HIV infection, pediatric†§		31	56
Plague		-	-
Poliomyelitis, paralytic		-	-
Psittacosis†		9	4
Q fever†		9	2
Rabies, human		-	-
Streptococcal toxic-shock syndrome†		20	31
Tetanus		2	10
Toxic-shock syndrome		39	49
Trichinosis		4	6
Tularemia†		6	9
Yellow fever		1	-

-:No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP). Last update February 24, 2002.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending April 20, 2002, and April 21, 2001 (16th Week)*

Reporting Area	AIDS		Chlamydia†		Cryptosporidiosis		*Escherichia coli* O157:H7		*Escherichia coli* Shiga Toxin Positive, Serogroup non-O157	
	Cum. 2002§	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	10,377	11,656	208,264	227,885	563	534	362	335	16	20
NEW ENGLAND	320	395	7,520	7,174	23	15	27	30	2	8
Maine	1	14	424	395	-	1	-	4	-	-
N.H.	9	13	454	384	5	-	1	3	-	2
Vt.	5	10	218	187	5	5	1	1	-	-
Mass.	178	265	3,183	2,892	5	4	15	18	2	1
R.I.	35	33	781	890	5	3	3	1	-	-
Conn.	92	60	2,460	2,426	3	2	7	3	-	5
MID. ATLANTIC	2,133	3,527	20,825	23,110	62	78	29	31	-	-
Upstate N.Y.	158	568	4,419	3,715	18	20	25	17	-	-
N.Y. City	1,299	1,933	8,408	9,059	33	34	-	1	-	-
N.J.	403	545	919	3,031	1	4	4	13	-	-
Pa.	273	481	7,079	7,305	10	20	N	N	-	-
E.N. CENTRAL	973	716	31,606	43,732	148	182	94	77	-	1
Ohio	197	100	4,916	11,469	43	32	17	19	-	1
Ind.	133	64	4,881	4,827	17	15	6	11	-	-
Ill.	476	329	8,355	13,052	15	13	22	12	-	-
Mich.	117	190	9,837	9,229	35	37	24	15	-	-
Wis.	50	33	3,617	5,155	38	85	25	20	-	-
W.N. CENTRAL	147	232	9,566	11,889	46	20	52	35	3	1
Minn.	29	35	2,686	2,585	19	-	21	17	3	-
Iowa	34	18	461	1,319	5	9	12	3	-	-
Mo.	48	115	3,171	4,109	11	7	14	5	-	-
N. Dak.	-	1	286	320	5	-	-	-	-	-
S. Dak.	2	-	645	570	3	1	1	3	-	1
Nebr.	15	25	314	1,112	-	3	-	-	-	-
Kans.	19	38	2,003	1,874	3	-	4	7	-	-
S. ATLANTIC	3,619	3,284	42,868	44,597	123	101	48	37	8	8
Del.	58	54	831	932	1	1	1	-	-	-
Md.	420	426	4,279	4,572	3	19	-	2	-	-
D.C.	157	233	926	1,102	3	5	-	-	-	-
Va.	235	301	5,067	5,310	1	5	7	6	-	1
W. Va.	21	17	662	703	1	-	-	1	-	-
N.C.	280	120	6,746	6,704	16	11	8	16	-	-
S.C.	267	234	4,200	5,433	2	1	-	1	-	-
Ga.	651	270	8,994	9,605	65	40	24	5	5	6
Fla.	1,530	1,629	11,163	10,236	31	19	8	6	3	1
E.S. CENTRAL	425	532	15,640	15,116	34	12	14	13	-	-
Ky.	46	75	2,670	2,648	1	1	3	2	-	-
Tenn.	204	179	4,750	4,506	17	2	9	6	-	-
Ala.	85	118	5,112	4,124	14	4	1	4	-	-
Miss.	90	160	3,108	3,838	2	5	1	1	-	-
W.S. CENTRAL	1,077	1,222	31,668	32,285	5	12	1	30	-	-
Ark.	59	79	1,365	2,476	2	2	-	1	-	-
La.	269	283	5,498	5,238	1	4	-	-	-	-
Okla.	48	67	3,160	3,041	2	2	1	7	-	-
Tex.	701	793	21,645	21,530	-	4	-	22	-	-
MOUNTAIN	328	379	12,035	12,477	35	36	35	31	2	-
Mont.	4	11	648	554	3	3	7	3	-	-
Idaho	6	7	667	563	10	5	1	5	-	-
Wyo.	2	-	266	239	1	-	-	-	1	-
Colo.	64	82	2,147	3,558	9	12	5	12	1	-
N. Mex.	11	30	1,989	1,742	3	8	3	1	-	-
Ariz.	148	124	3,124	3,956	4	1	5	6	-	-
Utah	18	34	1,598	279	2	7	8	3	-	-
Nev.	75	91	1,596	1,586	3	-	6	1	-	-
PACIFIC	1,355	1,369	36,536	37,505	87	78	62	51	1	2
Wash.	147	150	4,361	4,246	15	U	7	10	-	-
Oreg.	129	52	1,887	2,206	11	8	22	5	1	2
Calif.	1,064	1,144	28,059	28,983	60	70	27	32	-	-
Alaska	2	8	1,112	799	-	-	1	-	-	-
Hawaii	13	15	1,117	1,271	1	-	5	4	-	-
Guam	1	6	-	-	-	-	N	N	-	-
P.R.	273	371	1,118	852	-	-	-	-	-	-
V.I.	53	2	30	53	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	62	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 year 2001 and 2002 are provisional and cumulative (year-to-date).

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

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update March 31, 2002.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 20, 2002, and April 21, 2001 (16th Week)*

Reporting Area	*Escherichia coli* Shiga Toxin Positive, Not Serogrouped		Giardiasis	Gonorrhea		*Haemophilus influenzae*, Invasive All Ages, All Serotypes		*Haemophilus influenzae*, Invasive Age <5 Years Serotype B	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	2	3	3,730	89,589	103,790	519	526	4	9
NEW ENGLAND	-	-	426	2,272	1,887	36	18	-	1
Maine	-	-	51	22	43	1	1	-	-
N.H.	-	-	16	37	40	4	-	-	-
Vt.	-	-	31	29	27	3	-	-	-
Mass.	-	-	184	1,066	854	19	15	-	1
R.I.	-	-	35	266	227	-	-	-	-
Conn.	-	-	109	852	696	9	2	-	-
MID. ATLANTIC	-	-	782	9,283	11,009	88	80	1	-
Upstate N.Y.	-	-	294	2,447	2,284	44	17	1	-
N.Y. City	-	-	341	3,421	3,828	26	22	-	-
N.J.	-	-	-	651	1,387	10	35	-	-
Pa.	-	-	147	2,764	3,510	8	6	-	-
E.N. CENTRAL	1	2	687	15,060	21,972	67	79	1	1
Ohio	1	2	256	2,678	6,063	39	26	-	1
Ind.	-	-	-	2,200	2,038	16	13	-	-
Ill.	-	-	97	4,684	6,852	-	29	-	-
Mich.	-	-	243	4,376	5,224	7	4	1	-
Wis.	-	-	91	1,122	1,795	5	7	-	-
W.N. CENTRAL	-	-	454	4,193	4,827	17	17	-	1
Minn.	-	-	192	836	797	13	8	-	-
Iowa	-	-	72	134	331	1	-	-	-
Mo.	-	-	127	2,199	2,398	2	8	-	-
N. Dak.	-	-	6	13	11	-	-	-	-
S. Dak.	-	-	19	77	66	-	-	-	-
Nebr.	-	-	-	118	403	-	1	-	1
Kans.	-	-	38	816	821	1	-	-	-
S. ATLANTIC	-	-	675	25,109	27,468	141	164	-	1
Del.	-	-	12	524	483	-	-	-	-
Md.	-	-	30	2,395	2,632	33	38	-	-
D.C.	-	-	14	792	961	-	-	-	-
Va.	-	-	47	3,363	2,760	8	9	-	-
W. Va.	-	-	9	276	155	2	4	-	1
N.C.	-	-	-	4,698	5,354	13	20	-	-
S.C.	-	-	11	2,437	4,222	3	4	-	-
Ga.	-	-	246	4,741	5,181	54	45	-	-
Fla.	-	-	306	5,883	5,720	28	44	-	-
E.S. CENTRAL	-	1	92	8,793	9,713	19	26	1	-
Ky.	-	1	-	1,031	1,023	2	1	-	-
Tenn.	-	-	39	2,573	2,946	11	11	-	-
Ala.	-	-	53	3,275	3,348	5	13	1	-
Miss.	-	-	-	1,914	2,396	1	1	-	-
W.S. CENTRAL	-	-	14	14,080	15,609	21	16	-	1
Ark.	-	-	14	873	1,599	1	-	-	-
La.	-	-	-	3,502	3,559	1	2	-	-
Okla.	-	-	-	1,342	1,424	19	13	-	-
Tex.	-	-	-	8,363	9,027	-	1	-	1
MOUNTAIN	1	-	339	2,880	3,047	74	70	1	2
Mont.	-	-	18	37	31	-	-	-	-
Idaho	-	-	16	28	27	1	1	-	-
Wyo.	-	-	2	20	17	1	-	-	-
Colo.	1	-	120	1,035	1,006	14	16	-	-
N. Mex.	-	-	39	368	292	13	10	-	-
Ariz.	-	-	48	782	1,065	35	35	1	1
Utah	-	-	61	127	26	8	1	-	-
Nev.	-	-	35	483	583	2	7	-	1
PACIFIC	-	-	261	7,919	8,258	56	56	-	2
Wash.	-	-	81	930	937	1	1	-	-
Oreg.	-	-	122	253	374	30	6	-	-
Calif.	-	-	-	6,393	6,639	9	32	-	2
Alaska	-	-	22	196	103	1	1	-	-
Hawaii	-	-	36	147	205	15	16	-	-
Guam	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	208	213	-	-	-	-
V.I.	-	-	-	17	6	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	5	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 20, 2002, and April 21, 2001 (16th Week)*

Reporting Area	*Haemophilus influenzae*, Invasive				Hepatitis (Viral, Acute), By Type					
	Age <5 Years									
	Non-Serotype B		Unknown Serotype		A		B		C; Non-A, Non-B	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	91	100	5	10	2,616	3,614	1,771	2,155	583	1,514
NEW ENGLAND	5	5	-	-	123	133	63	37	9	20
Maine	-	-	-	-	4	2	1	3	-	-
N.H.	-	-	-	-	6	4	5	6	-	-
Vt.	-	-	-	-	-	2	2	2	6	5
Mass.	3	4	-	-	57	44	34	5	3	15
R.I.	-	-	-	-	15	6	9	6	-	-
Conn.	2	1	-	-	41	75	12	15	-	-
MID. ATLANTIC	13	14	-	-	323	422	409	462	220	715
Upstate N.Y.	7	2	-	-	55	73	40	36	17	10
N.Y. City	4	4	-	-	142	122	226	200	-	-
N.J.	2	4	-	-	38	171	76	137	197	682
Pa.	-	4	-	-	88	56	67	89	6	23
E.N. CENTRAL	11	16	-	-	323	749	266	205	31	85
Ohio	5	3	-	-	107	81	30	36	4	5
Ind.	5	4	-	-	17	29	9	5	-	-
Ill.	-	7	-	-	90	493	21	20	4	20
Mich.	-	-	-	-	78	117	206	144	23	60
Wis.	1	2	-	-	31	29	-	-	-	-
W.N. CENTRAL	1	1	2	2	115	143	62	67	158	410
Minn.	1	1	1	-	14	9	2	6	-	-
Iowa	-	-	-	-	29	13	9	6	1	-
Mo.	-	-	1	2	25	44	41	39	157	406
N. Dak.	-	-	-	-	1	-	1	-	-	-
S. Dak.	-	-	-	-	3	1	-	1	-	-
Nebr.	-	-	-	-	-	18	-	6	-	1
Kans.	-	-	-	-	43	58	9	9	-	3
S. ATLANTIC	21	30	-	4	827	627	468	526	45	34
Del.	-	-	-	-	2	3	1	5	3	1
Md.	1	4	-	-	102	74	39	47	7	8
D.C.	-	-	-	-	31	15	9	3	-	-
Va.	2	4	-	-	29	45	61	44	-	-
W. Va.	-	-	-	-	9	2	10	6	-	4
N.C.	1	1	-	4	100	34	46	83	6	7
S.C.	1	2	-	-	17	20	22	5	3	2
Ga.	10	12	-	-	200	272	174	222	9	1
Fla.	6	7	-	-	337	162	106	111	17	11
E.S. CENTRAL	4	4	-	1	51	94	52	119	59	29
Ky.	-	-	-	-	23	15	13	18	1	3
Tenn.	2	1	-	-	-	41	-	40	15	20
Ala.	2	2	-	1	10	32	20	30	2	1
Miss.	-	1	-	-	18	6	19	31	41	5
W.S. CENTRAL	4	3	-	-	31	612	95	229	3	165
Ark.	-	-	-	-	11	18	26	28	-	3
La.	-	-	-	-	7	35	6	35	3	79
Okla.	4	3	-	-	12	55	1	26	-	2
Tex.	-	-	-	-	1	504	62	140	-	81
MOUNTAIN	18	7	2	1	184	228	118	151	22	21
Mont.	-	-	-	-	5	4	3	1	-	-
Idaho	-	-	-	-	-	26	-	4	-	1
Wyo.	-	-	-	-	3	1	6	-	4	3
Colo.	2	-	-	-	32	25	31	34	13	4
N. Mex.	4	4	-	1	5	8	14	36	-	9
Ariz.	8	3	1	-	97	109	40	54	-	1
Utah	3	-	-	-	19	22	11	7	-	-
Nev.	1	-	1	-	23	33	13	15	5	3
PACIFIC	14	20	1	2	639	606	238	359	36	35
Wash.	1	-	-	1	49	24	15	28	4	9
Oreg.	4	1	-	-	37	22	46	18	7	3
Calif.	6	18	1	1	546	544	172	302	25	23
Alaska	1	-	-	-	7	10	3	3	-	-
Hawaii	2	1	-	-	-	6	2	8	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	25	37	15	59	-	1
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	22	U	-	U

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

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

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 20, 2002, and April 21, 2001 (16th Week)*

Reporting Area	Legionellosis		Listeriosis		Lyme Disease		Malaria		Measles Total	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	175	256	101	134	1,192	1,286	274	339	4†	60§
NEW ENGLAND	7	8	12	12	48	196	13	27	-	5
Maine	1	-	2	-	-	-	1	1	-	-
N.H.	1	2	2	-	16	2	4	2	-	-
Vt.	-	3	-	-	1	1	-	-	-	1
Mass.	3	2	5	7	28	79	3	11	-	3
R.I.	-	-	1	-	3	-	-	1	-	-
Conn.	2	1	2	5	-	114	5	12	-	1
MID. ATLANTIC	36	60	17	27	962	849	66	87	-	8
Upstate N.Y.	13	12	9	8	678	223	12	12	-	4
N.Y. City	9	4	4	5	46	11	42	42	-	1
N.J.	1	9	-	10	54	166	6	22	-	1
Pa.	13	35	4	4	184	449	6	11	-	2
E.N. CENTRAL	56	72	16	13	9	44	30	48	-	7
Ohio	31	32	9	1	8	8	7	5	-	2
Ind.	3	5	1	1	1	-	1	8	-	2
Ill.	-	9	-	4	-	4	4	14	-	3
Mich.	17	15	4	5	-	-	14	14	-	-
Wis.	5	11	2	2	U	32	4	7	-	-
W.N. CENTRAL	10	16	4	2	18	21	18	8	-	4
Minn.	1	1	-	-	12	14	8	1	-	2
Iowa	1	4	1	-	3	1	2	1	-	-
Mo.	7	7	1	1	3	4	4	3	-	2
N. Dak.	-	-	1	-	-	-	1	-	-	-
S. Dak.	1	-	-	-	-	-	-	-	-	-
Nebr.	-	3	-	-	-	-	-	1	-	-
Kans.	-	1	1	1	-	2	3	2	-	-
S. ATLANTIC	35	29	13	18	112	125	86	84	1	4
Del.	3	-	-	-	5	12	1	1	-	-
Md.	4	7	3	2	63	94	21	28	-	3
D.C.	-	1	-	-	6	7	2	4	-	-
Va.	2	4	1	3	3	8	7	13	-	-
W. Va.	N	N	-	1	-	1	1	-	-	-
N.C.	3	2	1	-	14	2	7	1	-	-
S.C.	3	1	2	1	1	-	2	3	-	-
Ga.	5	3	3	4	-	-	33	20	-	1
Fla.	15	11	3	7	20	1	12	14	1	-
E.S. CENTRAL	5	21	6	7	6	2	4	8	-	-
Ky.	3	6	1	1	2	2	1	2	-	-
Tenn.	-	8	2	3	1	-	1	3	-	-
Ala.	2	3	3	3	3	-	1	3	-	-
Miss.	-	4	-	-	-	-	1	-	-	-
W.S. CENTRAL	1	5	3	13	2	28	2	4	-	1
Ark.	-	-	-	1	-	-	-	1	-	-
La.	-	2	-	-	1	2	2	1	-	-
Okla.	1	1	3	-	-	-	-	1	-	-
Tex.	-	2	-	12	1	26	-	1	-	1
MOUNTAIN	13	14	9	10	6	1	10	18	-	1
Mont.	1	-	-	-	-	-	-	2	-	-
Idaho	-	-	-	-	1	-	-	1	-	1
Wyo.	3	1	-	-	-	-	-	-	-	-
Colo.	4	4	2	1	2	-	5	9	-	-
N. Mex.	1	1	-	2	1	-	-	1	-	-
Ariz.	-	6	5	2	1	-	2	1	-	-
Utah	4	-	2	1	1	-	2	2	-	-
Nev.	-	2	-	4	-	1	1	2	-	-
PACIFIC	12	31	21	32	29	20	45	55	3	30
Wash.	1	5	1	2	-	1	3	1	-	15
Oreg.	N	N	2	3	1	2	1	3	-	3
Calif.	11	22	18	27	28	17	38	47	3	10
Alaska	-	1	-	-	-	-	1	1	-	-
Hawaii	-	3	-	-	N	N	2	3	-	2
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	2	-	-	N	N	-	1	-	-
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 year 2001 and 2002 are provisional and cumulative (year-to-date).

† Of four cases reported, three were indigenous and one was imported from another country.

§ Of 60 cases reported, 31 were indigenous and 29 were imported from another country.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 20, 2002, and April 21, 2001 (16th Week)*

	Meningococcal Disease		Mumps		Pertussis		Rabies, Animal	
Reporting Area	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	548	1,078	89	58	1,422	1,658	1,325	1,786
NEW ENGLAND	42	56	4	-	207	174	237	164
Maine	3	-	-	-	3	-	14	20
N.H.	5	4	3	-	3	16	2	4
Vt.	3	4	-	-	36	22	47	27
Mass.	21	33	1	-	161	128	78	50
R.I.	3	1	-	-	-	1	15	17
Conn.	7	14	-	-	4	7	81	46
MID. ATLANTIC	55	120	10	4	102	124	229	110
Upstate N.Y.	21	30	2	1	72	71	151	-
N.Y. City	7	20	1	2	5	12	7	3
N.J.	6	42	1	-	3	2	32	40
Pa.	21	28	6	1	22	39	39	67
E.N. CENTRAL	72	131	13	9	214	180	6	12
Ohio	35	40	3	1	129	111	2	1
Ind.	14	6	-	-	15	7	1	1
Ill.	-	33	4	8	34	18	1	-
Mich.	15	31	6	-	23	18	2	6
Wis.	8	21	-	-	13	26	-	4
W.N. CENTRAL	49	61	7	3	170	76	101	97
Minn.	12	7	-	1	59	17	7	15
Iowa	6	13	-	-	53	10	11	16
Mo.	25	25	3	-	36	34	8	6
N. Dak.	-	2	1	-	-	-	7	16
S. Dak.	2	2	-	-	5	3	20	14
Nebr.	-	3	-	-	-	2	-	-
Kans.	4	9	3	2	17	10	48	30
S. ATLANTIC	102	175	14	6	109	79	559	599
Del.	4	-	-	-	1	-	9	10
Md.	3	23	2	3	12	10	80	91
D.C.	-	-	-	-	-	1	-	-
Va.	15	19	2	2	37	8	161	110
W. Va.	-	4	-	-	3	1	50	43
N.C.	11	39	1	-	13	24	178	166
S.C.	11	14	2	1	23	13	20	27
Ga.	16	29	3	-	11	14	59	94
Fla.	42	47	4	-	9	8	2	58
E.S. CENTRAL	25	64	5	-	39	32	42	116
Ky.	4	10	2	-	11	10	7	6
Tenn.	8	22	1	-	23	14	29	106
Ala.	9	24	1	-	5	5	6	4
Miss.	4	8	1	-	-	3	-	-
W.S. CENTRAL	20	221	5	7	150	74	29	484
Ark.	7	9	-	1	5	5	-	-
La.	5	45	-	2	2	1	-	2
Okla.	7	15	-	-	12	2	29	28
Tex.	1	152	5	4	131	66	-	454
MOUNTAIN	49	49	4	4	245	688	53	82
Mont.	2	-	-	-	2	5	4	9
Idaho	2	5	1	-	23	155	-	-
Wyo.	-	-	-	1	3	-	1	16
Colo.	14	19	-	1	108	135	-	-
N. Mex.	1	7	-	2	24	41	-	2
Ariz.	17	9	-	-	69	338	48	55
Utah	4	5	2	-	11	9	-	-
Nev.	9	4	1	-	5	5	-	-
PACIFIC	134	201	27	25	186	231	69	122
Wash.	24	32	-	-	106	29	-	-
Oreg.	21	14	N	N	15	10	-	-
Calif.	85	147	22	13	60	183	47	87
Alaska	1	1	-	1	2	-	22	35
Hawaii	3	7	5	11	3	9	-	-
Guam	-	-	-	-	-	-	-	-
P.R.	2	2	-	-	-	2	18	33
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 20, 2002, and April 21, 2001 (16th Week)*

Reporting Area	Rocky Mountain Spotted Fever		Rubella: Rubella		Rubella: Congenital Rubella		Salmonellosis	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	90	25	1	5	1	-	6,926	7,759
NEW ENGLAND	-	-	-	-	-	-	414	543
Maine	-	-	-	-	-	-	49	47
N.H.	-	-	-	-	-	-	20	37
Vt.	-	-	-	-	-	-	17	20
Mass.	-	-	-	-	-	-	220	327
R.I.	-	-	-	-	-	-	16	23
Conn.	-	-	-	-	-	-	92	89
MID. ATLANTIC	7	1	-	3	-	-	834	1,205
Upstate N.Y.	2	-	-	1	-	-	274	205
N.Y. City	-	-	-	2	-	-	311	256
N.J.	-	-	-	-	-	-	80	445
Pa.	5	1	-	-	-	-	169	299
E.N. CENTRAL	3	2	-	1	-	-	1,144	1,056
Ohio	3	-	-	-	-	-	357	344
Ind.	-	1	-	-	-	-	78	78
Ill.	-	1	-	1	-	-	342	272
Mich.	-	-	-	-	-	-	239	181
Wis.	-	-	-	-	-	-	128	181
W.N. CENTRAL	10	5	-	-	-	-	529	442
Minn.	-	-	-	-	-	-	123	144
Iowa	-	-	-	-	-	-	82	67
Mo.	10	5	-	-	-	-	225	110
N. Dak.	-	-	-	-	-	-	9	1
S. Dak.	-	-	-	-	-	-	24	25
Nebr.	-	-	-	-	-	-	-	36
Kans.	-	-	-	-	-	-	66	59
S. ATLANTIC	62	13	1	-	-	-	1,874	1,799
Del.	-	-	-	-	-	-	11	21
Md.	7	2	1	-	-	-	160	163
D.C.	-	-	-	-	-	-	25	22
Va.	1	-	-	-	-	-	187	259
W. Va.	-	-	-	-	-	-	18	13
N.C.	38	7	-	-	-	-	252	294
S.C.	6	1	-	-	-	-	102	200
Ga.	9	-	-	-	-	-	510	417
Fla.	1	3	-	-	-	-	609	410
E.S. CENTRAL	7	3	-	-	1	-	398	392
Ky.	-	-	-	-	-	-	70	69
Tenn.	5	2	-	-	1	-	120	98
Ala.	2	1	-	-	-	-	130	145
Miss.	-	-	-	-	-	-	78	80
W.S. CENTRAL	-	-	-	-	-	-	147	808
Ark.	-	-	-	-	-	-	49	62
La.	-	-	-	-	-	-	28	175
Okla.	-	-	-	-	-	-	68	40
Tex.	-	-	-	-	-	-	2	531
MOUNTAIN	1	1	-	-	-	-	467	463
Mont.	-	-	-	-	-	-	19	16
Idaho	-	1	-	-	-	-	30	20
Wyo.	-	-	-	-	-	-	11	22
Colo.	-	-	-	-	-	-	129	131
N. Mex.	-	-	-	-	-	-	67	57
Ariz.	-	-	-	-	-	-	120	138
Utah	-	-	-	-	-	-	41	50
Nev.	1	-	-	-	-	-	50	29
PACIFIC	-	-	-	1	-	-	1,119	1,051
Wash.	-	-	-	-	-	-	67	102
Oreg.	-	-	-	-	-	-	84	35
Calif.	-	-	-	-	-	-	887	810
Alaska	-	-	-	-	-	-	17	14
Hawaii	-	-	-	1	-	-	64	90
Guam	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	42	221
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	7	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 20, 2002, and April 21, 2001 (16th Week)*

Reporting Area	Shigellosis		Streptococcal Disease, Invasive, Group A		*Streptococcus pneumoniae*, Drug Resistant, Invasive		*Streptococcus pneumoniae*, Invasive (<5 Years)	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	3,553	3,860	1,330	1,490	919	1,161	60	49
NEW ENGLAND	73	66	55	52	1	6	1	1
Maine	2	1	13	7	-	-	-	-
N.H.	3	1	17	6	-	-	-	-
Vt.	-	2	4	7	1	6	1	-
Mass.	52	47	21	29	-	-	-	-
R.I.	2	2	-	3	-	-	-	1
Conn.	14	13	-	-	-	-	-	-
MID. ATLANTIC	173	475	219	238	41	63	24	42
Upstate N.Y.	42	125	124	93	38	61	24	42
N.Y. City	85	120	54	77	U	U	-	-
N.J.	19	147	24	55	-	-	-	-
Pa.	27	83	17	13	3	2	-	-
E.N. CENTRAL	432	545	204	344	62	75	14	5
Ohio	263	143	84	85	-	-	1	-
Ind.	21	77	10	14	62	75	11	5
Ill.	74	151	1	126	-	-	-	-
Mich.	47	107	109	95	-	-	2	-
Wis.	27	67	-	24	-	-	-	-
W.N. CENTRAL	290	405	93	144	223	20	17	1
Minn.	46	170	53	53	169	-	17	-
Iowa	31	72	-	-	-	-	-	-
Mo.	41	79	22	37	5	5	-	-
N. Dak.	7	9	-	4	-	1	-	1
S. Dak.	124	21	4	5	1	2	-	-
Nebr.	-	23	-	12	-	3	-	-
Kans.	41	31	14	33	48	9	-	-
S. ATLANTIC	1,540	565	280	270	498	810	4	-
Del.	5	3	-	1	3	1	-	-
Md.	185	36	40	21	-	-	-	-
D.C.	18	18	3	-	26	2	1	-
Va.	309	36	33	46	-	-	-	-
W. Va.	2	4	5	8	21	23	-	-
N.C.	100	110	56	42	-	-	-	-
S.C.	18	32	20	3	81	140	3	-
Ga.	609	132	72	95	144	290	-	-
Fla.	294	194	51	54	223	354	-	-
E.S. CENTRAL	283	308	44	35	62	119	-	-
Ky.	48	105	5	16	8	15	-	-
Tenn.	17	29	39	19	54	103	-	-
Ala.	127	79	-	-	-	1	-	-
Miss.	91	95	-	-	-	-	-	-
W.S. CENTRAL	110	729	15	149	11	46	-	-
Ark.	24	165	-	-	2	12	-	-
La.	15	72	-	-	9	34	-	-
Okla.	70	6	14	22	-	-	-	-
Tex.	1	486	1	127	-	-	-	-
MOUNTAIN	148	200	201	176	21	21	-	-
Mont.	1	-	-	-	-	-	-	-
Idaho	2	6	4	3	-	-	-	-
Wyo.	1	-	3	3	7	2	-	-
Colo.	34	43	103	68	-	-	-	-
N. Mex.	40	39	44	34	13	19	-	-
Ariz.	48	85	47	65	1	-	-	-
Utah	14	11	-	3	-	-	-	-
Nev.	8	16	-	-	-	-	-	-
PACIFIC	504	567	219	82	-	1	-	-
Wash.	19	55	26	-	-	-	-	-
Oreg.	31	11	-	-	-	-	-	-
Calif.	435	488	177	63	-	-	-	-
Alaska	2	2	-	-	-	-	-	-
Hawaii	17	11	16	19	-	1	-	-
Guam	-	-	-	-	-	-	-	-
P.R.	1	6	-	-	-	-	-	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	-	-	U	U
C.N.M.I.	1	U	-	U	-	-	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending April 20, 2002, and April 21, 2001 (16th Week)*

	Syphilis				Tuberculosis		Typhoid Fever	
	Primary & Secondary		Congenital†					
Reporting Area	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	1,695	1,687	18	146	2,368	3,155	70	87
NEW ENGLAND	23	12	-	2	102	106	7	5
Maine	-	-	-	-	5	-	-	-
N.H.	-	-	-	-	4	7	-	-
Vt.	-	-	-	-	-	3	-	-
Mass.	14	8	-	1	51	54	6	4
R.I.	2	1	-	-	11	12	-	-
Conn.	7	3	-	1	31	30	1	1
MID. ATLANTIC	179	139	2	21	547	509	17	37
Upstate N.Y.	9	4	1	13	69	-	3	5
N.Y. City	99	86	-	-	264	293	11	8
N.J.	38	22	1	5	147	132	3	24
Pa.	33	27	-	3	67	84	-	-
E.N. CENTRAL	330	278	-	26	280	306	10	6
Ohio	44	27	-	1	46	63	4	1
Ind.	20	54	-	3	30	26	1	1
Ill.	73	96	-	20	141	159	-	1
Mich.	187	92	-	2	57	39	3	2
Wis.	6	9	-	-	6	19	2	1
W.N. CENTRAL	16	24	-	3	106	121	1	4
Minn.	5	13	-	-	55	64	-	-
Iowa	-	-	-	-	-	9	-	-
Mo.	6	6	-	1	41	30	1	4
N. Dak.	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	5	4	-	-
Nebr.	3	-	-	-	-	14	-	-
Kans.	2	5	-	2	5	-	-	-
S. ATLANTIC	438	628	2	36	469	586	11	10
Del.	6	4	-	-	-	-	-	-
Md.	44	84	-	1	52	53	1	3
D.C.	23	12	-	1	-	22	-	-
Va.	9	41	-	1	28	58	-	1
W. Va.	-	-	-	-	8	10	-	-
N.C.	105	148	-	2	81	76	-	1
S.C.	35	89	-	8	28	57	-	-
Ga.	69	98	-	9	42	122	7	3
Fla.	147	152	2	14	230	188	3	2
E.S. CENTRAL	190	169	1	7	209	223	2	-
Ky.	28	13	-	-	30	26	2	-
Tenn.	74	95	-	4	84	77	-	-
Ala.	67	28	1	2	62	83	-	-
Miss.	21	33	-	1	33	37	-	-
W.S. CENTRAL	233	218	13	25	61	488	-	4
Ark.	6	15	-	2	19	42	-	-
La.	44	47	-	-	-	-	-	-
Okla.	22	27	-	1	42	25	-	-
Tex.	161	129	13	22	-	421	-	4
MOUNTAIN	66	59	-	6	71	118	7	2
Mont.	-	-	-	-	-	-	-	1
Idaho	1	-	-	-	-	3	-	-
Wyo.	-	-	-	-	1	-	-	-
Colo.	-	8	-	-	15	32	3	-
N. Mex.	13	4	-	-	7	14	-	-
Ariz.	46	39	-	6	38	41	-	-
Utah	5	6	-	-	8	5	3	-
Nev.	1	2	-	-	2	23	1	1
PACIFIC	220	160	-	20	523	698	15	19
Wash.	18	19	-	-	64	58	-	1
Oreg.	4	3	-	-	24	27	2	2
Calif.	195	135	-	20	378	551	13	15
Alaska	-	-	-	-	20	15	-	-
Hawaii	3	3	-	-	37	47	-	1
Guam	-	-	-	-	-	-	-	-
P.R.	73	117	-	5	8	23	-	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	10	U	-	U	19	U	-	U

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

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

† Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE III. Deaths in 122 U.S. cities,* week ending April 20, 2002 (16th Week)

Reporting Area	All Causes, By Age (Years) All Ages	≥65	45-64	25-44	1-24	<1	P&I† Total
NEW ENGLAND	516	364	93	41	14	4	56
Boston, Mass.	131	89	27	11	3	1	18
Bridgeport, Conn.	33	22	6	3	2	-	3
Cambridge, Mass.	14	8	4	2	-	-	2
Fall River, Mass.	25	20	4	1	-	-	3
Hartford, Conn.	89	53	22	8	5	1	6
Lowell, Mass.	30	16	9	5	-	-	3
Lynn, Mass.	11	9	1	1	-	-	1
New Bedford, Mass.	32	29	1	2	-	-	2
New Haven, Conn.	33	23	6	2	1	1	1
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	4	3	1	-	-	-	-
Springfield, Mass.	35	25	7	-	2	1	3
Waterbury, Conn.	22	18	2	2	-	-	3
Worcester, Mass.	57	49	3	4	1	-	11
MID. ATLANTIC	2,283	1,560	456	171	47	49	123
Albany, N.Y.	63	46	11	1	1	4	2
Allentown, Pa.	28	26	1	1	-	-	4
Buffalo, N.Y.	83	57	16	6	1	3	9
Camden, N.J.	27	18	5	3	1	-	1
Elizabeth, N.J.	19	12	6	-	1	-	2
Erie, Pa.	54	47	4	3	-	-	7
Jersey City, N.J.	51	34	10	6	1	-	-
New York City, N.Y.	1,150	776	237	88	25	24	51
Newark, N.J.	55	27	14	11	-	3	1
Paterson, N.J.	17	13	4	-	-	-	4
Philadelphia, Pa.	432	277	97	38	12	8	12
Pittsburgh, Pa.§	35	23	8	2	-	2	2
Reading, Pa.	24	19	3	2	-	-	2
Rochester, N.Y.	122	90	20	6	4	2	18
Schenectady, N.Y.	24	18	6	-	-	-	-
Scranton, Pa.	30	25	3	1	1	-	2
Syracuse, N.Y.	25	20	3	1	-	1	4
Trenton, N.J.	20	14	3	1	-	2	1
Utica, N.Y.	24	18	5	1	-	-	1
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	1,524	1,061	308	82	37	36	118
Akron, Ohio	U	U	U	U	U	U	U
Canton, Ohio	42	32	8	1	-	1	4
Chicago, Ill.	U	U	U	U	U	U	U
Cincinnati, Ohio	80	54	17	3	2	4	14
Cleveland, Ohio	151	84	51	7	4	5	2
Columbus, Ohio	205	153	28	16	5	3	22
Dayton, Ohio	118	95	14	3	4	2	11
Detroit, Mich.	214	107	72	22	7	6	10
Evansville, Ind.	44	37	4	1	2	-	4
Fort Wayne, Ind.	77	60	11	3	1	2	8
Gary, Ind.	16	8	4	3	1	-	1
Grand Rapids, Mich.	39	30	4	2	1	2	4
Indianapolis, Ind.	U	U	U	U	U	U	U
Lansing, Mich.	68	47	17	3	1	-	2
Milwaukee, Wis.	141	102	28	5	4	2	14
Peoria, Ill.	52	38	8	1	1	4	3
Rockford, Ill.	47	35	8	2	2	-	2
South Bend, Ind.	46	38	5	2	-	1	3
Toledo, Ohio	117	86	20	5	2	4	13
Youngstown, Ohio	67	55	9	3	-	-	1
W.N. CENTRAL	552	378	114	34	13	13	51
Des Moines, Iowa	95	63	24	5	2	1	8
Duluth, Minn.	25	18	4	1	1	1	4
Kansas City, Kans.	23	8	7	5	1	2	-
Kansas City, Mo.	105	75	16	8	3	3	5
Lincoln, Nebr.	49	34	12	2	-	1	2
Minneapolis, Minn.	80	59	13	5	1	2	8
Omaha, Nebr.	68	50	12	4	1	1	10
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	62	45	13	2	1	1	11
Wichita, Kans.	45	26	13	2	3	1	3
S. ATLANTIC	1,229	754	294	113	36	30	94
Atlanta, Ga.	192	109	53	19	5	6	10
Baltimore, Md.	157	88	41	17	6	5	12
Charlotte, N.C.	121	80	24	10	4	3	15
Jacksonville, Fla.	136	81	33	16	5	-	19
Miami, Fla.	104	57	22	17	5	3	8
Norfolk, Va.	48	26	9	6	3	4	1
Richmond, Va.	64	38	21	4	-	1	5
Savannah, Ga.	61	46	8	5	2	-	5
St. Petersburg, Fla.	56	39	11	3	1	2	3
Tampa, Fla.	190	129	43	10	3	4	14
Washington, D.C.	100	61	29	6	2	2	2
Wilmington, Del.	U	U	U	U	U	U	U
E.S. CENTRAL	920	614	194	67	23	16	79
Birmingham, Ala.	177	124	33	15	2	1	19
Chattanooga, Tenn.	116	80	21	9	3	3	7
Knoxville, Tenn.	90	59	20	5	1	1	3
Lexington, Ky.	91	58	23	6	2	2	11
Memphis, Tenn.	174	118	38	12	4	2	14
Mobile, Ala.	79	54	15	7	3	-	4
Montgomery, Ala.	23	14	6	3	-	-	7
Nashville, Tenn.	170	107	38	10	8	7	14
W.S. CENTRAL	1,179	796	246	79	28	30	77
Austin, Tex.	82	55	17	6	4	-	10
Baton Rouge, La.	95	60	23	8	4	-	2
Corpus Christi, Tex.	70	51	14	2	-	3	6
Dallas, Tex.	207	110	68	14	9	6	13
El Paso, Tex.	59	42	12	3	2	-	7
Ft. Worth, Tex.	121	74	24	16	1	6	15
Houston, Tex.	U	U	U	U	U	U	U
Little Rock, Ark.	80	58	11	6	1	4	2
New Orleans, La.	U	U	U	U	U	U	U
San Antonio, Tex.	236	180	36	15	3	2	-
Shreveport, La.	117	82	23	2	3	7	10
Tulsa, Okla.	112	84	18	7	1	2	12
MOUNTAIN	933	622	198	68	26	18	78
Albuquerque, N.M.	134	77	35	16	1	4	11
Boise, Idaho	57	37	13	1	4	2	4
Colo. Springs, Colo.	72	50	17	4	-	1	6
Denver, Colo.	124	80	24	12	3	5	8
Las Vegas, Nev.	227	160	51	11	4	1	21
Ogden, Utah	31	25	5	1	-	-	-
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	36	25	8	3	-	-	6
Salt Lake City, Utah	94	61	14	9	7	3	12
Tucson, Ariz.	158	107	31	11	7	2	10
PACIFIC	1,861	1,304	358	115	54	28	161
Berkeley, Calif.	12	8	3	1	-	-	1
Fresno, Calif.	210	138	51	10	9	2	26
Glendale, Calif.	13	10	2	-	1	-	-
Honolulu, Hawaii	72	58	9	4	1	-	9
Long Beach, Calif.	70	49	16	4	1	-	9
Los Angeles, Calif.	308	213	60	26	6	3	2
Pasadena, Calif.	19	16	1	2	-	-	4
Portland, Oreg.	214	159	37	10	5	3	15
Sacramento, Calif.	201	140	38	11	7	5	23
San Diego, Calif.	186	140	27	5	7	6	28
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	203	138	39	17	6	3	17
Santa Cruz, Calif.	27	22	3	2	-	-	2
Seattle, Wash.	144	78	42	13	9	2	10
Spokane, Wash.	58	41	12	3	-	2	9
Tacoma, Wash.	124	94	18	7	2	2	6
TOTAL	10,997¶	7,453	2,261	770	278	224	837

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.

(Continued from page 352)

Notice to Readers

Satellite Broadcast for Effective Behavioral Interventions for HIV/STD Prevention

CDC's National Center for HIV, STD, and TB Prevention, Division of HIV/AIDS Prevention will sponsor a satellite broadcast, "Effective Behavioral Interventions for HIV Prevention," on Thursday, May 23, 2002, from 2–4 p.m. EST. The broadcast will demonstrate the use of four effective behavioral-intervention programs for human immunodeficiency virus (HIV) prevention: Popular Opinion Leader (POL), Mpowerment, VOICES/VOCES, and Community PROMISE. Interviews and tours with staff and clients implementing these interventions in communities of color will be shown. Researchers will comment on the core elements of each intervention. In addition, viewers will receive information on how they can register to receive training and technical assistance for the interventions.

This broadcast is designed for organizations and persons who provide HIV prevention services, including federal and state agencies, health departments, HIV prevention community planning groups, national and regional minority organizations, community-based organizations, community leaders, youth-oriented service providers, and capacity-building assistance providers. Viewers can fax questions and comments to panelists before and during the satellite broadcast.

Additional information about the broadcast is available at http://www.effectiveinterventions.org and from CDC's Fax Information System, 888-232-3299 (enter document number 130025 and a return fax number). Organizations setting up viewing sites should register online or by fax as early as possible so that potential viewers can access information about viewing locations when visiting the website or calling the information line.

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

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

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